



**NATIONAL  
CONSERVATION  
LANDS**

# Grand Staircase-Escalante National Monument

## DRAFT RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT

VOLUME 2: APPENDIX A—APPENDIX H

August 2023



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U.S. DEPARTMENT OF THE INTERIOR

# **BUREAU OF LAND MANAGEMENT**

## **Our Mission**

The Bureau of Land Management's mission is to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.

# **NATIONAL CONSERVATION LANDS**

## **Mission**

Conserve, protect, and restore nationally significant landscapes that have outstanding cultural, ecological, and scientific values for the benefit of current and future generations.

Photo by VISIO Photography (James and Jenny Tarpley),  
2015 and 2016 GSENM Artists in Residence,  
Grand Staircase-Escalante National Monument

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# Appendix A

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# Appendix A. Figures

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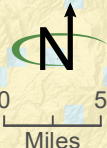
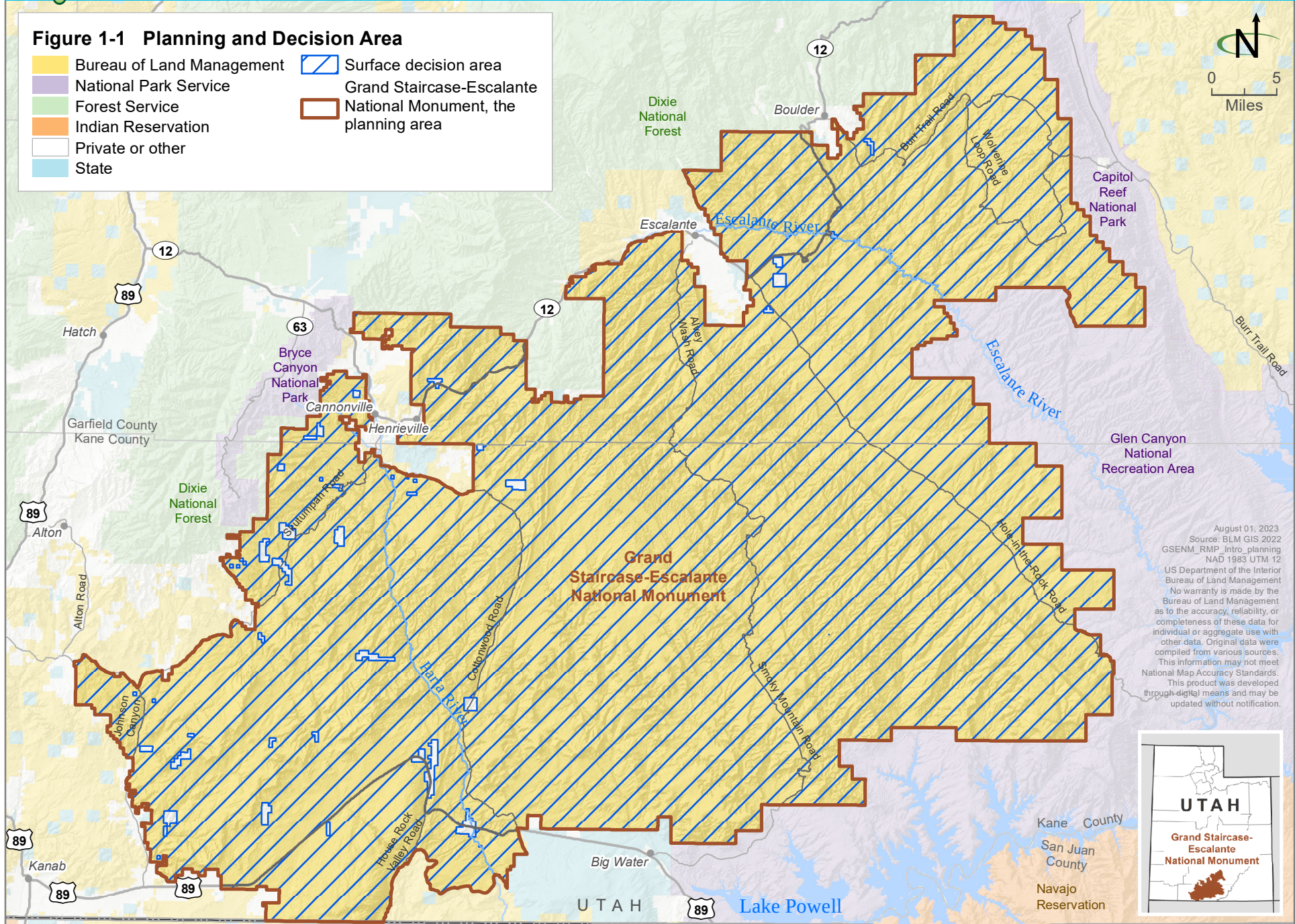




# Grand Staircase-Escalante National Monument

### Figure 1-1 Planning and Decision Area

- Bureau of Land Management
- National Park Service
- Forest Service
- Indian Reservation
- Private or other
- State
- Surface decision area
- Grand Staircase-Escalante National Monument, the planning area



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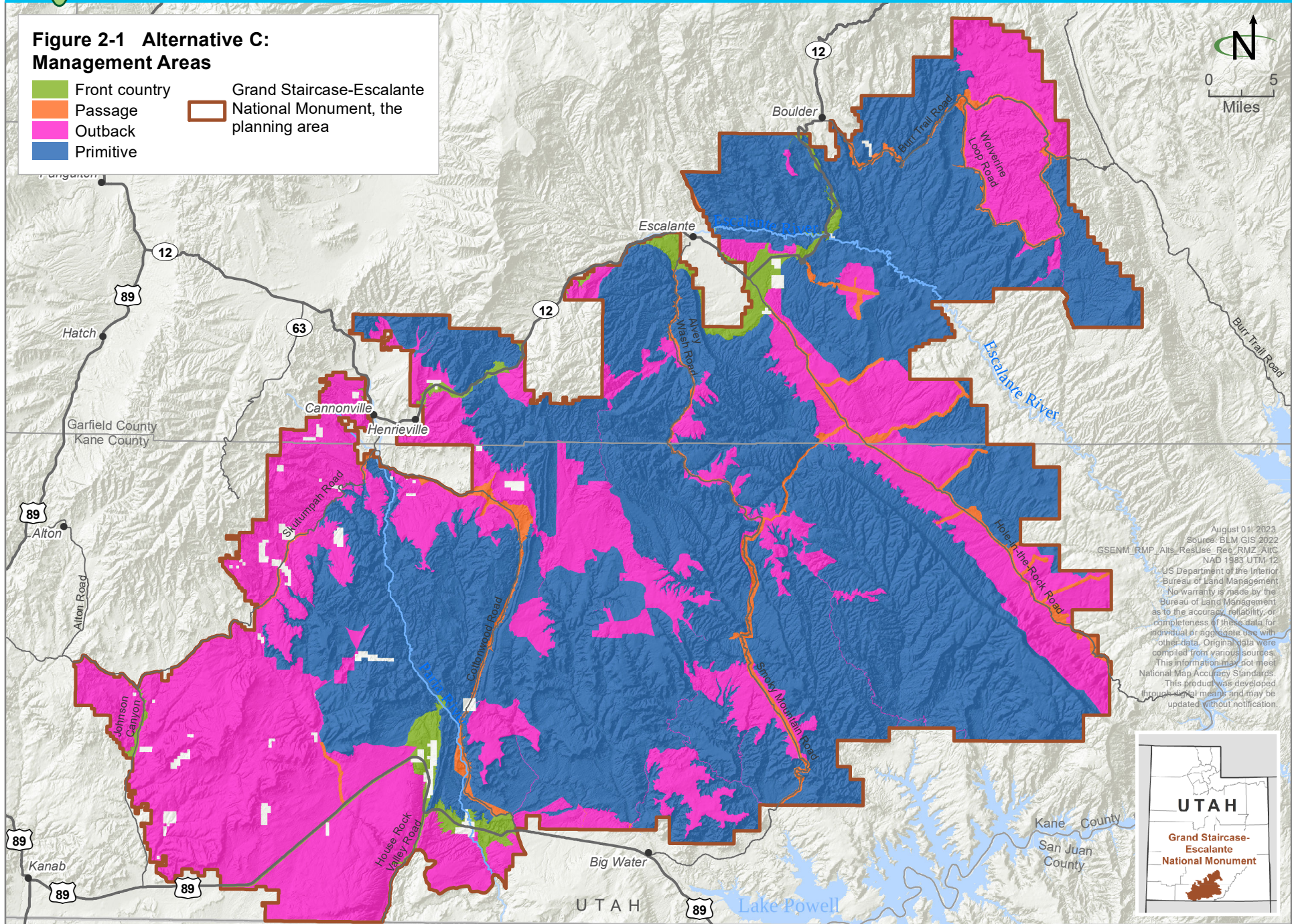




# Grand Staircase-Escalante National Monument

### Figure 2-1 Alternative C: Management Areas

- Front country
- Passage
- Outback
- Primitive
- Grand Staircase-Escalante National Monument, the planning area



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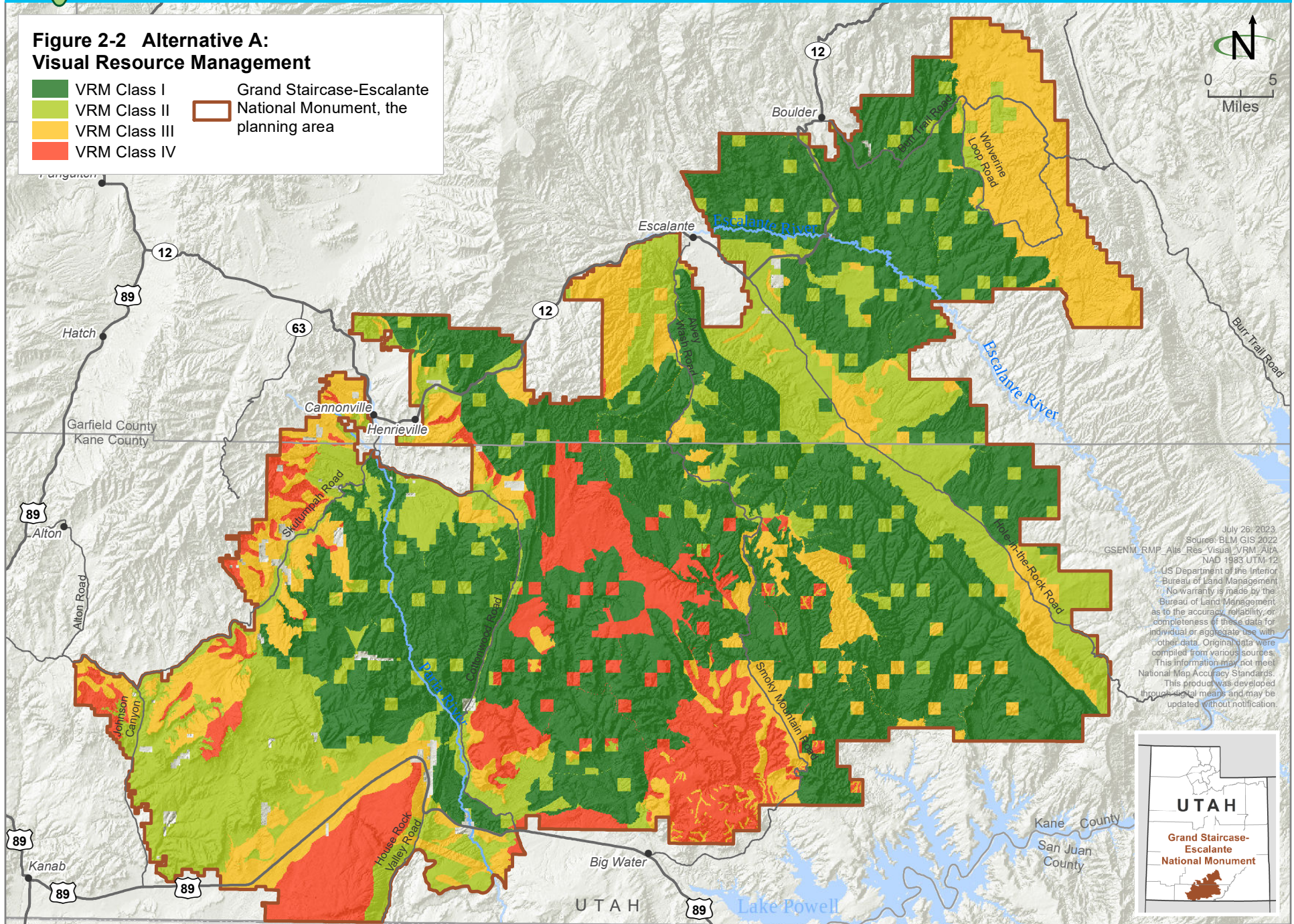




# Grand Staircase-Escalante National Monument

### Figure 2-2 Alternative A: Visual Resource Management

- VRM Class I
- VRM Class II
- VRM Class III
- VRM Class IV
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM RMP, Alt. Res. Visual VRM, AIA  
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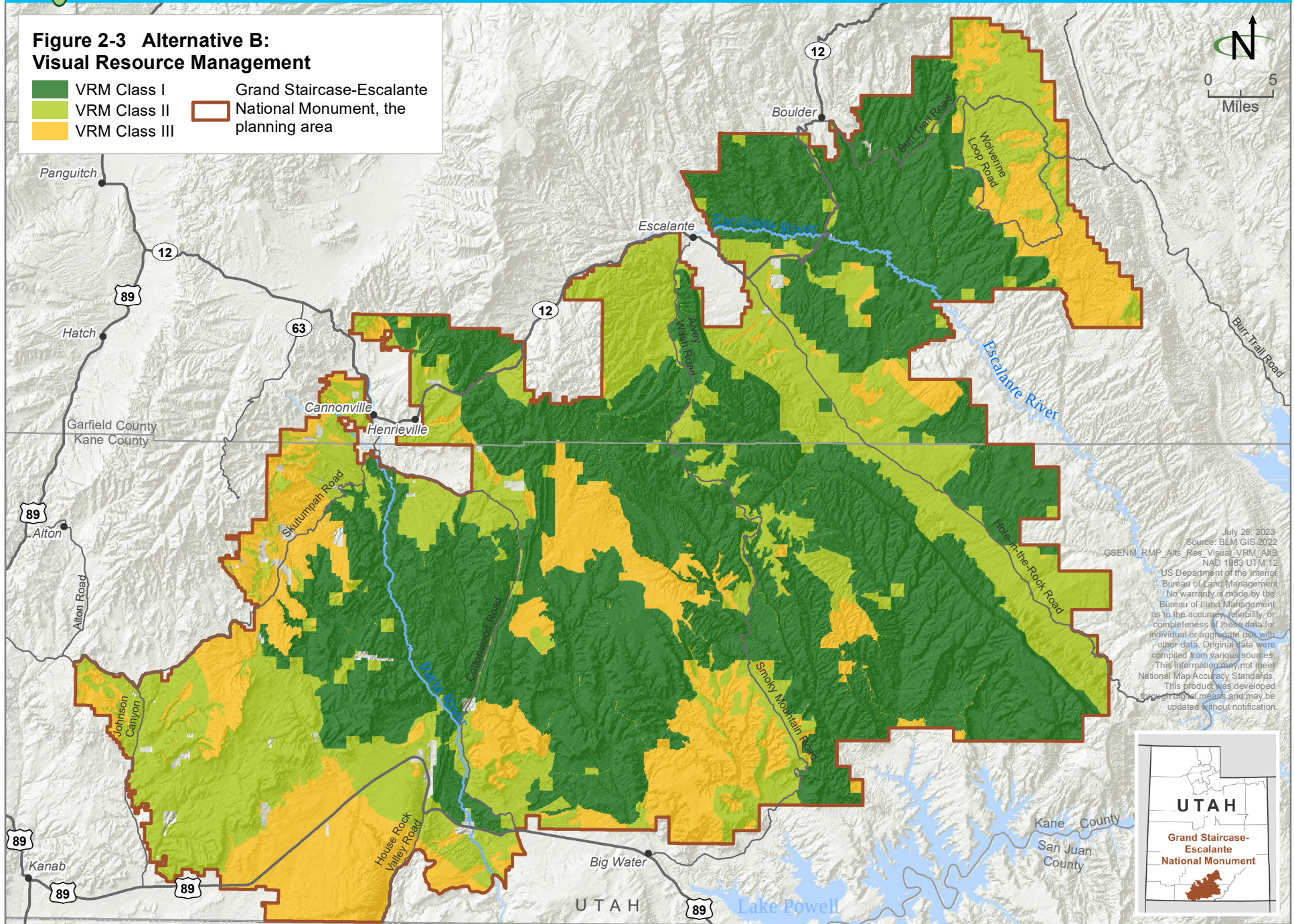




# Grand Staircase-Escalante National Monument

### Figure 2-3 Alternative B: Visual Resource Management

- VRM Class I
- VRM Class II
- VRM Class III
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM RMP\_Alt\_Res\_Visual\_VRM\_AltB  
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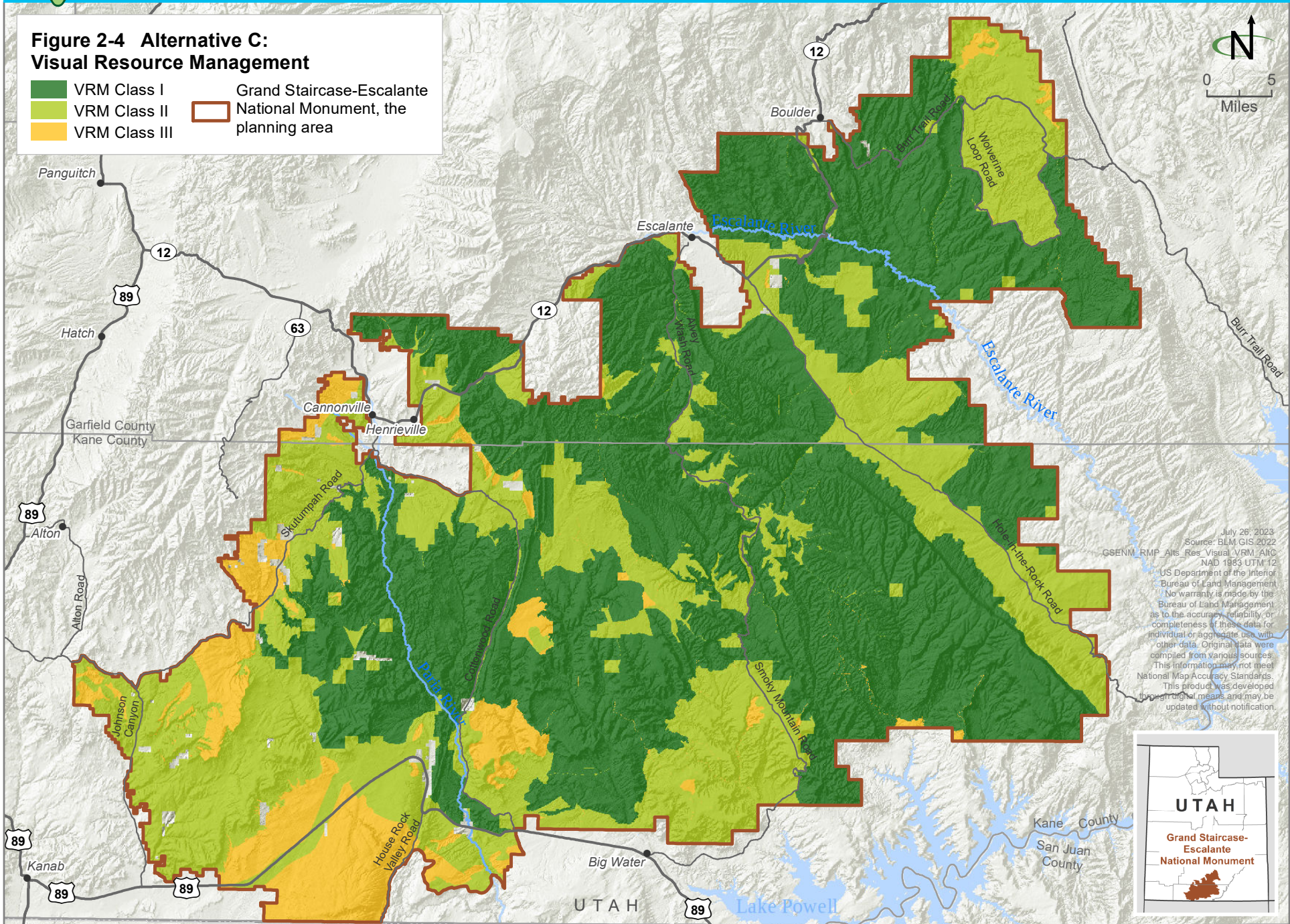




# Grand Staircase-Escalante National Monument

### Figure 2-4 Alternative C: Visual Resource Management

- VRM Class I
- VRM Class II
- VRM Class III
- Grand Staircase-Escalante National Monument, the planning area



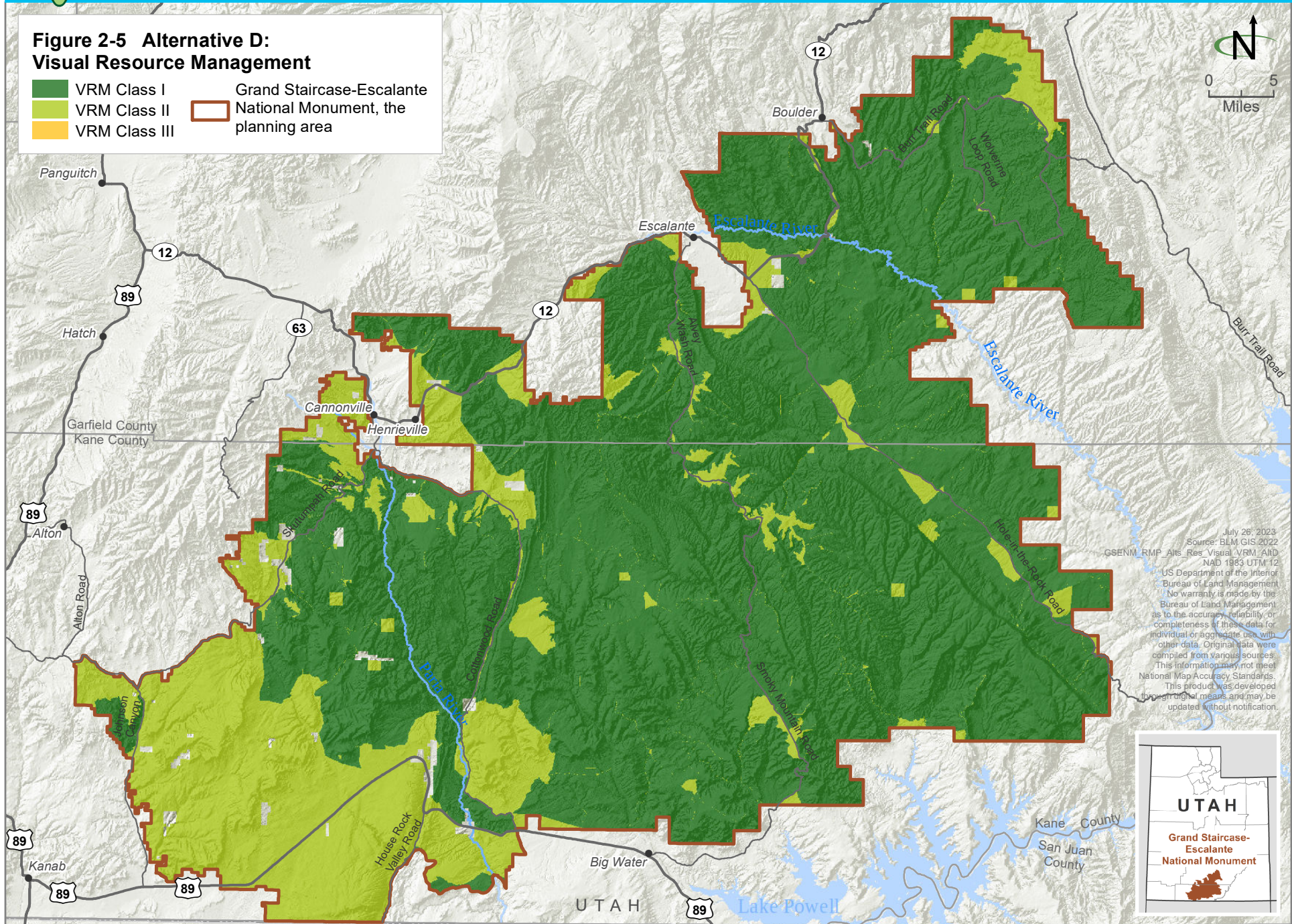
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# Grand Staircase-Escalante National Monument

### Figure 2-5 Alternative D: Visual Resource Management

- VRM Class I
- VRM Class II
- VRM Class III
- Grand Staircase-Escalante National Monument, the planning area



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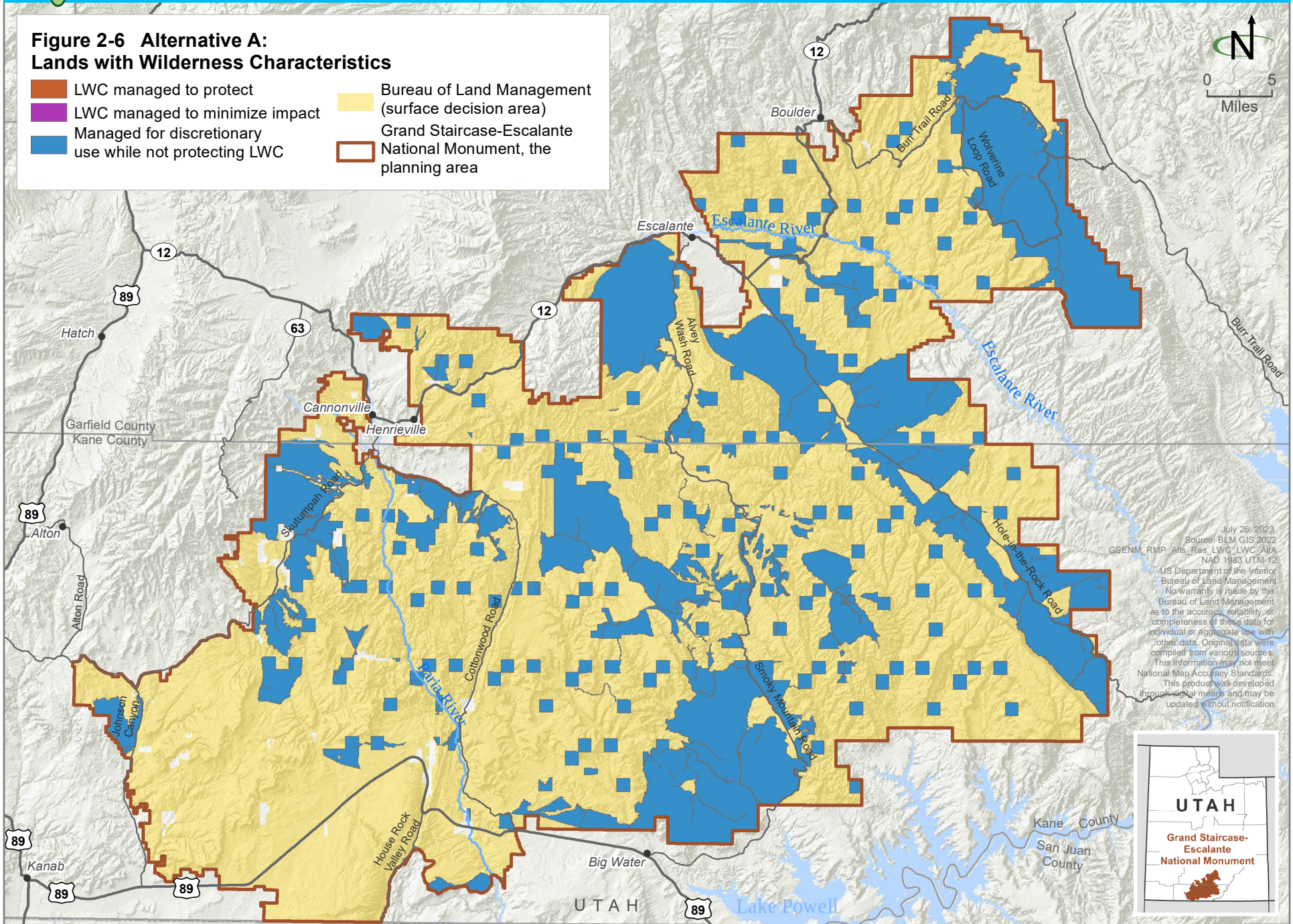




# Grand Staircase-Escalante National Monument

### Figure 2-6 Alternative A: Lands with Wilderness Characteristics

- LWC managed to protect
- LWC managed to minimize impact
- Managed for discretionary use while not protecting LWC
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
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 GSENM\_RMP\_Alt5\_Res\_LWC\_LWC\_AltA  
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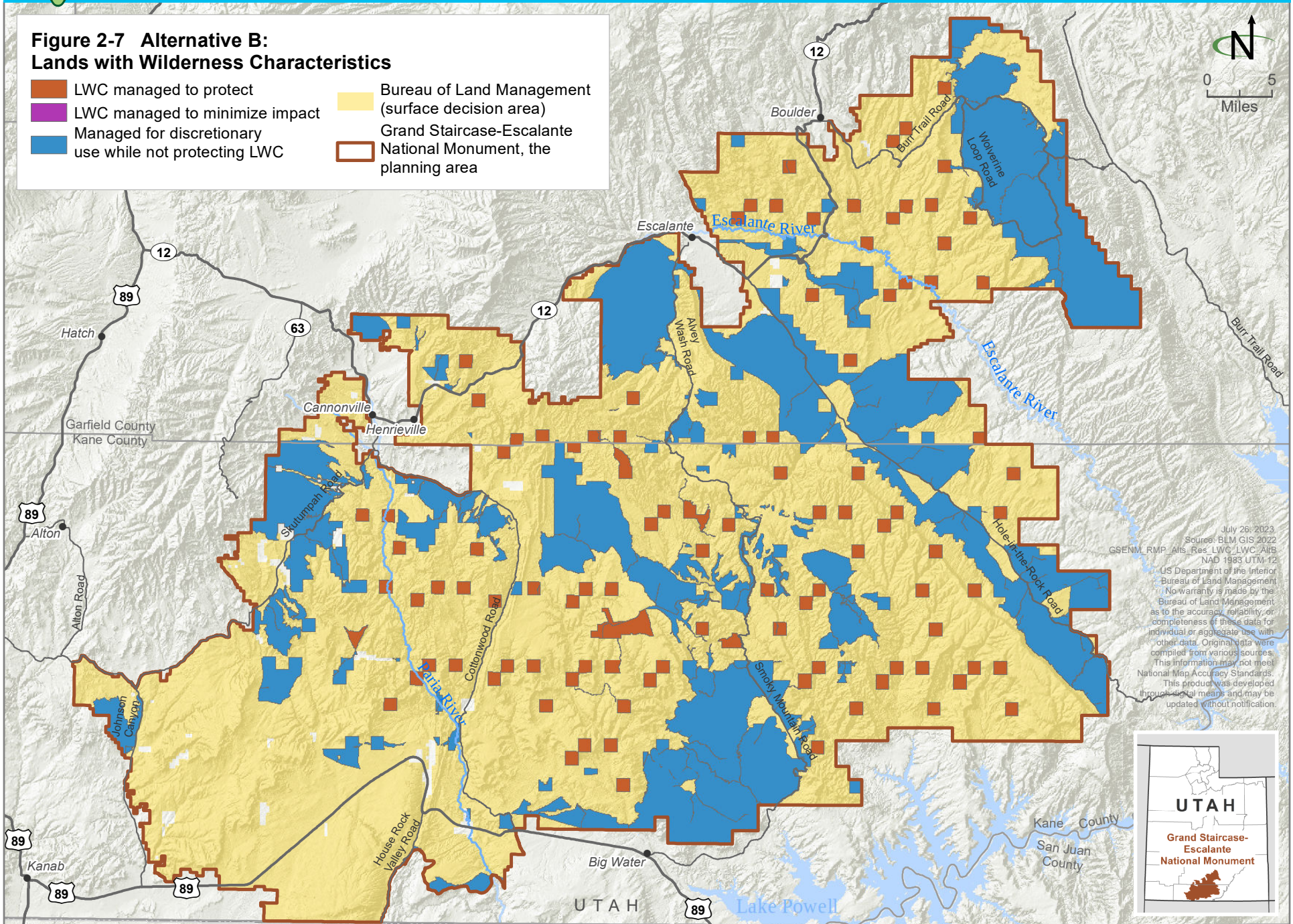




# Grand Staircase-Escalante National Monument

### Figure 2-7 Alternative B: Lands with Wilderness Characteristics

- LWC managed to protect
- LWC managed to minimize impact
- Managed for discretionary use while not protecting LWC
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
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 GSENM\_RMP\_Alt5\_Res\_LWC\_LWC\_AltB  
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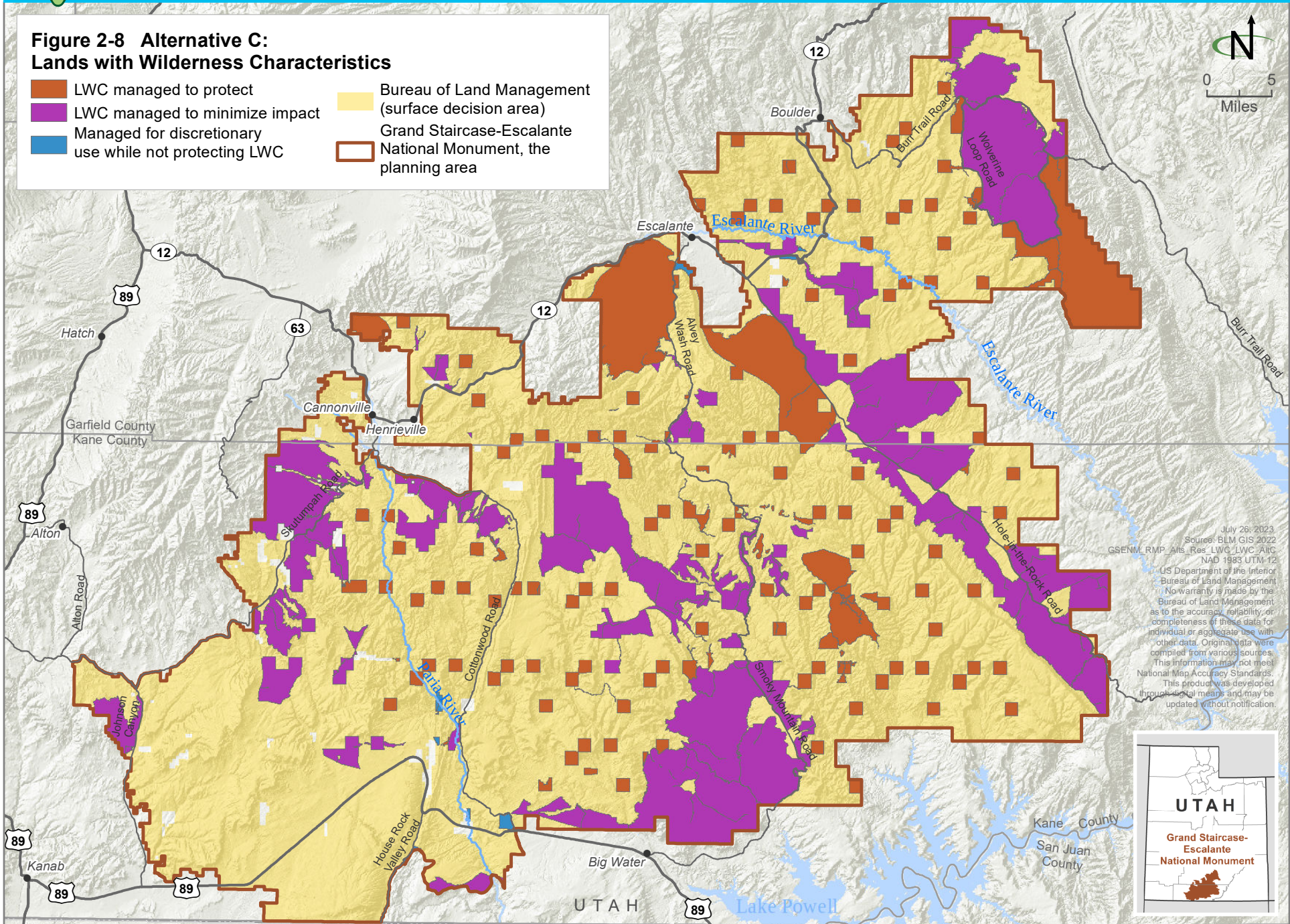




# Grand Staircase-Escalante National Monument

### Figure 2-8 Alternative C: Lands with Wilderness Characteristics

- LWC managed to protect
- LWC managed to minimize impact
- Managed for discretionary use while not protecting LWC
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
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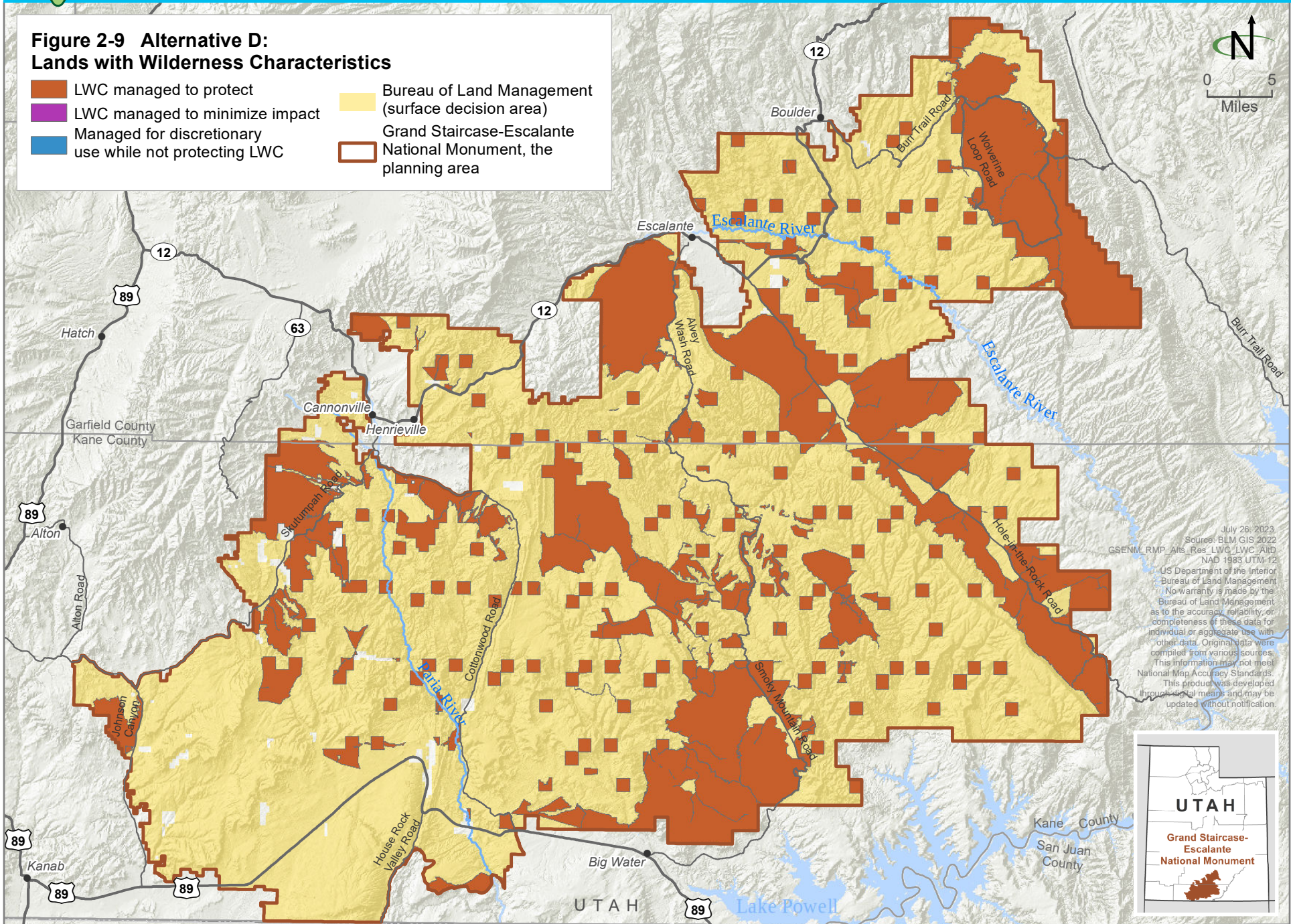




# Grand Staircase-Escalante National Monument

### Figure 2-9 Alternative D: Lands with Wilderness Characteristics

- LWC managed to protect
- LWC managed to minimize impact
- Managed for discretionary use while not protecting LWC
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
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 GSENM\_RMP\_Alt\_Res\_LWC\_LWC\_Alt  
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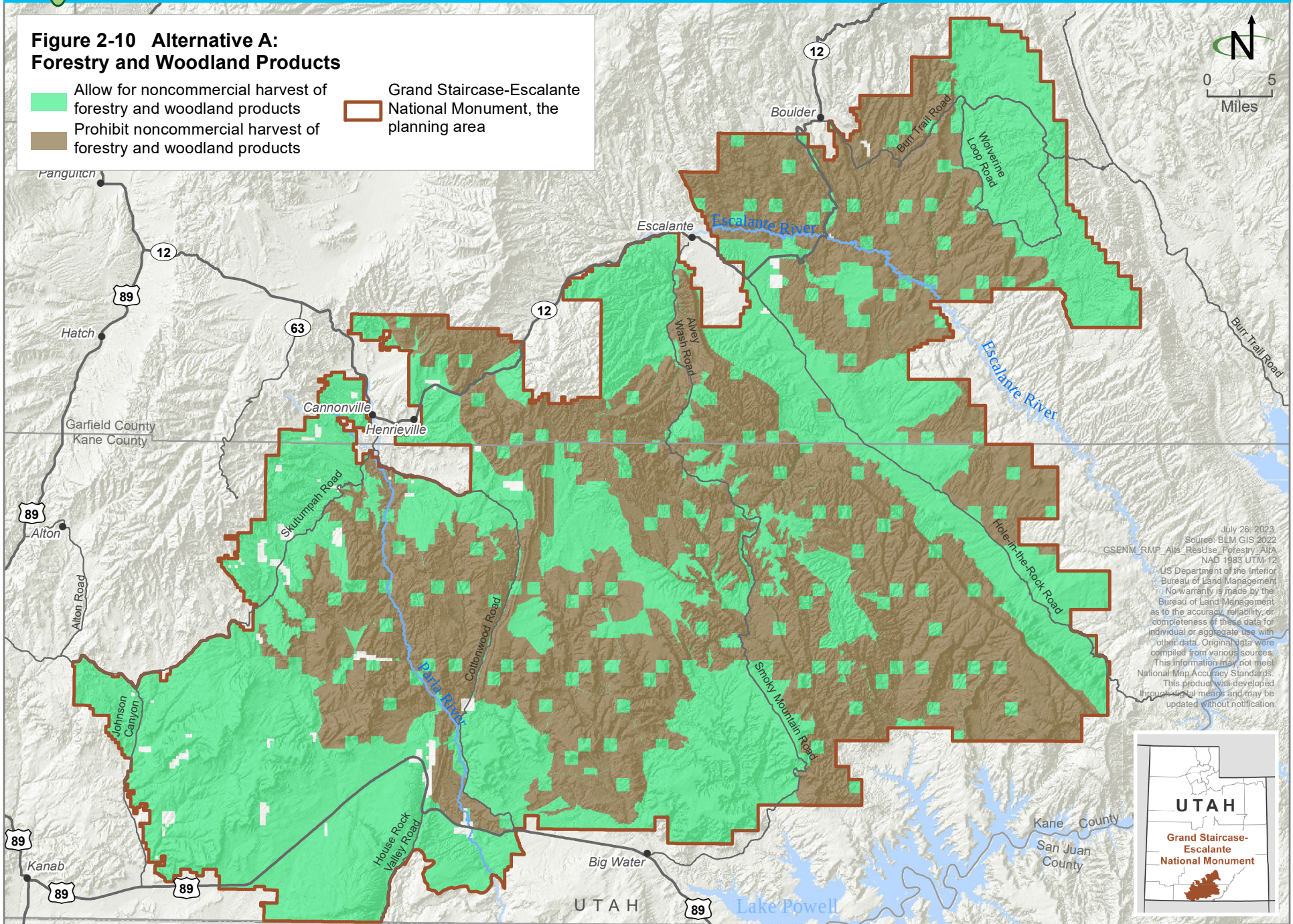




# Grand Staircase-Escalante National Monument

## Figure 2-10 Alternative A: Forestry and Woodland Products

- Allow for noncommercial harvest of forestry and woodland products
- Prohibit noncommercial harvest of forestry and woodland products
- Grand Staircase-Escalante National Monument, the planning area



0 5  
Miles

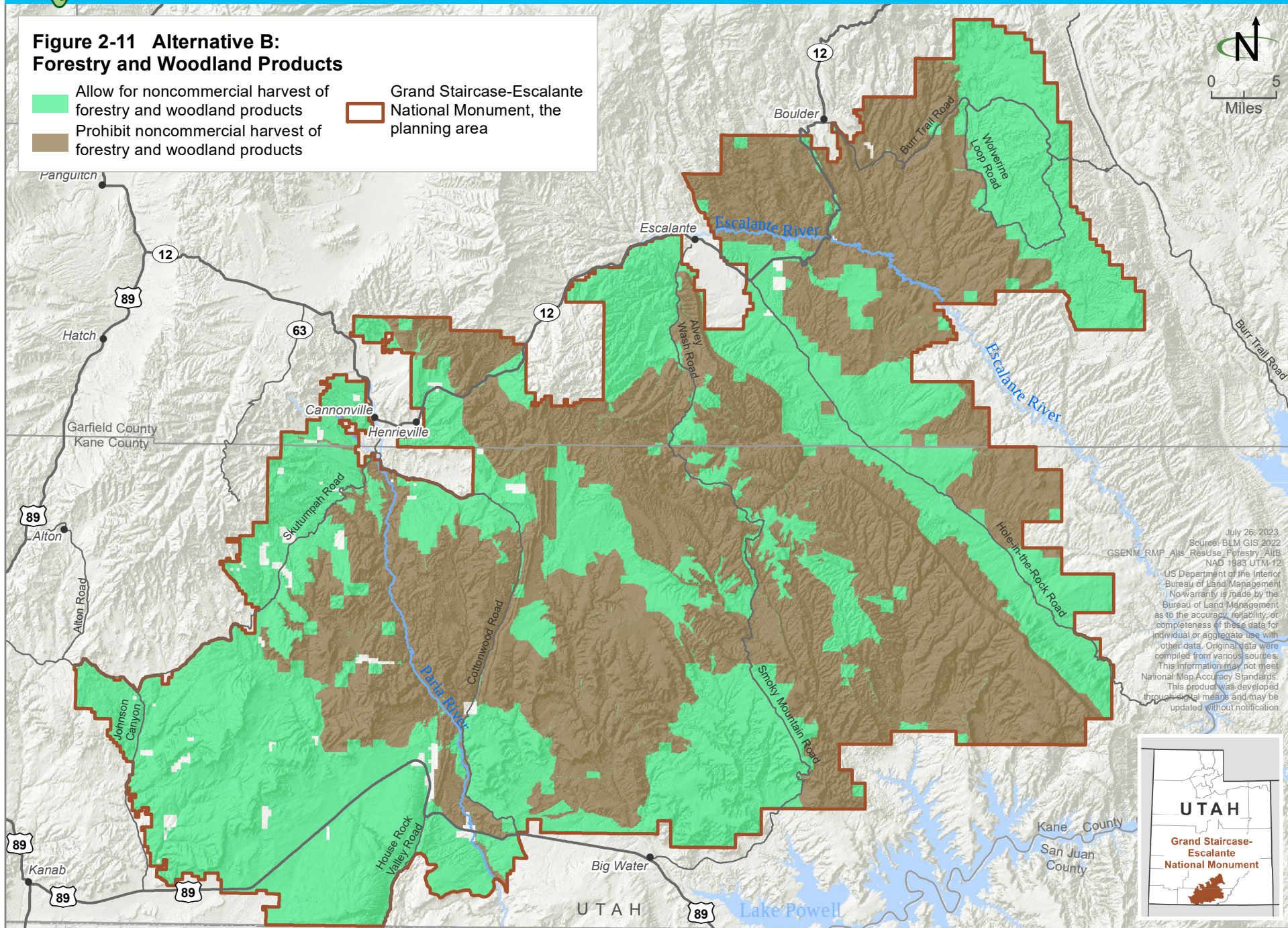
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Figure 2-11 Alternative B: Forestry and Woodland Products

- Allow for noncommercial harvest of forestry and woodland products
- Prohibit noncommercial harvest of forestry and woodland products
- Grand Staircase-Escalante National Monument, the planning area



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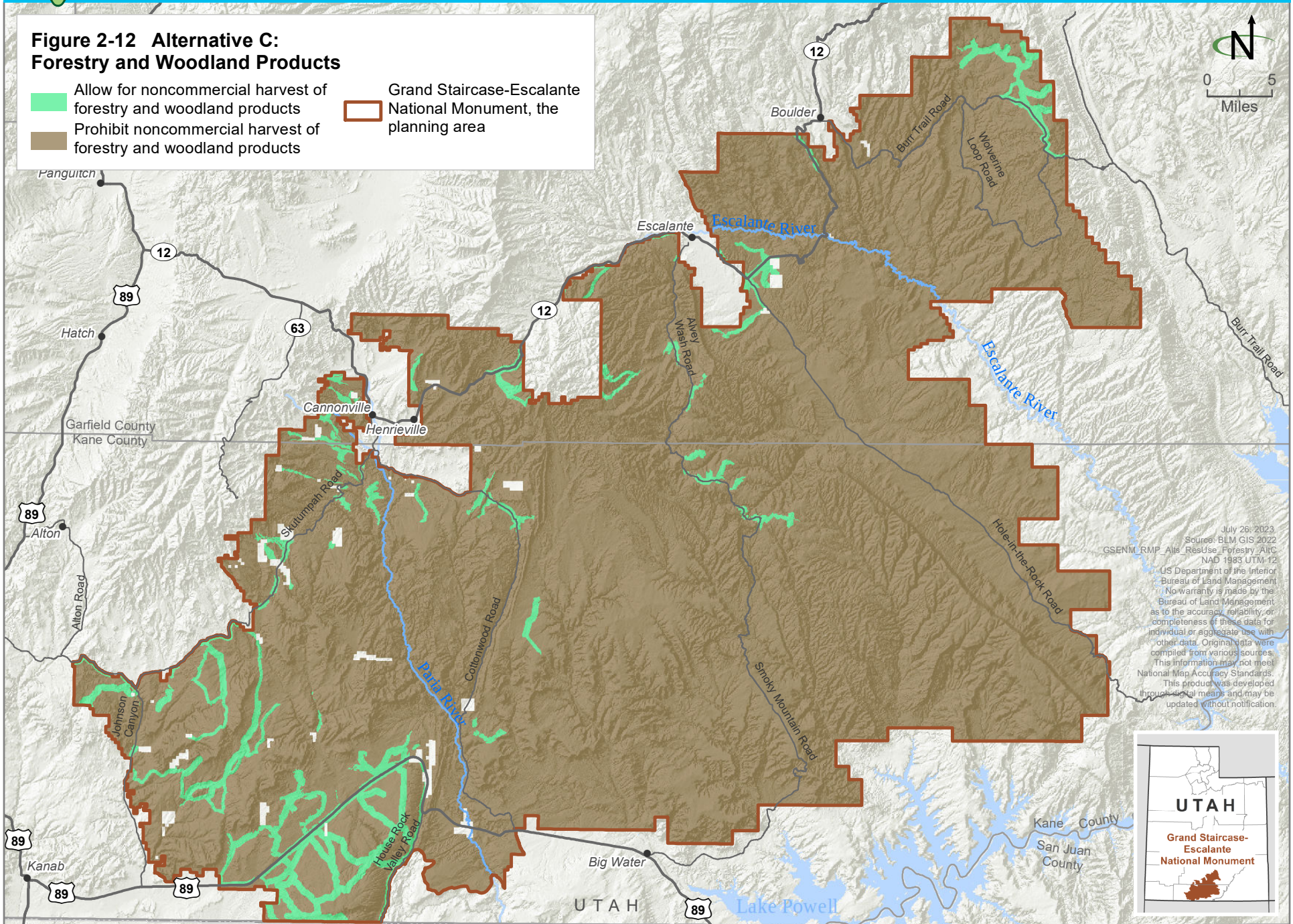




# Grand Staircase-Escalante National Monument

### Figure 2-12 Alternative C: Forestry and Woodland Products

- Allow for noncommercial harvest of forestry and woodland products
- Prohibit noncommercial harvest of forestry and woodland products
- Grand Staircase-Escalante National Monument, the planning area



0 5  
Miles

July 26, 2023  
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 GSENM RMP, Alt. ResUse, Forestry, AIC  
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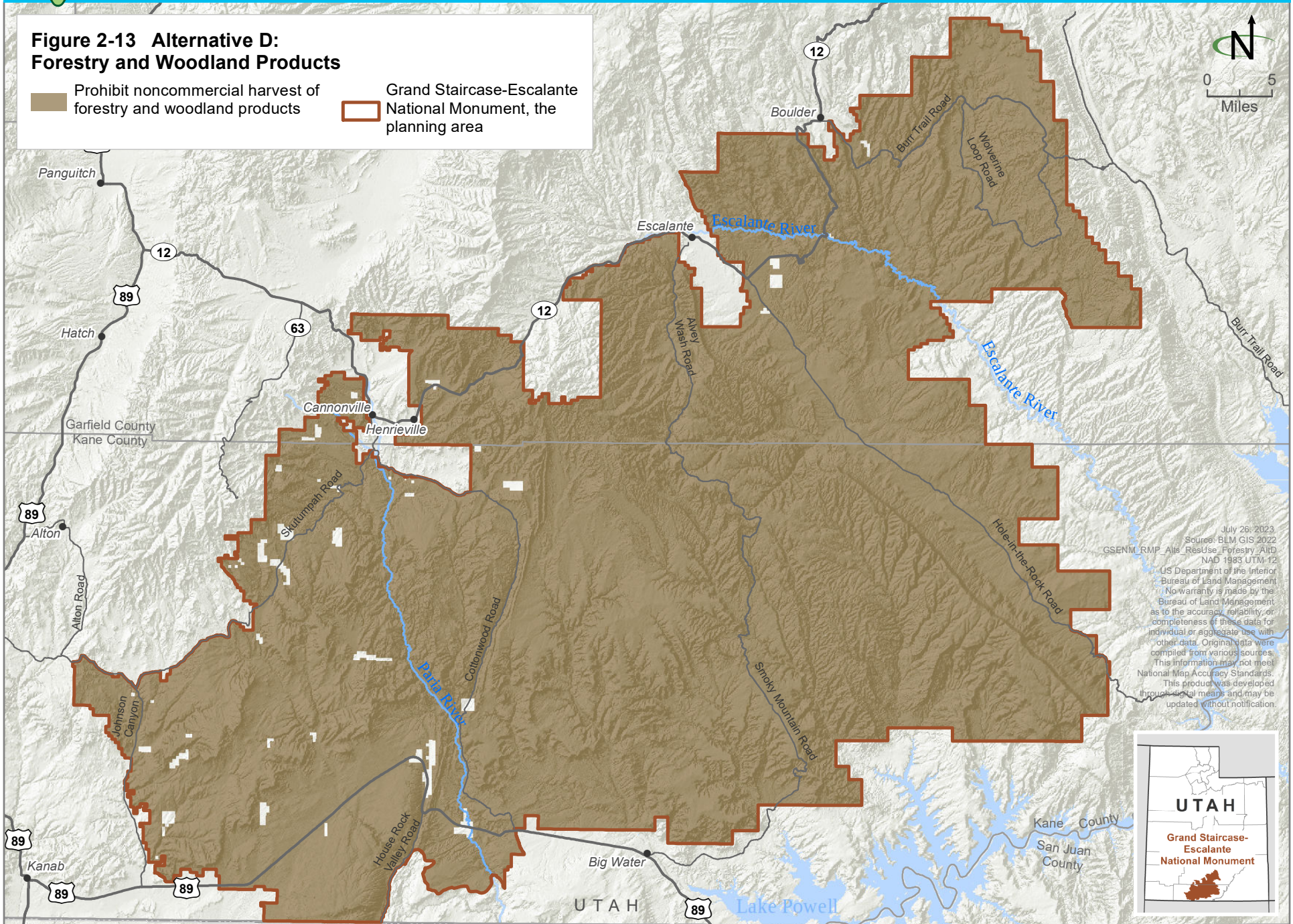




# Grand Staircase-Escalante National Monument

### Figure 2-13 Alternative D: Forestry and Woodland Products

- Prohibit noncommercial harvest of forestry and woodland products
- Grand Staircase-Escalante National Monument, the planning area



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 GSENM RMP, Alt. ResUse, Forestry, A1/D  
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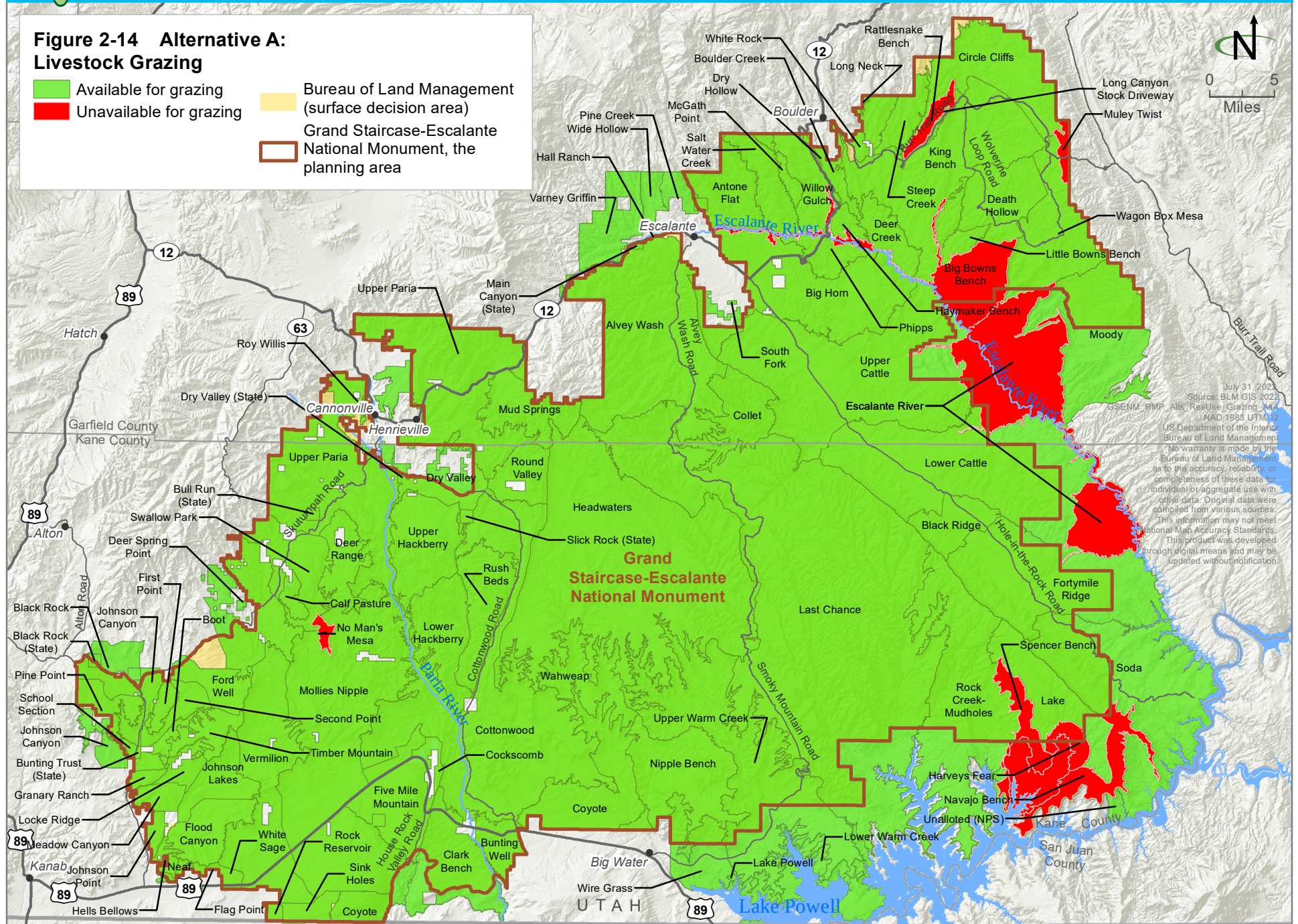




# Grand Staircase-Escalante National Monument

### Figure 2-14 Alternative A: Livestock Grazing

- Available for grazing
- Unavailable for grazing
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



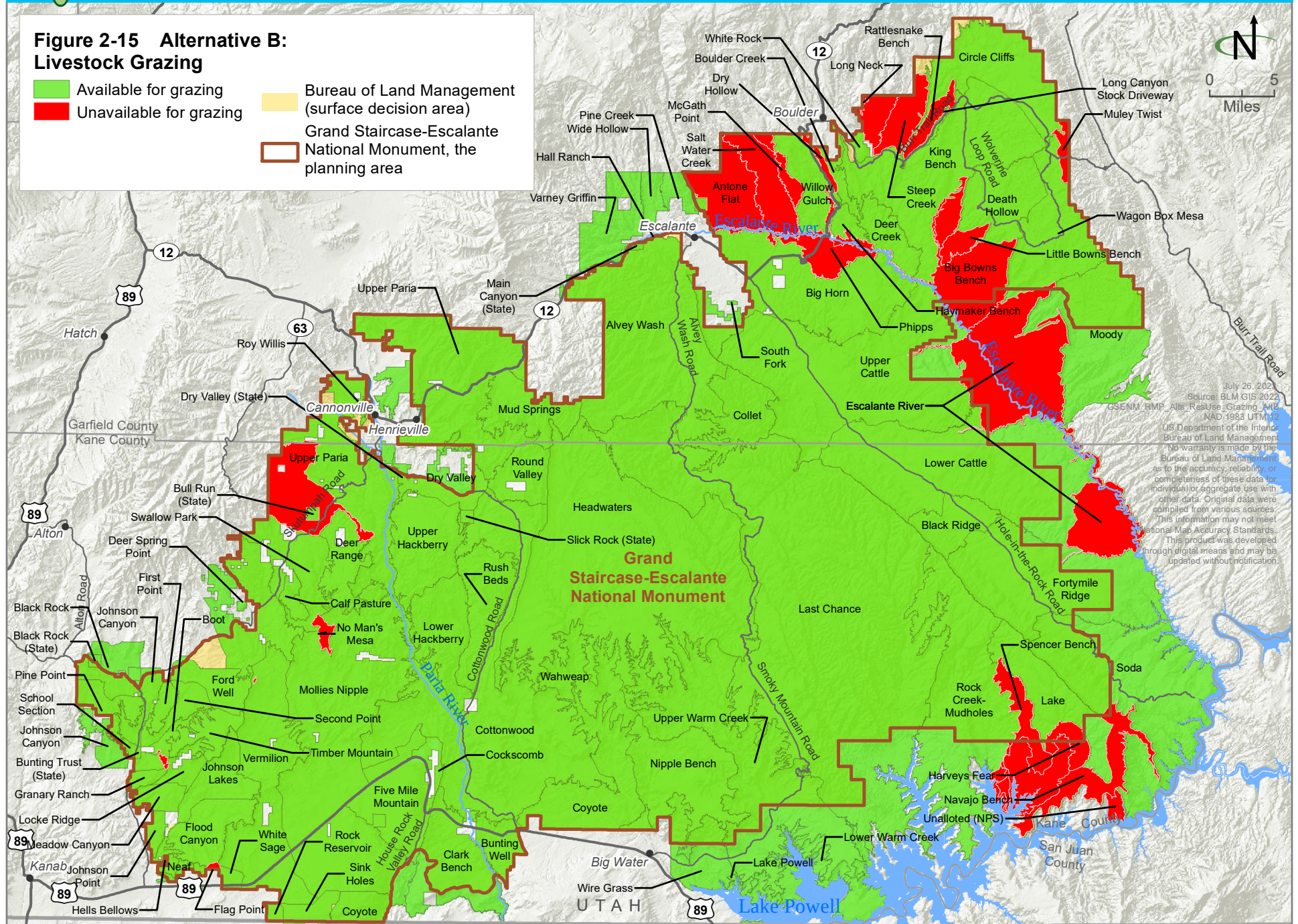
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# Grand Staircase-Escalante National Monument

### Figure 2-15 Alternative B: Livestock Grazing

- Available for grazing
- Unavailable for grazing
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



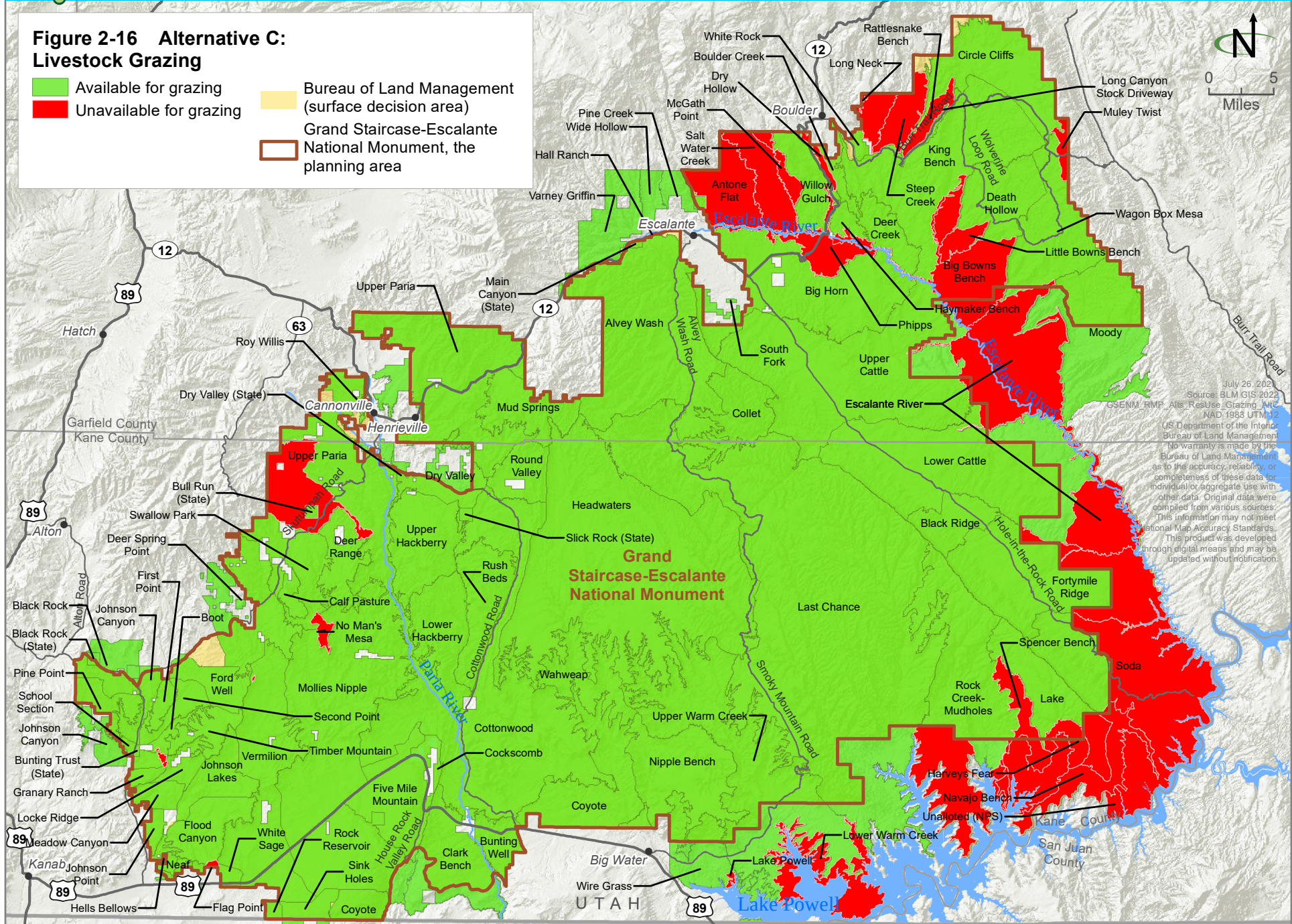




# Grand Staircase-Escalante National Monument

### Figure 2-16 Alternative C: Livestock Grazing

- Available for grazing
- Unavailable for grazing
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area

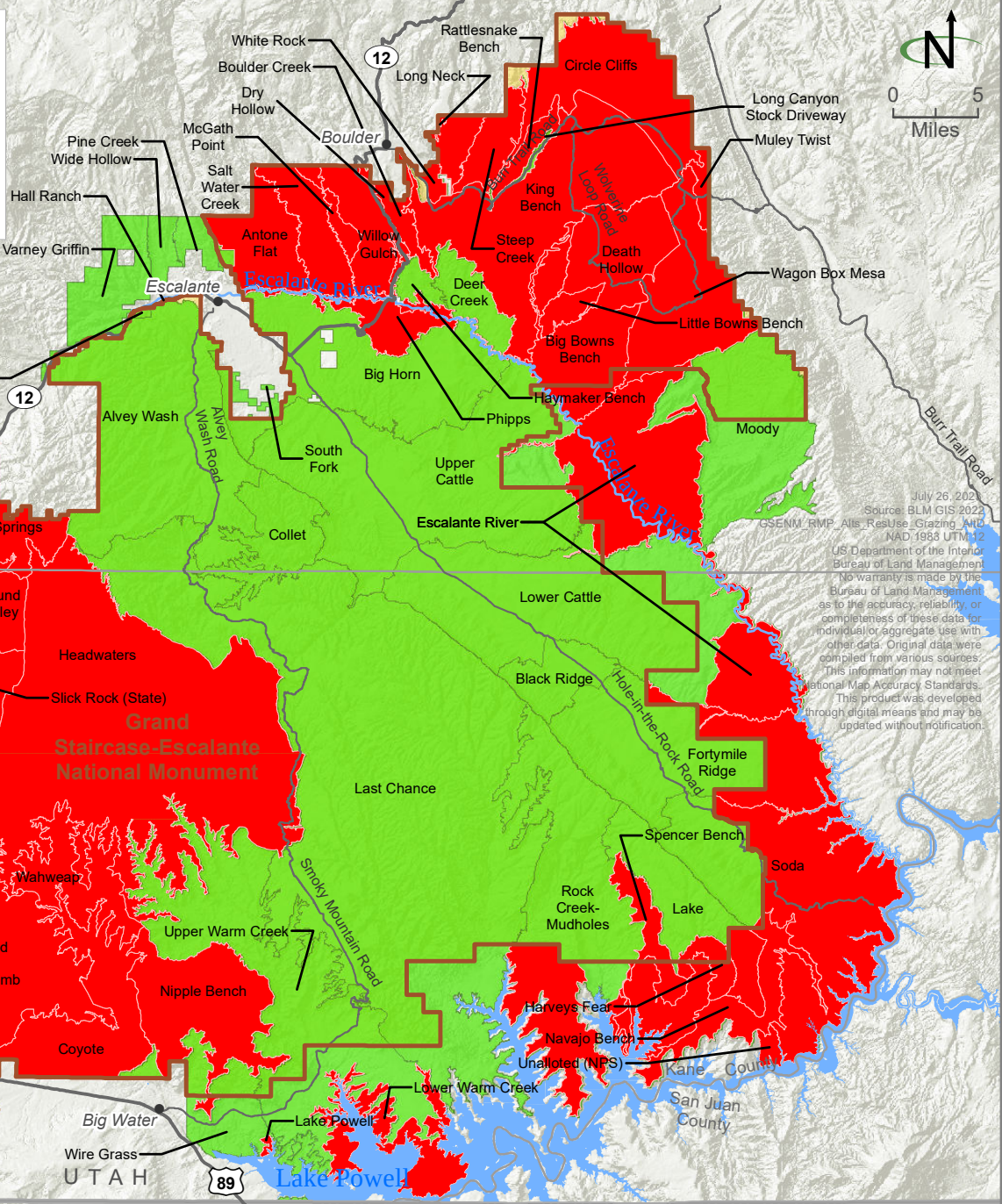




# Grand Staircase-Escalante National Monument

**Figure 2-17 Alternative D:  
Livestock Grazing**

- Available for grazing
- Unavailable for grazing
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



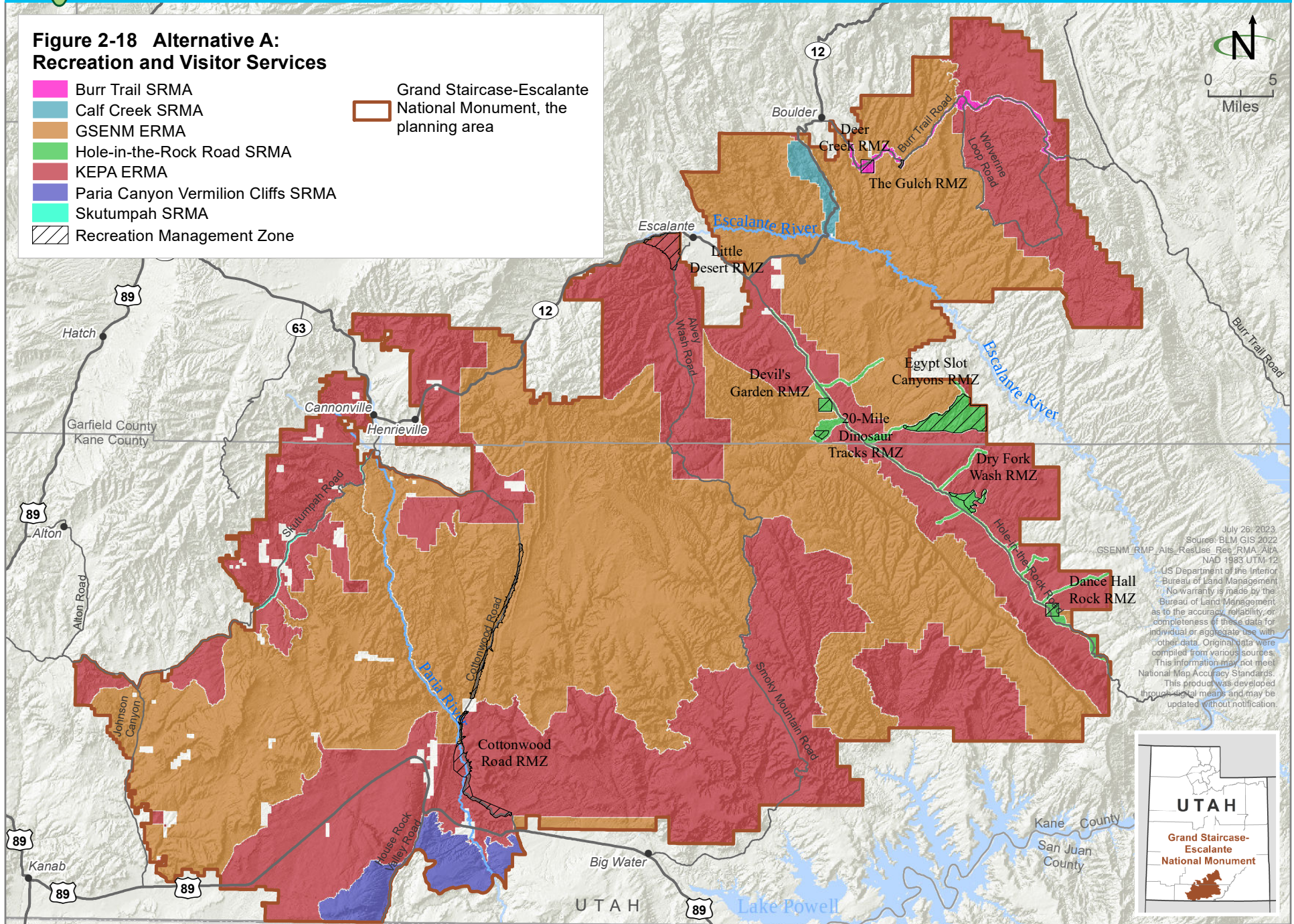
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 GSENM RMP, Alternative Resource Use, Grazing, and  
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# Grand Staircase-Escalante National Monument

### Figure 2-18 Alternative A: Recreation and Visitor Services

- Burr Trail SRMA
- Calf Creek SRMA
- GSENM ERMA
- Hole-in-the-Rock Road SRMA
- KEPA ERMA
- Paria Canyon Vermilion Cliffs SRMA
- Skutumpah SRMA
- Recreation Management Zone
- Grand Staircase-Escalante National Monument, the planning area



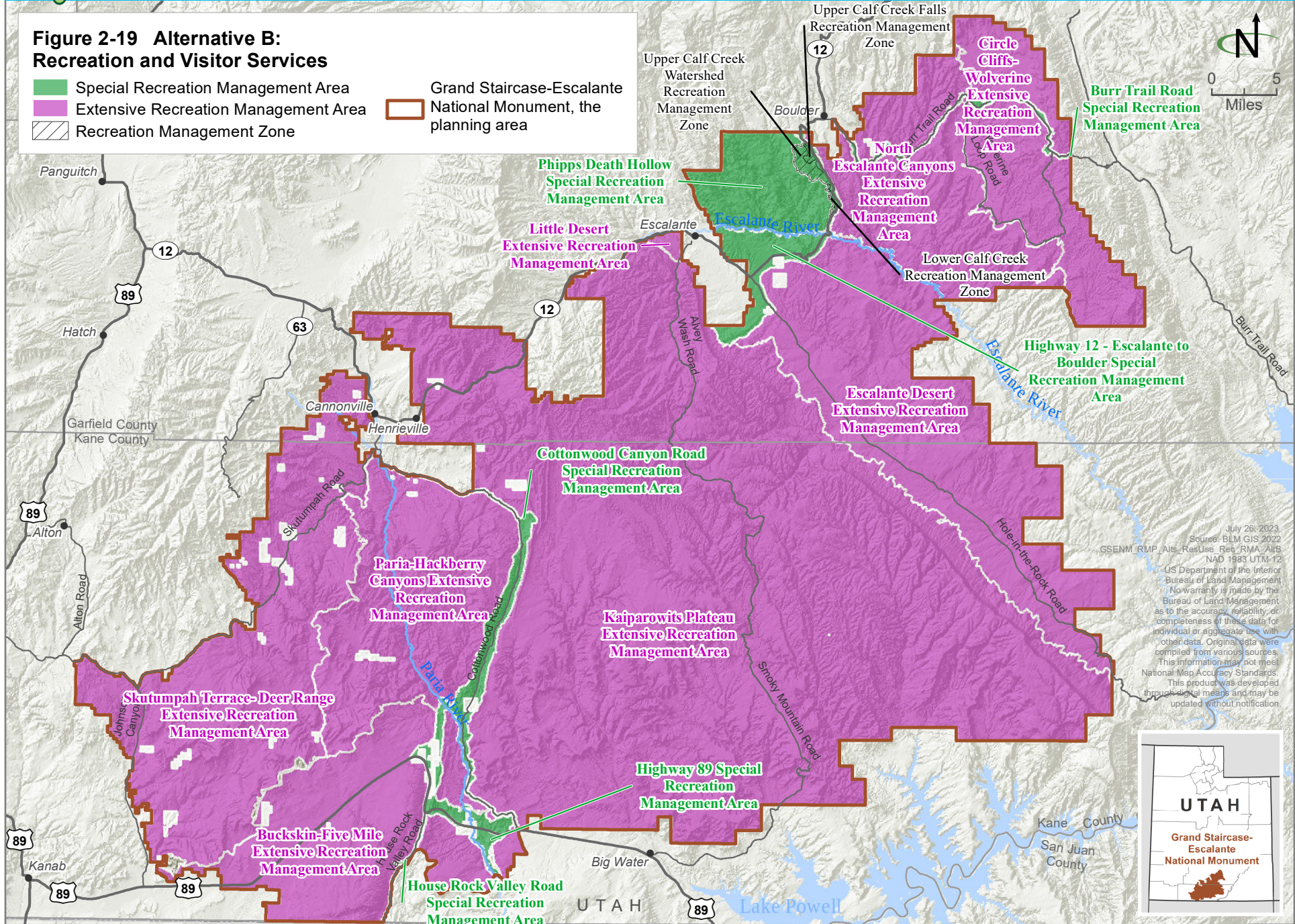
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 GSENM RMP, AIs, ResUse, Rec, RMA, AIA  
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# Grand Staircase-Escalante National Monument

### Figure 2-19 Alternative B: Recreation and Visitor Services

- Special Recreation Management Area
- Extensive Recreation Management Area
- Recreation Management Zone
- Grand Staircase-Escalante National Monument, the planning area



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 Source: BLM GIS 2022  
 GSENM RMP, Ais, ResUse, Rec, RMA, AIB  
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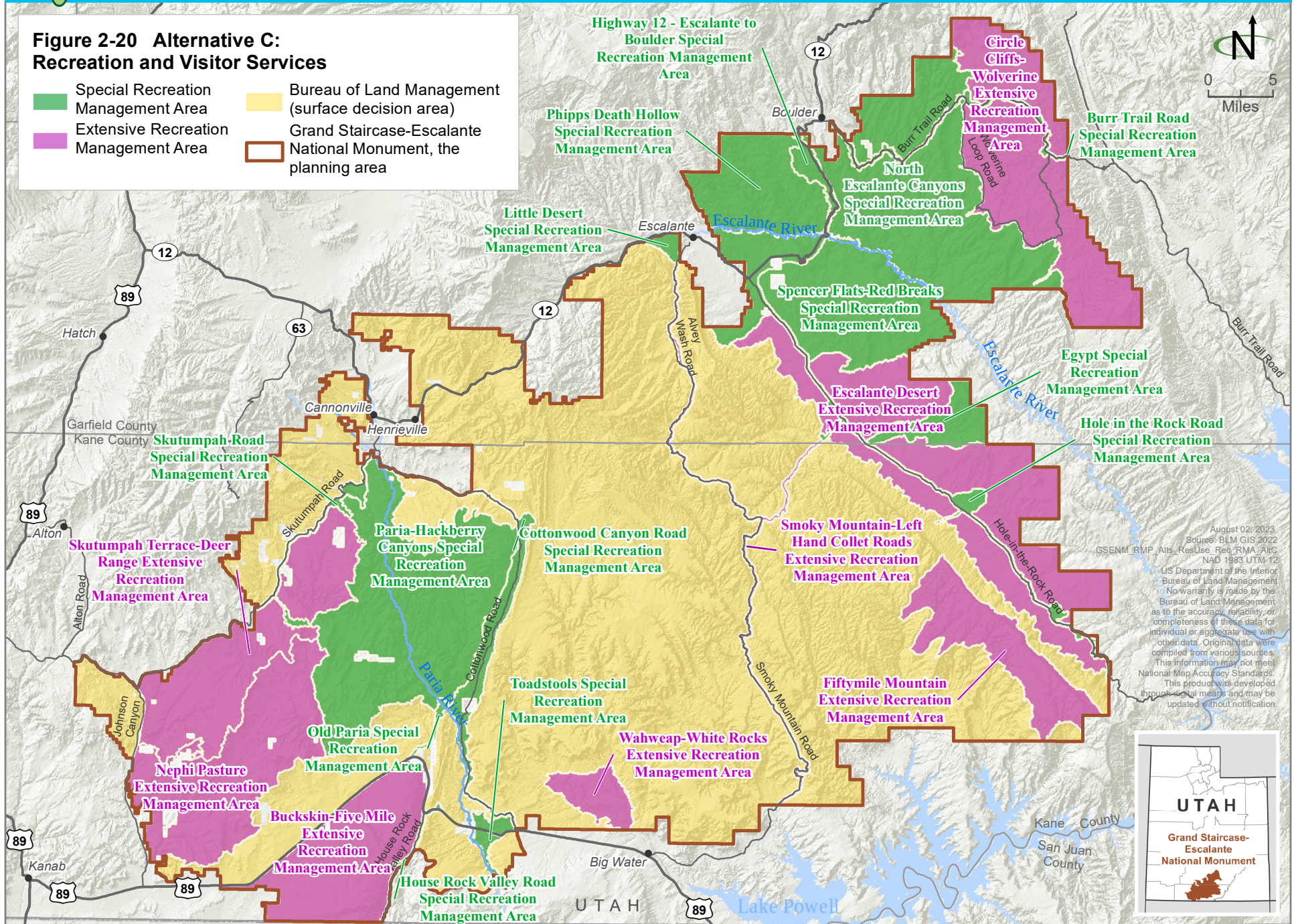




# Grand Staircase-Escalante National Monument

### Figure 2-20 Alternative C: Recreation and Visitor Services

- Special Recreation Management Area
- Bureau of Land Management (surface decision area)
- Extensive Recreation Management Area
- Grand Staircase-Escalante National Monument, the planning area



August 02, 2023  
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 GSENM\_RMP\_Alt\_3\_ResUse\_Rec\_RMA\_AIR  
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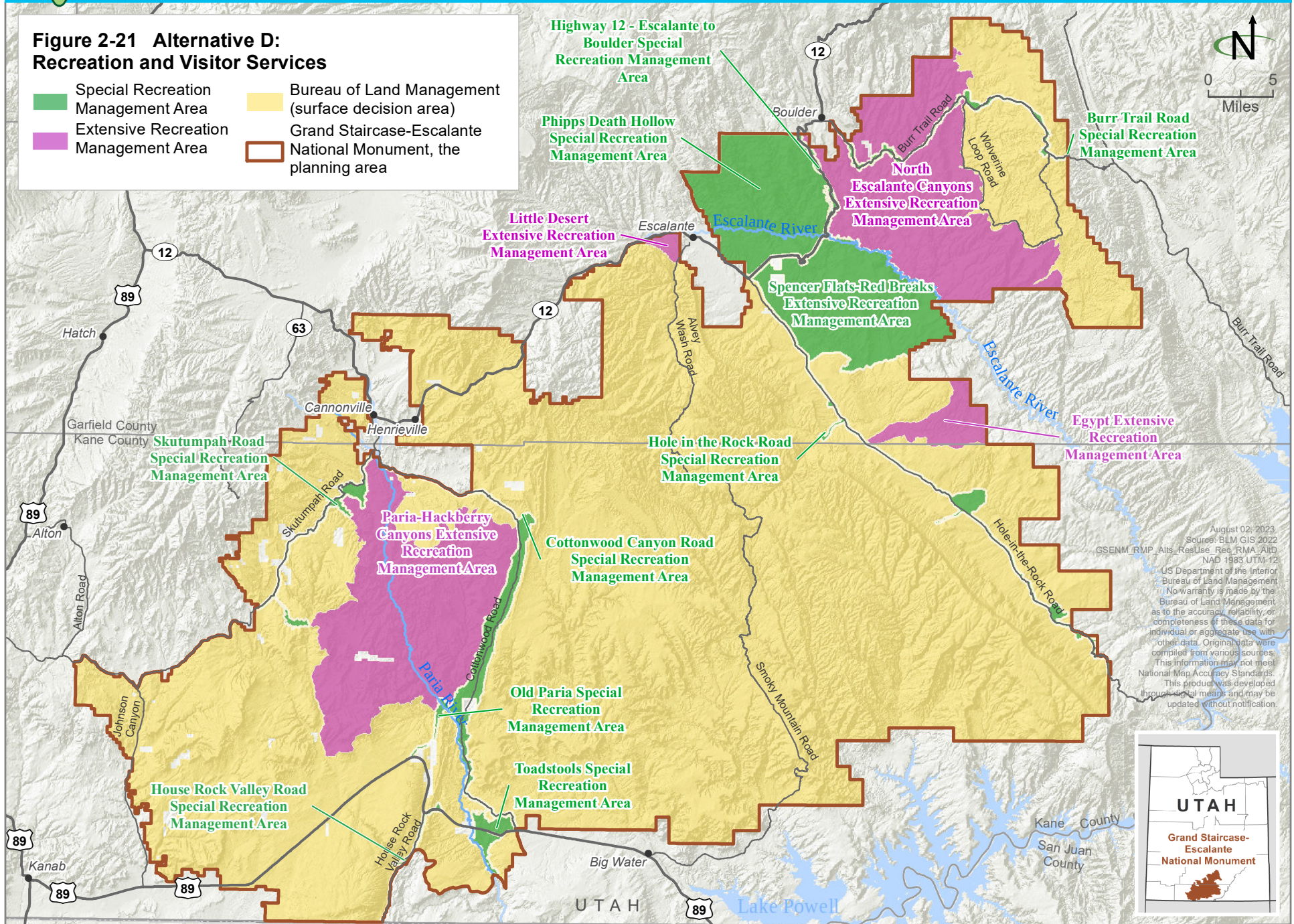




# Grand Staircase-Escalante National Monument

### Figure 2-21 Alternative D: Recreation and Visitor Services

- Special Recreation Management Area
- Extensive Recreation Management Area
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



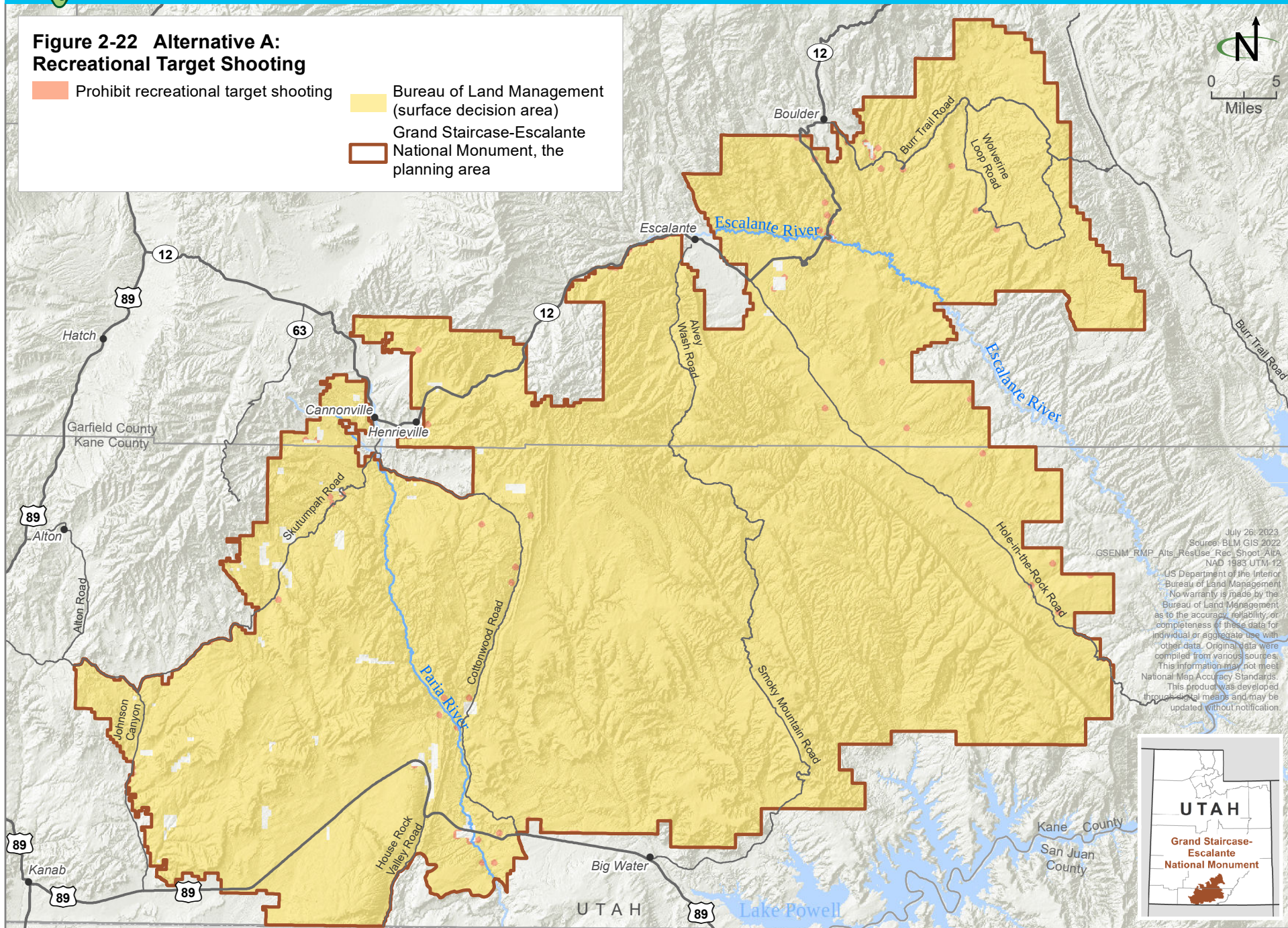
August 02, 2023  
 Source: BLM GIS 2022  
 GSENM RMP\_Alt\_ ResUse\_ Rec\_RMA\_AltD  
 NAD 1983 UTM 12  
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Figure 2-22 Alternative A: Recreational Target Shooting

- Prohibit recreational target shooting
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_Alt\_RecUse\_Rec\_Shoot\_AltA  
 NAD 1983 UTM 12  
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# Grand Staircase-Escalante National Monument

### Figure 2-23 Alternative B: Recreational Target Shooting

- Prohibit recreational target shooting
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area

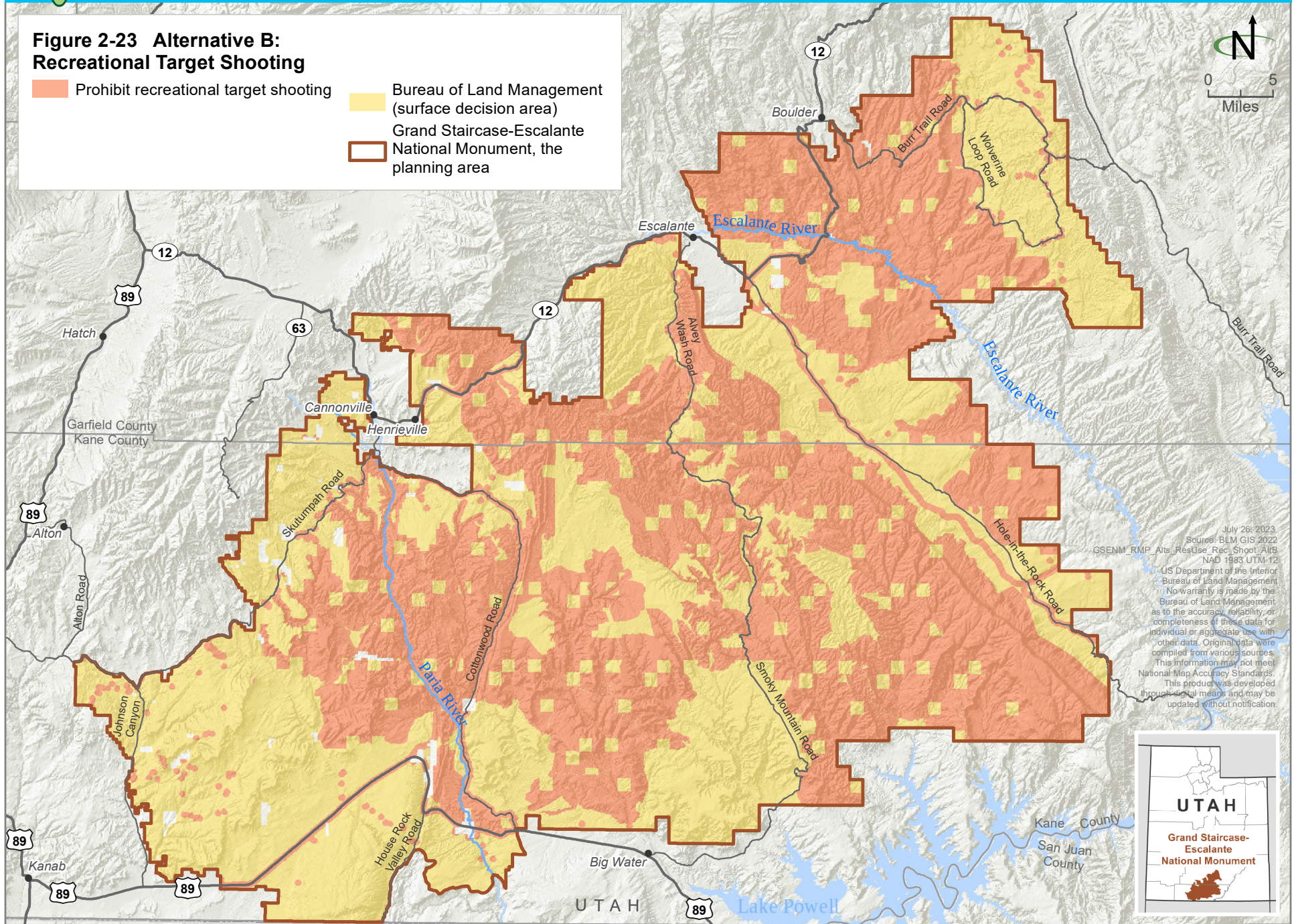
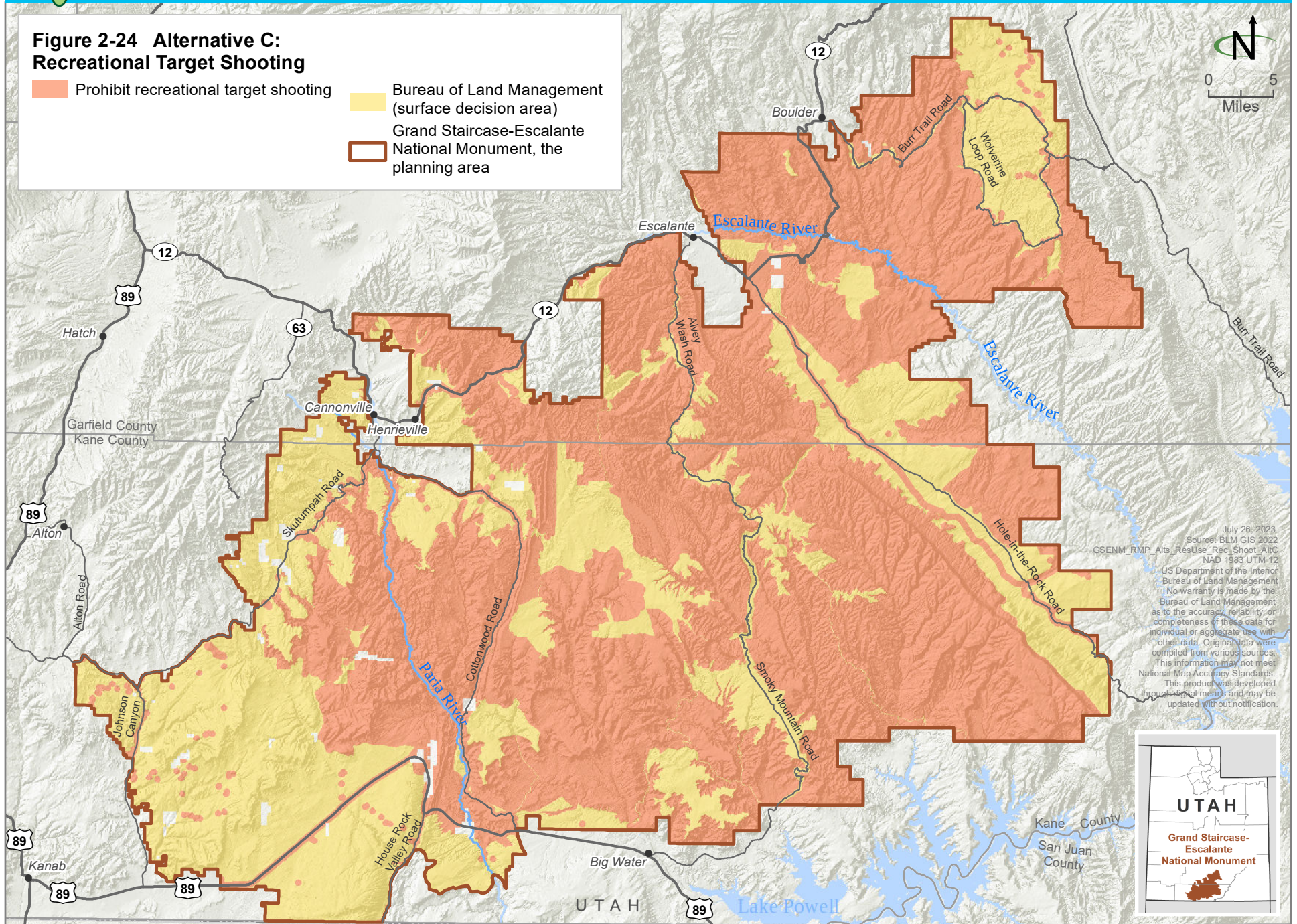






Figure 2-24 Alternative C:  
Recreational Target Shooting

- Prohibit recreational target shooting
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_Alt\_RecUse\_Rec\_Shoot\_AltC  
 NAD 1983 UTM 12  
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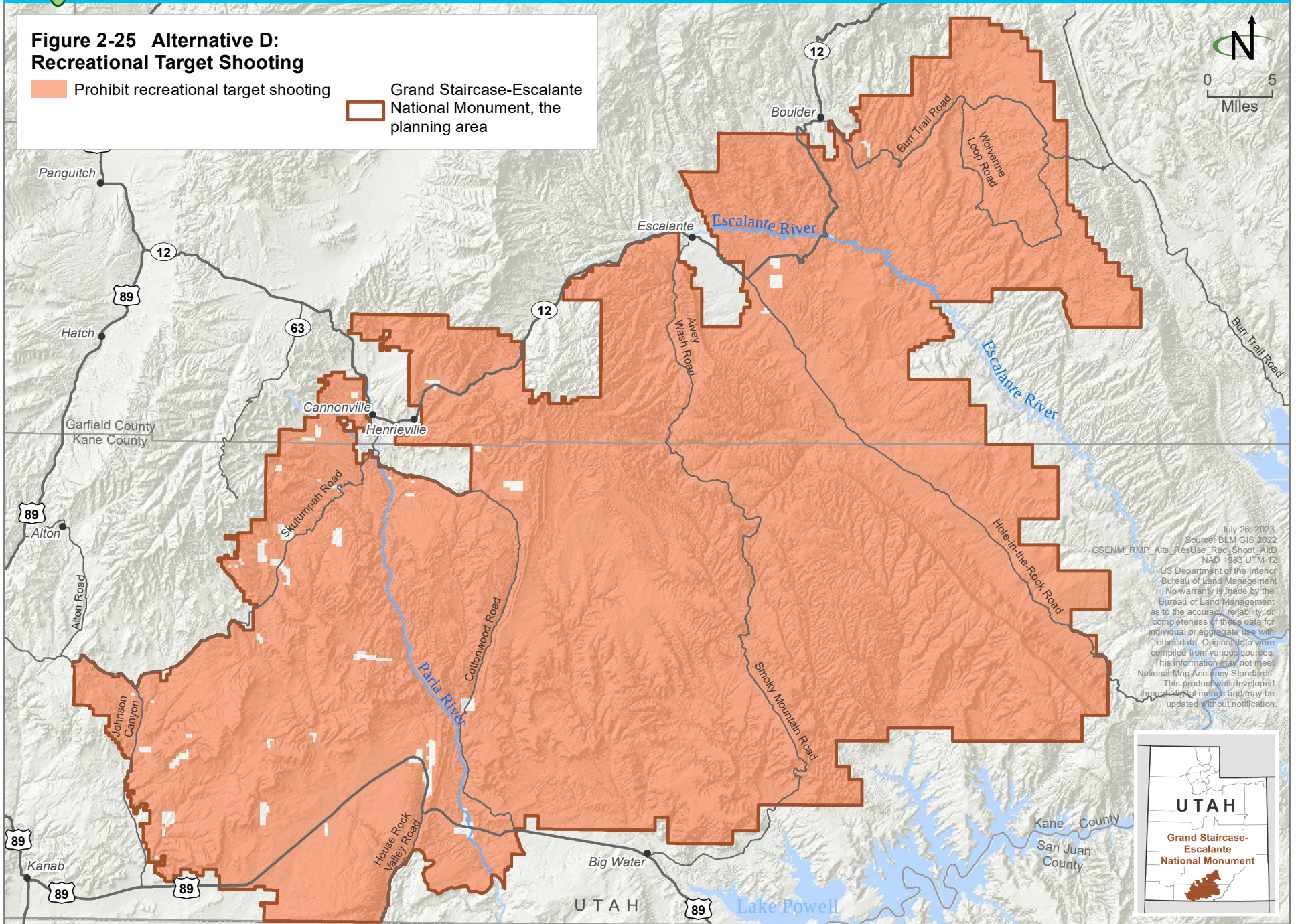




# Grand Staircase-Escalante National Monument

### Figure 2-25 Alternative D: Recreational Target Shooting

- Prohibit recreational target shooting
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_Alt\_ResUse\_Rec\_Shoot\_AltD  
 NAD 1983 UTM 12  
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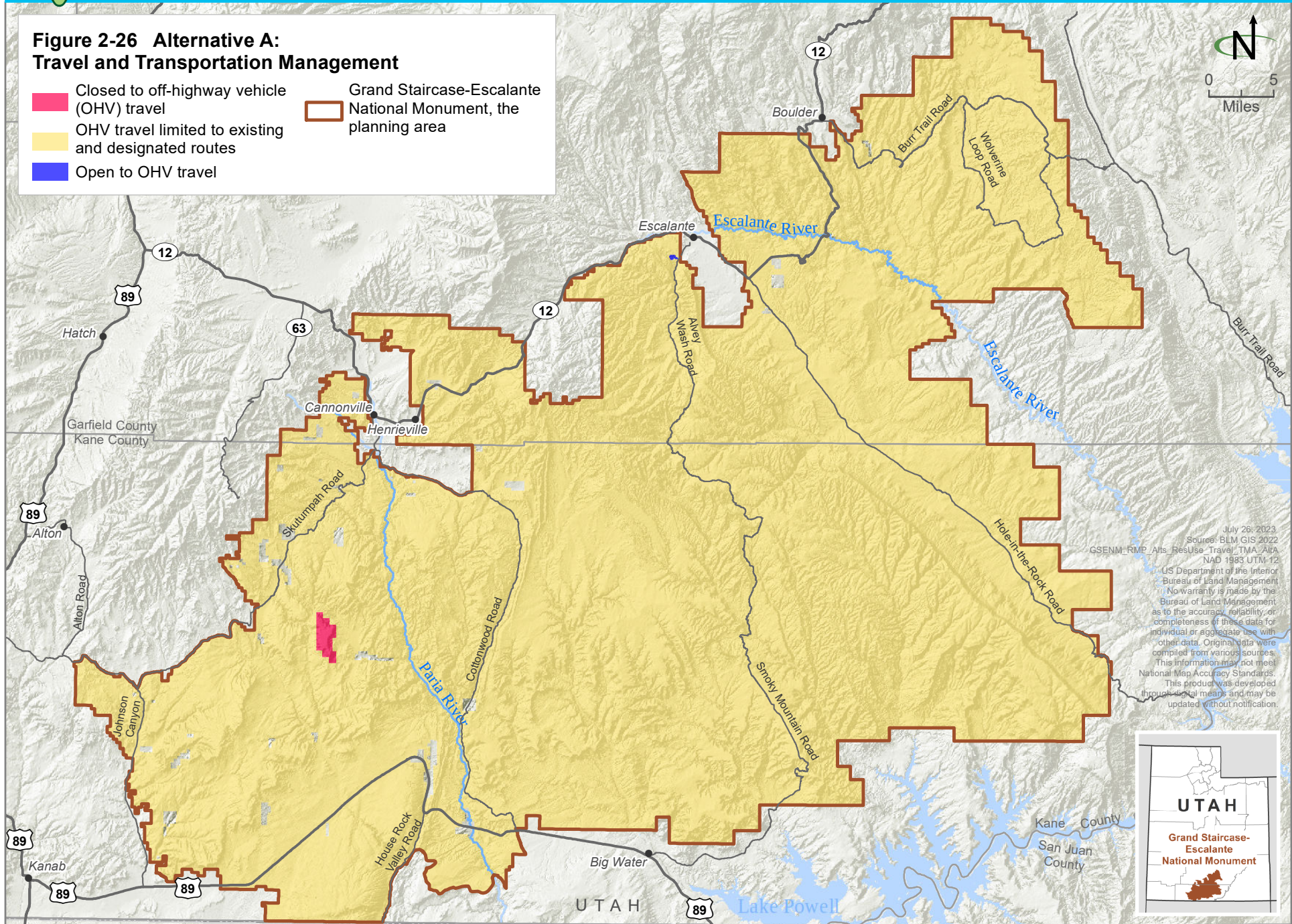




# Grand Staircase-Escalante National Monument

## Figure 2-26 Alternative A: Travel and Transportation Management

- Closed to off-highway vehicle (OHV) travel
- OHV travel limited to existing and designated routes
- Open to OHV travel
- Grand Staircase-Escalante National Monument, the planning area

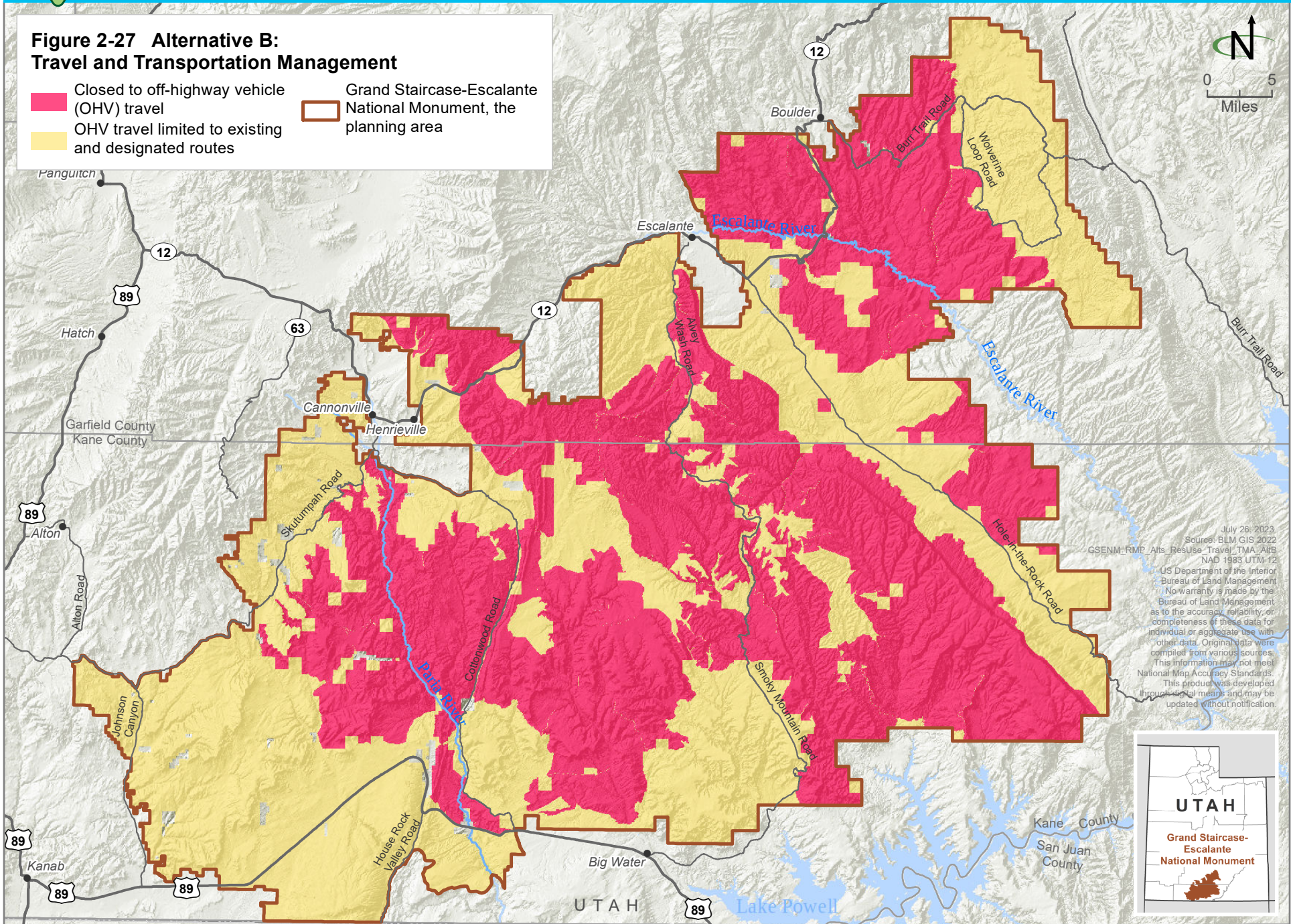




# Grand Staircase-Escalante National Monument

## Figure 2-27 Alternative B: Travel and Transportation Management

- Closed to off-highway vehicle (OHV) travel
- OHV travel limited to existing and designated routes
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AltB\_ResUse\_Travel\_TMA\_AltB  
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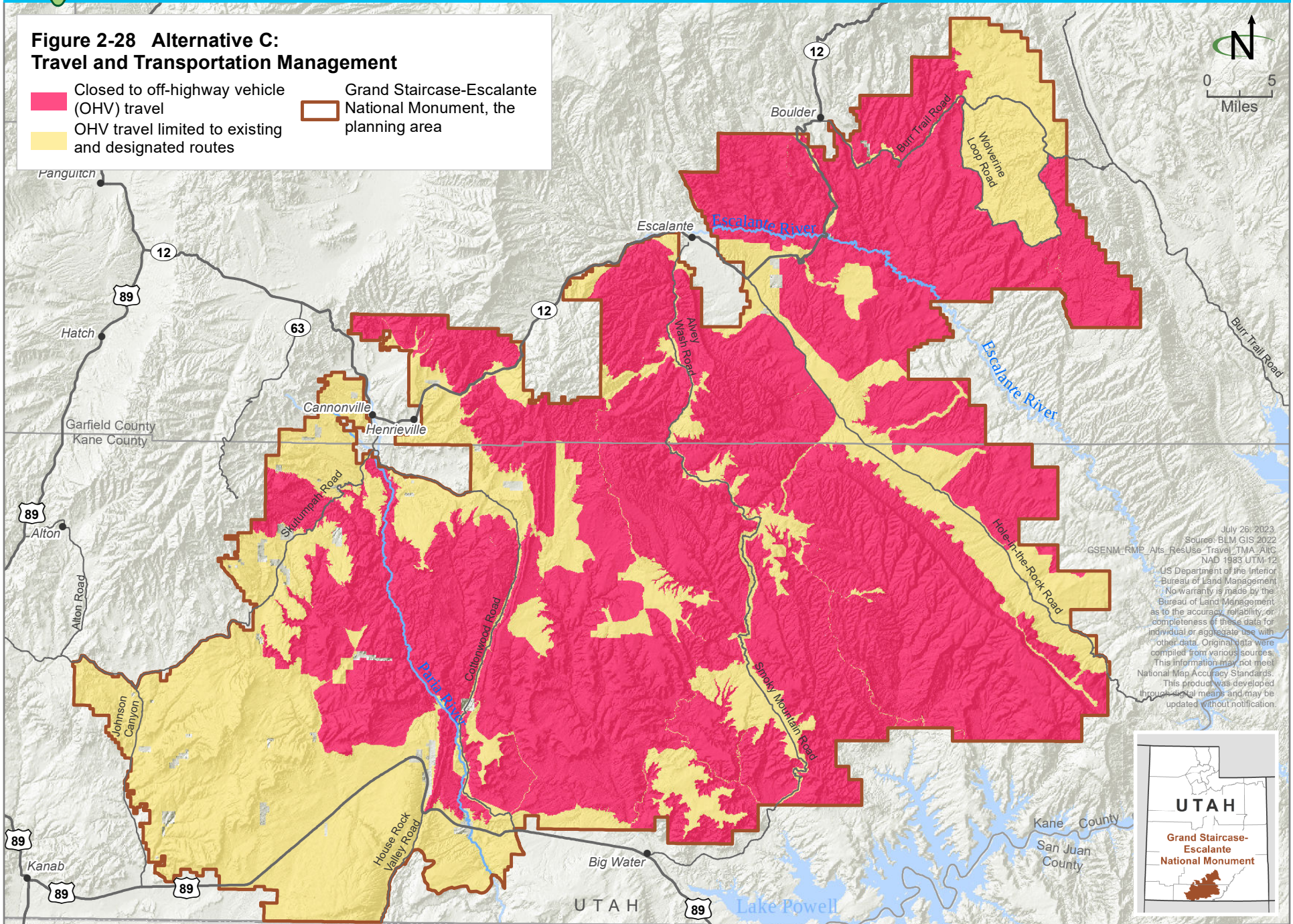




# Grand Staircase-Escalante National Monument

## Figure 2-28 Alternative C: Travel and Transportation Management

- Closed to off-highway vehicle (OHV) travel
- OHV travel limited to existing and designated routes
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_Alt\_3\_ResUse\_Travel\_TMA\_AIC  
 NAD 1983 UTM 12  
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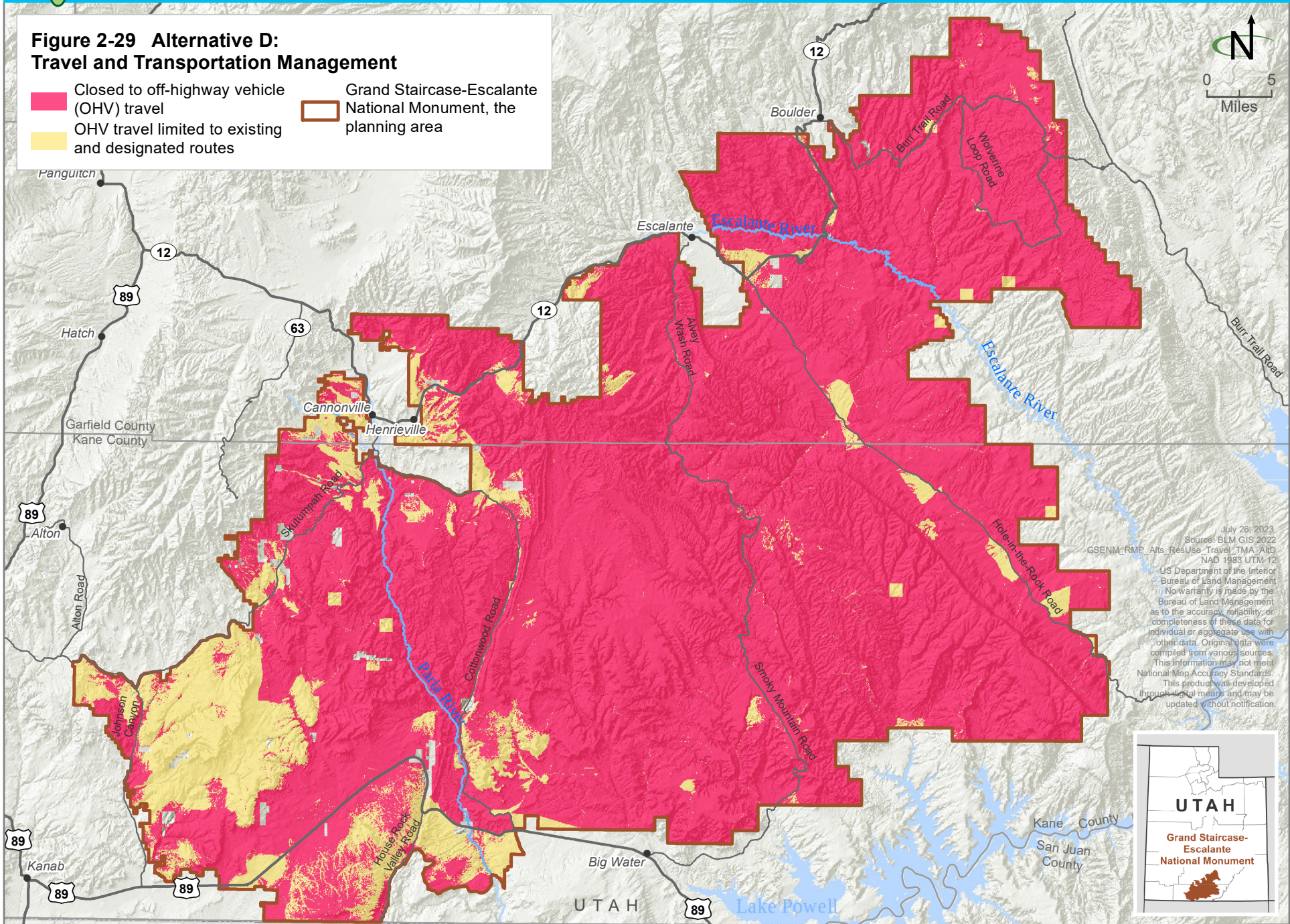




# Grand Staircase-Escalante National Monument

## Figure 2-29 Alternative D: Travel and Transportation Management

- Closed to off-highway vehicle (OHV) travel
- OHV travel limited to existing and designated routes
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_Alt3\_ResUse\_Travel\_TMA\_AltD  
 NAD 1983 UTM 12  
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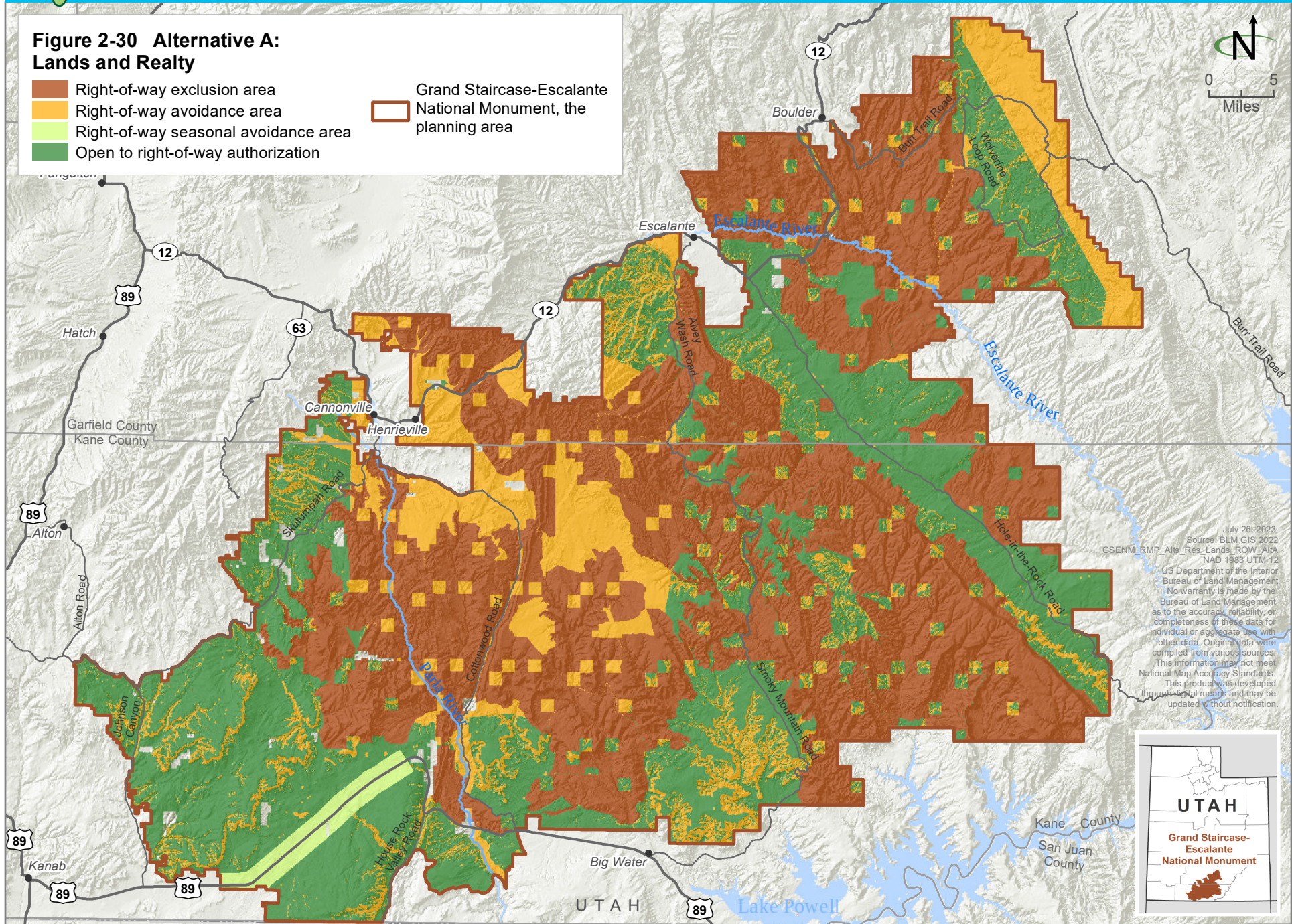




# Grand Staircase-Escalante National Monument

### Figure 2-30 Alternative A: Lands and Realty

- Right-of-way exclusion area
- Right-of-way avoidance area
- Right-of-way seasonal avoidance area
- Open to right-of-way authorization
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM RMP, Alt. Res. Lands, ROW, AIA  
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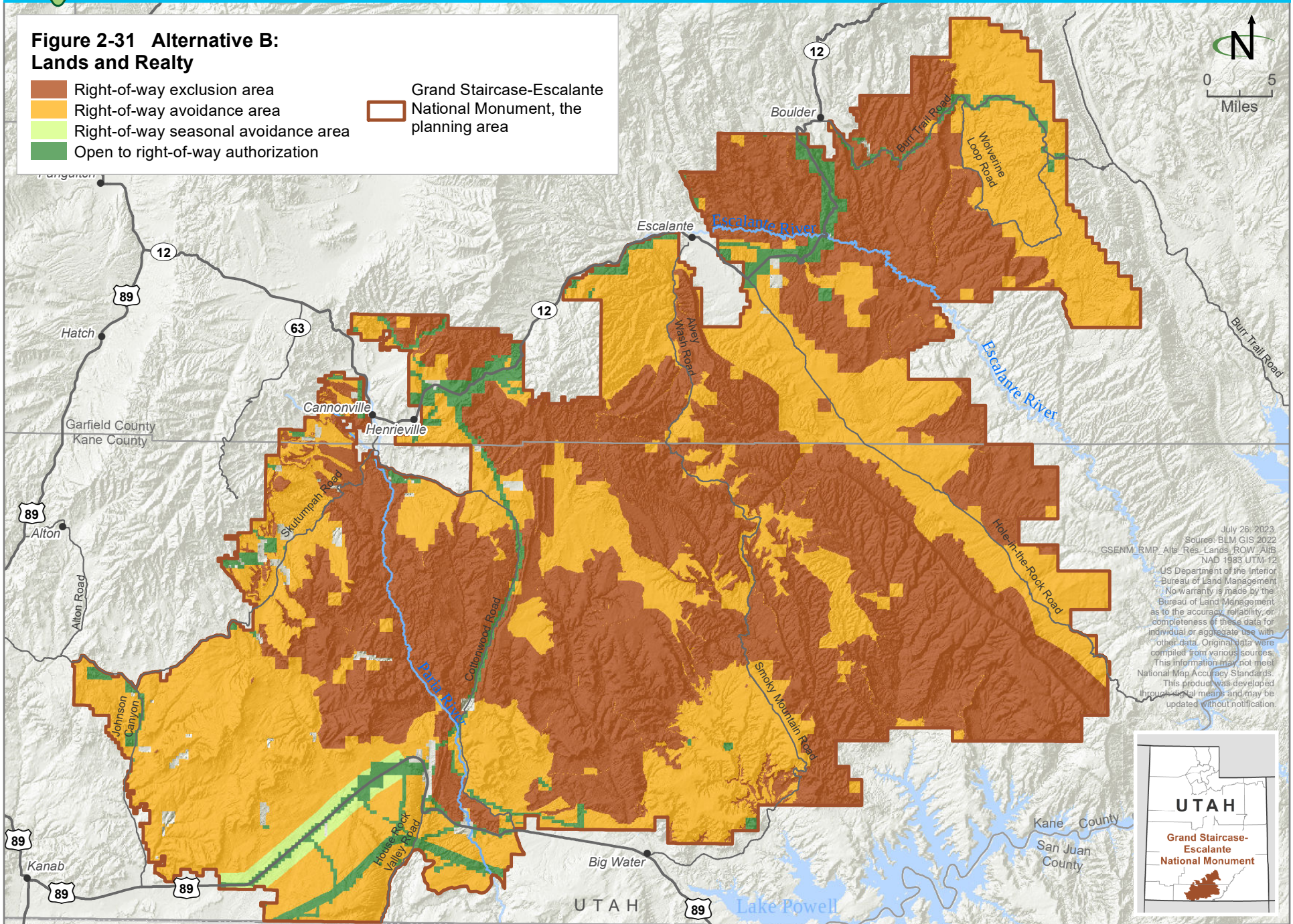




# Grand Staircase-Escalante National Monument

### Figure 2-31 Alternative B: Lands and Realty

- Right-of-way exclusion area
- Right-of-way avoidance area
- Right-of-way seasonal avoidance area
- Open to right-of-way authorization
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM RMP, Alt. Res. Lands, ROW, AIRB  
 NAD 1983 UTM 12  
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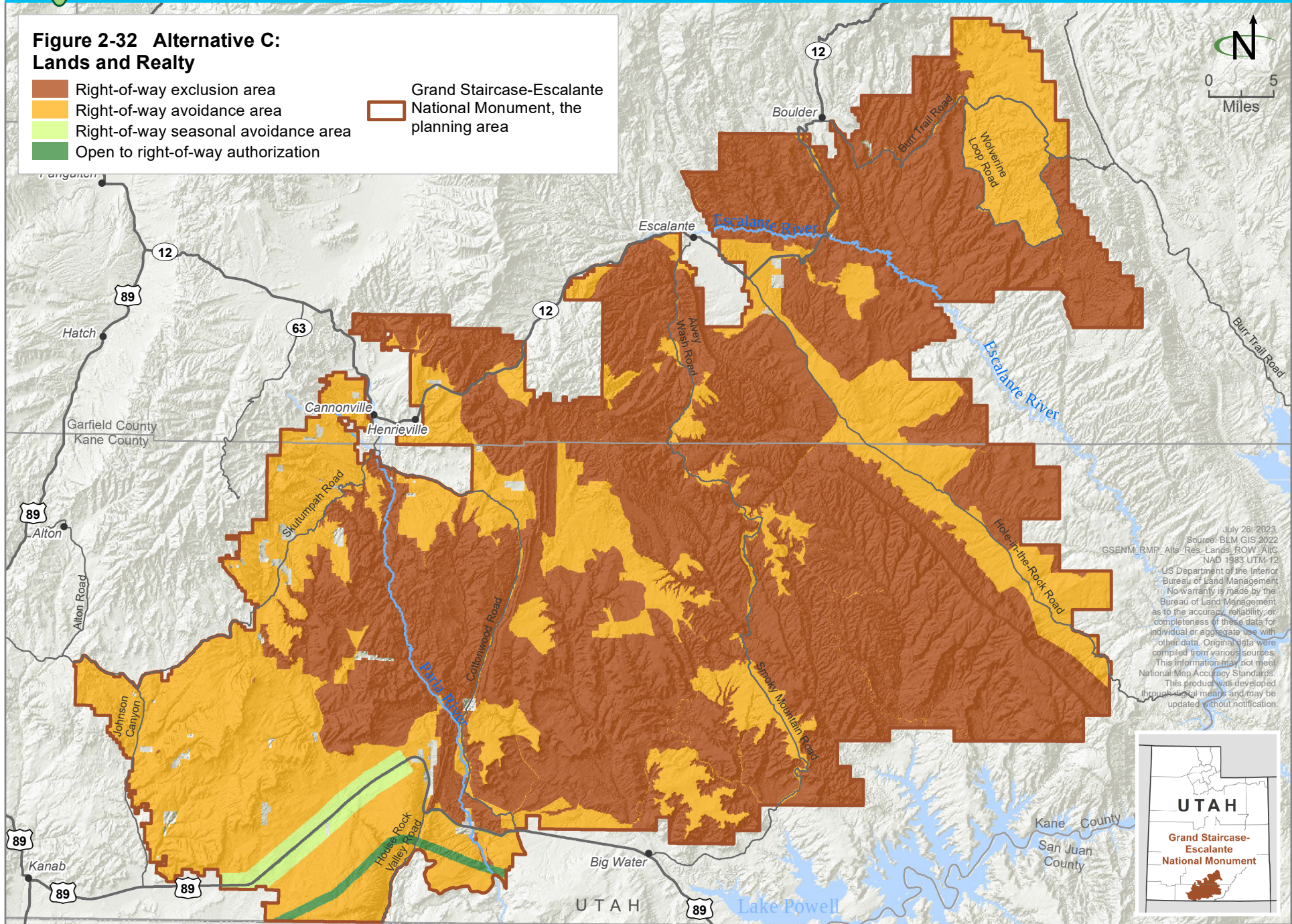




# Grand Staircase-Escalante National Monument

### Figure 2-32 Alternative C: Lands and Realty

- Right-of-way exclusion area
- Right-of-way avoidance area
- Right-of-way seasonal avoidance area
- Open to right-of-way authorization
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM RMP, Alt. Res. Lands, ROW, AIC  
 NAD 1983 UTM 12  
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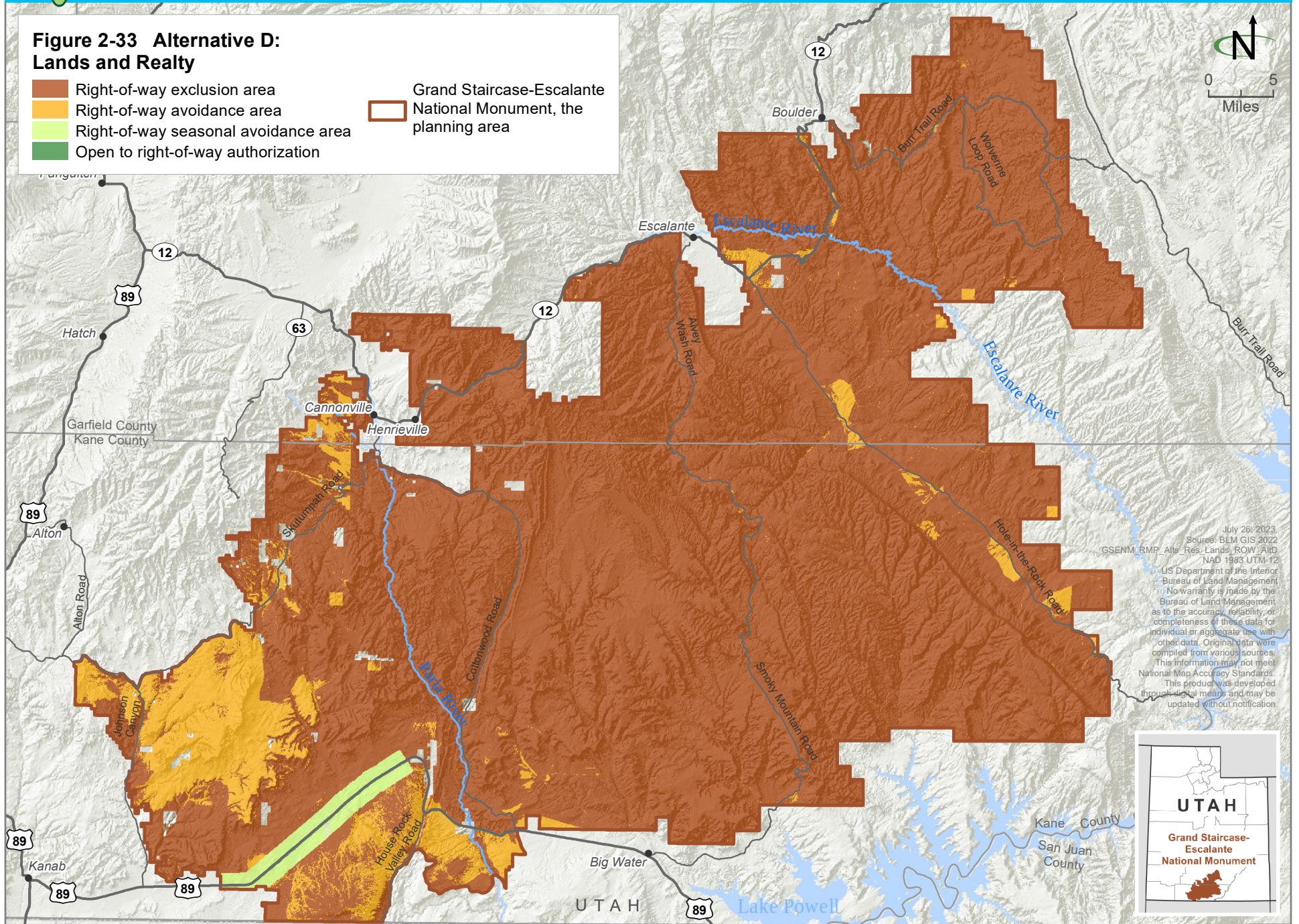




# Grand Staircase-Escalante National Monument

### Figure 2-33 Alternative D: Lands and Realty

- Right-of-way exclusion area
- Right-of-way avoidance area
- Right-of-way seasonal avoidance area
- Open to right-of-way authorization
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM RMP, Alt. Res. Lands, ROW, AID  
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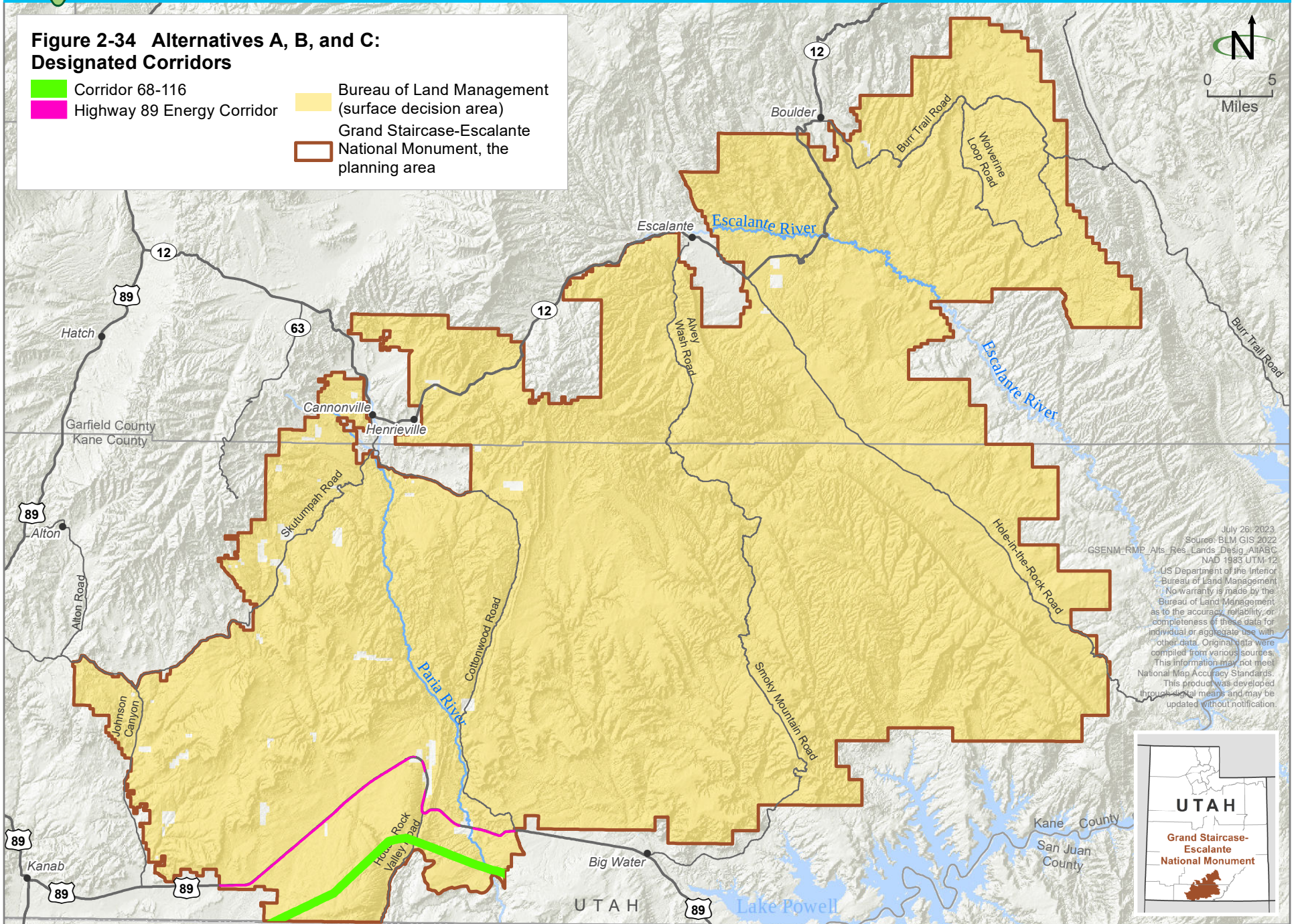




# Grand Staircase-Escalante National Monument

### Figure 2-34 Alternatives A, B, and C: Designated Corridors

- Corridor 68-116
- Highway 89 Energy Corridor
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_Alt\_3\_Res\_Lands\_Design\_AltABC  
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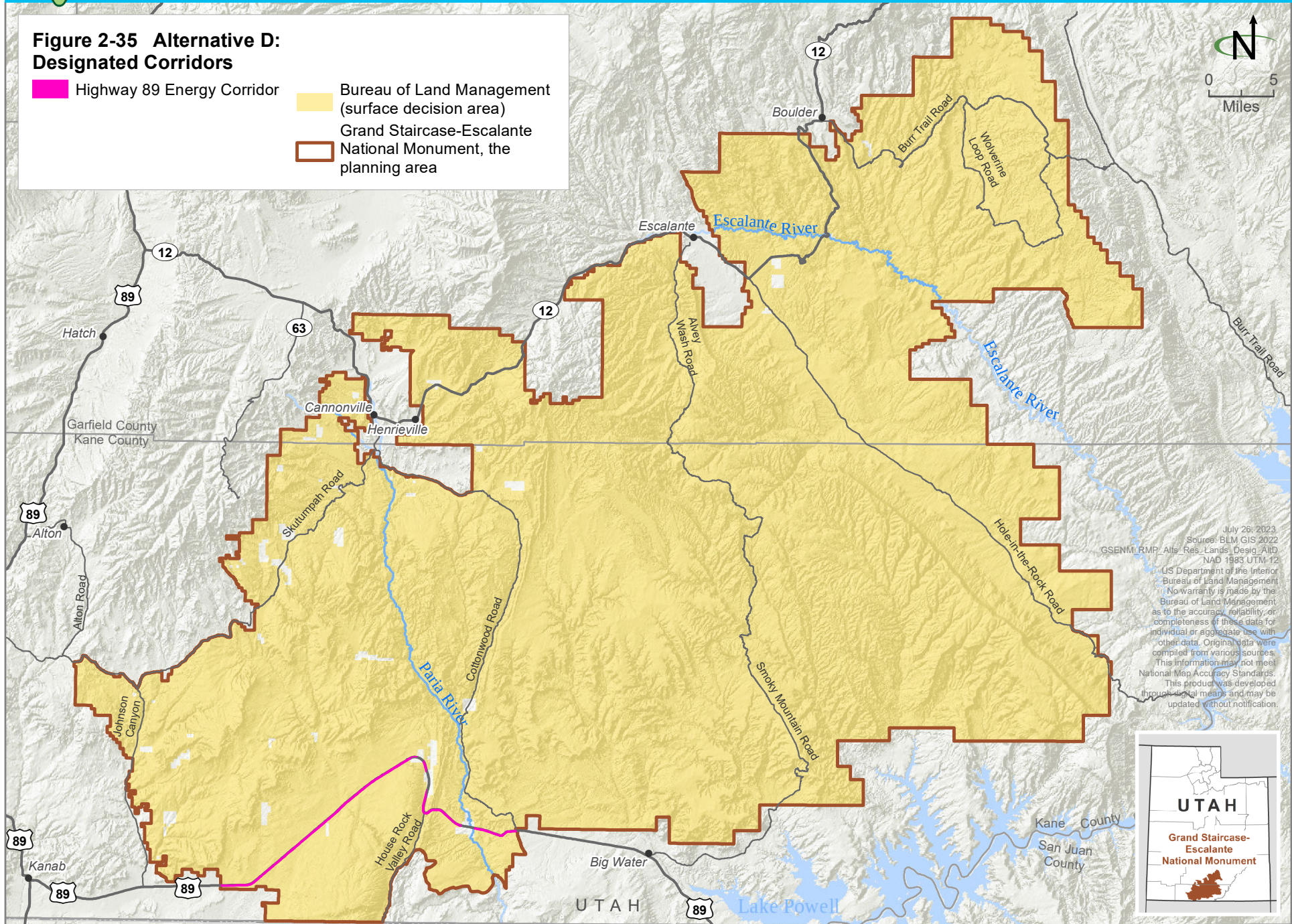




# Grand Staircase-Escalante National Monument

### Figure 2-35 Alternative D: Designated Corridors

- Highway 89 Energy Corridor
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



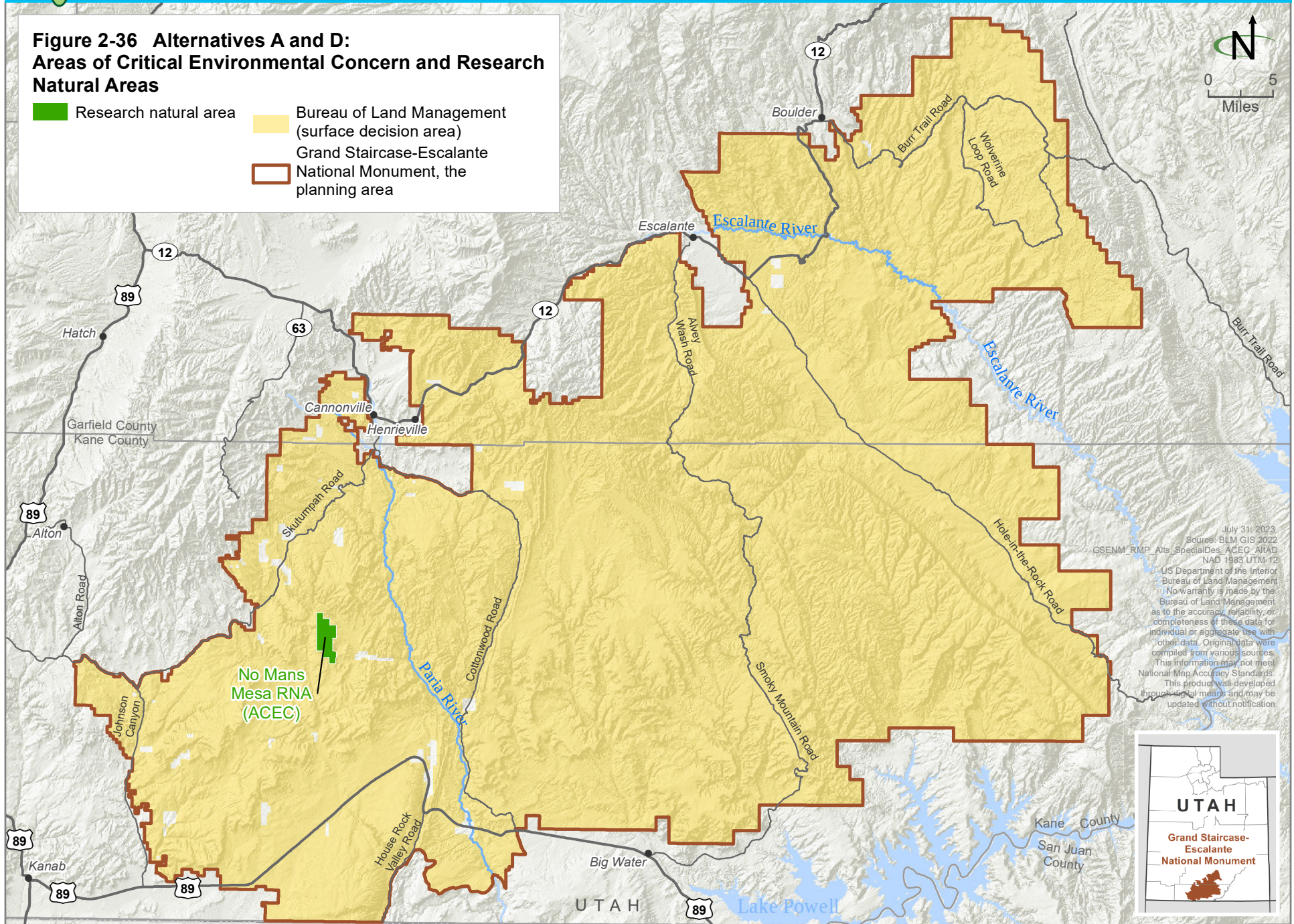
July 26, 2023  
 Source: BLM GIS 2022  
 GSENM/RMP, Alt. Res. Lands, Desig. AID  
 NAD 1983 UTM 12  
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Figure 2-36 Alternatives A and D: Areas of Critical Environmental Concern and Research Natural Areas

- Research natural area
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area

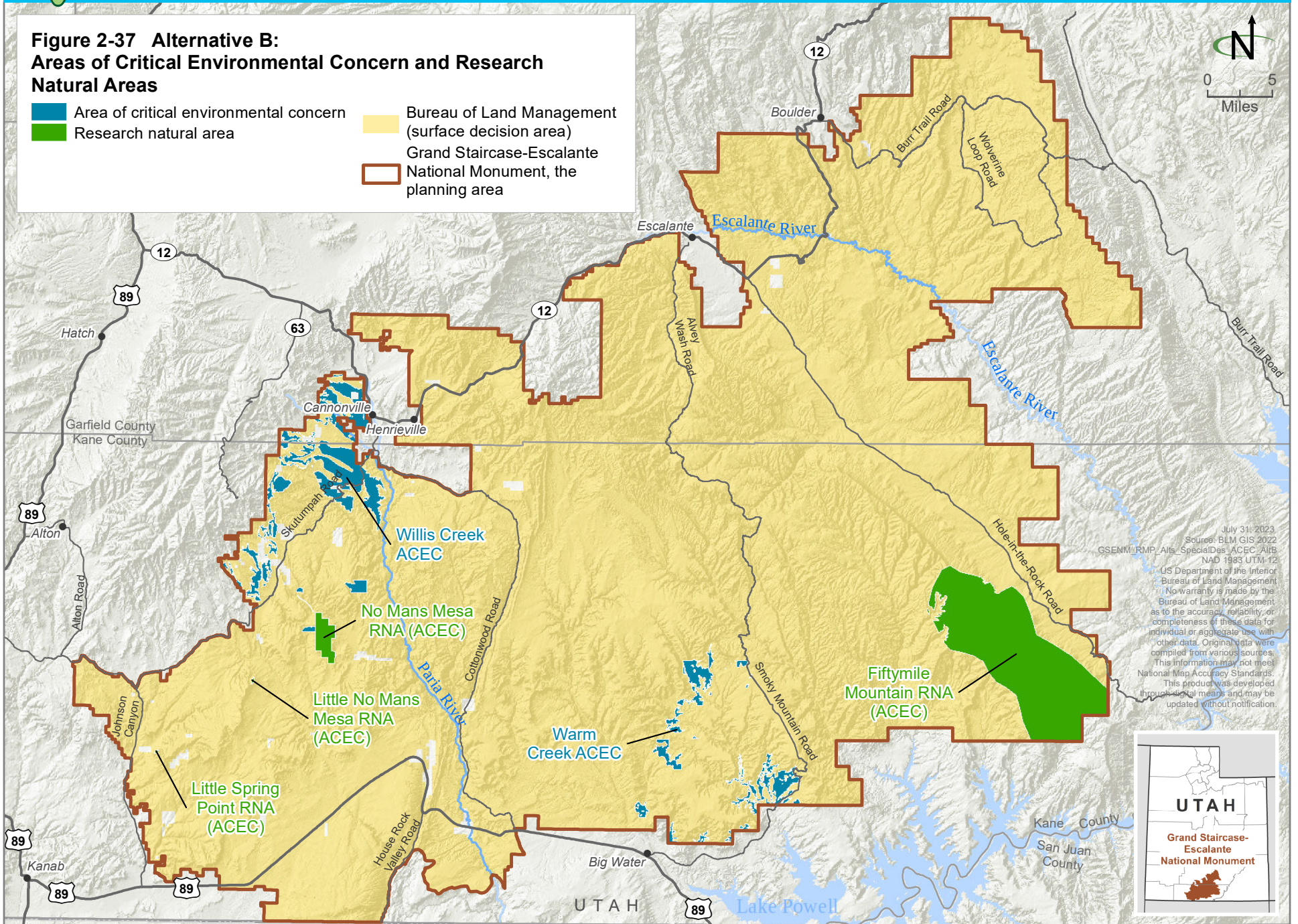




# Grand Staircase-Escalante National Monument

### Figure 2-37 Alternative B: Areas of Critical Environmental Concern and Research Natural Areas

- Area of critical environmental concern
- Research natural area
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



July 31, 2023  
 Source: BLM GIS 2022  
 GSENM RMP, AIs, SpecialDes, ACEC, AIB  
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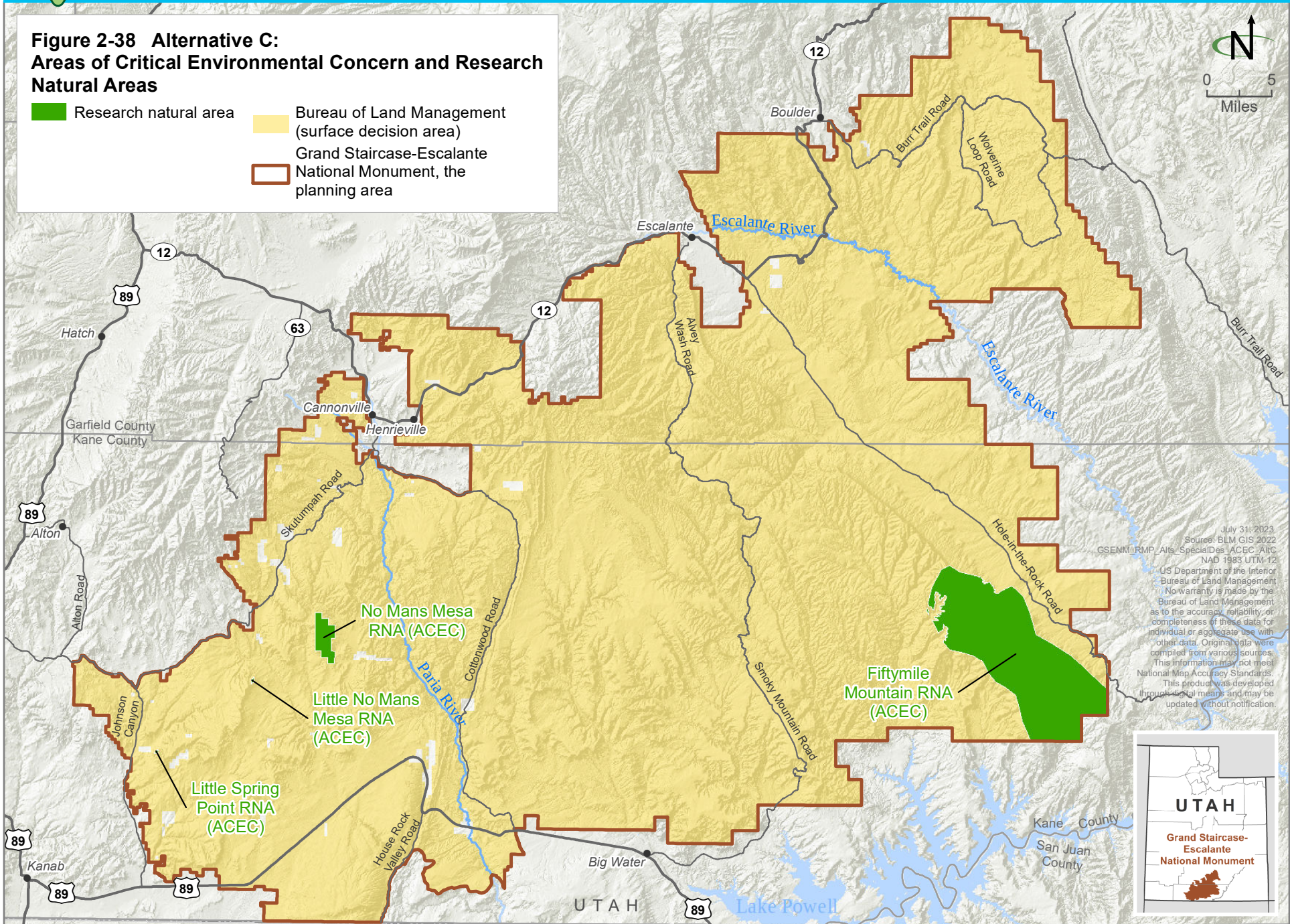




# Grand Staircase-Escalante National Monument

### Figure 2-38 Alternative C: Areas of Critical Environmental Concern and Research Natural Areas

- Research natural area
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



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 Source: BLM GIS 2022  
 GSENM RMP, AIs, SpecialDes, ACEC, AIC  
 NAD 1983 UTM 12  
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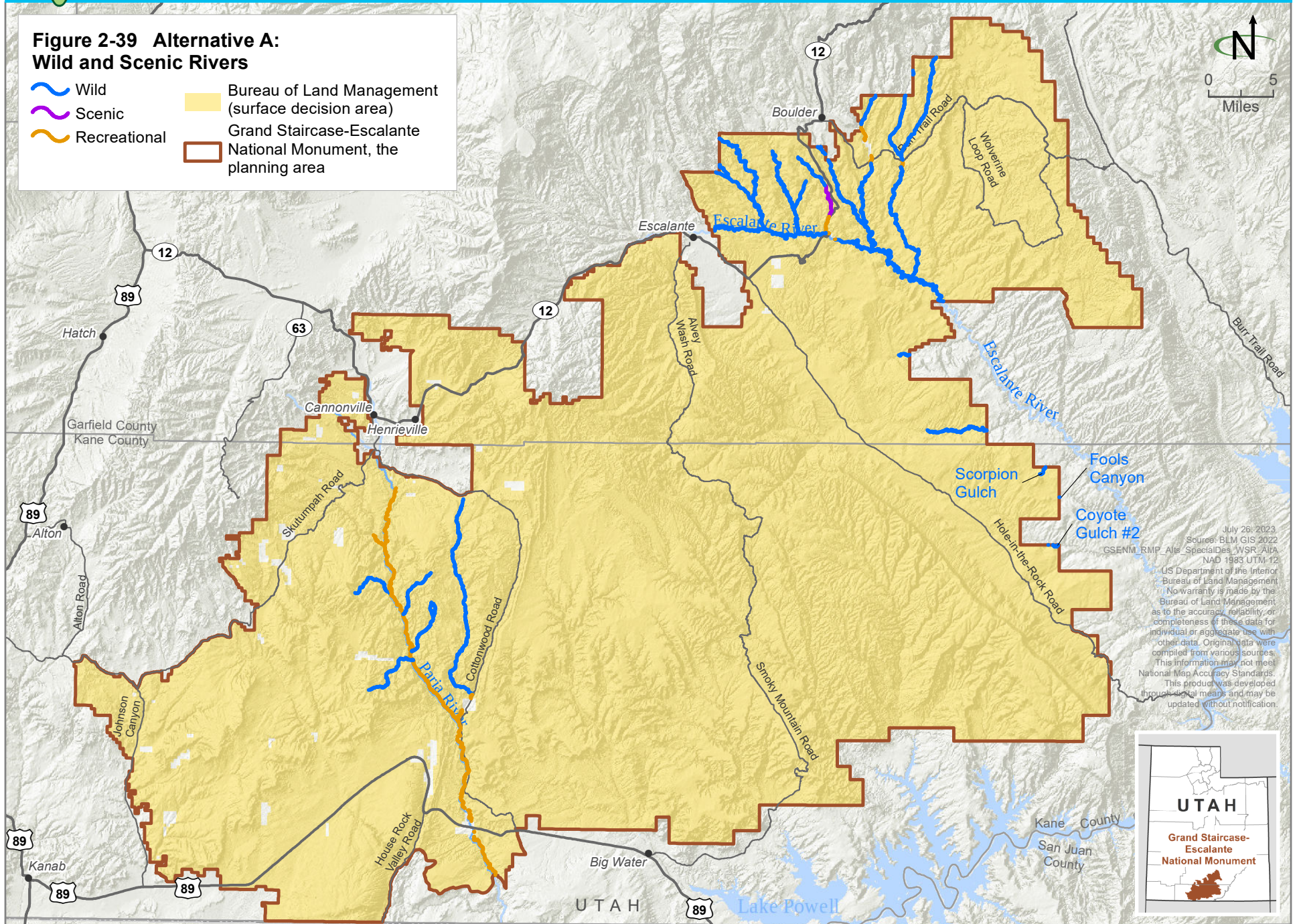




# Grand Staircase-Escalante National Monument

### Figure 2-39 Alternative A: Wild and Scenic Rivers

- Wild
- Scenic
- Recreational
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



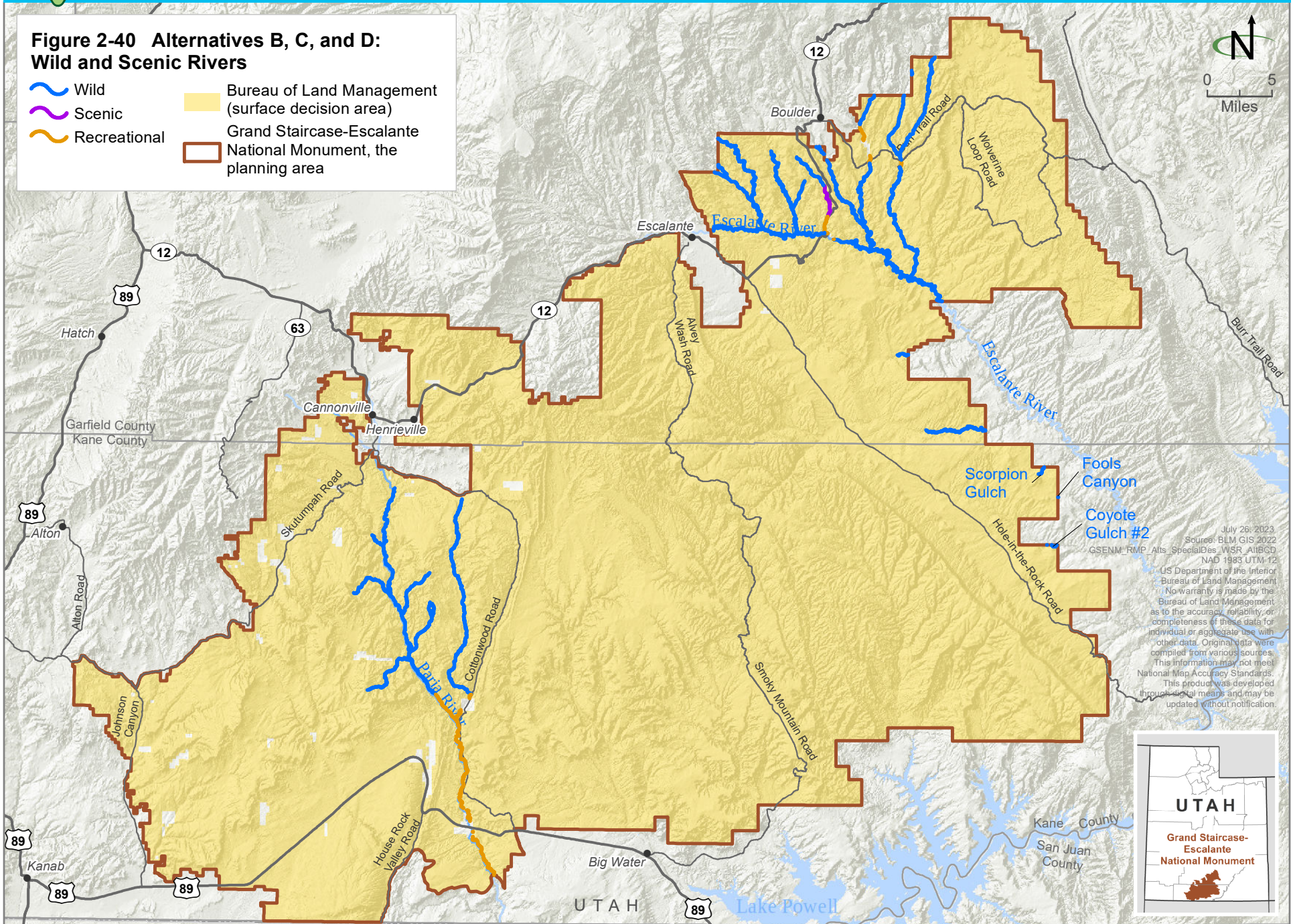




# Grand Staircase-Escalante National Monument

### Figure 2-40 Alternatives B, C, and D: Wild and Scenic Rivers

- Wild
- Scenic
- Recreational
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_Alt3\_SpecialDes\_WSR\_AltBCD  
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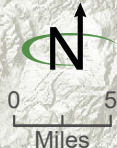
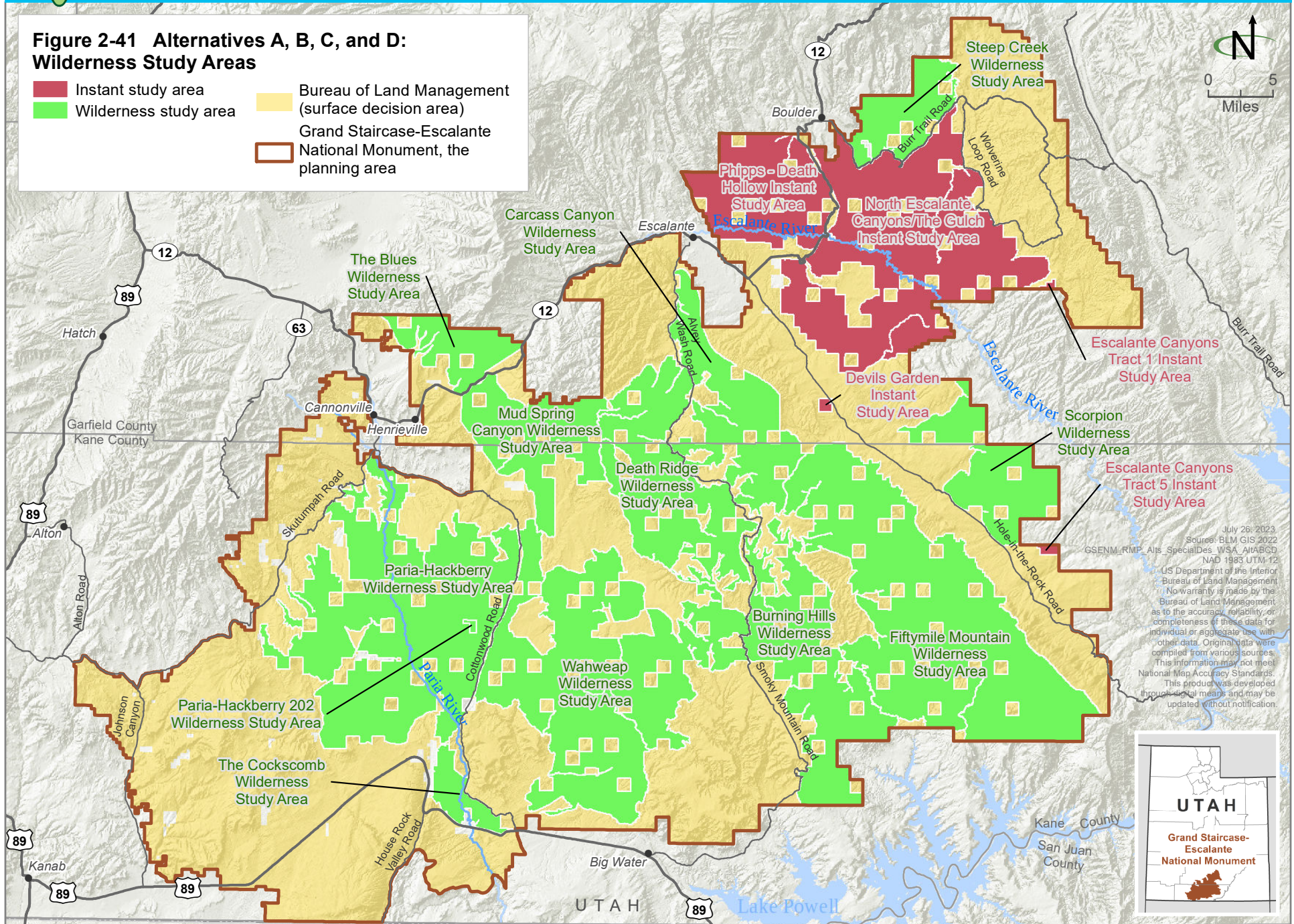




# Grand Staircase-Escalante National Monument

### Figure 2-41 Alternatives A, B, C, and D: Wilderness Study Areas

- Instant study area
- Wilderness study area
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



July 26, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_Alt. SpecialDes\_WSA\_AltABCD  
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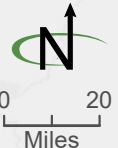
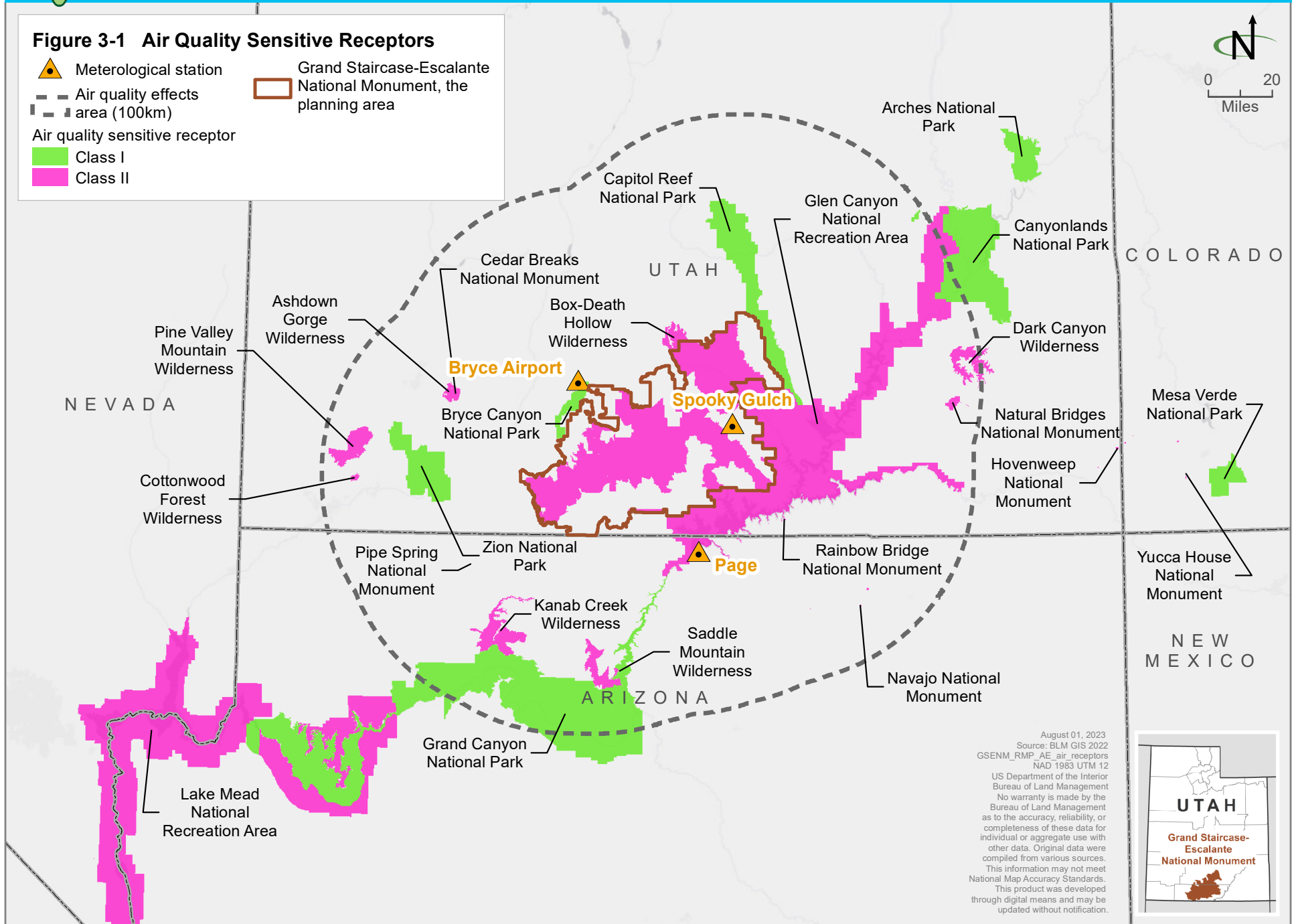




# Grand Staircase-Escalante National Monument

### Figure 3-1 Air Quality Sensitive Receptors

- Meteorological station
- Air quality effects area (100km)
- Air quality sensitive receptor Class I
- Air quality sensitive receptor Class II
- Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_air\_receptors  
 NAD 1983 UTM 12  
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# Grand Staircase-Escalante National Monument

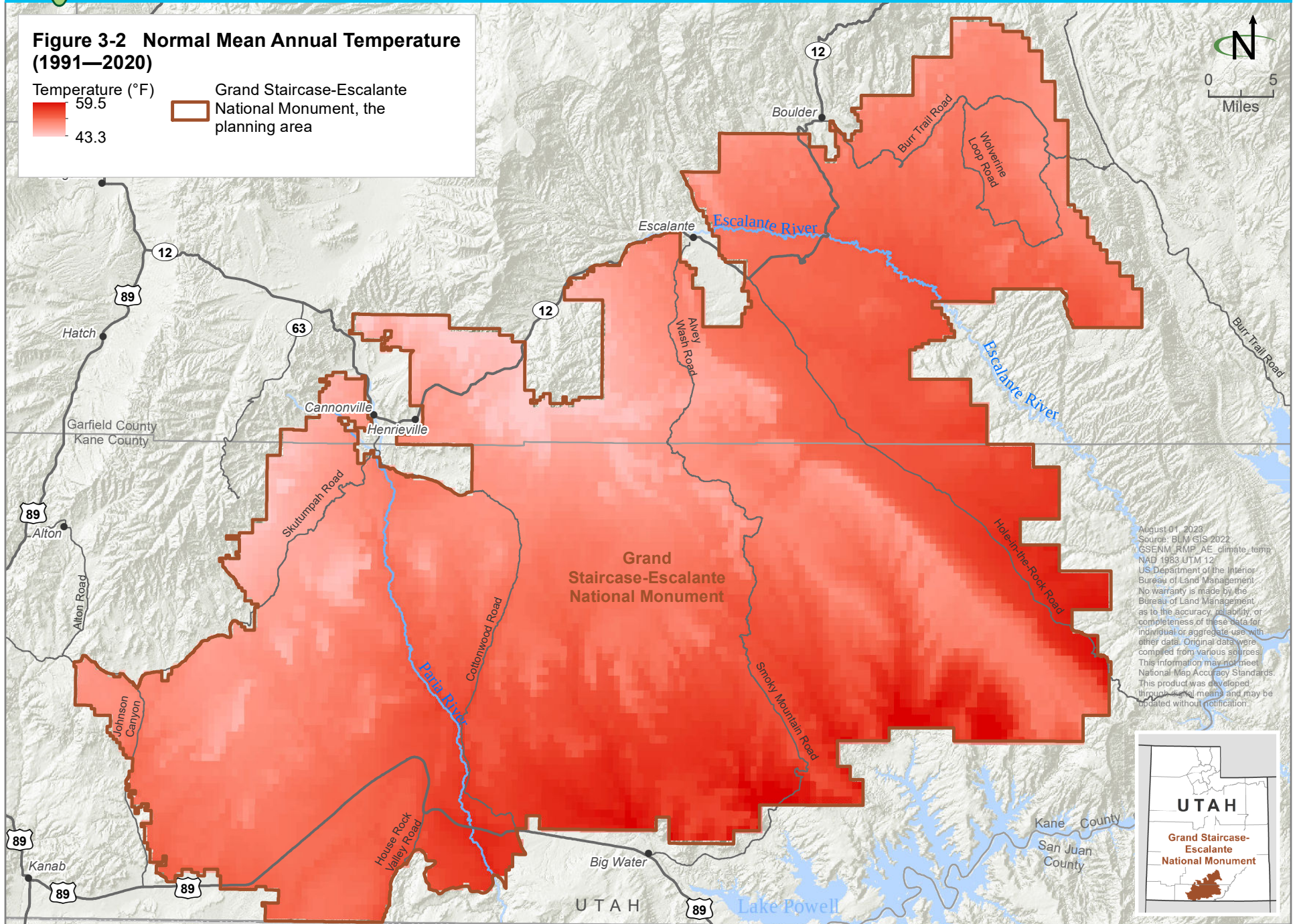
### Figure 3-2 Normal Mean Annual Temperature (1991–2020)

Temperature (°F)

59.5

43.3

Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_climate\_temp  
 NAD 1983 UTM 12  
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# Grand Staircase-Escalante National Monument

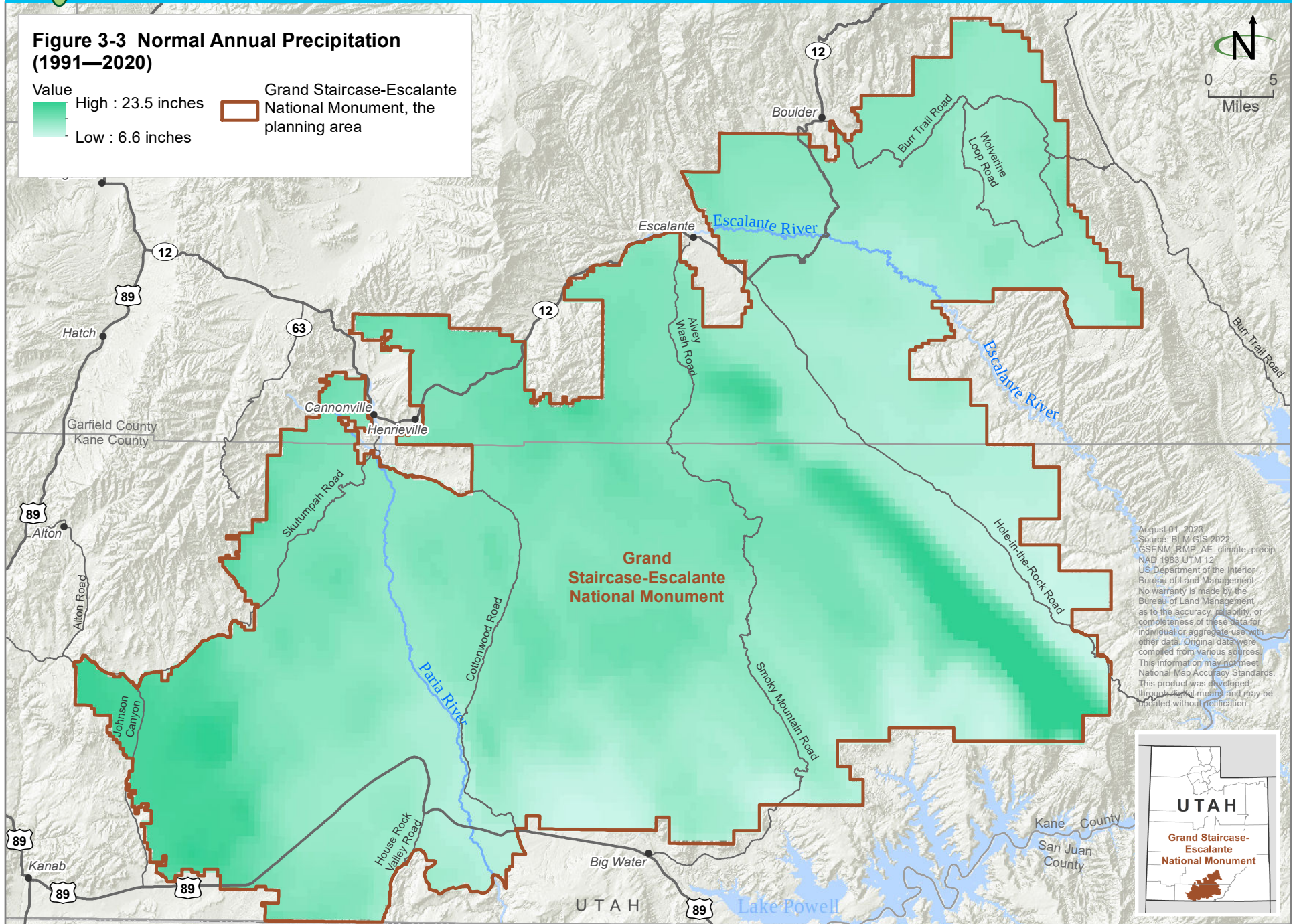
### Figure 3-3 Normal Annual Precipitation (1991—2020)

Value

High : 23.5 inches

Low : 6.6 inches

Grand Staircase-Escalante National Monument, the planning area



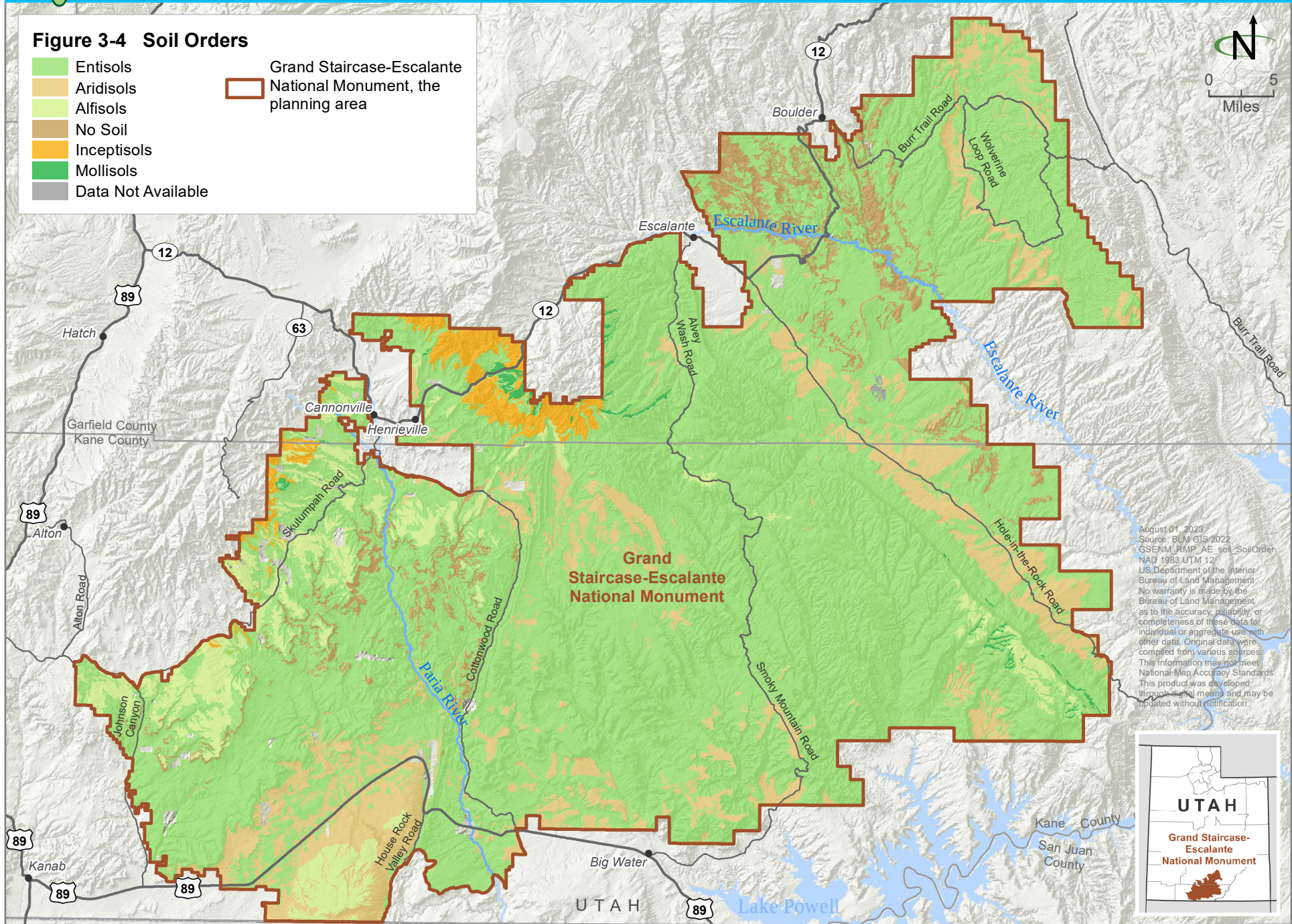
August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_climate\_precip  
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# Grand Staircase-Escalante National Monument

### Figure 3-4 Soil Orders

- Entisols
  - Aridisols
  - Alfisols
  - No Soil
  - Inceptisols
  - Mollisols
  - Data Not Available
- Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_soil\_SoilOrder  
 NAD 1983 UTM 12  
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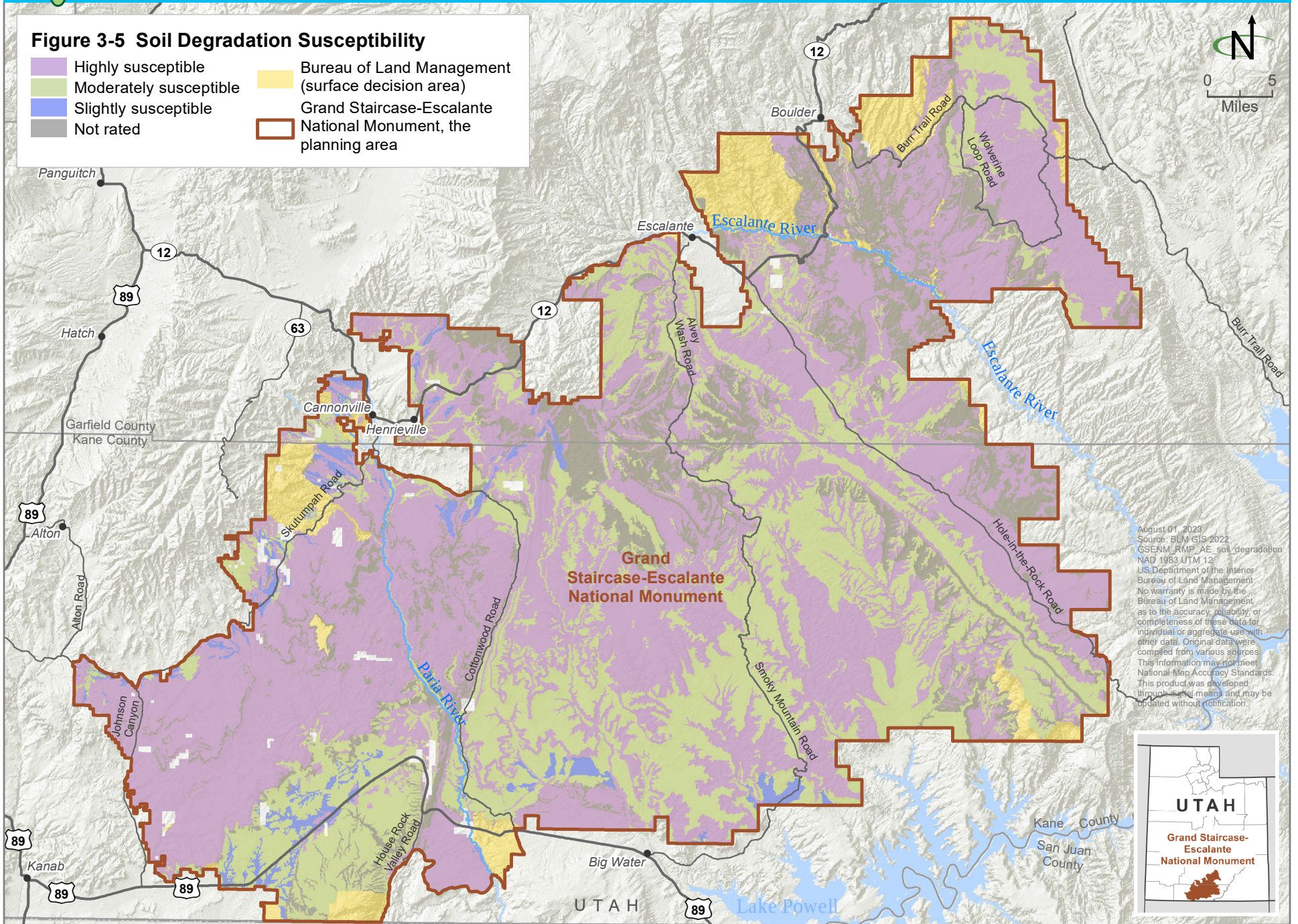




# Grand Staircase-Escalante National Monument

### Figure 3-5 Soil Degradation Susceptibility

- Highly susceptible
- Moderately susceptible
- Slightly susceptible
- Not rated
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_soil\_degradation  
 NAD 1983 UTM 12  
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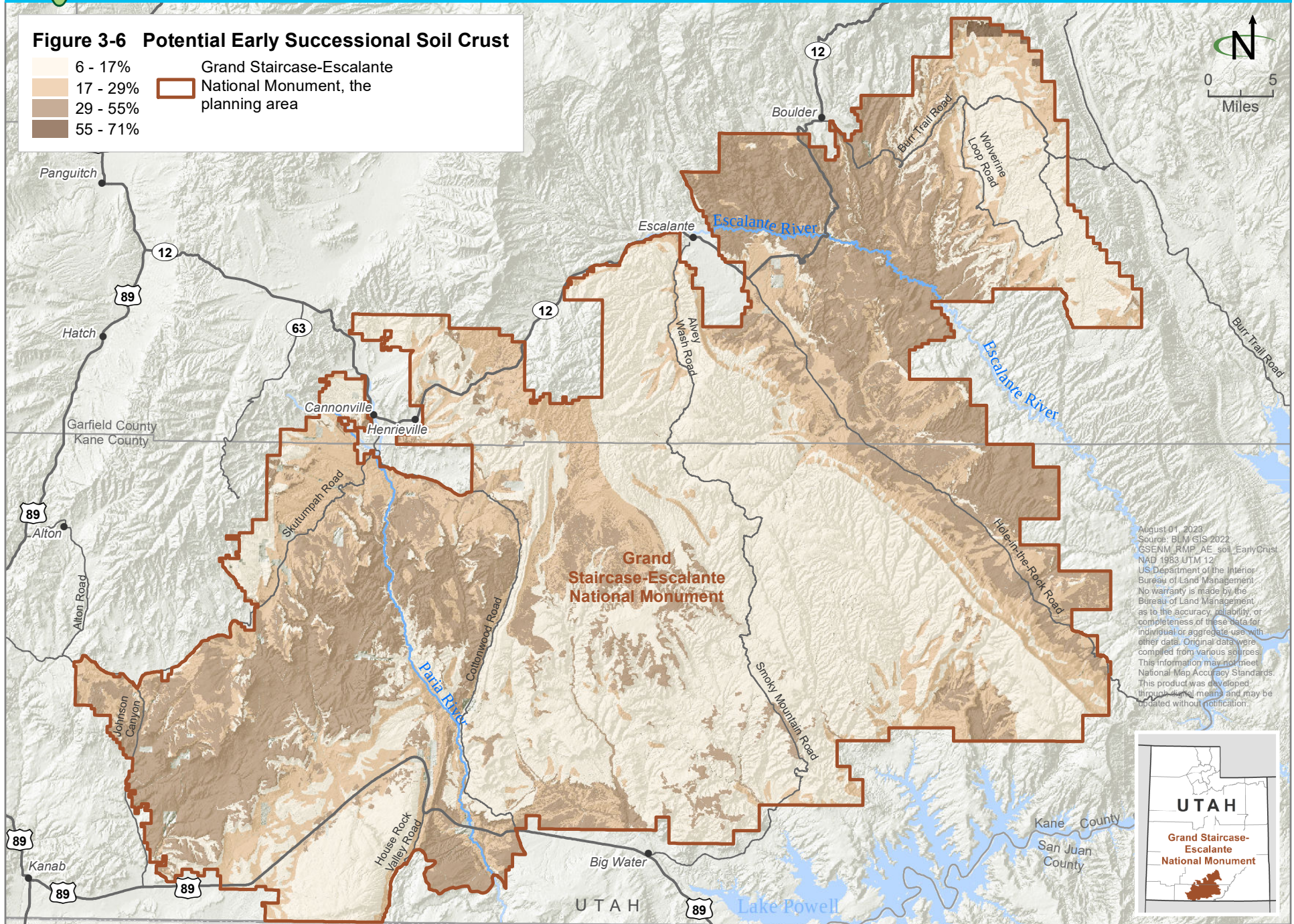




# Grand Staircase-Escalante National Monument

### Figure 3-6 Potential Early Successional Soil Crust

- 6 - 17%
  - 17 - 29%
  - 29 - 55%
  - 55 - 71%
- Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_soil\_EarlyCrust  
 NAD 1983 UTM 12  
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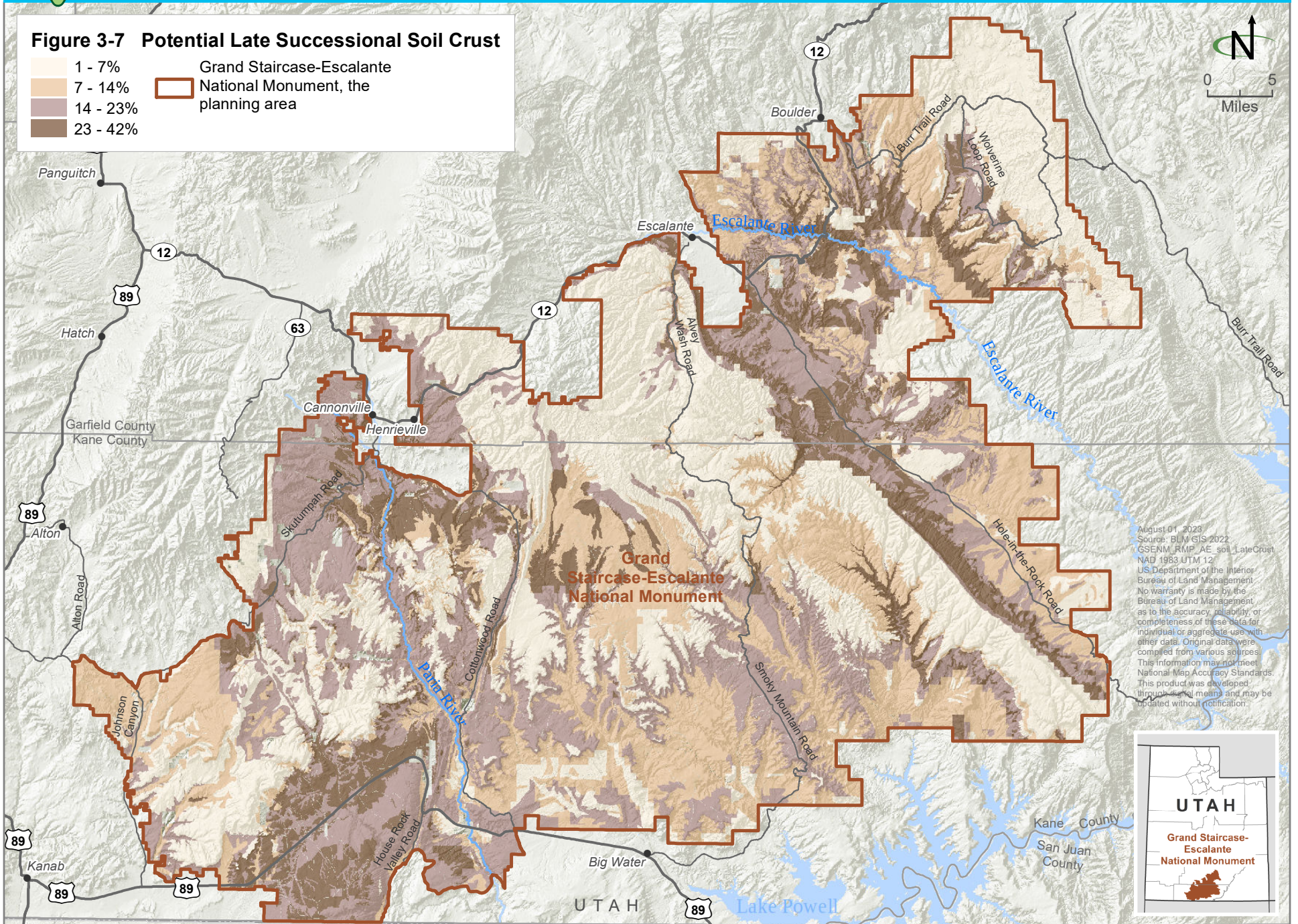




# Grand Staircase-Escalante National Monument

### Figure 3-7 Potential Late Successional Soil Crust

- 1 - 7%
  - 7 - 14%
  - 14 - 23%
  - 23 - 42%
- Grand Staircase-Escalante National Monument, the planning area



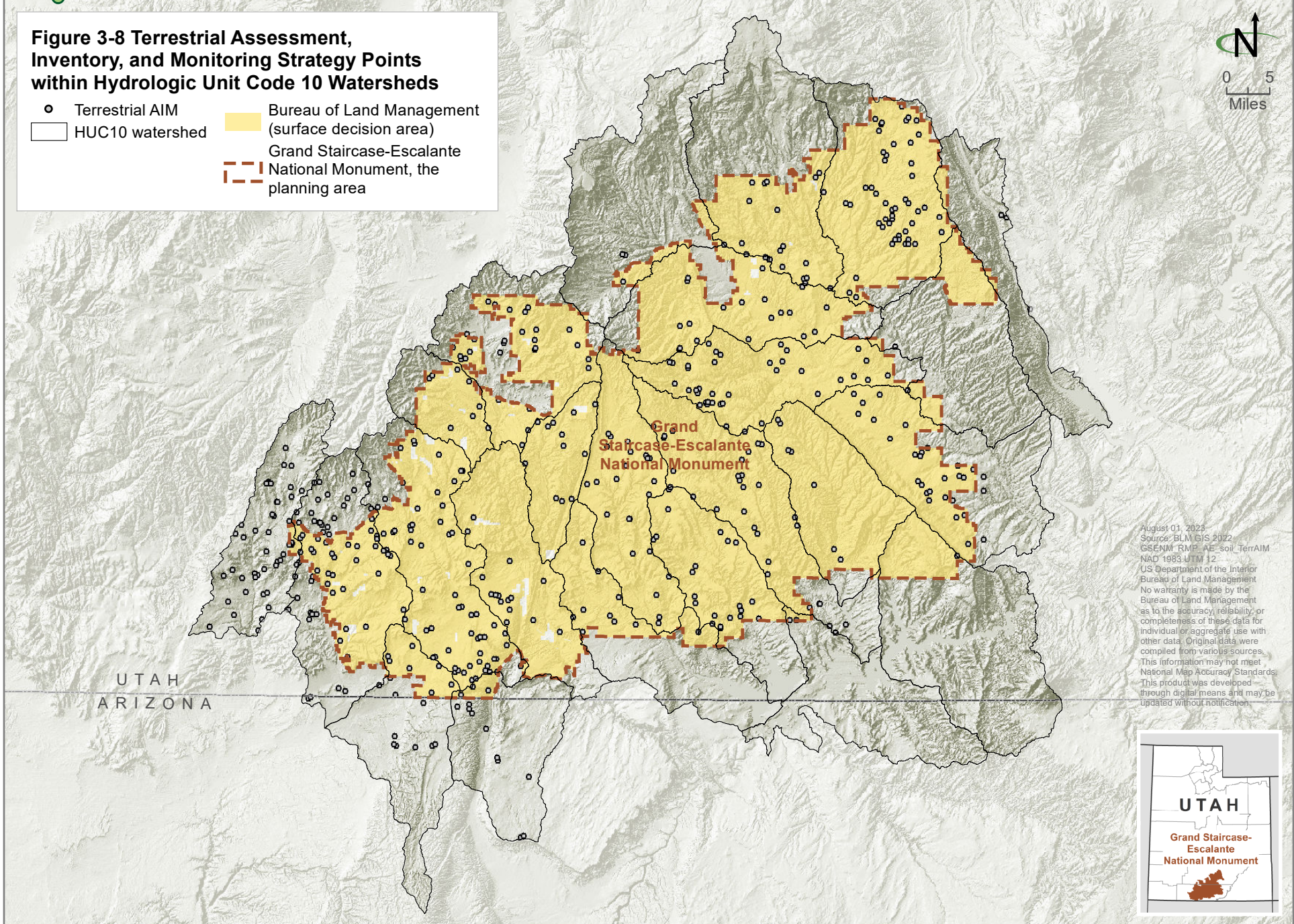
August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_soil\_LateCrust  
 NAD 1983 UTM 12  
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Figure 3-8 Terrestrial Assessment, Inventory, and Monitoring Strategy Points within Hydrologic Unit Code 10 Watersheds

- Terrestrial AIM
- HUC10 watershed
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area

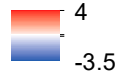


August 01, 2023  
 Source: BLM GIS 2022  
 GSENM RMP AE soil TerrAIM  
 NAD 1983 UTM 12  
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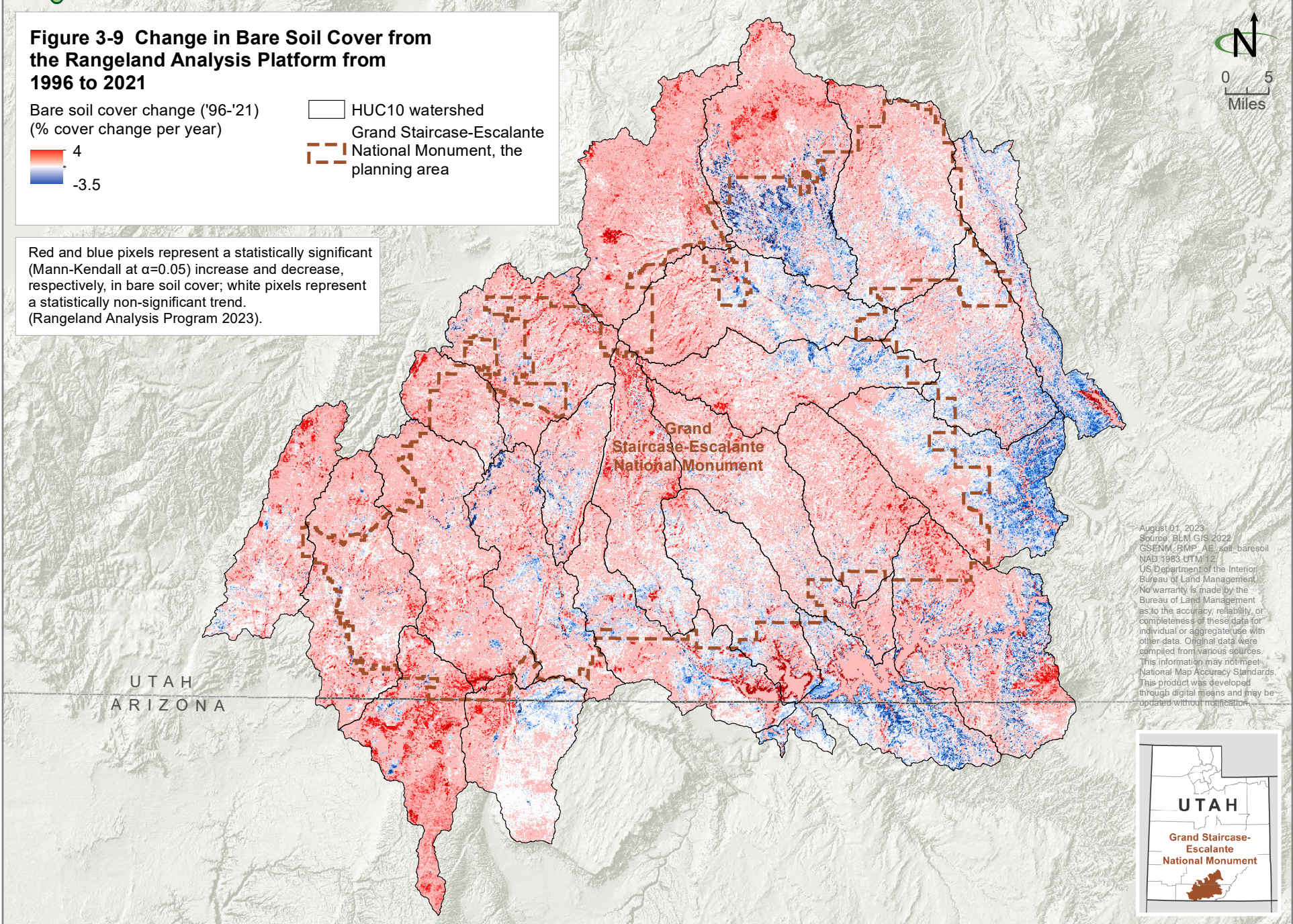
**Figure 3-9 Change in Bare Soil Cover from the Rangeland Analysis Platform from 1996 to 2021**

Bare soil cover change ('96-'21)  
(% cover change per year)



- HUC10 watershed
- Grand Staircase-Escalante National Monument, the planning area

Red and blue pixels represent a statistically significant (Mann-Kendall at  $\alpha=0.05$ ) increase and decrease, respectively, in bare soil cover; white pixels represent a statistically non-significant trend. (Rangeland Analysis Program 2023).



August 01, 2023  
Source: BLM GIS 2022  
CSENM BMP AE soil baresoil  
NAD 1983 UTM 12  
US Department of the Interior  
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# Grand Staircase-Escalante National Monument

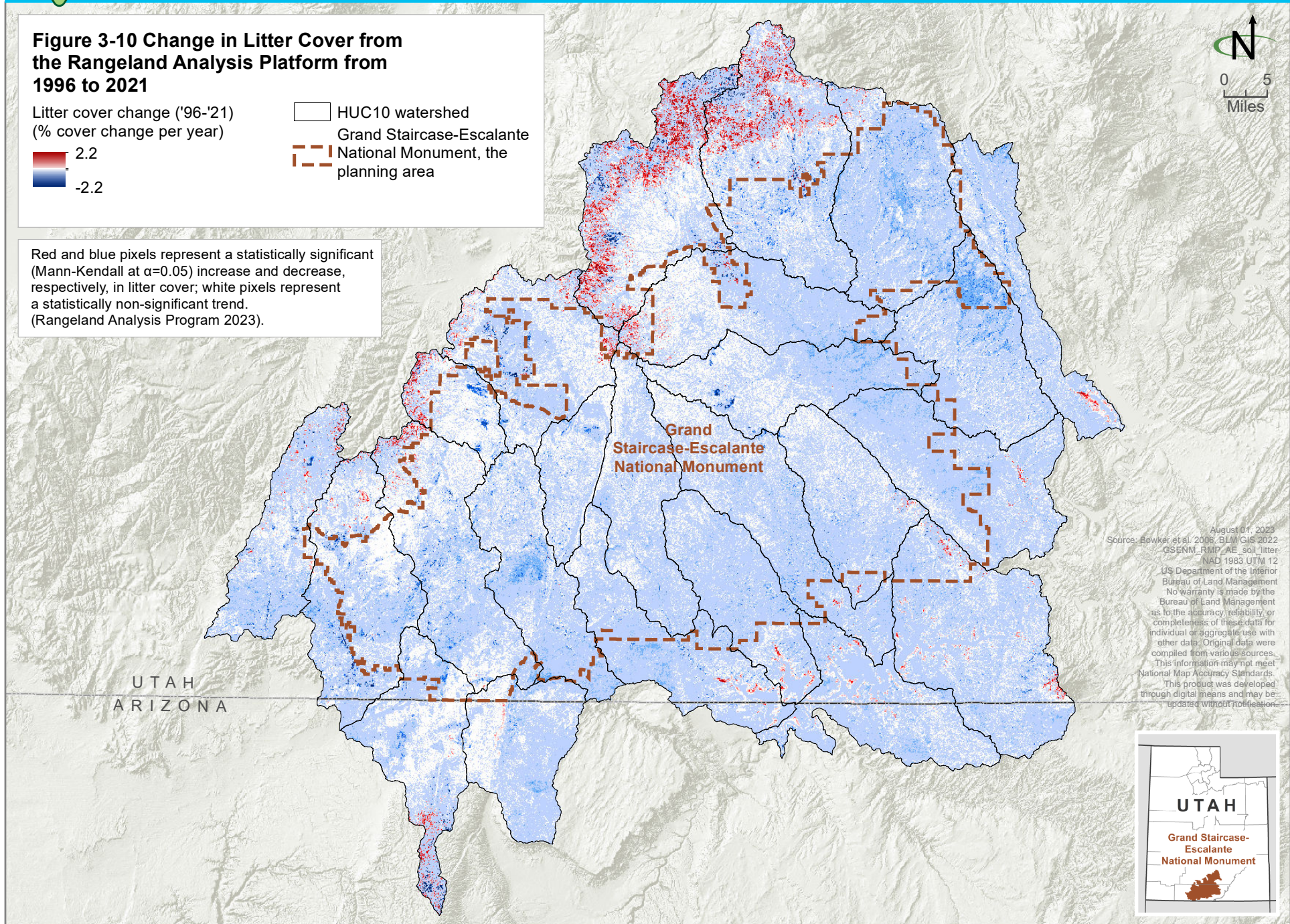
### Figure 3-10 Change in Litter Cover from the Rangeland Analysis Platform from 1996 to 2021

Litter cover change ('96-'21)  
(% cover change per year)



- HUC10 watershed
- ▭ Grand Staircase-Escalante National Monument, the planning area

Red and blue pixels represent a statistically significant (Mann-Kendall at  $\alpha=0.05$ ) increase and decrease, respectively, in litter cover; white pixels represent a statistically non-significant trend. (Rangeland Analysis Program 2023).



August 01, 2023  
 Source: Bowker et al. 2006; BLM GIS 2022  
 GSENM\_RMP\_AE\_soil\_litter  
 NAD 1983 UTM 12  
 US Department of the Interior  
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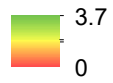




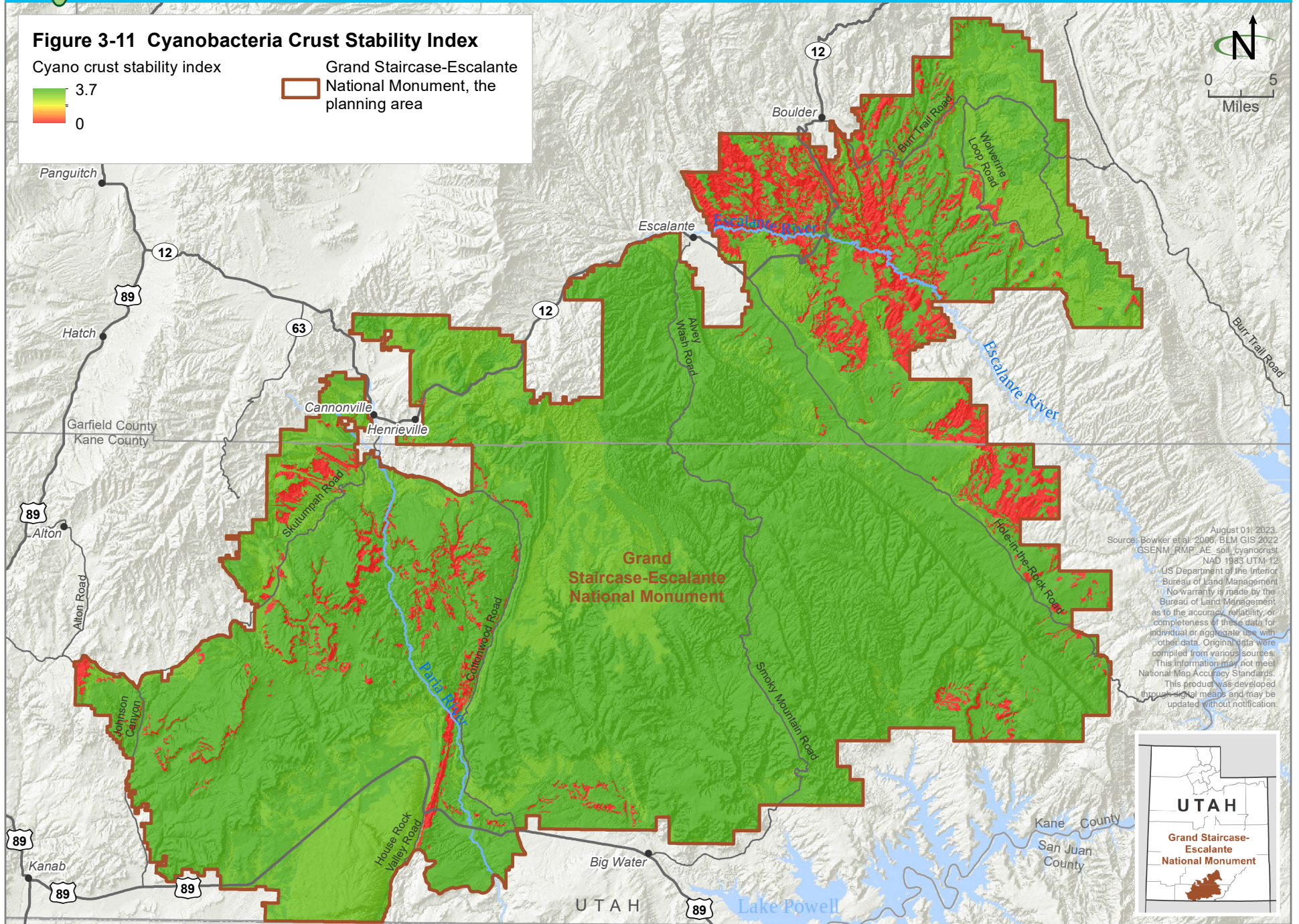
# Grand Staircase-Escalante National Monument

### Figure 3-11 Cyanobacteria Crust Stability Index

Cyano crust stability index



Grand Staircase-Escalante National Monument, the planning area



August 01, 2023.  
 Sources: Bowker et al. 2006; BLM GIS 2022  
 GSENM\_RMP\_AE\_soil\_cyano crust  
 NAD 1983 UTM 12  
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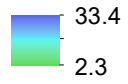




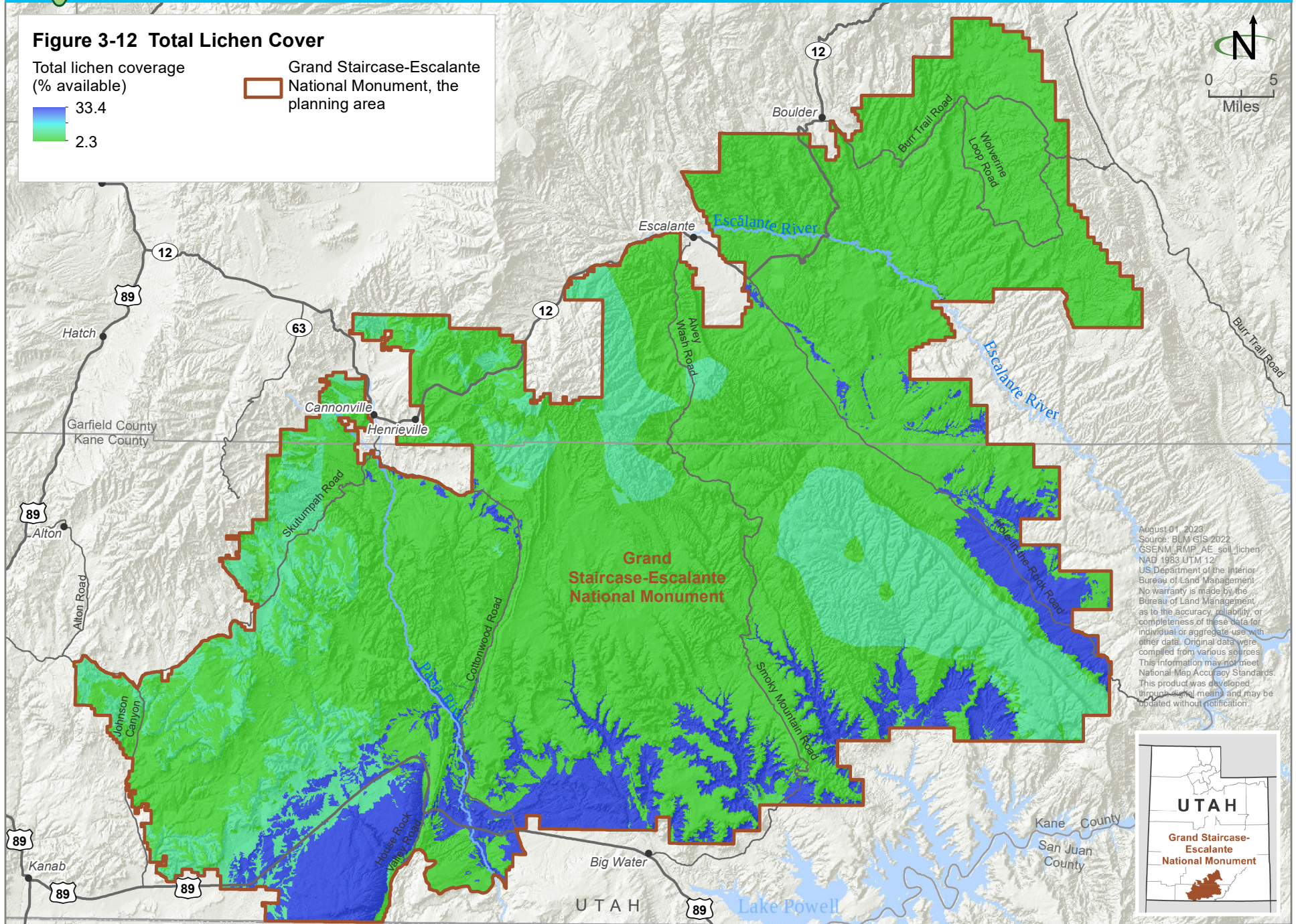
# Grand Staircase-Escalante National Monument

### Figure 3-12 Total Lichen Cover

Total lichen coverage (% available)



Grand Staircase-Escalante National Monument, the planning area



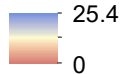
August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_soil\_lichen  
 NAD 1983 UTM 12  
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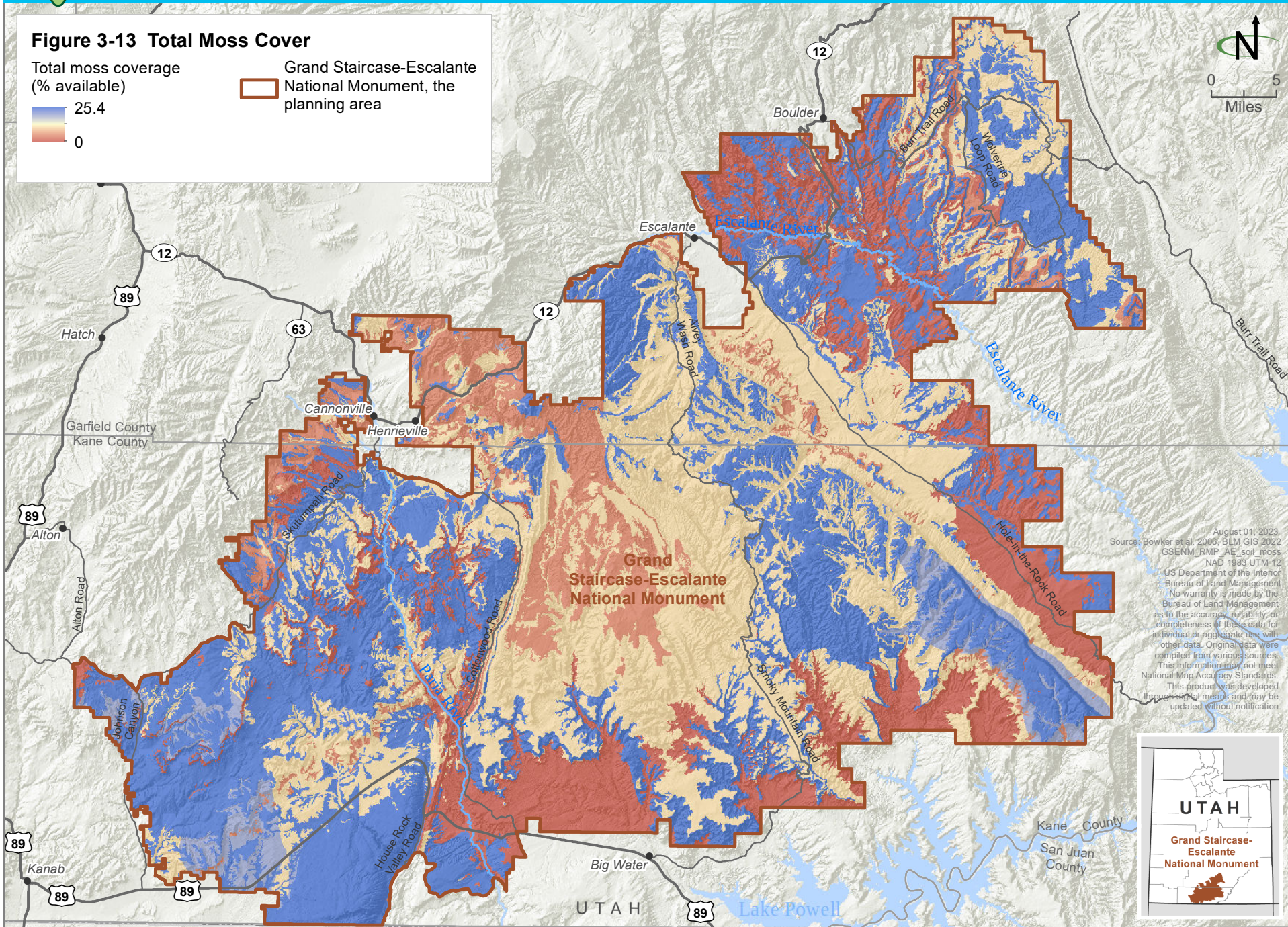


Figure 3-13 Total Moss Cover

Total moss coverage (% available)



Grand Staircase-Escalante National Monument, the planning area



August 01, 2023.  
Sources: Bowker et al. 2006; BLM GIS 2022  
GSENM\_RMP\_AE\_soil\_moss  
NAD 1983 UTM 12  
US Department of the Interior  
Bureau of Land Management  
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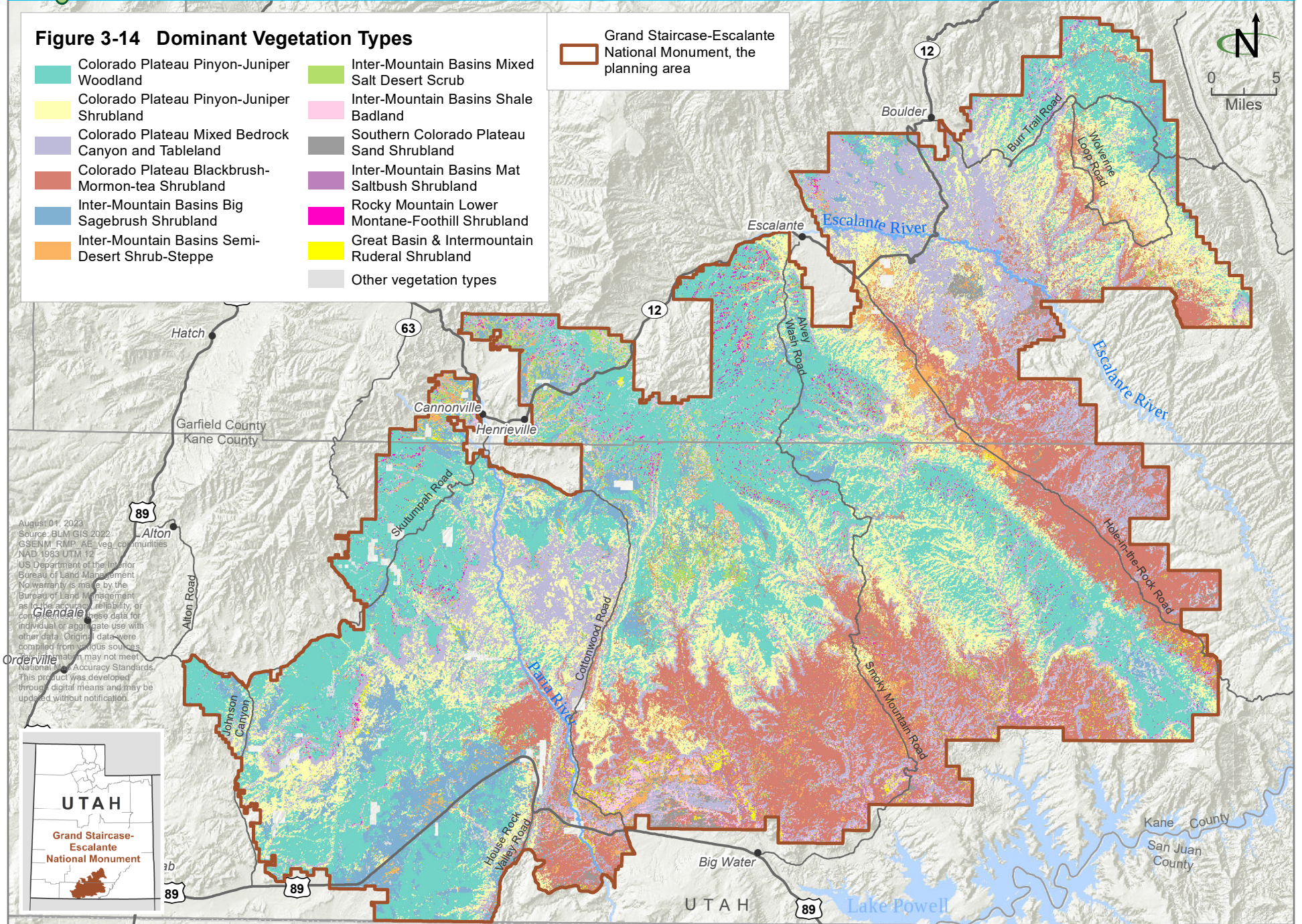


# Grand Staircase-Escalante National Monument

**Figure 3-14 Dominant Vegetation Types**

- |  |   |  |   |
|--|---|--|---|
|  | Colorado Plateau Pinyon-Juniper Woodland            |  | Inter-Mountain Basins Mixed Salt Desert Scrub   |
|  | Colorado Plateau Pinyon-Juniper Shrubland           |  | Inter-Mountain Basins Shale Badland             |
|  | Colorado Plateau Mixed Bedrock Canyon and Tableland |  | Southern Colorado Plateau Sand Shrubland        |
|  | Colorado Plateau Blackbrush-Mormon-tea Shrubland    |  | Inter-Mountain Basins Mat Saltbush Shrubland    |
|  | Inter-Mountain Basins Big Sagebrush Shrubland       |  | Rocky Mountain Lower Montane-Foothill Shrubland |
|  | Inter-Mountain Basins Semi-Desert Shrub-Steppe      |  | Great Basin & Intermountain Ruderal Shrubland   |
|  |   |  | Other vegetation types                          |

Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM RMP, AE veg communities  
 NAD 1983 UTM 12  
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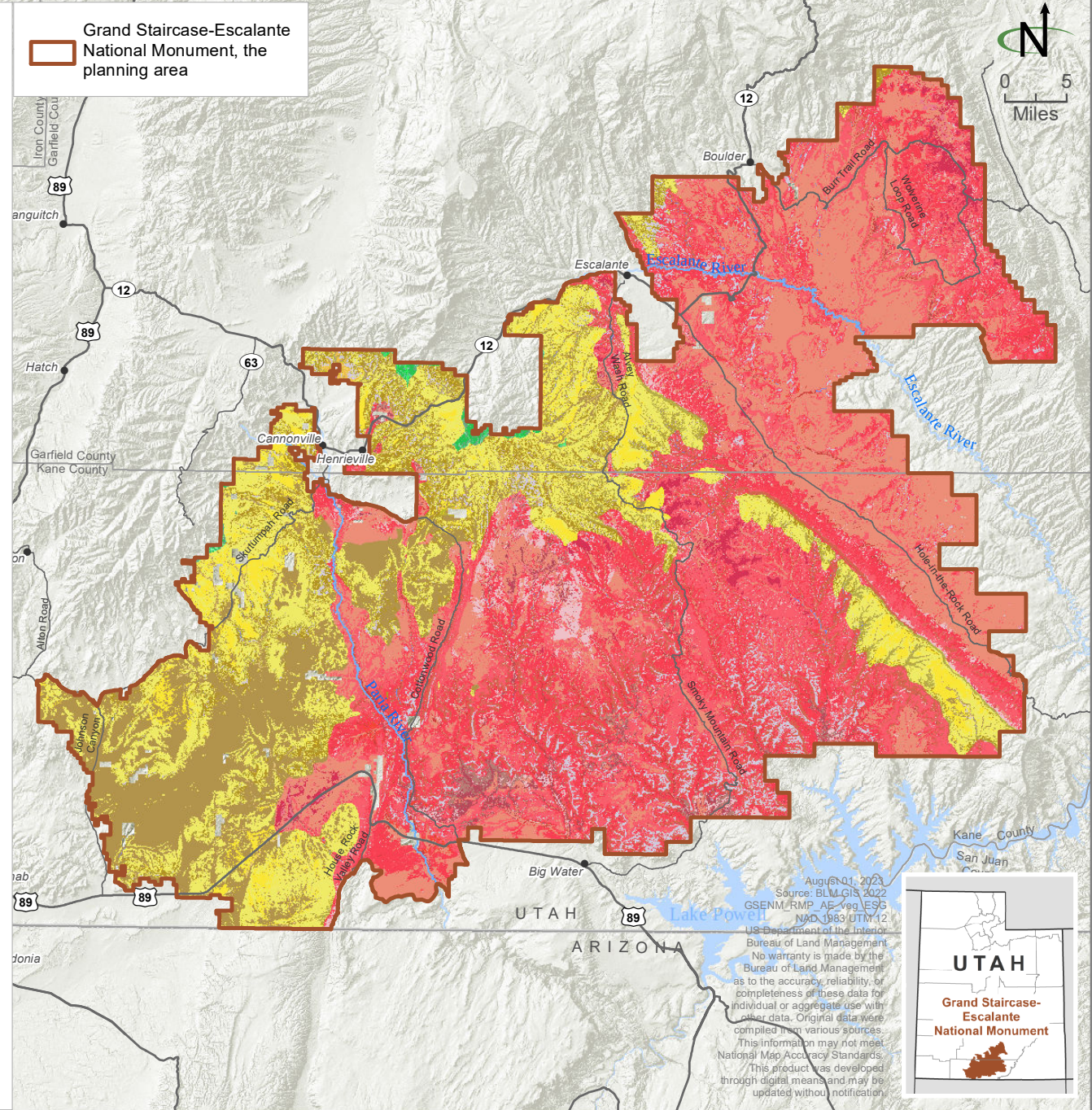




# Grand Staircase-Escalante National Monument

**Figure 3-15 Ecological Site Groups**

- Arid Warm - Sandy Uplands, Loamy Uplands
- Arid Warm - Shallow
- Arid Warm - Very Shallow
- Semiarid Warm - Shallow, Deep Rocky
- Semiarid Warm - Very Shallow
- Arid Warm - Breaks
- Outcrops
- Semiarid Warm - Finer Uplands
- Arid Warm - Deep Rocky
- Semiarid Warm - Breaks
- Arid Warm - Finer Uplands, Clay Uplands
- Arid Warm - Saline Uplands
- Semiarid Warm - Sandy Uplands, Loamy Uplands
- Arid Warm - Sandy Bottoms
- Arid Warm - Saline Hills
- Arid Warm - Saline Bottoms, Bottoms
- Arid Warm - Gypsum
- Riparian
- Semiarid Cool - Shallow
- Semiarid Warm - Saline Hills
- Semiarid Cool - Deep Rocky
- Semiarid Warm - Saline Uplands
- Semiarid Warm - Saline Bottoms
- Semiarid Warm - Sandy Bottoms, Bottoms
- Semiarid Cool - Very Shallow
- Semiarid Cool - Breaks
- Semiarid Cool - Saline Uplands, Sandy Uplands, Loamy Uplands, Finer Uplands
- Semiarid Cool - Clay Uplands
- Semiarid Warm - Gypsum
- Semiarid Warm - Clay Uplands
- Semiarid Cool - Bottoms
- Semiarid Cool - Sandy Bottoms



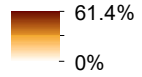
August 01, 2023  
 Source: BLM GIS 2022  
 GSENM RMP AE Vgg ES36  
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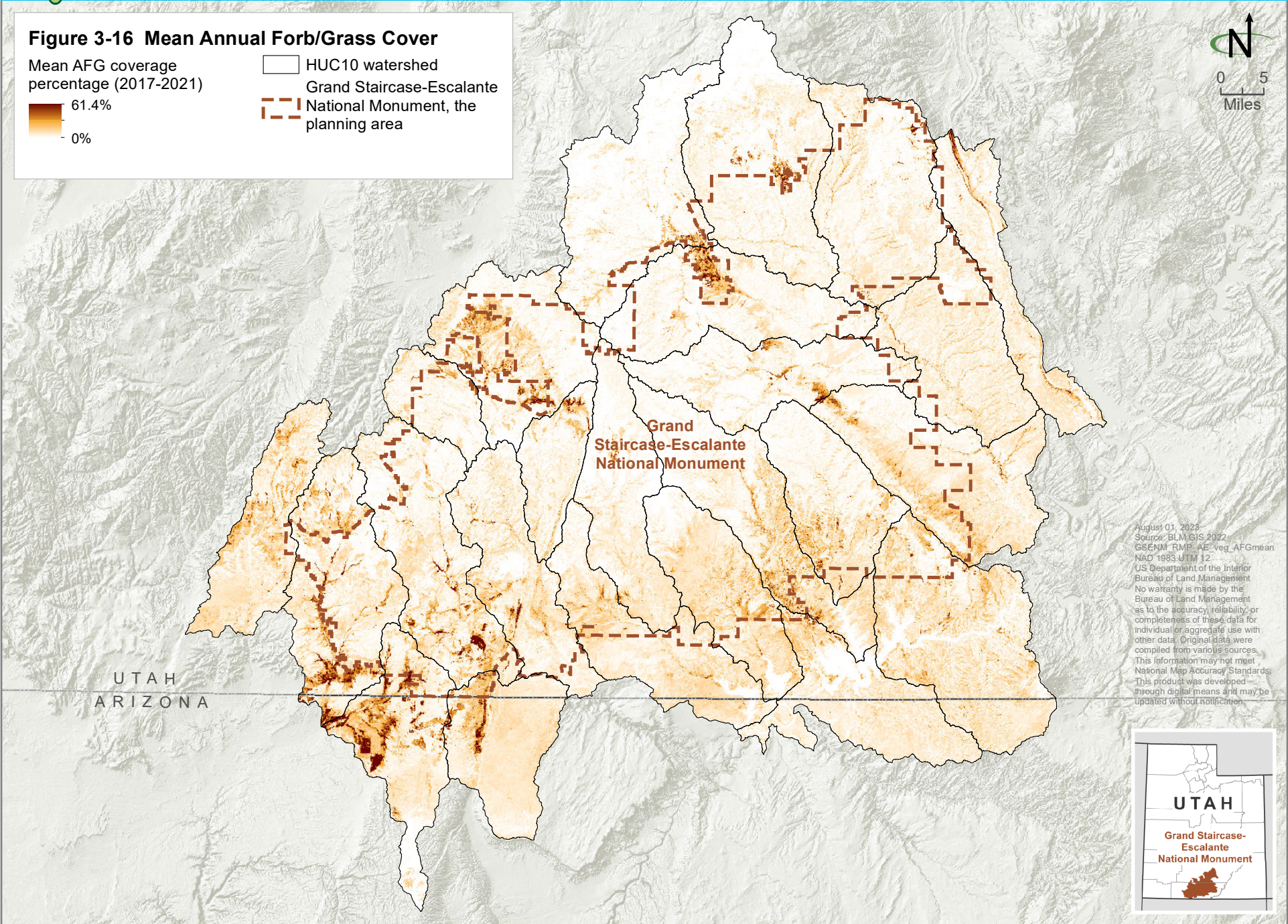


Figure 3-16 Mean Annual Forb/Grass Cover

Mean AFG coverage percentage (2017-2021)



- HUC10 watershed
- Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM RMP AE veg\_AFGmean  
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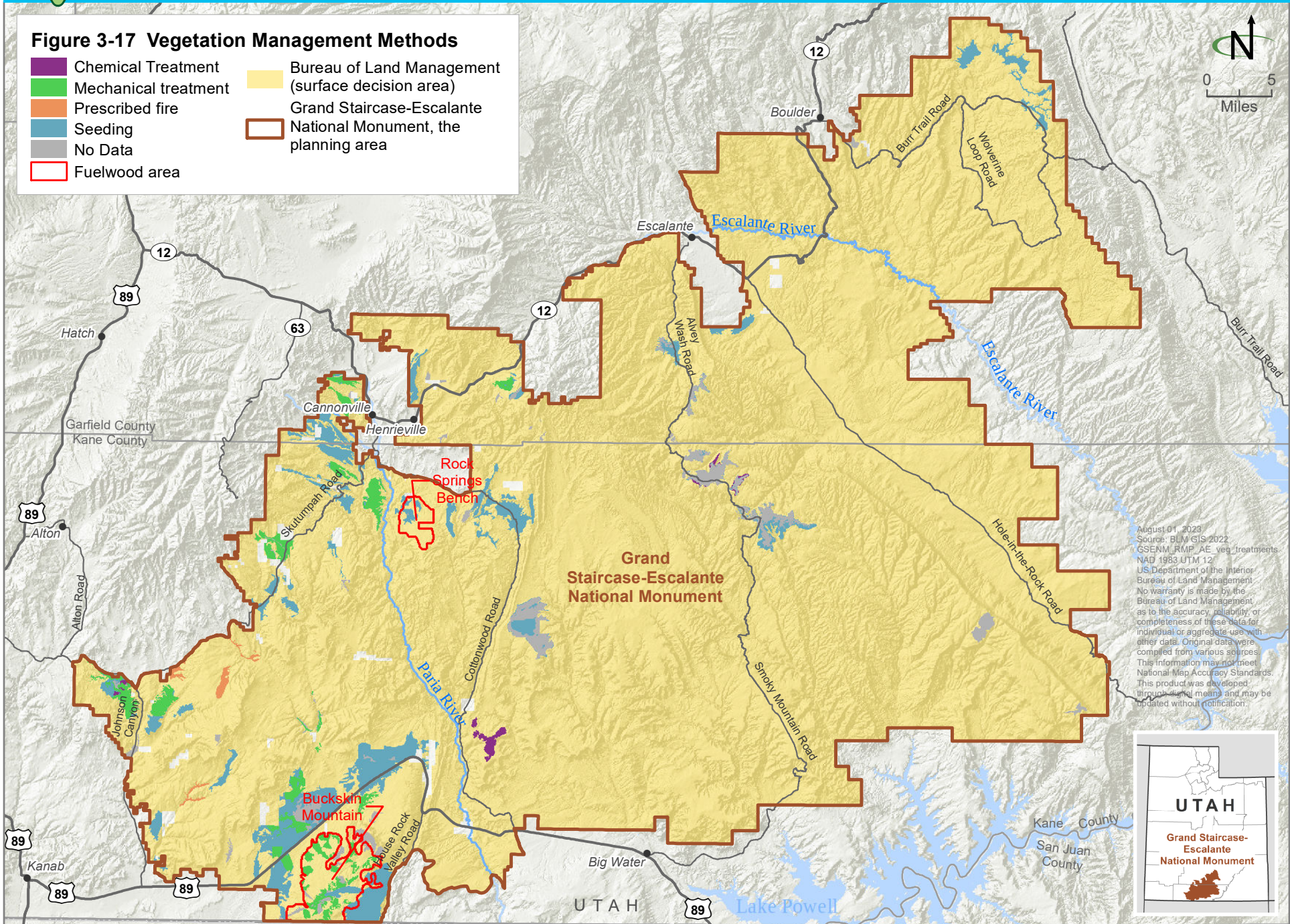




# Grand Staircase-Escalante National Monument

### Figure 3-17 Vegetation Management Methods

- Chemical Treatment
- Mechanical treatment
- Prescribed fire
- Seeding
- No Data
- Fuelwood area
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



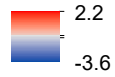
August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_veg\_treatments  
 NAD 1983 UTM 12  
 U.S. Department of the Interior  
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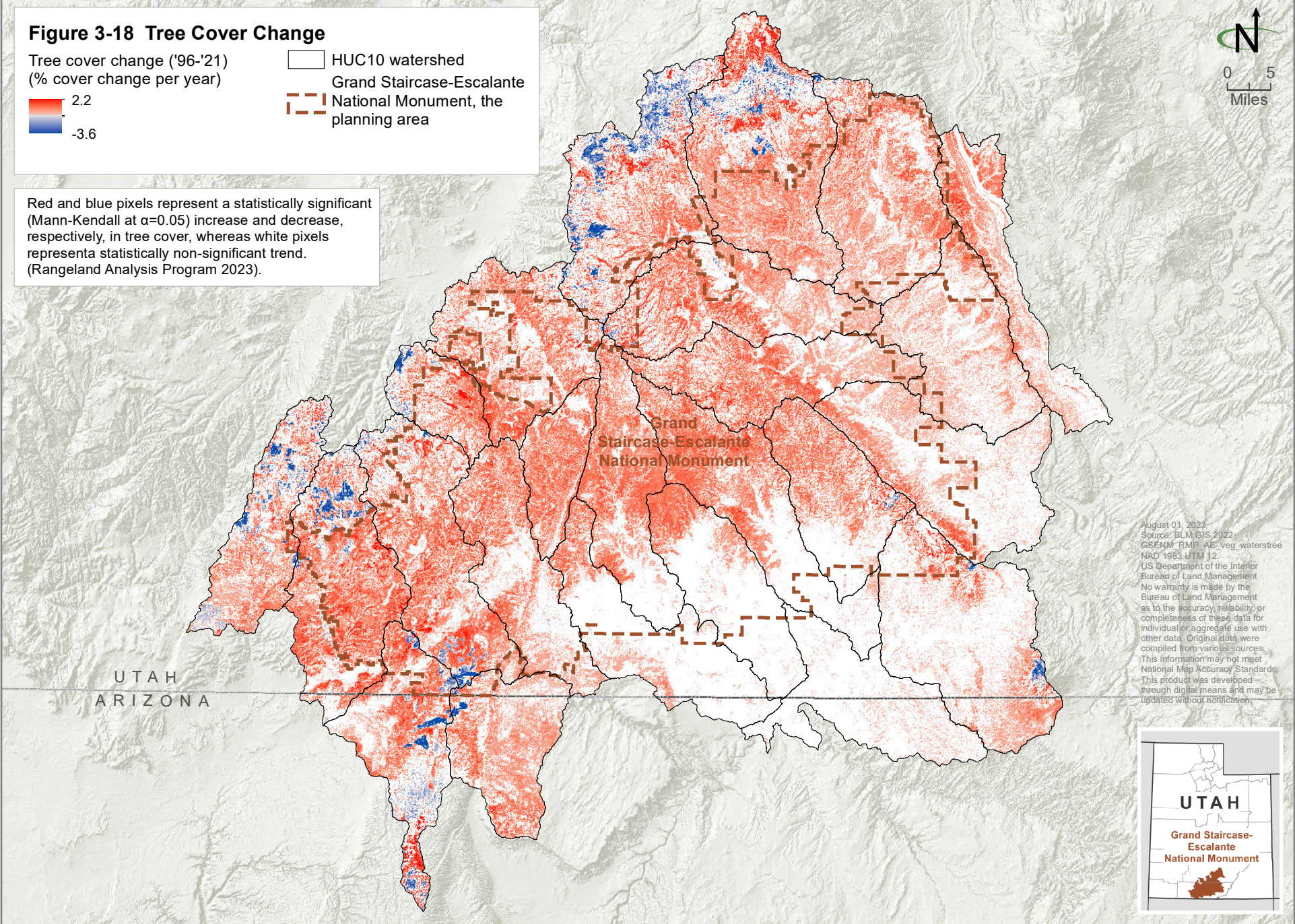
### Figure 3-18 Tree Cover Change

Tree cover change ('96-'21)  
(% cover change per year)



- HUC10 watershed
- Grand Staircase-Escalante National Monument, the planning area

Red and blue pixels represent a statistically significant (Mann-Kendall at  $\alpha=0.05$ ) increase and decrease, respectively, in tree cover, whereas white pixels represent a statistically non-significant trend. (Rangeland Analysis Program 2023).



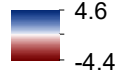
August 01, 2023  
 Source: BLM GIS 2022  
 GSENM RMP AE veg\_watertree  
 NAD 1983 UTM 12  
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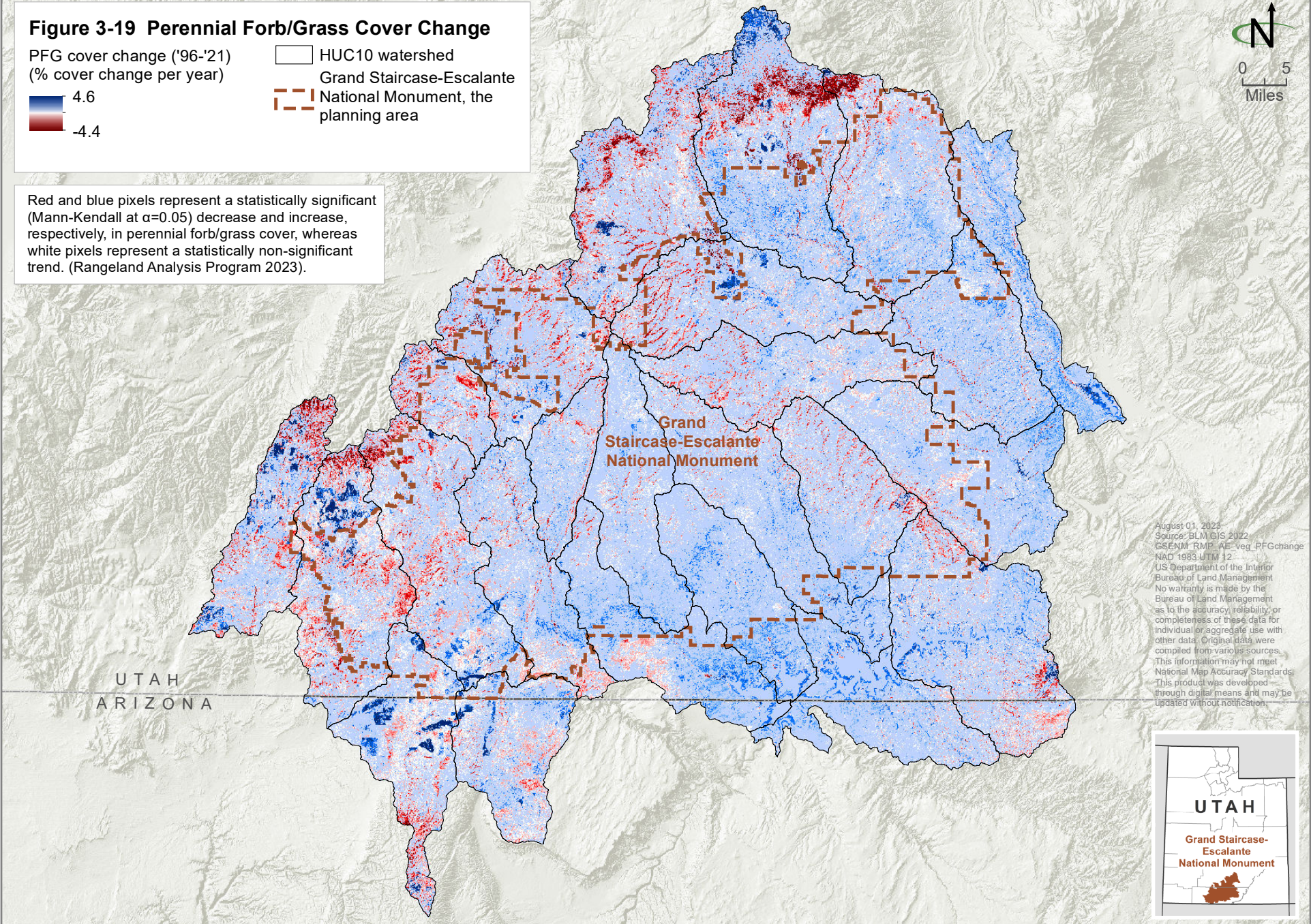
### Figure 3-19 Perennial Forb/Grass Cover Change

PFG cover change ('96-'21)  
(% cover change per year)



- HUC10 watershed
- Grand Staircase-Escalante National Monument, the planning area

Red and blue pixels represent a statistically significant (Mann-Kendall at  $\alpha=0.05$ ) decrease and increase, respectively, in perennial forb/grass cover, whereas white pixels represent a statistically non-significant trend. (Rangeland Analysis Program 2023).



August 01, 2023  
 Source: BLM GJS 2022  
 GSENM RMP AE veg\_PFGchange  
 NAD 1983 UTM 12  
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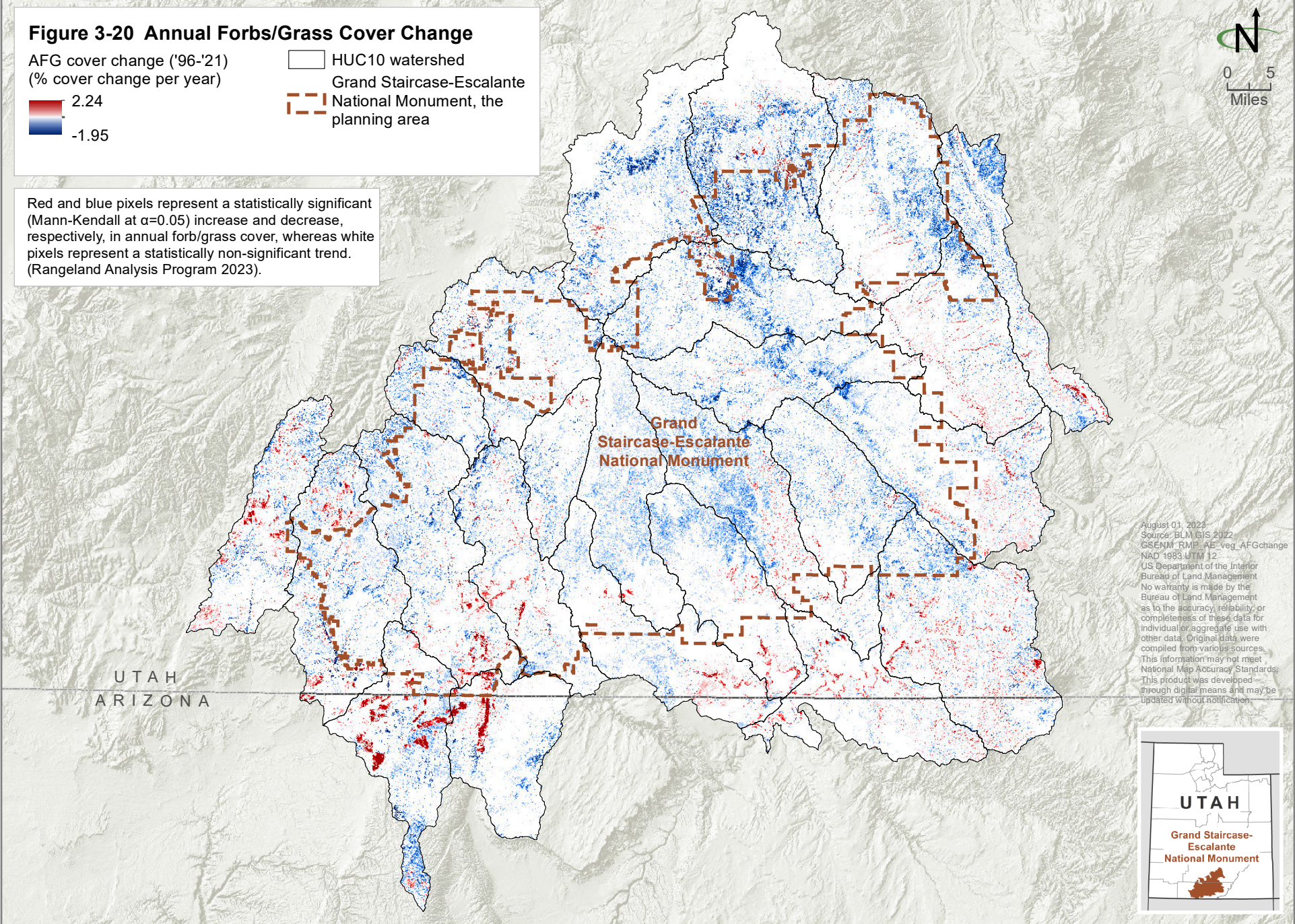
### Figure 3-20 Annual Forbs/Grass Cover Change

AFG cover change ('96-'21)  
(% cover change per year)



- HUC10 watershed
- Grand Staircase-Escalante National Monument, the planning area

Red and blue pixels represent a statistically significant (Mann-Kendall at  $\alpha=0.05$ ) increase and decrease, respectively, in annual forb/grass cover, whereas white pixels represent a statistically non-significant trend. (Rangeland Analysis Program 2023).



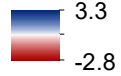
August 01, 2023  
 Source: BLM GIS 2022  
 GSENM RMP AE veg\_AFGchange  
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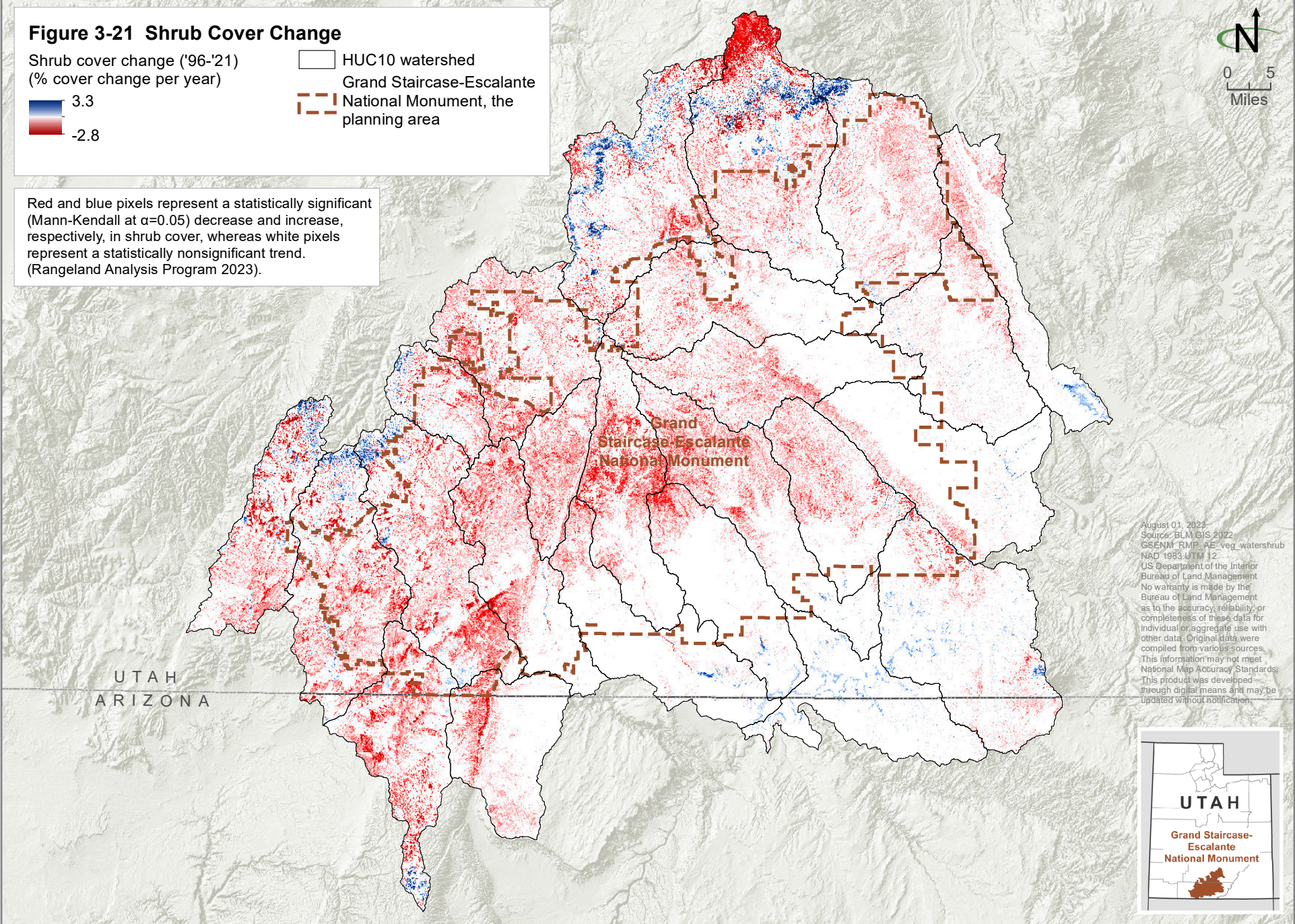
## Figure 3-21 Shrub Cover Change

Shrub cover change ('96-'21)  
(% cover change per year)



- HUC10 watershed
- Grand Staircase-Escalante National Monument, the planning area

Red and blue pixels represent a statistically significant (Mann-Kendall at  $\alpha=0.05$ ) decrease and increase, respectively, in shrub cover, whereas white pixels represent a statistically nonsignificant trend. (Rangeland Analysis Program 2023).



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM RMP AE veg watershed  
 NAD 1983 UTM 12  
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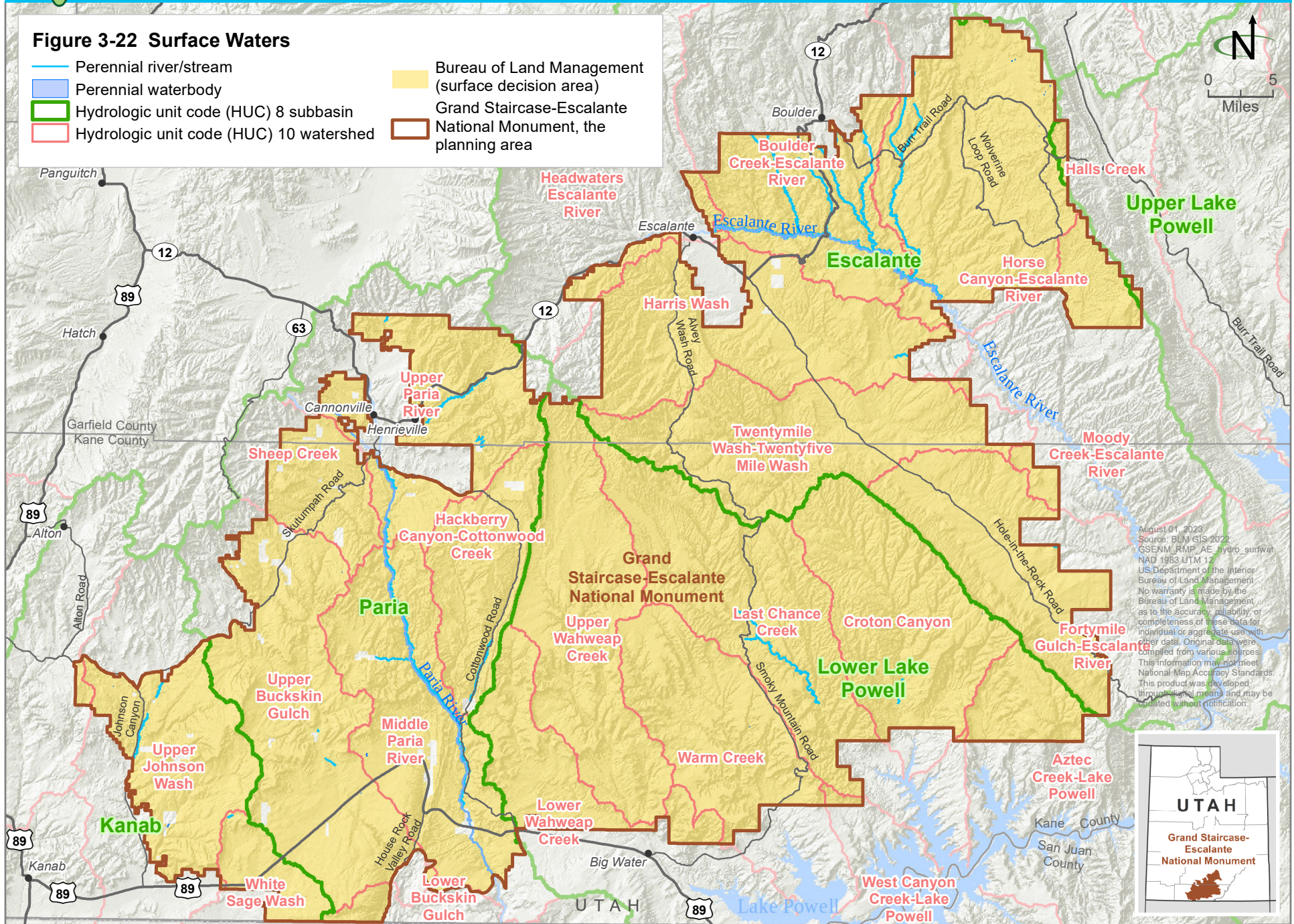




# Grand Staircase-Escalante National Monument

### Figure 3-22 Surface Waters

- Perennial river/stream
- Perennial waterbody
- Hydrologic unit code (HUC) 8 subbasin
- Hydrologic unit code (HUC) 10 watershed
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM RMP AE Hydro Survey  
 NAD 1983 UTM 12  
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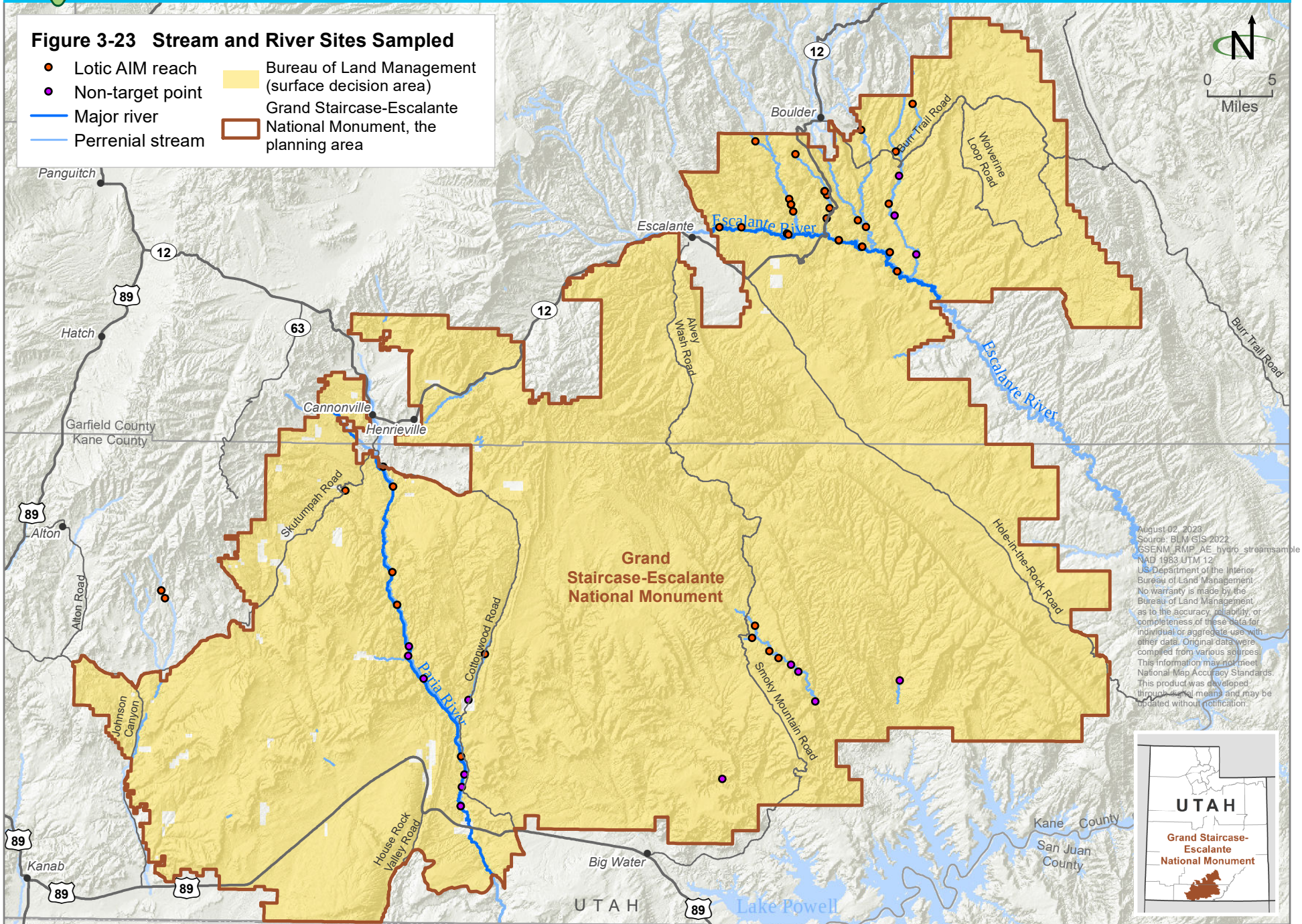




# Grand Staircase-Escalante National Monument

### Figure 3-23 Stream and River Sites Sampled

- Lotic AIM reach
- Non-target point
- Major river
- Perennial stream
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



August 02, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_hydro\_streamsample  
 NAD 1983 UTM 12  
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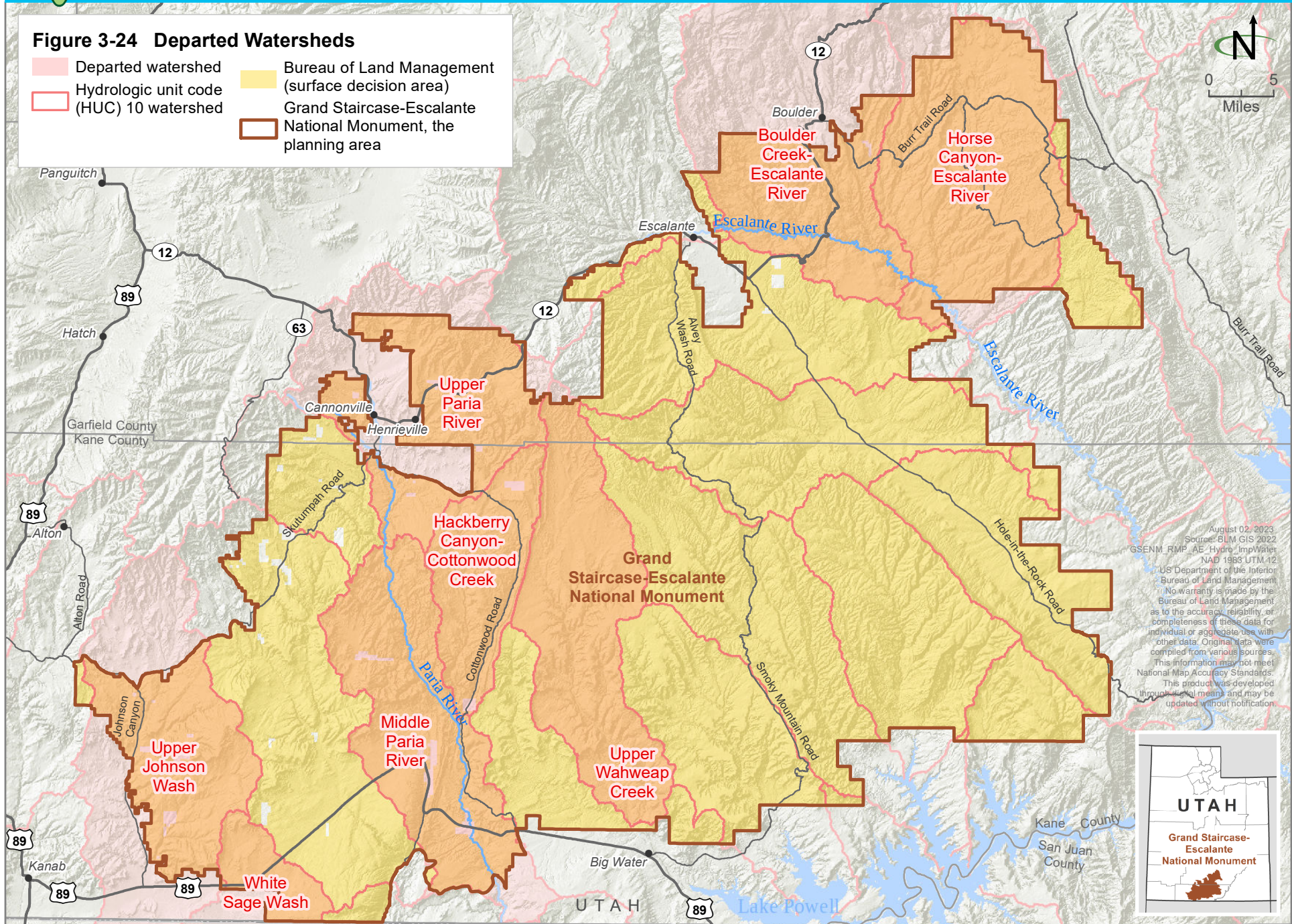




# Grand Staircase-Escalante National Monument

**Figure 3-24 Deported Watersheds**

- Deported watershed
- Bureau of Land Management (surface decision area)
- Hydrologic unit code (HUC) 10 watershed
- Grand Staircase-Escalante National Monument, the planning area



August 02, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_Hydro\_ImpWater  
 NAD 1983 UTM 12  
 US Department of the Interior  
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# Grand Staircase-Escalante National Monument

### Figure 3-25 Proper Functioning Condition (2000-2014)

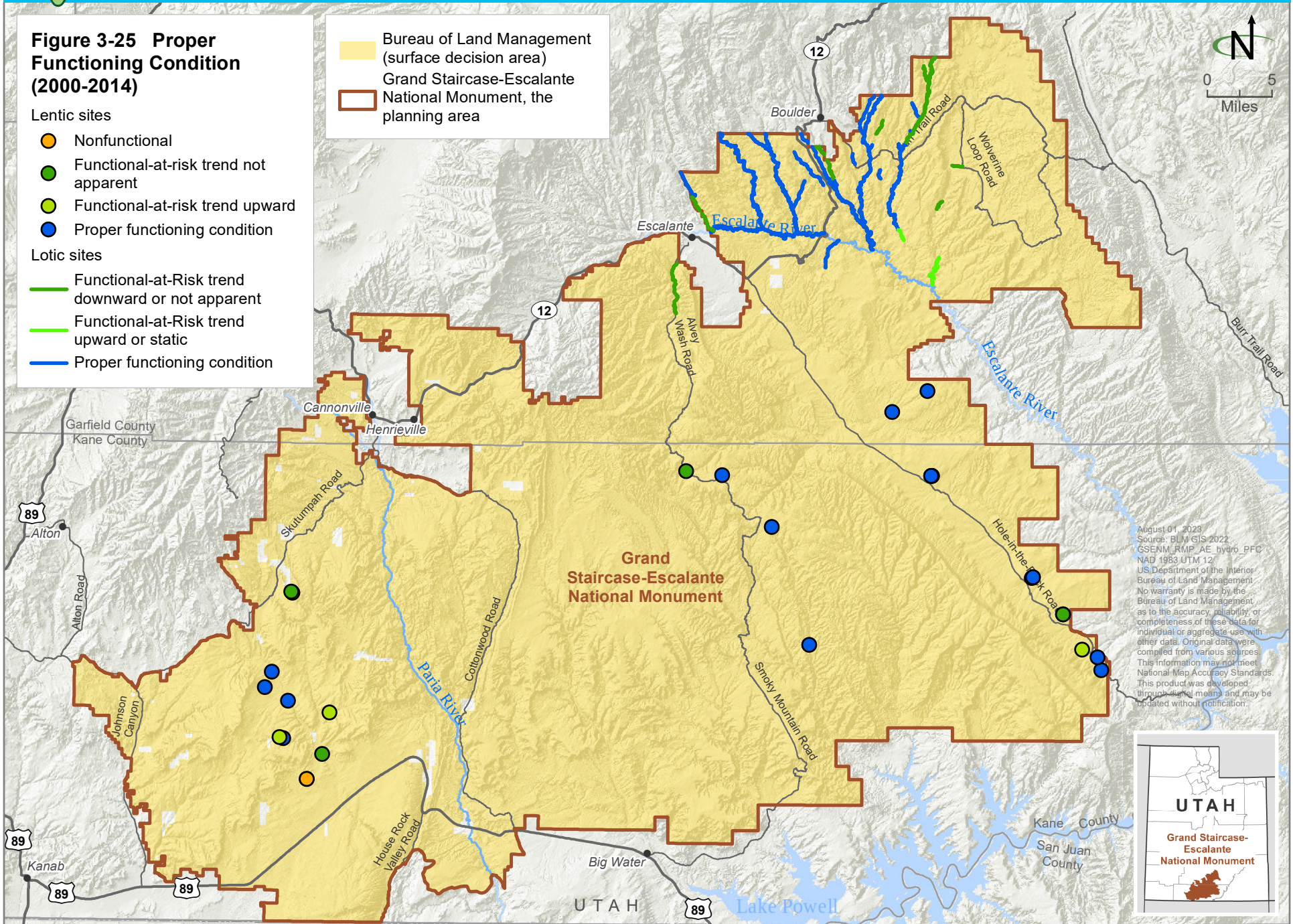
#### Lentic sites

- Nonfunctional
- Functional-at-risk trend not apparent
- Functional-at-risk trend upward
- Proper functioning condition

#### Lotic sites

- Functional-at-Risk trend downward or not apparent
- Functional-at-Risk trend upward or static
- Proper functioning condition

- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area







August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_hydro\_PFC  
 NAD 1983 UTM 12  
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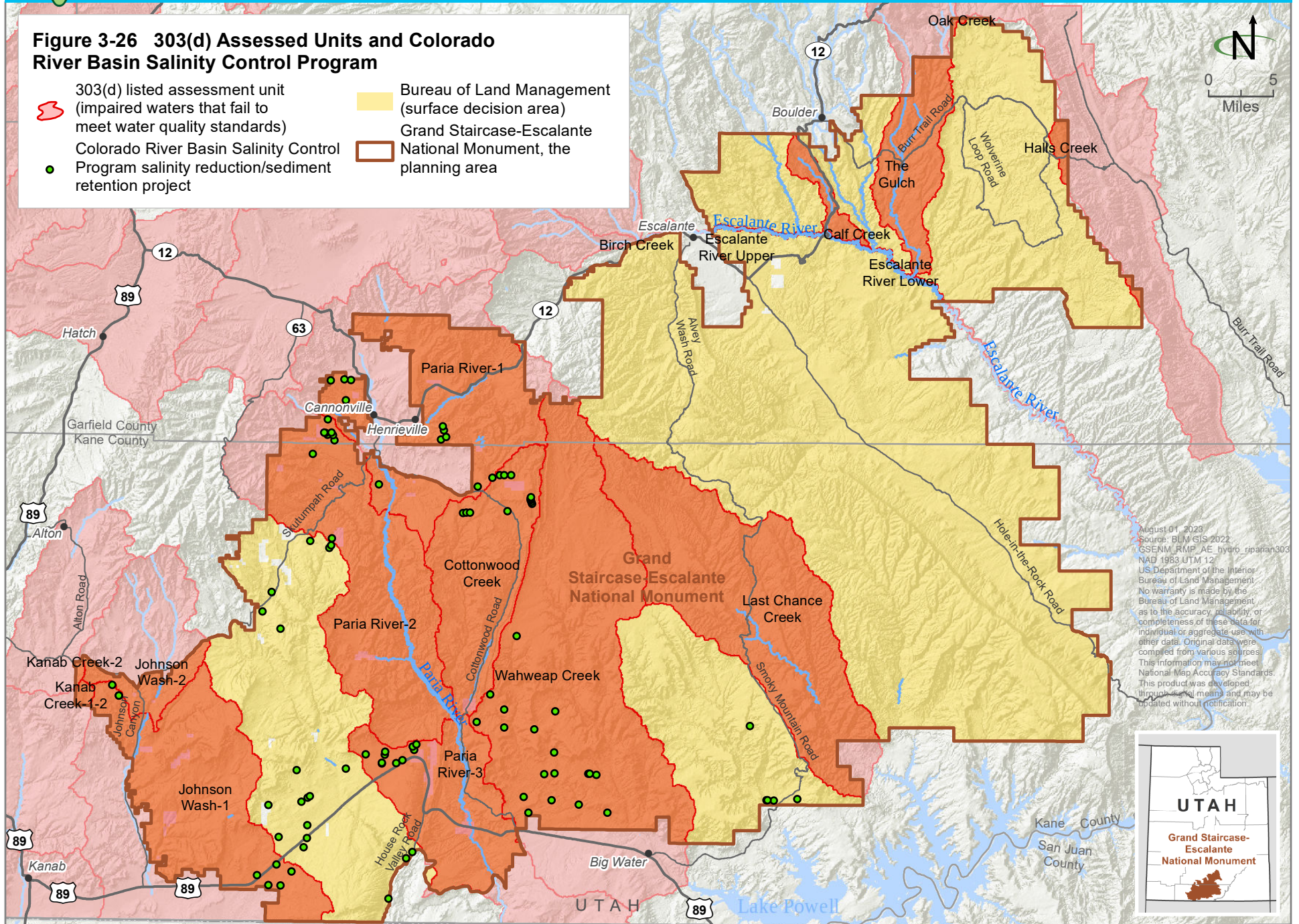




# Grand Staircase-Escalante National Monument

## Figure 3-26 303(d) Assessed Units and Colorado River Basin Salinity Control Program

-  303(d) listed assessment unit (impaired waters that fail to meet water quality standards)
-  Bureau of Land Management (surface decision area)
-  Colorado River Basin Salinity Control Program salinity reduction/sediment retention project
-  Grand Staircase-Escalante National Monument, the planning area







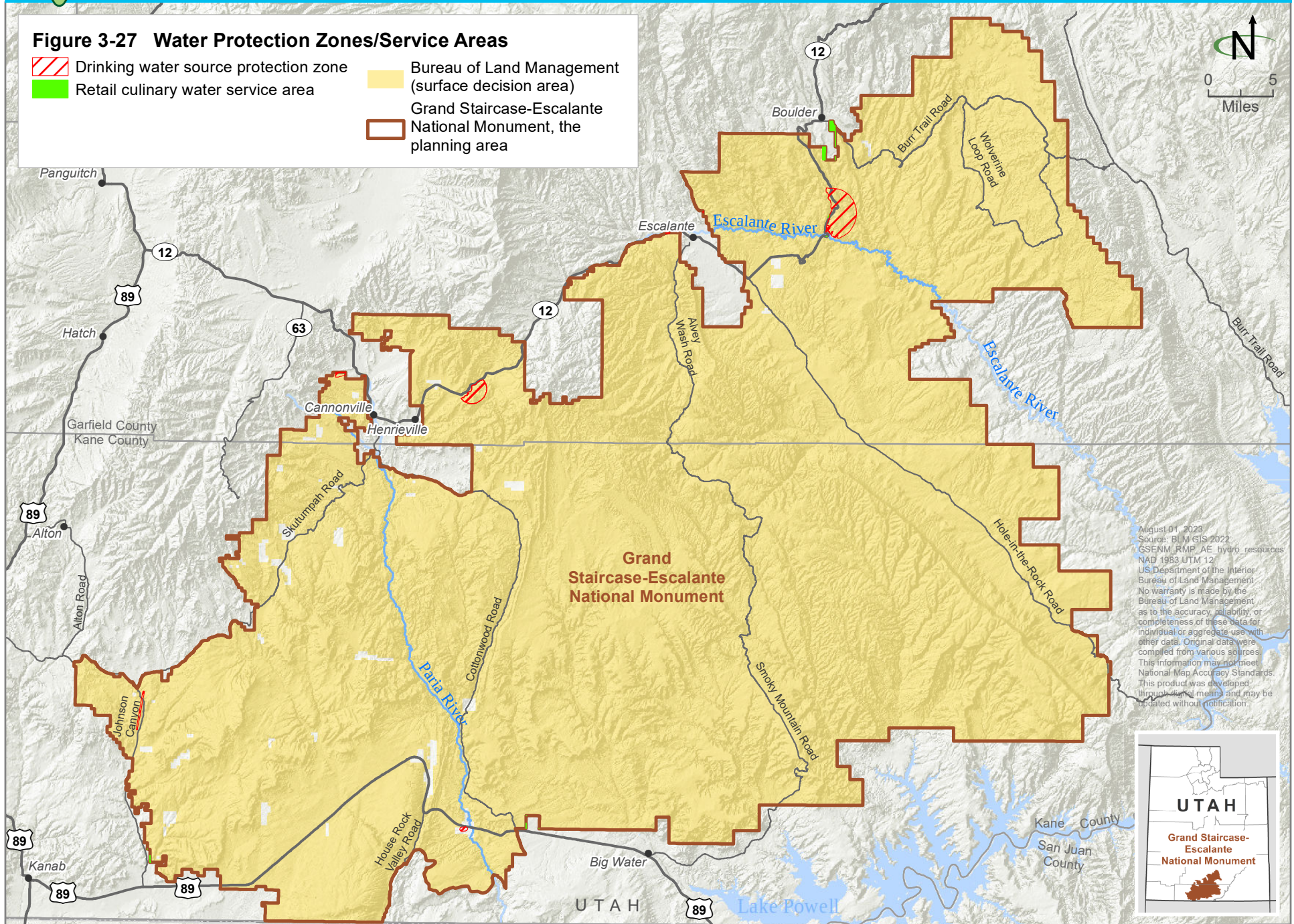
August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_hydro\_riparian303  
 NAD 1983 UTM 12  
 US Department of the Interior  
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Figure 3-27 Water Protection Zones/Service Areas

-  Drinking water source protection zone
-  Retail culinary water service area
-  Bureau of Land Management (surface decision area)
-  Grand Staircase-Escalante National Monument, the planning area



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 GSENM RMP AE hydro resources  
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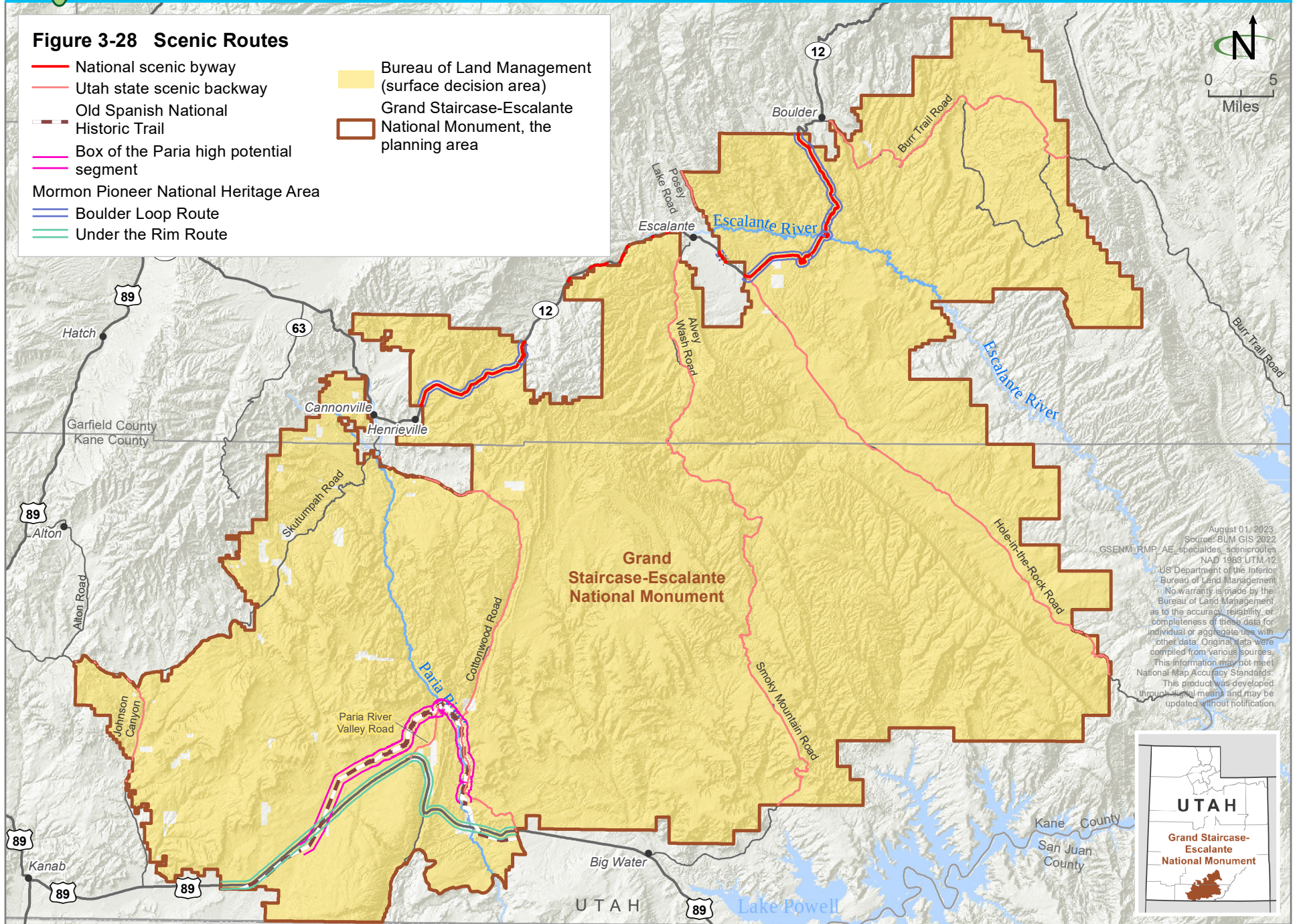




# Grand Staircase-Escalante National Monument

### Figure 3-28 Scenic Routes

- National scenic byway
- Utah state scenic backway
- Old Spanish National Historic Trail
- Box of the Paria high potential segment
- Mormon Pioneer National Heritage Area
- Boulder Loop Route
- Under the Rim Route
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area











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 GSENM RMP, AE, special uses, scenic routes  
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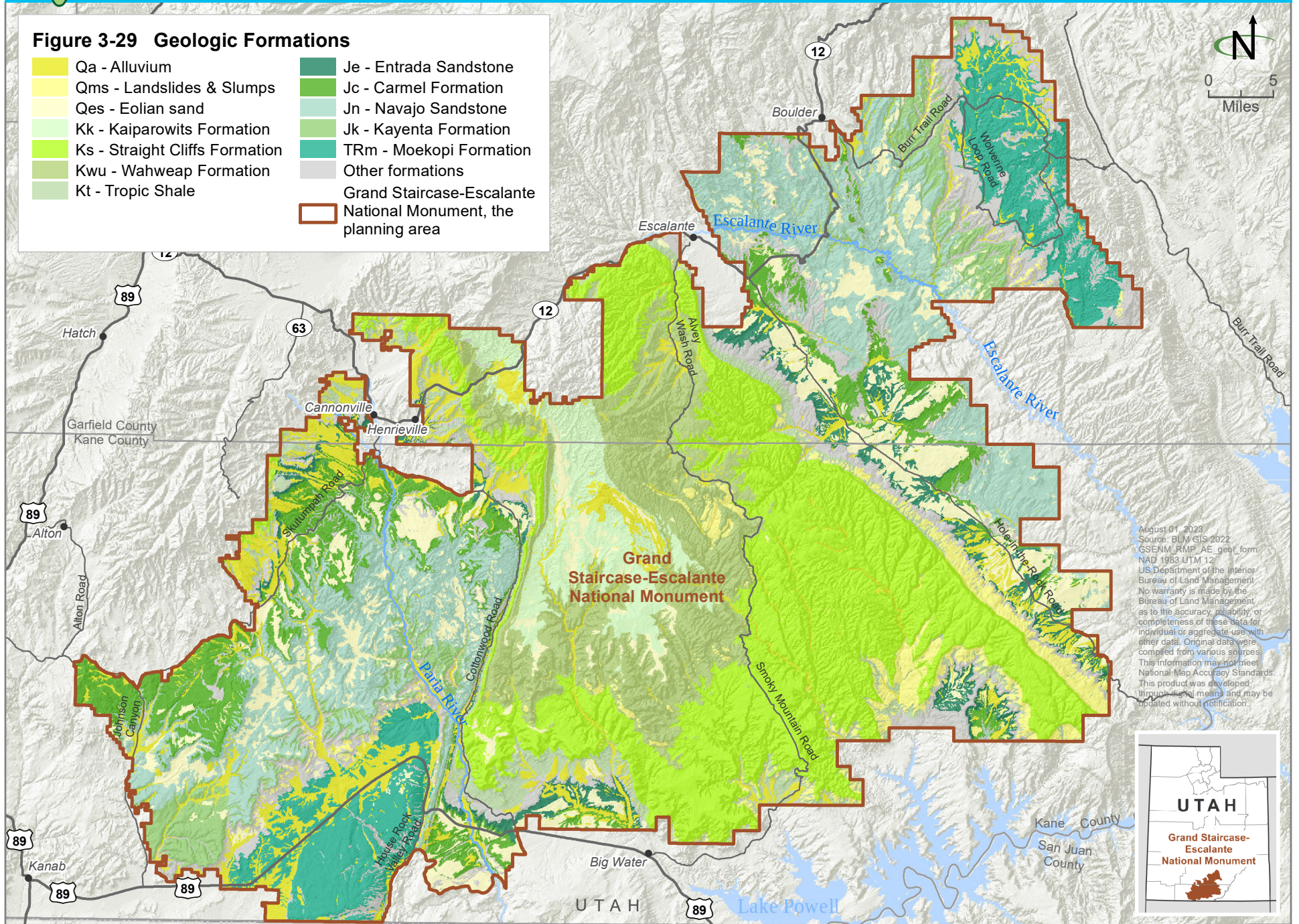




# Grand Staircase-Escalante National Monument

**Figure 3-29 Geologic Formations**

- |  |  |
|--|--|
|  Qa - Alluvium                  |  Je - Entrada Sandstone   |
|  Qms - Landslides & Slumps      |  Jc - Carmel Formation  |
|  Qes - Eolian sand              |  Jn - Navajo Sandstone  |
|  Kk - Kaiparowits Formation     |  Jk - Kayenta Formation   |
|  Ks - Straight Cliffs Formation |  TRm - Moekopi Formation  |
|  Kwu - Wahweap Formation        |  Other formations   |
|  Kt - Tropic Shale              |  Grand Staircase-Escalante National Monument, the planning area |



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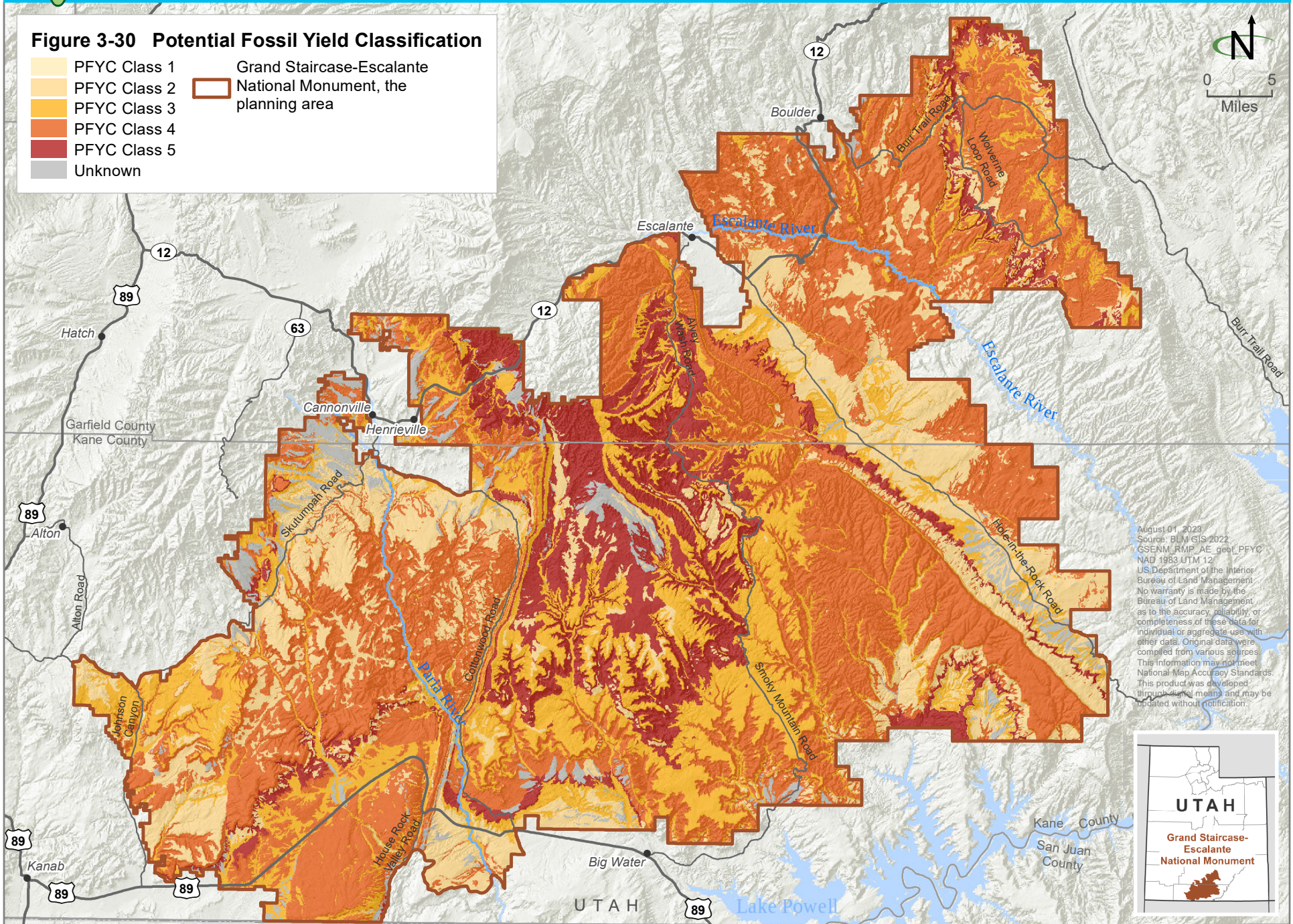




# Grand Staircase-Escalante National Monument

### Figure 3-30 Potential Fossil Yield Classification

- PFYC Class 1
  - PFYC Class 2
  - PFYC Class 3
  - PFYC Class 4
  - PFYC Class 5
  - Unknown
- Grand Staircase-Escalante National Monument, the planning area



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 GSENM\_RMP\_AE\_geol\_PFYC  
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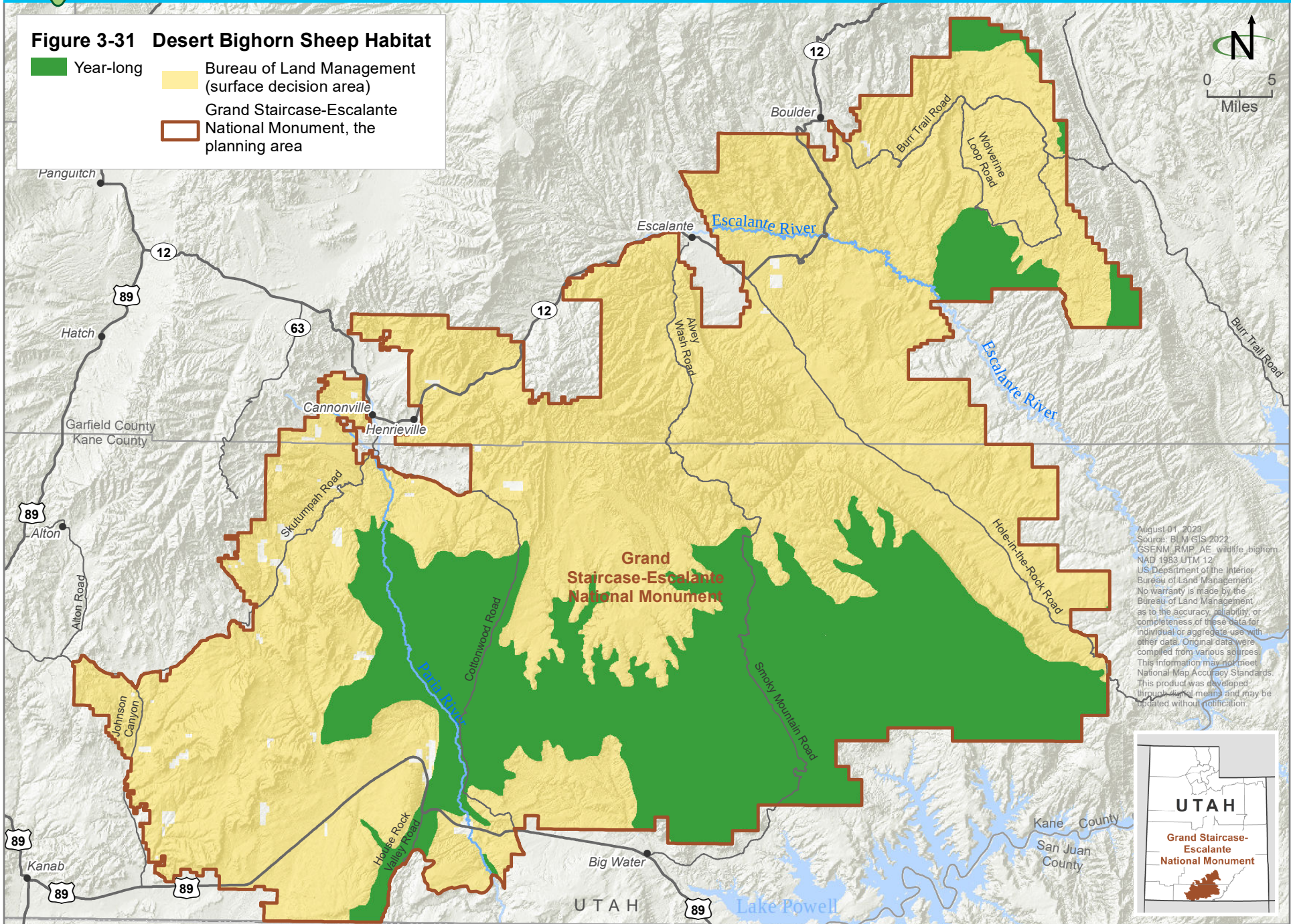




# Grand Staircase-Escalante National Monument

### Figure 3-31 Desert Bighorn Sheep Habitat

- Year-long
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



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 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_wildlife\_bighorn  
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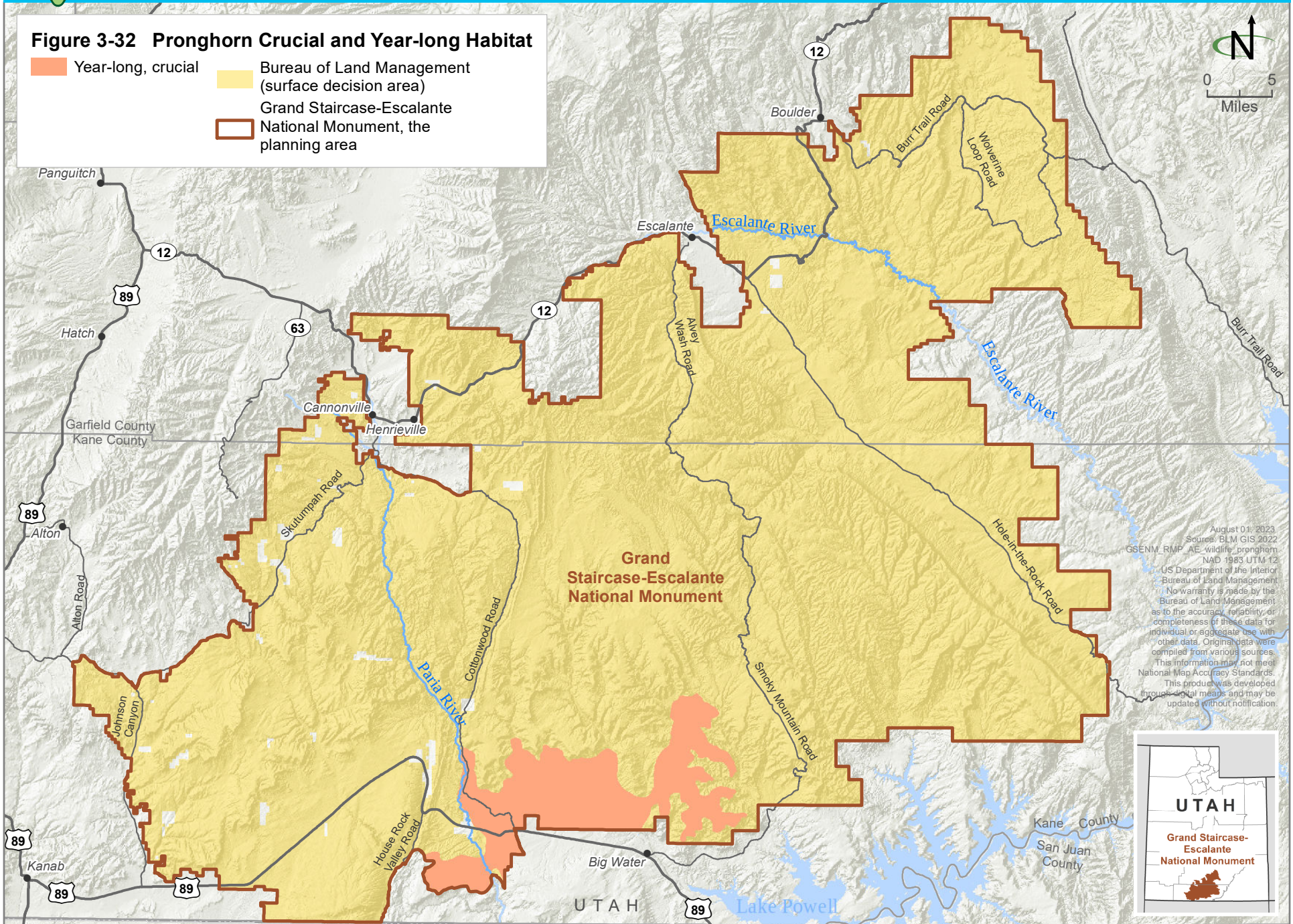




# Grand Staircase-Escalante National Monument

### Figure 3-32 Pronghorn Crucial and Year-long Habitat

- Year-long, crucial
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Sources: BLM GIS 2022  
 GSENM\_RMP\_AE\_wildlife\_pronghorn  
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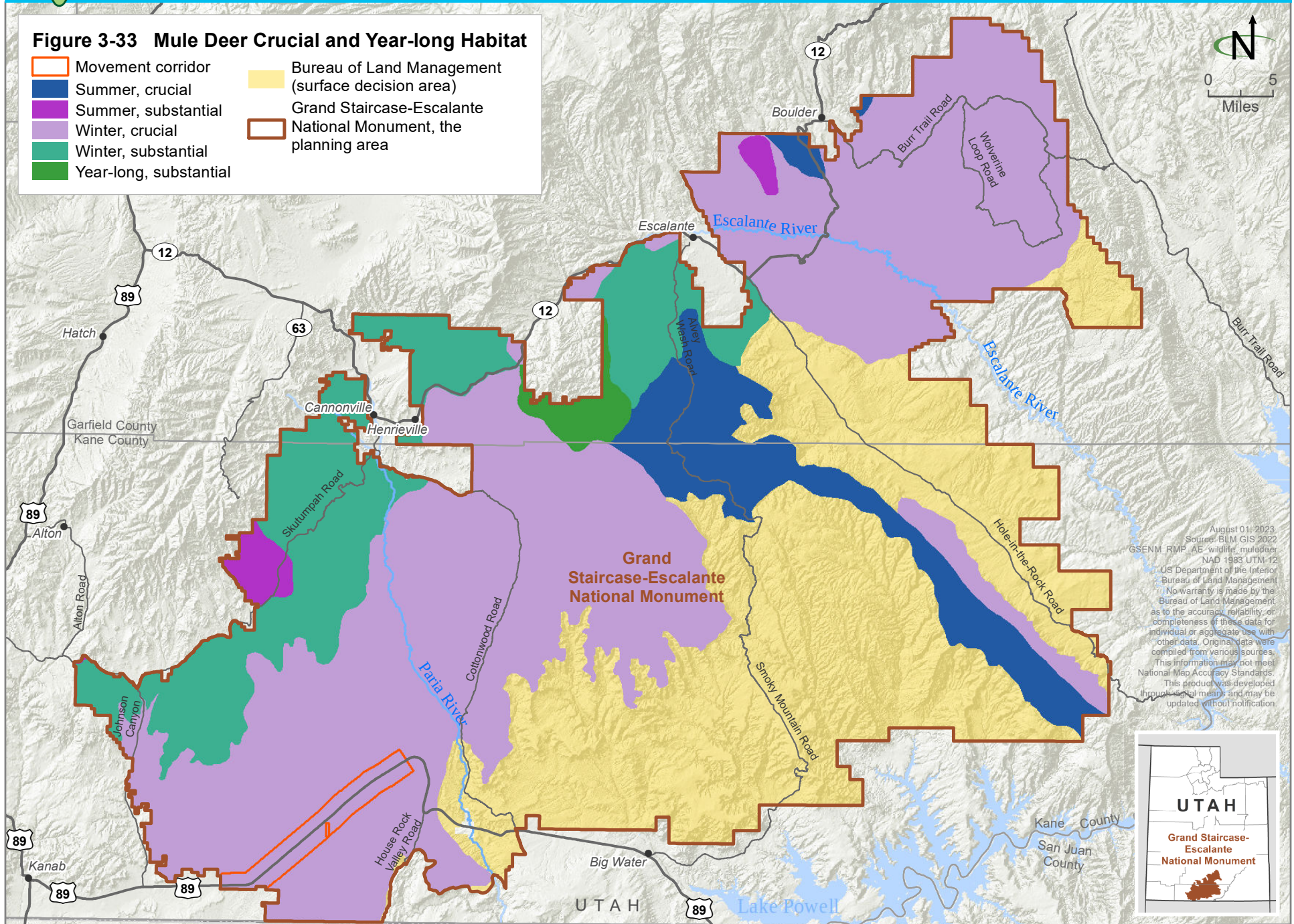




# Grand Staircase-Escalante National Monument

### Figure 3-33 Mule Deer Crucial and Year-long Habitat

- Movement corridor
- Summer, crucial
- Summer, substantial
- Winter, crucial
- Winter, substantial
- Year-long, substantial
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



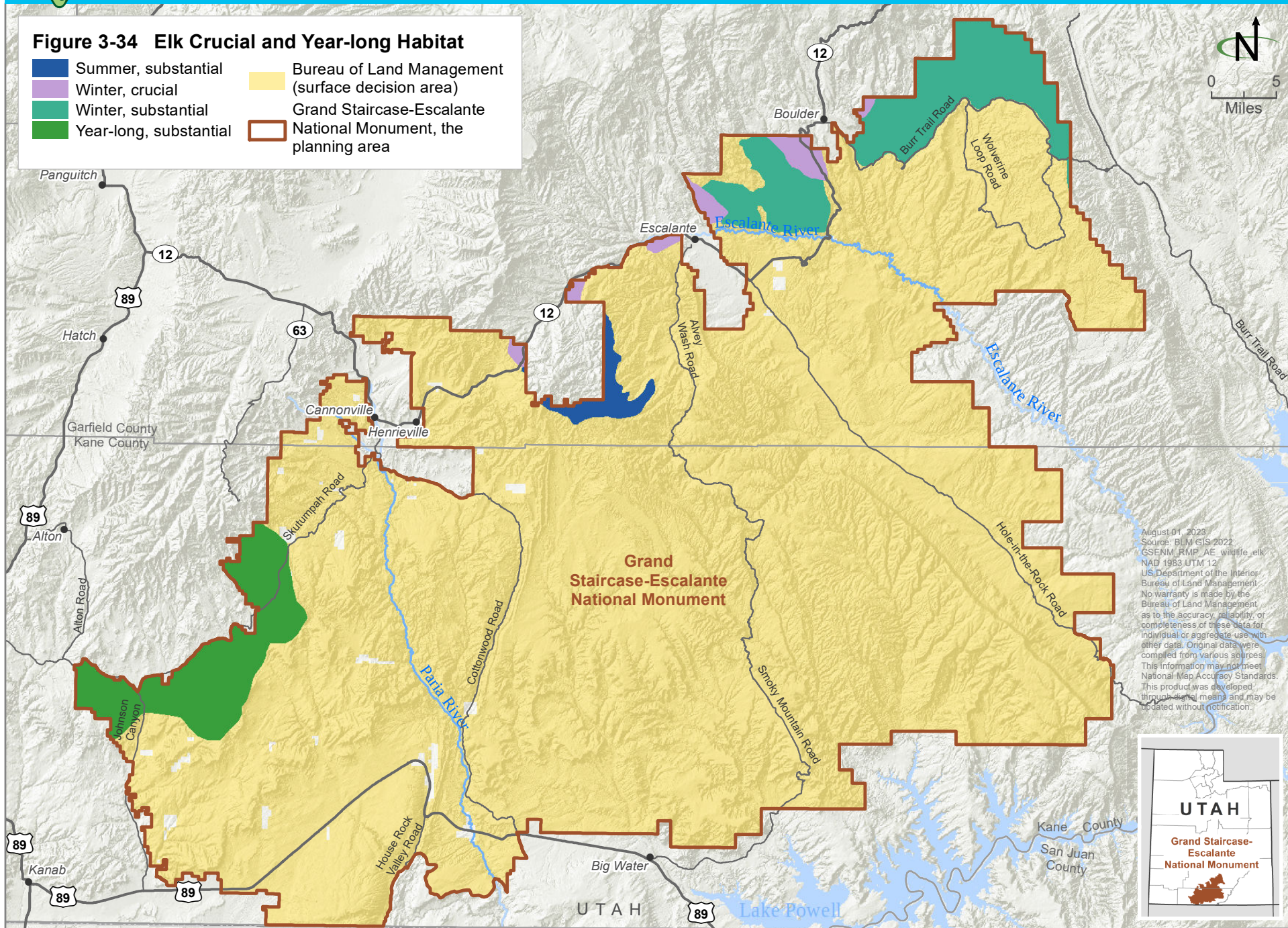
August 01, 2023  
 Source: BLM GIS 2022  
 GSENM RMP AE wildlife\_muledeer  
 NAD 1983 UTM 12  
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### Figure 3-34 Elk Crucial and Year-long Habitat

- Summer, substantial
- Winter, crucial
- Winter, substantial
- Year-long, substantial
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



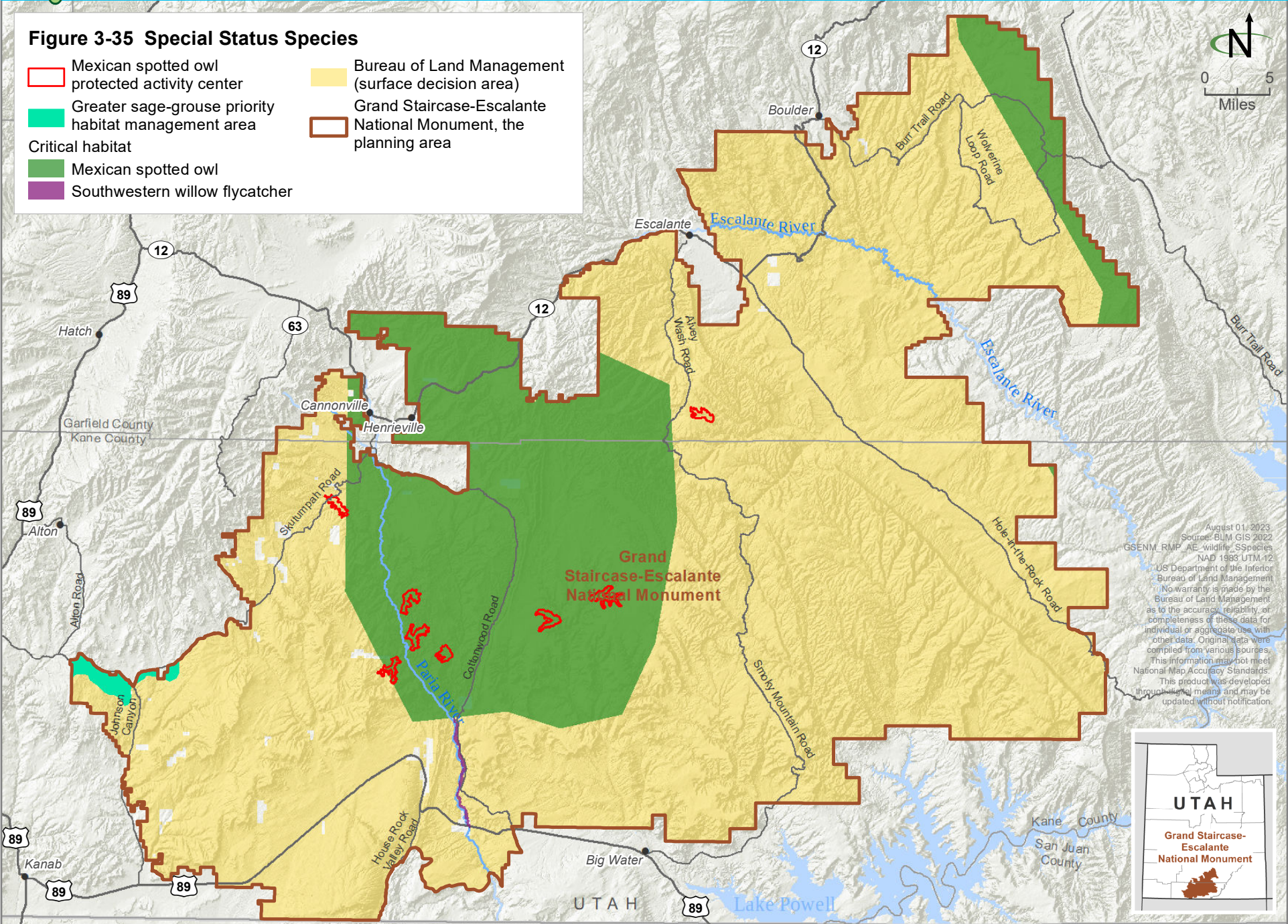
August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_wildlife\_elk  
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Figure 3-35 Special Status Species

- Mexican spotted owl protected activity center
- Greater sage-grouse priority habitat management area
- Critical habitat
- Mexican spotted owl
- Southwestern willow flycatcher
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



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 Sources: BLM GIS 2022  
 GSENM\_RMP\_AE\_wildlife\_SSspecies  
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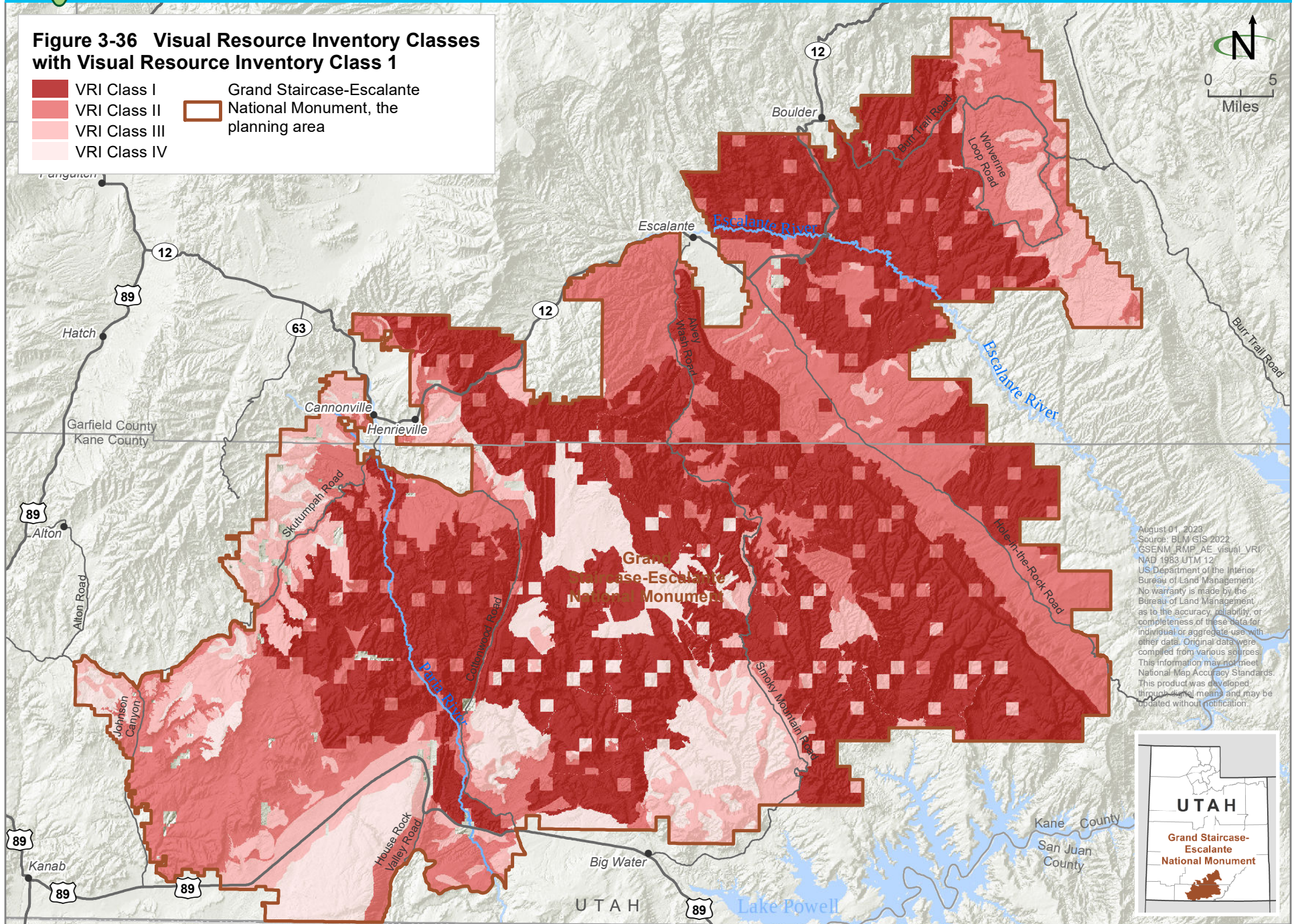




# Grand Staircase-Escalante National Monument

### Figure 3-36 Visual Resource Inventory Classes with Visual Resource Inventory Class 1

- VRI Class I
- VRI Class II
- VRI Class III
- VRI Class IV
- Grand Staircase-Escalante National Monument, the planning area



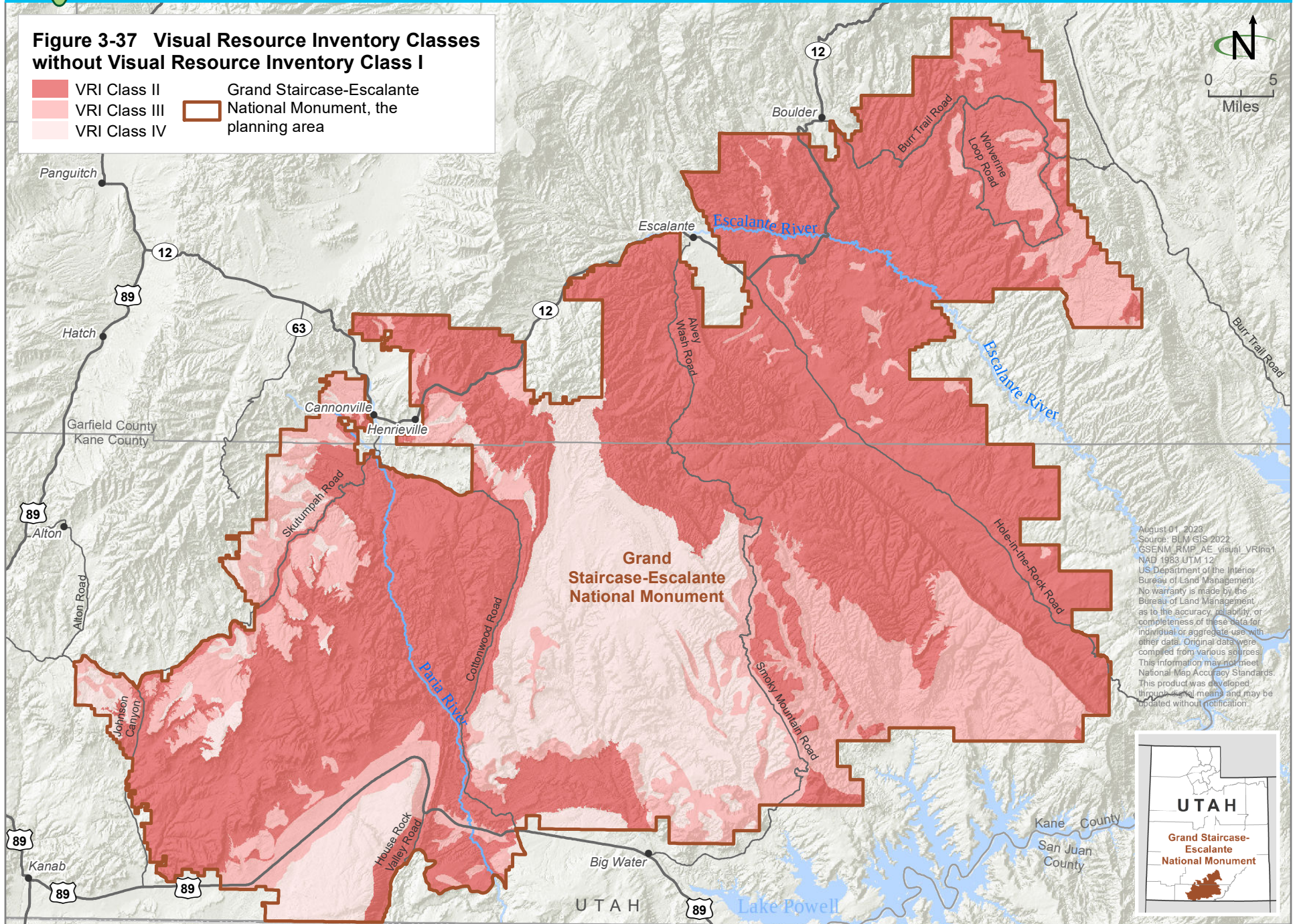
August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_visual\_VRI  
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# Grand Staircase-Escalante National Monument

### Figure 3-37 Visual Resource Inventory Classes without Visual Resource Inventory Class I

- VRI Class II
- VRI Class III
- VRI Class IV
- National Monument, the planning area



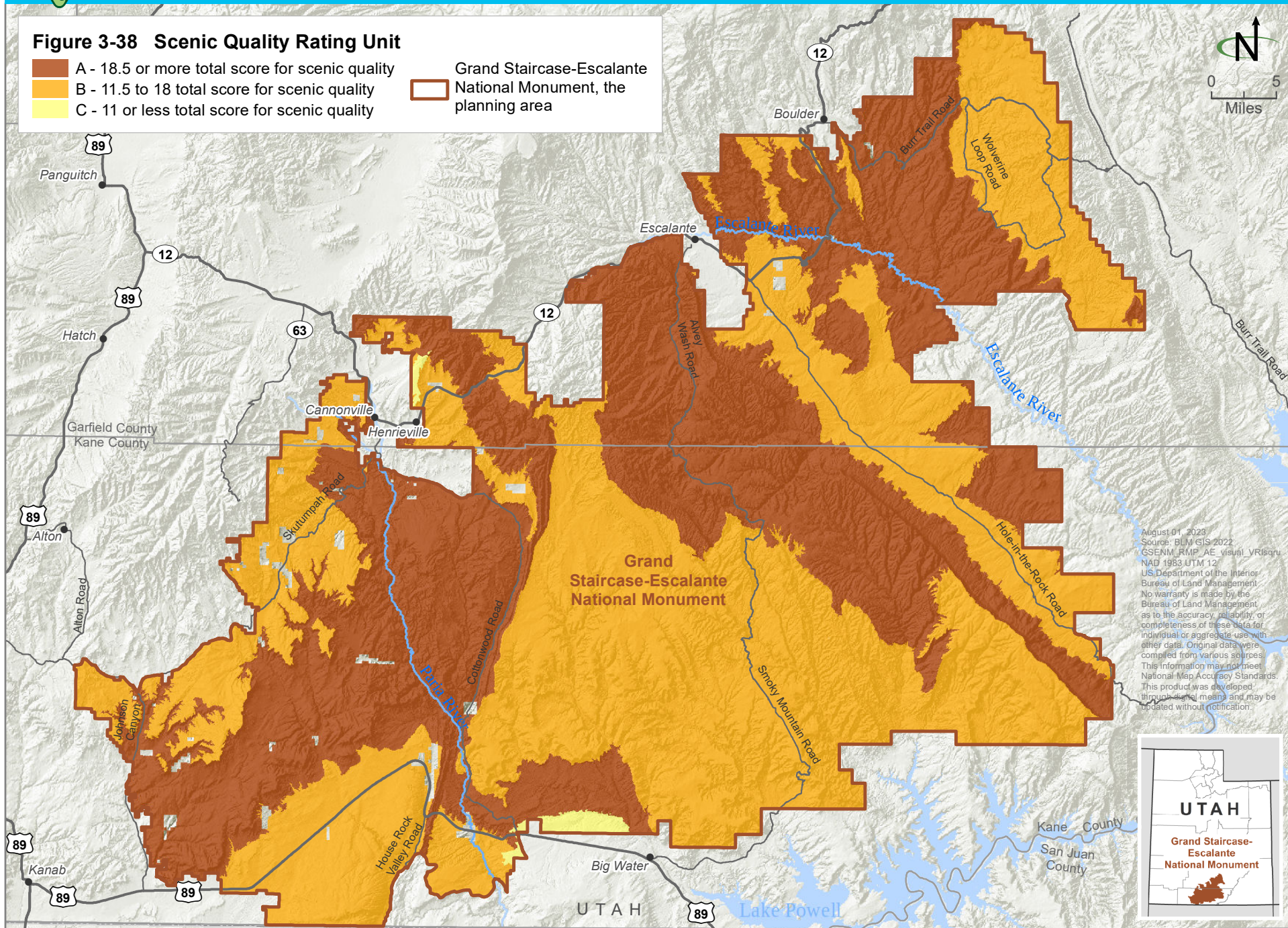
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 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_visual\_VRI.mxd  
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Figure 3-38 Scenic Quality Rating Unit

- A - 18.5 or more total score for scenic quality
- B - 11.5 to 18 total score for scenic quality
- C - 11 or less total score for scenic quality
- Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_visual\_VRIsору  
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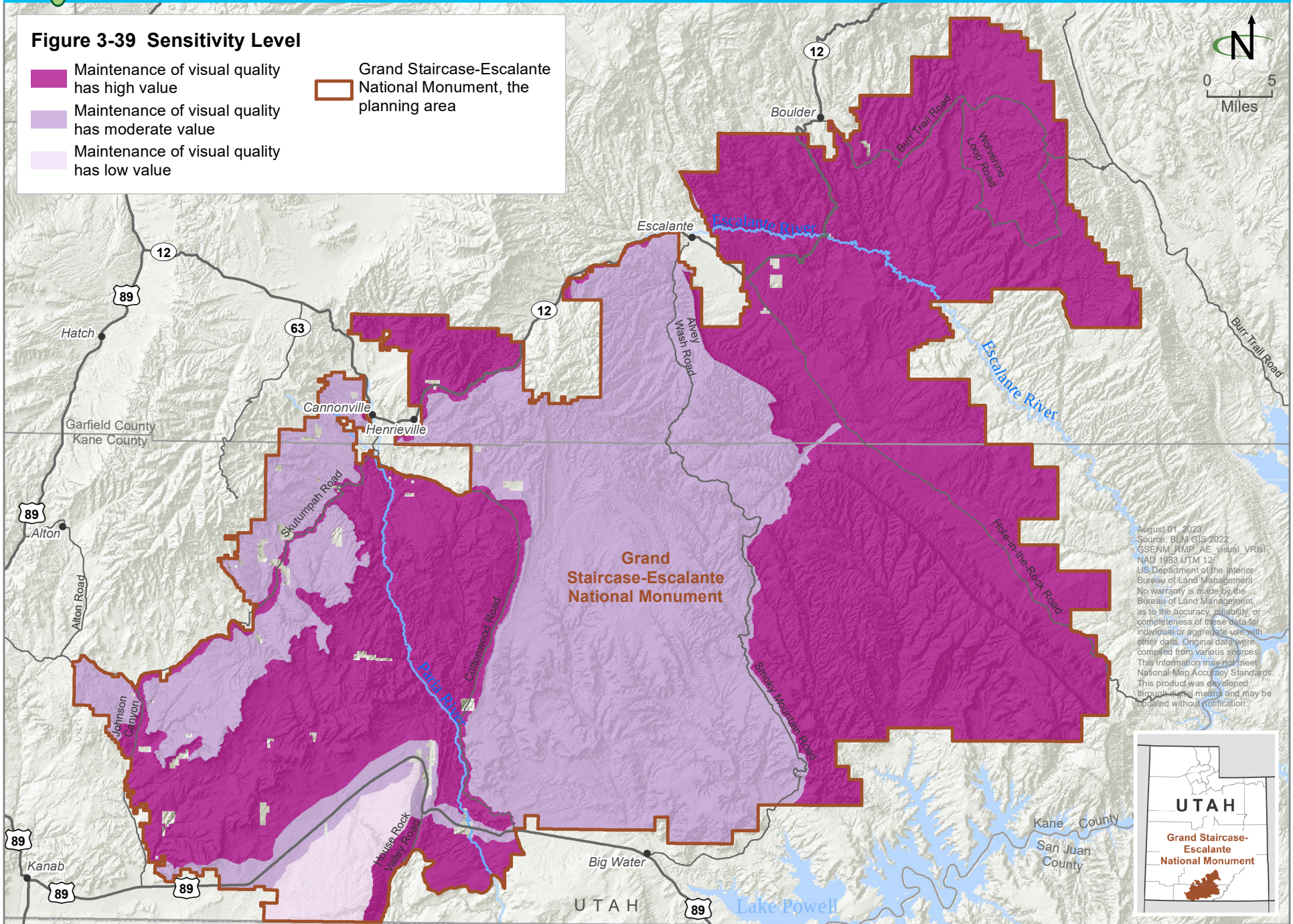




# Grand Staircase-Escalante National Monument

### Figure 3-39 Sensitivity Level

- Maintenance of visual quality has high value
- Maintenance of visual quality has moderate value
- Maintenance of visual quality has low value
- Grand Staircase-Escalante National Monument, the planning area



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 GSENM\_RMP\_AE\_visual\_VR181  
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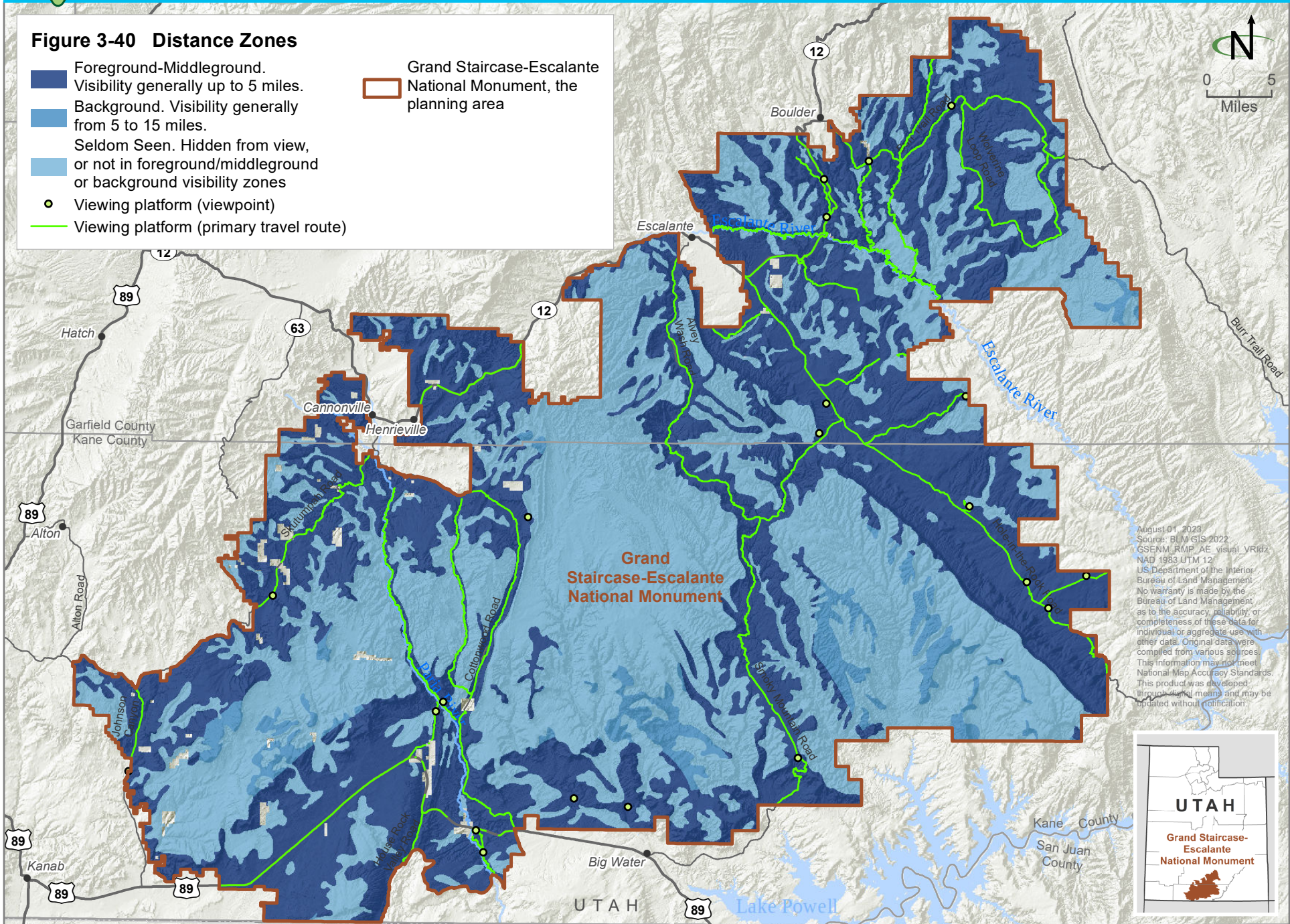




# Grand Staircase-Escalante National Monument

### Figure 3-40 Distance Zones

- Foreground-Midground. Visibility generally up to 5 miles.
- Background. Visibility generally from 5 to 15 miles.
- Seldom Seen. Hidden from view, or not in foreground/midground or background visibility zones
- Viewing platform (viewpoint)
- Viewing platform (primary travel route)
- Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_visual\_VRdz  
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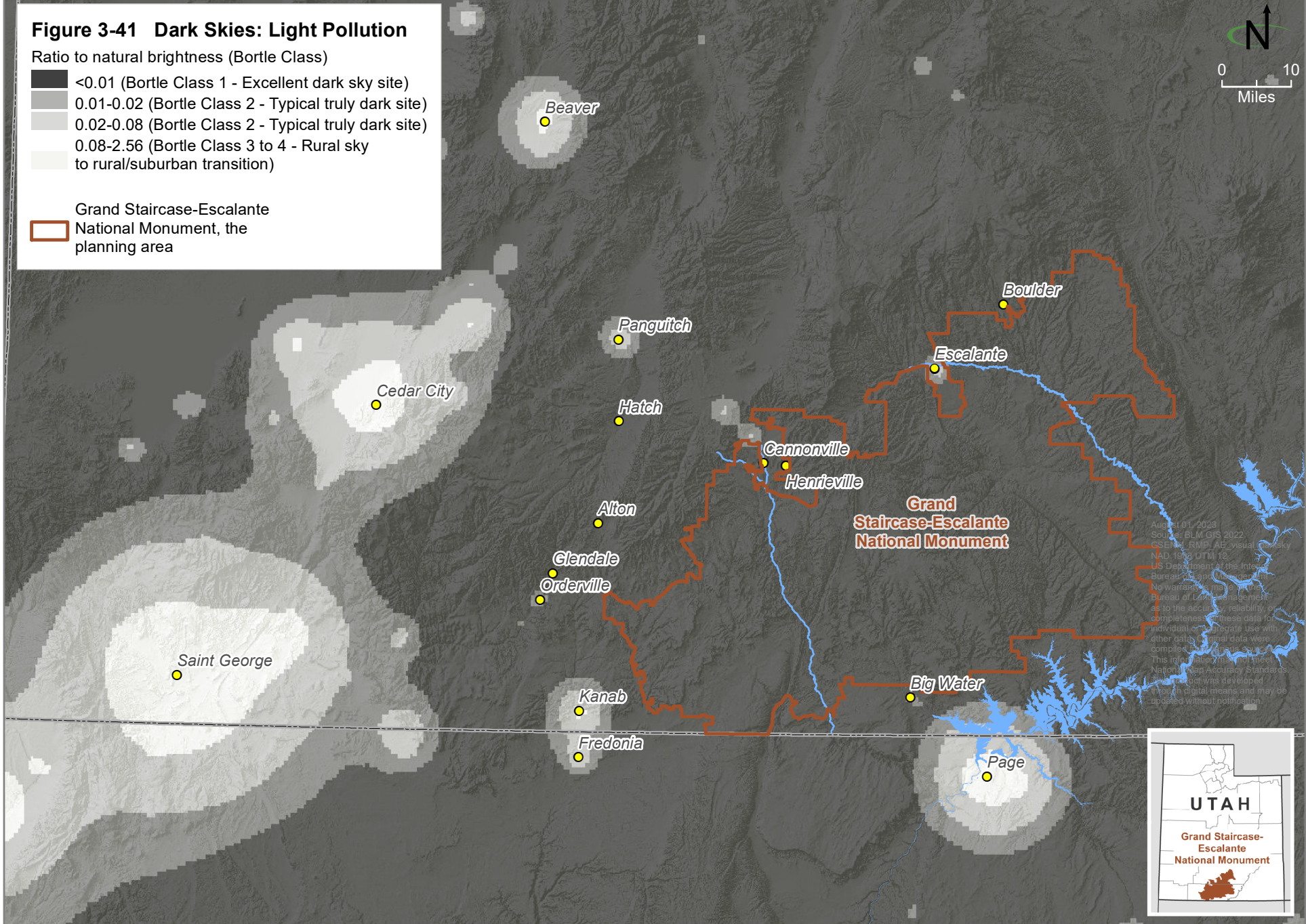
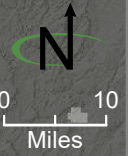
# Grand Staircase-Escalante National Monument

### Figure 3-41 Dark Skies: Light Pollution

Ratio to natural brightness (Bortle Class)

- <0.01 (Bortle Class 1 - Excellent dark sky site)
- 0.01-0.02 (Bortle Class 2 - Typical truly dark site)
- 0.02-0.08 (Bortle Class 2 - Typical truly dark site)
- 0.08-2.56 (Bortle Class 3 to 4 - Rural sky to rural/suburban transition)

Grand Staircase-Escalante National Monument, the planning area



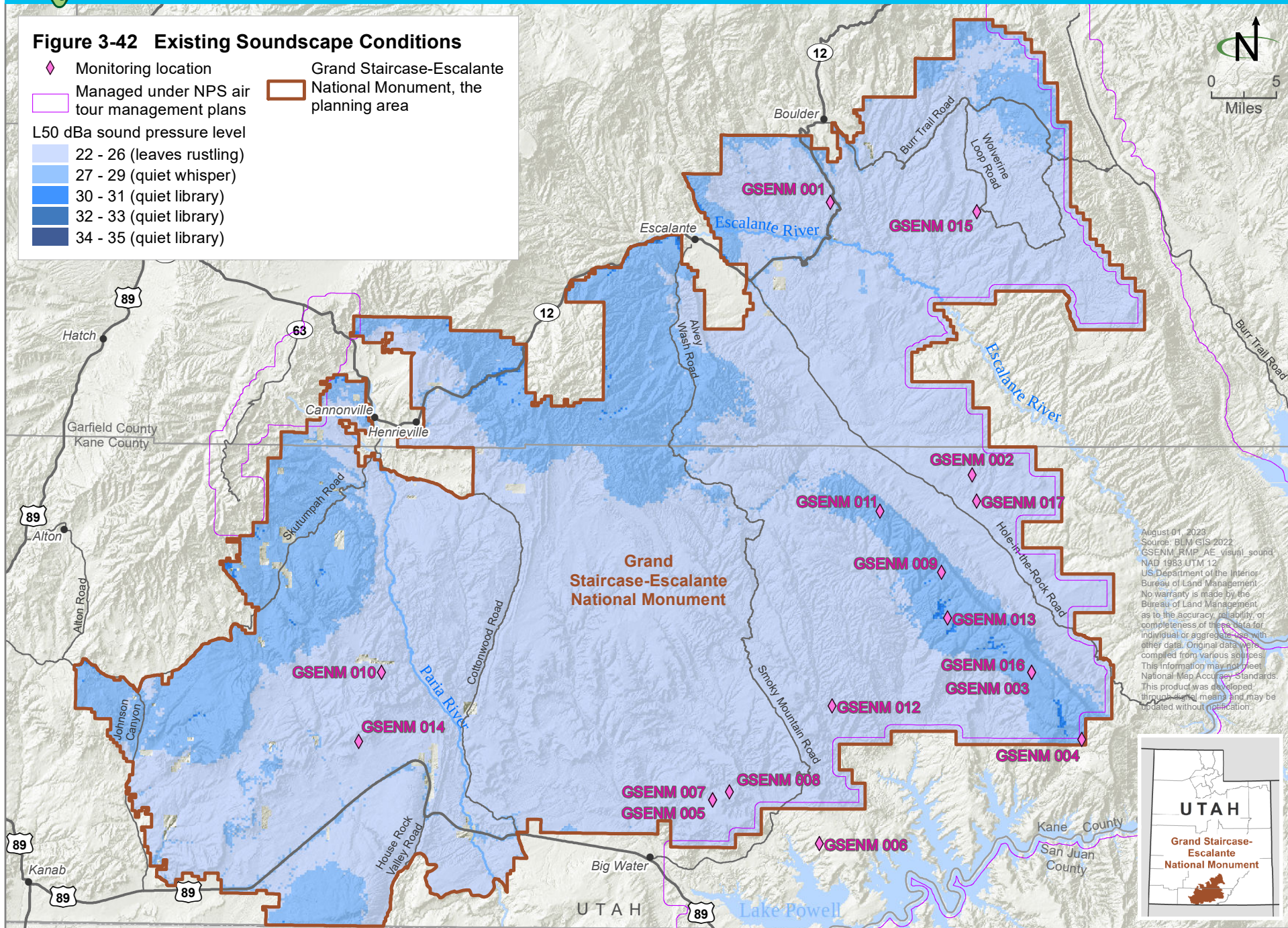
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Figure 3-42 Existing Soundscape Conditions

- ◆ Monitoring location
  - ▭ Managed under NPS air tour management plans
  - ▭ Grand Staircase-Escalante National Monument, the planning area
- L50 dBA sound pressure level
- 22 - 26 (leaves rustling)
  - 27 - 29 (quiet whisper)
  - 30 - 31 (quiet library)
  - 32 - 33 (quiet library)
  - 34 - 35 (quiet library)

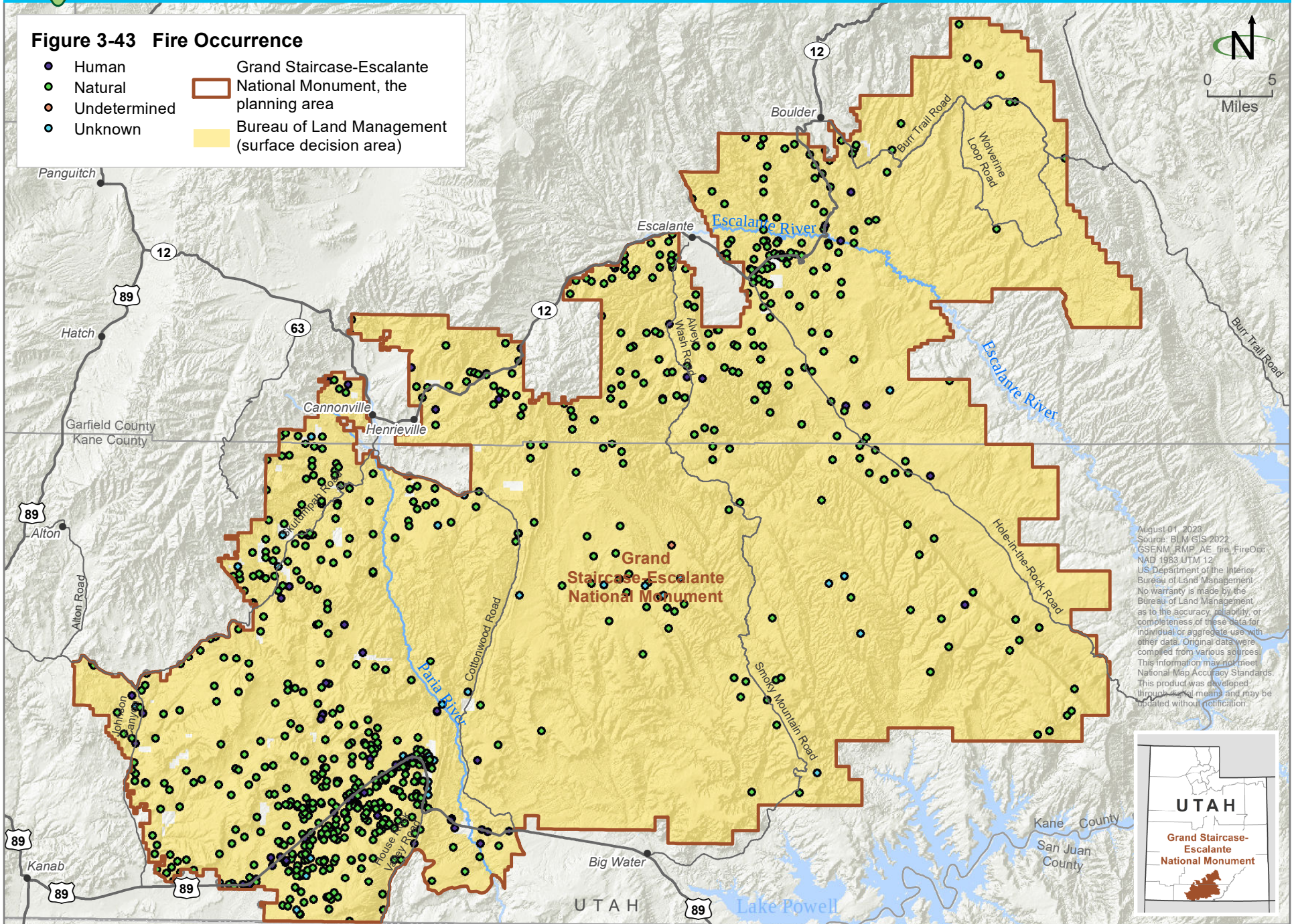




# Grand Staircase-Escalante National Monument

### Figure 3-43 Fire Occurrence

- Human
- Natural
- Undetermined
- Unknown
- Grand Staircase-Escalante National Monument, the planning area
- Bureau of Land Management (surface decision area)



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_fire\_FireOcc  
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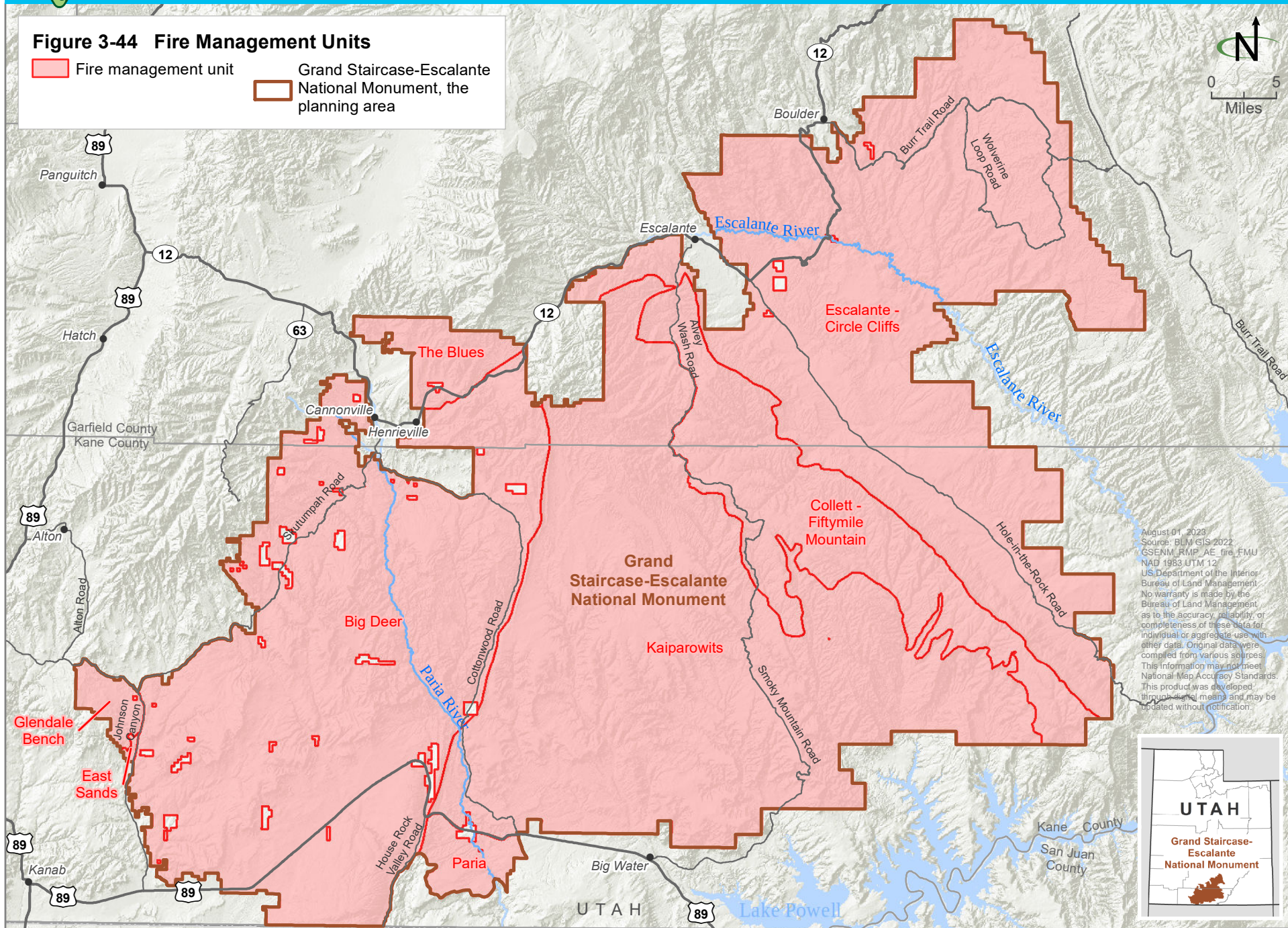




# Grand Staircase-Escalante National Monument

### Figure 3-44 Fire Management Units

- Fire management unit
- Grand Staircase-Escalante National Monument, the planning area

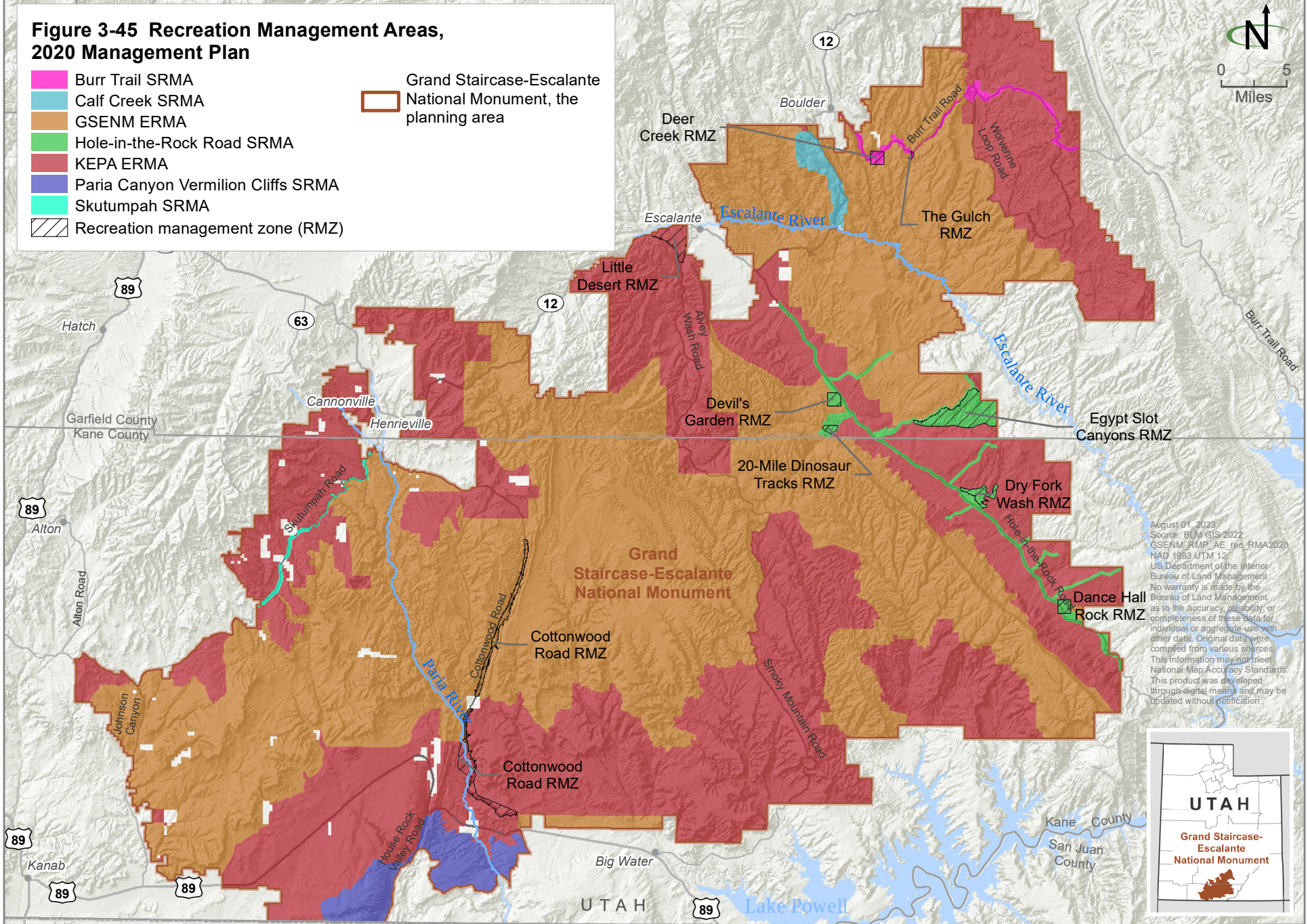




# Grand Staircase-Escalante National Monument

### Figure 3-45 Recreation Management Areas, 2020 Management Plan

- Burr Trail SRMA
- Calf Creek SRMA
- GSENM ERMA
- Hole-in-the-Rock Road SRMA
- KEPA ERMA
- Paria Canyon Vermilion Cliffs SRMA
- Skutumpah SRMA
- Recreation management zone (RMZ)
- Grand Staircase-Escalante National Monument, the planning area



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 GSENM\_RMP\_AE\_rec\_RMA2020  
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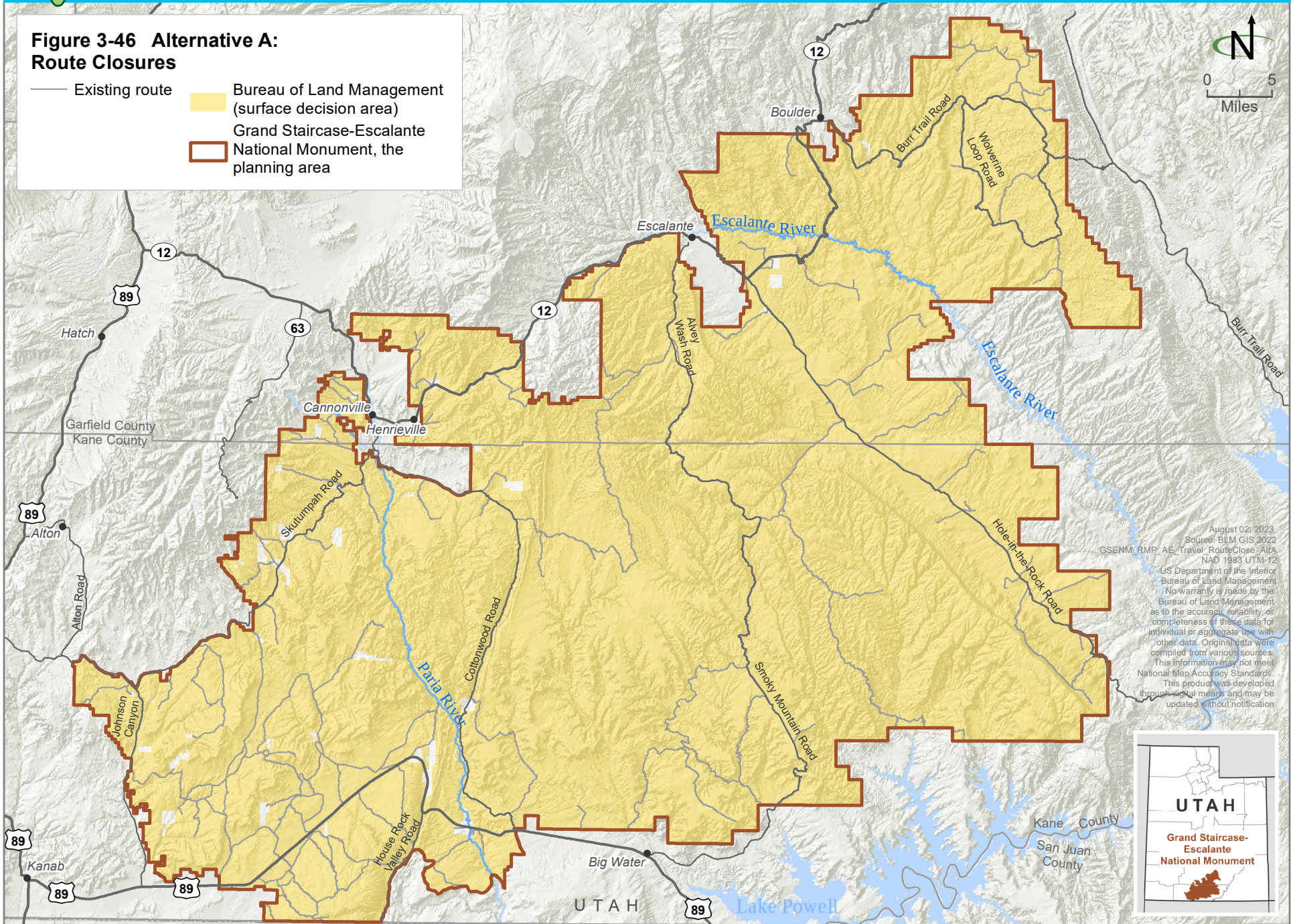




# Grand Staircase-Escalante National Monument

### Figure 3-46 Alternative A: Route Closures

- Existing route
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



August 02, 2023  
 Source: BLM GIS 2022  
 GSENM RMP AE Travel Route Close A1A  
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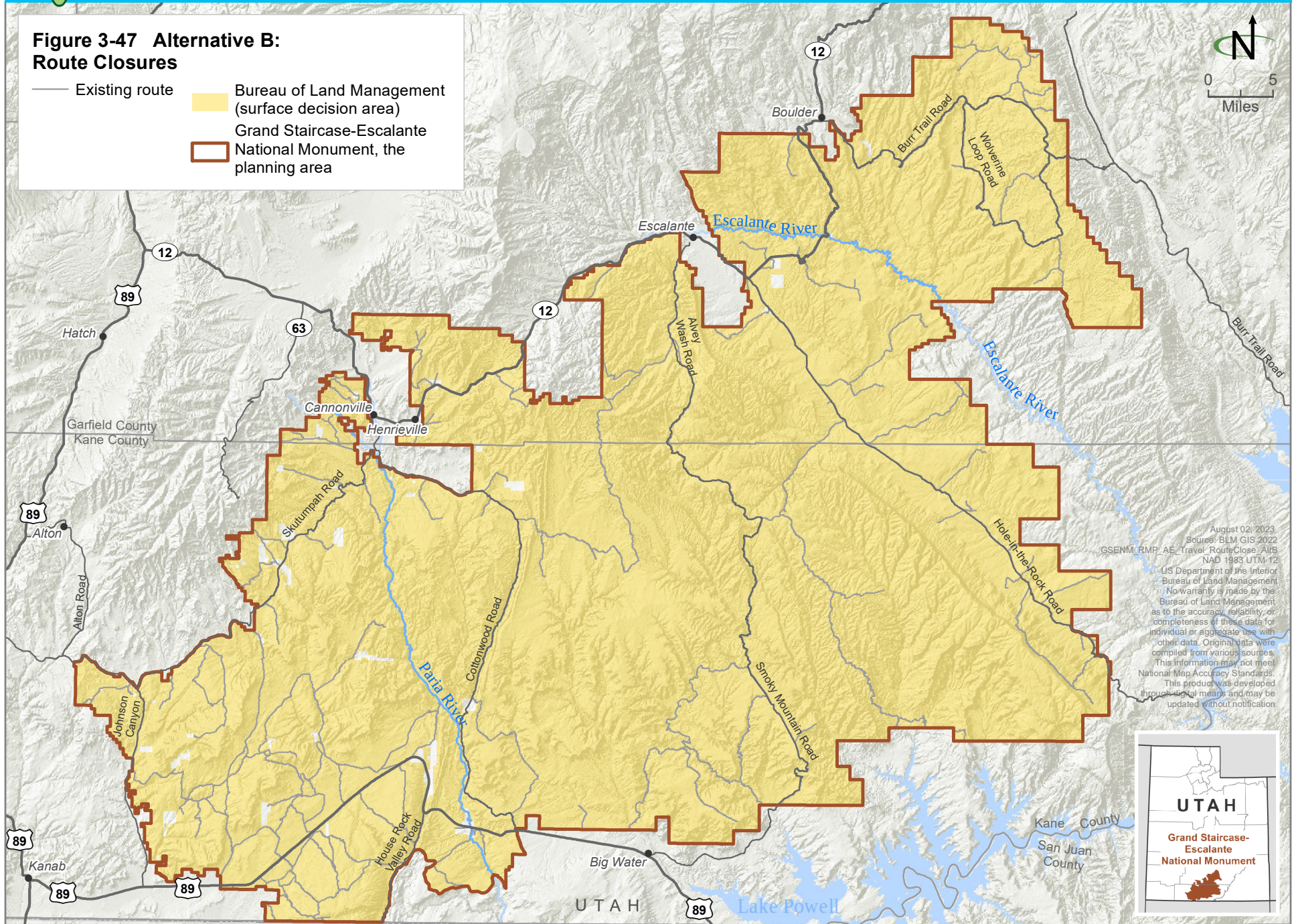




# Grand Staircase-Escalante National Monument

### Figure 3-47 Alternative B: Route Closures

- Existing route
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



August 02, 2023  
 Source: BLM GIS 2022  
 GSENM RMP AE Travel Route Close AltB  
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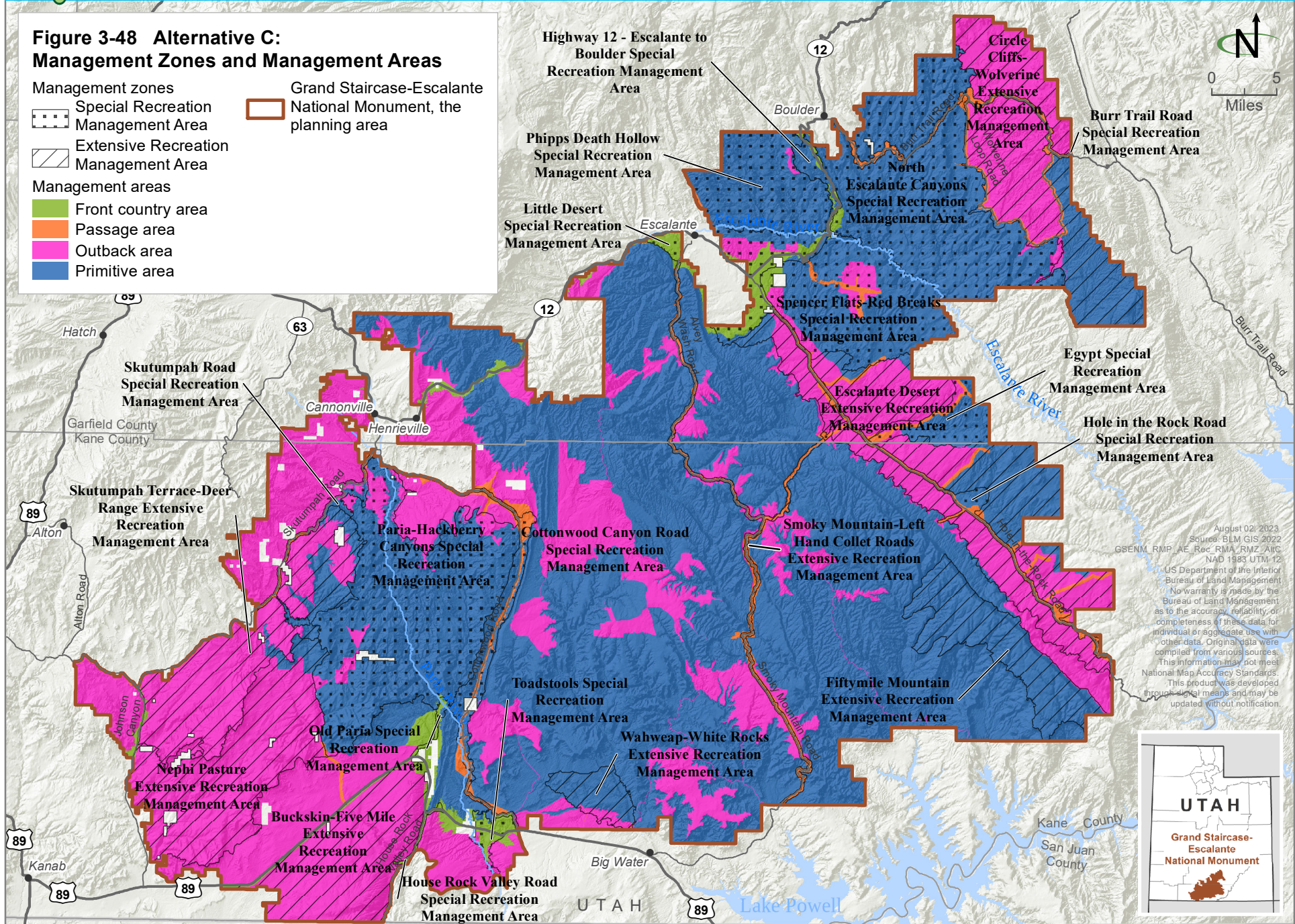




# Grand Staircase-Escalante National Monument

### Figure 3-48 Alternative C: Management Zones and Management Areas

- Management zones
- Special Recreation Management Area
  - Extensive Recreation Management Area
- Management areas
- Front country area
  - Passage area
  - Outback area
  - Primitive area
- Grand Staircase-Escalante National Monument, the planning area



August 02, 2023  
 Sources: BLM GIS 2022  
 GSENM RMP, AE, Rec, RMA, RMZ, AIC  
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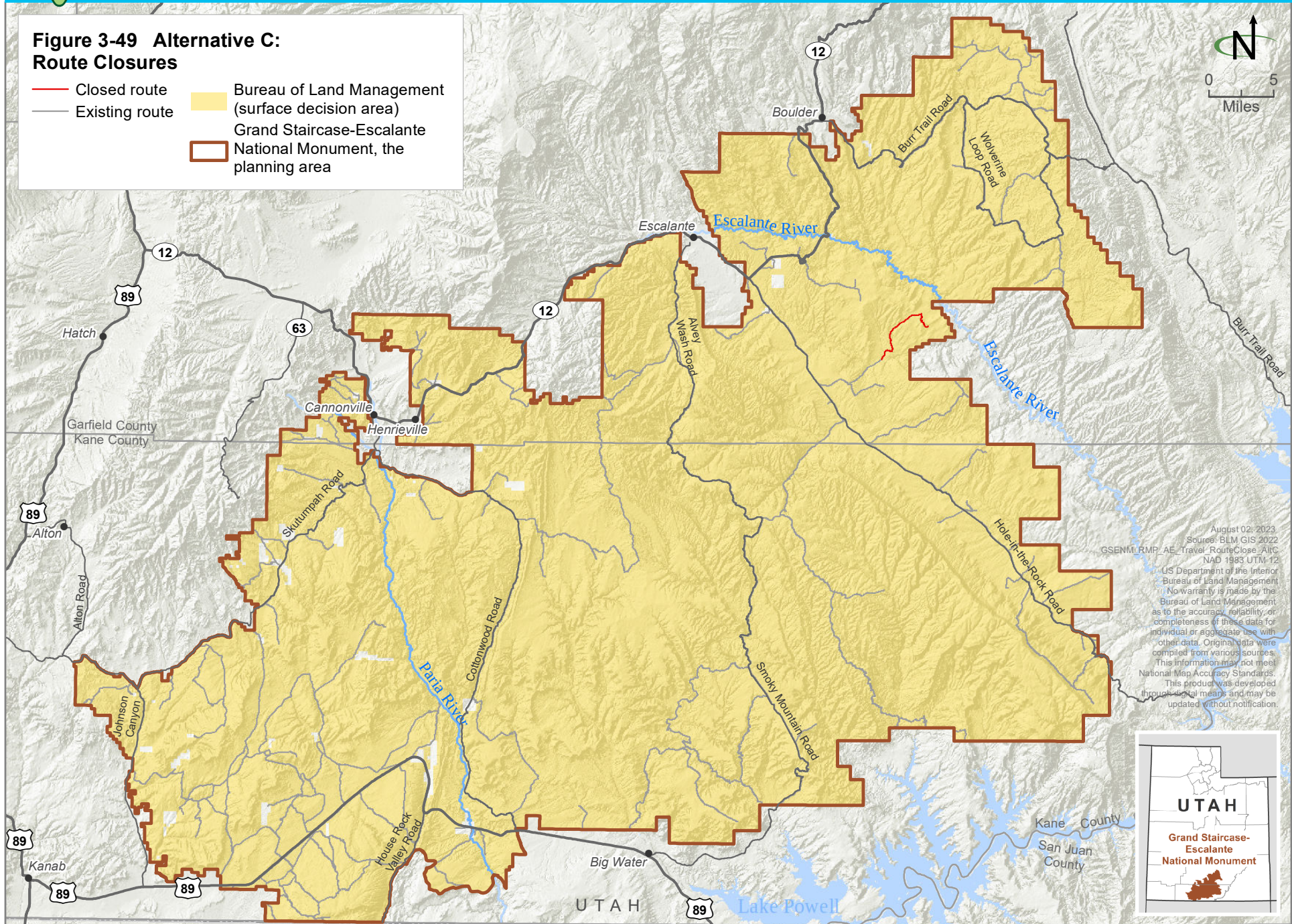




# Grand Staircase-Escalante National Monument

### Figure 3-49 Alternative C: Route Closures

- Closed route
- Existing route
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



August 02, 2023  
 Source: BLM GIS 2022  
 GSENM/RMP: AE\_Travel\_RouteClose\_AltC  
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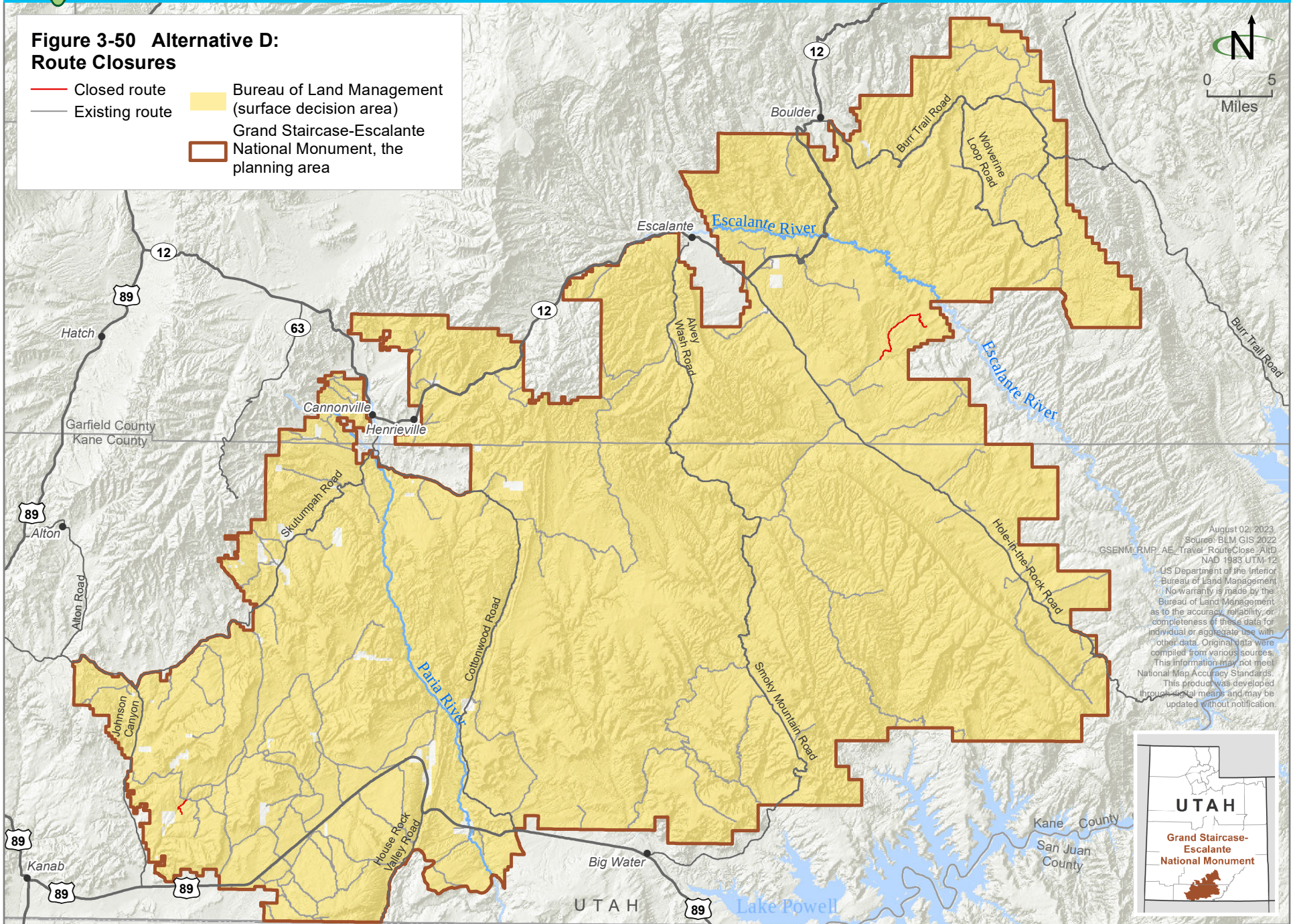




# Grand Staircase-Escalante National Monument

### Figure 3-50 Alternative D: Route Closures

- Closed route
- Existing route
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



August 02, 2023  
 Source: BLM GIS 2022  
 GSENM/RMP: AE\_Travel\_RouteClose\_AltD  
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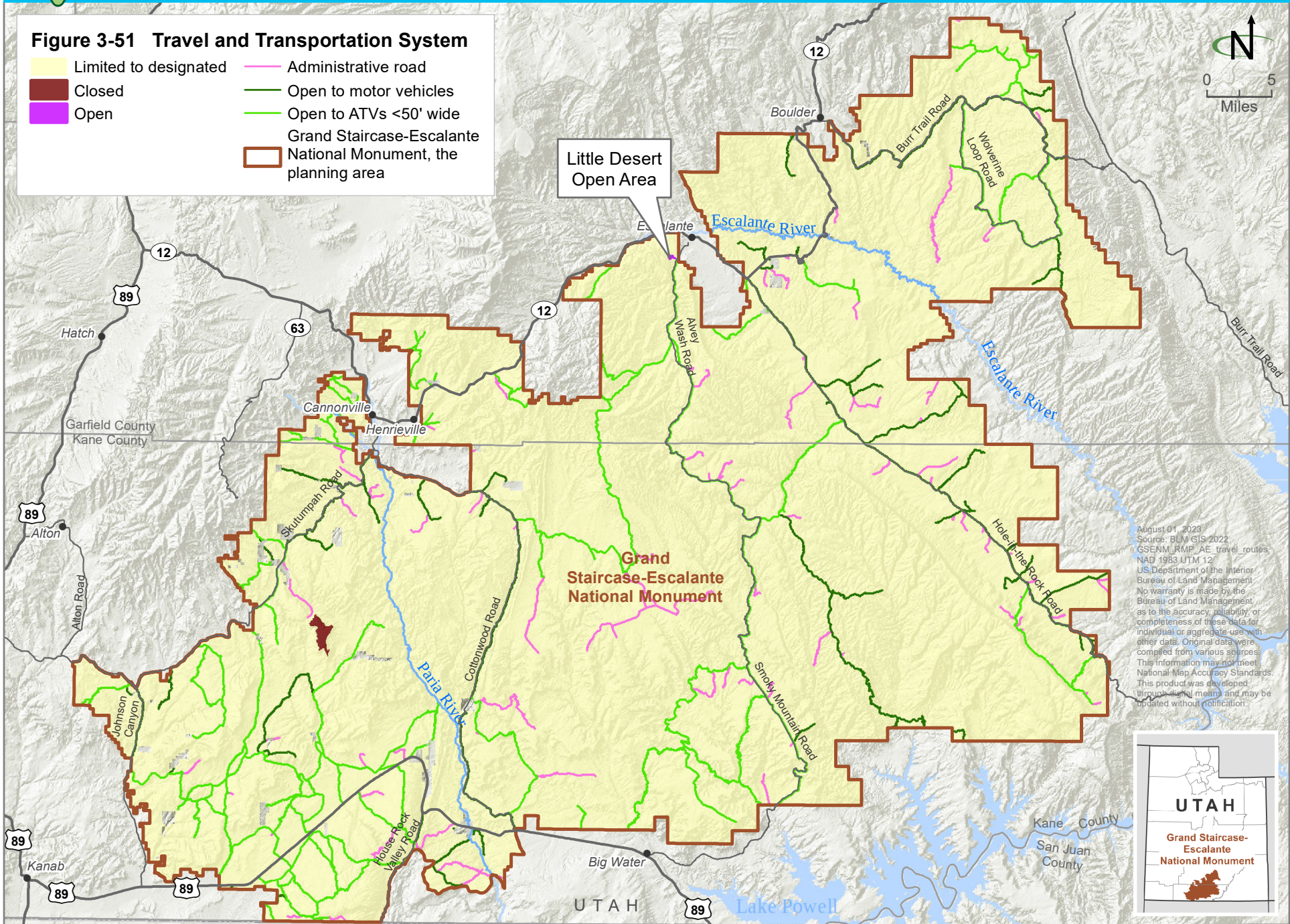




# Grand Staircase-Escalante National Monument

### Figure 3-51 Travel and Transportation System

- Limited to designated
- Closed
- Open
- Administrative road
- Open to motor vehicles
- Open to ATVs <50' wide
- Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM RMP AE travel routes  
 NAD 1983 UTM 12  
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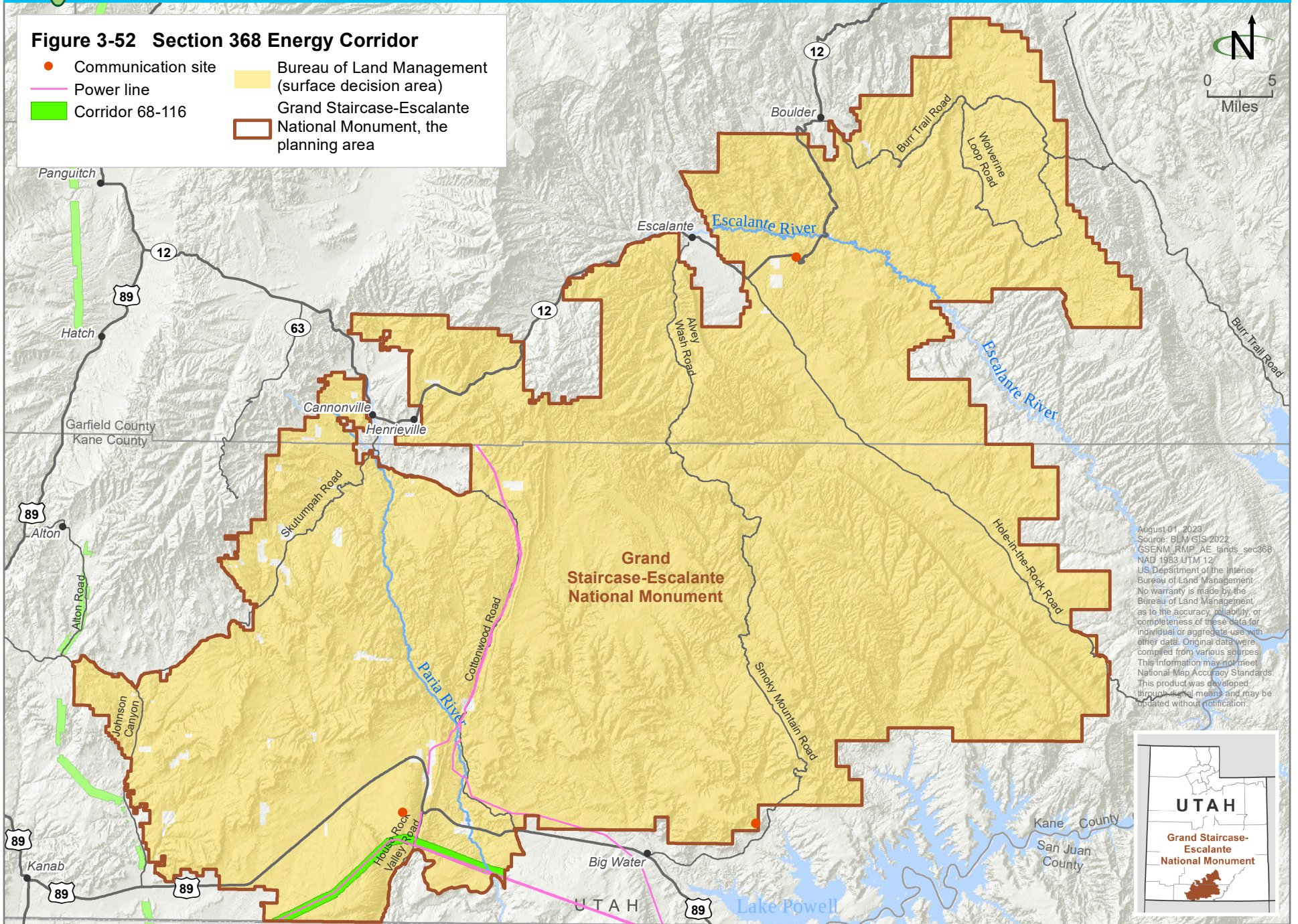




# Grand Staircase-Escalante National Monument

### Figure 3-52 Section 368 Energy Corridor

- Communication site
- Power line
- Corridor 68-116
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE lands\_sec368  
 NAD 1983 UTM 12  
 U.S. Department of the Interior  
 Bureau of Land Management  
 No warranty is made by the  
 Bureau of Land Management  
 as to the accuracy, reliability, or  
 completeness of these data for  
 individual or aggregate use with  
 other data. Original data were  
 compiled from various sources.  
 This information may not meet  
 National Map Accuracy Standards.  
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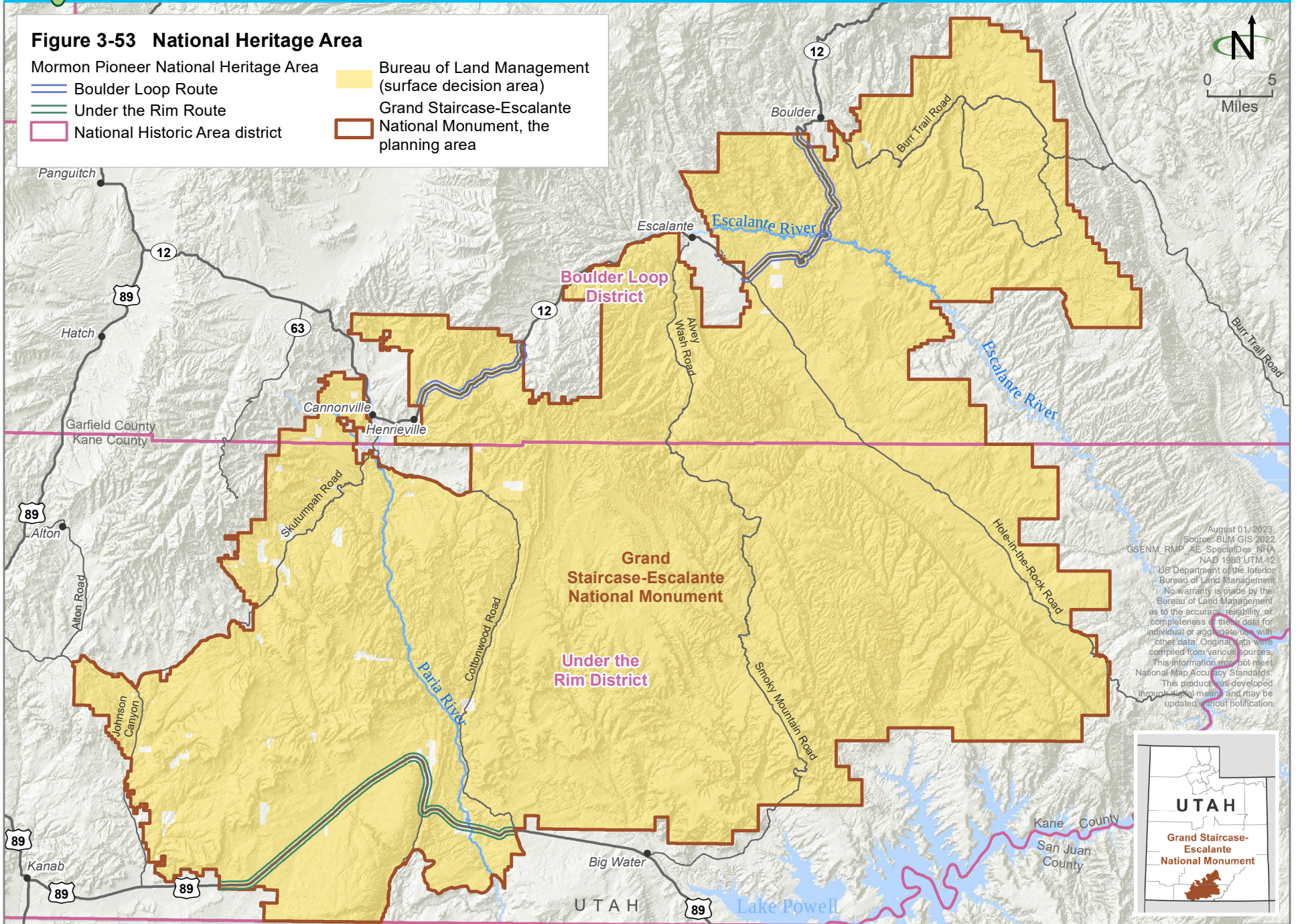




# Grand Staircase-Escalante National Monument

### Figure 3-53 National Heritage Area

- Mormon Pioneer National Heritage Area
- Boulder Loop Route
- Under the Rim Route
- National Historic Area district
- Bureau of Land Management (surface decision area)
- Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_SpecialDes\_NHA  
 NAD 1983 UTM 12  
 US Department of the Interior  
 Bureau of Land Management  
 No warranty is made by the  
 Bureau of Land Management  
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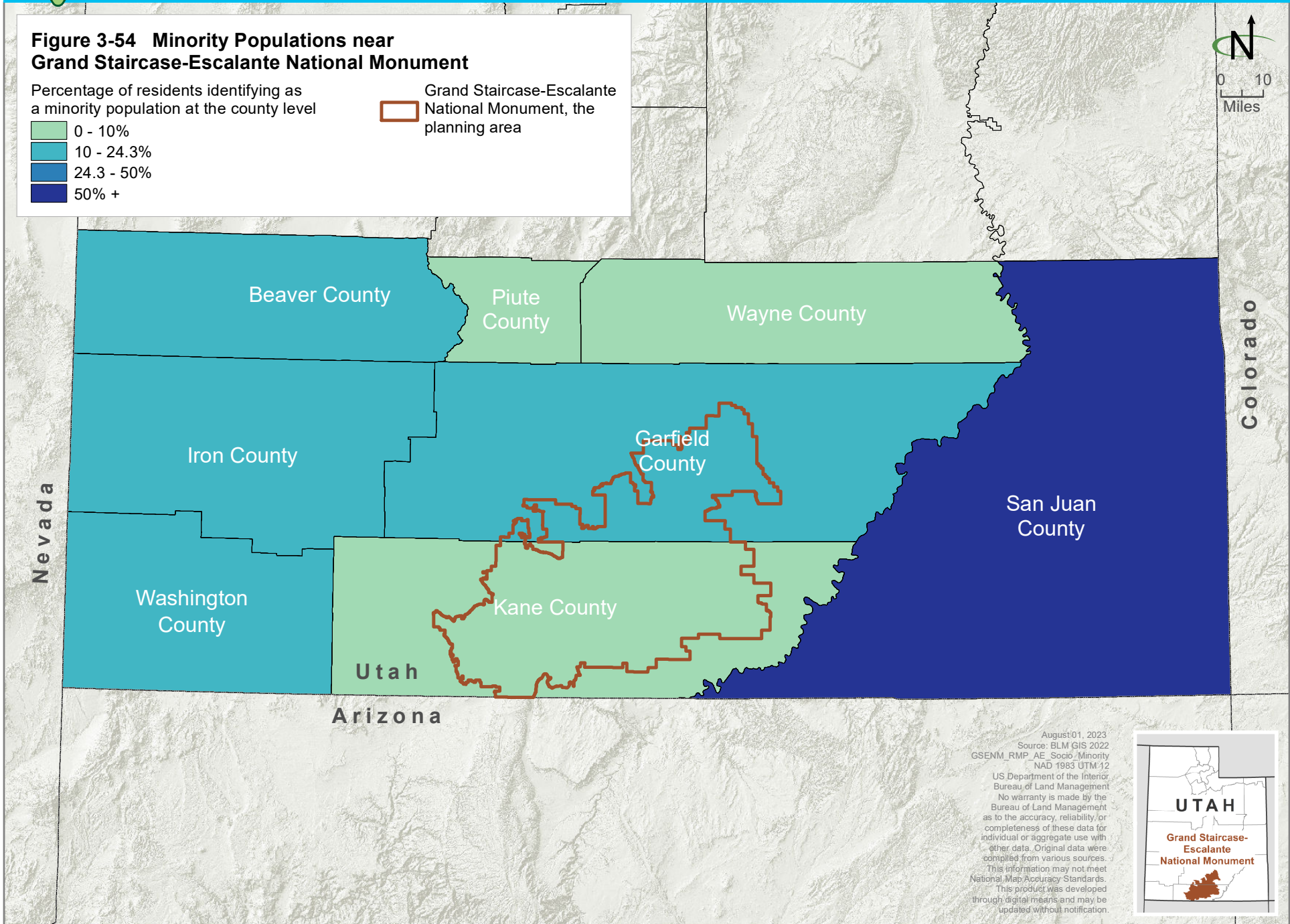
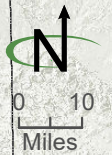
# Grand Staircase-Escalante National Monument

### Figure 3-54 Minority Populations near Grand Staircase-Escalante National Monument

Percentage of residents identifying as a minority population at the county level

- 0 - 10%
- 10 - 24.3%
- 24.3 - 50%
- 50% +

Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_Socio\_Minority  
 NAD 1983 UTM 12  
 US Department of the Interior  
 Bureau of Land Management  
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 updated without notification.







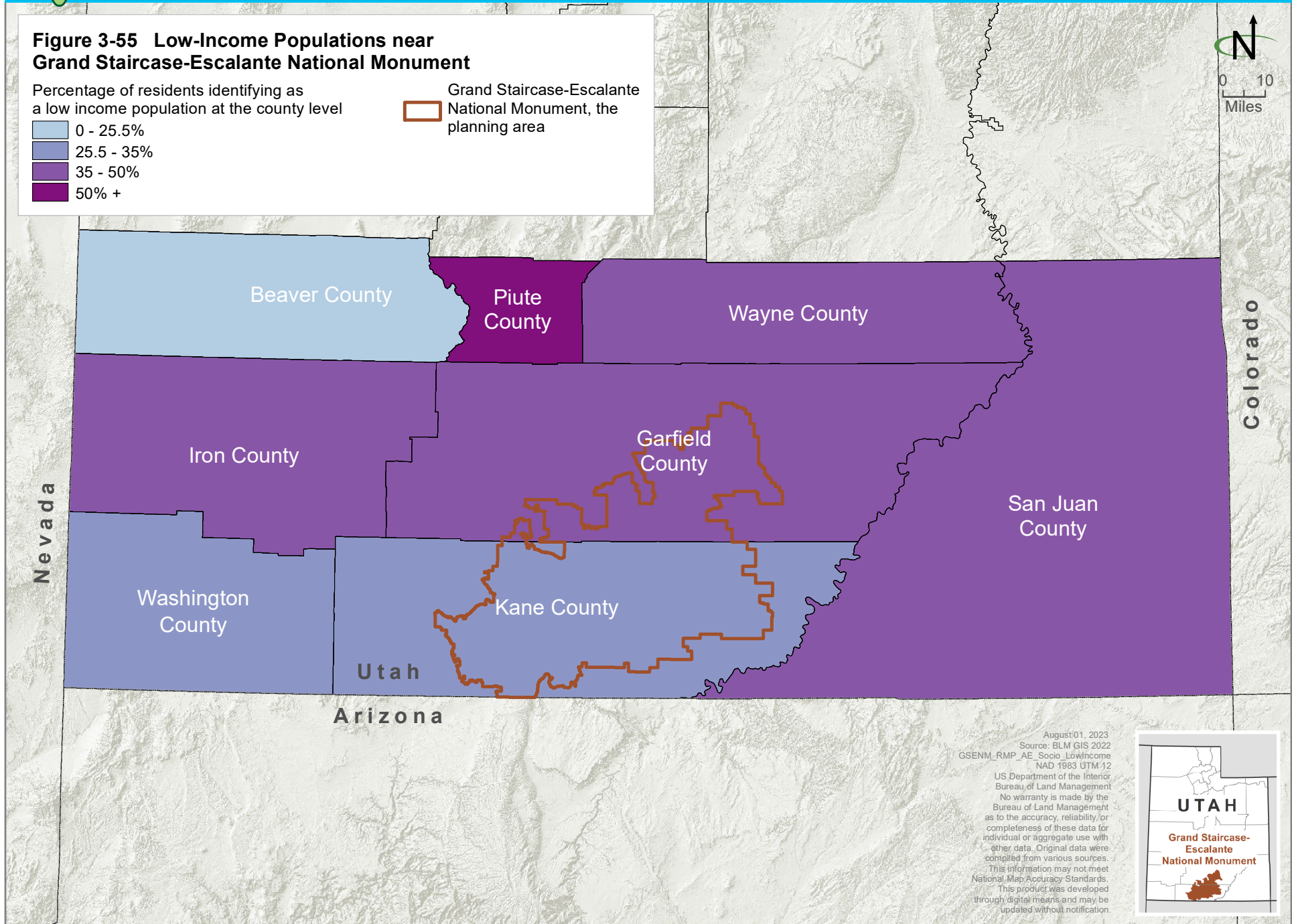
# Grand Staircase-Escalante National Monument

### Figure 3-55 Low-Income Populations near Grand Staircase-Escalante National Monument

Percentage of residents identifying as a low income population at the county level

- 0 - 25.5%
- 25.5 - 35%
- 35 - 50%
- 50% +

Grand Staircase-Escalante National Monument, the planning area



August 01, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_AE\_Socio\_LowIncome  
 NAD 1983 UTM 12  
 US Department of the Interior  
 Bureau of Land Management  
 No warranty is made by the  
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# Appendix B

AIM Analysis Technical Support Document

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# Appendix B. AIM Analysis Technical Support Document

## B.1 SUMMARY

The “Assessment, Inventory, and Monitoring Strategy: For Integrated Renewable Resources Management” (AIM strategy) was developed in 2011 (Toevs et al. 2011) to provide a standardized approach for measuring natural resource condition and trend on BLM-managed lands. Quantitative data collected using the standardized methods of the AIM strategy are used to identify the status and trend of terrestrial and lotic (aquatic) indicators, which informs the status and trend of resources and supports management decisions at multiple spatial scales (Grant-Hoffman et al. 2021).

The BLM analyzed data from AIM observations collected between 2013 and 2022 to gain an understanding of land health at the watershed scale (HUC10) across terrestrial and lotic indicators. There are 24 watersheds that overlap GSENM; however, only 22 were considered for this analysis due to lack of data for two of the watersheds. Data consisted of 563 terrestrial and 39 lotic AIM plots within watersheds overlapping GSENM.

After analyzing the data for terrestrial and lotic indicators as further described below, the BLM identified eight watersheds with a high departure from reference conditions (referred to as departed watersheds). These watersheds were identified by evaluating all the AIM data collected in a watershed, the degree of departure from expected conditions within indicators, the number of indicators that were departed, and departure across both terrestrial and lotic measures. While identifying the watersheds that are departed from expected conditions for any single indicator is based on the statistical analysis described below, identifying the departed watersheds is ultimately based on the professional expertise when considering the available information.

After reviewing the data, the BLM identified the following eight departed watersheds:

- Boulder Creek-Escalante River
- Hackberry Canyon-Cottonwood Creek
- Horse Canyon-Escalante River
- Last Chance Creek
- Middle Paria River
- Sheep Creek
- Upper Paria River
- Upper Johnson Wash

## B.2 TERRESTRIAL AIM ANALYSIS

The BLM analyzed data from AIM observations collected between 2013 and 2022 across 563 terrestrial AIM plots within watersheds overlapping GSENM (505 terrestrial plots are within GSENM). Terrestrial AIM data is gathered for 10 soil and vegetation indicators:

- Total foliar cover
- Annual grass cover
- Perennial grass cover
- Shrub cover
- Tree cover
- Canopy gaps between 100-200 centimeters (cm)
- Canopy gaps greater than 2 meters (m)
- Litter cover
- Soil stability
- Bare soil cover

Prior to assessing the overall land health at each terrestrial AIM plot, benchmarks were needed for each of the 10 soil and vegetation indicators. To do this, benchmark values were set based on all Utah terrestrial AIM points sampled within the respective ecological site group (ESG) of the AIM plot in question. In other words, an AIM plot sampled in Arid Warm – Sandy Uplands, Loamy Uplands ESG would be compared against all terrestrial AIM plots in that ESG across Utah. The benchmark range was set at the 25<sup>th</sup> percentile for total foliar, perennial grass, shrub, and litter cover and soil stability. For the remaining indicators (bare soil, annual grass, and tree cover, canopy gaps 100-200 cm, and canopy gaps greater than 2 m), the benchmark range was set at the 75<sup>th</sup> percentile. **Table B-1** displays the reference values for each indicator by ESG. Indicator values that were below the 25<sup>th</sup> or above the 75<sup>th</sup> percentile threshold (depending on the indicator) were deemed to be not meeting expected ecological conditions. AIM plots were subsequently aggregated by HUC10 watershed. At the watershed level, an indicator was considered not meeting expected ecological conditions if more than 25 percent of AIM observations for that indicator in the watershed were outside the expected range. Further detail can be found in BLM Technical Note 455 and Grant-Hoffman et al. 2021. The summary of each HUC10 watershed (**Table B-2**) and full descriptive statistics for each indicator are presented below (**Table B-3** through **Table B-12**). The eight watersheds that have been identified as highly departed from expected conditions are highlighted in each table.



**Table B-1. Reference values for each indicator by Ecological Site Group.**

Ecological Site Group	Ann. Grass	Bare Soil	Tree Cover	Canopy Gap 100-200cm	Canopy Gap >2m	Litter	Peren. Grass	Shrub Cover	Soil Stability	Total Foliar
	75 <sup>th</sup> Percentile					25 <sup>th</sup> Percentile				
Arid Warm – Breaks	6.98	33.91	0	23.45	43.3	9.63	1.82	3.83	2.29	17.97
Arid Warm – Deep Rocky	0	49.63	11.5	19.76	58.97	11.97	0	3.33	2.14	16.05
Arid Warm – Finer Uplands, Clay Uplands	3.33	33.66	19.33	20.19	50.27	30.67	0	1.98	2.33	25.33
Arid Warm – Gypsum	2.67	69.5	0	17.64	79.13	5.5	0	2.74	2.67	4.24
Arid Warm – Saline Bottoms, Bottoms	3.33	65.51	0	23.24	60.95	10.48	0	1.33	1.56	11.83
Arid Warm – Saline Hills	6.67	72.33	0	22.56	65.28	6	0	2.17	1.96	9.93
Arid Warm – Saline Uplands	11.14	58.98	0	21.57	58.95	11.74	0	3.96	2.33	15.84
Arid Warm – Sandy Bottoms	13.14	64.33	0	13.24	58.74	16	0	0.83	1.75	21.33
Arid Warm – Sandy Uplands, Loamy Uplands	3.98	54	6	20.35	57.36	16.83	0.67	2.97	1.94	19.8
Arid Warm – Shallow	1.33	48.51	5.33	21.08	61.56	10.67	0	3.96	1.94	18
Arid Warm – Very Shallow	0.67	39.6	8.67	20.33	65.71	12	0	4	2.22	15.84
Outcrops	0.33	46.33	1.67	19.57	69.95	7.77	0.67	4.99	1.97	12.5
Riparian	9.33	12.67	18	3.4	9.12	73.33	3.33	38.61	0	72.22
Semiarid Cool – Saline Uplands, Sandy Uplands, Loamy Uplands, Finer Uplands	0	23.9	0	7.61	5.38	34.67	3.15	25.38	2.28	45.67
Semiarid Warm – Breaks	2.74	17.87	28.33	11.03	30.7	49.17	2.17	4.5	2.38	45.5
Semiarid Warm – Finer Uplands	2.67	29.33	28.17	17.37	34.96	50.12	0	4.95	2.83	34.83
Semiarid Warm – Saline Hills	3.67	31.31	3.5	21.5	61.43	19.45	0.33	10.97	1.81	17.33
Semiarid Warm – Saline Uplands	9.33	32.67	0	25.76	32.16	26.67	0.99	4.95	2.17	28.67
Semiarid Warm – Sandy Bottoms, Bottoms	12.33	29.03	13.67	16.6	22.38	49	2	9.67	3.69	39.67
Semiarid Warm – Sandy Uplands, Loamy Uplands	9.83	35.33	17.7	18.54	39.88	38.83	0.67	4.95	2.62	31.33
Semiarid Warm – Shallow, Deep Rocky	4	22.33	27.53	17.31	44.17	37	0	3.96	2.56	31.33
Semiarid Warm – Very Shallow	3.15	29.52	20.73	16.77	56.31	24.67	0	2	2.53	23.51

Source: BLM 2023a

**Table B-2. Watershed summary of the proportion of terrestrial AIM points within each HUC10 watershed meeting expected respective ecological site group (ESG) conditions. Departed watersheds are highlighted in orange.**

HUC10	Proportion of Observations Meeting Expected ESG Condition (%)										
	AIM Plots (n)	Ann. Grass	Canopy Gap 100-200 cm	Canopy Gap > 2 m	Total Foliar	Peren. Grass	Shrub	Tree	Bare Soil Cover	Litter (Herbaceous + Woody) Cover	Soil Stability
Aztec Creek-Colorado River	1	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0
Boulder Creek-Escalante River	14	100.0	85.7	64.3	71.4	85.7	50.0	57.1	100.0	78.6	78.6
Croton Canyon	8	100.0	87.5	100.0	87.5	62.5	87.5	37.5	87.5	100.0	75.0
Fortymile Gulch-Escalante River	30	66.7	63.3	83.3	80.0	73.3	86.7	93.3	76.7	80.0	56.7
Hackberry Canyon-Cottonwood Creek	15	80.0	93.3	53.3	73.3	66.7	80.0	66.7	80.0	80.0	73.3
Halls Creek	3	66.7	66.7	100.0	100.0	100.0	33.3	100.0	66.7	33.3	66.7
Harris Wash	27	92.6	70.4	85.2	85.2	81.5	70.4	48.1	92.6	85.2	85.2
Headwaters Escalante River	1	100.0	100.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	100.0
Headwaters Kanab Creek	52	92.3	78.8	82.7	80.8	67.3	84.6	57.7	76.9	88.5	80.8
Horse Canyon-Escalante River	60	95.0	78.3	53.3	66.7	55.0	61.7	45.0	83.3	75.0	73.3
Last Chance Creek	37	81.1	83.8	70.3	81.1	62.2	81.1	59.5	83.8	89.2	89.2
Lower Wahweap Creek	8	75.0	50.0	100.0	100.0	75.0	75.0	75.0	75.0	100.0	62.5
Middle Paria River	15	80.0	86.7	80.0	86.7	53.3	93.3	73.3	73.3	100.0	80.0
Sheep Creek	7	100.0	57.1	85.7	100.0	85.7	100.0	71.4	71.4	71.4	85.7
Twentymile Wash-Twentyfive Mile Wash	46	91.3	73.9	78.3	82.6	73.9	82.6	58.7	67.4	80.4	67.4
Upper Buckskin Gulch	65	72.3	76.9	75.4	81.5	61.5	80.0	64.6	67.7	80.0	66.2
Upper Johnson Wash	76	81.6	88.2	71.1	89.5	55.3	86.8	59.2	77.6	93.4	85.5
Upper Paria River	29	89.7	79.3	69.0	82.8	72.4	72.4	65.5	51.7	82.8	72.4
Upper Wahweap Creek	29	89.7	82.8	65.5	82.8	48.3	72.4	37.9	62.1	93.1	72.4
Warm Creek	21	76.2	76.2	85.7	95.2	52.4	85.7	76.2	85.7	95.2	90.5
West Canyon Creek-Colorado River	4	50.0	50.0	75.0	75.0	75.0	100.0	100.0	75.0	75.0	25.0
White Sage Wash	7	71.4	71.4	57.1	85.7	71.4	85.7	42.9	71.4	85.7	85.7

Source: BLM 2023a

**Table B-3. Annual grass cover (%) descriptive statistics measured at BLM AIM plots within 22 HUC-10 watersheds within or intersecting the Grand Staircase-Escalante National Monument administrative boundaries.**

HUC10	AIM Plots (n)	Minimum	1 <sup>st</sup> Quartile	Median	Mean	3 <sup>rd</sup> Quartile	Maximum
Aztec Creek-Colorado River	1	32.0	32.0	32.0	32.0	32.0	32.0
Boulder Creek-Escalante River	14	0.0	0.0	0.0	0.5	0.7	3.0
Croton Canyon	8	0.0	0.0	0.0	0.9	1.0	4.7
Fortymile Gulch-Escalante River	30	0.0	0.0	1.3	4.0	4.3	26.0
Hackberry Canyon-Cottonwood Creek	15	0.0	0.0	0.0	6.2	0.8	48.0
Halls Creek	3	0.0	0.0	0.0	1.0	1.5	3.0
Harris Wash	28	0.0	0.0	0.0	0.4	0.0	4.7
Headwaters Escalante River	1	0.0	0.0	0.0	0.0	0.0	0.0
Headwaters Kanab Creek	52	0.0	0.0	0.0	1.8	0.7	37.3
Horse Canyon-Escalante River	60	0.0	0.0	0.0	1.2	0.0	62.7
Last Chance Creek	38	0.0	0.0	0.0	1.9	1.2	35.3
Lower Wahweap Creek	10	0.0	0.0	0.0	2.4	0.7	15.3
Middle Paria River	16	0.0	0.0	1.2	6.9	5.7	42.0
Sheep Creek	7	0.0	0.0	0.0	0.2	0.0	1.3
Twentymile Wash-Twentyfive Mile Wash	47	0.0	0.0	0.0	0.9	0.7	7.9
Upper Buckskin Gulch	65	0.0	0.0	0.7	5.6	4.7	52.7
Upper Johnson Wash	76	0.0	0.0	0.0	4.2	2.8	59.3
Upper Paria River	29	0.0	0.0	0.0	0.9	0.0	11.3
Upper Wahweap Creek	29	0.0	0.0	0.0	2.0	0.0	23.3
Warm Creek	21	0.0	0.0	0.0	4.0	1.3	41.3
West Canyon Creek-Colorado River	4	0.0	0.0	0.7	1.7	2.3	5.3
White Sage Wash	7	0.0	0.0	0.7	6.0	7.7	26.0

Source: BLM 2023a

**Table B-4. Canopy gap proportion between 100-200cm (%) descriptive statistics measured at BLM AIM plots within 22 HUC-10 watersheds within or intersecting the Grand Staircase-Escalante National Monument administrative boundaries.**

HUC10	AIM Plots (n)	Minimum	1 <sup>st</sup> Quartile	Median	Mean	3 <sup>rd</sup> Quartile	Maximum
Aztec Creek-Colorado River	1	1.5	1.5	1.5	1.5	1.5	1.5
Boulder Creek-Escalante River	14	0.0	2.8	12.7	10.9	16.5	23.8
Croton Canyon	8	1.7	9.4	12.3	12.4	13.9	25.1
Fortymile Gulch-Escalante River	30	0.0	14.8	18.6	18.1	21.3	28.6
Hackberry Canyon-Cottonwood Creek	15	2.7	6.4	10.3	10.7	13.8	20.5
Halls Creek	3	15.6	16.9	18.2	19.0	20.7	23.2
Harris Wash	28	2.0	5.3	12.8	13.7	20.7	29.6
Headwaters Escalante River	1	6.5	6.5	6.5	6.5	6.5	6.5
Headwaters Kanab Creek	52	1.6	6.6	11.5	13.0	17.6	35.4
Horse Canyon-Escalante River	60	0.0	7.9	12.7	13.1	19.1	29.5
Last Chance Creek	38	1.6	7.3	12.3	12.3	17.7	23.9
Lower Wahweap Creek	10	13.7	17.0	22.6	21.4	24.7	28.4
Middle Paria River	16	4.7	6.4	11.3	12.4	17.4	25.9
Sheep Creek	7	9.7	13.3	14.6	17.7	22.4	28.4
Twentymile Wash-Twentyfive Mile Wash	47	3.4	8.0	12.7	14.1	19.2	33.0
Upper Buckskin Gulch	65	0.0	8.1	12.8	13.2	17.9	28.7
Upper Johnson Wash	76	0.0	6.0	9.5	10.7	13.7	29.3
Upper Paria River	29	1.2	8.9	12.4	12.8	16.1	25.3
Upper Wahweap Creek	29	3.0	6.2	11.0	13.0	19.5	33.1
Warm Creek	21	0.0	9.3	17.7	16.0	21.2	27.8
West Canyon Creek-Colorado River	4	5.8	14.4	19.6	21.0	26.1	39.1
White Sage Wash	7	2.4	5.2	13.3	13.6	19.9	29.3

Source: BLM 2023a

**Table B-5. Canopy gap proportion greater than 200cm (%) descriptive statistics measured at BLM AIM plots within 22 HUC-10 watersheds within or intersecting the Grand Staircase-Escalante National Monument administrative boundaries.**

HUC10	AIM Plots (n)	Minimum	1 <sup>st</sup> Quartile	Median	Mean	3 <sup>rd</sup> Quartile	Maximum
Aztec Creek-Colorado River	1	12.1	12.1	12.1	12.1	12.1	12.1
Boulder Creek-Escalante River	14	2.3	7.0	26.7	39.8	66.9	100.0
Croton Canyon	8	3.0	20.5	43.2	36.6	52.7	59.1
Fortymile Gulch-Escalante River	30	0.0	16.7	30.1	33.7	45.9	89.2
Hackberry Canyon-Cottonwood Creek	15	2.8	12.7	36.9	36.6	59.5	73.7
Halls Creek	3	9.3	25.8	42.3	36.0	49.4	56.4
Harris Wash	28	0.0	11.1	39.2	36.6	57.3	84.8
Headwaters Escalante River	1	31.0	31.0	31.0	31.0	31.0	31.0
Headwaters Kanab Creek	52	0.0	12.5	23.4	26.0	35.0	87.5
Horse Canyon-Escalante River	60	0.0	38.1	55.1	51.7	69.2	88.8
Last Chance Creek	38	6.1	43.3	51.2	52.3	63.4	86.5
Lower Wahweap Creek	10	11.8	18.1	23.7	24.8	28.2	41.9
Middle Paria River	16	0.0	12.4	27.8	34.2	54.2	88.5
Sheep Creek	7	0.0	19.0	34.9	29.6	41.9	50.4
Twentymile Wash-Twentyfive Mile Wash	47	0.0	18.3	32.2	34.9	48.9	81.8
Upper Buckskin Gulch	65	0.0	14.9	24.3	29.3	39.5	100.0
Upper Johnson Wash	76	0.0	10.7	27.8	28.0	41.5	85.0
Upper Paria River	29	2.7	14.5	25.7	29.0	44.4	62.8
Upper Wahweap Creek	29	11.6	34.0	53.1	49.6	64.2	78.2
Warm Creek	21	11.8	23.5	37.8	40.6	52.9	84.1
West Canyon Creek-Colorado River	4	40.9	49.7	54.2	57.3	61.8	79.7
White Sage Wash	7	6.6	28.0	32.9	39.4	53.7	72.6

Source: BLM 2023a

**Table B-6. Perennial grass cover (%) descriptive statistics measured at BLM AIM plots within 22 HUC-10 watersheds within or intersecting the Grand Staircase-Escalante National Monument administrative boundaries.**

HUC10	AIM Plots (n)	Minimum	1 <sup>st</sup> Quartile	Median	Mean	3 <sup>rd</sup> Quartile	Maximum
Aztec Creek-Colorado River	1	14.7	14.7	14.7	14.7	14.7	14.7
Boulder Creek-Escalante River	14	0.0	1.5	5.7	9.1	16.3	24.8
Croton Canyon	8	0.0	0.0	0.7	3.4	1.7	21.3
Fortymile Gulch-Escalante River	30	0.0	0.8	4.7	4.9	6.5	18.0
Hackberry Canyon-Cottonwood Creek	15	0.0	0.3	4.7	8.1	8.0	48.7
Halls Creek	3	0.7	2.3	4.0	3.5	5.0	5.9
Harris Wash	28	0.0	2.0	4.0	8.1	9.8	38.0
Headwaters Escalante River	1	0.0	0.0	0.0	0.0	0.0	0.0
Headwaters Kanab Creek	52	0.0	0.0	2.0	5.0	8.0	31.3
Horse Canyon-Escalante River	60	0.0	0.0	1.3	5.2	8.8	29.3
Last Chance Creek	38	0.0	0.0	0.7	2.3	1.8	15.3
Lower Wahweap Creek	10	0.0	1.5	6.3	8.5	11.8	24.0
Middle Paria River	16	0.0	0.0	1.0	6.9	7.7	41.6
Sheep Creek	7	0.7	1.0	5.0	8.1	14.3	20.7
Twentymile Wash-Twentyfive Mile Wash	47	0.0	0.7	3.3	7.6	9.8	46.5
Upper Buckskin Gulch	65	0.0	0.0	1.3	4.0	3.3	30.7
Upper Johnson Wash	76	0.0	0.0	1.3	5.5	7.9	38.7
Upper Paria River	29	0.0	0.0	5.3	10.5	16.7	44.0
Upper Wahweap Creek	29	0.0	0.0	0.7	5.1	9.3	29.3
Warm Creek	21	0.0	0.0	0.7	2.6	3.0	11.3
West Canyon Creek-Colorado River	4	0.0	0.5	1.7	1.5	2.7	2.7
White Sage Wash	7	0.0	0.3	0.7	4.1	1.7	24.0

Source: BLM 2023a

**Table B-7. Shrub cover (%) descriptive statistics measured at BLM AIM plots within 22 HUC-10 watersheds within or intersecting the Grand Staircase-Escalante National Monument administrative boundaries.**

HUC10	AIM Plots (n)	Minimum	1 <sup>st</sup> Quartile	Median	Mean	3 <sup>rd</sup> Quartile	Maximum
Aztec Creek-Colorado River	1	1.3	1.3	1.3	1.3	1.3	1.3
Boulder Creek-Escalante River	14	0.0	2.2	4.5	6.2	9.4	18.7
Croton Canyon	8	0.0	4.5	9.6	10.3	15.8	22.0
Fortymile Gulch-Escalante River	30	0.0	9.5	14.4	17.2	26.5	37.3
Hackberry Canyon-Cottonwood Creek	15	1.3	6.6	13.9	16.5	25.3	40.0
Halls Creek	3	2.0	2.5	3.0	6.3	8.4	13.9
Harris Wash	28	0.0	3.2	6.7	14.3	19.7	65.6
Headwaters Escalante River	1	24.0	24.0	24.0	24.0	24.0	24.0
Headwaters Kanab Creek	52	0.0	7.0	20.0	24.2	36.6	66.0
Horse Canyon-Escalante River	60	0.0	2.0	4.0	5.7	7.0	24.7
Last Chance Creek	38	0.0	5.0	7.3	10.3	12.7	33.7
Lower Wahweap Creek	10	0.0	4.0	6.0	8.8	14.5	20.7
Middle Paria River	16	0.7	8.0	12.0	14.6	22.5	32.0
Sheep Creek	7	3.3	6.0	6.9	10.6	11.8	28.7
Twentymile Wash-Twentyfive Mile Wash	47	0.0	4.6	12.0	12.8	19.0	30.7
Upper Buckskin Gulch	65	0.0	5.3	15.8	19.5	30.7	73.3
Upper Johnson Wash	76	0.0	8.0	17.7	20.7	31.4	60.7
Upper Paria River	29	0.0	5.3	12.7	13.0	17.3	45.7
Upper Wahweap Creek	29	1.0	3.3	6.9	6.4	8.0	12.7
Warm Creek	21	0.0	8.7	15.3	13.1	17.3	24.7
West Canyon Creek-Colorado River	4	4.7	5.2	5.7	9.0	9.5	20.0
White Sage Wash	7	4.7	7.7	10.0	10.7	11.7	21.3

Source: BLM 2023a

**Table B-8. Total foliar cover (%) descriptive statistics measured at BLM AIM plots within 22 HUC-10 watersheds within or intersecting the Grand Staircase-Escalante National Monument administrative boundaries.**

HUC10	AIM Plots (n)	Minimum	1 <sup>st</sup> Quartile	Median	Mean	3 <sup>rd</sup> Quartile	Maximum
Aztec Creek-Colorado River	1	63.3	63.3	63.3	63.3	63.3	63.3
Boulder Creek-Escalante River	14	0.0	20.3	29.4	25.9	36.5	40.6
Croton Canyon	8	15.8	23.0	34.0	32.2	39.5	47.3
Fortymile Gulch-Escalante River	30	5.3	23.4	34.0	32.5	41.8	58.0
Hackberry Canyon-Cottonwood Creek	15	14.7	30.3	35.6	40.5	49.7	80.0
Halls Creek	3	16.0	18.4	20.8	22.5	25.7	30.7
Harris Wash	28	6.0	23.8	34.0	36.8	46.1	79.3
Headwaters Escalante River	1	60.7	60.7	60.7	60.7	60.7	60.7
Headwaters Kanab Creek	52	5.3	35.2	50.9	48.9	61.5	88.0
Horse Canyon-Escalante River	60	7.3	17.3	24.7	25.5	31.2	71.3
Last Chance Creek	38	6.0	20.8	25.3	27.4	34.8	54.0
Lower Wahweap Creek	10	20.0	29.8	34.3	34.1	38.5	46.7
Middle Paria River	16	10.7	28.8	40.7	38.0	48.3	64.7
Sheep Creek	7	29.3	34.2	36.0	37.3	41.5	44.7
Twentymile Wash-Twentyfive Mile Wash	47	10.0	29.7	34.7	34.2	39.8	58.4
Upper Buckskin Gulch	65	2.0	35.3	46.7	43.9	52.0	82.0
Upper Johnson Wash	76	4.0	38.5	47.0	49.8	62.8	90.1
Upper Paria River	29	14.7	34.0	40.0	40.3	50.0	61.3
Upper Wahweap Creek	29	8.7	21.3	28.7	28.1	34.7	56.0
Warm Creek	21	1.0	23.8	28.0	28.4	33.7	54.0
West Canyon Creek-Colorado River	4	5.3	13.8	17.7	16.7	20.5	26.0
White Sage Wash	7	24.7	36.7	40.0	41.7	46.7	60.7

Source: BLM 2023a



**Table B-9. Tree cover (%) descriptive statistics measured at BLM AIM plots within 22 HUC-10 watersheds within or intersecting the Grand Staircase-Escalante National Monument administrative boundaries.**

HUC10	AIM Plots (n)	Minimum	1 <sup>st</sup> Quartile	Median	Mean	3 <sup>rd</sup> Quartile	Maximum
Aztec Creek-Colorado River	1	2.0	2.0	2.0	2.0	2.0	2.0
Boulder Creek-Escalante River	14	0.0	0.0	2.7	8.3	14.9	23.8
Croton Canyon	8	0.0	3.5	14.4	14.5	21.7	36.7
Fortymile Gulch-Escalante River	30	0.0	0.0	0.0	1.2	0.0	24.0
Hackberry Canyon-Cottonwood Creek	15	0.0	2.7	10.9	11.6	17.0	28.7
Halls Creek	3	0.0	0.0	0.0	0.3	0.5	1.0
Harris Wash	28	0.0	0.0	9.3	11.5	18.8	45.3
Headwaters Escalante River	1	44.0	44.0	44.0	44.0	44.0	44.0
Headwaters Kanab Creek	52	0.0	3.3	17.7	18.1	27.7	61.3
Horse Canyon-Escalante River	60	0.0	0.0	8.0	10.1	16.2	35.3
Last Chance Creek	38	0.0	1.1	5.3	10.4	16.8	38.6
Lower Wahweap Creek	10	0.0	0.0	0.0	6.3	5.8	32.0
Middle Paria River	16	0.0	0.0	3.7	9.0	16.7	39.3
Sheep Creek	7	9.3	11.4	14.0	17.9	21.1	36.7
Twentymile Wash-Twentyfive Mile Wash	47	0.0	3.6	10.7	12.6	20.4	41.3
Upper Buckskin Gulch	65	0.0	0.0	13.3	15.8	29.3	53.3
Upper Johnson Wash	76	0.0	5.0	16.7	20.3	33.2	68.7
Upper Paria River	29	0.0	0.0	8.9	14.1	26.7	44.7
Upper Wahweap Creek	29	0.0	6.0	12.0	12.8	19.3	37.3
Warm Creek	21	0.0	0.0	0.0	4.4	5.3	20.8
West Canyon Creek-Colorado River	4	0.0	0.0	0.0	0.0	0.0	0.0
White Sage Wash	7	7.3	14.3	21.3	23.2	28.7	48.0

Source: BLM 2023a

**Table B-10. Bare soil cover descriptive statistics measured at BLM AIM plots within 22 HUC-10 watersheds within or intersecting the Grand Staircase-Escalante National Monument administrative boundaries.**

HUC10	AIM Plots (n)	Minimum	1 <sup>st</sup> Quartile	Median	Mean	3 <sup>rd</sup> Quartile	Maximum
Aztec Creek-Colorado River	1	9.3	9.3	9.3	9.3	9.3	9.3
Boulder Creek-Escalante River	14	1.3	22.9	34.8	29.1	38.5	45.3
Croton Canyon	8	5.0	14.0	23.3	24.9	28.9	62.7
Fortymile Gulch-Escalante River	30	6.7	28.8	42.3	39.4	53.3	66.7
Hackberry Canyon-Cottonwood Creek	15	6.7	18.7	22.0	26.0	32.5	49.5
Halls Creek	3	2.7	4.3	5.9	21.0	30.2	54.5
Harris Wash	28	4.0	11.0	21.0	23.1	29.8	70.7
Headwaters Escalante River	1	3.3	3.3	3.3	3.3	3.3	3.3
Headwaters Kanab Creek	52	0.7	13.3	22.3	23.0	30.7	64.7
Horse Canyon-Escalante River	60	1.3	14.7	32.7	32.5	51.2	80.0
Last Chance Creek	38	0.7	7.7	23.0	23.9	38.5	56.0
Lower Wahweap Creek	10	33.3	39.2	42.0	43.2	46.8	58.7
Middle Paria River	16	8.7	26.5	35.8	37.2	46.9	76.0
Sheep Creek	7	8.7	13.5	19.3	20.4	26.2	35.3
Twentymile Wash-Twentyfive Mile Wash	47	3.0	23.4	36.0	33.0	44.3	61.3
Upper Buckskin Gulch	65	0.7	12.0	21.3	25.2	33.3	68.0
Upper Johnson Wash	76	2.0	10.3	18.7	21.2	28.5	50.7
Upper Paria River	29	4.0	18.7	31.3	34.6	47.3	82.2
Upper Wahweap Creek	29	8.7	36.0	44.0	43.4	55.3	76.7
Warm Creek	21	2.0	24.8	38.7	35.2	47.5	56.0
West Canyon Creek-Colorado River	4	7.3	15.8	26.3	33.5	44.0	74.0
White Sage Wash	7	10.7	12.7	21.3	26.5	29.3	69.3

Source: BLM 2023a

**Table B-11. First hit (FH)<sup>1</sup> cyanobacteria cover descriptive statistics measured at BLM AIM plots within 22 HUC-10 watersheds within or intersecting the Grand Staircase-Escalante National Monument administrative boundaries.**

HUC10	AIM Plots (n)	Minimum	1 <sup>st</sup> Quartile	Median	Mean	3 <sup>rd</sup> Quartile	Maximum
Aztec Creek-Colorado River	1	1.3	1.3	1.3	1.3	1.3	1.3
Boulder Creek-Escalante River	14	0.0	0.0	0.0	2.4	1.7	18.0
Croton Canyon	8	0.0	0.0	0.0	4.6	6.2	21.3
Fortymile Gulch-Escalante River	30	0.0	0.0	0.0	2.0	0.0	39.3
Hackberry Canyon-Cottonwood Creek	15	0.0	0.0	0.0	4.1	5.7	26.0
Halls Creek	3	0.0	0.0	0.0	9.8	14.7	29.3
Harris Wash	28	0.0	0.0	0.0	4.3	4.8	28.0
Headwaters Escalante River	1	0.0	0.0	0.0	0.0	0.0	0.0
Headwaters Kanab Creek	52	0.0	0.0	0.0	1.6	0.0	20.0
Horse Canyon-Escalante River	60	0.0	0.0	0.0	1.6	1.5	12.7
Last Chance Creek	38	0.0	0.0	0.0	2.3	1.8	15.3
Lower Wahweap Creek	10	0.0	0.0	0.0	0.0	0.0	0.0
Middle Paria River	16	0.0	0.0	0.0	0.9	0.2	6.0
Sheep Creek	7	0.0	0.0	0.0	4.2	7.0	15.3
Twentymile Wash-Twentyfive Mile Wash	47	0.0	0.0	0.0	0.7	0.0	6.0
Upper Buckskin Gulch	65	0.0	0.0	0.0	1.3	0.0	23.3
Upper Johnson Wash	76	0.0	0.0	0.0	1.7	2.0	18.0
Upper Paria River	29	0.0	0.0	0.0	1.4	0.0	37.3
Upper Wahweap Creek	29	0.0	0.0	0.0	1.7	0.0	24.0
Warm Creek	21	0.0	0.0	0.0	0.7	0.0	6.7
West Canyon Creek-Colorado River	4	0.0	0.0	0.0	0.0	0.0	0.0
White Sage Wash	7	0.0	0.0	0.0	4.5	7.7	16.0

Source: BLM 2023a

<sup>1</sup> Cyanobacteria cover only reported as first hit cover

**Table B-12. All hit (AH) litter (herbaceous + woody) cover descriptive statistics measured at BLM AIM plots within 22 HUC-10 watersheds within or intersecting the Grand Staircase-Escalante National Monument administrative boundaries.**

HUC10	AIM Plots (n)	Minimum	1 <sup>st</sup> Quartile	Median	Mean	3 <sup>rd</sup> Quartile	Maximum
Aztec Creek-Colorado River	1	64.7	64.7	64.7	64.7	64.7	64.7
Boulder Creek-Escalante River	14	0.0	33.3	37.3	33.1	44.6	51.5
Croton Canyon	8	18.8	31.5	43.7	39.0	47.4	54.7
Fortymile Gulch-Escalante River	30	2.7	19.5	26.3	27.2	34.5	61.3
Hackberry Canyon-Cottonwood Creek	15	27.3	37.8	40.0	44.6	50.3	70.7
Halls Creek	3	10.7	11.3	11.9	13.8	15.3	18.8
Harris Wash	28	5.3	26.5	35.0	39.9	55.7	84.7
Headwaters Escalante River	1	80.0	80.0	80.0	80.0	80.0	80.0
Headwaters Kanab Creek	52	16.7	48.0	61.7	62.4	76.7	94.7
Horse Canyon-Escalante River	60	0.0	16.7	26.3	27.0	35.4	73.3
Last Chance Creek	38	5.3	21.4	28.7	30.2	35.9	68.3
Lower Wahweap Creek	10	16.0	28.3	32.0	34.4	37.8	56.0
Middle Paria River	16	6.0	26.5	36.6	36.8	49.2	60.0
Sheep Creek	7	36.6	43.6	46.7	50.9	61.3	63.3
Twentymile Wash-Twentyfive Mile Wash	47	10.0	32.2	40.7	40.0	47.3	80.7
Upper Buckskin Gulch	65	0.7	38.7	52.0	51.8	65.3	86.7
Upper Johnson Wash	76	24.7	50.7	63.8	62.6	74.7	95.3
Upper Paria River	29	3.0	28.7	44.7	44.0	58.7	81.3
Upper Wahweap Creek	29	6.9	29.3	34.7	34.7	44.0	54.0
Warm Creek	21	5.0	21.3	32.7	32.3	42.6	53.3
West Canyon Creek-Colorado River	4	5.3	11.3	13.7	11.8	14.2	14.7
White Sage Wash	7	27.3	45.3	48.0	53.7	68.0	74.0

Source: BLM 2023a

**Table B-13. Soil stability descriptive statistics measured at BLM AIM plots within 22 HUC-10 watersheds within or intersecting the Grand Staircase-Escalante National Monument administrative boundaries.**

HUC10	AIM Plots (n)	Minimum	1 <sup>st</sup> Quartile	Median	Mean	3 <sup>rd</sup> Quartile	Maximum
Aztec Creek-Colorado River	1	3.1	3.1	3.1	3.1	3.1	3.1
Boulder Creek-Escalante River	14	0.0	2.7	3.7	3.4	4.7	6.0
Croton Canyon	8	1.4	2.5	3.0	3.1	3.9	4.9
Fortymile Gulch-Escalante River	30	1.0	1.6	2.1	2.4	3.3	4.3
Hackberry Canyon-Cottonwood Creek	15	1.8	2.3	2.9	3.1	3.4	5.2
Halls Creek	3	2.1	3.3	4.4	3.8	4.6	4.8
Harris Wash	28	1.1	2.5	3.1	3.3	3.9	5.6
Headwaters Escalante River	1	2.6	2.6	2.6	2.6	2.6	2.6
Headwaters Kanab Creek	52	1.1	2.9	3.8	3.7	4.5	5.6
Horse Canyon-Escalante River	60	1.2	1.9	2.6	2.7	3.3	5.7
Last Chance Creek	38	1.7	2.8	3.2	3.4	4.0	5.8
Lower Wahweap Creek	10	1.3	1.8	2.6	2.8	3.8	4.7
Middle Paria River	16	1.6	3.1	3.8	3.6	4.1	5.5
Sheep Creek	7	2.2	2.9	3.3	3.5	4.1	4.6
Twentymile Wash-Twentyfive Mile Wash	47	0.0	2.0	3.1	3.0	3.8	5.7
Upper Buckskin Gulch	65	1.6	2.3	3.3	3.4	4.3	6.0
Upper Johnson Wash	76	1.3	2.9	3.6	3.7	4.4	5.7
Upper Paria River	29	1.1	2.7	3.3	3.2	4.0	5.9
Upper Wahweap Creek	29	1.1	1.9	2.5	2.9	3.6	5.7
Warm Creek	21	1.7	2.7	2.8	3.0	3.9	4.8
West Canyon Creek-Colorado River	4	1.2	1.3	1.7	1.7	2.2	2.3
White Sage Wash	7	1.4	2.7	2.9	3.2	3.7	5.1

Source: BLM 2023a

### B.3 LOTIC AIM ANALYSIS

Lotic AIM monitoring began in the Grand Staircase Escalante National Monument in 2013. From 2013 through 2022, 51 lotic AIM sample events have taken place at 39 unique reaches in and adjacent to GSENM with some sites being sampled multiple times. Sample points are from a combination of randomly located sites from a stratified random design and targeted sites. Separate analysis of both the random sites (BLM 2023b) which can make inference to the larger area the points were selected from as well as all sites were conducted separately.

All lotic AIM data was collected using the most up to date Lotic AIM protocol, currently TR 1735-2 (BLM 2021). The lotic AIM protocol standardizes the collection of indicators to evaluate the chemical, physical, and biological properties of wadeable perennial streams. These indicators are evaluated based on benchmarks that have been developed to evaluate departure from reference condition and comparing sites to similar streams based on ecoregions, stream sizes, and other factors. When there were multiple site visits at one reach, the most recent available data was used for this analysis.

Perennial water is limited in GSENM with 335 km in 8 HUCs designated as perennial by the National Hydrography Dataset (NHD). All indicator data was evaluated in the benchmark tool developed by the NOC with the established benchmarks for Utah (**Table B-15**). Nine indicators were selected for the assessment that describe the physical habitat of the stream and water quality to determine the overall condition of the reach (**Table B-14**; BLM 2020).

Indicators are reported as major, moderate, or minimal departure from reference condition in the benchmark tool. These descriptions were converted to values of major = 1, moderate = 0.5, minimal = 0.

The values for each site were averaged for a total reach condition score ranging from 0 to 1 (**Table B-16**). Reach scores for sites within each HUC 10 were also averaged to develop a HUC 10 average reach condition score by watershed (**Table B-16**). This average reach score by HUC should not be interpreted as the condition of all streams in the watershed just of the reaches that have been sampled in the HUC.

Utah Division of Water Quality (DWQ) designates beneficial uses for all water bodies with water quality standards needed to attain those beneficial uses. They publish a bi-annual report on if waterbodies are meeting their beneficial uses or not and for what parameters. Data from Utah Division of Water Quality support the results of the AIM aquatic data analysis. All three watersheds identified as having high departure from reference conditions based on lotic AIM analysis (Upper Johnson Wash, Upper Paria River and Hackberry Canyon-Cottonwood Creek) also have at least some portion of an assessment unit that has been identified on the 303d list of impaired watersheds by the Utah DEQ (**Table B-17**).

**Table B-14. Summary of Lotic AIM indicators used in analysis and their respective predicted stress response.**

<b>Indicator</b>	<b>Indicator Description</b>	<b>Predicted Response to Stress</b>
% Bank Overhead Cover (BOC)	Average percent overhead cover provided by stream banks (left and right), vegetation or other objects measured at the scour line of the left and right banks across 11 transects (units: %, min: 0, max: 100, n= 22).	Decrease with stress
% Fine Sediment (FS)	Average percent fine sediment ( $\leq$ 2mm) on the pool tail (units %, min: 0, max: 100, n= 3 per pool).	Increases with stress
% Banks Covered and Stable (BCS)	Percent of 42 banks both stable (lacking visible signs of active erosions (e.g., slump, slough, fracture)) and covered (greater than 50% foliar cover provided by perennial vegetation, wood or mineral substrate > 15 cm) (units: %, min: 0, max: 100, n= 42).	Decrease with stress
Floodplain Connectivity (FC)	The ratio of average bench height to average bankfull height taken from the thalweg = (bench height + thalweg depth) / (bankfull height + thalweg depth). This is also known as Rosgen's Bank Height Ratio (units: none, n= 11).	Increase with stress
Macroinvertebrates Observed / Expected(O/E)	Biological condition was assessed using an observed/expected (O/E) index. O/E models compare the macroinvertebrate taxa observed at sites of unknown biological condition (i.e., 'test sites') to the assemblages expected to be found in the absence of anthropogenic stressors (see Hawkins et al. 2000 for details) (Units: none, min: 0, max: 1.5).	Decrease with stress
pH	Measured pH value using a Sonde (units: SU, min: 0, max: 14, n=1).	Increase or decrease
Total Nitrogen (TN)	Measured total nitrogen value (units: $\mu\text{g/L}$ , n=1).	Increase with stress
Total Phosphorous (TP)	Measured total phosphorous value (units: $\mu\text{g/L}$ , n=1).	Increase with stress
Specific Conductance (spC)	Measured specific conductance value using a Sonde. The specific conductance is conductivity standardized to 25 degrees C. (units: $\mu\text{S/cm}$ , min: 0, max: 65500, n=1)	Increase with stress
Temperature	Site-specific prediction of 19 year average August stream temperature for the period of 1993 to 2011, as derived from NorWeST models (Isaak et al. 2016; units: degrees C, n=1)	Increase with stress

**Table B-15. Overview of benchmarks used for the lotic AIM analysis. All reaches are located in the Eastern Xeric Basin hybrid level III ecoregion, where regional reference values were drawn.**

Indicator	Benchmark Description	Departure	Eastern Xeric Basin	
			Small	Large
% Bank Overhead Cover	30th (moderate) and 10th (major) percentiles of regional reference conditions defined by 23 groups of EPA hybrid level III ecoregions and a combination of stream size (> or < 10 m bankfull width) and sampling protocol (wadeable vs. boatable). (Kaufmann et al. 1999; Stoddard et al. 2005)	Moderate	70.9	27.1
		Major	39.8	10.4
% Fine Sediment	70th (moderate) and 90th (major) percentiles of regional reference conditions defined by 23 groups of EPA hybrid level III ecoregions and a combination of stream size (> or < 10 m bankfull width) and sampling protocol (wadeable vs. boatable). (Kaufmann et al. 1999; Stoddard et al. 2005)	Moderate	44	46
		Major	73	82
% Banks Covered and Stable	The Eastern Xeric ecoregion should have naturally lower bank stability, so thresholds were 70% of banks stable and/or covered (moderate) and 50% of banks stable and/or covered (major).	Moderate	70	
		Major	50	
Floodplain Connectivity	Mean floodplain height 1.3 (moderate) and 1.5 (major) times mean bankfull height. Rosgen 1996.	Moderate	1.30	
		Major	1.50	
O/E Macroinvertebrates	Varies depending on the model (see <a href="http://www.usu.edu/buglab/">www.usu.edu/buglab/</a> for more information). In general, most model's benchmarks are the mean of the reference distribution plus 1SD (moderate) or 2SD (major) DEQ 2015.	Moderate	0.76	
		Major	0.68	
pH	Acidic (7, 6.5) and alkaline (8.5, 9) for moderate and major departure from reference respectively. (Kaufmann et al. 1999)	Moderate	6.5-7.0 or 8.5-9.0	
		Major	< 6.5 or > 9.0	
Total Nitrogen (TN)	Utah Department of Environmental Quality standards (only two condition classes used; major = not meeting, minimal = meeting).	Major	400 µg/L	
Total Phosphorous (TP)	Utah Department of Environmental Quality standards (only two condition classes used; major = not meeting, minimal = meeting).	Major	35 µg/L	
Specific Conductance (spC)	Site-specific predicted values for reference specific conductance values (Olson and Hawkins 2012; units: µS/cm, min: 0, max: 65500).	<i>site-specific</i>		
Temperature	State of Utah water quality standard for designated beneficial uses of warm water fisheries.	Moderate	24° C	
		Major	27° C	
	State of Utah water quality standard for designated beneficial cold-water fisheries.	Moderate	16° C	
		Major	20° C	



**Table B-16. Watershed summary of the proportion of lotic AIM reaches within each HUC 10 and their respective degree of departure per indicator.<sup>1</sup>**

HUC 10	Lotic AIM Sampling Events (n)	Lotic AIM Reaches (n)	Avg. Reach Departure Score	Proportion of Reaches in Each Degree of Departure (%)										
				Departure	BOC	FS	BSC	FC	O/E	pH	TN	TP	SpC	Temp
Upper Johnson Wash	3	2	0.55	Major	100.00		100.00	100.00	100.00	50.00			100.00	
				Moderate										
				Minimal		100.00				50.00	100.00	100.00		100.00
Upper Paria River	4	2	0.48	Major			100.00		N/A		66.67	66.67	66.67	
				Moderate	66.67	66.67		66.67						
				Minimal	33.33	33.33		33.33		100.00				100.00
Hackberry Canyon-Cottonwood Creek	3	2	0.48	Major		100.00	100.00	100.00				50.00		
				Moderate	100.00				50.00					
				Minimal					100.00	50.00		100.00	100.00	
Middle Paria River	4	4	0.38	Major			75.00	50.00	N/A		25.00	25.00	100.00	
				Moderate	25.00	50.00	25.00							
				Minimal	75.00	50.00		50.00		100.00	50.00	50.00		100.00
Horse Canyon Escalante River	3	3	0.36	Major	0.00	33.33	100.00	100.00	33.33				33.33	
				Moderate	33.33	33.33						33.33		
				Minimal	66.67	33.33			33.33	100.00	100.00	33.33	100.00	100.00
Last Chance Creek	4	4	0.33	Major	25.00		50.00	75.00	N/A				50.00	
				Moderate	50.00	50.00	50.00	25.00						
				Minimal	25.00	50.00				100.00	100.00	100.00	25.00	100.00
Boulder-Creek Escalante	29	20	0.29	Major		5.00	25.00	65.00	5.00		5.00	10.00	80.00	0.00
				Moderate	15.00	55.00	20.00	5.00	5.00	10.00	5.00	5.00	5.00	60.00
				Minimal	85.00	40.00	55.00	30.00	75.00	90.00	90.00	85.00		40.00
Sheep Creek	1	1	0.19	Major			100.00		N/A				N/A	
				Moderate	100.00									
				Minimal		100.00		100.00		100.00	100.00	100.00		100.00

<sup>1</sup> Proportions totaling < 100 and N/A's indicate missing data or model errors and were not included in the analysis.

**Table B-17. Summary of Utah Division of Water Quality Assessments of Watersheds within GSENM.**

<b>HUC 10</b>	<b>Utah DWQ Assessment</b>	<b>Percent DWQ Assessment Area on BLM land within Watershed</b>	<b>Impairment</b>
Upper Johnson Wash	Total Maximum Daily Load plans Required (Impaired 303d list)	100	pH, Benthic Invertebrate Assessment, Zinc, Total Dissolved Solids (TDS), Temperature, Dissolved Oxygen
Upper Paria River	Total Maximum Daily Load plans Required (Impaired 303d list)	100	Benthic Invertebrate Assessment, Total Dissolved Solids (TDS), Temperature
Hackberry Canyon-Cottonwood Creek	Total Maximum Daily Load plans Required (Impaired 303d list)	100	Dissolved Oxygen
Middle Paria River	Total Maximum Daily Load plans Required (Impaired 303d list)	100	Temperature, Total Dissolved Solids (TDS), Benthic Invertebrate Assessment
Horse Canyon-Escalante River	Total Maximum Daily Load plans Required (Impaired 303d list)	24	Benthic Invertebrate Assessment
	Insufficient Data. Need more information	59	
	Supports all designated uses	0	
	No defined assessment unit	17	
Last Chance Creek	Total Maximum Daily Load plans Required (Impaired 303d list)	99	Benthic Invertebrate Assessment, Dissolved Oxygen, Total Dissolved Solids (TDS)
	Insufficient Data. Need more information	0.2	
Boulder-Creek Escalante	Total Maximum Daily Load plans Required (Impaired 303d list)	12	Benthic Invertebrate Assessment, Temperature, Total Dissolved Solids (TDS), Dissolved Oxygen
	Supports all assessed uses	15	
	Insufficient Data. Need more information	59	
	Supports all designated uses	13	
Sheep Creek	Total Maximum Daily Load plans Required (Impaired 303d list)	100	Temperature, Total Dissolved Solids (TDS)

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# Appendix C

## Resource Conservation Measures

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# Appendix C. Resource Conservation Measures

## C.1 INTRODUCTION

The application of resource conservation measures, or best management practices (BMPs), is often the first tool used to mitigate site-specific impacts in order to meet the United States (U.S.) Department of the Interior, Bureau of Land Management's (BLM) statutory requirements for environmental protection and meet the resource-specific goals and objectives of the resource management plan (RMP). The BLM will apply resource conservation measures to modify the design of authorized uses or activities to meet these obligations.

Resource conservation measures will be applied to avoid, minimize, rectify, and reduce impacts during activity and implementation-level decisions. Resource conservation measures for authorizations will be identified as part of the National Environmental Policy Act (NEPA) process, through interdisciplinary analysis involving resource specialists, project proponents, government entities, landowners, or other surface management agencies. Those measures selected for implementation will be identified in the record of decision or decision record for those authorizations and will inform a potential lessee, permittee, or operator of the requirements that must be met when using BLM-managed surface lands and minerals to mitigate impacts from those authorizations. Because these actions create a clear obligation for the BLM to ensure any proposed resource conservation measures adopted in the environmental review process is performed, there is assurance that mitigation will lead to a reduction of environmental impacts in the implementation stage and have binding mechanisms for enforcement (Council on Environmental Quality 2011).

Because of site-specific circumstances and localized resource conditions, resource conservation measures are site- and project-specific and may not apply to some or all activities (such as a resource or conflict is not present on a given site) and/or may require slight variations from what is generally recommended. The BLM may add additional measures as deemed necessary during site-specific environmental analysis. In addition, resource conservation measures may be required by other federal or state agencies as part of their permitting process. As such, this appendix does not attempt to list all possible resource conservation measures or sources... While the overall vision embraces the use of these guidelines to reduce/minimize impacts on the environment, they are not to be considered a land use plan decision.

## C.2 POLICY AND GUIDANCE DOCUMENTS

The following documents contain resource conservation measures that the BLM may apply, as appropriate, in project design. As previously noted, this is not an exhaustive list.

- Pollinator-Friendly Best Management Practices on Federal Lands (U.S. Department of the Interior, Fish and Wildlife Service [USFWS] 2015a)
- National Strategy to Promote the Health of Honey Bees and other Pollinators (Pollinator Health Task Force 2015)
- Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances (USFWS 2002a)

- Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006 (Avian Power Line Interaction Committee 2006)
- Avian Protection Plan Guidelines (Avian Power Line Interaction Committee and USFWS 2005) for new powerline construction (including upgrades and reconstruction)
- Final Recovery Plan Southwestern Willow Flycatcher (USFWS 2002b)
- Mexican Spotted Owl Recovery Plan (USFWS 2012)
- Construction Stormwater Field Guide (U.S. Department of Transportation 2016)
- American Association of State Highway and Transportation Officials Construction Stormwater Field Guide
- Leave-No-Trace principles
- National Seed Strategy for Rehabilitation and Restoration (USFWS 2015b)
- Interagency Operating Procedures identified in the Approved Resource Management Plan Amendments/Record of Decision for Designation of Energy Corridors on Bureau of Land Management-Administered Lands in the 11 Western States (BLM 2009), as revised or amended
- Five Principles for Responsible Outdoor Lighting (International Dark Sky Association and Illuminating Engineering Society 2020)
- BLM Technical Note 457, Night Sky and Dark Environments: Best Management Practices for Artificial Light at Night on BLM-managed Lands (BLM 2023)

### **C.3 AIR QUALITY**

- Fugitive Dust
  - Water or alternative dust suppressants (that is, surfactants or other erosion control materials) would be utilized to minimize fugitive dust during construction and applied on material (sand, gravel, soil, minerals, or other matter that may create fugitive dust) piles.
  - Periodic watering or chemical stabilization of unpaved roads.
  - Vehicles are not to exceed a speed of 20 miles per hour on any unpaved road to discourage the generation of fugitive dust.
  - Enclose, cover, water, or otherwise treat trucks carrying loads to minimize loss of material to wind and spillage.
  - Cover, enclose, or stabilize excavated or inactive material piles after activity ceases.
  - Use chip-seal or asphalt surface for long-term access where applicable.
  - Train workers to handle construction materials and debris to reduce fugitive emissions.
- Engine Exhaust
  - All vehicles and construction equipment would be properly maintained to minimize exhaust emissions.
  - Utilize carpooling to and from sites to minimize vehicle-related emissions.
  - Reduce unnecessary idling.
  - Reduce elemental carbon, particularly from diesel-fueled engines, by utilizing controls such as diesel particulate filters on diesel engines, or using lower emitting engines (such as Tier 2 or better).

- Opportunities to reduce nitrogen oxides (NO<sub>x</sub>), particularly from internal combustion engines, will be pursued to control impacts related to deposition and visibility in nearby Class I areas. This may include the use of lower-emitting engines (such as Tier 2 or better for mobile and non-road diesel engines), and/or add-on controls (such as selective catalytic reduction) where appropriate.
- Use of ultra-low sulfur diesel in engines when available.

**C.4 FISH AND WILDLIFE AND SPECIAL STATUS SPECIES**

**C.4.1 General**

- The maintenance of instream flows would provide adequate water for natural structure and function of riparian vegetation, which serves as habitat for many special status animal species.
- Apply timing restrictions on activities that may cause species disturbance or disruption. Habitat boundaries and timing may be adjusted through consultation with the appropriate agency (such as Utah Division of Wildlife Resources or USFWS).

<b>Species Consideration</b>	<b>Conservation Measure</b>
Migratory birds prime nesting season	<b>Conservation Measure:</b> Prohibit disruptive activities during prime nesting season (April 1 to July 31).  <b>Exception or Other Requirement:</b> None.
Migratory birds nesting season	Avoid disruptive activities during the migratory bird nesting season.  <b>Exception or Other Requirement:</b> If disturbance must occur within the nesting season, site-specific nest surveys will be conducted.
Pronghorn fawning	Prohibit disruptive activities in crucial pronghorn habitat during fawning season (April 15 to June 15).  <b>Exception or Other Requirement:</b> None.
Desert bighorn sheep lambing	Prohibit disruptive activities in crucial desert bighorn sheep habitat during lambing season (February 15 to June 15).  <b>Exception or Other Requirement:</b> None.
Desert bighorn sheep rutting	Prohibit disruptive activities in crucial desert bighorn sheep habitat during rutting season (October 15 to December 15).  <b>Exception or Other Requirement:</b> None.
Mule deer and elk wintering	Prohibit disruptive activities in crucial mule deer and elk winter range from November 15 to April 15.  <b>Exception or Other Requirement:</b> Activity that would improve mule deer or elk habitat would be allowed.
Paunsaugunt herd (mule deer) migration	Prohibit disruptive activities in the Highway 89 mule deer migration corridor from October 1 to April 30.  <b>Exception or Other Requirement:</b> Exceptions considered.

Species Consideration	Conservation Measure
Raptor nesting	<p>Prohibit disruptive activities to nesting raptors within <b>0.25-mile</b> of a raptor nest during the following time periods:</p> <ul style="list-style-type: none"> <li>• Great-horned owl (<i>Bubo virginianus</i>): December 1 to September 31</li> <li>• Boreal owl (<i>Aegolius funereus</i>): February 1 to July 31</li> <li>• Long-eared owl (<i>asio otus</i>): February 1 to August 15</li> <li>• Screech owl (<i>Megascops kennicottii</i>): March 1 to August 15</li> <li>• Northern saw-whet owl (<i>Aegolius acadicus</i>): March 1 to August 31</li> <li>• Northern pygmy owl (<i>Glaucidium gnoma</i>): April 1 to August 1</li> <li>• Prairie falcon (<i>Falco mexicanus</i>): April 1 to August 31</li> <li>• Flammulated owl (<i>Otus flammeolus</i>): April 1 to 30</li> </ul> <p>Prohibit disruptive activities to nesting raptors within <b>0.50-mile</b> of raptor nests during the following time periods:</p> <ul style="list-style-type: none"> <li>• Golden eagle (<i>Aquila chrysaetos</i>): January 1 to August 31</li> <li>• Red-tailed hawk (<i>Buteo jamaicensis</i>): March 15 to August 15</li> <li>• Cooper's hawk (<i>Accipiter cooperii</i>) and sharp-shinned hawk (<i>Accipiter striatus</i>): March 15 to August 31</li> <li>• Swainson's hawk (<i>Buteo swainsoni</i>): March 1 to August 31</li> <li>• Northern harrier (<i>circus cyaneus</i>): April 1 to August 15</li> <li>• Merlin (<i>falco columbarius</i>) and osprey (<i>Pandion haliaetus</i>): April 1 to August 31</li> <li>• Turkey vulture (<i>cathartes aura</i>): May 1 to August 15</li> </ul> <p>Prohibit disruptive activities to nesting raptors within <b>1 mile</b> of raptor nests during the following time periods:</p> <ul style="list-style-type: none"> <li>• Peregrine falcon (<i>Falco peregrinus</i>): February 1 to August 31</li> </ul> <p><b>Exception or Other Requirement:</b> Allow non-permanent (short-term) activities within the spatial buffer of nests during the breeding season as long as those activities are shown to not affect nesting raptors.</p> <p>Where raptor nests are unoccupied (3 years of documented non-use), allow for permanent (long-term) facilities and structures to be constructed within the spatial buffer zone as long as they would not cause the nest site to become unsuitable for future nesting. Construction activities are prohibited during breeding season.</p>
Special status raptor nesting	<p>Prohibit disruptive activities within <b>0.25-mile</b> of special status raptor species nest sites during the following time periods:</p> <ul style="list-style-type: none"> <li>• Short-eared owl (<i>Asio flammeus</i>): March 1 to August 1</li> <li>• Burrowing owl (<i>Athene cunicularia</i>): March 1 to August 31</li> </ul> <p><b>Exception or Other Requirement:</b> None.</p>
Bald eagle nesting	<p>Do not place any permanent infrastructure within <b>1 mile</b> of bald eagle nest sites (year-round).</p> <p><b>Exception or Other Requirement:</b> None.</p>
Bald eagle nesting	<p>Prohibit disruptive activities within <b>1 mile</b> of bald eagle nest sites that may disturb nesting bald eagles from January 1 to August 31.</p> <p><b>Exception or Other Requirement:</b> Exceptions may be granted where no nesting behavior is initiated prior to June 1.</p>
Bald eagle winter concentration areas	<p>Do not place any permanent infrastructure within <b>1 mile</b> of winter concentration areas (year-round).</p> <p><b>Exception or Other Requirement:</b> None.</p>

Species Consideration	Conservation Measure
Bald eagle winter concentration areas	<p>Restrict temporary activities or habitat alterations that may disturb bald eagles within <b>0.50-mile</b> of known winter concentration areas from November 1 to March 31.</p> <p><b>Exception or Other Requirement:</b> Where daily activities occur within these spatial buffers and area approved through subsequent consultation, activities will also be properly scheduled to occur after 9 a.m. and terminate at least 1 hour before official sunset to ensure that bald eagles using these roosts are allowed the opportunity to vacate their roost in the morning and return undisturbed in the evening.</p>
Condor roost and nest sites	<p>Avoid disruptive activities within <b>0.50-mile</b> of roost sites and within <b>1 mile</b> of nest sites (Romin and Muck 2002) (year-round).</p> <p><b>Exception or Other Requirement:</b> None.</p>
Mexican spotted owl PACs, breeding habitat, and designated critical habitat	<p>Avoid disruptive activities from March 1 to August 31 in PACs, breeding habitats, or designated critical habitat to avoid disturbance to breeding owls.</p> <p><b>Exception or Other Requirement:</b> If disruptive actions occur during the seasonal restriction period (March 1 to August 31), surveys (according to USFWS protocol for Mexican spotted owl) would be required prior to commencement of activities. If Mexican spotted owl are detected, activities will be delayed until after the seasonal restriction period.</p>
Southwestern willow flycatcher and yellow-billed cuckoo	<p>Habitat disturbances (such as organized recreational activities requiring special use permits) would be avoided within 0.25-mile of suitable Southwestern willow flycatcher habitat from April 15 to August 15.</p> <p><b>Exception or Other Requirement:</b> Unavoidable ground-disturbing activities in occupied southwestern willow flycatcher habitat will be conducted only when preceded by current year survey, will only occur between August 16 and April 14 (the period when southwestern willow flycatchers are not likely to be breeding), and will be monitored to ensure that adverse impacts on southwestern willow flycatcher are minimized or avoided and to document the success of project-specific mitigation/protection measures. As monitoring is relatively undefined, project-specific requirements would be identified.</p>

Note: If an aircraft is used in reseeded operations in areas with raptor species, ensure that timing is appropriate to eliminate impacts on these species.

## C.5 SOIL RESOURCES

- Design roads to conform to topography and minimize disruption of natural drainage patterns. Design must consider soil type, soil vulnerability, and slope.
- Surface Disturbance
  - Minimize the period of time between initial disturbance of the soil and revegetation or other surface stabilization. Utilize interim reclamation.
  - Minimize the area of disturbed land.
  - Prompt revegetation of disturbed lands.
  - Revegetate, mulch, or otherwise stabilize the surface of all disturbed areas adjoining roads.

## C.6 WATER RESOURCES

- Design roads and road crossings to preserve natural flows, prevent contamination, and protect water quality.

### **C.7 VISUAL RESOURCES, DARK NIGHT SKIES, AND NATURAL SOUNDSCAPES**

- Aboveground facilities requiring painting will be designed to blend in with the surrounding environment.
- Use non-secular wire for transmission lines.

### **C.8 REFERENCES**

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# Appendix D

Cultural Resources

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# Appendix D. Cultural Resources

## D.1 CULTURAL RESOURCE SITE USE CATEGORIES

Cultural resource sites should be categorized as to their allowable uses, per United States (U.S.) Department of the Interior, Bureau of Land Management (BLM) Handbook H-1601-1, Appendix C, Page 9. Supplemental guidance for defining cultural resource use allocations and corresponding management actions is found at BLM Manual 8130.21D and Manual 8130.21E. These categories include:

- Scientific use
- Conservation for future use
- Traditional use
- Public use
- Experimental use
- Discharged from management

The BLM will develop a cultural resources management plan for Grand Staircase-Escalante National Monument (GSENM), including assigning cultural sites to use categories (that is, public, scientific, or traditional use), and managing for the protection and interpretation of these sites. The criteria below will be used to assign cultural sites to appropriate classifications. The BLM anticipates that Category F (discharged from management) would not be utilized. In addition, Category D (public use) would be further subdivided into public use, developed and public use, undeveloped. Categorization of the many sites found across the planning area is beyond the scope of the current document, and sites would instead be classified under the cultural resources management plan on an as-needed basis or when future conditions of time and personnel permit. Generalized site types, use categories, and assignment criteria are included in the following table.

<b>Site Type</b>	<b>A: Scientific Use</b>	<b>B: Conservation for Future Use</b>	<b>C: Traditional Use</b>	<b>D: Public Use, Developed</b>	<b>D: Public Use, Undeveloped</b>	<b>E: Experimental Use</b>
Prehistoric: Architectural (Sheltered and open)	Allow excavation or other investigative techniques subject to approved research design and consultation with appropriate Native American tribes.	Preserve until conditions for categorization and use become apparent.	Determine appropriate traditional use through consultation with Native American tribes.	Allow public use in accordance with development features.  Consult with Native American tribes to find if site is appropriate for public use.  Monitor site on a regular and frequent basis.	Do not suggest visitation to the site but offer information if requested.  Consult with Native American tribes to find if site is appropriate for public use.  Monitor site on a regular and frequent basis.  Consider movement to D, Public Use, Developed, if warranted and with appropriate development.	Protect until need for use arises.  Consult with Native American tribes to find if site is appropriate for experimentation.  Allow experimentation following appropriate research design.
Prehistoric: Artifact/Lithic Scatter with Features	Allow excavation or other investigative techniques subject to approved research design and consultation with appropriate Native American tribes.	Preserve until conditions for categorization and use become apparent.	Determine appropriate traditional use through consultation with Native American tribes.	N/A	N/A	Protect until need for use arises.  Consult with Native American tribes to find if site is appropriate for experimentation.  Allow experimentation following appropriate research design.

<b>Site Type</b>	<b>A: Scientific Use</b>	<b>B: Conservation for Future Use</b>	<b>C: Traditional Use</b>	<b>D: Public Use, Developed</b>	<b>D: Public Use, Undeveloped</b>	<b>E: Experimental Use</b>
Prehistoric: Open Lithic/Artifact Scatter	Allow excavation or other investigative techniques subject to approved research design and consultation with appropriate Native American tribes.	Preserve until conditions for categorization and use become apparent.	Determine appropriate traditional use through consultation with Native American tribes.	N/A	N/A	Protect until need for use arises.  Consult with Native American tribes to find if site is appropriate for experimentation.  Allow experimentation following appropriate research design.
Prehistoric: Lithic Source/Quarry	Allow excavation or other investigative techniques subject to approved research design and consultation with appropriate Native American tribes.	Preserve until conditions for categorization and use become apparent.	Determine appropriate traditional use through consultation with Native American tribes.	N/A	N/A	Protect until need for use arises.  Consult with Native American tribes to find if site is appropriate for experimentation.  Allow experimentation following appropriate research design.

<b>Site Type</b>	<b>A: Scientific Use</b>	<b>B: Conservation for Future Use</b>	<b>C: Traditional Use</b>	<b>D: Public Use, Developed</b>	<b>D: Public Use, Undeveloped</b>	<b>E: Experimental Use</b>
Prehistoric: petroglyphs, pictographs, and inscriptions	Document to Utah Archaeology Site Form standards.  Allow excavation or other investigative techniques subject to approved research design and consultation with appropriate Native American tribes.	Preserve until conditions for categorization and use become apparent.	Determine appropriate traditional use through consultation with Native American tribes.	Allow public use in accordance with development features.  Consult with Native American tribes to find if site is appropriate for public use.  Monitor site on a regular and frequent basis.	Do not suggest visitation to the site but offer information if requested.  Consult with Native American tribes to find if site is appropriate for public use.  Monitor site on a regular and frequent basis.  Consider movement to D, Public Use, Developed, if warranted and with appropriate development.	Protect until need for use arises.  Consult with Native American tribes to find if site is appropriate for experimentation.  Allow experimentation following appropriate research design.
Historic: Architectural	Document standing architectural resources to appropriate Utah Division of State History standards.  Allow investigative techniques subject to approved research design.	Preserve until conditions for categorization and use become apparent.	Determine appropriate traditional use in consultation with descendant communities.	Allow public use in accordance with development features.  Monitor site on a regular and frequent basis.	Do not suggest visitation to the site but offer information if requested.  Monitor site on a regular and frequent basis.  Consider movement to D, Public Use, Developed, if warranted and with appropriate development.	Protect until need for use arises.  Consult with descendant communities to find if site is appropriate for experimentation.  Allow experimentation following appropriate research design.



<b>Site Type</b>	<b>A: Scientific Use</b>	<b>B: Conservation for Future Use</b>	<b>C: Traditional Use</b>	<b>D: Public Use, Developed</b>	<b>D: Public Use, Undeveloped</b>	<b>E: Experimental Use</b>
Historic: Artifact Scatter	Document to scientific and applicable standards.  Allow excavation or other investigative techniques as applicable.	Preserve until conditions for categorization and use become apparent.	N/A	N/A	N/A	Protect until need for use arises.  Consult with descendant communities to find if site is appropriate for experimentation.  Allow experimentation following appropriate research design.
Historic: Inscription or Dendroglyph	Document to scientific and applicable standards.	Preserve until conditions for categorization and use become apparent.	N/A	Allow public use in accordance with development features.  Monitor site on a regular and frequent basis.	Do not suggest visitation to the site but offer information if requested.  Monitor site on a regular and frequent basis.  Consider movement to D, Public Use, Developed, if warranted and with appropriate development.	Protect until need for use arises.  Consult with descendant communities to find if site is appropriate for experimentation.  Allow experimentation following appropriate research design.

Site Type	A: Scientific Use	B: Conservation for Future Use	C: Traditional Use	D: Public Use, Developed	D: Public Use, Undeveloped	E: Experimental Use
Historic: Trail/Road	Document to scientific and applicable standards.	Preserve until conditions for categorization and use become apparent.	Open to general public use not necessarily strictly for traditional use.	Allow public use in accordance with development features.  Monitor site on a regular and frequent basis.	Do not suggest visitation to the site but offer information if requested.  Monitor site on a regular and frequent basis.  Consider movement to D, Public Use, Developed, if warranted and with appropriate development.	Protect until need for use arises.  Allow experimentation following appropriate research design.
Historic: Mining	Document to scientific and applicable standards. Allow excavation or other investigative techniques as applicable.	Preserve until conditions for categorization and use become apparent.	N/A	Allow public use in accordance with development and safety features. Monitor site on a regular and frequent basis. Visitor safety should be a priority consideration.	Do not suggest visitation to the site but offer information if requested.  Monitor site on a regular and frequent basis.  Consider movement to D, Public Use, Developed, if warranted and with appropriate development.  Visitor safety should be a priority consideration.	Protect until need for use arises.  Allow experimentation following appropriate research design.

<b>Site Type</b>	<b>A: Scientific Use</b>	<b>B: Conservation for Future Use</b>	<b>C: Traditional Use</b>	<b>D: Public Use, Developed</b>	<b>D: Public Use, Undeveloped</b>	<b>E: Experimental Use</b>
Historic: Artifact Scatter	Document to scientific and applicable standards. Allow excavation or other investigative techniques as applicable.	Preserve until conditions for categorization and use become apparent.	N/A	N/A	N/A	Protect until need for use arises.  Consult with descendant communities to find if site is appropriate for experimentation.  Allow experimentation following appropriate research design.

N/A - not applicable

The management of cultural resources on federal lands is dictated, in large part, by Federal laws and regulations. Although there are many addressing cultural resource concerns, the most applicable laws and regulations for the BLM are the following:

- National Environmental Policy Act (NEPA)
- National Historic Preservation Act (NHPA)
- Antiquities Act
- Historic Sites Act
- American Indian Religious Freedom Act
- Religious Freedom Restoration Act
- Archaeological Resources Protection Act
- Native American Graves Protection and Repatriation Act
- Federal Land Policy and Management Act
- 36 Code of Federal Regulations (CFR) Part 800
- State Protocol Agreement between BLM and UT SHPO
- BLM Handbook H-8100
- BLM Handbook H-1780

Cultural resources are nonrenewable; that is, any loss or degradation of cultural resources is permanent. Historic properties are cultural resources that are over 50 years old and meet specific criteria for listing on the National Register of Historic Places (National Register). Properties of traditional religious and cultural importance to a Native American tribe that meet the National Register criteria are also historic properties. It is important that there is no net loss of scientific information potential or integrity for historic properties and that they are managed to prevent or minimize adverse impacts on integrity or any of the qualities that are character defining. Preservation and protection are the primary goals of any Federal cultural resource program.

**Chapter 3, Section 3.6**, Cultural Resources, of this environmental impact statement (EIS) presents the background information on cultural resources in the planning area. A brief description of the types of properties found in the planning area and the various forms of impacts that could affect these sites is included in this appendix. Included below is a description of the resource types felt to be most susceptible to adverse effects. Also included in this section are the criteria by which determinations of effect are made and a discussion of potential mitigation options for sites being adversely affected.

## **D.2 SITES AND ADVERSE EFFECTS**

Cultural resource concerns regarding adverse effects focus on site type and the potential for effects caused by a variety of sources. Site types within the planning area that may be most susceptible to adverse effects include:

- I. **Rock shelters.** These locations often contain complex sites with a variety of features that can include delicate and perishable materials not found in open settings, and very complicated natural and cultural sedimentary stratigraphy. Shelter and alcove settings can suffer from the immediate and cumulative physical effects of livestock and are also often subject to looting and vandalism. Grazing-related adverse effects and vandalism in rock shelters in the Kanab Field Office were

noted as early as 1919 (Judd 1926:118). Currently, it is difficult to find sheltered sites in the planning area that have not been vandalized or looted. Although rare in rock shelters, range improvements and other recent human-made features can also adversely affect sheltered sites.

2. **Sites with standing architecture, including historic and prehistoric sites, and sites with exposed architectural features.** These sites may have architectural features that can suffer from recreational use, development projects, and livestock impacts. As with rock shelters, remains of prehistoric and historic structures are often subject to vandals and looters. Even sites with only a few courses of intact masonry or rubble mounds would be included in this category because any adverse effects would be considered unacceptable levels of damage.
3. **Open sites in sensitive locations, such as in erosive soils, in areas that tend to concentrate recreational use or the presence of livestock, and those sites with discreet features such as hearths, slab features, soil staining, middens, and other features that are susceptible to disturbance.** Increased visitation throughout GSENM has also led to an increase in graffiti on petroglyphs, pictographs, inscriptions. Impacts from climate change, such as more frequent flash flooding, have also been observed. Sites in erosive sediments suffer from natural weathering effects that are exacerbated by trampling, off-highway vehicle (OHV) use, and erosion. Features such as middens, hearths, and fire-cracked rock, lithic debitage, and artifact concentrations are easily disturbed, and once disturbed, they can lose integrity and scientific value. In certain contexts, cumulative effects due to disturbance and erosion can quickly and irreversibly affect these features, especially in sensitive soils and on slopes. Buried slab features, such as slab-lined hearths, storage features, and pit houses, may at first seem impervious to such impacts; however, observation has shown that this is not always the case, especially with softer sandstones. Hard sandstone slabs may help to enclose and protect some features, but softer sandstones may weather quickly. As the upper margins of soft sandstone slabs are exposed through erosion and weathering, these slabs can be quickly broken down by exposure to the elements, trampling, and vehicles. Without the slabs to help protect and define the features, they can be rapidly lost to additional direct impacts, exposure, and erosion. This category may exclude sites based on their lack of potential for additional adverse effects. For example, a lithic scatter found on sandy sediments or slopes open to recreational use or cattle trailing and increased erosion would be included in this category, while a lithic scatter on stable, gravelly sediments with little depth potential, light impacts, and not prone to increased erosion might not be included.
4. **Petroglyph, pictograph, and inscription sites.** Vandalism is by far the most important factor concerning adverse impacts on petroglyphs, pictographs, and inscriptions, but livestock can adversely affect these sites, as well. Instances of both petroglyphs and pictographs suffering from livestock rubbing have been noted in the planning area, and cases of dung splattering on petroglyphs, pictographs, and inscription panels have been documented in the planning area and noted in nearby areas.

All readily accessible sites can be subject to various degrees of human or grazing-related influences, but the above sites are considered more easily damaged or more often targeted by looters and collectors than most other site types. These conclusions are based on field observations, reviews of literature (see, for example, Geib et al. 2001), and conversations with other area archaeologists. While site type is important regarding adverse effects, site location is also a factor. Observation has shown that sites in the immediate vicinity of recreation areas, OHV routes, and range improvements that focus on livestock-related activity suffer more than those in backcountry situations.

### **D.3 FINDINGS OF EFFECT**

Findings of effect represent a measured analysis of the state of an archaeological or historic site in relation to the agents in question or a proposed activity. Identification of factors leading to any finding of effect should be based on professional observations, data collection, and judicious application of national guidance. It is difficult to find archaeological sites that have not been adversely affected by human activity, grazing related-influences, or natural erosion. Also considered in this appendix is one additional subcategory: a finding of no effect. This is not part of 36 CFR 800.5 but has been added to this analysis to better describe potential effects and management options. It is described below under Finding of No Adverse Effect.

A finding of adverse effect means that the site is being affected or will be adversely affected by the agents in question, as defined in 36 CFR 800.5(a)(1):

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the [National Register] in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

The BLM will make findings of effect for previously recorded sites based on existing data, at least until such time as the agencies can revisit the sites and prepare an updated site form, if necessary. The BLM will also apply findings for cultural resource sites identified in the future. Future data will come from research-driven inventories and from NHPA Section 106 inventories related to implementation actions, in addition to an active, ongoing monitoring and management program. Thresholds for making findings of effect follow the description of each category. Findings for all sites, whether previously documented or newly discovered, are made on an individual, case-by-case basis.

After more than 140 years of historic use of the planning area, it is difficult to find archaeological sites that have not been impacted by human activity, grazing-related-influences, or natural erosion. However, under specific conditions on some sites, any impacts may have reached their most detrimental levels decades before. Numbers of livestock, for example, were significantly higher prior to 1935 than they are now, suggesting that grazing-related pressures to sites were probably greater at that time. It also suggests that they have probably somewhat diminished since that time. This trend has been noted by other archaeologists (see, for example, Popelish 2001). Looting and wholesale destruction of sites were common occurrences in the past but have diminished greatly in recent decades. While looting and vandalism have diminished, the number of recreationalists has recently increased dramatically and with that rise in popularity comes unintentional impacts. Specific sites in certain areas are getting "loved to death." Additionally, increased visitation has led to an increase in graffiti on petroglyphs, pictographs, and inscriptions.

### **D.4 FINDING OF NO ADVERSE EFFECT**

At stable sites not prone to erosion or excessive visitation, additional impacts might not be expected. In some cases, the architectural features of a site, either through natural forces or through other impacts, may have been adversely affected to the point that additional recreational or livestock would not further damage them. Although some sites may have suffered adverse effects in the past, the basic question still revolves around site integrity. If the site is losing integrity, affecting its eligibility under the relevant National Register criteria, it will not fit into the no adverse effect category. If, on the other hand, the site is not

suffering adverse effects in addition to those already inflicted by earlier activities, then a determination of no adverse effect may be applicable.

- **Thresholds:** Undertakings with no adverse effect on historic properties may show indications of past or ongoing use or visitation at sites but will show no indications that use is contributing to adverse effects. Care must be exercised when making a no adverse effect determination, as it may be difficult to determine if current use is not contributing to ongoing adverse effects. The adverse effect finding should be used with caution and reserved for undertakings where it is demonstrated through careful analysis that current practices are not adversely affecting any sites or site components or their potential eligibility for listing on the National Register.

An additional subcategory has been added to this discussion to help clarify this discussion about no adverse effect. While the no effect category is not included in 36 CFR 800 regulations, it would be included in the larger finding of no adverse effect. It is presented here for discussion and is described below.

- **No Effect:** Undertakings applicable to a determination of this category would primarily include those sites that are inaccessible to livestock, receive very little recreational use or visitation, or have been otherwise hardened or protected from human or grazing-induced impacts.
- **Thresholds:** Undertakings in this category include sites that show no evidence of ongoing disturbance, or no potential for disturbance by current use, project proposals, or predictable factors.

## **D.5 FINDING OF ADVERSE EFFECT**

These findings are based on observations regarding the site type, condition, ongoing impacts, use, and compounding factors, such as increased erosion, vandalism, and visitation. Mitigation for these sites can include a variety of approaches, as outlined in the following sections.

- **Thresholds:** Factors of site condition and ongoing effects must be considered prior to a finding of adverse effect. Cultural resource specialists should focus on key points regarding site integrity and the National Register criteria. Because cultural resource sites are nonrenewable resources, if potential adverse effects are suspected but not conclusively identified, it may be prudent to assume these effects are indeed ongoing and to proceed accordingly until such adverse effects are positively verified or refuted to preserve sites for future research.

The following are suggestions of thresholds for a finding of adverse effect:

- Indications of actively ongoing erosion at a historic property that is caused by or exacerbated by human or livestock use of the site area.
- Indications of direct, indirect, or cumulative adverse effects, where it is apparent that the effects of humans or the environment are adversely affecting portions of the historic property or features within that property that were not previously adversely affected by earlier use of the site area.
- Indications of direct or indirect adverse effects, where it is observed through scientific investigation that the levels of adverse effect are beyond those previously suffered by the site (or portion of the site) prior to NEPA and NHPA requirements, and intact areas are now losing integrity and research potential, or where adverse effects are impinging on any of the qualities that make a site eligible for listing on the National Register.

## **D.6 TOOLS FOR SITE PROTECTION AND MANAGEMENT**

Land managers must “seek ways to avoid, minimize, or mitigate ... adverse effects,” as outlined at 36 CFR 800.6(b).

Following are brief discussions of Class I overviews and ethnographies, important documents that set the stage for the many “tools” in the cultural “toolbox.” Subsequent sections are detailed explanations of the various protective measures for cultural resources in relation to this EIS. Which option or options are chosen would depend on several factors, including site type; characteristics that relate to its eligibility for listing on the National Register; location, access, and use for and by humans and livestock; nearby rangeland improvements; soil type; site condition; results of any tribal or other consultations; and likelihood for continued adverse effects. The tools are presented below in two primary sections: Non-Cultural Tools for Site Protection and Cultural Tools for Site Protection. Each tool is examined and detailed regarding adverse effects. These tools may be used singly or in combination to meet the required objectives.

### **D.6.1 Archaeological and Historical Synthesis of the Planning Area (Class I Overview)**

An archaeological and historical synthesis (commonly referred to as a Class I overview) is a synthesis of all known relevant information regarding the archaeology and history of a specified area. An overview of this sort is a must before the history and prehistory of an area can be understood and the area sites tied into a meaningful background. Often the archaeological and historical syntheses are produced as separate volumes, but each should be considered as important as the other. These set the stage by which sites can be evaluated in context to nearby sites as well as the larger cultural or physiographic area. While not a mitigation or protective action itself, the development and use of these documents provides the setting in which much of the following actions should be considered.

GSENM currently has on file a prehistoric Class I (Spangler et. al 2019). Depending on factors such as new research, boundary changes, land tenure adjustments, and other actions, a Class I overview should be periodically updated to reflect the most recent information available. GSENM is currently in the process of updating the original Class I overview.

## **D.7 CULTURAL ETHNOGRAPHIES**

Over years of consultation and coordination, the BLM, in collaboration with tribes, has developed a library of cultural resource and ethnographic information related to tribal use and important locations and resources within the planning area. Multiple ethnographic reports about the planning area, many of which are confidential, can provide this information. As with the Class I overview, an ethnography is not a mitigation or protective action but a source of information and reference material while considering the following actions.

## **D.8 NON-CULTURAL TOOLS FOR SITE PROTECTION**

### **D.8.1 Avoidance**

The simplest and most effective way to protect a historic property is to avoid any adverse effects. While this can be relatively easy in some cases (such as moving a proposed activity location to avoid a historic property), it becomes more difficult with livestock that are relatively free to move on their own or unrestricted human use of the landscape. This avoidance option is best used with fixed objects, such as a proposed corral, road, campground, water improvement, or certain other physical improvements. Many of the following tools are more applicable and can work both in the minimization and mitigation aspects.



### **D.8.2 Access Restriction**

Restricting access, as considered here, generally refers to restrictions on a site-by-site basis. In some settings, human restrictions may be accomplished with signage or, if needed, fencing or other physical restriction barriers. Where possible, brush barriers could be used for livestock. These would have the advantage of appearing more natural, would not call attention to the site, and would not generally require much in the way of tools or artificial materials. Where such natural barriers could not be used, traditional fencing or other restrictive options may be necessary. Closure through legal channels (that is, making a location “off limits”) is also an option, but would only affect humans and is often difficult to enforce reliably.

### **D.8.3 Closures as a Scientific Control**

Closure of certain areas can act as a scientific control for comparison to areas left open to free access. This would be an important aspect when considering livestock or OHV effects, both direct (livestock or OHVs on the sites) and indirect (such as erosion exacerbated by livestock or OHV use), as compared to other adverse effects. Restrictions for scientific purposes should be planned to take full advantage of the research potential. Areas with a variety of site types should be considered, but the restricted and open portions of the research areas should be as similar as possible in the geographic and cultural landscapes. This allows the researcher to make a parallel comparison.

### **D.8.4 Location of Facilities and Range Improvements**

Livestock are controlled by a whole series of range improvements, including fence lines, corrals, water sources, salt licks, and driveways. All of these tend to focus livestock use into certain areas, concentrating the related adverse effects. When cultural resource sites are found in the vicinity of these improvements, the adverse impacts on these sites can rise significantly.

In many cases, these effects can be mitigated by moving through project design by relocating the range improvement prior to implementation (see *Avoidance*, above). Fences can be constructed around, rather than through, sites. Watering troughs can be constructed or moved away from sites, as can corrals and other improvements. Removing the reason for livestock congregation would have a positive effect on any site in the vicinity.

Livestock congregation at a watering source not only intensifies livestock use of the source area itself but also increases livestock use of the surrounding area. Data from Glen Canyon National Recreation Area indicate that cattle tend to stay within a 2-mile radius of their water source (U.S. Department of the Interior, National Park Service 1999:22), meaning that livestock would affect sites within that 2-mile radius to a greater degree than outside that area. If a watering source or corral is found within or proposed for an area of high site density, it may be prudent to move that improvement to an area of lesser site density.

Similar issues regarding concentrations of human use in certain areas may result from placing recreational facilities such as campgrounds, parking lots, picnic areas, and trail systems near archaeological and historic sites. This is appropriate in situations where the archaeological or historic site is the focus for interpretive or educational purposes. In other situations, it would be prudent to consider moving the proposed facility to a different location.

## **D.9 OFF-HIGHWAY VEHICLES AND RELATED VEHICLES**

Unregulated use of OHVs may directly impact cultural resources. Increasing accessibility to distant parts of the GSENM has the potential to increase accessibility to cultural resources, which may increase impacts

or provide access for scientific, public, or traditional uses. Impacts on cultural resources that are susceptible to OHV use may be destructive. Limiting the use of OHVs and similar vehicles where such activities are affecting cultural resource sites may remove potential impacts. Restricting OHV use to authorized, “open” routes and designated open areas that have been processed through BLM’s travel and appropriate Section 106 processes would create fewer impacts on cultural resources.

### **D.10 CHANGES IN RANGE MANAGEMENT PRACTICES**

Practices such as clearing and seeding to increase the forage in a given area eventually draw livestock to these areas. Clearing operations, such as chaining and bulldozer pushes, can have impacts on cultural resources. Subsequently, as the seeding matures and cattle are drawn to the project area, additional grazing-related adverse impacts on sites in that area may increase. If cultural resource sites were protected during the clearing operations by leaving them in undisturbed tree islands, cattle may later be drawn to them for the shade they provide in an otherwise open setting. The sites are then open to adverse effects by not just a few cattle wandering by, but by larger numbers of cattle drawn by the very factors designed to protect the site. These islands could also draw unwanted human attention to cultural resource sites.

Future large-scale range improvement projects, such as seedings, should be planned in conjunction with cultural resource specialists. This should be done to ensure that cultural resource sites are taken into consideration and that potential adverse effects can be mitigated prior to project implementation. In the seeding example noted above, initial avoidance of archaeological sites followed by hand-thinning the remaining tree cover to match the surrounding vegetation density would not adversely affect the site and would leave no reason for livestock to concentrate in that location.

Animal unit months (AUMs) reflect the number of head of livestock permitted to graze in a certain location for a certain time span. Recent investigation and research (Zweifel 2016) have shown that stocking rates are only one of a suite of factors influencing adverse impacts on cultural resource sites. However, the amount of impact a cultural resource site might suffer from livestock is, to a certain degree, proportional to the number of livestock on that site at any given time. Reducing the number of livestock would, therefore, reduce livestock-related adverse effects, although direct measurements of potential adverse effect reduction would depend on a variety of factors and would be specific to the sites in question. AUM reduction would probably not completely avoid adverse effects. Although adverse effects would be minimized with the reduction of livestock, as long as some livestock remain, there is potential for adverse effects.

Area closure to livestock, either on a temporary or permanent basis, is the only mitigation strategy that would remove all potential for grazing-related adverse effects on anything above a site-by-site basis. Closures would be used as a form of mitigation only when it is apparent that no other potential mitigation actions would meet protection requirements or where all other attempts had failed to realize the necessary levels of protection.

Closures would generally be considered as a last line of defense for areas where multiple sites or cultural landscapes are being adversely affected. Any closures of areas large enough to reduce AUMs would require a land use plan amendment and consultation with the permittees and other interested parties. Such closures, even when intended for cultural resource protection, could serve as scientific control areas for a wide variety of other resources (see *Research*, below, for additional details and discussion).

Changes in season of use: It is at first difficult to see how changes in season of use could be used as mitigation for a cultural resource site, but this tool should be considered as a possibility. Livestock tend to congregate in sheltered areas, such as alcoves, overhangs, and rock shelters. Part of this behavioral pattern is in response to weather conditions. In the summer, livestock “shade up” in shelters; in the winter, they move to these shelters for protection from wind, rain, and snow. In either weather extreme, livestock seek sheltered areas. Vegetation has a stabilizing effect on sediments and soils. A change in season of use that reduces adverse effects on vegetation would also increase site stability by lessening erosion.

In wet weather, such as the monsoon season, there is a more abundant water supply in areas that might not usually have available water, such as natural tanks in slick rock areas. Under these conditions, livestock may tend to wander farther from their traditional water source than they would under normal conditions, entering areas and affecting sites that only rarely see livestock. Under such conditions, a seasonal restriction may be all that is needed to protect a whole series of sites.

Certain types of soils and sediments may also be more prone to livestock effects under specific weather conditions. Soft sediments and clay soils may be much more susceptible to the hoof action of livestock in wet conditions. Sites found in these areas, within these sediment types, would be more open to adverse effects, as the sediments themselves become more susceptible. Again, a seasonal restriction may be all that is necessary to protect sites in these settings.

Applications for grazing permits, range improvements, vegetation projects, and all other activities that constitute federal undertakings are subject to Section 106 review and compliance to protect cultural resources. Through Section 106 compliance, such activities and management practices are reviewed and their potential effects on cultural resources are assessed, avoided, minimized, or mitigated. The Section 106 process is implemented by federal regulations (36 CFR 800) and, on BLM-administered lands in Utah, that process is also guided and supplemented by programs and procedures, including:

- **BLM Manual 8110 – Identifying and Evaluating Cultural Resources.** Provides general guidance for cultural resource identification, evaluation, categorization, and use allocations on BLM-managed lands.
- **BLM Manual 8140 – Protecting Cultural Resources.** Provides general guidance for protecting cultural resources from natural or human-caused deterioration, including inadvertent effects from BLM land use decisions and illegal activities.
- **BLM Supplement H-8110 – Utah – Cultural Resource Fieldwork Guidelines and Standards.** Sets standards to ensure consistent, statewide cultural resource identification, evaluation, treatment, and management, including proper recording and maintenance of cultural resource data for BLM action in Utah by both the BLM itself and consultants.
- **BLM Handbook H-8120 – Utah Guidelines for Protecting Cultural Resources.** Provides direction for determining and treating effects to cultural resources from natural or human-caused deterioration, as well as physical and administrative protection measures, in accordance with the Utah State Protocol and BLM Manual 8140.
- **State Protocol Agreement between the BLM and Utah State Historic Preservation Office.** Implements the nationwide Programmatic Agreement between the BLM, Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers that governs the manner BLM complies with the NHPA by describing how the agencies will interact and cooperate.

- **Programmatic Agreement Regarding National Historic Preservation Act Responsibilities for Travel and Transportation Management Undertakings.** Sets standards for BLM-Utah Section 106 compliance for travel and transportation management undertakings, including the planning and designation of OHV use areas, routes, and special recreation permits.

The above-listed documents describe detailed procedures, methodologies, standards, and guidelines for cultural resource research and management that the BLM employs in Utah. Some of the more common elements of cultural resource protection methodologies are discussed in the following section.

## **D.II CULTURAL TOOLS FOR SITE PROTECTION**

### **D.II.1 Inventory**

Approximately 6 percent of the Decision Area has been comprehensively surveyed for cultural resources. While many project areas are included in this figure, some older improvements and development projects were implemented or established prior to standard cultural resource surveys. Inventory is needed at those activity locations that have never been surveyed and would be needed at proposed project locations. Certain projects, such as campgrounds or livestock watering locations, tend to concentrate usage. With such projects, inventory should not be limited to the specific development location but must consider the effect of recreational, development, or livestock concentration in the area surrounding the improvements.

Future inventory across the Decision Area will generally be in response to NHPA Section 106 compliance or Section 110 obligations. The extent and location of Section 106 inventories would be largely determined by the specifics of the project generating the need for inventory. Section 110 inventories should be directed at locations or topographic features likely to harbor site types known to be at risk from adverse effects, locations that tend to attract livestock, areas of known or suspected high site density, or locations that address certain research topics and information needs. Larger areas that have seen little or no inventory should be surveyed to identify at-risk sites and to establish the cultural resource character of the area.

### **D.II.2 Detailed Site Recording and Collection**

Cultural resource sites are generally documented by recording certain data on specially prepared site forms. Many factors influence what kind and amount of information are included on a site form. Early site forms often lacked many categories that today are considered required information. An example of this is impacts on sites. Most site forms from 30 or 40 years ago did not include a category or space for noting specific adverse effects and, instead, may have had only a check box for site condition: good, fair, or poor. The rare comments on specific adverse effects, if any, would be added in the narrative portion of the site form, and these narratives themselves were often not as detailed as modern procedures require.

In some specific cases, detailed recording or re-recording of a site may be all that is necessary for mitigation. For example, sites that have been heavily affected in the past and retain little integrity may be adequately documented by a thorough recording process and possibly artifact collection and curation. Recording and collection as mitigation should be reserved for sites where it is apparent that these actions alone would retrieve any remaining scientific information left at those sites.

At the least, detailed site recording should be seen as the beginning of the first step of the documentation process, and it is a requirement prior to any collection, testing, or full excavation. For any reasonable form of scientific monitoring to be accomplished, a detailed record of the site before the monitoring process

begins is a must. Only then can changes in site condition, artifact counts and dispersal patterns, and future adverse effects be accurately tracked.

### **D.11.3 Archaeological Testing and Data Recovery Excavation**

Archaeological testing of a site refers to test excavations to determine its character, depth, cultural affiliation, and eligibility for listing on the National Register. Test excavations are usually restricted in scope and involve a few small test plots or trenches. Testing can provide a host of information without the destruction and cost involved in larger-scale excavations. It can often provide the level of information needed to make informed decisions regarding management direction for that site. Testing and excavation can often provide information not just about that specific site, but about other nearby sites in similar settings and apparent cultural affiliation. Therefore, the testing of one site may provide insight to the management needs of numerous sites. While testing, like excavation, is a destructive process, it is performed on a scale small enough that the overall integrity of the site is not impaired.

Data recovery excavation of cultural resource sites is a destructive process; once a site has been excavated, it cannot be re-assembled and protected. Excavation is generally used in situations where the site is in imminent danger of destruction and some form of data retrieval is necessary, or in situations where important scientific research questions cannot be answered by other, non-destructive means. As a mitigation tool, excavation should be a last resort. Excavation can provide a host of scientific information that cannot be had otherwise, but it is costly, can be time consuming, and results in the loss of some, or all, of the cultural resource site. Excavation may be the most suitable form of mitigation at sites that have been heavily affected or at sites that may suffer significant loss of integrity from a development project. Any proposed excavations must be preceded by tribal and State Historic Preservation Officer consultation, would include other consulting parties, as appropriate, and would require the development of a specific treatment plan.

### **D.11.4 Monitoring**

Monitoring is a necessary component of any cultural resource program. Cultural resource programs have monitoring programs in place, but these are generally site specific, are performed on an as-needed or when-possible basis and respond to a variety of projects and effects. There is a recognized need for a more comprehensive inventory and monitoring program designed to identify, quantify, assess, and monitor impacts on cultural resource sites. Site steward programs have become an effective tool in providing wider monitoring coverage than would otherwise be possible.

Baseline data on the condition of sites are generally collected at the time the site is recorded. However, many older site forms did not adequately address impacts on the sites. Within the past two or three decades, this has begun to change as archaeologists gain a broader understanding of the nature of various impacts. Monitoring provides baseline data, where necessary, and allows tracking of resource conditions over time. While inventory provides a first look and recording episode for cultural resource sites, monitoring provides the basic information by which changes to the site can be measured. Monitoring is also necessary to track the effectiveness of different mitigation measures applied to various cultural resource sites.

Management must have the information necessary to make informed decisions in the future as to what forms of mitigation may better apply to various site types, including which techniques have been shown to work and which did not prove effective. Although inventory and monitoring are not mitigation measures

in themselves, they are a vital part of an overall mitigation plan. The importance of monitoring cannot be overemphasized.

#### **D.11.5 Research**

Continuing research is an important aspect of any cultural resource program. Effective land management is only possible if an agency has adequate knowledge of the resources being managed. This involves what is present, but also how the resource is affected by natural and human-induced processes and actions.

A fair amount of research has been accomplished, for example, over the past two or three decades into grazing-related adverse impacts on cultural resources, but most of these studies have been relatively small and short term. Research at GSENM includes an ongoing, long-term monitoring study, begun in 2005, comparing two specific sets of sites, one ungrazed and the other grazed annually. This is an ambitious 15-year project that, when completed, will result in the most comprehensive study of its kind to date.

Research on any given parcel of land is a local affair but can have far-reaching applications. The above-noted grazing research can provide insights that may be applied across the American Southwest and perhaps beyond. Other recent GSENM research has produced archaeological reports and publications that apply to wide areas and extensive time depth; these will prove extremely valuable for the next several generations of archaeologists and other researchers.

The continuing collection of local oral histories is another example of an ongoing research program. Interviews conducted with long-time area residents can address the history of the ranching and livestock industry in the Decision Area and can help describe range conditions and how they have changed over the past several decades. Also included in research is the current development of a comprehensive grazing and ranching history of the planning area. This may be particularly important because the ranching lifestyle from past decades is quickly becoming a thing of the past, and no such detailed grazing history has yet been accomplished.

#### **D.11.6 Consultation**

The federal government has a unique and distinctive relationship with federally recognized Native American tribes as set forth in the Constitution of the United States, treaties, statutes, Executive Orders, judicial decisions, and agreements. This relationship is different from the federal government's relationship with other entities. The U.S. Government has a trust responsibility to federally recognized Native American tribes that covers lands, resources, money, or other assets held by the federal government in trust and the ability of those tribes to exercise their tribal rights. The United States recognizes Native American tribes as sovereign nations. The BLM, as lead federal agency, has the responsibility to ensure that meaningful tribal consultation and coordination concerning GSENM planning is conducted on a government-to-government basis. Tribal consultation is a process of communication seeking, discussing, considering the views, and seeking agreement with tribal participants regarding cultural resources and their protection.

Other consultation should also occur during Section 106 compliance for undertakings at GSENM with other stakeholders, including State Historic Preservation Officers, local governments, permit applicants, the public, and the Advisory Council on Historic Preservation, as warranted.

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## D.13 ACRONYMS

Term	Definition
AUM	animal unit month
BLM	United States Department of Interior, Bureau of Land Management
CFR	Code of Federal Regulations
EIS	environmental impact statement
GSENM	Grand Staircase-Escalante National Monument
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
OHV	off-highway vehicle

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# Appendix E

Recreation Management Areas

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# Appendix E. Recreation Management Areas

## E.1 INTRODUCTION

This appendix provides supporting information to recreation and visitor services decisions in the RMP.

## E.2 KEY RECREATION PLANNING TERMS AND DEFINITIONS

### E.2.1 Special Recreation Management Area (SRMA)

**Definition.** SRMAs are administrative units where the existing or proposed recreation opportunities and recreation setting characteristics are recognized for their unique value, importance, and/or distinctiveness, especially as compared to other areas used for recreation.

**Management Focus.** SRMAs are managed to protect and enhance a targeted set of activities, experiences, benefits, and desired recreation setting characteristics. The SRMAs may be subdivided into recreation management zones (RMZs) to further delineate specific recreation opportunities. Within SRMAs, recreation and visitor services management is recognized as the predominant land management focus, where specific recreation opportunities and recreation setting characteristics are managed and protected on a long-term basis.

**Requirements.** SRMAs/RMZs must have measurable outcome-focused objectives. Supporting management actions and allowable use decisions are required to:

- 1) sustain or enhance recreation objectives,
- 2) protect the desired recreation setting characteristics, and
- 3) constrain uses, including noncompatible recreation activities that are detrimental to meeting recreation or other critical resource objectives (such as cultural or threatened and endangered species).

**SRMA/RMZ Outcome Objective.** The outcome objective is a clear, measurable, and agreed-upon guide for decision making and evaluation of management effectiveness. SRMA/RMZ objectives must define the specific recreation opportunities (that is, activities, experiences, and benefits derived from those experiences), which become the focus of recreation and visitor services management.

### E.2.2 Extensive Recreation Management Area (ERMA)

**Definition.** The ERMAs are administrative units that require specific management consideration in order to address recreation use, demand or recreation and visitor services program investments. *Management Focus.* The ERMAs are managed to support and sustain the principal recreation activities and the associated qualities and conditions of the ERMA. Management of ERMA areas is commensurate with the management of other resources and resource uses.

**Requirements.** The ERMAs must have measurable objectives. Supporting management actions and allowable use decisions must facilitate the visitors' ability to participate in outdoor recreation activities and protect the associated qualities and conditions. Noncompatible uses, including some recreation activities, may be restricted or constrained to achieve interdisciplinary objectives.

**ERMA Objective.** ERMA objectives must define the recreation activities and the associated qualities and conditions which become the focus for recreation and visitor services management.

**Recreation Management Zones (RMZs):** The SRMAs may be subdivided into RMZs to further delineate specific recreation opportunities or management needs. While generally unnecessary, ERMAs may be subdivided into RMZs to ensure recreation and visitor services are managed commensurate with other resources and resource uses.

**Recreation Outcomes.** Recreation outcomes consist of experiences and benefits and are defined as:

**Experiences.** Recreation experiences are immediate states-of-mind resulting from participation in recreation opportunities that result in benefits.

**Benefits.** Recreation benefits accrue from having a satisfying recreation experience that leads to an (a) improved condition or (b) maintenance of a desired condition. These accrue from recreation participation and are both short and long term and are realized on and offsite. Benefits are identified in one of four categories and are described as:

- *Personal/Individual Benefits:* Recreation and leisure contribute to personal wellbeing and human development. It contributes to better physical and mental health for all individuals.
- *Social/Community Benefits:* Recreation contributes to the quality of life within communities by encouraging positive lifestyles choices, building social skills, reducing crime, and fostering a sense of community pride.
- *Economic Benefits:* Investments in recreation represent an investment in our economies through diversifying our economies, by attracting new businesses, and by generating employment opportunities.
- *Environmental Benefits:* Participation in recreation and outdoor education programs can help protect the quality of the environment through improved understanding and stewardship of our natural, cultural, and historic resources.

**Proposed Recreation Setting Characteristics (RSCs).** Proposed (or desired) RSCs are a description of the physical, social, and operational characteristics that define an RMA's function and condition in the future. The desired RSCs may currently exist and be maintained, or may be a target toward which management of the RMA or RMZ is to be directed that takes years to reach. Three recreation setting components and their RSCs are considered:

- *Physical:* qualities of nature and the landscape defined by remoteness, naturalness, and facilities
- *Social:* qualities associated with use defined by group size, number of contacts and evidence of use
- *Operational:* conditions to manage recreation use defined by type of access, visitor services and management controls.

The BLM establishes these criteria in the land use plan to guide management action and allowable use decisions as well as the identification of site-specific use levels for activities during plan implementation (BLM Handbook H-1601-1, page 13). Monitoring and evaluation may cause recreation managers to adjust the RSCs over the life of the RMP to meet recreation objectives. RSC are established to help facilitate the targeted outcomes (for SRMAs). RSCs are "not land use planning-level decisions because RSCs are not

the objective of outcomes-focused recreation and visitor services management. RSCs are the framework that enables realization of desired outcomes. The ability to adjust RSCs provides the flexibility to effectively respond to changing demands or circumstances over time” (BLM Handbook H-8320-1, page II-6).

### **E.2.3 Supporting Management Action and Allowable Use Decisions**

Management actions and allowable use decisions are generally described as land use planning level decisions needed to achieve program objectives or constrain noncompatible land uses. Supporting management action and allowable use decisions are selected in terms of their ability to help achieve the recreation objectives (that is, recreation opportunities), maintain or enhance the recreation settings or guide recreation implementation.

### **E.2.4 Implementation Decisions Included in this RMP Revision**

Implementation decisions allow site specific (on-the-ground) actions needed to achieve land use plan decisions (see BLM Land Use Planning Handbook H-1601-1, p. 30-31 and CFR 8365.1-6 supplementary rules). If implementation decisions are included in the land use planning document to achieve recreation and visitor services program objectives, they must be clearly distinguished as implementation decisions that are appealable to the Interior Board of Land Appeals.

### **E.2.5 Best Management Practices**

Recreation management areas with complex implementation issues may require a subsequent implementation-level recreation area management plan tiered to land use plan decisions. Subsequent site-specific NEPA analysis would be required to implement some types of actions. Other actions that involve education, information, interpretation and monitoring may not require site-specific NEPA analysis. The subsequent best management practices for implementation-level planning guidance is presented to illustrate opportunities for active stakeholder collaboration and to provide a suite of possible implementation actions that could be adaptively performed to ensure management effectiveness in meeting recreation and visitor services goals and objectives.

**Table E-1. Recreational Setting Characteristics Definitions for Grand Staircase-Escalante National Monument**

<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Remoteness (distance from routes)</b>	More than ½ mile from open roads.	Within proximity to secondary and tertiary open roads.	Within proximity to primary interior paved/unpaved roads (if not separated by significant cliff edge or canyon wall).	Within proximity to highways (if not separated by significant cliff edge or canyon wall).
<b>Naturalness (landscape texture, form, line color)</b>	Undisturbed natural landscape.	Natural landscape with modifications in harmony with surroundings and not visually obvious.	Character of the natural landscape retained though some modifications are noticeable.	Character of the natural landscape partially modified, but modifications are not overpowering.
<b>Visitor Facilities</b>	No structures. No marked trails and routes.	Structures are rare and isolated. Marked trails and routes are rare.	Basic campgrounds, designated camping areas, and trailheads with toilets. Marked trails and routes are common.	Developed campgrounds and trailheads. Developed, maintained, and marked trails are common.
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Contacts (average)</b>	Fewer than 6 encounters per day on travel routes	7–15 encounters per day on travel routes	15–29 encounters per day on travel routes	30 or more encounters/day on travel routes
<b>Group Size (average)</b>	Fewer than 3 people per group	4–6 people per group	7–12 people per group	More than 12 people per group
<b>Evidence of Use</b>	Sounds of people rare. No alteration of the natural terrain except rare small primitive campsites and foot trails.	Sounds of people infrequent. Areas of alteration uncommon. Surface vegetation showing little wear.	Sounds of people occasionally heard. Some small areas of alteration. Surface vegetation showing wear with some bare soils.	Sounds of people regularly heard. Some large areas of alteration. Surface vegetation gone with compacted soils observed.
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Public Access (types allowed)</b>	Nonmotorized/nonmechanized travel	Four-wheel drive (4WD) on open roads	All-wheel drive (AWD) high clearance (HC) on open roads	Two-wheel drive (2WD) predominant – paved open roads and highways
<b>Visitor Services and Information</b>	Staff rarely present. No maps available onsite.	Staff infrequently present. Maps rarely available onsite.	Staff occasionally present. Maps sometimes available onsite.	Staff regularly present. Maps commonly available onsite. Visitor centers, kiosks and waysides with informational and interpretive materials provided.



<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Management Controls (regulations)</b>	Regulatory and ethics signs are rare.  Use may be regulated via permits to protect GSENM objects and maintain setting.	Regulatory and ethics signs at key access points.  Use may be regulated via permits to protect GSENM objects and maintain setting.	Regulatory and ethics signs common along roads and at trailheads, camping areas, etc.  Use may be regulated via permits to protect GSENM objects and maintain setting.	Rules, regulations, and ethics clearly posted.  Use may be regulated via permits to protect GSENM objects and values and maintain setting.

**E.3 HOW TO USE THIS APPENDIX**

Proposed recreation management areas across all action alternatives (B, C, and D) are described in **Table E-2**. Each area is defined as an SRMA or an ERMA with corresponding acres for each alternative. Note that designations and acreages vary between alternatives. Alternative B also includes RMZs.

For all action alternatives, management frameworks for each RMA have been developed. Each RMA description contains:

- a. Acreages and maps for each RMA by alternative, showing any associated RMZs
- b. Rationale for RMA designation
- c. RMA objectives
- d. A table summarizing desired activities, experiences, and benefits (for SRMAs)
- e. A table summarizing existing and desired RSCs (for SRMAs). For comparison purposes, the text from **Table E-1**, above, is abbreviated into a simple graphic display (example below):
  - a. **Existing RSCs** are in **bold black borders**
  - b. **Desired RSCs** have blue shading

<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Remoteness</b>	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
<b>Naturalness</b>	undisturbed	largely intact	retained	partially modified
<b>Facilities</b>	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Contacts</b>	<6 contact per day	7–15 per day	15–29 per day	>30 per day
<b>Group Size</b>	<3	4-6	7-12	>12
<b>Evidence of Use</b>	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Access</b>	nonmotorized	4WD	AWD HC	2WD
<b>Visitor Services</b>	rarely present	infrequently present	occasionally present	regularly present
<b>Regulation</b>	rarely posted	infrequently posted	commonly posted	clearly posted

- f. Maps showing a graphic representation of the RSCs (for SRMAs) resulting from the management actions and implementation level decisions of each alternative. These RSC maps should be understood as graphic representations of the information in the summary table and are provided for comparison purposes only.
- g. Narrative descriptions of existing and desired RSCs (for SRMAs)
- h. Land use plan management actions and allowable use decisions
- i. Implementation decisions
- j. Best management practices

**Table E-2. Summary of Proposed Recreation Management Areas by Alternative (acres)**

<b>Recreation Management Area</b>	<b>Alternative A (Existing)</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>
<b>Action Alternatives</b>				
<b>Buckskin – Five Mile</b>	-	ERMA (129,500)	ERMA (59,600)	-
<b>Burr Trail Road</b>	-	SRMA (5,200)	SRMA (5,200)	SRMA (5,200)
<b>Circle Cliffs – Wolverine</b>	-	ERMA (93,300)	ERMA (93,300)	-
<b>Cottonwood Canyon Road</b>	-	SRMA (16,100)	SRMA (16,100)	SRMA (16,100)
<b>Egypt</b>	-	-	SRMA (14,100)	ERMA (14,100)
<b>Escalante Desert</b>	-	ERMA (204,300)	ERMA (119,800)	-
<b>Fiftymile Mountain</b>	-	-	ERMA (40,900)	-
<b>Highway 12 – Escalante to Boulder</b>	-	SRMA (22,500)	SRMA (22,500)	SRMA (3,400)
<i>Lower Calf Creek</i>	-	RMZ (400)	-	-
<i>Upper Calf Creek Falls</i>	-	RMZ (500)	-	-
<i>Upper Calf Creek Watershed</i>	-	RMZ (2,400)	-	-
<b>Highway 89</b>	-	SRMA (10,500)	-	-
<b>Hole-in-the-Rock Road</b>	-	-	SRMA (10,300)	SRMA (10,300)
<b>House Rock Valley Road</b>	-	SRMA (1,200)	SRMA (1,600)	SRMA (1,600)
<b>Kaiparowits Plateau</b>	-	ERMA (872,900)	-	-
<b>Little Desert</b>	-	ERMA (2,400)	SRMA (2,400)	ERMA (2,400)
<b>Nephi Pasture</b>	-	-	ERMA (78,800)	-
<b>North Escalante Canyons</b>	-	ERMA (113,400)	SRMA (113,400)	ERMA (113,100)

Recreation Management Area Action Alternatives	Alternative A (Existing)	Alternative B	Alternative C	Alternative D
Old Paria	-	-	SRMA (1,200)	SRMA (1,200)
Paria-Hackberry Canyons	-	ERMA (137,500)	SRMA (121,300)	ERMA (121,300)
Phipps Death Hollow	-	SRMA (39,800)	SRMA (39,800)	SRMA (53,100)
Skutumpah Corridor	-	-	SRMA (5,300)	SRMA (5,300)
Skutumpah Terrace – Deer Range	-	ERMA (216,800)	ERMA (70,500)	-
Smoky Mountain – Left Hand Collett Roads Corridor	-	-	ERMA (11,000)	-
Spencer Flats – Red Breaks	-	-	SRMA (59,800)	SRMA (60,700)
Toadstools	-	-	SRMA (4,400)	SRMA (4,400)
Wahweap Hoodoos – White Rocks	-	-	ERMA (12,400)	-
<b>Existing RMAs (from 2020 RMP)</b>				
<b>Burr Trail Road SRMA<sup>1</sup></b>	5,800	-	-	-
<i>Deer Creek RMZ</i>	600	-	-	-
<i>The Gulch RMZ</i>	100	-	-	-
<b>Calf Creek SRMA<sup>2</sup></b>	7,000	-	-	-
<b>Hole-in-the-Rock Road SRMA<sup>3</sup></b>	23,300	-	-	-
<i>Dance Hall Rock RMZ</i>	600	-	-	-
<i>Dry Fork Wash RMZ</i>	1,200	-	-	-
<i>Devil's Garden RMZ</i>	600	-	-	-
<i>20-Mile Dinosaur Tracks RMZ</i>	300	-	-	-
<i>Egypt Slot Canyons RMZ</i>	6,200	-	-	-
<b>Paria Canyon Vermilion Cliffs SRMA<sup>4</sup></b>	30,000	-	-	-
<b>Skutumpah Road SRMA<sup>5</sup></b>	1,500	-	-	-
<b>GSENM ERMA<sup>6</sup></b>	989,300	-	-	-
<i>Cottonwood Road RMZ<sup>7</sup></i>	2,200	-	-	-
<b>KEPA ERMA<sup>8</sup></b>	808,400	-	-	-
<i>Little Desert RMZ<sup>9</sup></i>	2,500	-	-	-
<i>Cottonwood Road RMZ<sup>10</sup></i>	3,100	-	-	-

<sup>1</sup> This SRMA closely matches the Burr Trail Road SRMA in the action alternatives.

<sup>2</sup> This SRMA is primarily inside the Highway 12 – Escalante to Boulder SRMA in the action alternatives.

<sup>3</sup> This SRMA and RMZs are primarily inside the Hole-in-the-Rock Corridor SRMA in Alternatives C and D.

<sup>4</sup> This SRMA is included in the Buckskin-Five Mile ERMA in Alternative B.

<sup>5</sup> This SRMA is inside the Skutumpah Corridor SRMA in Alternatives C and D.

<sup>6</sup> There is no corresponding RMA for this ERMA.

<sup>7</sup> This RMZ is primarily inside the Cottonwood Canyon Road SRMA in the action alternatives.

<sup>8</sup> There is no corresponding RMA for this ERMA.

<sup>9</sup> This RMZ closely matches the Little Desert RMAs in the action alternatives.

<sup>10</sup> This RMZ is primarily inside the Cottonwood Canyon Road SRMA in the action alternatives.

**E.4 EXISTING RMAs**

- Alternative A Existing RMAs – See **Appendix A, Figure 2-18**

**E.5 PROPOSED RMAs BY ALTERNATIVES**

- Alternative B Proposed RMAs – See **Appendix A, Figure 2-19**
- Alternative C Proposed RMAs – See **Appendix A, Figure 2-20**
- Alternative D Proposed RMAs – See **Appendix A, Figure 2-21**

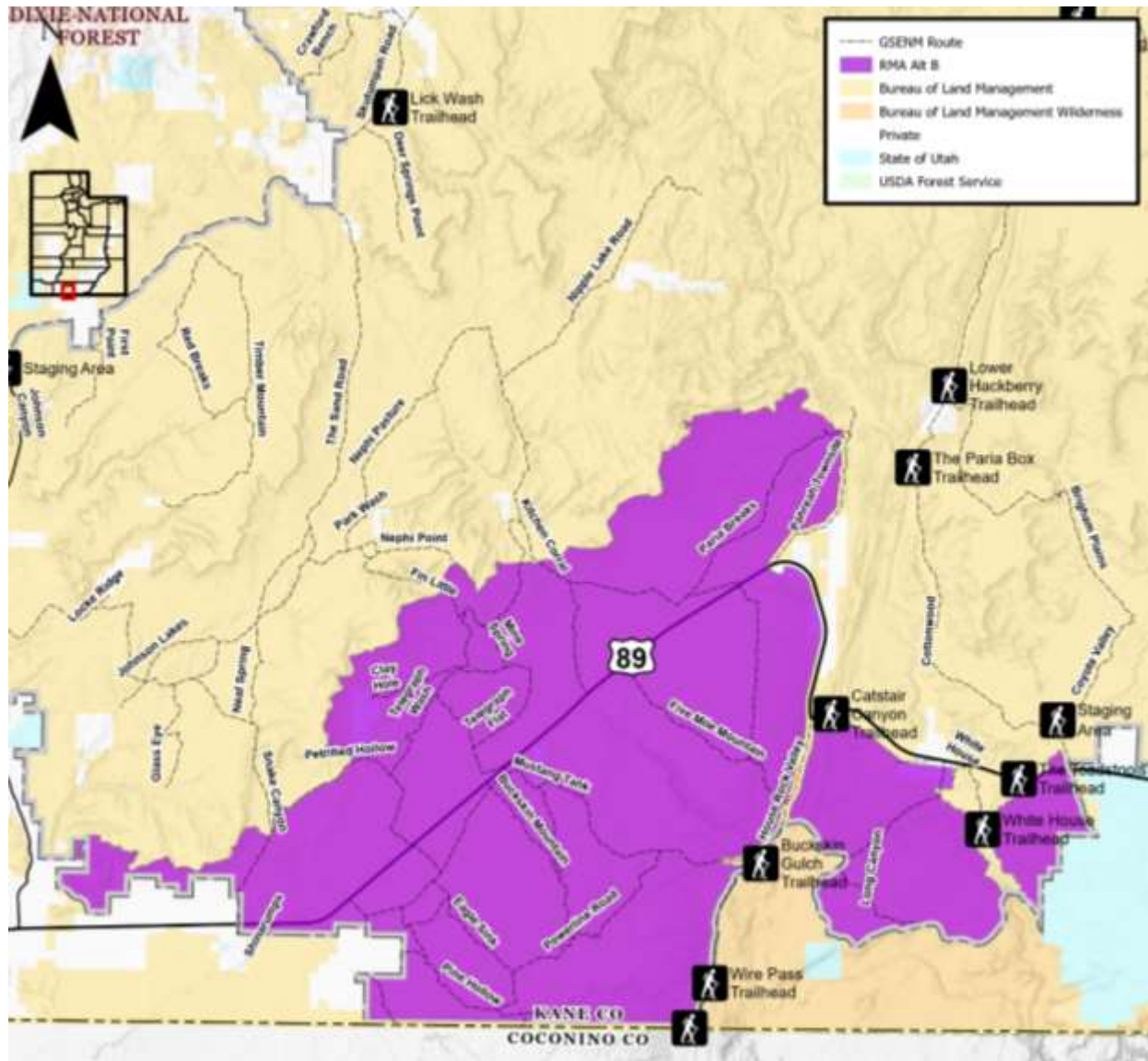
**E.6 MANAGEMENT FRAMEWORKS FOR ALTERNATIVES B, C, AND D**

- See the individual document for each RMA.

**Buckskin-Five Mile Recreation Management Areas**

**Buckskin-Five Mile Extensive Recreation Management Area (Alternative B) Framework**

**Size:** 129,500 acres (Alternative B)



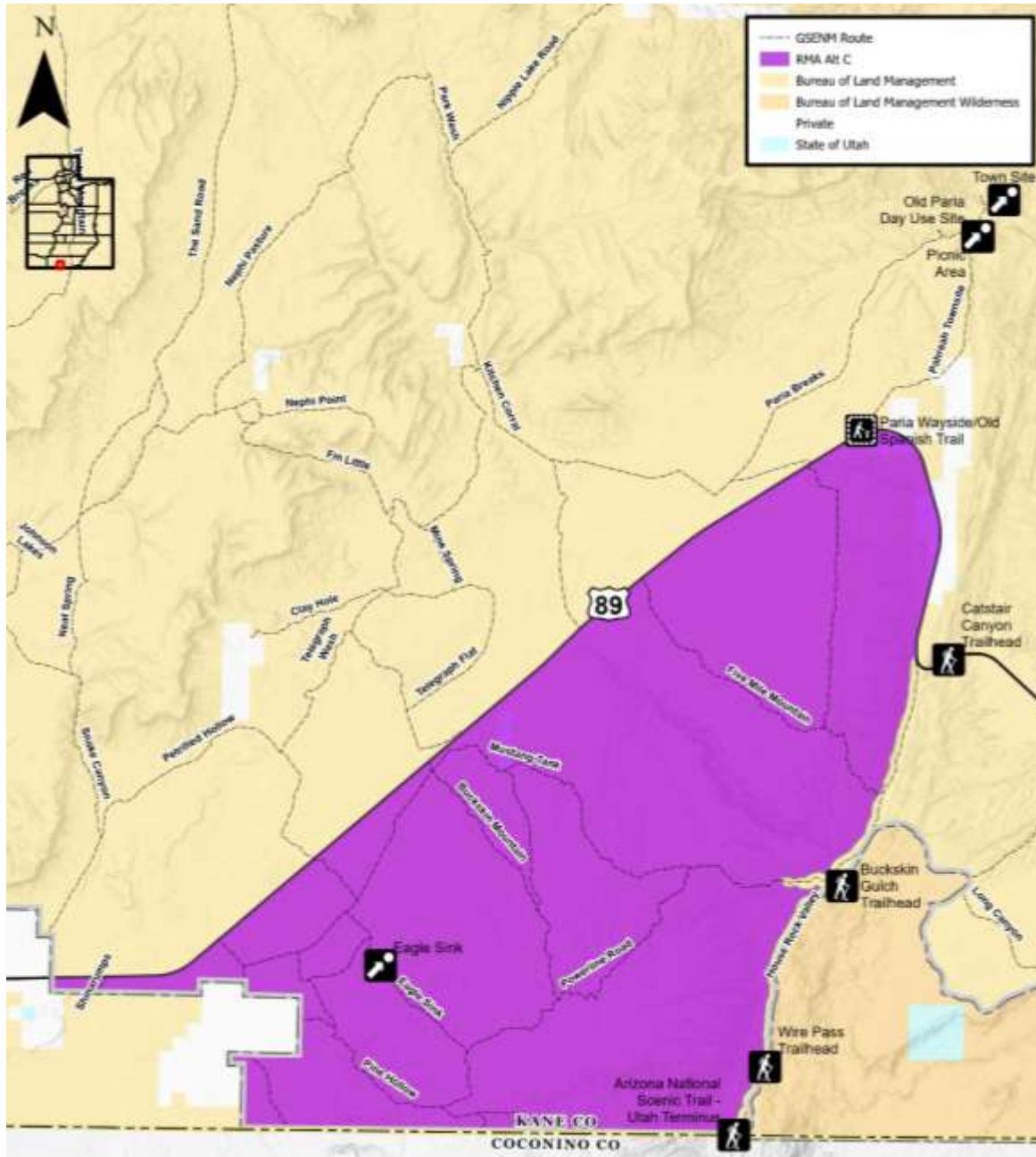
**Figure 1. Buckskin-Five Mile Recreation Management Area – Alternative B**

*Rationale:* The Buckskin-Five Mile ERMA (Alternative B) encompasses the Buckskin and Five Mile Mountain areas located south of the Vermilion Cliffs and north of the Utah/Arizona Border. Highway 89 passes through the center of the area. The ERMA is bordered on the west by private property and on the east by House Rock Valley. The ERMA also contains portions of West Clark Bench and East Clark Bench. This area contains several unique features including segments of the historic Honeymoon Trail, a motorized section of the Great Western Trail, Old Spanish National Historic Trail, and the Middle Route Trailhead and Trail accessing Buckskin Gulch within the neighboring Paria Canyon-Vermilion Cliffs Wilderness Area. It also contains an impressive limestone sink hole known as Eagle Sink and offers spectacular views of the “Grand Staircase” for which GSENM is named. This area is perhaps best known for being part of the

Pausaugunt Hunting Unit which is known for its trophy mule deer. Viewing wildlife and antler shed collecting are also popular recreation activities. Other recreation activities for this ERMA include dispersed primitive camping, hiking, OHV riding, and mountain bike riding.

**Buckskin-Five Mile Extensive Recreation Management Area (ERMA) (Alternative C) Framework**

**Size:** 59,600 acres (Alternative C)



**Figure 2 - Buckskin-Five Mile Recreation Management Area – Alternative C**

*Rationale:* The Buckskin-Five Mile ERMA encompasses the Buckskin and Five Mile Mountain areas located south of U.S. Highway 89 and north of the Utah/Arizona Border. The ERMA is bordered on the west by

private property and on the east by House Rock Valley. This area contains several unique features including segments of the historic Honeymoon Trail, and motorized segments of the Great Western Trail. It also contains an impressive limestone sink hole known as Eagle Sink and offers spectacular views of the “Grand Staircase” for which GSENM is partially named. This area is perhaps best known for being part of the Pausaugunt Hunting Unit which is known for its trophy mule deer. Viewing wildlife and antler shed collecting are also popular recreation activities. Other recreation activities for this ERMA include camping, hiking, OHV riding, and mountain bike riding.

**ERMA OBJECTIVE (Alternatives B and C)** – In the Buckskin-Five Mile ERMA, the recreation and visitor services focus on primitive, dispersed, self-directed recreation activities and visitor services support participation in hiking, hunting, and camping while prioritizing protection of GSENM objects.

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations’ ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued)
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management:*

#### Alternative B (ERMA)

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.

- OHV Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### Alternative C (ERMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.

#### *Aircraft Landing Areas/Strips:*

- Alternatives B and C (ERMA) – Consider appropriate landing areas and landing strips for aircraft.

#### *Lands and Realty:*

- ROW avoidance area unless ROW exclusion is determined for other resource protections.

#### *Visual Resource Management:*

- Managed according to assigned VRM classifications and objectives.

### **IMPLEMENTATION DECISIONS**

*(For example, the land use plan decision may be to designate overnight camping areas, while the supporting implementation decision may be to address specific site locations, size, and amenities to be provided.)*

#### *Overnight Permits:*

- Permits required for overnight use.

#### *Group Size Limits:*

- Alternative B (ERMA) – Group size/pack stock limits of 25.
- Alternative C (ERMA) – Group size/pack stock limits per Management Area prescriptions.

#### *Facilities:*

- Upgrade Great Western Trail and Middle Route Trailheads.
- Upgrade Eagle Sink site.

Alternative B (ERMA) – Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.

Alternative C (ERMA) – Facilities allowed per Management Area prescriptions.

#### *Trails:*

Alternative B (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.



Alternative C (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.

*Camping:*

- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (designated camping areas or dispersed): 10 pm to 6 am.
- Sensitive resource areas may be closed to camping to protect and/or restore GSENM objects.
- Alternative B (ERMA)
  - Allow dispersed camping. Designated dispersed camping areas may be identified and designated on an as-needed basis.
  - Campfires allowed only in designated fire grates or mandatory fire pans/blankets. Where fire pans/blankets are used, ash removal is required. Allow collection of dead and down wood where campfires are allowed. Removal of unused imported firewood required.
- Alternative C (ERMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.

*Personal Waste Systems:*

- Alternatives B and C – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.

*Canyoneering, Rappelling, Climbing:*

- Canyoneering, rappelling, and climbing prohibited at Eagle Sink, archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Alternatives B and C – Permanent fixed anchors could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.
- Alternative B (ERMA) – SRPs are permitted, with the following limitations:
- Limit noncompetitive motorized SRPs to a total maximum of 15 vehicles.
- Prohibit SRPs that provide for intentional visitation to cultural sites except for approved visitation to designated public cultural sites or sites approved by the BLM.

- Limit the number of SRPs to ensure that a self-directed visitor experience is achieved.
- Alternative C (ERMA)
  - SRPs to be allowed per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative B (ERMA) – Allow nonmotorized competitive events on designated routes.
- Alternative C (ERMA) – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.

*Vending:*

- Alternative B (ERMA) – Vending is not allowed.
- Alternative C (ERMA) – Vending is allowed per Management Area prescriptions.

*Recreational Target Shooting:*

- Alternative B (ERMA) – Prohibit recreational target shooting within 0.5 miles of residences; from, on, or across routes; campgrounds; developed recreation sites and trails; and designated camping areas.
- Alternative C (ERMA) – Allow target shooting per Management Area prescriptions.

*Drone Use:*

- Alternative B (ERMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) is prohibited in lands managed to protect wilderness characteristics.
- Alternative C (ERMA) – The takeoff and landing of unmanned aerial systems (drones) to follow Management Area prescriptions.

**BEST MANAGEMENT PRACTICES - to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (emergency access, motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update/install trailhead kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

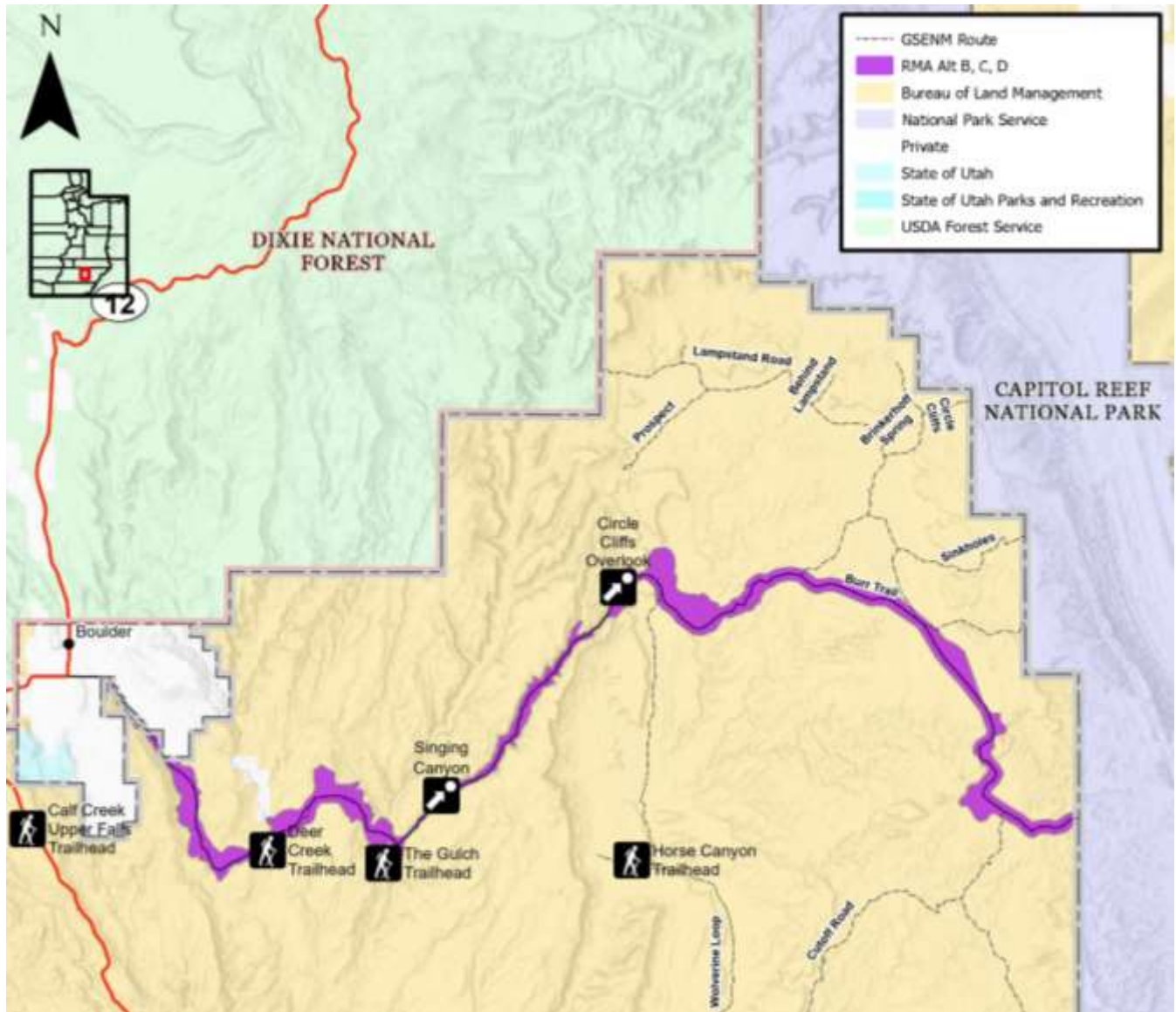
- Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

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## Burr Trail Road Recreation Management Areas

### Burr Trail Road Special Recreation Management Area (Alternatives B, C, and D) Framework

Size: 5,200 acres



**Figure I. Burr Trail Road Recreation Management Area - Alternatives B, C, and D**

*Rationale:* The Burr Trail Road SRMA encompasses the corridor along the Burr Trail Road, a GSENM object and Utah Scenic Backway. It offers a premier auto touring experience in the northern region of the Escalante Canyons, is popular with photographers and artists, provides trailhead access for day hiking, horseback riding, and backpacking in backcountry and primitive settings. It also provides access to the lower reaches of Capitol Reef National Park. The paved portion of Burr Trail Road through GSENM is approximately 30 miles, then it transitions to gravel surfacing at the park boundary. The western half of Burr Trail is bounded by the Steep Creek WSA to the north and the North Escalante Canyons/The Gulch WSA to the south. This SRMA includes Deer Creek Campground and Trailhead, the Lower Gulch Trailhead, Long Canyon (including the popular Singing Canyon), and the Circle Cliffs overlook. It provides

all-weather access into a mostly undeveloped landscape valued for its kaleidoscopic colors, geology, vegetative variety, and presence of water. The geology ranges from rolling white sandstone mounds to deeply incised vermilion canyons to multi-hued Chinle exposures. Riparian canyons filled with cottonwoods and willows add interest to the vegetation palette composed mostly of pinyon, juniper, and sagebrush. The expansiveness and scenic beauty of the surrounding landscape past the SRMA’s boundary highly contribute to the uniqueness and specialness of this SRMA.

<b>SRMA OBJECTIVE</b> - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):		
<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• scenic auto touring - sightseeing</li> <li>• camping</li> <li>• photography/artistic pursuits</li> <li>• visiting geologic sites</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Enjoying artistic expression of nature</li> <li>• Enjoying a wide variety of environments within a single corridor/drive</li> <li>• Enjoying easy access to natural landscapes</li> <li>• Relishing group (family/friends) affiliation and togetherness</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/appreciation of outdoor aesthetics and nature’s art, elegance, and splendor</li> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> </ul> <p>Stronger ties with family and friends</p> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Maintenance of distinctive recreation setting, character, and market niche</li> <li>• Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

**SRMA EXISTING AND DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

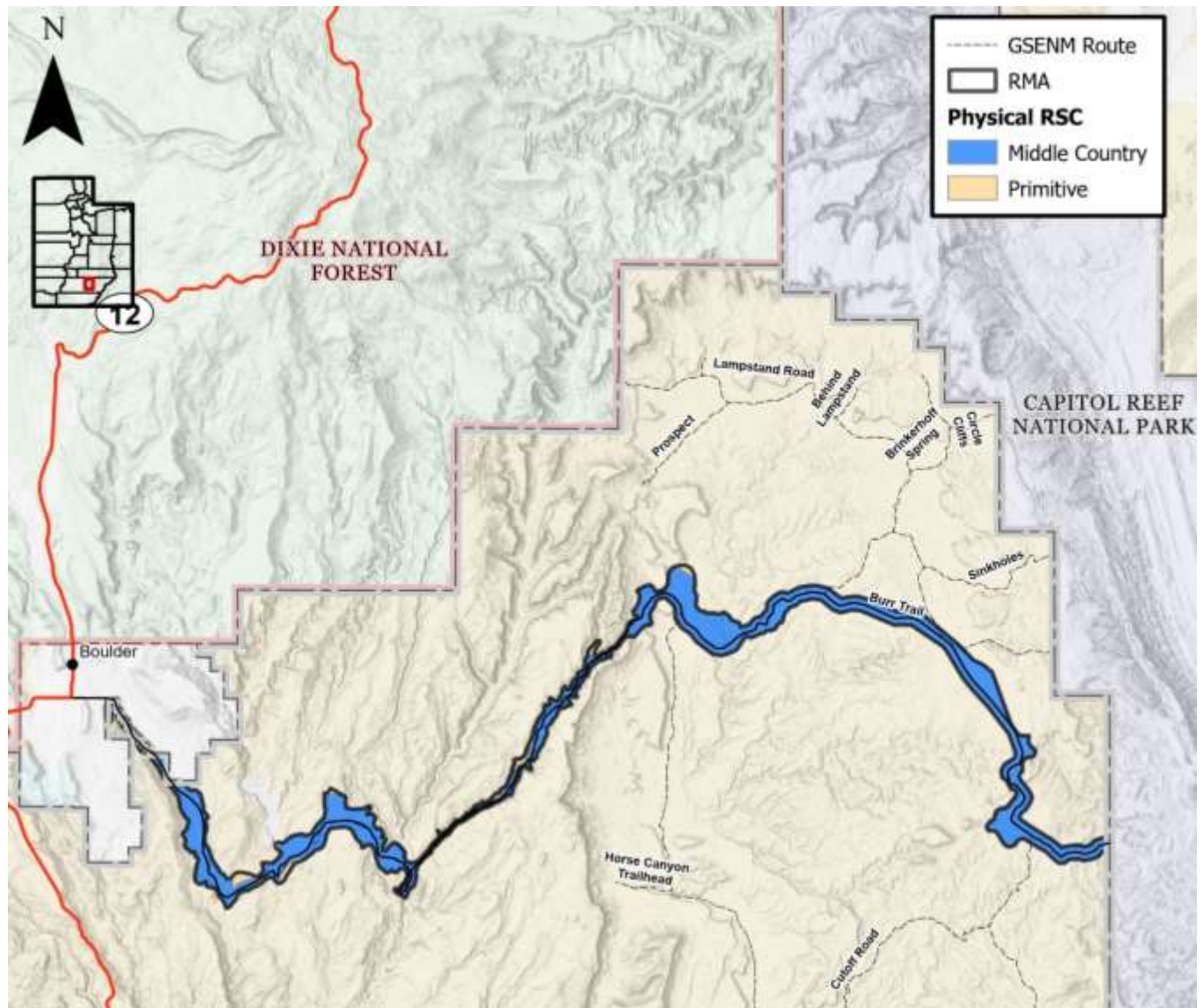
<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Remoteness</b>	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
<b>Naturalness</b>	undisturbed	largely intact	retained	partially modified
<b>Facilities</b>	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Contacts</b>	<6 contact per day	7–15 per day	15–29 per day	>30 per day
<b>Group Size</b>	<3	4–6	7–12	>12
<b>Evidence of Use</b>	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Access</b>	nonmotorized	4WD	AWD HC	2WD
<b>Visitor Services</b>	rarely present	infrequently present	occasionally present	regularly present
<b>Regulation</b>	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approx. distance from routes): The existing level of remoteness is maintained. Burr Trail Road will continue to provide auto-touring into a highly scenic, intact, natural landscape as well as paved access to recreational destinations and other unpaved roads that lead into more remote areas.

**Naturalness:** (landscape texture form, line, color): The existing level of naturalness is maintained. The paved road is the primary modification that alters naturalness, though it is narrow, without striping and hugs the terrain. Deer Creek Campground is small and tucked in riparian vegetation along the creek. New development will create no more than weak contrast with the landscape character.

**Facilities:** Basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources would be allowed. Small campgrounds and trailheads, designated primitive camping areas, vault toilets, and overlooks/waysides will be maintained, improved, and/or developed.



**Figure 2. Burr Trail Road SRMA Existing and Desired Physical Recreation Setting Characteristics**

### **SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

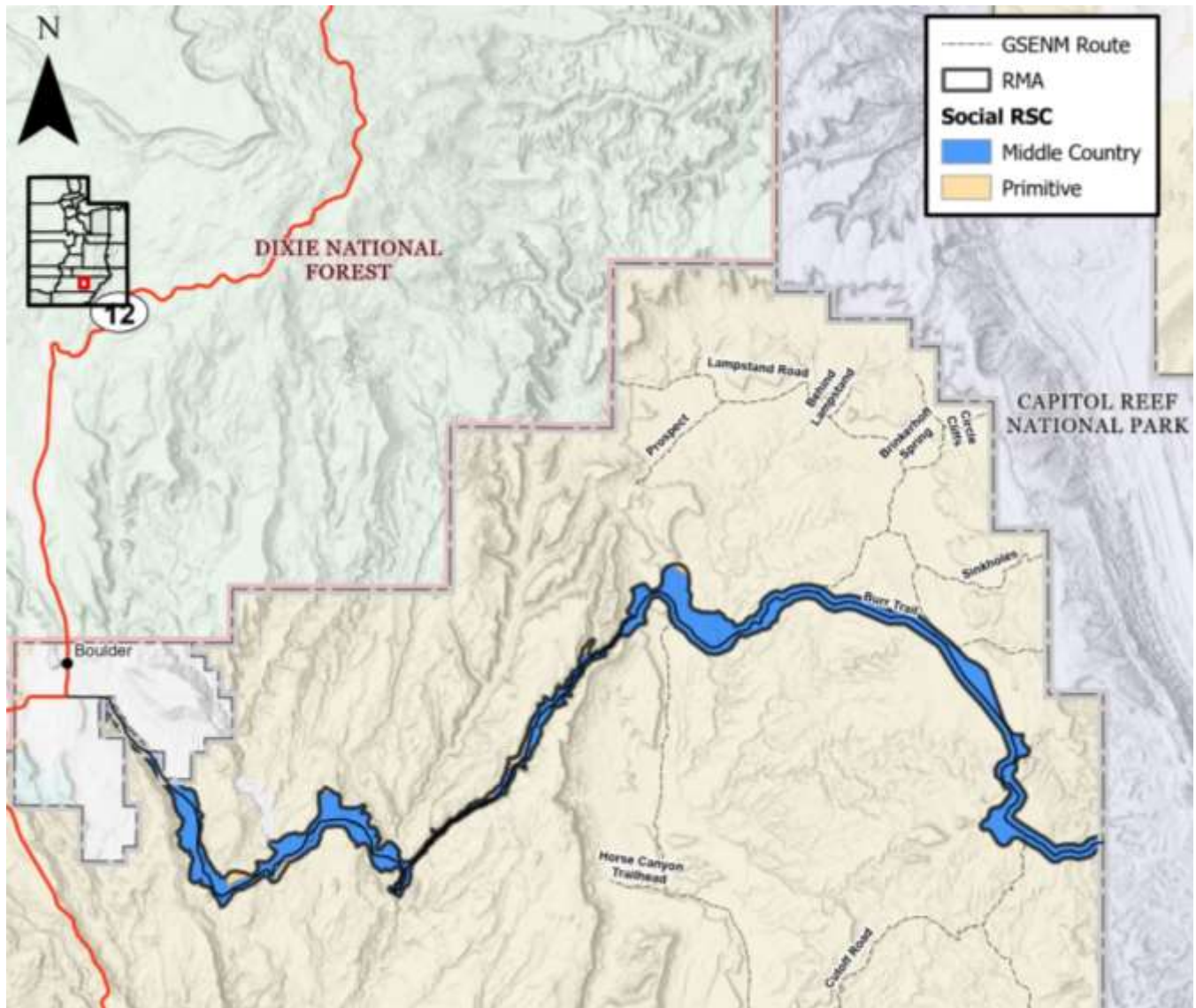
**Contacts:** (average with any other group): The number of contacts is maintained or could increase at key locations. Contacts are influenced by the time of year and time of day. Traveling the road during the spring and fall and during the middle of the day, the number of contacts is higher, whereas in the winter and early morning/evening not encountering anyone else is common. The average contacts for Deer Creek Campground and trailheads in the RMA will be maintained. Contacts at Singing Canyon could increase.

**Group Size:** (average – other than your own): Most groups in this RMA would continue to be small, though the group size limit would allow groups up to 25.

**Evidence of Use:** The evidence of use would be largely maintained though some areas will be developed/designated for camping. Areas that are currently used for primitive camping that are closed will



be reclaimed and the evidence of use will diminish. The user creation of additional primitive camping areas would be curtailed.



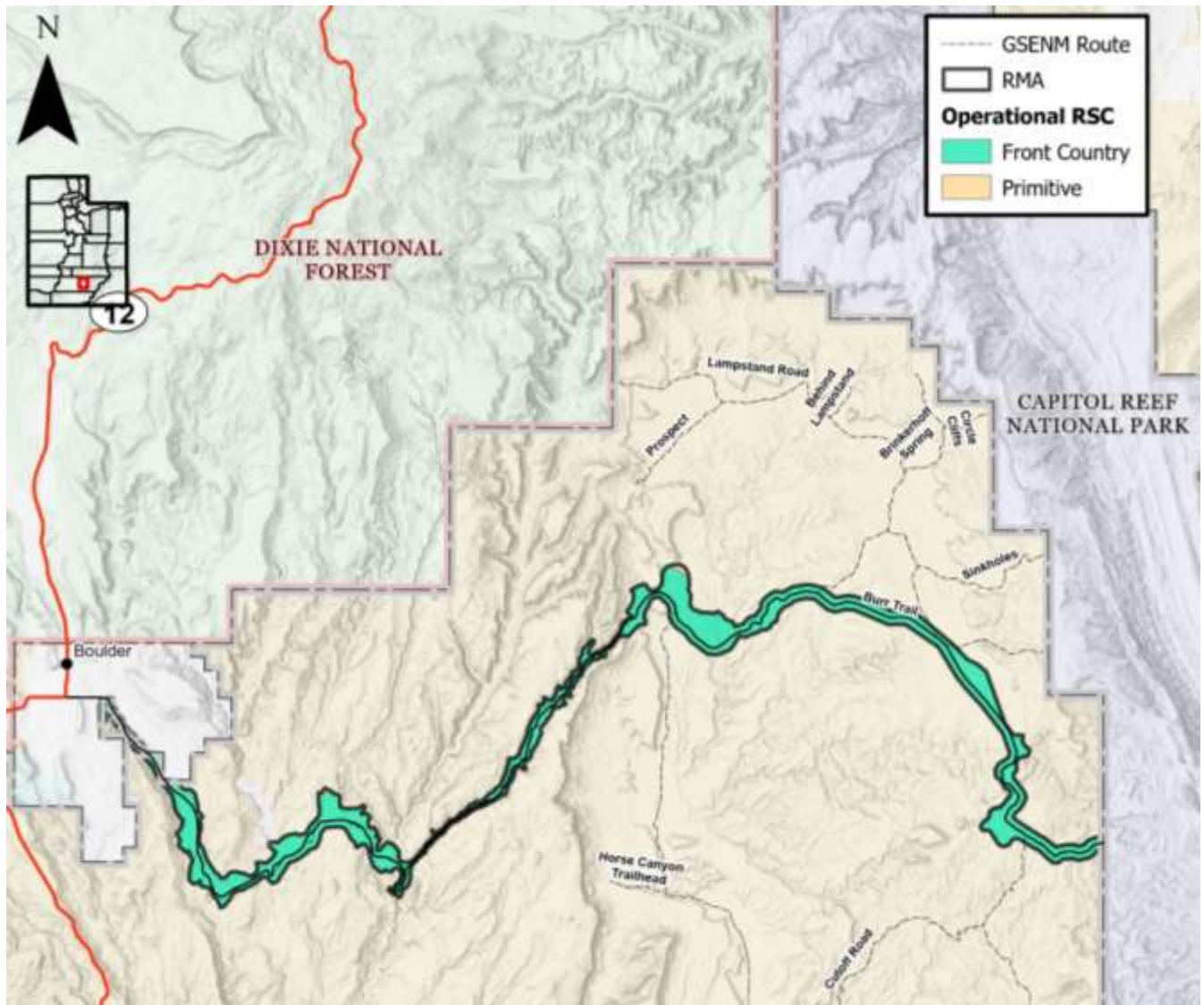
**Figure 3. Burr Trail Road SRMA Existing and Desired Social Recreation Setting Characteristics**

### **SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): Burr Trail Road is paved allowing use by 2WD vehicles. The type of access will be maintained.

**Visitor Services:** Staff presence will continue to be infrequent and occasional. Kiosks with maps will continue to be located near each boundary crossing and could be provided at trailheads and camping areas.

**Management Controls:** Regulatory and ethics signs will continue to be posted at boundary portals, camping areas, and trailheads.



**Figure 4. Burr Trail Road SRMA Existing and Desired Operational Recreation Setting Characteristics**

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### Allocation:

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During RMP implementation, allocation of use ( e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet

recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:

- Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
- conflicts with threatened and endangered plant or animal species, and/or
- the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
- Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

*Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

*Comprehensive Trails and Travel Management:*

*Alternative B (SRMA)*

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- OHV Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

*Alternative C (SRMA)*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive area
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

Alternative D (SRMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.
- OHV Closed:
  - WSA/ISAs
  - Cherry-stemmed routes in WSAs
  - Lands with wilderness characteristics identified for protection
  - Areas of high probability for cultural resources (according to BLM Class I model)
  - Areas of high probability (PFYC Class 5) for paleontological resources

*Aircraft Landing Areas/Strips:*

- Alternatives B and D (SRMA) – Consider appropriate landing areas and landing strips for aircraft.
- Alternative C (SRMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).

*Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

*Visual Resource Management:*

- The SRMA is classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA (which are managed as VRM Class I).

## **IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size/Pack Stock Limits:*

- Group size/pack stock limit of 25 in SRMA.

*Facilities:*

- Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
- Develop Steep Creek Bench Campground.
- Develop Studhorse Peaks Campground.
- Develop parking, interpretive media, and toilet at Singing Canyon.
- Develop wayside with interpretive media at Circle Cliffs Overlook.
- Develop Upper Gulch Trailhead.

*Trails:*

- Alternative B (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.
- Alternative C (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.
- Alternative D (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Sensitive resource areas may be closed to camping to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 30-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 6 am.
- Alternative B (SRMA) –
  - Allow camping only in developed campgrounds or designated camping areas.
  - Do not allow campfires in the Escalante Canyons or relict plant areas as they are identified. Also prohibit campfires in archaeological and historic sites, rock shelters, or alcoves.
- Alternative C (SRMA) –
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.
- Alternative D (SRMA) –
  - Allow camping only in developed campgrounds or designated camping areas.
  - No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Areas adjacent or contiguous to NPS lands requiring human waste removal will require use of personal waste systems.
- Alternative B and C (SRMA) – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.
- Alternative D (SRMA) – Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Canyoneering, rappelling, and climbing are not allowed in Singing Canyon, archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.

- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Alternative B and C (SRMA) – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.
- Alternative D (SRMA) – Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.
- Alternative B (SRMA) – Allow for motorized and nonmotorized SRPs on designated routes.
- Alternative C (SRMA) –
  - SRPs to be allowed per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.
- Alternative D (SRMA) – SRPs are permitted, with the following limitations:
  - Prohibit SRPs that provide for intentional visitation to known cultural sites.
  - Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative B (SRMA) – Allow nonmotorized competitive events on designated routes.
- Alternative C (SRMA) – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.
- Alternative D (SRMA) – prohibit all competitive events.

*Vending:*

- Vending would be occasional, infrequent, and may be allowed by permit on a case-by-case basis, in association with approved special events or recreation sites. Generally, permits could be issued to provide services needed at recreation sites (such as firewood sales at campgrounds) and services that are commonly offered in conjunction with permitted special events. Criteria and/or stipulations to protect GSENM objects would be included in all permits.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Alternative B (SRMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) is prohibited in WSAs and lands managed to protect wilderness characteristics.

- Alternative C (SRMA) – Allow takeoff and landing of unmanned aerial systems (drones) per Management Area prescriptions.
- Alternative D (SRMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) in GSENM.

### **BEST MANAGEMENT PRACTICES – to guide implementation**

#### *Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

#### *Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

#### *Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update kiosks on each end of SRMA along Burr Trail Road.
  - Update/install trailhead kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

#### *Monitoring:*

- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

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### Circle Cliffs-Wolverine Recreation Management Areas

#### Circle Cliffs Extensive Recreation Management Area (Alternatives B and C) Framework

Size: 93,300 acres

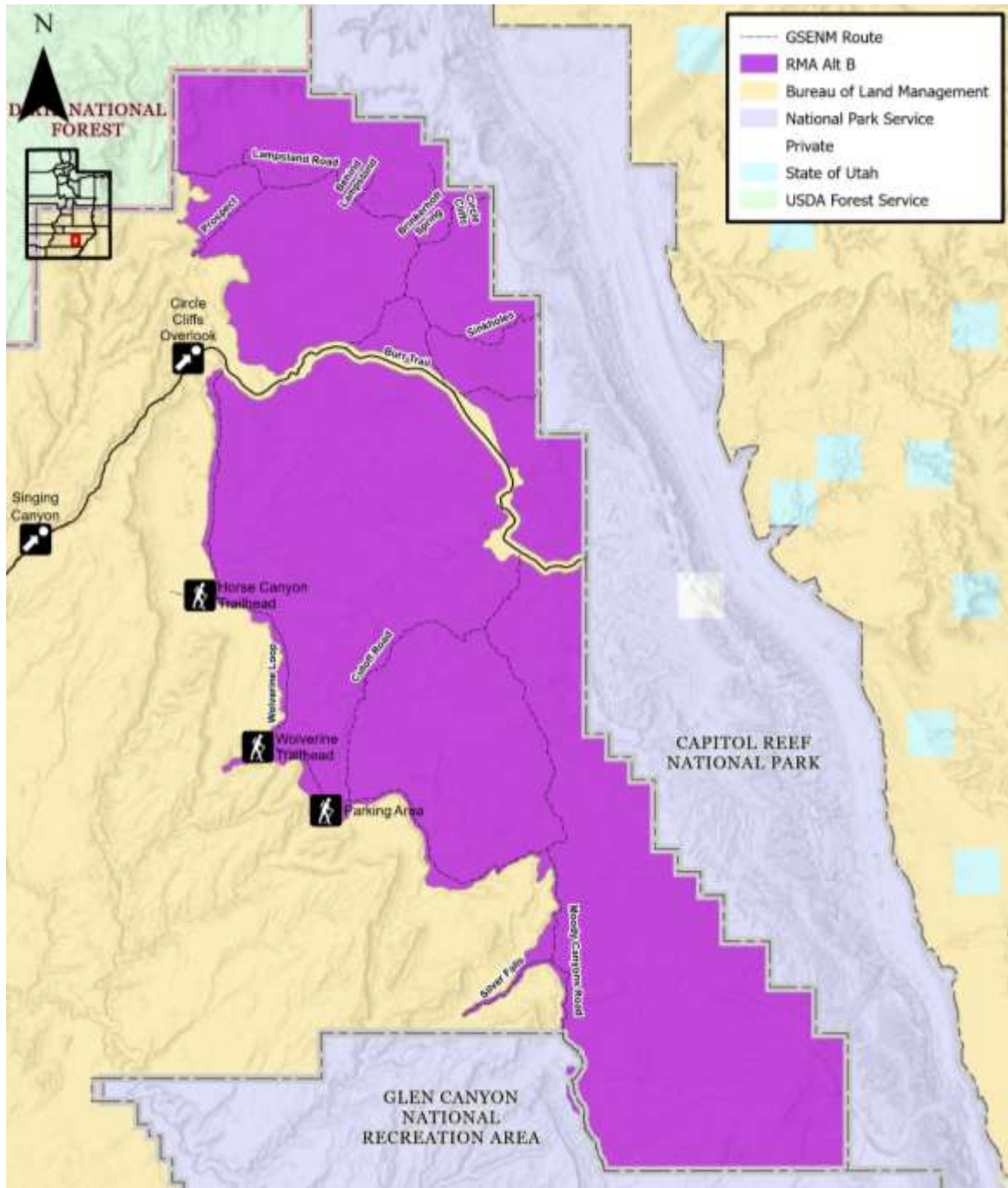


Figure I. Circle Cliffs Recreation Management Area - Alternatives B and C

*Rationale:* The Circle Cliffs ERMA provides challenging, backcountry exploration of a stunning geologic landscape for those seeking solitude and adventure. The activities enjoyed include auto touring/scenic driving, backcountry bike touring, OHV touring, equestrian use, photography, canyoneering/climbing, dispersed camping, access to the Escalante canyon trailheads for hiking and backpacking, and hunting. This area is valued for its geologic characteristics by the public and permitted users. The unit borders Capitol Reef National Park, Glen Canyon National Recreation Area and Dixie National Forest. The Circle Cliffs ERMA offers recreation opportunities in a relatively unchanged physical recreation setting that facilitate the visitor's freedom to participate in a variety of dispersed, developed, motorized, nonmotorized, mechanized, and nonmechanized recreation activities. The SRMAs offers unique qualities and conditions to remote and vast open spaces with stunning colors and scenery of geology, cliffs, canyons, and mesas. The area hosts many cultural sites, the Wolverine Petrified Wood Natural Area (a paleontological resource), as well as historic trails and uranium mines. The Circle Cliffs supports a resident elk herd allowing for hunting.

**ERMA OBJECTIVE (Alternatives B and C)** – In the Circle Cliffs ERMA, the recreation and visitor services focus on primitive, dispersed, self-directed recreation activities and visitor services supports participation in hiking, hunting, photography, and primitive camping while prioritizing protection of GSENM objects.

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

*Comprehensive Trails and Travel Management:*

Alternative B (ERMA)

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- OHV Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

Alternative C B (ERMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive area
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

*Aircraft Landing Areas/Strips:*

- Alternative B (ERMA) – Consider appropriate landing areas and landing strips for aircraft.
- Alternative C (ERMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).

**IMPLEMENTATION DECISIONS:**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size /Pack Stock Limits:*

- Alternative B (ERMA) – Group size and pack stocks limits of 25 or 12 in WSAs.
- Alternative C (ERMA) – Group size and pack stock limits per Management Area prescriptions.

*Facilities Development:*

- Alternative B (ERMA)
  - Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
  - Developed campground at Stud Horse Peaks.
- Alternative C (ERMA) – Allow recreational facilities per Management Area prescriptions.

*Trail Designation/Development:*

- Alternative B (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.
- Alternative C (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.

*Camping:*

- Sensitive resource areas may be closed to camping, or a permit system implemented as identified in a future recreational area management plan, to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (designated camping areas or dispersed): 10 pm to 6 am.
- Designate primitive camping areas along open roads as necessary to protect GSENM objects.
- Alternative B (ERMA)
  - Once designated primitive camping is established along roads, do not allow camping along roads in undesignated areas.
  - No camping within 300 feet of livestock corrals or water troughs during livestock grazing season of use.
  - Do not allow campfires in arch/historic sites, rock shelters, or alcoves.
- Alternative C (ERMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.

*Personal Waste Systems:*

- Areas adjacent or contiguous to NPS lands requiring human waste removal will require use of personal waste systems.
- Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Not allowed in/on archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed as needed to protect species.
- May be buffered or seasonally closed to prevent disturbance to raptor nesting.
- Alternatives B and C (ERMA) – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Alternative B (ERMA) – Allow for motorized and nonmotorized SRPs on designated routes.

- Alternative C (ERMA) – Allow/prohibit motorized SRPs per Management Area prescriptions. Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the Area in which the event occurs.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative B (ERMA) – Allow nonmotorized competitive events on designated routes.
- Alternative C (ERMA) – Allow nonmotorized competitive events on designated routes per Management Area prescriptions.

*Vending:*

- Alternative B (ERMA) – Vending is allowed only for permitted special events.
- Alternative C (ERMA) – Vending is allowed per Management Area prescriptions.

*Recreational Target Shooting:*

- Alternative B (ERMA) – Prohibit recreational target shooting within 0.5 miles of residences; from, on, or across routes; campgrounds; developed recreation sites and trails; and designated camping areas.
- Alternative C (ERMA) – The discharge of firearms for recreational target shooting is allowed per Management Area prescriptions.

*Drone Use:*

- Alternative B (ERMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) is prohibited in WSAs and lands managed to protect wilderness characteristics.
- Alternative C (ERMA) – The takeoff and landing of unmanned aerial systems (drones) to follow Management Area prescriptions.

**BEST MANAGEMENT PRACTICES – to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
- Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

- Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

### Cottonwood Canyon Road Recreation Management Areas

#### Cottonwood Canyon Road Special Recreation Management Area (Alternatives B, C, and D) Framework

Size: 16,100 acres

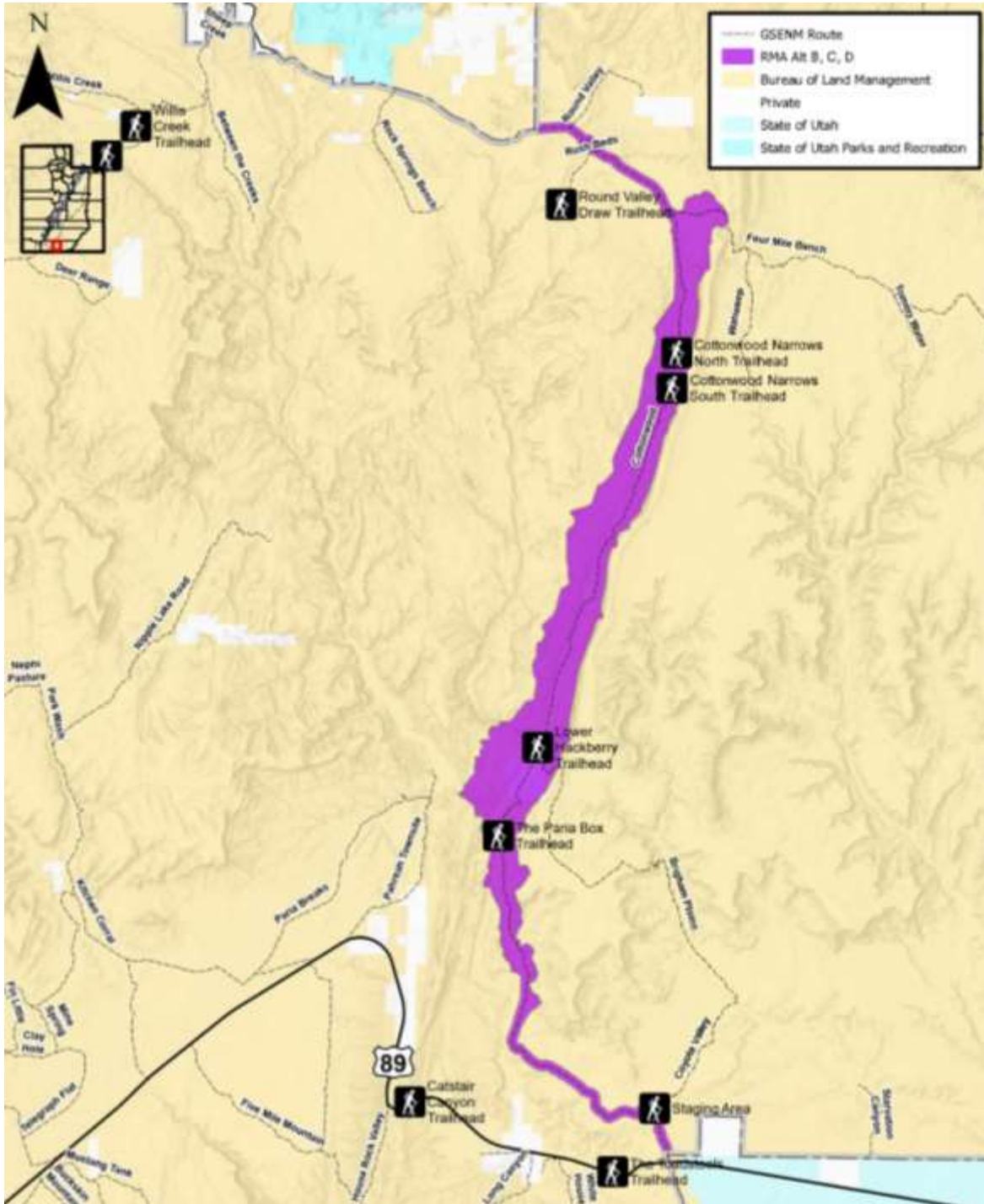


Figure I. Cottonwood Canyon Road Recreation Management Area - Alternatives B, C, and D

**Rationale:** The Cottonwood Canyon Road SRMA encompasses the corridor along the Cottonwood Canyon Road which offers a rugged auto touring experience in the western region of the GSENM. Kodachrome State Park is just outside the SRMA on its northern end. It provides trailhead access for day hiking, horseback riding, and backpacking in backcountry, primitive settings, and provides connectivity between Highway 12 and Highway 89. Cottonwood Canyon Road is approximately 38 miles of natural surface road that becomes impassable during wet weather. This SRMA includes a rare double arch known as Grosvenor Arch, and several trailheads: Round Valley Draw, Cottonwood Narrows, Lower Hackberry, Yellow Rock, and The Paria Box. The Old Spanish Trail passes through this area by The Paria Box. The SRMA provides access into a mostly undeveloped landscape valued for its kaleidoscopic colors, geology, vegetative variety, and presence of water. The road parallels the well-known and colorful geologic feature known as the East Kaibab monocline commonly referred to as The Cockscomb because of the ridge’s resemblance to the colorful comb on a rooster’s head. Riparian canyons filled with cottonwoods and willows add interest to the vegetation palette composed mostly of pinyon, juniper, and sagebrush. The southern portion of the SRMA consists of moonscape badlands which offer breathtaking views and the inimitable remoteness and rugged beauty of the surrounding landscape.

<b>SRMA OBJECTIVE</b> - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):		
<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• scenic auto touring - sightseeing</li> <li>• photography/artistic pursuits</li> <li>• camping</li> <li>• hiking</li> <li>• picnicking</li> <li>• visiting geologic sites</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Enjoying a wide variety of environments within a single corridor/drive</li> <li>• Enjoying artistic expression of nature</li> <li>• Relishing group (family/friends) affiliation and togetherness Enjoying artistic expression of nature</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/appreciation of outdoor aesthetics and nature’s art, elegance, and splendor</li> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Stronger ties with family and friends</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Maintenance of distinctive recreation setting, character, and market niche Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>



**SRMA DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

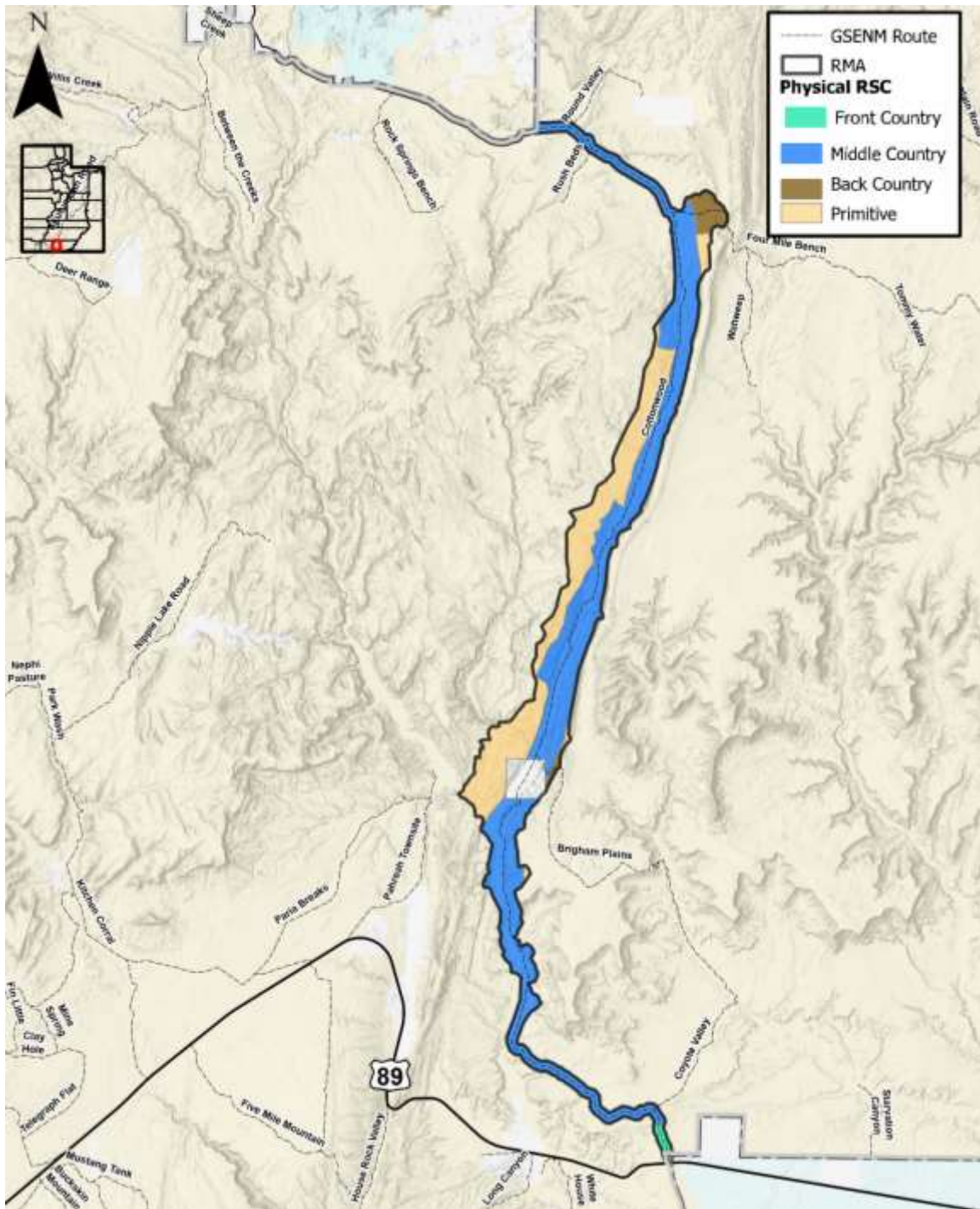
<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approx. distance from routes): The existing level of remoteness is maintained. Cottonwood Canyon Road will continue to provide auto-touring into a highly scenic, natural landscape as well as access to recreational destinations and other unpaved roads that lead into more remote areas.

**Naturalness:** (landscape texture form, line, color): The existing level of naturalness is maintained. The two transmission lines that parallel the road for much of the length are the primary modifications that alter naturalness. Though unlikely, if future opportunities allow for the transmission lines to be removed or reduced, that would improve the naturalness and be desired. Grosvenor Arch Day Use Site is the most developed site in the RMA with a vault toilet, picnic tables and a paved trail to the arch and it is off the main road. New development will create no more than weak contrast with the landscape character.

**Facilities:** Basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources would be allowed. Basic trailheads, designated primitive camping areas, vault toilets, and overlooks/waysides will be maintained, improved, and/or developed.



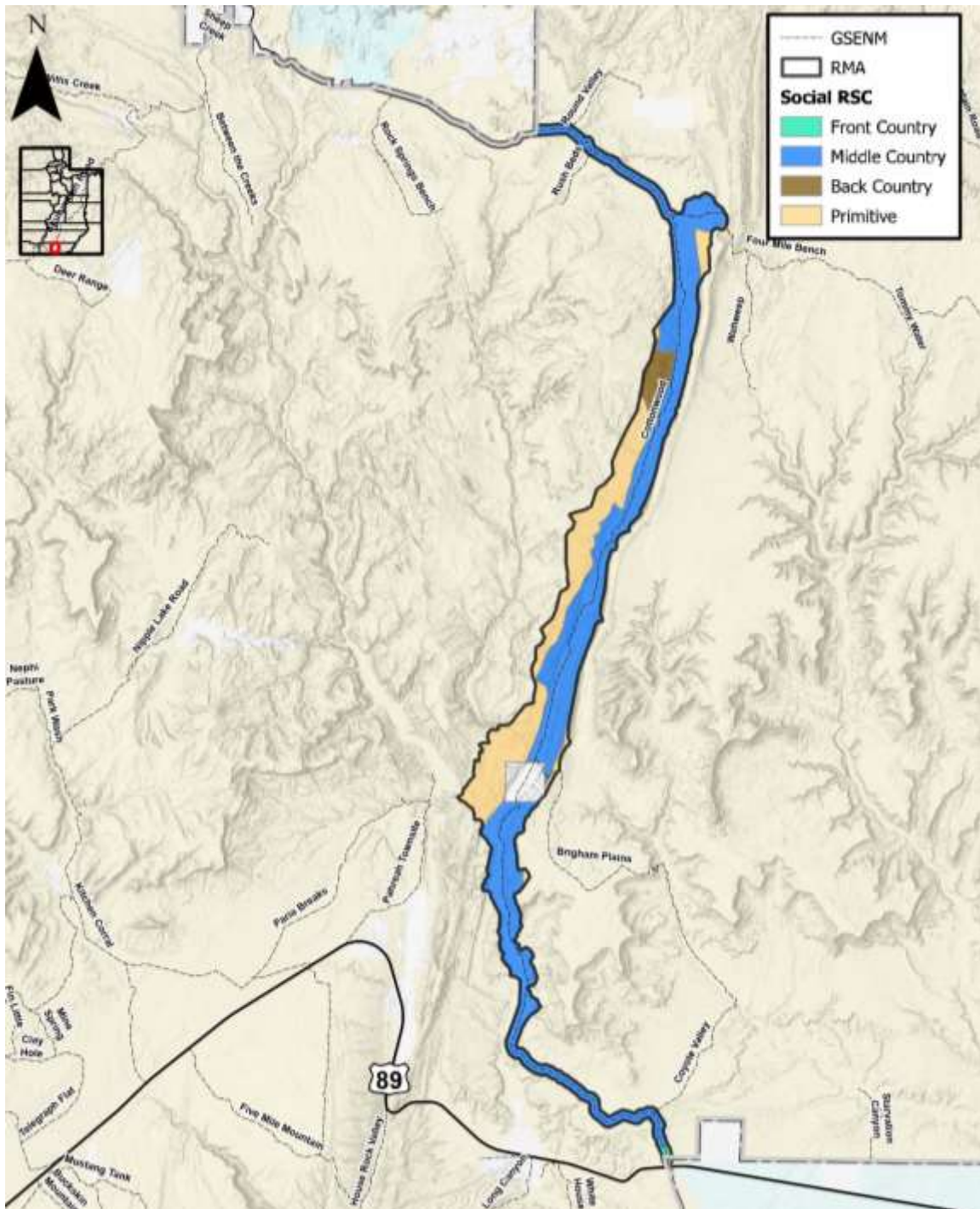
**Figure 2. Cottonwood Canyon Road SRMA Existing and Desired Physical Recreation Setting Characteristics**

**SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

**Contacts:** (average with any other group): The number of contacts is maintained or could increase at key locations. Contacts are influenced by the time of year and time of day. Traveling the road during the spring and fall and during the middle of the day, the number of contacts is higher, whereas in the winter and early morning/evening not encountering anyone else is common.

**Group Size:** (average – other than your own): Most groups in this RMA would continue to be small, though the group size limit would allow groups up to 25.

**Evidence of Use:** The evidence of use would be largely maintained though some areas will be developed/designated for camping and some trailheads will be improved. Areas that are currently used for primitive camping that are closed will be reclaimed and the evidence of use will diminish. The user creation of additional primitive camping areas would be curtailed.



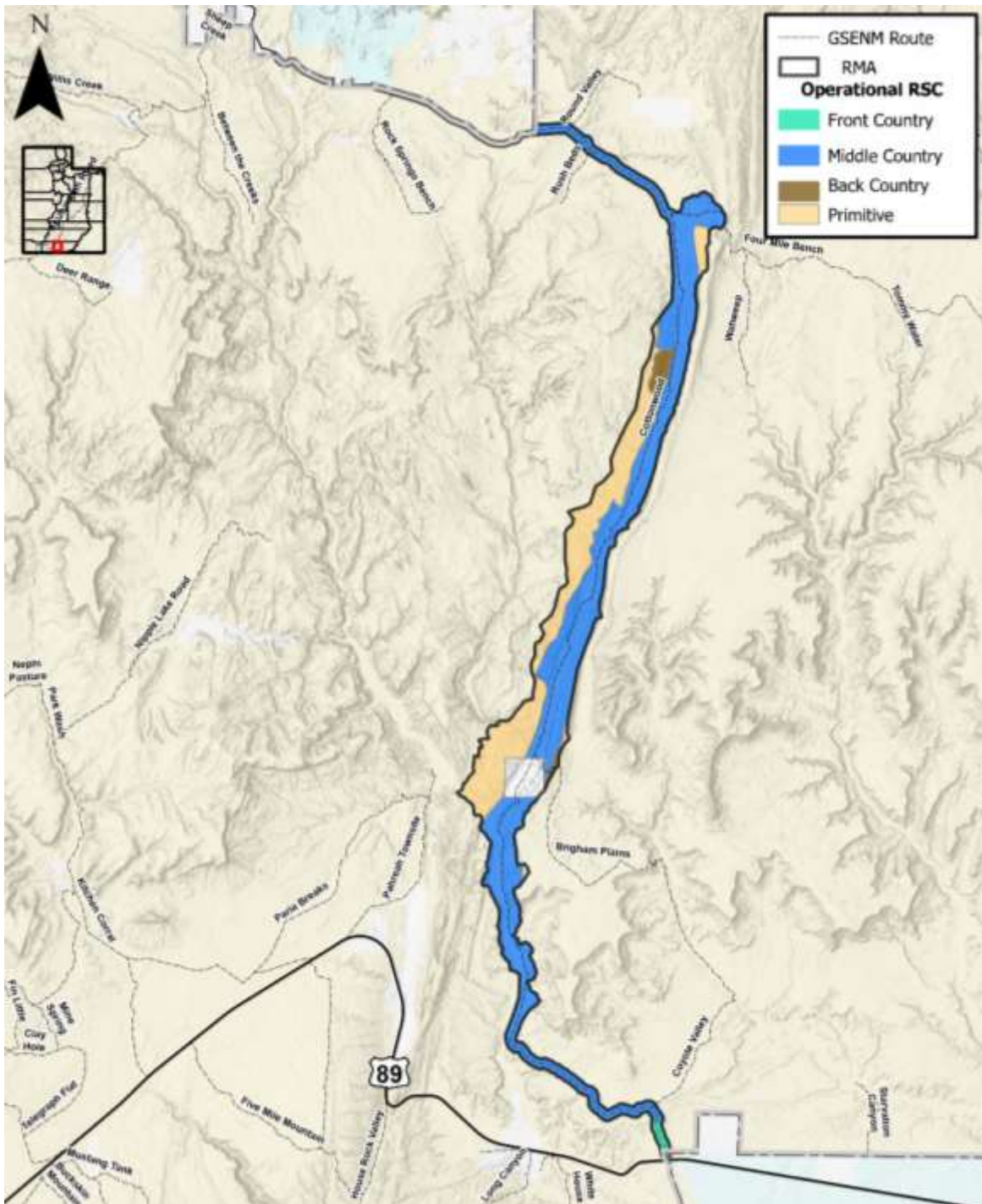
**Figure 3. Cottonwood Canyon Road SRMA Existing and Desired Social Recreation Setting Characteristics**

**SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): Cottonwood Canyon Road is mostly maintained dirt and impassible when wet. It is not recommended for 2WD passenger vehicles. The type of access will be maintained.

**Visitor Services:** Staff presence will continue to be infrequent and occasional. Kiosks with maps will continue to be located near each boundary crossing and could be provided at trailheads and designated camping areas.

**Management Controls:** Regulatory and ethics signs will be posted at boundary portals, designated camping areas, and trailheads.



**Figure 4. Cottonwood Canyon Road SRMA Existing and Desired Operational Recreation Setting Characteristics**

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:

- Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
- conflicts with threatened and endangered plant or animal species, and/or
- the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
- Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

SRPs are issued as a discretionary action for activities that:

- are consistent with protection of GSENM objects and resource/program objectives.
- are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
- would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management:*

#### Alternative B (SRMA)

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- OHV Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### Alternative C (SRMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.

- OHV Closed:
  - Primitive area
  - WSA/ISAs,
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### Alternative D (SRMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.
- OHV Closed:
  - WSA/ISAs
  - Cherry-stemmed routes in WSAs
  - Lands with wilderness characteristics identified for protection
  - Areas of high probability for cultural resources (according to BLM Class I model)
  - Areas of high probability (PFYC Class 5) for paleontological resources

#### *Aircraft Landing Areas/Strips:*

- Alternative B and D (SRMA) – Consider appropriate landing areas and landing strips for aircraft.
- Alternative C (SRMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).

#### *Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

#### *Visual Resource Management:*

- Managed according to assigned VRM classifications and objectives.

### **IMPLEMENTATION DECISIONS**

#### *Overnight Permits:*

- Permits required for overnight use.

#### *Group Size/Pack Stock Limits:*

- Group size/pack stock limit of 25 in SRMA.

#### *Facilities:*

- Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
- Improve/maintain Grosvenor Arch day use site.



- Improve/maintain trailheads: Round Valley Draw, Cottonwood Narrows, Lower Hackberry Canyon, The Paria Box.
- Improve/maintain information kiosks on both ends of Cottonwood Road.

*Trails:*

- Alternative B (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.
- Alternative C (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.
- Alternative D (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Sensitive resource areas may be closed to camping to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 6 am.
- Alternative B (SRMA)
  - Allow camping only in developed campgrounds or designated camping areas.
  - Do not allow campfires in the Paria/Hackberry Canyons and relict plant areas as they are identified. Also prohibit campfires in archaeological and historic sites, rock shelters, or alcoves.
- Alternative C (SRMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.
- Alternative D (SRMA)
  - Allow camping only in developed campgrounds or designated camping areas.
  - No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Alternatives B and C (SRMA) – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSEBN objects.
- Alternative D (SRMA) – Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Canyoneering, rappelling, and climbing not allowed on Grosvenor Arch, archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Alternatives B and C (SRMA) – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.
- Alternative D (SRMA) – Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Alternative B (SRMA) – Allow for motorized and nonmotorized SRPs on designated routes.
- Alternative C (SRMA)
  - SRPs to be allowed per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.
- Alternative D (SRMA) – SRPs are permitted, with the following limitations:
  - Prohibit SRPs that provide for intentional visitation to known cultural sites.
  - Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative B (SRMA) – Allow nonmotorized competitive events on designated routes.
- Alternative C (SRMA) – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.
- Alternative D (SRMA) – Prohibit all competitive events.

*Vending:*

- Vending would be occasional, infrequent, and may be allowed by permit on a case-by-case basis, in association with approved special events or recreation sites. Generally, permits could be issued to provide services needed at recreation sites (such as firewood sales at campgrounds) and services that are commonly offered in conjunction with permitted special events. Criteria and/or stipulations to protect GSENM objects would be included in all permits.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Alternative B (SRMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) is prohibited in WSAs and lands managed to protect wilderness characteristics.
- Alternative C (SRMA) – Allow takeoff and landing of unmanned aerial systems (drones) per Management Area prescriptions.
- Alternative D (SRMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) in GSENM.

**BEST MANAGEMENT PRACTICES - to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
- Update kiosks on each end of SRMA along Cottonwood Canyon Road.
- Update/install trailhead kiosks.
- Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

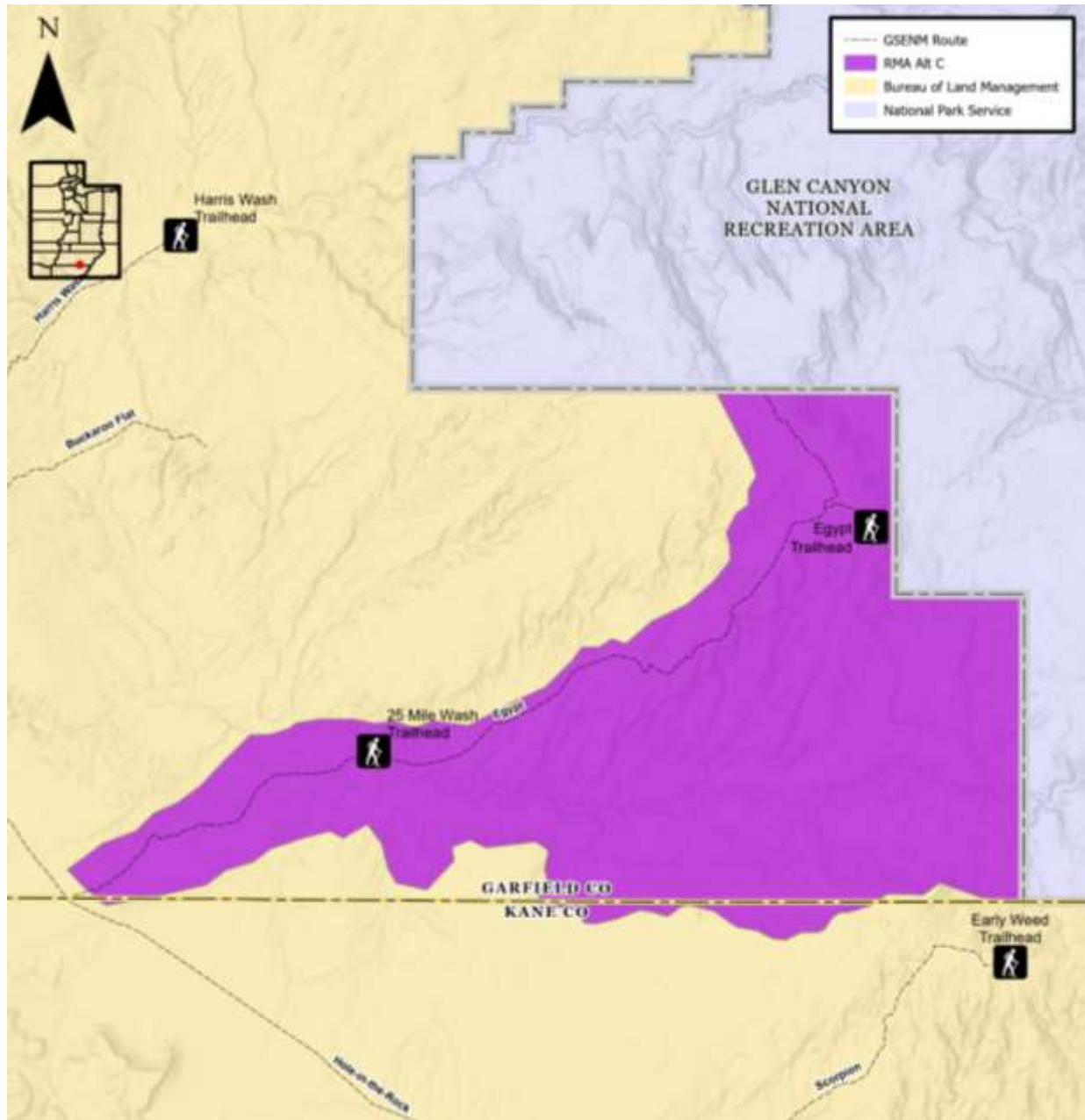
- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

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## Egypt Recreation Management Areas

### Egypt Special Recreation Management Area (Alternative C) and Extensive Recreation Management Area (Alternative D) Framework

Size: 14,100 acres



**Figure 1. Egypt Recreation Management Area - Alternatives C and D**

**Rationale:** The Egypt SRMA encompasses the area along Egypt area from Hole in the Rock Road to the Glen Canyon NRA boundary. The northern portion of the Scorpion WSA is in the SRMA. The dirt and gravel Egypt Road is the only road in the SRMA and takes many visitors to the Egypt Trailhead on the Glen Canyon NRA boundary, where they can access the popular Neon Canyon and Golden Cathedral.

Within GSENM, most visitors, many supported by SRP holders, are engaging in technical canyoneering in the Egypt Slot Canyons. The Egypt slots offer numerous steep descents and ascents within technical slot canyons. Hikers/canyoneers must be capable of using various technical and free-climbing maneuvers, such as stemming, and climbing skills to traverse pour-offs in the slots. Egypt 3 is the only slot that can be navigated with minimal equipment but still requires canyoneering skills, is extremely narrow, and requires traversing sideways in many sections. The area is popular for canyoneering, day hiking, and access to backpacking in the Escalante River Canyon system. All routes are unmarked. Recreationists must be able to route find and taking safety precautions for heat and weather-related occurrences such as flash floods is critical.

Expanses of salmon Navajo sandstone, deep canyons, and sand dunes contribute to the stunning scenery of this area. It provides opportunities for adventure, canyoneering skill-building, solitude, appreciating nature, and enjoying the quiet and dark night skies.

<b>SRMA OBJECTIVE (Alternative C)</b> - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):		
<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• technical canyoneering</li> <li>• self-directed hiking/exploring</li> <li>• camping</li> </ul>	<ul style="list-style-type: none"> <li>• Enjoying risk-taking adventure</li> <li>• Developing skills and abilities</li> <li>• Talking to others about equipment</li> <li>• Being able to tell others about the trip</li> <li>• Savoring the total sensory experience of a natural landscape</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Improved outdoor recreation skills, knowledge, and self confidence</li> <li>• Improved teamwork and cooperation</li> <li>• Greater sense of personal accountability for acting responsibly on BLM-managed lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Feeling good about how GSENM is managed</li> </ul> <p><i>Economic:</i></p> <p>Maintenance of distinctive recreation setting, character, and market niche</p> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

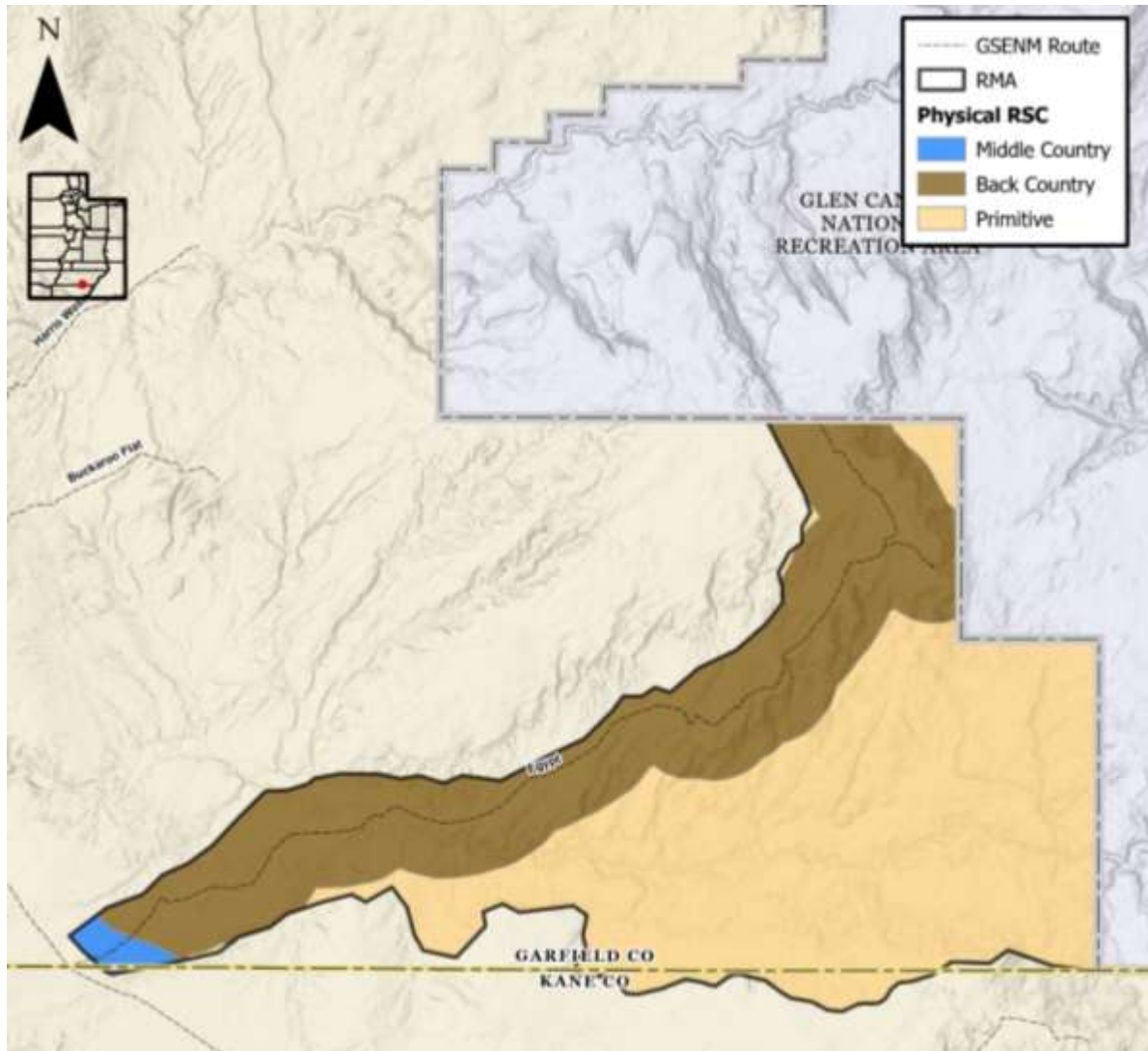
**SRMA EXISTING AND DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Remoteness</b>	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
<b>Naturalness</b>	undisturbed	largely intact	retained	partially modified
<b>Facilities</b>	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Contacts</b>	<6 contact per day	7–15 per day	15–29 per day	>30 per day
<b>Group Size</b>	<3	4–6	7–12	>12
<b>Evidence of Use</b>	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Access</b>	nonmotorized	4WD	AWD HC	2WD
<b>Visitor Services</b>	rarely present	infrequently present	occasionally present	regularly present
<b>Regulation</b>	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approx. distance from routes): Most of the RMA is within a WSA. The existing level of remoteness is maintained.



**Figure 2. Egypt SRMA Existing and Desired Physical Setting Characteristics – Alternative C**

**Naturalness:** (landscape texture form, line, color): Most of the RMA is within a WSA. The existing level of naturalness is maintained.

**Facilities:** The Egypt Trailhead could be improved to protect resources though it would remain basic. Additional facilities would not be provided.

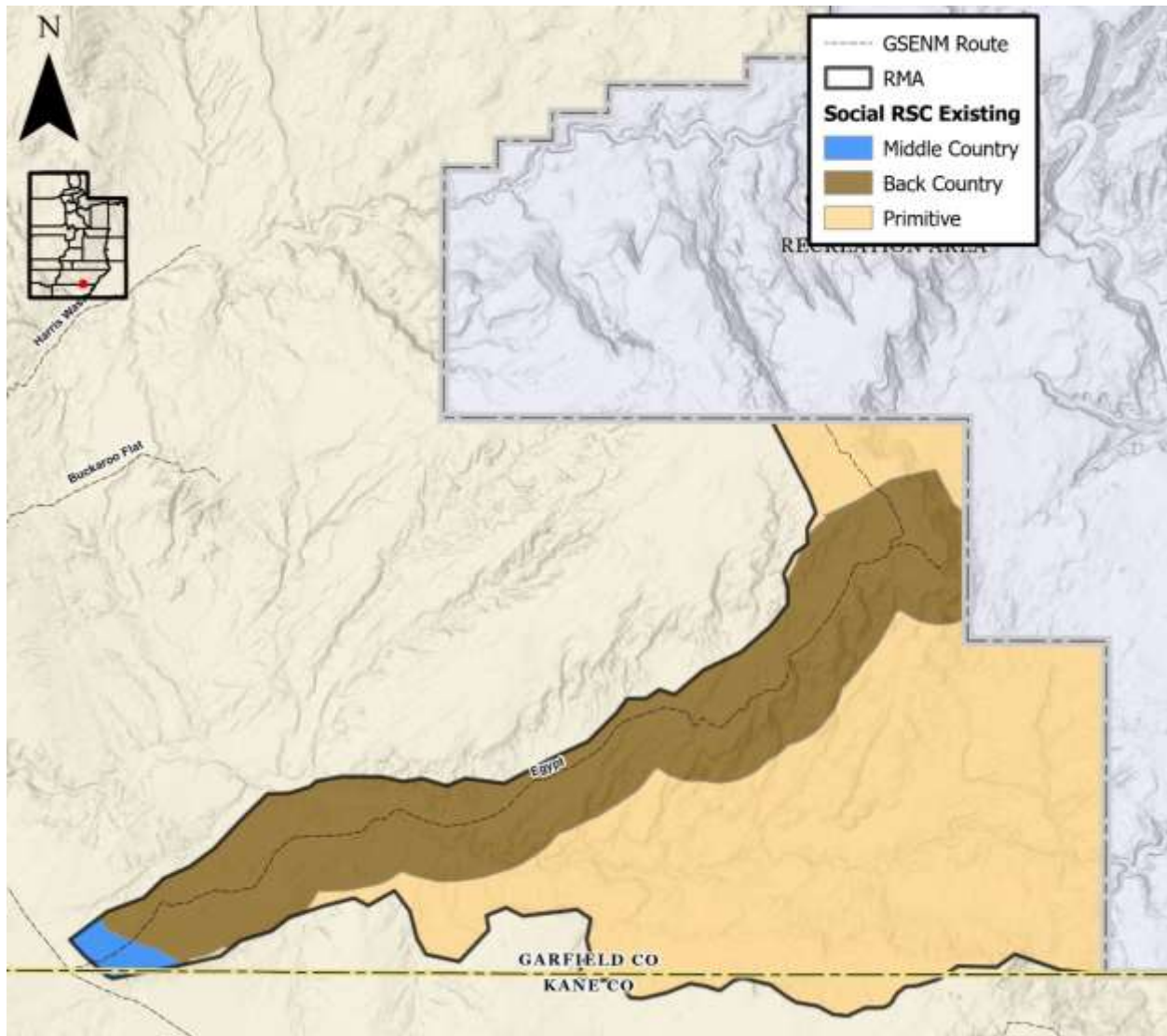
### **SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

**Contacts:** (average with any other group): In most locations and instances, contacts of fewer than six will be maintained. Only at Egypt Trailhead and along road during busy visitation season would contacts be up to 15.

**Group Size:** (average – other than your own): Group size limits along road could be up to 25 and hiking and canyoneering group would max at 12, but most groups will continue to be below those maximums.



**Evidence of Use:** The evidence of use is associated with the road and several regularly used primitive campsites. Once away from the travel corridor, evidence of use is rare.



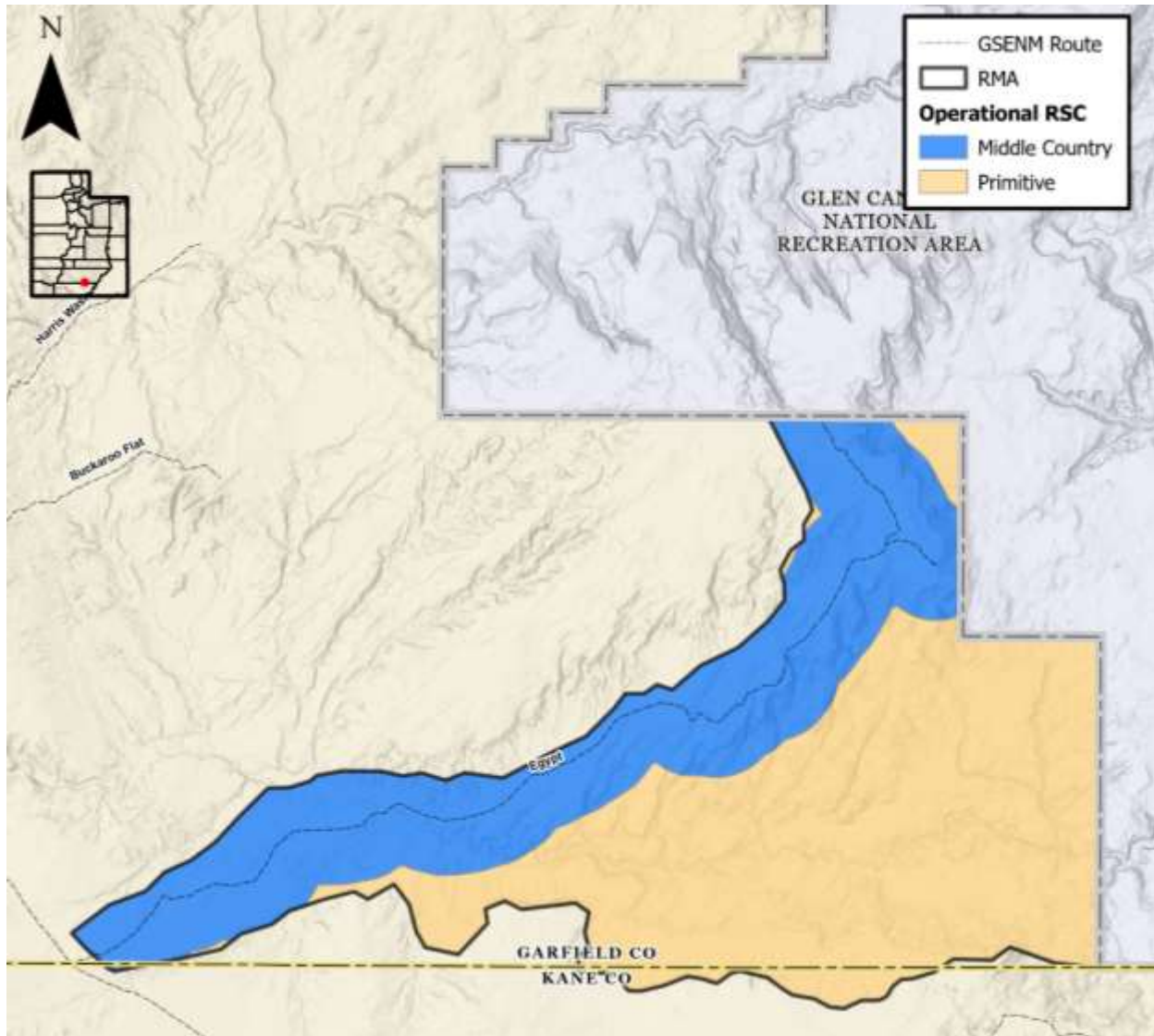
**Figure 3. Egypt SRMA Existing and Desired Social Setting Characteristics – Alternative C**

### **SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): The access that ranges from a mix of vehicles (most are passenger AWD and 4WD) on the road to pedestrian and horse once off the road will be maintained.

**Visitor Services:** Staff presence will continue to be rare due to the remoteness and inaccessibility.

**Management Controls:** Regulatory and ethics signs will be posted along the road and at trailhead. Signage away from the trailhead or road will be rare.



**Figure 4. Egypt SRMA Existing and Desired Operational Setting Characteristics – Alternative C**

**ERMA OBJECTIVE (Alternative D)** - In the Egypt SRMA, the recreation and visitor services focus on primitive, dispersed, self-directed recreation activities and visitor services support participation in hiking, canyoneering, and camping while prioritizing protection of GSENM objects.

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### Allocation:

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation

objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:

- Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts).
- conflicts with threatened and endangered plant or animal species, and/or
- the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
- Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

*Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

*Comprehensive Trails and Travel Management:*

Alternative C (SRMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive area
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

Alternative D (ERMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.
- OHV Closed:
  - WSA/ISAs
  - Cherry-stemmed routes in WSAs
  - Lands with wilderness characteristics identified for protection

- Areas of high probability for cultural resources (according to BLM Class I model)
- Areas of high probability (PFYC Class 5) for paleontological resources

*Aircraft Landing Areas/Strips:*

- Alternative C (ERMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).
- Alternative D (ERMA) – Consider appropriate landing areas and landing strips for aircraft.

*Lands and Realty:*

- Alternative C (SRMA) – ROW avoidance areas are applied to the SRMA unless ROW exclusion is determined for other resource protections.

*Visual Resource Management:*

- Alternative C (SRMA) – The SRMA is classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA or suitable WSR wild segment (which are managed as VRM Class I).

## **IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size /Pack Stock Limits:*

- Alternative C (SRMA) – Group size and pack stock limits per Management Area prescriptions.
- Alternative D (ERMA) – Group size and pack stocks limits of 12.

*Facilities:*

- Alternative C (SRMA) – Allow recreation facilities per Management Area prescriptions.
- Alternative D (ERMA) – Recreation facilities other than limited signage would not be provided.

*Trails:*

- Alternative C (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.
- Alternative D (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Sensitive resource areas may be closed to camping, or a permit system implemented as identified in a future recreational area management plan, to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 30-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (designated camping areas or dispersed): 10 pm to 6 am.

- Alternative C (SRMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.
- Alternative D (ERMA)
  - Camping is allowed only in developed campgrounds or designated camping areas.
  - No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Areas adjacent or contiguous to NPS lands requiring human waste removal will require use of personal waste systems.
- Alternative C (SRMA) – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.
- Alternative D (ERMA) – Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Not allowed in/on archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed as needed to protect species.
- May be buffered or seasonally closed to prevent disturbance to raptor nesting.
- Alternative C (SRMA) – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.
- Alternative D (ERMA) – Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.
- Alternative C (SRMA)
  - SRPs to be allowed per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the Management Area in which the event occurs.
- Alternative D (ERMA) – SRPs are permitted, with the following limitations:
  - Prohibit SRPs that provide for intentional visitation to known cultural sites.
  - Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative C (SRMA) – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.
- Alternative D (ERMA) – Prohibit competitive events.

*Vending:*

- Alternative C (SRMA) – Vending is allowed per Management Area prescriptions.
- Alternative D (ERMA) – Vending is not allowed.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Alternative C (SRMA) – The takeoff and landing of unmanned aerial systems (drones) to follow Management Area prescriptions.
- Alternative D (ERMA) – The takeoff and landing of unmanned aerial systems (drones) is prohibited.

**BEST MANAGEMENT PRACTICES - to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- Alternative C (SRMA) – If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.
- Alternative D (ERMA) – If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update/install trailhead kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

- Alternative C (SRMA) – Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.
- Alternative D (ERMA) – Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

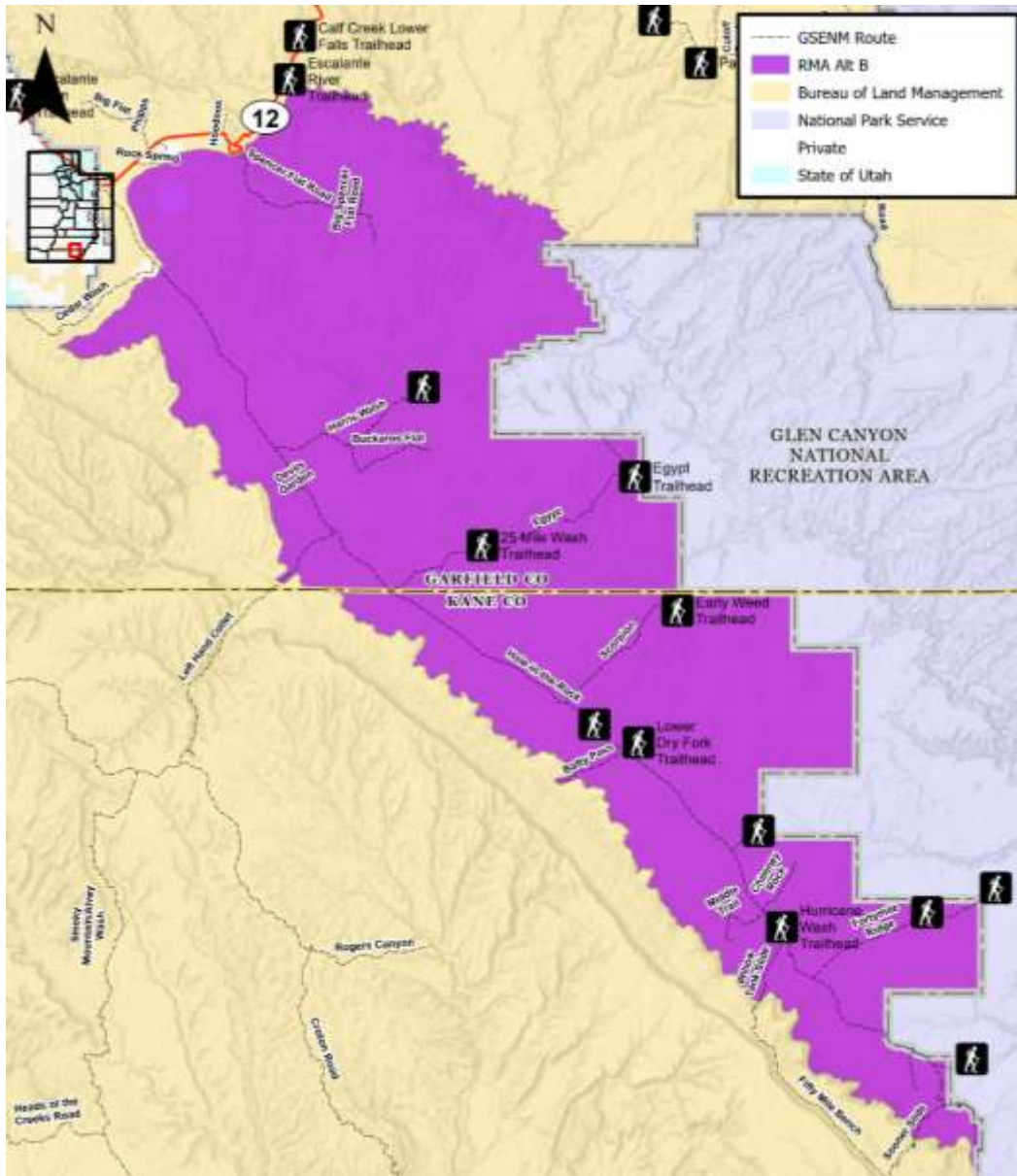
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**Escalante Desert Recreation Management Areas**

**Escalante Desert Extensive Recreation Management Area (Alternative B) Framework**

Size: 204,300 acres (Alternative B)



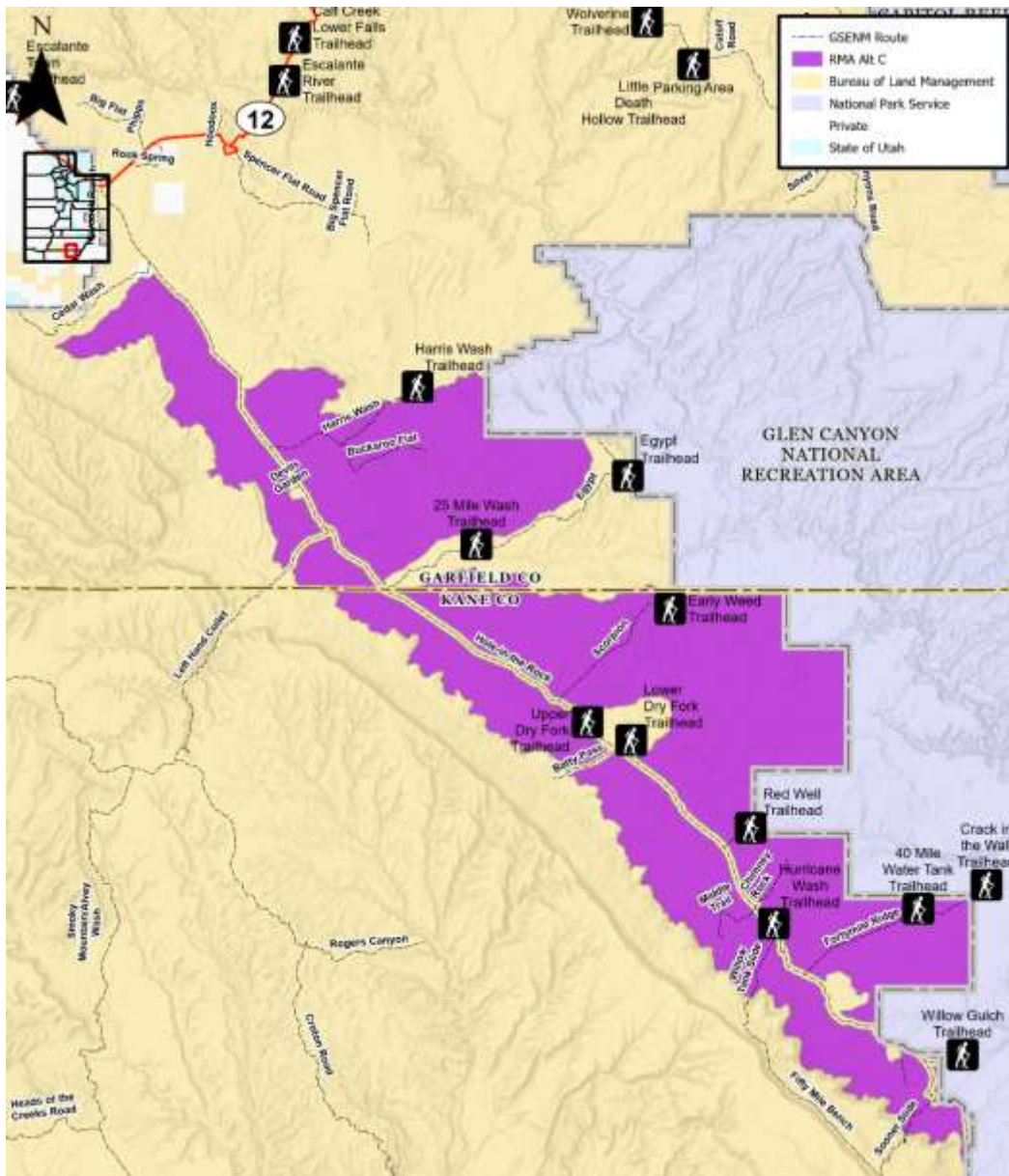
**Figure I. Escalante Desert Recreation Management Area - Alternative B**

*Rationale:* The Escalante Desert ERMA encompasses an area that stretches west of the Escalante River and the Glen Canyon NRA boundary, to the base of the Straight Cliffs on the west, and south of HWY 12 and Cedar Wash Roads in the north. It includes the portion of the North Escalante Canyons-The Gulch WSA west of the Escalante River, the entirety of the Scorpion WSA, the Escalante Canyons Tract 5 ISA, and a few acres of the Fiftymile Mountain and Carcass Canyon WSAs along the base of the Straight Cliffs. The primary roads into this ERMA are Hole in the Rock Road and Spencer Flat Road, both dirt and gravel roads. Popular destinations within this area are the Dry Fork Slot Canyons, Devil’s Garden, Egypt Slot

Canyons, Dance Hall Rock Historic Site, Sunset Arch, Zebra Canyon, Phipps Wash and Arch, Big Horn Canyon, and the Cosmic Navel. The area also provides access to popular destinations within Glen Canyon NRA like Coyote Gulch, Jacob Hamblin Arch, Neon Canyon, and Golden Cathedral. Popular activities include hiking, dispersed camping, backpacking, canyoneering, visiting historic sites, and photography. The area offers numerous opportunities for self-directed exploration in a desert environment. Expanses of colorful Navajo sandstone, deep canyons, and sand dunes contribute to the stunning scenery of this area. It provides opportunities for adventure, canyoneering skill-building, solitude, appreciating nature, and enjoying the quiet and dark night skies.

**Escalante Desert Extensive Recreation Management Area (Alternative C) Framework**

**Size:** 119,800 acres (Alternative C)



**Figure 2. Escalante Desert Recreation Management Area - Alternative C**

*Rationale:* The Escalante Desert ERMA encompasses an area loosely bounded by the Glen Canyon NRA boundary to the east, the base of the Straight Cliffs to the west, and Cedar Wash Road and Harris Wash to the north. It contains a few acres of the North Escalante Canyons-The Gulch and Fiftymile Mountain WSAs, about two-thirds of the Scorpion WSA, and the Escalante Canyons Tract 5 ISA, and Buckaroo Flat, Early Weed Bench, Chimney Rock, and Sunset Arch. Hole in the Rock Road corridor splits the area in two (the most popular Hole in the Rock attractions are in that RMA). The ERMA provides access to popular destinations within Glen Canyon NRA like Coyote Gulch and Jacob Hamblin Arch. Activities include hiking, dispersed camping, backpacking, canyoneering, and photography. The area offers numerous opportunities for self-directed exploration in a desert environment. Expanses of colorful Navajo sandstone, deep canyons, and sand dunes contribute to the stunning scenery of this area. It provides opportunities for adventure, canyoneering skill-building, solitude, appreciating nature, and enjoying the quiet and dark night skies.

**ERMA OBJECTIVE (Alternatives B and C)** – In the Escalante Desert ERMA, the recreation and visitor services focus on primitive, dispersed, self-directed recreation activities and visitor services supports participation in hiking, canyoneering, backpacking, and primitive camping while prioritizing protection of GSENM objects.

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts).
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations’ ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

*Comprehensive Trails and Travel Management:***Alternative B (ERMA)**

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- OHV Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

**Alternative C (ERMA)**

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive Area
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

*Aircraft Landing Areas/Strips:*

- Alternative B (ERMA) – Consider appropriate landing areas and landing strips for aircraft.
- Alternative C (ERMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive Area, which is closed to OHV travel).

**IMPLEMENTATION DECISIONS***Overnight Permits:*

- Permits required for overnight use.

*Group Size /Pack Stock Limits:*

- Alternative B (ERMA) – Group size and pack stocks limits of 25 or 12 in WSAs.
- Alternative C (ERMA) – Group size and pack stock limits per Management Area prescriptions.

*Facilities:*

- Alternative B (ERMA)
  - Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
  - Develop Zebra Trailhead.

- Develop Big Spencer Flat Trailhead to provide access to Cosmic Navel and other destinations.
- Improve Harris Wash Trailhead.
- Alternative C (ERMA) – Allow recreational facilities per Management Area prescriptions.

*Trails:*

- Alternative B (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.
- Alternative C (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.

*Camping:*

- Sensitive resource areas may be closed to camping, or a permit system implemented as identified in a future recreational area management plan, to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 30-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (designated camping areas or dispersed): 10 pm to 7 am.
- Designate primitive camping areas along open roads as necessary to protect GSENM objects.
- Alternative B (ERMA)
  - Once designated primitive camping is established along roads, do not allow camping along roads in undesignated areas.
  - No camping within 300 feet of livestock corrals or water troughs during livestock grazing season of use.
  - Do not allow campfires in Escalante Canyons, arch/historic sites, rock shelters, or alcoves.
- Alternative C (ERMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.

*Personal Waste Systems:*

- Areas adjacent or contiguous to NPS lands requiring human waste removal will require use of personal waste systems.
- Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Not allowed in/on the Cosmic Navel, Devil's Garden features (Alternative B), archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed as needed to protect species.
- May be buffered or seasonally closed to prevent disturbance to raptor nesting.
- Alternatives B and C – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Alternative B (ERMA) – Allow for motorized and nonmotorized SRPs on designated routes.
- Alternative C (ERMA) – Allow/prohibit motorized SRPs per Management Area prescriptions. Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the Area in which the event occurs.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative B (ERMA) – Allow nonmotorized competitive events on designated routes.
- Alternative C (ERMA) – Allow nonmotorized competitive events on designated routes per Management Area prescriptions.

*Vending:*

- Alternative B (ERMA) – Vending is allowed only for permitted special events.
- Alternative C (ERMA) – Vending is allowed per Management Area prescriptions.

*Recreational Target Shooting:*

- Alternative B (ERMA) – Prohibit recreational target shooting within 0.5 miles of residences; from, on, or across routes; campgrounds; developed recreation sites and trails; and designated camping areas.
- Alternative C (ERMA) – The discharge of firearms for recreational target shooting is allowed per Management Area prescriptions.

*Drone Use:*

- Alternative B (ERMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) is prohibited in WSAs and lands managed to protect wilderness characteristics.
- Alternative C (ERMA) – The takeoff and landing of unmanned aerial systems (drones) to follow Management Area prescriptions.

**BEST MANAGEMENT PRACTICES – to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, GSENM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update/install trailhead kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

- Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

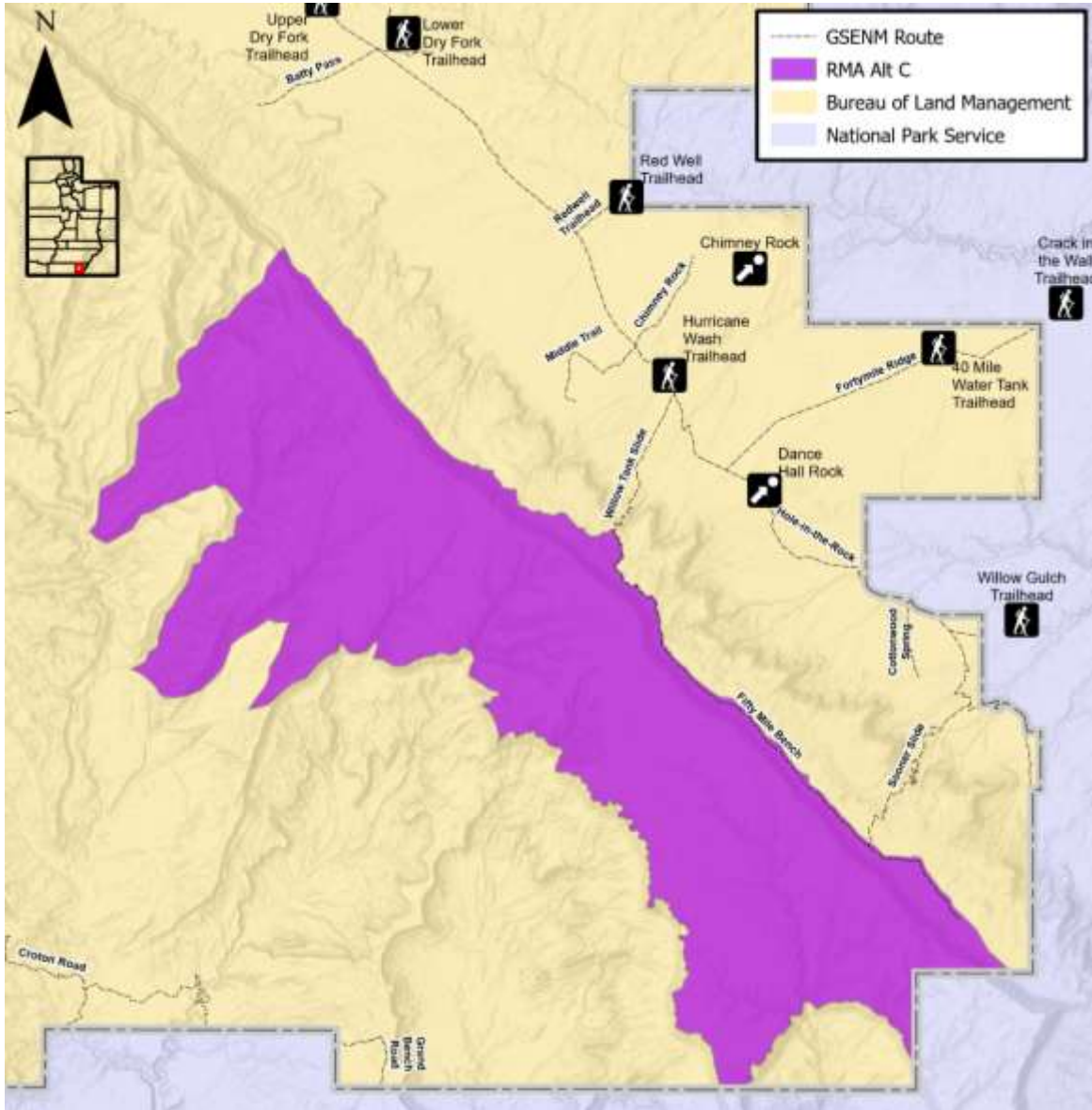
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**Fiftymile Mountain Recreation Management Area**

***Fiftymile Mountain Extensive Recreation Management Area (Alternative C) Framework***

Size: 40,900 acres



**Figure I. Fiftymile Mountain Recreation Management Area - Alternative C**

*Rationale:* Fiftymile Mountain offers a primitive, uncrowded, and remote recreational experience for backpacking and hunting. There are no roads to or within the RMA. The area offers a unique opportunity for the adventurous and experienced backpacker, requiring extensive preparation and planning to visit and travel. It encompasses the top of Fiftymile Mountain at the southern end of the Straight Cliffs which is a high-elevation island of pinyon-juniper woodland with aspen stands overlooking the sandstone expanse of southern Glen Canyon Country, Lake Powell, and Navajo Mountain. A middle segment of the Hayduke Trail, an extremely challenging, 800-mile backcountry route that starts in Arches National Park, passes

through the five southern Utah national parks plus the Grand Canyon, and end in Zion National Park, passes through this RMA. All of the RMA is within the Fiftymile Mountain WSA.

**ERMA OBJECTIVE (Alternative C)** – In the Fiftymile Mountain ERMA, the recreation and visitor services focus on primitive, self-directed recreation activities and visitor supports participation in remote backpacking and hunting while prioritizing protection of GSENM objects.

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations’ ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objective.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued.
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management:*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive Area
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

*Lands and Realty:*

- ROW exclusion area.

*Visual Resource Management:*

- VRM Class I.

**IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group/Pack Stock Size Limits:*

- Group size and pack stock limits of 12.

*Facilities:*

- Recreation facilities would not be provided.

*Trails:*

- Allow nonmechanized recreation trails made of locally sourced materials only for resource protection and/or public safety.

*Camping:*

- Sensitive resource areas may be closed to camping, or a permit system implemented as identified in a future recreational area management plan, to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping: 10 pm to 6 am.
- Allow dispersed camping. Designated dispersed camping areas may be identified and designated on an as-needed basis. Areas may be closed to camping to protect GSENM objects. Campfires allowed only in designated fire grates or mandatory fire pans/blankets. Where fire pans/blankets are used, ash removal is required. Allow collection of dead and down wood where campfires are allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Areas adjacent or contiguous to NPS lands requiring human waste removal will require use of personal waste systems.
- Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Not allowed in/on hoodoos, archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed as needed to protect species.

- May be buffered or seasonally closed to prevent disturbance to raptor nesting.
- Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure continued consistency with the protection of GSENM objects.
- Prohibit noncompetitive motorized SRP events.
- Prohibit SRPs that provide for intentional visitation to cultural sites except for approved visitation to designated public cultural sites or approved sites by the BLM.
- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.

*Competitive Events:*

- Prohibit all competitive events.

*Vending:*

- Vending would not be allowed.

*Recreational Target Shooting:*

- Prohibit recreational target shooting within 1 mile of, campgrounds; from, on, or across routes; designated dispersed camping areas; and developed recreation sites and trails.

*Drone Use:*

- The takeoff and landing of unmanned aerial systems (drones) to follow Management Area prescriptions.

*Aircraft Landing Areas/Strips:*

- Prohibit landing areas and landing strips for aircraft.

**BEST MANAGEMENT PRACTICES – to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.

*Monitoring:*

- Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

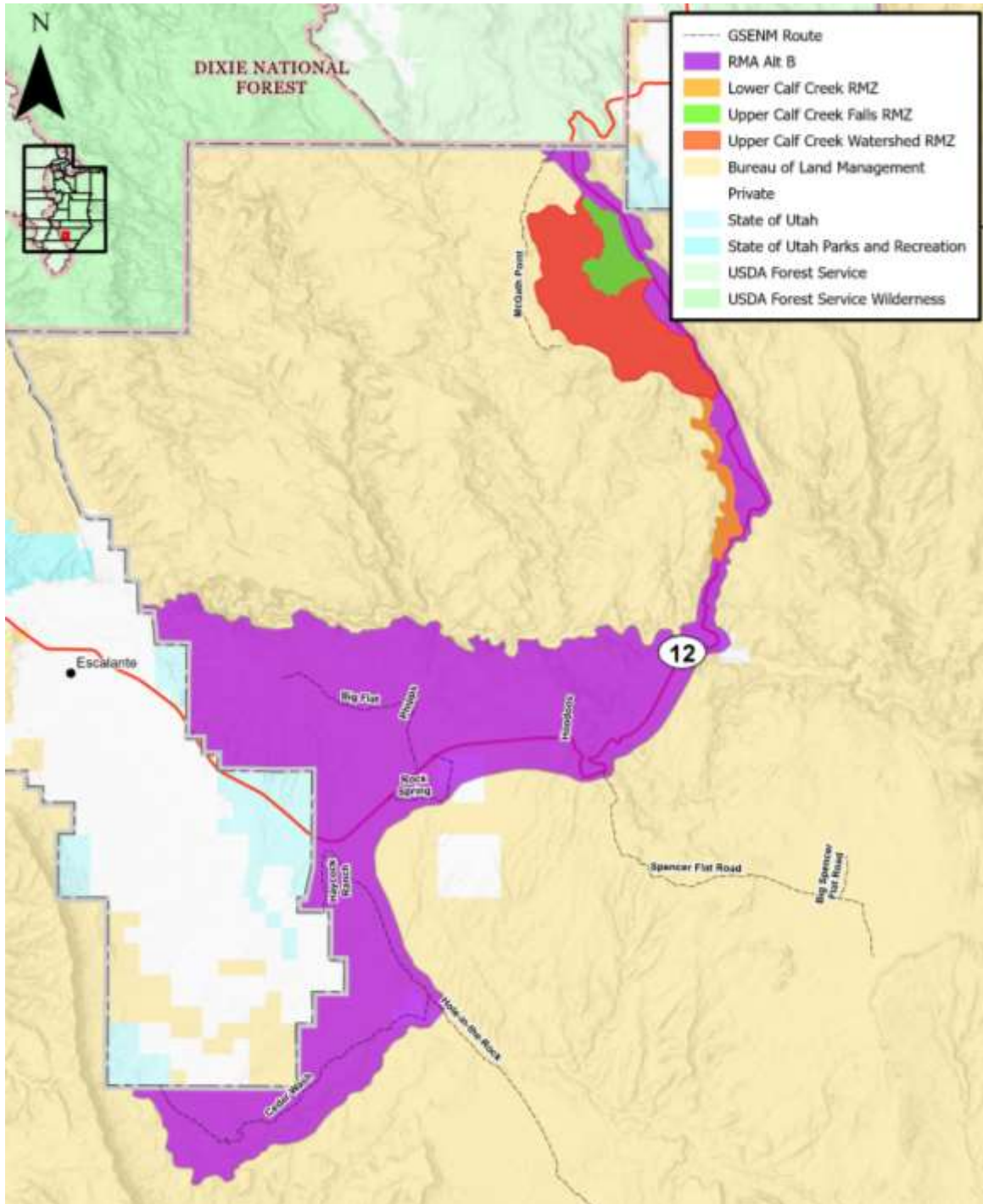
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**Highway 12 - Escalante to Boulder Recreation Management Areas**

**Highway 12 - Escalante to Boulder Special Recreation Management Area and Recreation Management Zones (Alternative B) Framework**

Size: 22,500 acres



**Figure 1. Highway 12 - Escalante to Boulder Recreation Management Area - Alternative B**

*Rationale (Alternative B):* The Highway 12 - Escalante to Boulder SRMA encompasses the approximately 30-mile corridor along Highway 12 between the towns of Escalante and Boulder, which provides easy exposure to the Escalante Canyons for most visitors. It also extends along Cedar Wash Road and the northern-most segment of Hole in the Rock Road. Highway 12 is Utah's only All-American Road and is driven as an experience unto itself – this segment of the scenic byway provides visitors with expansive views of the Escalante Canyons region and beyond, the opportunity to drive across the Escalante River, through the narrow canyon along Calf Creek, and over the Hogback (a narrow spine of sandstone with steep drop-off to both sides). The area provides developed camping, picnicking, and day hiking at Calf Creek, day hiking and backpacking access at the Boulder Mail Trail, Upper Calf Creek Falls, and the two Escalante River Trailheads, interpretive scenic waysides (Hole in the Rock and Head of the Rocks and Boynton Overlooks), and is valued for the many self-directed, nonmotorized/nonmechanized explorations that it affords. The stunning Lower Calf Creek Falls is in this SRMA and is its most popular attraction. The self-directed explorations are enjoyed primarily by local residents whereas the developed recreational options are enjoyed in great numbers by visitors who benefit from the ease of being directed to specific attractions.

The kaleidoscopic colors, geology, vegetative variety, and presence of water combine to create stunning scenery. The geology ranges from rolling white sandstone mounds to deeply incised vermilion canyons. Riparian canyons filled with cottonwoods and willows contrast nicely with the pinyon, juniper, and sagebrush on the upland flats. The expansiveness and scenic beauty of the surrounding landscape past the SRMA's boundary highly contribute to, if not determine the uniqueness and specialness of this SRMA.

This SRMA includes three RMZs focused on the Calf Creek watershed as it is the region within the RMA that receives the most visitation and attention.

**NOTE:** Alternative B content that immediately follows applies to areas in the SRMA outside the RMZs. Objectives and management actions for the individual RMZs follow afterward.



<p><b>SRMA OBJECTIVE (Alternative B – outside RMZs)</b> - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):</p>		
<p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>• scenic auto touring – sightseeing</li> <li>• interpretive viewing</li> <li>• hiking</li> <li>• camping</li> <li>• photography/artistic pursuits</li> <li>• visiting geologic sites</li> </ul>	<p><b>Experiences:</b></p> <ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Enjoying easy access to natural landscapes</li> <li>• Relishing group (family/friends) affiliation and togetherness</li> <li>• Enjoying artistic expression of nature</li> <li>• Being able to tell others about the trip</li> </ul>	<p><b>Benefits:</b></p> <p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/awareness of outdoor aesthetics and nature’s art and its elegance</li> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Stronger ties with family and friends</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</li> <li>• Maintenance of community’s distinctive recreation/tourism market niche or character</li> <li>• Increased desirability as a place to live or retire</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

**SRMA EXISTING AND DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have blue shading.

<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Remoteness</b>	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
<b>Naturalness</b>	undisturbed	largely intact	retained	partially modified
<b>Facilities</b>	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Contacts</b>	<6 contact per day	7–15 per day	15–29 per day	>30 per day
<b>Group Size</b>	<3	4–6	7–12	>12
<b>Evidence of Use</b>	no alterations	alterations rare	small alterations	large alterations

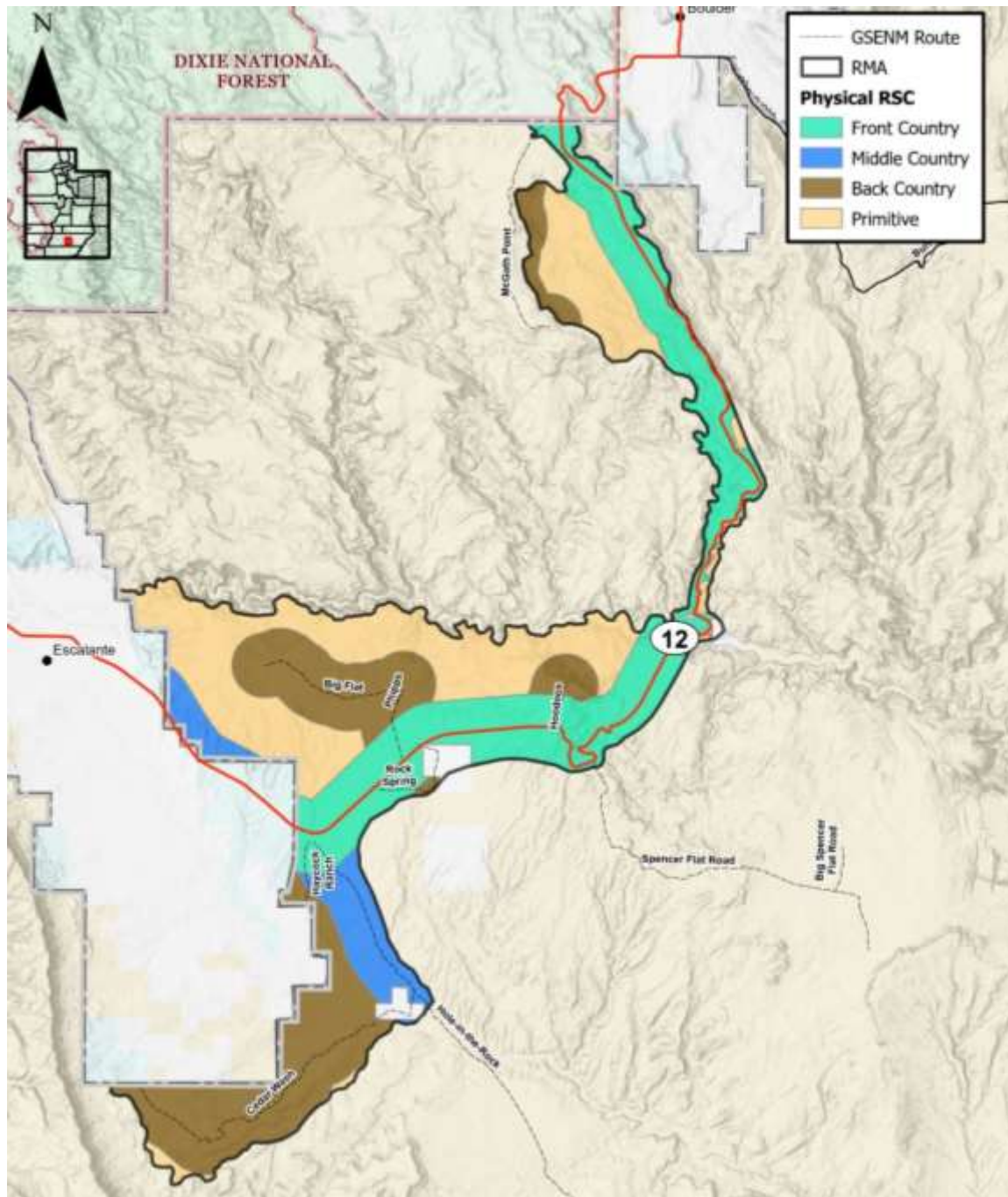
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
<b>Access</b>	nonmotorized	4WD	AWD HC	2WD
<b>Visitor Services</b>	rarely present	infrequently present	occasionally present	regularly present
<b>Regulation</b>	rarely posted	infrequently posted	commonly posted	clearly posted

### **SRMA DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approximate distance from routes): The existing level of remoteness, which ranges from near a highway to primitive in areas more than ½ mile away from roads, is maintained. Highway 12 continues to provide auto-touring into a highly scenic, intact, natural landscape as well as paved access to recreational destinations and other unpaved roads that lead into more remote areas. Some portions of the RMA, like along the Escalante River as well as along the rim of the river, are accessible only via nonmotorized/nonmechanized means.

**Naturalness:** (landscape texture form, line, color): The existing level of naturalness which ranges from the highway corridor with utility lines running parallel to it to undisturbed natural area is maintained. New development will create no more than weak contrast with landscape character.

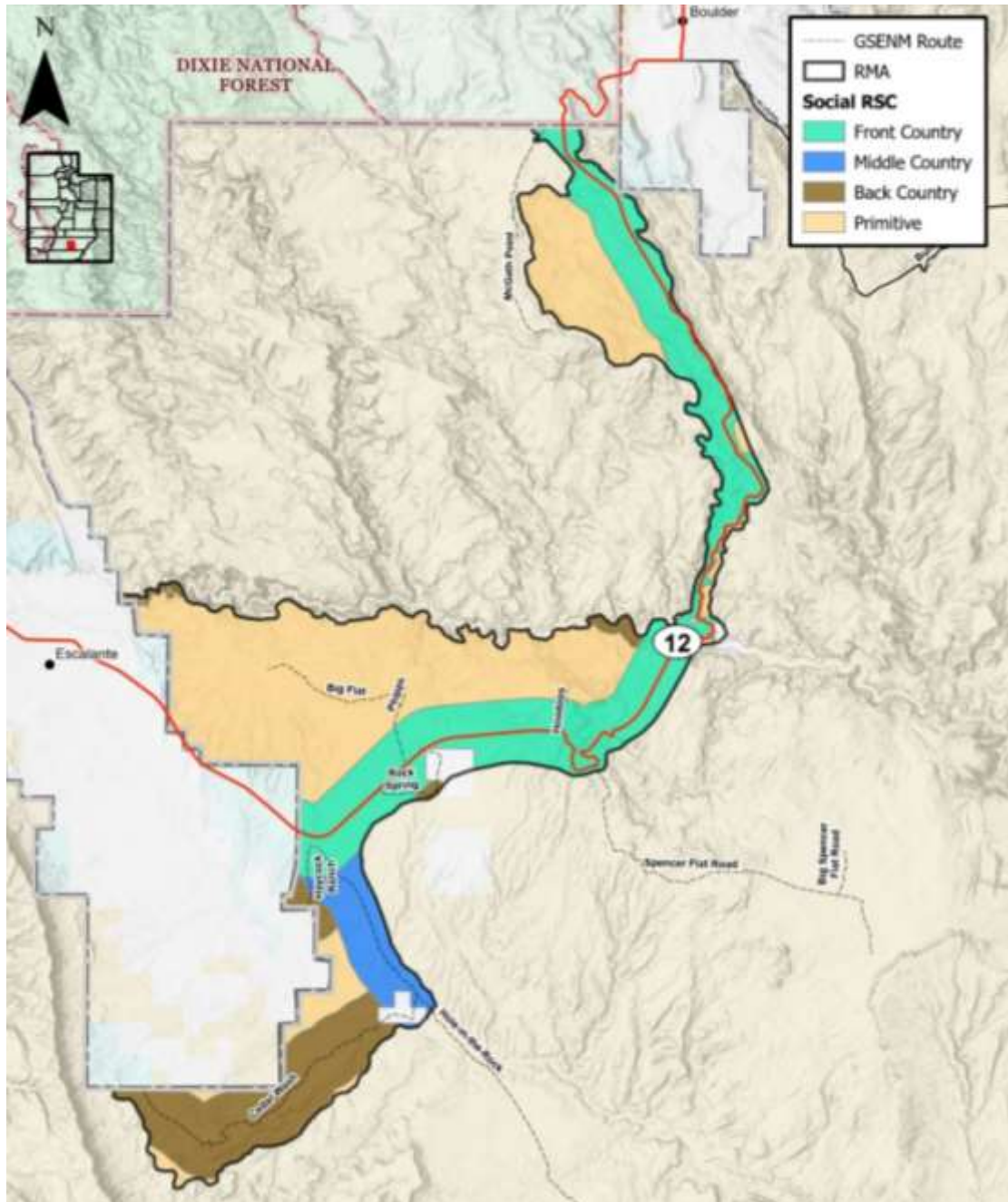
**Facilities:** Developed campgrounds, vault toilets, trailheads and overlooks/waysides are maintained, improved, and developed.



**Figure 2. Highway 12 - Escalante to Boulder SRMA – Existing and Desired Physical Setting Characteristics**

### **SRMA DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

**Contacts:** (average with any other group): The existing number of contacts would be maintained. Along the highway and at Calf Creek Recreation Site and along the Lower Calf Creek Falls Trail, the number of contacts would exceed 30 per day. In other remote and undeveloped areas of the RMA, contacts would be less than six a day.



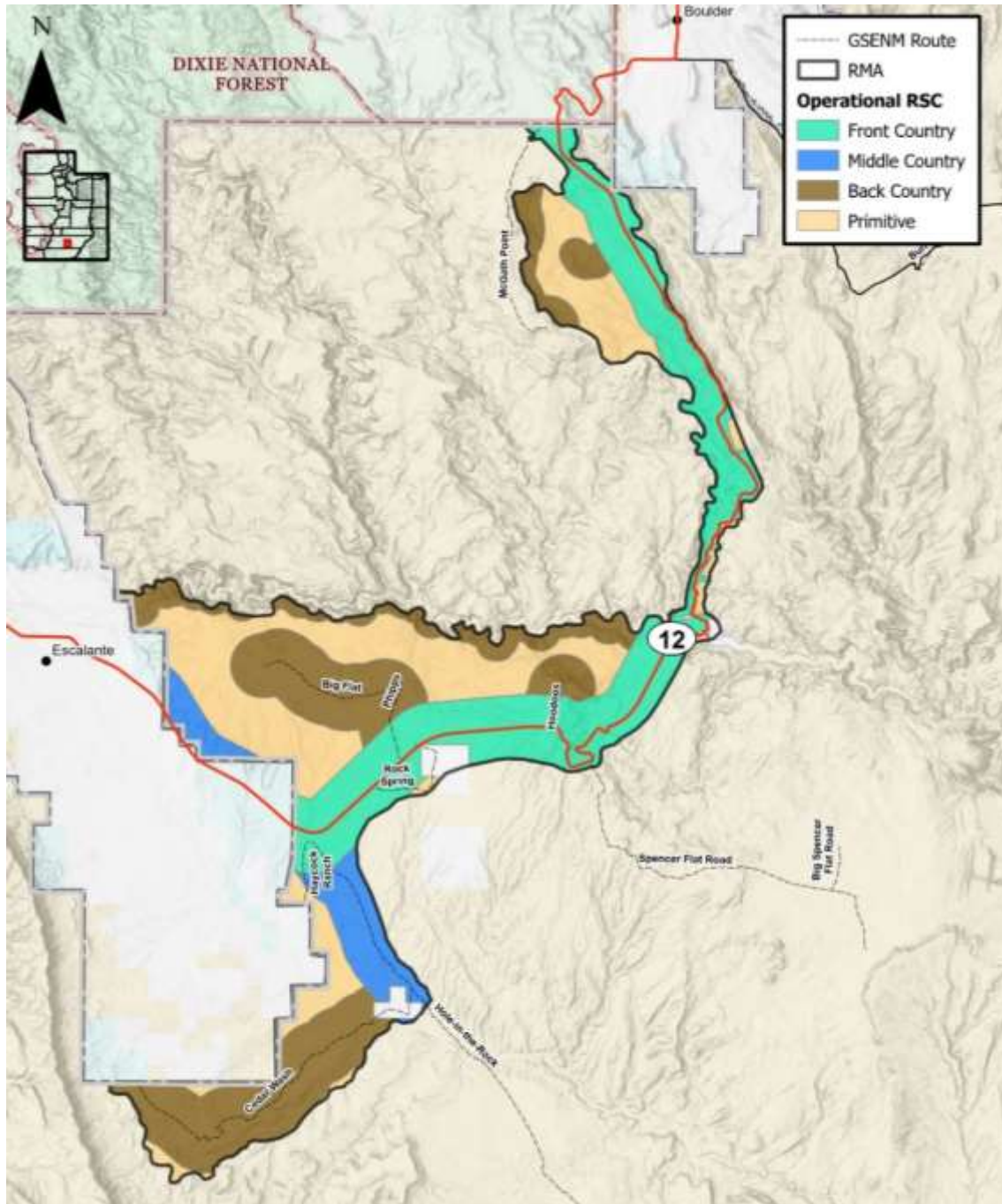
**Figure 3. Highway 12 - Escalante to Boulder SRMA – Existing and Desired Social Setting Characteristics**

**Group Size:** (average – other than your own): Groups sizes of more than 12 would be more common along the highway, at Calf Creek Recreation Site and along the Lower Calf Creek Falls Trail but most groups would continue to be small at six or less. Within WSAs the group size limit would be 25.

**Evidence of Use:** The evidence of use ranges from modern facilities at Calf Creek Recreation Site to areas with no alterations. The evidence of use is increased to allow for additional recreational infrastructure.

**SRMA DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): Highway 12 and the segment of Hole in the Rock Road in the RMA provide access to standard passenger vehicles. The other roads in the RMA are best travelled by AWD vehicles and some segments require 4WD. Areas away from the highway and roads require nonmotorized/nonmechanized means of travel to access. This range in level of access will be maintained.



**Figure 4. Highway 12 - Escalante to Boulder SRMA – Existing and Desired Operational Setting Characteristics**

**Visitor Services:** (and information): Staff are regularly present at Calf Creek Recreation Site and infrequently present to rarely present at most other locations within the RMA. This level of visitor services will be maintained.

**Management Controls:** Rules, regulations and ethics messages are clearly posted at Calf Creek Recreation Site. Regulations and ethics messages are posted at most of the trailheads in the RMA.

## **LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS**

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., If the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management:*

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- OHV Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

### *Aircraft Landing Areas/Strips:*

- Consider appropriate landing areas and landing strips for aircraft.

*Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

*Visual Resource Management:*

- The SRMA is classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA (which are managed as VRM Class I).

## **IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size/Pack Stock Limits:*

- Group size limit of 75 outside WSA where it is 12. Pack stock limit of 12.

*Facility Designation/Development:*

- Allow recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
  - Develop Top of Hole in the Rock Campground.
  - Upgrade Escalante River Trailheads (town and bridge), including providing vault toilets.
  - Provide a vault toilet at Head of the Rocks Overlook.
  - Develop Trailhead(s) for Cream Cellar Route Trail.
  - Develop New Home Bench Campground.
  - Develop Northeast Monument Portal wayside on New Home Bench.

*Trail Designation/Development:*

- Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.
- Designate Cream Cellar Route hiking trail.

*Camping:*

- Allow camping only in developed campgrounds or designated camping areas.
- Do not allow campfires in the Escalante Canyons or relict plant areas as they are identified. Also prohibit campfires in archaeological and historic sites, rock shelters, or alcoves.
- Sensitive resource areas may be closed to camping, or a permit system implemented as identified in a future recreational area management plan, to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 6pm.

*Personal Waste Systems:*

- Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.

*Canyoneering, Rappelling, Climbing:*

- Canyoneering, rappelling, and climbing not allowed at Lower and Upper Calf Creek Falls, archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Allow for motorized and nonmotorized SRPs on designated routes.

*Competitive Events:*

- Prohibit motorized competitive events.
- Allow nonmotorized competitive events on designated routes.

*Vending:*

- Vending would be occasional, infrequent, and may be allowed by permit on a case-by-case basis, in association with approved special events or recreation sites. Generally, permits could be issued to provide services needed at recreation sites (such as firewood sales at campgrounds) and services that are commonly offered in conjunction with permitted special events. Criteria and/or stipulations to protect GSENM objects would be included in all permits.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Prohibit takeoff and landing of unmanned aerial systems (drones) is prohibited in WSAs and lands managed to protect wilderness characteristics.

**BEST MANAGEMENT PRACTICES – to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.



- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

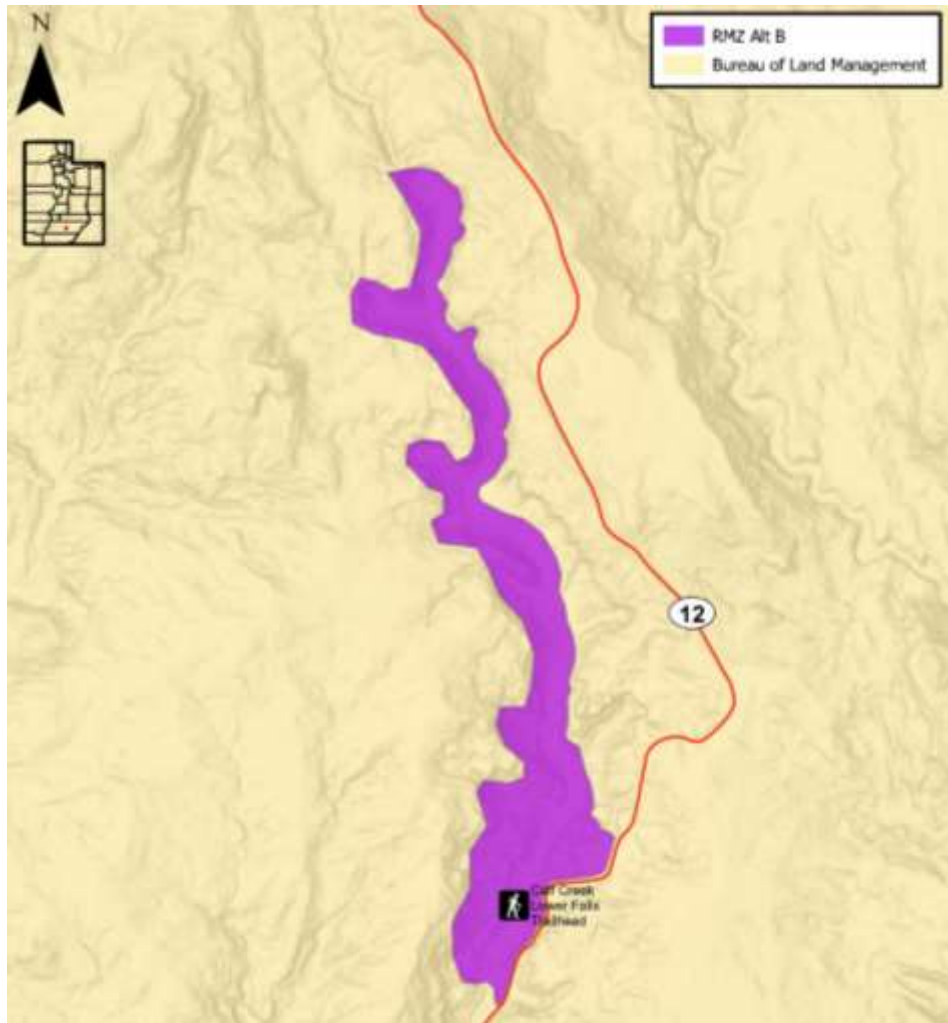
- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update/install trailhead kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

**LOWER CALF CREEK RMZ**

400 acres



**Figure 5. Lower Calf Creek Recreation Management Zone - Alternative B**

In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):

**LOWER CALF CREEK RMZ OBJECTIVE (Alternative B)** - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):

<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• day hiking</li> <li>• picnicking</li> <li>• water play in creek</li> <li>• camping</li> <li>• photography/artistic pursuits</li> <li>• interpretive viewing</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Relishing group (family/friends) affiliation and togetherness</li> <li>• Enjoying easy access to natural landscapes</li> <li>• Enjoying artistic expression of nature</li> <li>• Being able to tell others about the trip</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/awareness of outdoor aesthetics and nature's art and its elegance</li> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of the GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Stronger ties with family and friends</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, and social trails</li> </ul>

**LOWER CALF CREEK RMZ EXISTING AND DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities

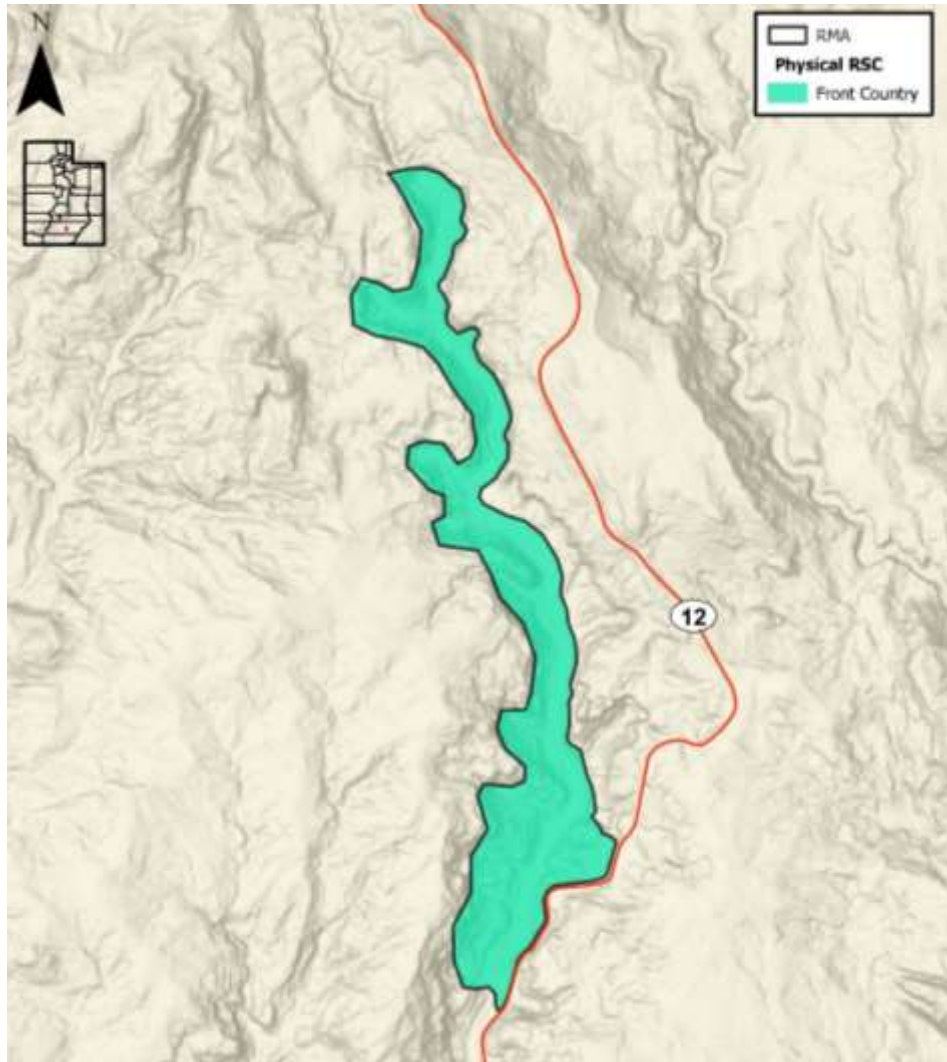
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**RMZ EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approximate distance from routes): Highway 12 provides access to the RMZ. The existing level of remoteness is maintained.

**Naturalness:** (landscape texture form, line, color): The existing level of naturalness which ranges from the highway corridor and developed recreation site to largely intact portion of the RMZ along the trail to the Lower Falls is maintained.

**Facilities:** The developed recreation site with campground and day use facilities and the trail to the Lower Falls will be maintained and improved as necessary.



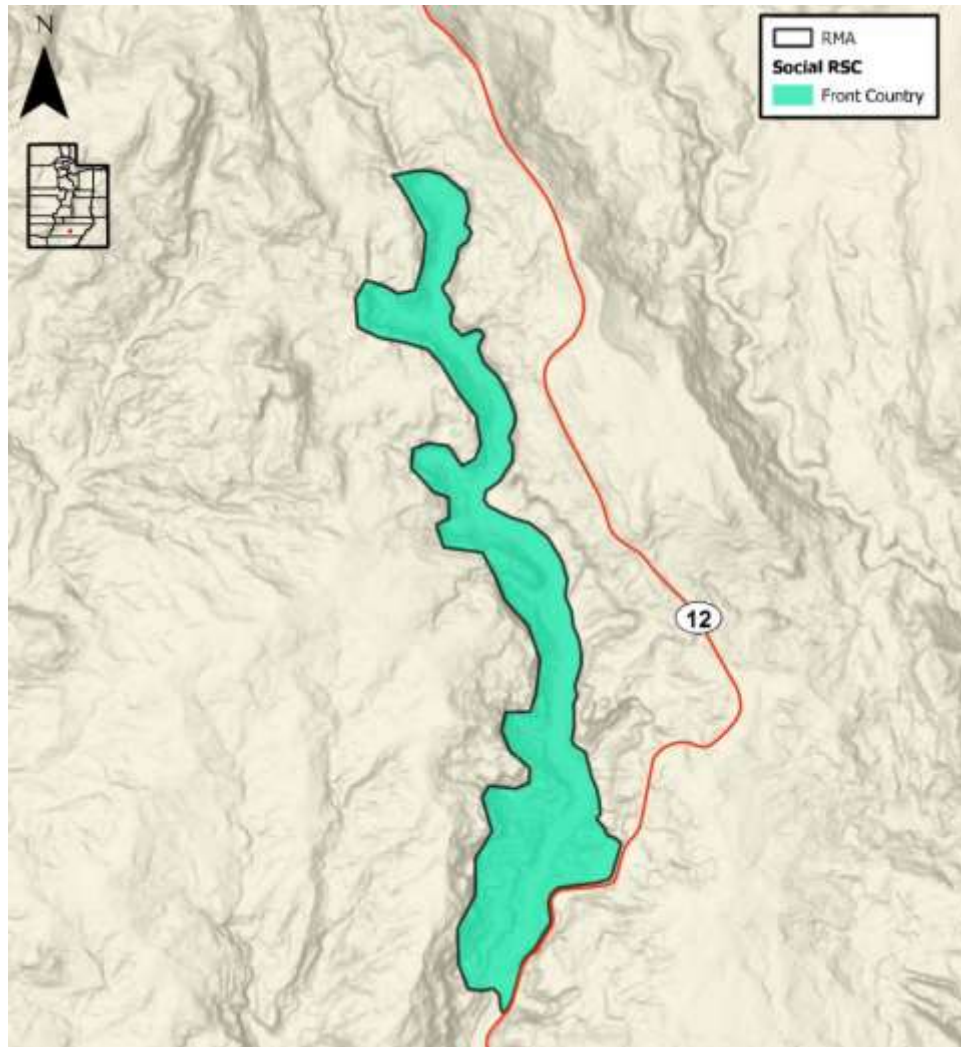
**Figure 6. Lower Calf Creek RMZ - Existing and Desired Physical Recreation Setting Characteristics**

#### **RMZ EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

**Contacts:** (average with any other group): At Calf Creek Recreation Site and along the Lower Calf Creek Falls Trail, the number of contacts would exceed 30 per day during most of the visitation season. During the winter the number of contacts would be much less than this.

**Group Size:** (average – other than your own): Groups sizes of more than 12 would be more common along the highway, at Calf Creek Recreation Site and along the Lower Calf Creek Falls Trail but most groups would continue to be small at four or less. Within WSAs (along the trail) the group size limit would be 25.

**Evidence of Use:** The evidence of use at Calf Creek Recreation Site is a large area of alteration whereas along the trail it is just the trail corridor. This range of evidence of use would be maintained.



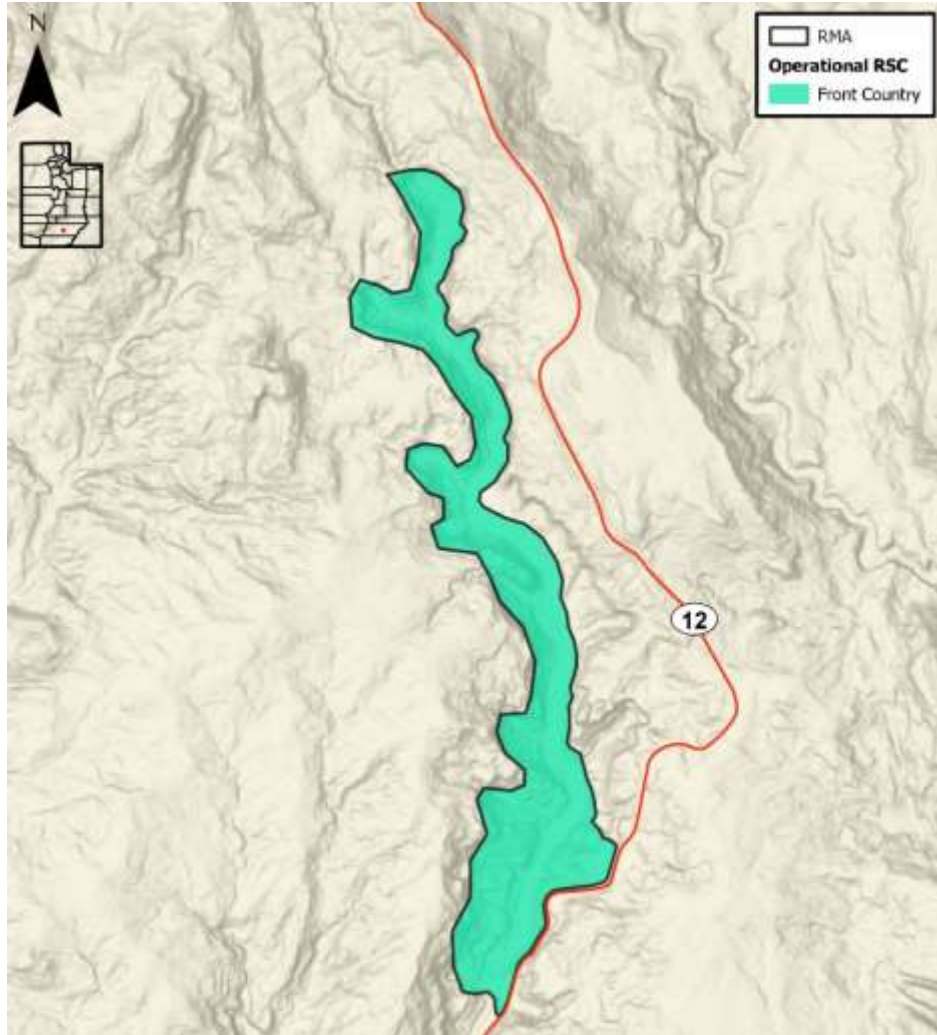
**Figure 7. Lower Calf Creek RMZ - Existing and Desired Social Recreation Setting Characteristics**

### **RMZ EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): Highway 12 provides access to the RMZ allowing standard automobile access. The trail to the Lower Falls is nonmotorized/nonmechanized. This level of access will be maintained.

**Visitor Services:** (and information): Staff are regularly present at Calf Creek Recreation Site and occasionally patrol the trail.

**Management Controls:** Rules, regulations and ethics messages are clearly posted at Calf Creek Recreation Site.



**Figure 8. Lower Calf Creek RMZ - Existing and Desired Operational Recreation Setting Characteristics**

## **LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS**

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or

- the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
- Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

*Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., If the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

*Comprehensive Trails and Travel Management:*

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- OHV Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

*Aircraft Landing Areas/Strips:*

- RMZ is not available for recreational landing areas or landing strips for aircraft.

*Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

*Visual Resource Management:*

- The SRMA is classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA (which are managed as VRM Class I).

## **IMPLEMENTATION DECISIONS**

*Overnight Permits/reservation systems:*

- Recreation use permits required (for use of campground and day use site).
- Establish reservation system for the campground.
- Establish allocation/reservation system for day use per Allocation prescriptions noted above.

*Group Size/Pack Stock Limits:*

- Group size limit of 75 (outside of WSA where it is 25).
- Pack stock not allowed.

*Facility Designation/Development:*

- Maintain and upgrade recreation site as necessary.



*Trail Designation/Development:*

- Maintain and upgrade trail as necessary.

*Camping:*

- Camping allowed only in designated campsites in campground.
- Quiet hours when camping (in campgrounds): 10 pm to 6 am.
- Collection of firewood not allowed.

*Personal Waste Systems:*

- Require the use of personal waste systems along trail until/unless facilities are provided.

*Canyoneering, Rappelling, Climbing:*

- Canyoneering, rappelling, and climbing not allowed at Lower Calf Creek Falls, archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and they would enhance public safety.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.

*Competitive Events:*

- Prohibit all competitive events.

*Vending:*

- Vending permits could be issued to provide services needed at recreation sites (such as firewood sales at campgrounds) and services that are commonly offered in conjunction with permitted special events. Criteria and/or stipulations to protect GSENM objects would be included in all vending permits.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Prohibit takeoff and landing of unmanned aerial systems (drones).

## **BEST MANAGEMENT PRACTICES - to guide implementation**

### *Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

### *Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

### *Information and Education:*

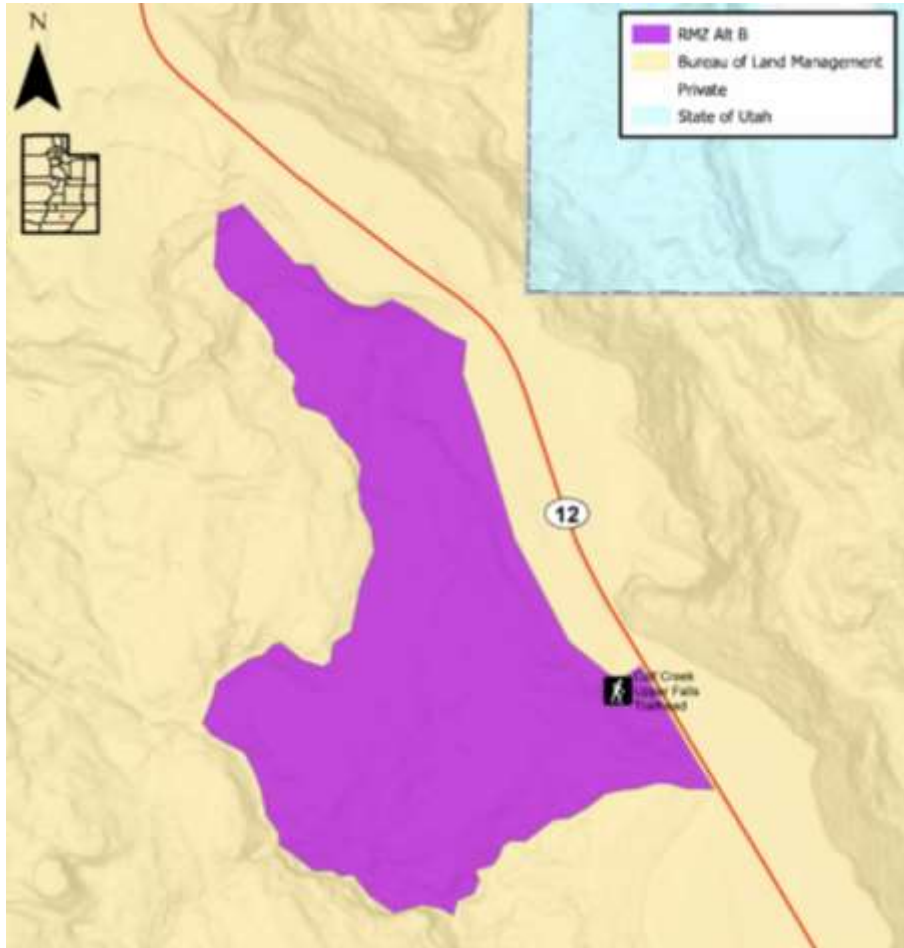
- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.

### *Monitoring:*

- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

**UPPER CALF CREEK FALLS RMZ**

500 acres



**Figure 9. Upper Calf Creek Falls Recreation Management Zone - Alternative B**

<b>UPPER CALF CREEK FALLS RMZ OBJECTIVE (Alternative B) - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):</b>		
<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• hiking</li> <li>• self-directed wandering/exploring</li> <li>• water play in creek</li> <li>• photography/artistic pursuits</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory experience of a natural landscape</li> <li>• Relishing group (family/friends) affiliation and togetherness</li> <li>• Enjoying artistic expression of nature</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/appreciation of outdoor aesthetics and nature’s art, elegance, and splendor</li> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Stronger ties with family and friends</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Maintenance of community’s distinctive recreation/tourism market niche or character</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, and social trails</li> </ul>

**UPPER CALF CREEK FALLS RMZ EXISTING AND DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

<b>PHYSICAL</b>	<b>Primitive</b>	<b>Back Country</b>	<b>Middle Country</b>	<b>Front Country</b>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<b>Primitive</b>	<b>Back Country</b>	<b>Middle Country</b>	<b>Front Country</b>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations

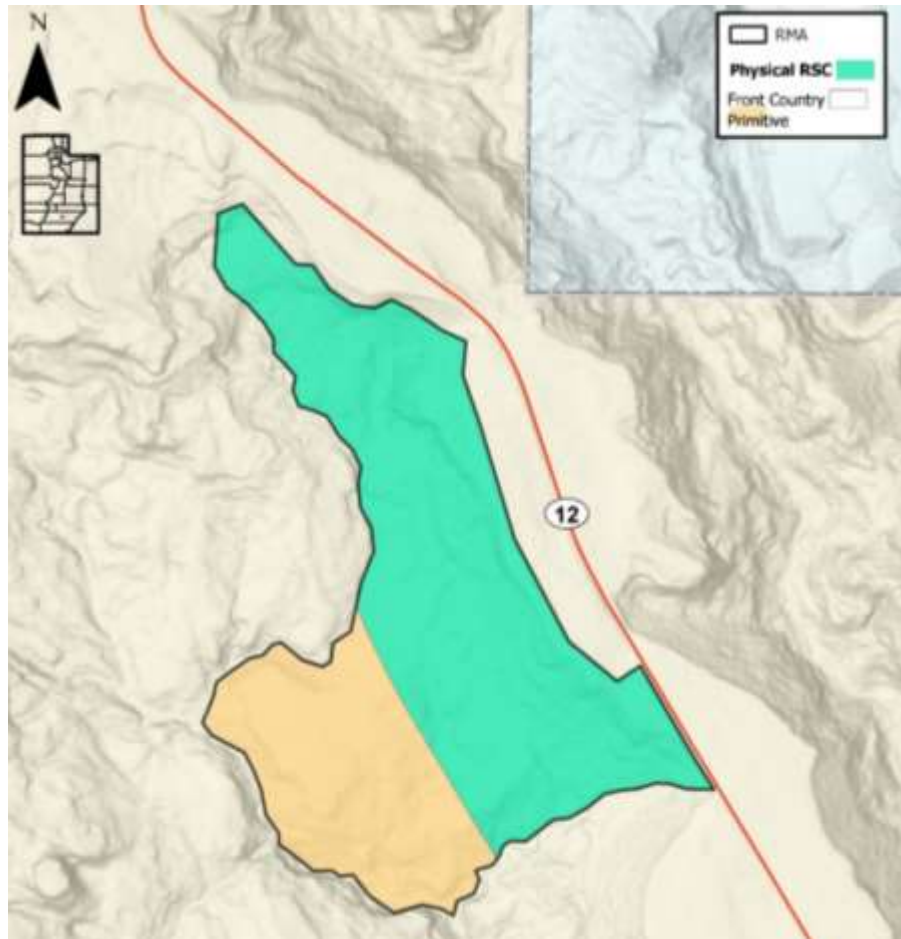
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**RMZ EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approximate distance from routes): Highway 12 provides access to the RMZ. The existing level of remoteness is maintained.

**Naturalness:** (landscape texture form, line, color): The RMZ’s naturalness is largely intact and undisturbed. The only effects on naturalness are the modest trailhead features (cleared parking, trail register and kiosk). The level of naturalness at the trailhead would shift once the trailhead is improved and a toilet is added but the majority of the RMZ would retain the level of naturalness as undisturbed below the canyon rim to the Upper Falls.

**Facilities:** The trailhead would be improved to stabilize and contain the parking and a vault toilet would be provided.



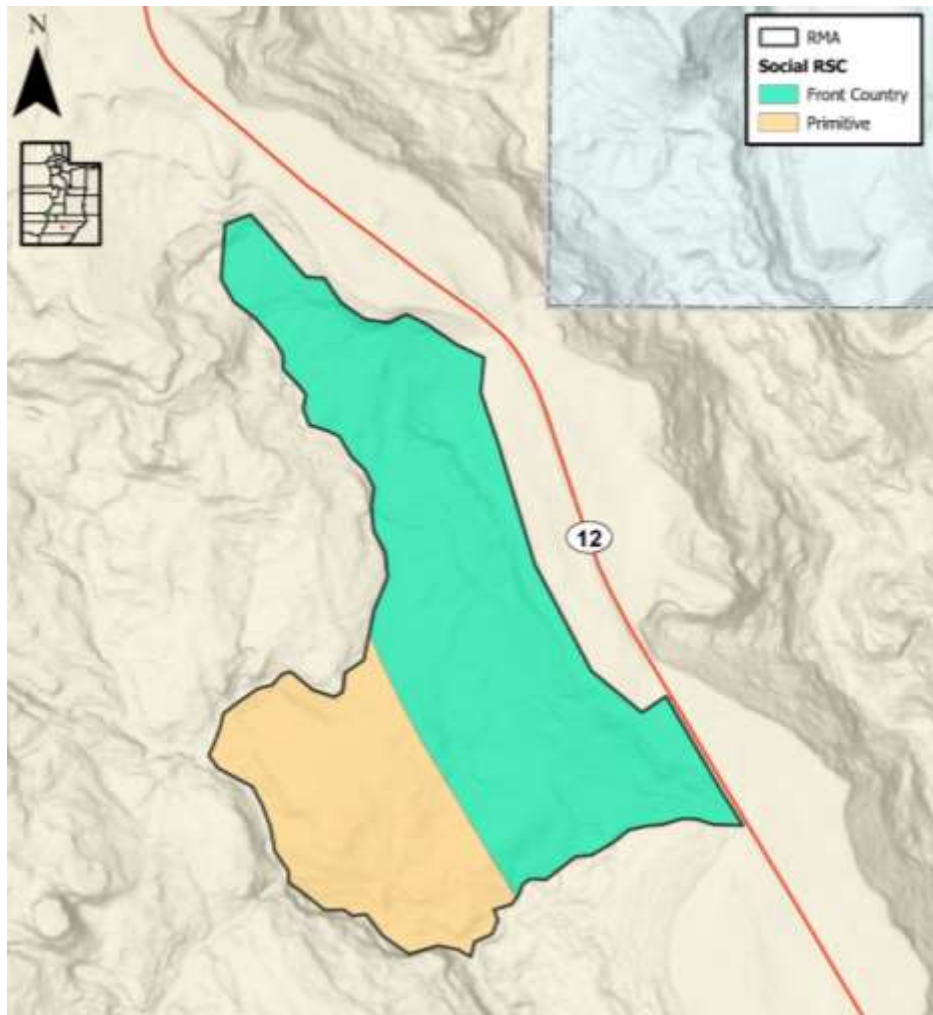
**Figure 10. Upper Calf Creek Falls RMZ - Existing and Desired Physical Recreation Setting Characteristics**

### RMZ EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS

**Contacts:** (average with any other group): Contacts would remain below 30 per day during the visitation season.

**Group Size:** (average – other than your own): Most groups would continue to be small at six or less though the group size limit would be 12.

**Evidence of Use:** The evidence of use is associated with the trailhead and route to the Upper Falls. This range of evidence of use would be maintained because the footprint of the trailhead would not increase significantly when improved.



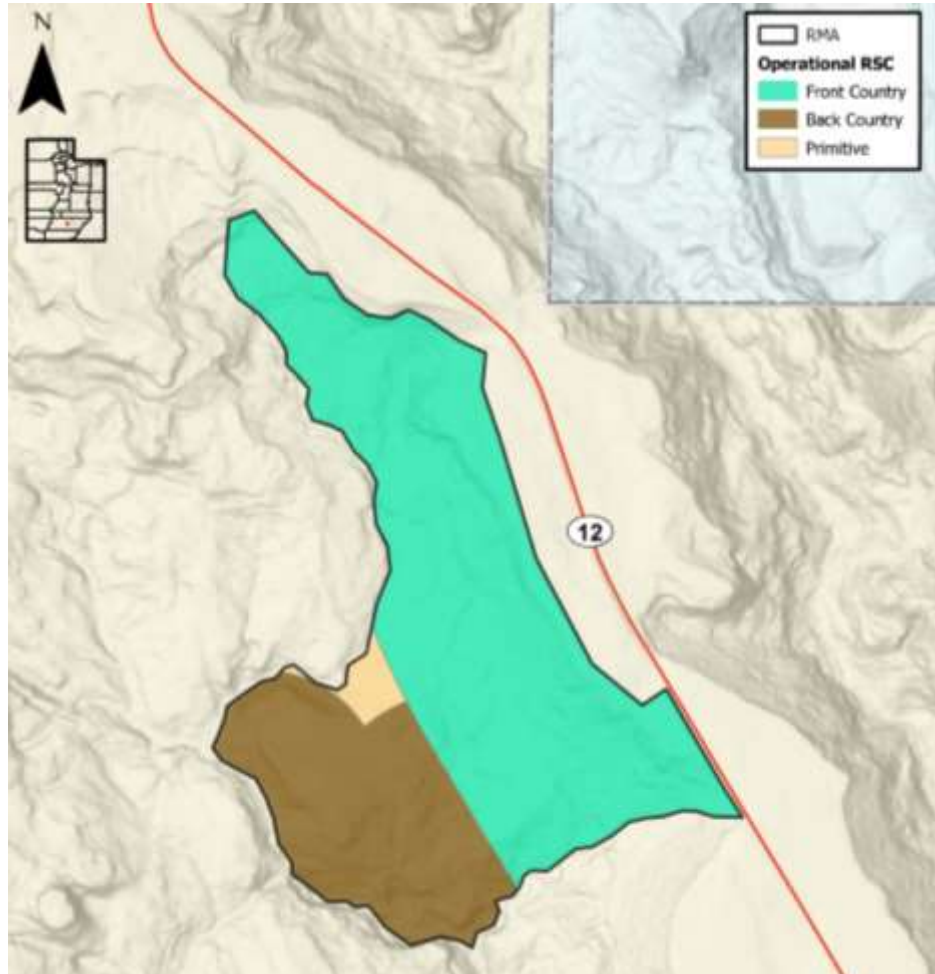
**Figure 11. Upper Calf Creek Falls RMZ – Existing and Desired Social Recreation Setting Characteristics**

### RMZ EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS

**Access:** (types of travel allowed): Highway 12 and a short gravel driveway provide access to the RMZ allowing standard automobile access. The route to the Upper Falls is nonmotorized/nonmechanized. This level of access will be maintained.

**Visitor Services:** (and information): Staff are rarely present.

**Management Controls:** Regulations and ethics messages are posted at the trailhead and small signs are installed near the falls to encourage responsible use.



**Figure 12. Upper Calf Creek Falls RMZ - Existing and Desired Operational Recreation Setting Characteristics**

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),

- conflicts with threatened and endangered plant or animal species, and/or
- the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
- Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

*Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., If the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

*Comprehensive Trails and Travel Management:*

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

*Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

*Visual Resource Management:*

- The SRMA is classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA (which are managed as VRM Class I).

**IMPLEMENTATION DECISIONS**

*Overnight Permits/Reservation Systems:*

- Overnight use permits required.

*Group Size/Pack Stock Limits:*

- Group size limit of 12.
- Pack stock not allowed.

*Facility Designation/Development:*

- Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
- Upgrade trailhead; provide vault toilet.



*Trail Designation/Development:*

- Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.
- Designate Upper Calf Creek Fall hiking trail.

*Camping:*

- Camping not allowed.
- Collection of firewood not allowed.

*Personal Waste Systems:*

- Require the use of personal waste systems.

*Canyoneering, Rappelling, Climbing:*

- Canyoneering, rappelling, and climbing not allowed at Upper Calf Creek Falls and archeological sites.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.

*Competitive Events:*

- Prohibit all competitive events.

*Vending:*

- Vending not allowed.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Prohibit takeoff and landing of unmanned aerial systems (drones).

**BEST MANAGEMENT PRACTICES – to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.

- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

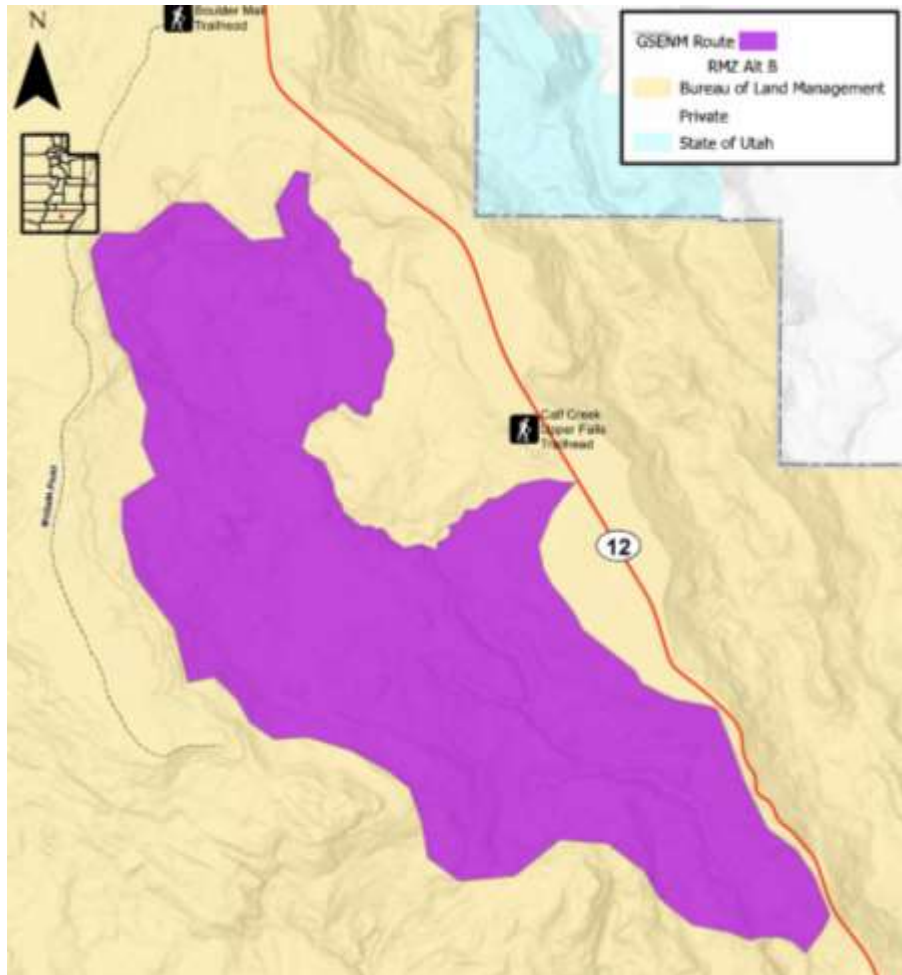
- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.

*Monitoring:*

- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

**UPPER CALF CREEK WATERSHED RMZ**

2,400 acres



**Figure 13. Upper Calf Creek Watershed Recreation Management Zone - Alternative B**

In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):

**UPPER CALF CREEK WATERSHED RMZ OBJECTIVE** (Alternative B) - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):

<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• Hiking</li> <li>• self-directed wandering/exploring</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, and smell) experience of a natural landscape</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of the GSENM as a special place</li> <li>• Enhanced sense of personal freedom</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Feeling good about how GSENM is managed</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, and social trails</li> </ul>

**UPPER CALF CREEK WATERSHED RMZ EXISTING AND DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

## RMZ EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS

**Remoteness:** (approximate distance from routes): Highway 12 and the McGath Road are within proximity to but not in the RMZ. The existing level of remoteness is maintained.

**Naturalness:** (landscape texture form, line, color): The RMZ's naturalness is undisturbed – it is fully within the Phipps Death Hollow VSA or lands with wilderness characteristics unit. The level of naturalness is maintained.

**Facilities:** There are no facilities.

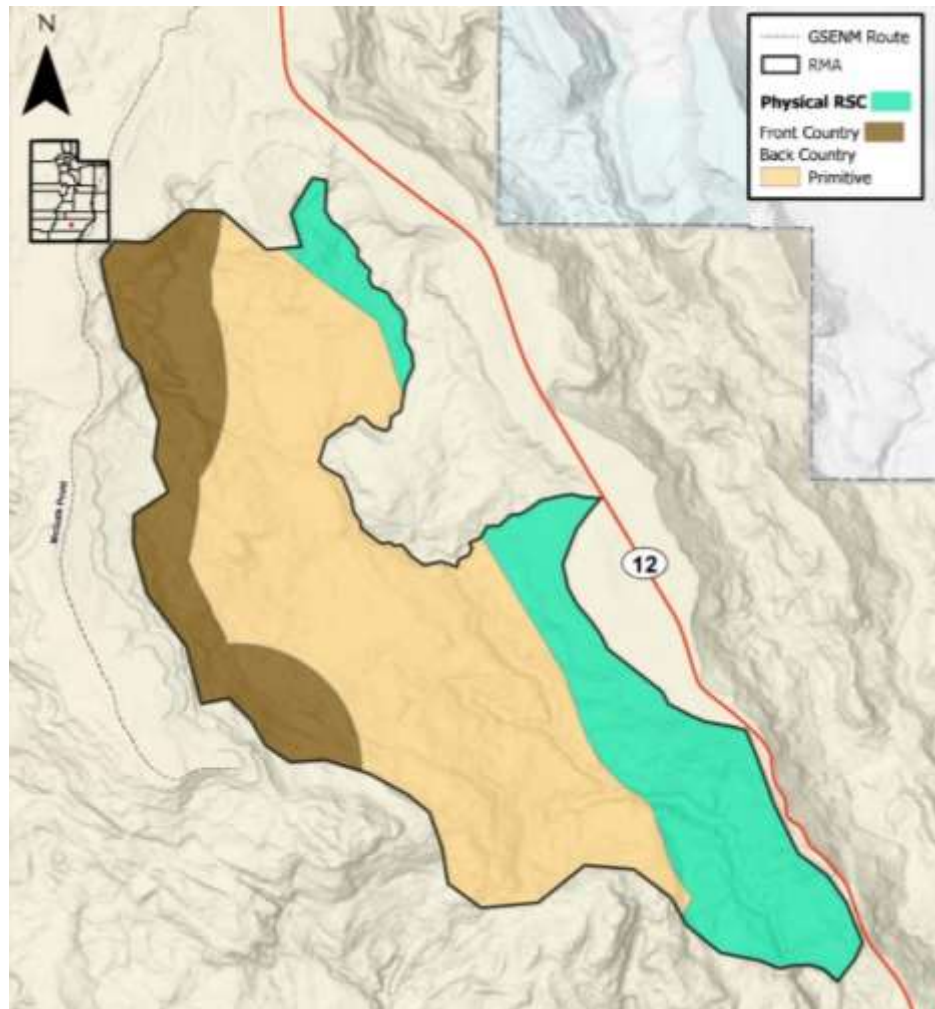


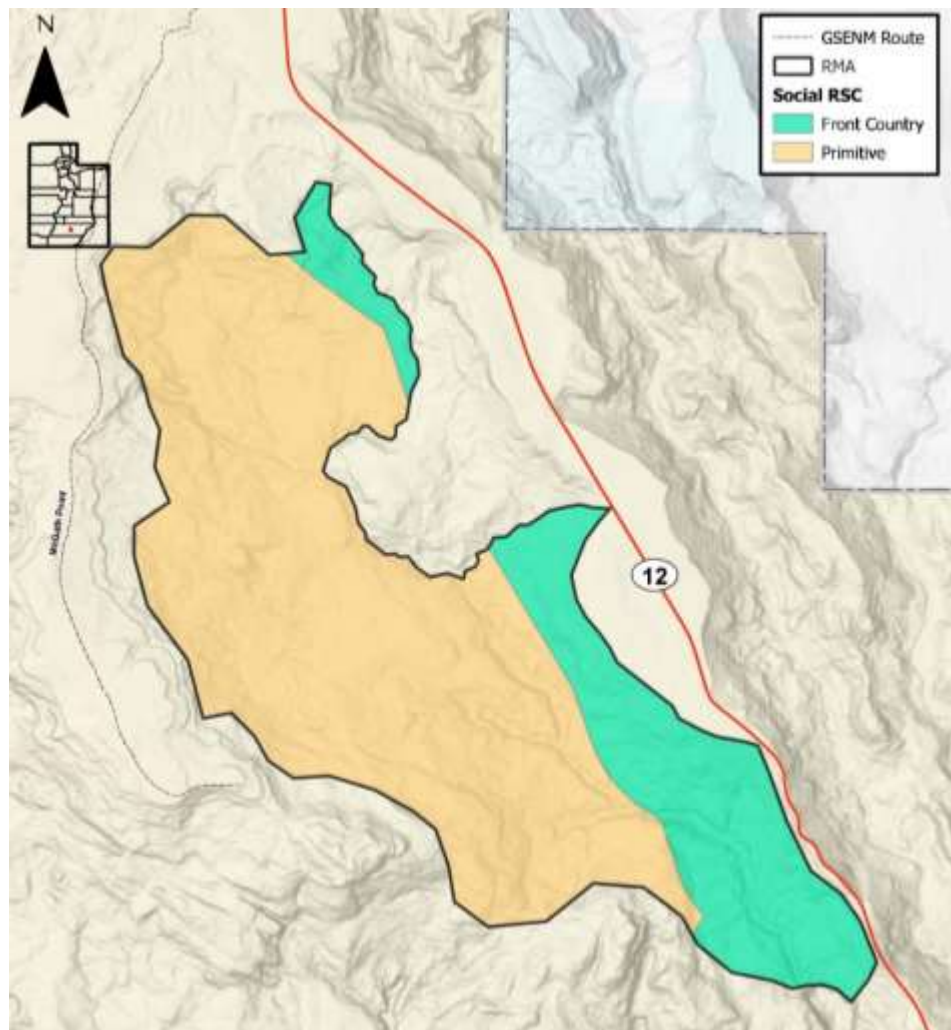
Figure 14. Upper Calf Creek Watershed RMZ - Existing and Desired Physical Setting Characteristics

## RMZ EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS

**Contacts:** (average with any other group): Contacts would remain below 6 per day.

**Group Size:** (average – other than your own): Most groups would continue to be small at six or less though the group size limit would be 12.

**Evidence of Use:** The only evidence of use is associated with social trailing and a couple primitive campsites along the creek. This evidence of use would diminish over time with the disallowance of camping along the creek.



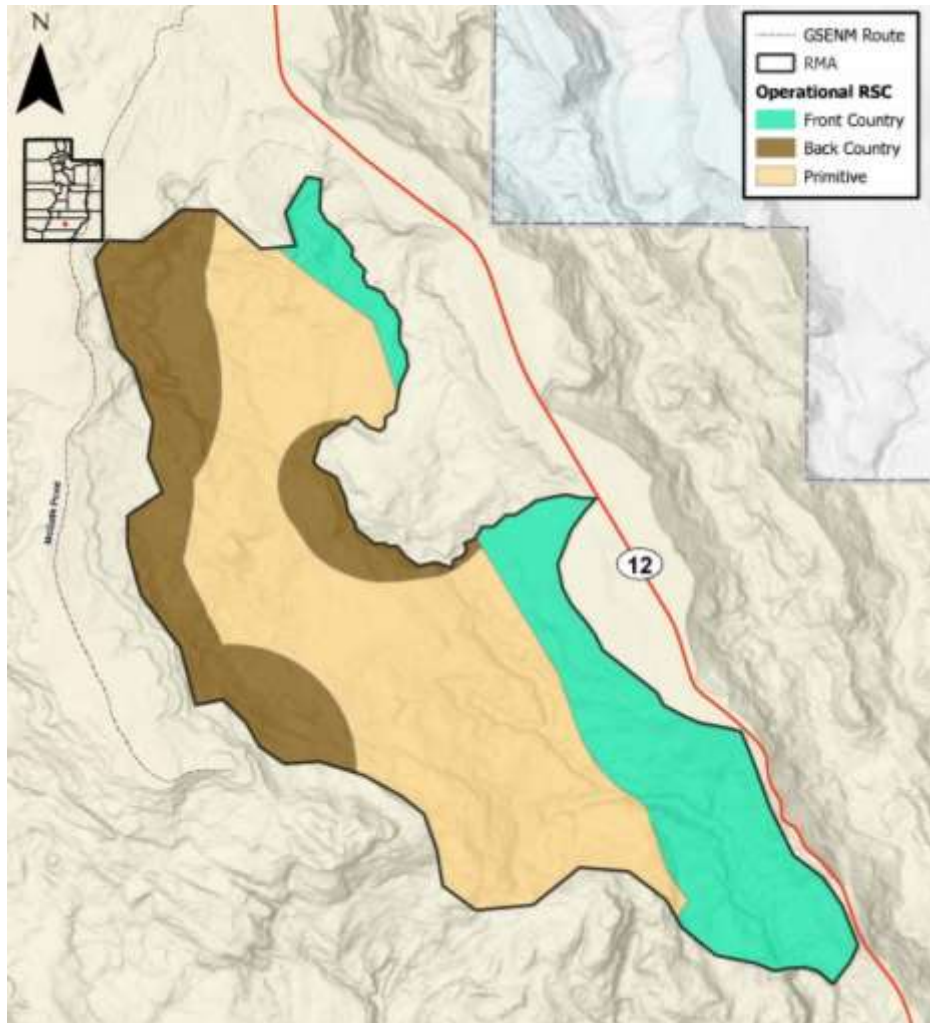
**Figure 15. Upper Calf Creek Watershed RMZ - Existing and Desired Social Setting Characteristics**

### **RMZ EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): Highway 12 and the McGath Road are within proximity to the RMZ, but it is only access via nonmotorized/nonmechanized means. The existing level of access is maintained.

**Visitor Services:** (and information): Staff are rarely present.

**Management Controls:** Signs will continue to be rare.



**Figure 16. Upper Calf Creek Watershed RMZ - Existing and Desired Operational Setting Characteristics**

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or

- the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
- Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

*Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., If the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

*Comprehensive Trails and Travel Management:*

- OHV Closed.

*Lands and Realty:*

- ROW exclusion area.

*Visual Resource Management:*

- The SRMA is classified as VRM Class I.

## **IMPLEMENTATION DECISIONS**

*Overnight Permits/reservation systems:*

- Overnight use permits required.

*Group Size/Pack Stock Limits:*

- Group size limit of 12.
- Pack stock not allowed.

*Facility Designation/Development:*

- No facilities.

*Trail Designation/Development:*

- No trails.

*Camping:*

- Camping is not allowed below the rim of Calf Creek Canyon between Upper and Lower Calf Creek Falls.
- Collection of firewood not allowed.
- Sensitive resource areas may be closed to camping to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping: 10 pm to 6 am.



*Personal Waste Systems:*

- Require the use of personal waste systems.

*Canyoneering, Rappelling, Climbing:*

- Canyoneering, rappelling, and climbing not allowed at archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.

*Competitive Events:*

- Prohibit all competitive events.

*Vending:*

- Vending not allowed.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Prohibit takeoff and landing of unmanned aerial systems (drones).

**BEST MANAGEMENT PRACTICES - to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

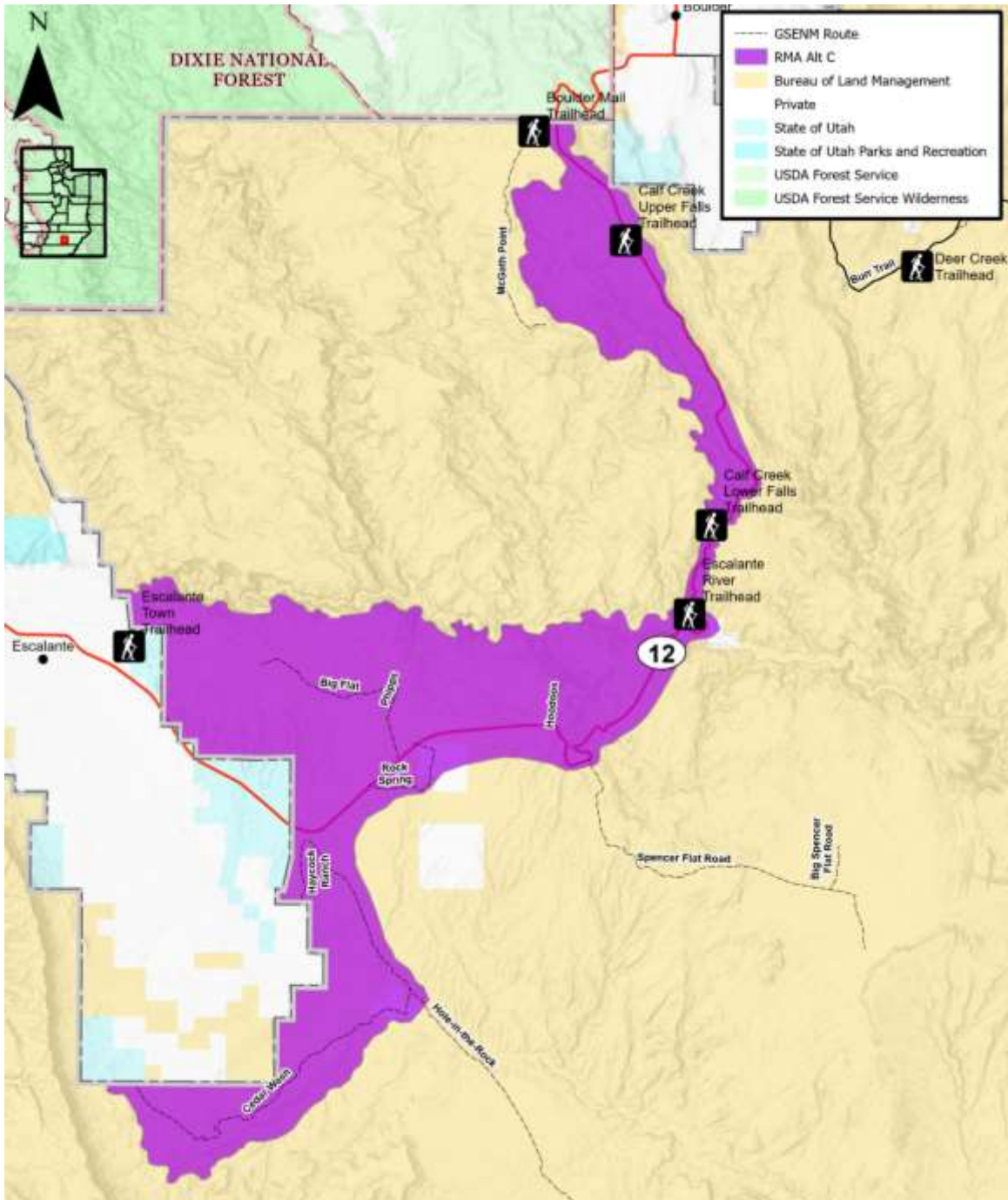
- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.

*Monitoring:*

- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

**Highway 12 - Escalante to Boulder Special Recreation Management Area (Alternative C) Framework**

Size: 22,500 acres



**Figure 17. Highway 12 - Escalante to Boulder Recreation Management Area - Alternative C**

**Rationale (Alternative C):** The Highway 12 - Escalante to Boulder SRMA encompasses the approximately 30-mile corridor along Highway 12 between the towns of Escalante and Boulder, which provides easy

exposure to the Escalante Canyons for most visitors. It also extends along Cedar Wash Road and the northern-most segment of Hole in the Rock Road. Highway 12 is Utah's only All-American Road and is driven as an experience unto itself – this segment of the scenic byway provides visitors with expansive views of the Escalante Canyons region and beyond, the opportunity to drive across the Escalante River, through the narrow canyon along Calf Creek, and over the Hogback (a narrow spine of sandstone with steep drop-off to both sides). The area provides developed camping, picnicking, and day hiking at Calf Creek, day hiking and backpacking access at the Boulder Mail Trail, Upper Calf Creek Falls, and the two Escalante River Trailheads, interpretive scenic waysides (Head of the Rocks and Boynton Overlooks), and is valued for the many self-directed, nonmotorized/nonmechanized explorations that it affords. The stunning Lower Calf Creek Falls is in this SRMA and is its most popular attraction. The self-directed explorations are enjoyed primarily by local residents whereas the developed recreational options are enjoyed in great numbers by visitors who benefit from the ease of being directed to specific attractions.

The kaleidoscopic colors, geology, vegetative variety, and presence of water combine to create stunning scenery. The geology ranges from rolling white sandstone mounds to deeply incised vermilion canyons. Riparian canyons filled with cottonwoods and willows contrast nicely with the pinyon, juniper, and sagebrush on the upland flats. The expansiveness and scenic beauty of the surrounding landscape past the SRMA's boundary highly contribute to, if not determine the uniqueness and specialness of this SRMA.

**SRMA OBJECTIVE (Alternative C)** - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):

<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• scenic auto touring – sightseeing</li> <li>• interpretive viewing</li> <li>• hiking</li> <li>• self-directed wandering/exploring</li> <li>• water play in creek/river</li> <li>• camping</li> <li>• photography/artistic pursuits</li> <li>• visiting geologic sites</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Enjoying easy access to natural landscapes</li> <li>• Relishing group (family/friends) affiliation and togetherness</li> <li>• Enjoying artistic expression of nature</li> <li>• Being able to tell others about the trip</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/awareness of outdoor aesthetics and nature’s art and its elegance</li> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Stronger ties with family and friends</li> <li>• Enhanced sense of personal freedom</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</li> <li>• Maintenance of distinctive recreation setting, character, and market niche</li> <li>• Increased desirability as a place to live or retire</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

**SRMA (ALTERNATIVE C) EXISTING AND DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities

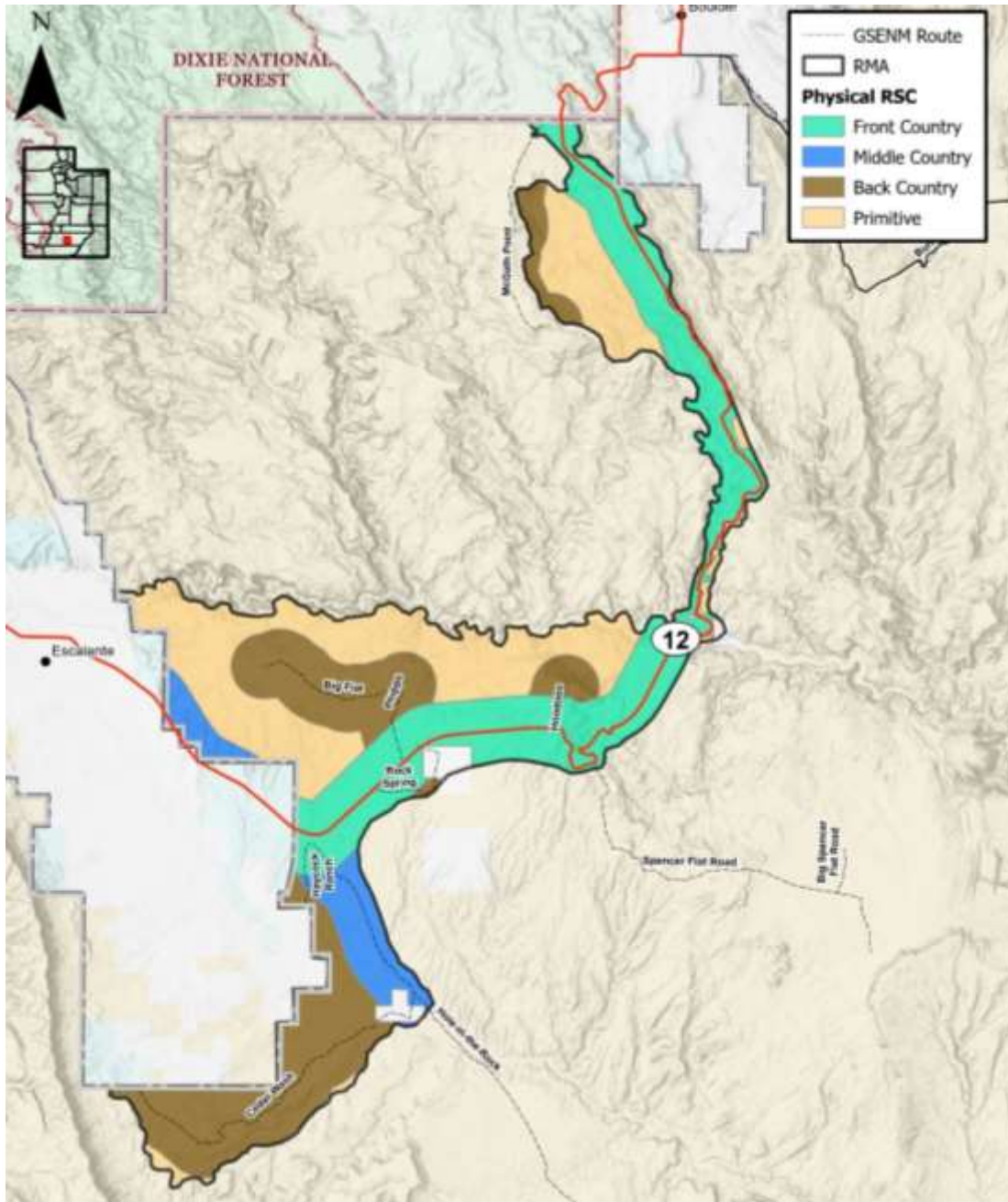
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

### **SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approximate distance from routes): The existing level of remoteness, which ranges from near a highway to primitive in areas more than ½ mile away from roads, is maintained. Highway 12 continues to provide auto-touring into a highly scenic, intact, natural landscape as well as paved access to recreational destinations and other unpaved roads that lead into more remote areas. Some portions of the RMA, like along the Escalante River and Calf Creek as well as along the rim of the river, are accessible only via nonmotorized/nonmechanized means.

**Naturalness:** (landscape texture form, line, color): The existing level of naturalness which ranges from the highway corridor with utility lines running parallel to it to undisturbed natural area is maintained.

**Facilities:** Developed campgrounds, vault toilets, trailheads and overlooks/waysides are maintained, improved, and developed.



**Figure 18. Highway 12 - Escalante to Boulder SRMA – Existing and Desired Physical Setting Characteristics**

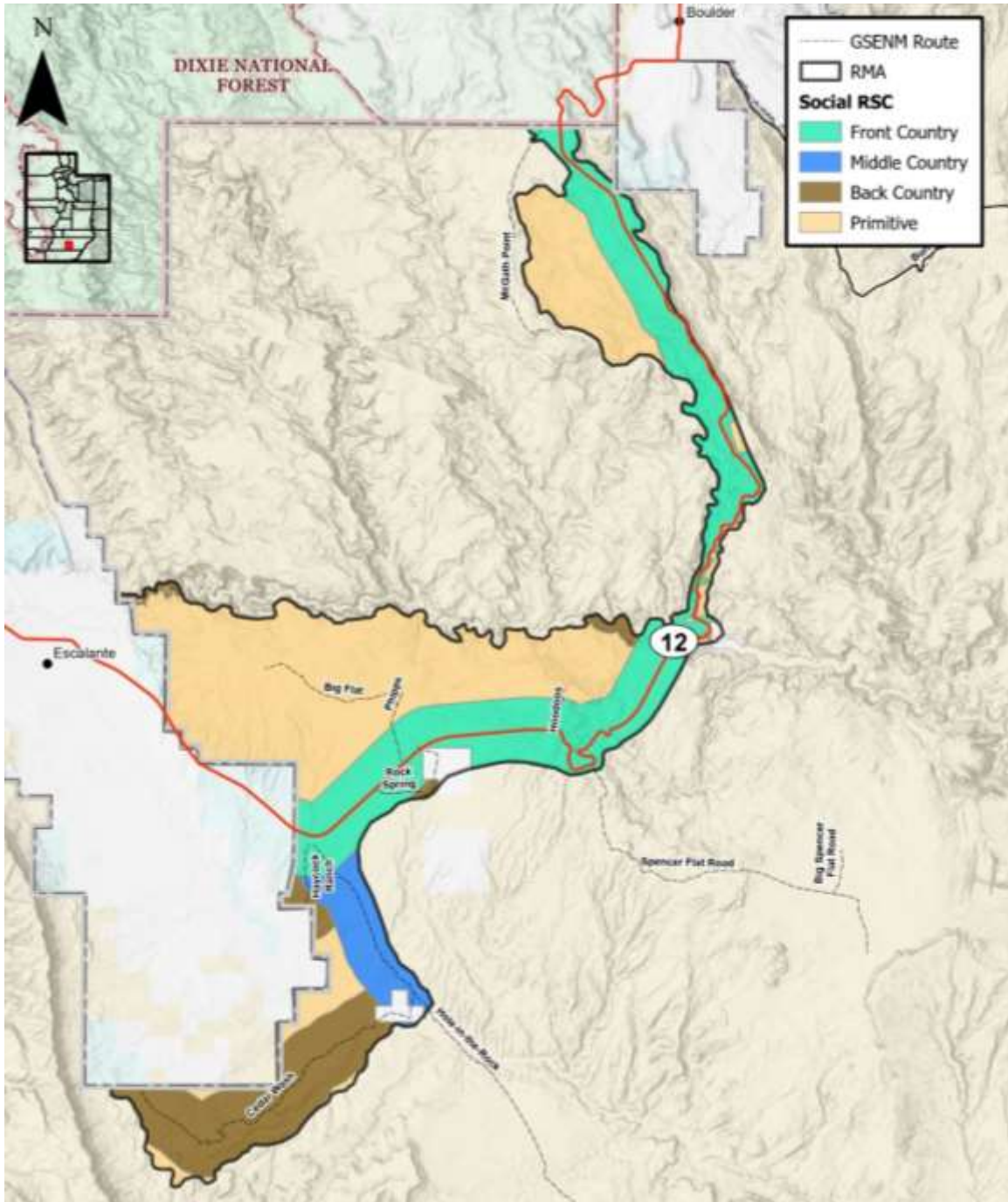
### **SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

**Contacts:** (average with any other group): The existing number of contacts would be maintained. Along the highway and at Calf Creek Recreation Site and along the Lower Calf Creek Falls Trail, the number of contacts would exceed 30 per day. In other remote and undeveloped areas of the RMA, contacts would be less than six a day.

**Group Size:** (average – other than your own): Groups size limits would be 75 in the front county area and down to 12 in the primitive area and groups sizes of more than 12 would be more common along the

highway, at Calf Creek Recreation Site and along the Lower Calf Creek Falls Trail but most groups would continue to be small at six or less.

**Evidence of Use:** The evidence of use ranges from the footprint necessary to provide modern facilities at Calf Creek Recreation Site to areas with no alterations. This range of evidence of use is increased.



**Figure 19. Highway 12 - Escalante to Boulder SRMA – Existing and Desired Social Setting Characteristics**

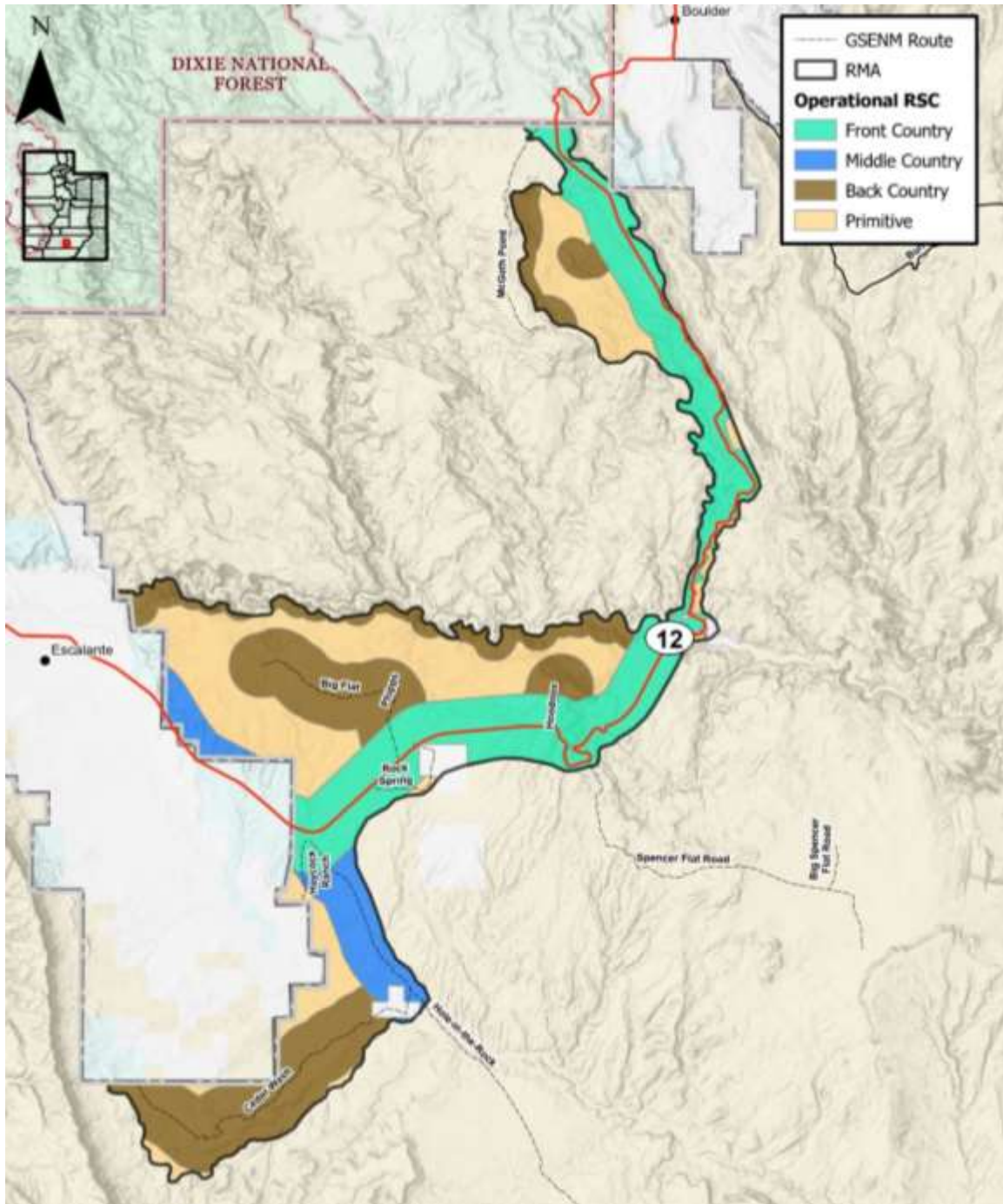


### **SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): Highway 12 and the segment of Hole in the Rock Road in the RMA provide access to standard passenger vehicles. The other roads in the RMA are best travelled by AWD vehicles and some segments require 4WD. Areas away from the highway and roads require nonmotorized/nonmechanized means of travel to access. This range in level of access will be maintained.

**Visitor Services:** (and information): Staff are regularly present at Calf Creek Recreation Site and infrequently to rarely present at most other locations within the RMA. This level of visitor services will be maintained.

**Management Controls:** Rules, regulations and ethics messages are clearly posted at Calf Creek Recreation Site. Regulations and ethics messages will be posted at all trailheads in the RMA.



**Figure 20. Highway 12 - Escalante to Boulder SRMA – Existing and Desired Operational Setting Characteristics**

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., If the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management:*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive area
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

### *Aircraft Landing Areas/Strips:*

- Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).

### *Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

*Visual Resource Management:*

- The SRMA is classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA (which are managed as VRM Class I).

**IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size/Pack Stock Limits:*

- Group size limit per Management Area prescriptions. Pack stock limit of 12.

*Facility Designation/Development:*

- Allow recreation infrastructure per Management Area prescriptions.
  - Upgrade Calf Creek Recreation Site.
  - Develop Top of Hole in the Rock Campground.
  - Develop New Home Bench Campground.
  - Upgrade Upper Calf Creek Falls and Escalante River Trailheads (town and bridge), including providing vault toilets.
  - Provide a vault toilet at Head of the Rocks Overlook.
  - Develop Trailhead(s) for Cream Cellar Route Trail.
  - Develop Northeast Monument Portal wayside on New Home Bench.

*Trail Designation/Development:*

- Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to management Area prescriptions.
- Designate Cream Cellar Route hiking trail.
- Designate Upper Calf Creek Fall hiking trail.

*Camping:*

- Camping allowed per Management Area prescriptions.
- Sensitive resource areas may be closed to camping, or a permit system implemented as identified in a future recreational area management plan, to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 6 am.
- Campfires and wood collection allowed per Management Area prescriptions.

*Personal Waste Systems:*

- Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.

*Canyoneering, Rappelling, Climbing:*

- Canyoneering, rappelling, and climbing not allowed at Lower and Upper Calf Creek Falls, archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.

*Special Recreation Permits:*

- SRPs to be allowed per Management Area prescriptions.
- Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.
- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.

*Competitive Events:*

- Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.
- Prohibit motorized competitive events.

*Vending:*

- Vending would be occasional, infrequent, and may be allowed by permit on a case-by-case basis, in association with approved special events or recreation sites. Generally, permits could be issued to provide services needed at recreation sites (such as firewood sales at campgrounds) and services that are commonly offered in conjunction with permitted special events. Criteria and/or stipulations to protect GSENM objects would be included in all permits.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Allow takeoff and landing of unmanned aerial systems (drones) per Management Area prescriptions.

**BEST MANAGEMENT PRACTICES – to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may

implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

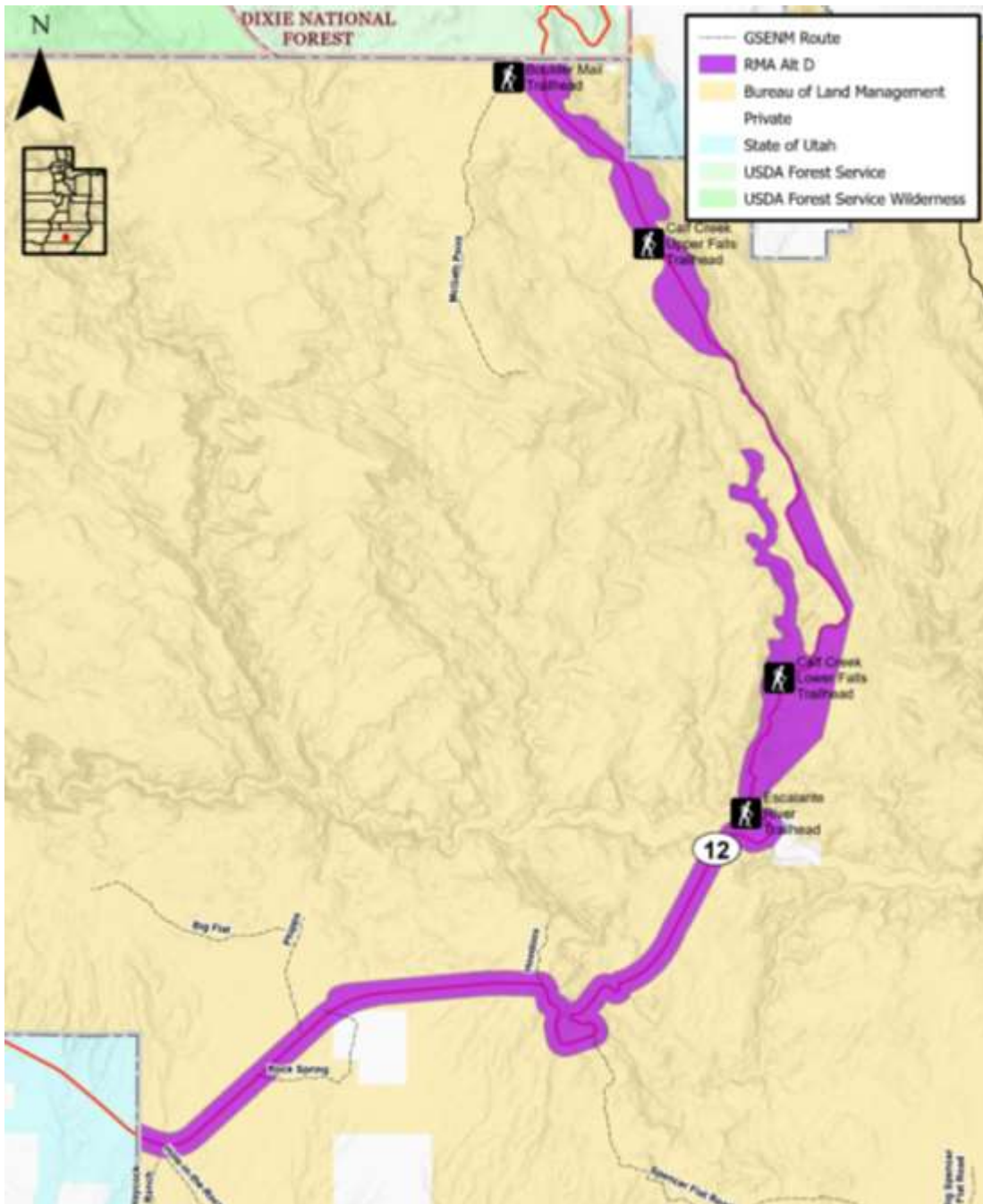
- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update/install trailhead kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

**Highway 12 - Escalante to Boulder Special Recreation Management Area (Alternative D) Framework**

Size: 3,400 acres



**Figure 21. Highway 12 - Escalante to Boulder Recreation Management Area – Alternative D**

*Rationale:* The Highway 12 - Escalante to Boulder SRMA encompasses the approximately 30-mile corridor along Highway 12 between the towns of Escalante and Boulder, which provides easy exposure to the Escalante Canyons for most visitors. Highway 12 is Utah’s only All-American Road and is driven as an

experience unto itself. This segment of the scenic byway provides visitors with expansive views of the Escalante Canyons region and beyond, the opportunity to drive across the Escalante River, through the narrow canyon along Calf Creek, and over the Hogback (a narrow spine of sandstone with steep drop-offs to both sides). The area provides developed camping, picnicking, and day hiking at Calf Creek, day hiking and backpacking access from the Escalante River Bridge, Boulder Mail Trail, and Upper Calf Creek Falls Trailheads, interpretive scenic waysides (Head of the Rocks and Boynton Overlooks), and is valued for the many self-directed, nonmotorized/nonmechanized explorations that it provides access to. The stunning Lower Calf Creek Falls is in this SRMA and is its most popular attraction.

**SRMA OBJECTIVE (Alternative D)** - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):

<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• scenic auto touring – sightseeing</li> <li>• interpretive viewing</li>   <li>• day hiking</li> <li>• camping</li> <li>• photography/artistic pursuits</li> <li>• water play in creek/river</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Enjoying easy access to natural landscapes</li> <li>• Relishing group (family/friends) affiliation and togetherness</li> <li>• Enjoying artistic expression of nature</li> <li>• Being able to tell others about the trip</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/awareness of outdoor aesthetics and nature’s art and its elegance</li> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Stronger ties with family and friends</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</li> <li>• Maintenance of distinctive recreation setting, character, and market niche</li> <li>• Increased desirability as a place to live or retire</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>



**SRMA EXISTING AND DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

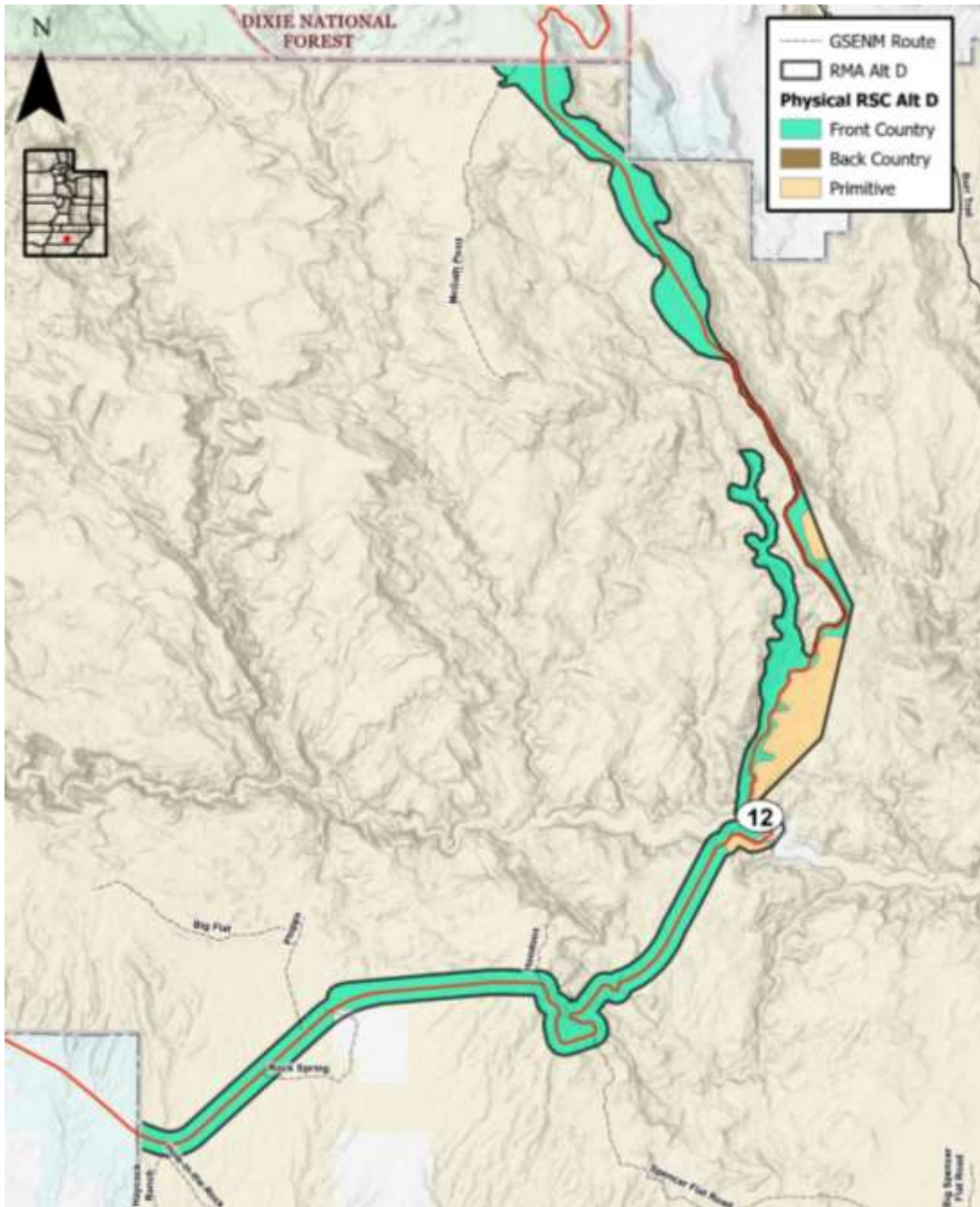
<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approximate distance from routes): Highway 12 continues to provide auto-touring into a highly scenic, intact, natural landscape as well as paved access to recreational destinations and other unpaved roads that lead into more remote areas. The existing level of remoteness is maintained.

**Naturalness:** (landscape texture form, line, color): The existing level of naturalness with the highway corridor and utility lines running parallel to it is maintained.

**Facilities:** Developed campgrounds, vault toilets, trailheads and overlooks/waysides are maintained and improved. New recreation developments are not provided.



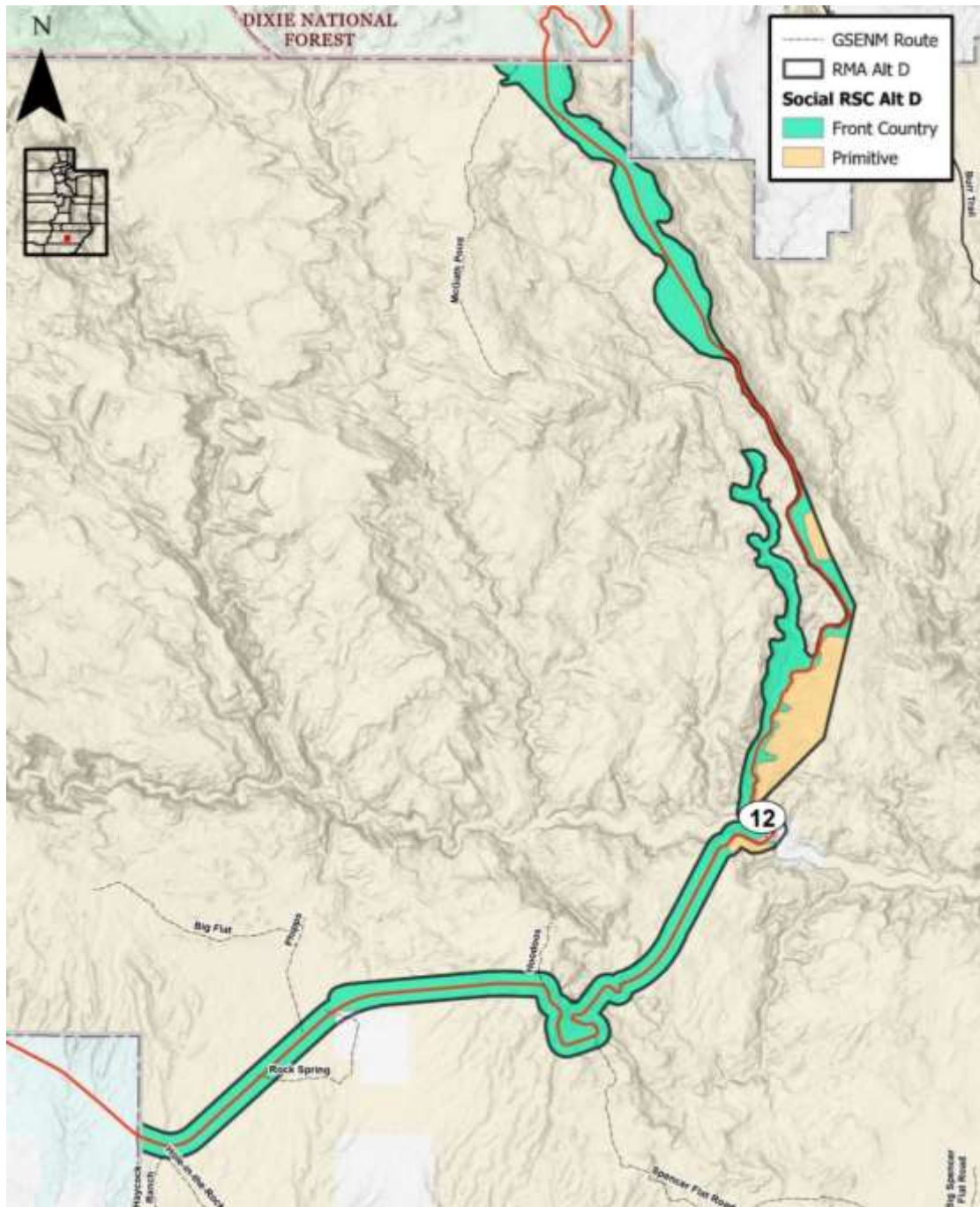
**Figure 22. Highway 12 - Escalante to Boulder SRMA – Existing and Desired Physical Setting Characteristics**

**SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

**Contacts:** (average with any other group): The existing number of contacts would be maintained. Along the highway and at Calf Creek Recreation Site and along the Lower Calf Creek Falls Trail, the number of contacts would exceed 30 per day.

**Group Size:** (average – other than your own): Groups size limits would be 75 in the Front County Area and groups sizes of more than 12 would be more common along the highway, at Calf Creek Recreation Site and along the Lower Calf Creek Falls Trail but most groups would continue to be small at six or less.

**Evidence of Use:** The evidence of use includes the highway, overlooks, and the footprint necessary to provide modern facilities at Calf Creek Recreation Site. The evidence of use is maintained.



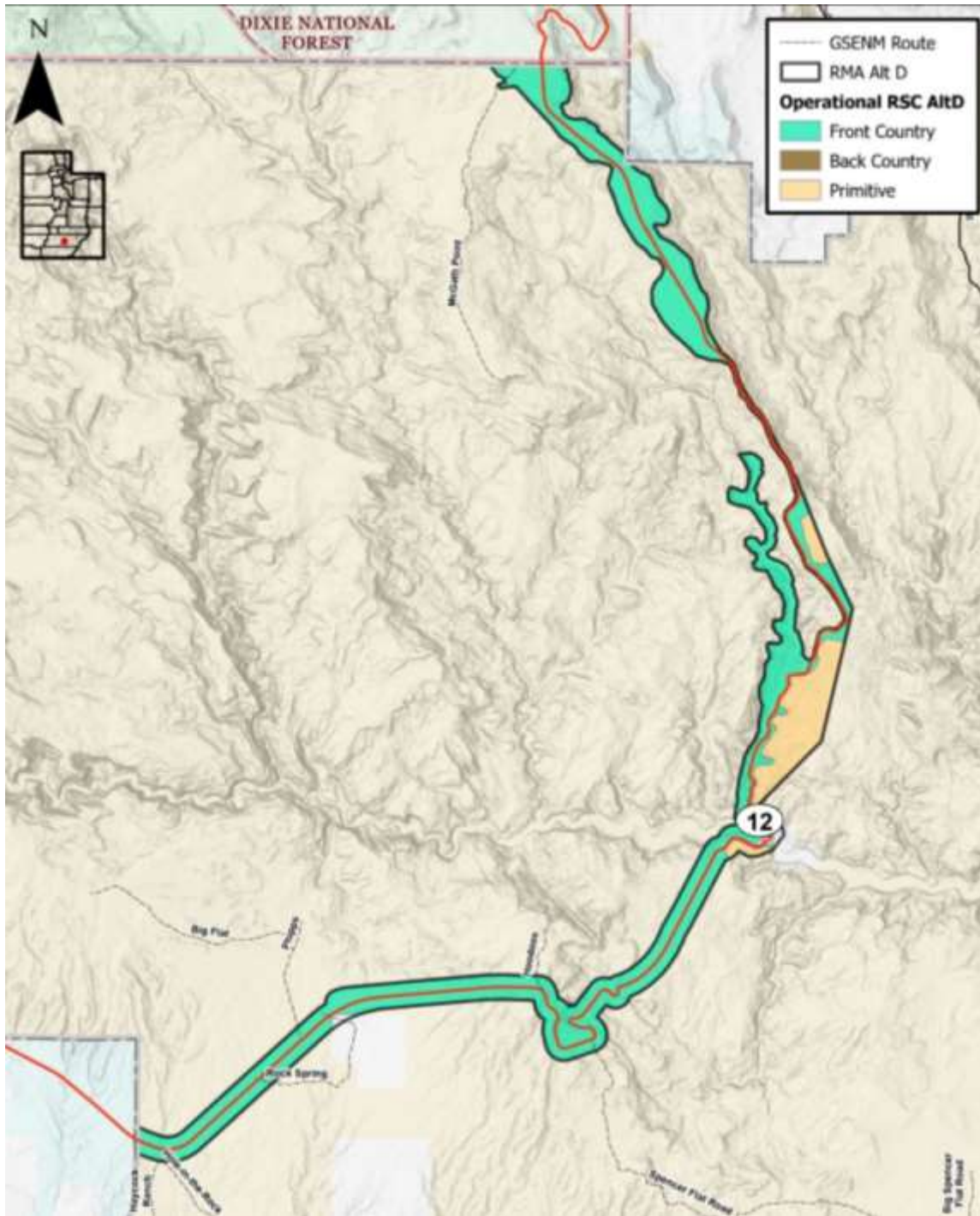
**Figure 23. Highway 12 - Escalante to Boulder SRMA – Existing and Desired Social Setting Characteristics**

### **SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): Highway 12 and the segment of Hole in the Rock Road in the RMA provide access to standard passenger vehicles. The other roads in the RMA are best travelled by AWD vehicles and some segments require 4WD. Areas away from the highway and roads require nonmotorized/nonmechanized means of travel to access. This range in level of access will be maintained.

**Visitor Services:** (and information): Staff are regularly present at Calf Creek Recreation Site and infrequently to rarely present at most other locations within the RMA. This level of visitor services will be maintained.

**Management Controls:** Rules, regulations and ethics messages are clearly posted at Calf Creek Recreation Site. Regulations and ethics messages will be posted at all trailheads in the RMA.



**Figure 24. Highway 12 - Escalante to Boulder SRMA – Existing and Desired Operational Setting Characteristics**

## **LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS**

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., If the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user.

### *Comprehensive Trails and Travel Management:*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.
- OHV Closed:
  - WSA/ISAs
  - Cherry-stemmed routes in WSAs
  - Lands with wilderness characteristics identified for protection
  - Areas of high probability for cultural resources (according to BLM Class I model)
  - Areas of high probability (PFYC Class 5) for paleontological resources

### *Aircraft Landing Areas/Strips:*

- Consider appropriate landing areas and landing strips for aircraft.

### *Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

*Visual Resource Management:*

- The SRMA is classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA (which are managed as VRM Class I).

**IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size/Pack Stock Limits:*

- Group size/pack stock limit of 12 in SRMA.

*Facilities:*

- Recreational infrastructure would not be provided.

*Trails:*

- Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Allow camping only in designated primitive camping areas.
- Designate primitive camping areas along Escalante River.
- Sensitive resource areas may be closed to camping, or a permit system implemented as identified in a future recreational area management plan, to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 30-mile radius away and may not return within 30 days to a previous campsite.
- No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.
- Quiet hours when camping (in designated camping areas or dispersed): 10 pm to 6 am.

*Personal Waste Systems:*

- Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Canyoneering, rappelling, and climbing not allowed on/in archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Prohibit new fixed anchors.

*Special Recreation Permits:*

- Prohibit SRPs that provide for intentional visitation to known cultural sites.
- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.

*Competitive Events:*

- Prohibit all competitive events.

*Vending:*

- Vending allowed at developed recreation sites.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Prohibit takeoff and landing of unmanned aerial systems (drones) in GSENM.

**BEST MANAGEMENT PRACTICES – to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

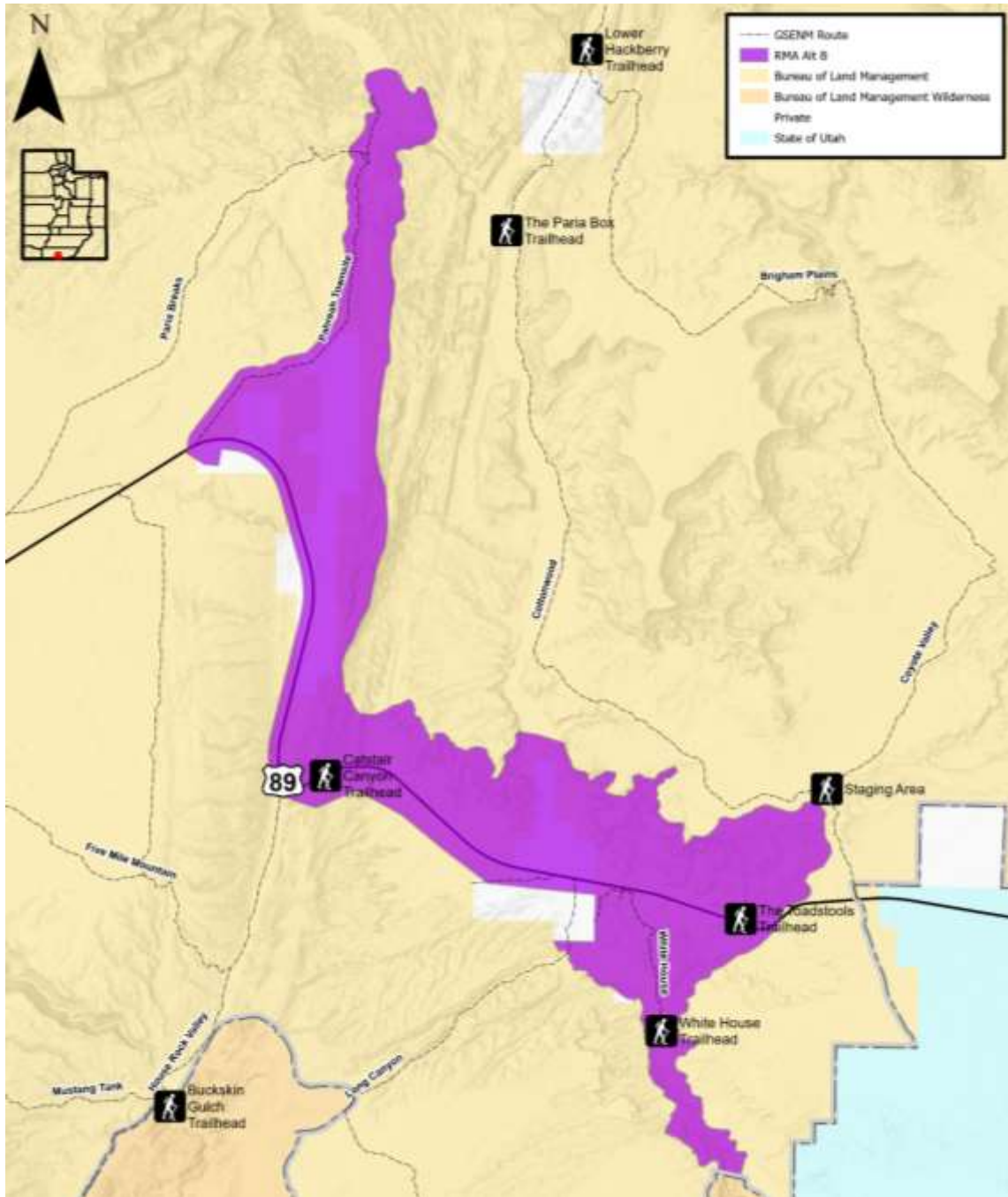
- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.



**Highway 89 Corridor Recreation Management Areas**

**Highway 89 Corridor Special Recreation Management Area (Alternative B) Framework**

Size: 10,500 acres



**Figure I - Highway 89 Corridor Recreation Management Area - Alternative B**

**Rationale:** The Highway 89 Corridor SRMA encompasses popular recreation destinations along U.S. Highway 89 from the Old Paria Townsite on the northwest to the popular Toadstools Trail and White House Campground on the southeast. The SRMA also includes a popular wayside and parking area on the

north end of House Rock Valley Road, the well-known Catstair Canyon, and the Paria Contact Station. These areas are heavily visited largely due to the ease of accessibility and stunning natural beauty. Popular recreation activities include hiking, picnicking, photography, developed camping, exploration, cycling, and the starting point for backpacking in the famous Paria Canyon-Vermilion Cliffs Wilderness Area (PCVCWA). An important and unique role of the Paria Contact Station is providing visitor information including regulations and permits for those seeking a more adventurous and backcountry recreation experience in the PCVCWA or GSENM. Visitors also enjoy learning about the history of the Paria Townsite which was abandoned around 1930. Several western movies were also filmed at this location. Another distinctive feature of the SRMA is the Old Spanish National Historic Trail which passes through the Old Paria Townsite.

<b>SRMA OBJECTIVE</b> - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):		
<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• Hiking</li> <li>• Photography /artistic pursuits</li> <li>• Camping</li> <li>• Scenic auto touring – sightseeing</li> <li>•</li> <li>• Visiting historic and geologic sites</li> <li>• Picnicking</li> </ul>	<ul style="list-style-type: none"> <li>• Enjoying easy access to natural landscapes Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Enjoying artistic expression of nature</li> <li>• Learning more about this specific area</li> <li>• Relishing group (family/friends) affiliation and togetherness</li> <li>• Appreciating and sharing cultural heritage</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/appreciation of outdoor aesthetics and nature’s art, elegance, and splendor Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Stronger ties with family and friends</li> <li>• Greater respect for cultural heritage</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Maintenance of distinctive recreation setting, character, and market niche Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

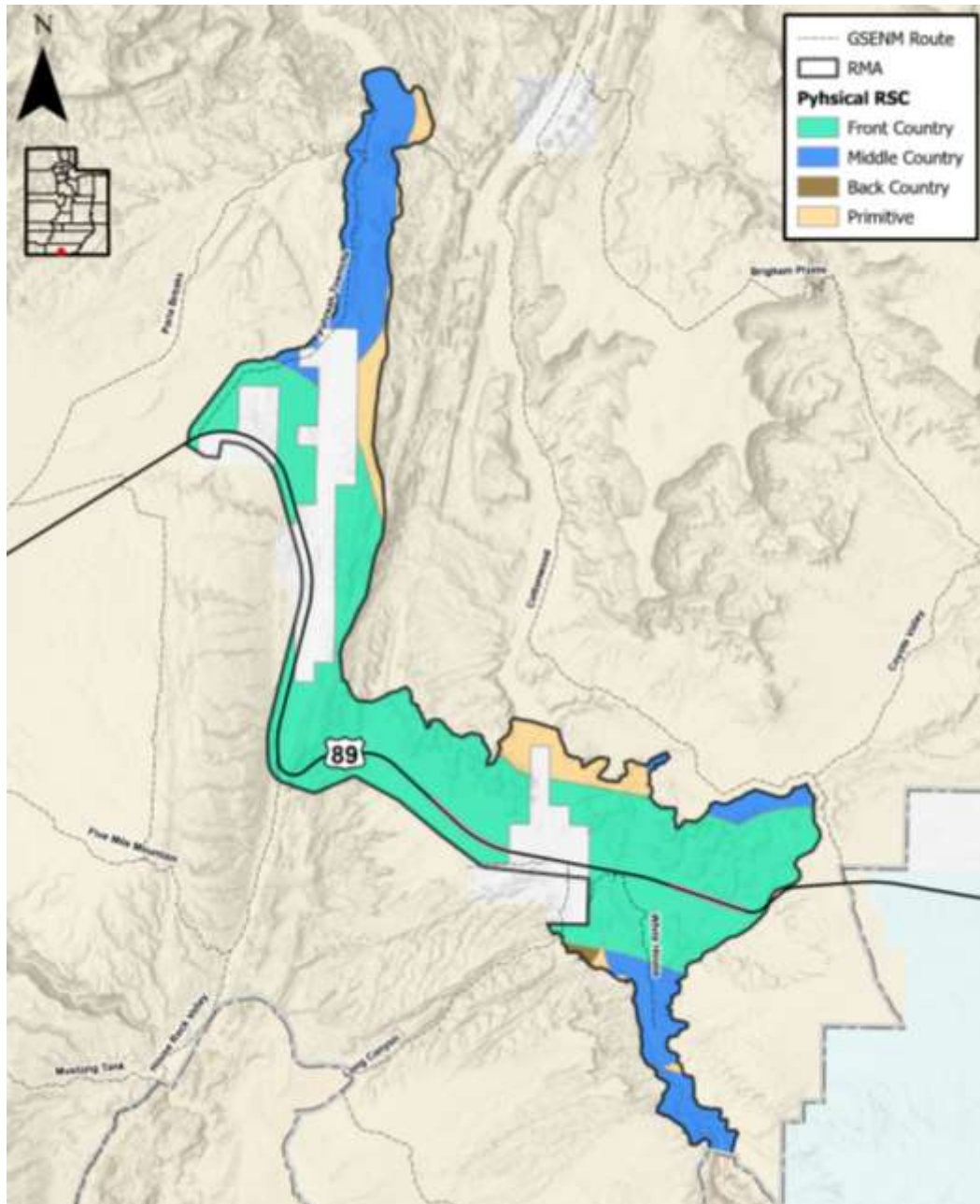
**SRMA DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approx. distance from routes): The RMA centers around a segment of Highway 89 which provides access to popular destinations such as The Toadstools, White House Campground and Trailhead, and the Old Paria Day Use Site. Some of these require driving on gravel/natural surface roads that are also passable to standard passenger vehicles. The existing level of remoteness is maintained.



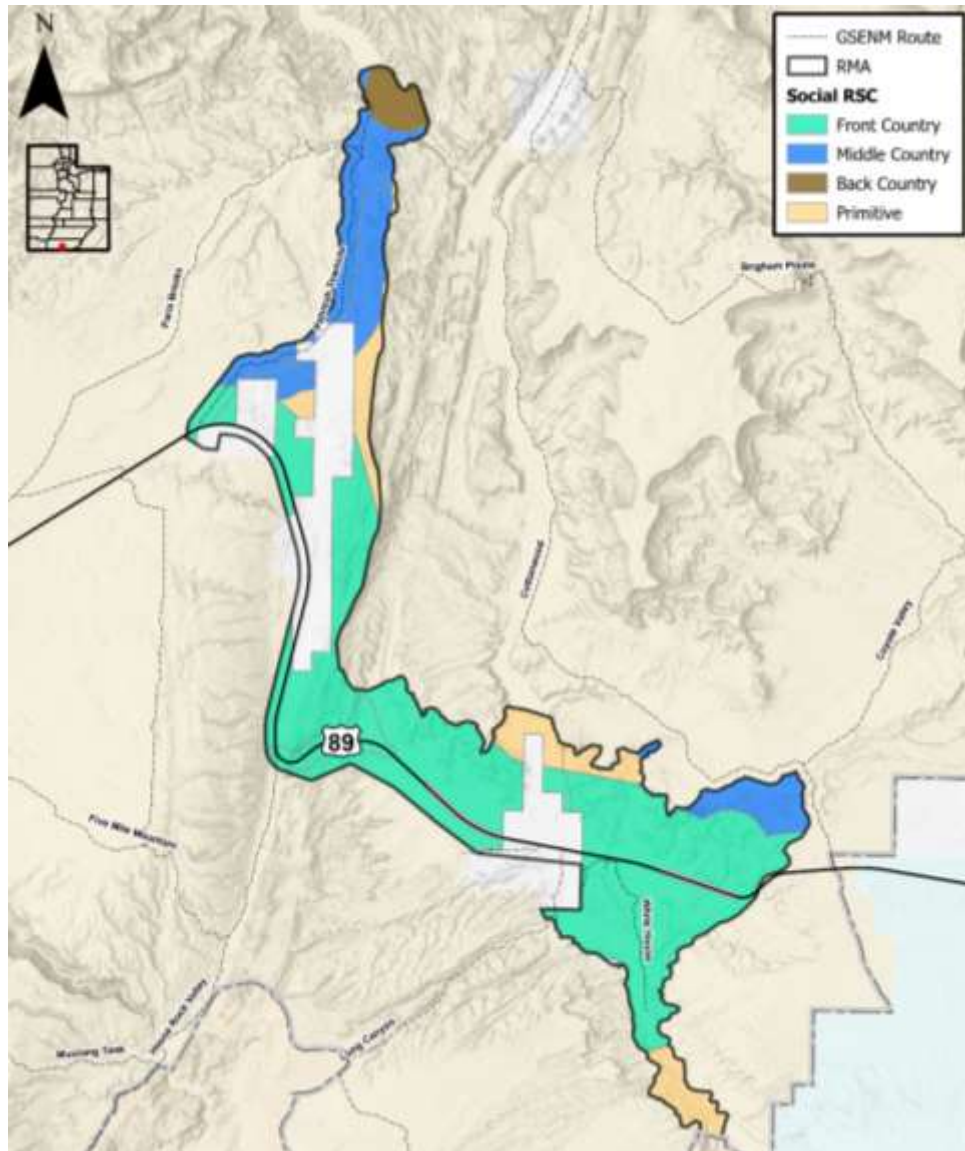
**Figure 2. Highway 89 Corridor SRMA Existing and Desired Physical Setting Characteristics - Alternative B**

**Naturalness:** (landscape texture form, line, color): The existing level of naturalness is maintained. The White House Campground is a developed campground consisting of parking areas, fire rings, tent pads, picnic tables, interpretive signs, walk-in campsites, and vault toilets. Garbage dumpsters and drinking water are available at the beginning of the campground access road near the Paria Contact Station. Paria Day Use Site includes interpretive signs, parking area, vault toilet, picnic tables and barbeque grills. Additional development could slightly impact the naturalness of the area.

**Facilities:** Recreational infrastructure to support a range of recreational activities and learning about GSENM resources would be allowed. Recreational trailheads, campgrounds, vault toilets, interpretive waysides/trails will be maintained, improved, and/or developed.

### SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS

**Contacts:** (average with any other group): The number of contacts is maintained or could increase at key locations. Contacts are influenced by the time of year and time of day. Traveling during the spring and fall and during the middle of the day, the number of contacts is higher, whereas in the winter and early morning/evening not encountering anyone else is common.



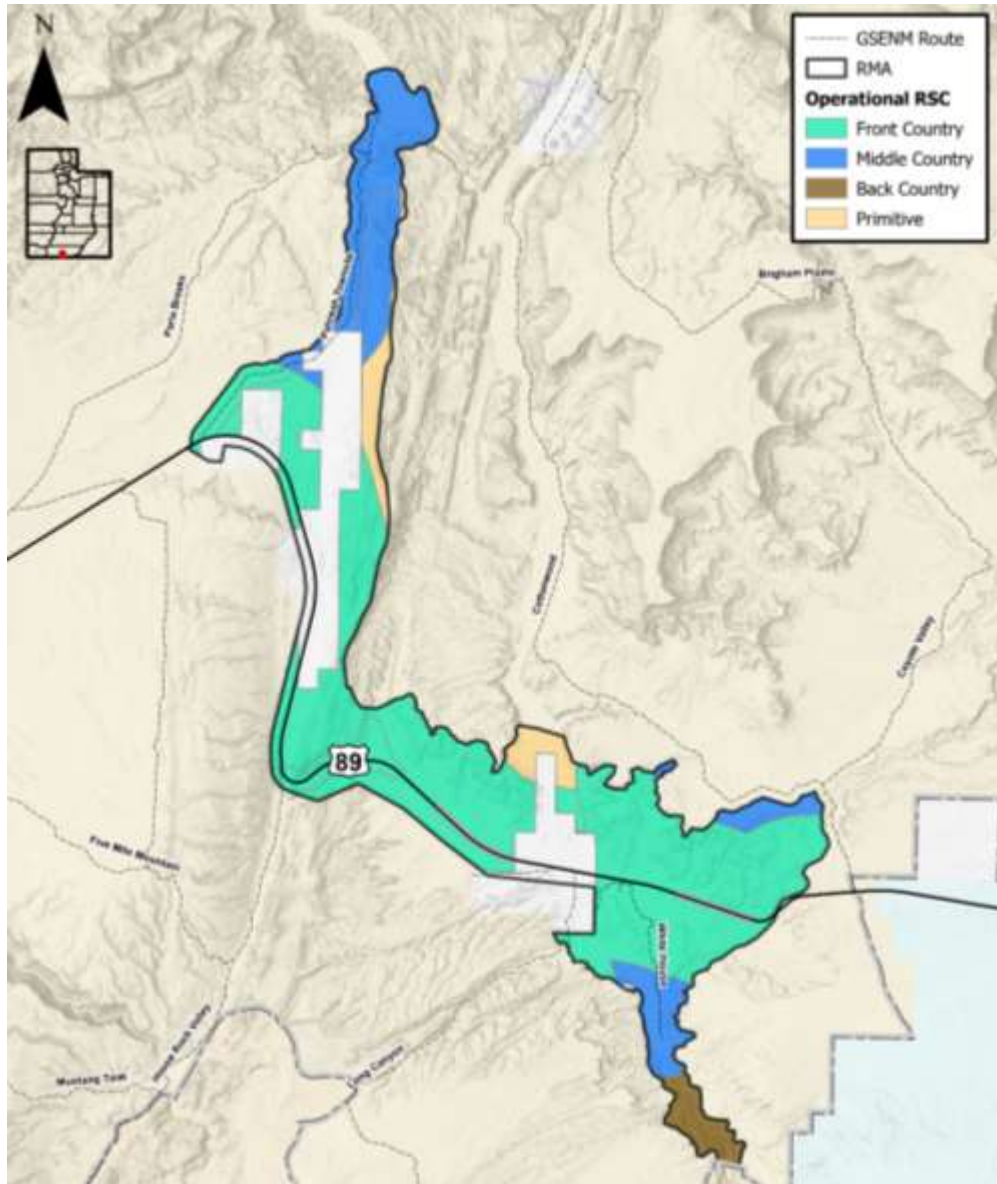
**Figure 3. Highway 89 Corridor SRMA Existing and Desired Social Setting Characteristics - Alternative B**

**Group Size:** (average – other than your own): Most groups would be between 2-6 individuals, though the group size limit would allow groups up to 75.

**Evidence of Use:** The evidence of use would be largely maintained though some areas will be developed/designated for camping and some trailheads will be improved. Areas that are currently used for primitive camping that are closed will be reclaimed and the evidence of use will diminish. The user creation of additional dispersed camping areas would be curtailed.

**SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): The White House Campground and Paria Contact Station roads are gravel surfaces and regularly maintained. The Paria Townsite Road is natural surface and regularly maintained. They are recommended for 2WD passenger vehicles and high clearance 2WD vehicles respectively. All roads can be impassable during inclement weather. The type of access will be maintained.



**Figure 4. Highway 89 Corridor SRMA Existing and Desired Operational Setting Characteristics - Alternative B**

**Visitor Services:** Staff presence will continue to be occasional. Kiosks with maps will continue to be located at recreational facilities and sites.

**Management Controls:** Regulatory and ethics signs will be posted at recreation facilities and sites.

## **LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS**

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management*

#### *Alternative B (SRMA)*

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- OHV Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

### *Aircraft Landing Areas/Strips:*

- Alternative B (SRMA) – Consider appropriate landing areas and landing strips for aircraft.

*Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

*Visual Resource Management:*

- Managed according to assigned VRM classifications and objectives.

**IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size/Pack Stock Limits:*

- Group size limit of 75 individuals. Group size of 25 individuals inside WSAs.
- Pack stock limit of 25.

*Facilities:*

- Recreation facilities with utilities and paved surfaces could be provided.
- Relocate Toadstools trailhead and trail out of U.S. Highway 89 right-of-way.
- Improve and maintain Old Paria Townsite day use area.
- Develop Old Spanish Trail interpretive wayside.
- Develop House Rock Valley Road wayside.
- Improve and maintain White House Campground.
- Improve and/or maintain Paria Contact Station.

*Trails:*

- Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.

*Camping:*

- Sensitive resource areas may be closed to camping to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 6 am.
- Allow camping only in developed campgrounds or designated camping areas.
- No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.



*Canyoneering, Rappelling, Climbing Restrictions:*

- Canyoneering, rappelling, and climbing not allowed on archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.
- Allow for motorized and nonmotorized SRPs on designated routes.
- Limit noncompetitive motorized SRPs to a total maximum of 15 vehicles.
- Prohibit SRPs that provide for intentional visitation to cultural sites except for approved visitation to designated public cultural sites or approved site by the BLM.

*Competitive Events:*

- Prohibit motorized competitive events.
- Allow nonmotorized competitive events on designated routes.

*Vending:*

- Vending would be occasional, infrequent, and may be allowed by permit on a case-by-case basis, in association with approved special events or recreation sites. Generally, permits could be issued to provide services needed at recreation sites (such as firewood sales at campgrounds) and services that are commonly offered in conjunction with permitted special events. Criteria and/or stipulations to protect GSENM objects would be included in all permits.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Prohibit takeoff and landing of unmanned aerial systems (drones) is prohibited in WSAs and lands managed to protect wilderness characteristics.

**BEST MANAGEMENT PRACTICES - to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.

- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update kiosks at the beginning of the Toadstools Trail and White House Campground.
  - Update/install recreation site kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

### Hole-in-the-Rock Road Recreation Management Areas

#### Hole-in-the-Rock Road Special Recreation Management Area (Alternatives C and D) Framework

Size: 10,300 acres

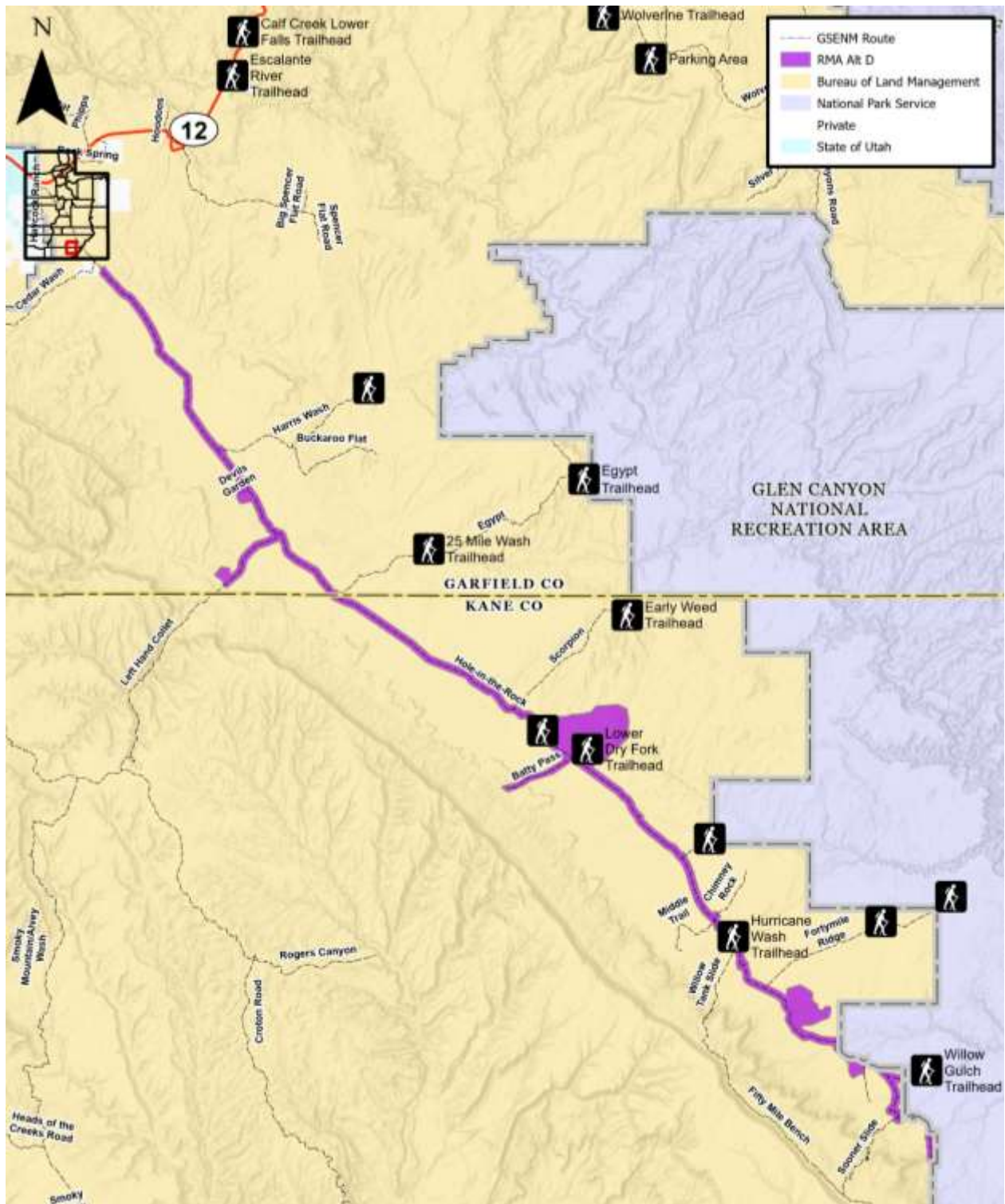


Figure I. Hole-in-the-Rock Road Recreation Management Area - Alternatives C and D

*Rationale:* The Hole-in-the-Rock Road (HITRR) SRMA encompasses the corridor along the HITRR starting near Cedar Wash Road in the north and ending at the Glen Canyon NRA boundary. HITR Road is a gravel and dirt road that goes 62 miles from Highway 12 outside of Escalante to Hole in the Rock; the last approximately 10 miles are in Glen Canyon NRA. HITRR is one of the most traveled interior roads in GSENM. The SRMA also serves as the spine to a system of backcountry roads that lead to the trailheads for accessing the Escalante Canyon system from the west side within GSENM and Glen Canyon NRA. Key destinations within the SRMA include Devils Garden, 20 Mile Dinosaur Tracksite, Batty Pass Caves, Dry Fork Slot Canyons (Spooky and Peek-a-boo), Dance Hall Rock Historic Site and Hurricane Wash Trailhead.

This SRMA provides several popular half-day and full-day recreational opportunities close to Escalante for those able and willing to drive off-pavement on a maintained dirt and gravel road. The most popular destinations are Devil’s Garden where visitors can wander around exploring geologic features including Metate Arch and hoodoos and the Dry Fork Slot Canyons, where visitors can push, pull, squeeze, and shimmy through narrow, winding slot canyons.

The entirety of Hole-in-the-Rock Trail and Dance Hall Rock are on the National Register of Historic Places and are being considered as Traditional Cultural Properties. HITRR parallels the historic wagon road created by the 1879–1880 expedition and is popular today with members of the Church of Jesus Christ of Latter-Day Saints (Mormons). Hole in the Rock is a narrow cleft in the cliffs above the Colorado River (Lake Powell) widened and constructed enough to be used as the portion of the historic wagon road down to the river that members of the Church of Jesus Christ of Latter-Day Saints (Mormons) used in the late 1800s as a “short cut” to what is now Bluff, Utah, in San Juan County. Dance Hall Rock and Fortymile Springs are adjacent to HITRR and are locations where the pioneers camped and held social gatherings during the journey to Fort Bluff.

<b>SRMA OBJECTIVE (Alternatives C and D)</b> - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):		
<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• Scenic auto touring – sightseeing</li> <li>• hiking</li> <li>• Canyoneering</li> <li>• Camping</li> <li>• Visiting historic, paleontological, and geologic sites</li> <li>• Photography/artistic pursuits</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Enjoying artistic expression of nature</li> <li>• Relishing group (family/friends) affiliation and togetherness</li> <li>• Learning more about this specific area</li> <li>• Experiencing adventure and excitement</li> <li>• Appreciating and sharing cultural heritage</li> <li>• Being able to tell others about the trip</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/appreciation of outdoor aesthetics and nature’s art, elegance, and splendor</li> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Greater respect for cultural heritage</li> <li>• Stronger ties with family and friends</li> <li>• Improved outdoor recreation skills, knowledge, and self confidence</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Maintenance of distinctive recreation setting, character, and market niche Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

**SRMA DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities

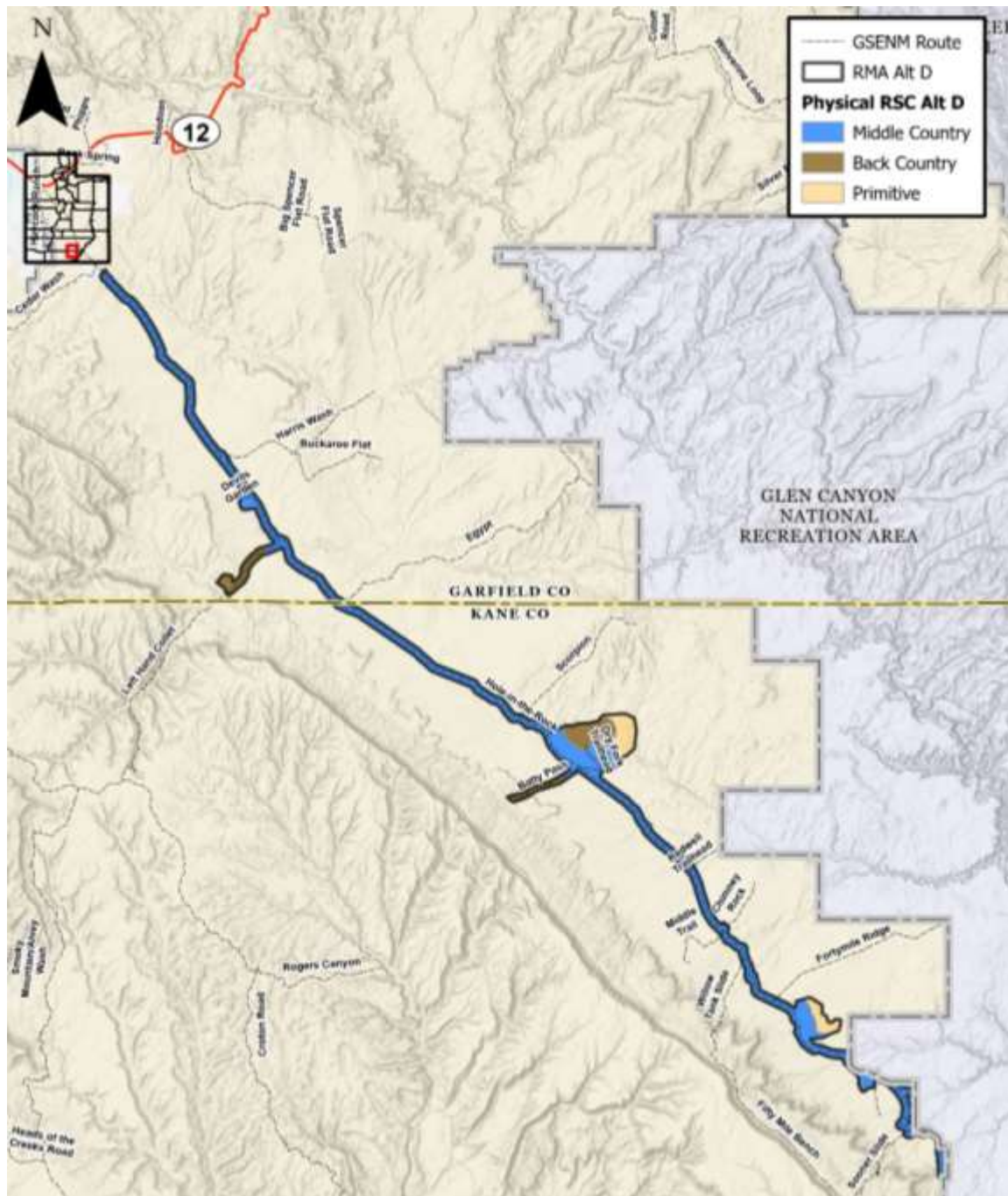
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

### **SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approx. distance from routes): The existing level of remoteness is maintained. HITRR will continue to provide access to recreational and historic destinations and other unpaved roads that lead into more remote areas.

**Naturalness:** (landscape texture form, line, color): The existing level of naturalness is maintained. New development will create no more than weak contrast with the landscape character.

**Facilities:** Basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources would be allowed. Basic trailheads, designated primitive camping areas, and vault toilets will be maintained, improved, and/or developed.



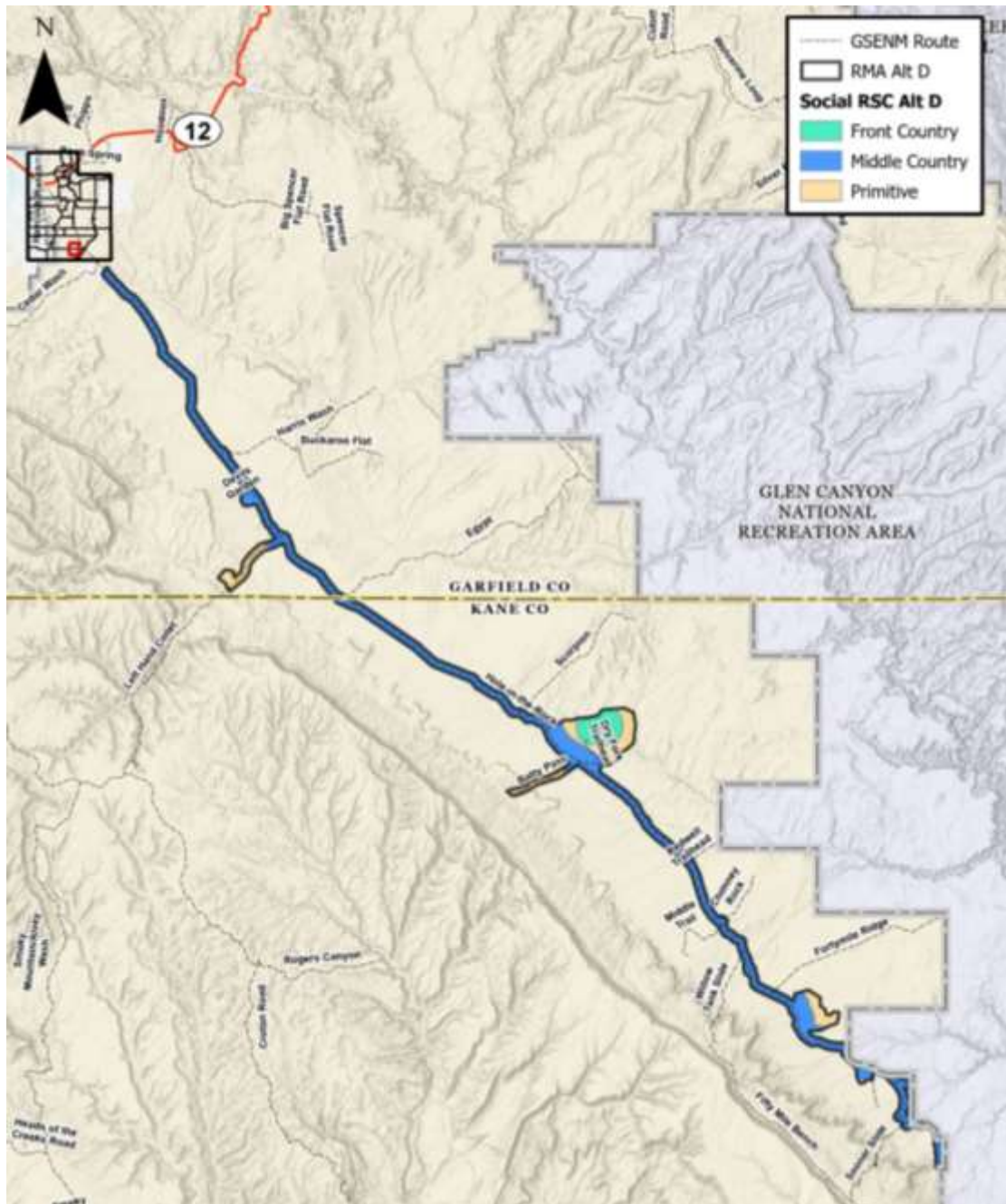
**Figure 2. Hole-in-the-Rock Road SRMA Existing and Desired Physical Recreation Setting Characteristics**

### **SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

**Contacts:** (average with any other group): The number of contacts is maintained or could increase at key locations. Contacts are influenced by the time of year and time of day. Traveling the road during the spring and fall and during the middle of the day, the number of contacts is higher, whereas in the winter and early morning/evening not encountering anyone else is common.

**Group Size:** (average – other than your own): Most groups in this RMA would continue to be small, though the group size limit would allow groups up to 25.

**Evidence of Use:** The evidence of use would be largely maintained though some areas will be developed/designated for camping and some trailheads will be developed/improved. Some areas that are currently used for primitive camping that are closed will be reclaimed and the evidence of use will diminish. The user creation of additional primitive camping areas would be curtailed.



**Figure 3. Hole-in-the-Rock Road SRMA Existing and Desired Social Recreation Setting Characteristic**

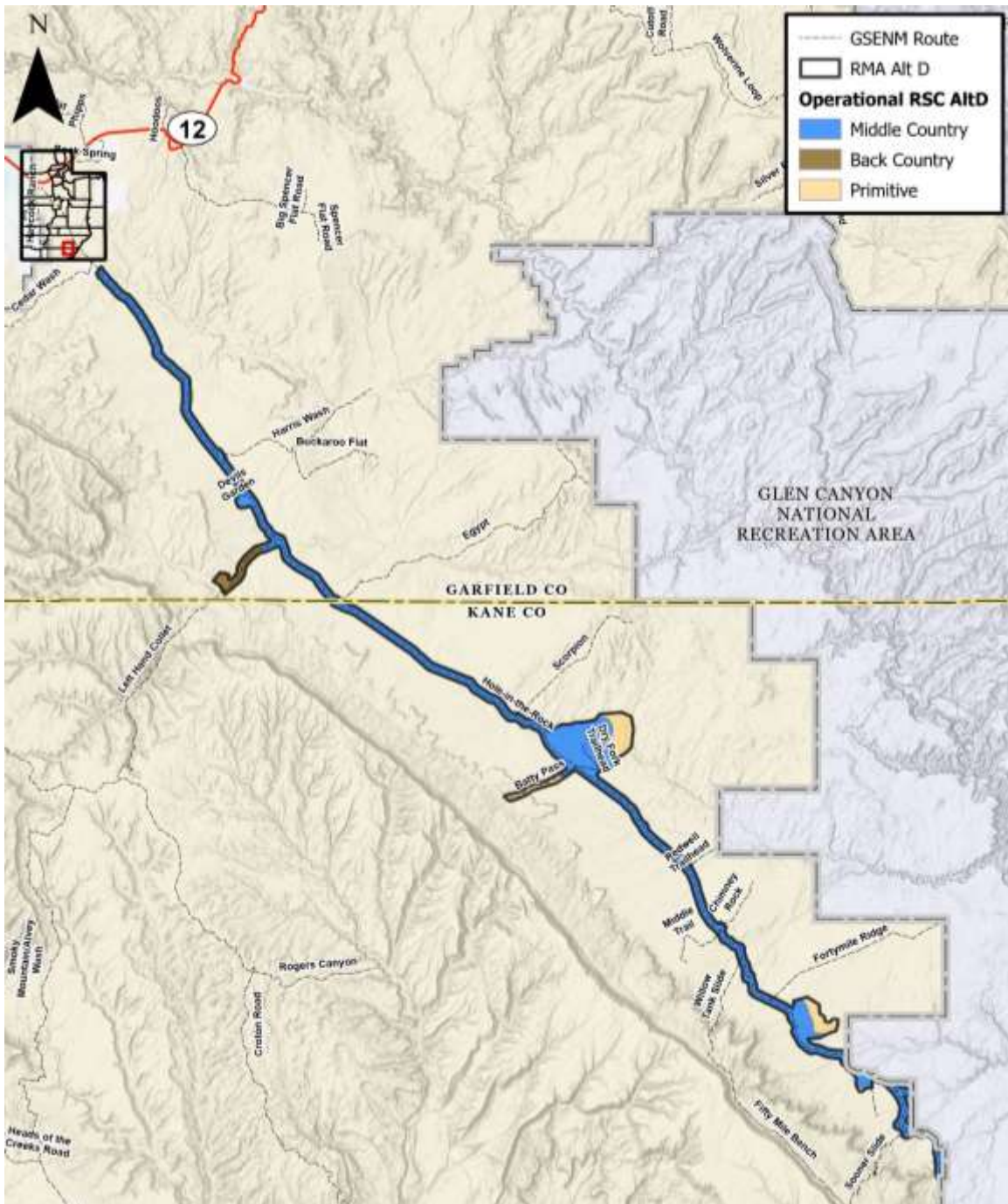


**SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): HITRR is mostly maintained gravel/dirt. The upper portion is passable for 2WD passenger vehicles. The further south one travels, high-clearance 2WD is recommended and the last several miles in Glen Canyon NRA require 4WD. The type of access will be maintained.

**Visitor Services:** Staff presence will continue to be infrequent and occasional. Kiosks with maps will be provided at trailheads and designated camping areas.

**Management Controls:** Regulatory and ethics signs will be posted at designated camping areas, day use sites, and trailheads.



**Figure 4. Hole-in-the-Rock Road SRMA Existing and Desired Operational Recreation Setting Characteristics**

**LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS**

*Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation

objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:

- Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
- conflicts with threatened and endangered plant or animal species, and/or
- the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
- Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

*Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

*Comprehensive Trails and Travel Management:*

*Alternative C (SRMA)*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive area
  - WSA/ISAs,
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

*Alternative D (SRMA)*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.
- OHV Closed:
  - WSA/ISAs
  - Cherry-stemmed routes in WSAs
  - Lands with wilderness characteristics identified for protection

- Areas of high probability for cultural resources (according to BLM Class I model)
- Areas of high probability (PFYC Class 5) for paleontological resources

*Aircraft Landing Areas/Strips:*

- Alternative C (SRMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).
- Alternative D (SRMA) – Consider appropriate landing areas and landing strips for aircraft.

*Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

*Visual Resource Management:*

- The SRMA is classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA (which are managed as Class I).

## **IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size/Pack Stock Limits:*

- Alternative C (SRMA) – Group size/pack stock limit per Management Area prescriptions.
- Alternative D (SRMA) – Group size/pack stock limit 25 except 12 in WSA.

*Facilities:*

- Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
- Develop Zebra/Tunnel Trailhead.
- Develop Twentymile Dinosaur Tracksite Parking Area.
- Update/improve Devil's Garden Day Use Site.
- Develop Hurricane Wash Trailhead.
- Develop interpretive waysides along HITS Road.

*Trails:*

- Alternative C (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.
- Alternative D (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Sensitive resource areas may be closed to camping, or a permit system implemented as identified in a future recreational area management plan, to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 7 am.
- Designate primitive camping areas as necessary to protect GSENM objects.
- Once designated primitive camping area is established, do not allow dispersed camping along road.
- Alternative C (SRMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.
- Alternative D (SRMA)
  - Allow camping only in developed campgrounds or designated camping areas.
  - No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Areas adjacent or contiguous to NPS lands requiring human waste removal will require use of personal waste systems.
- Alternative C (SRMA) – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.
- Alternative D (SRMA) – Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Canyoneering, rappelling, and climbing not allowed in/on geologic features at Devil's Garden, Dance Hall Rock including pits, Sooner Rocks pits, archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Alternative C (SRMA) – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.
- Alternative D (SRMA) – Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.

- Alternative C (SRMA)
  - SRPs to be allowed per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.
- Alternative D (SRMA) – SRPs are permitted, with the following limitations:
  - Prohibit SRPs that provide for intentional visitation to known cultural sites.
  - Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative C (SRMA) – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.
- Alternative D (SRMA) – Prohibit all competitive events.

*Vending:*

- Vending would be occasional, infrequent, and may be allowed by permit on a case-by-case basis, in association with approved special events or recreation sites. Generally, permits could be issued to provide services needed at recreation sites (such as firewood sales at campgrounds) and services that are commonly offered in conjunction with permitted special events. Criteria and/or stipulations to protect GSENM objects would be included in all permits.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Alternative C (SRMA) – Allow takeoff and landing of unmanned aerial systems (drones) per Management Area prescriptions.
- Alternative D (SRMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) in GSENM.

**BEST MANAGEMENT PRACTICES - to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update/install trailhead kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

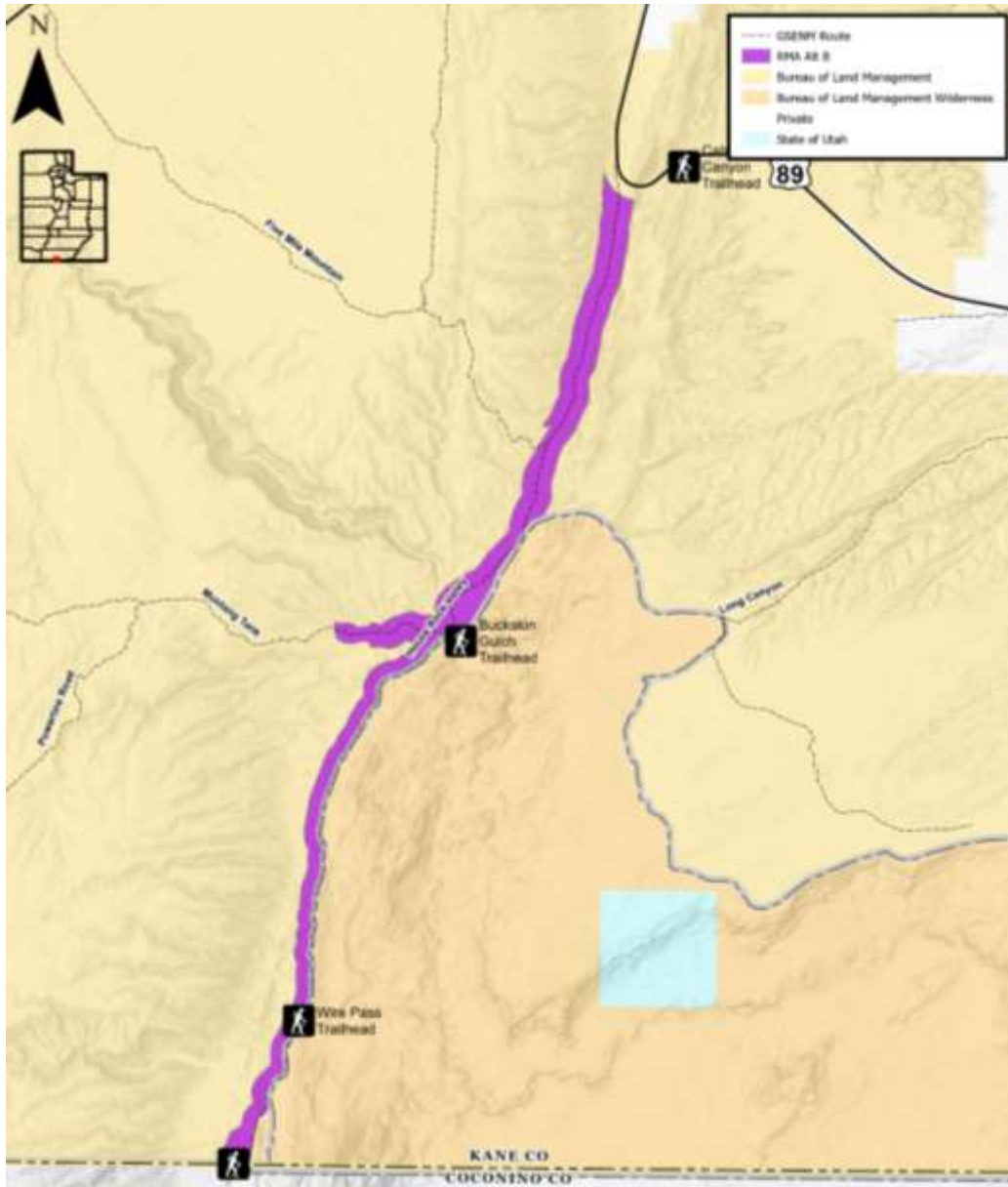
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## House Rock Valley Road Recreation Management Areas

### House Rock Valley Road Special Recreation Management Area (Alternative B) Framework

Size: 1,200 acres



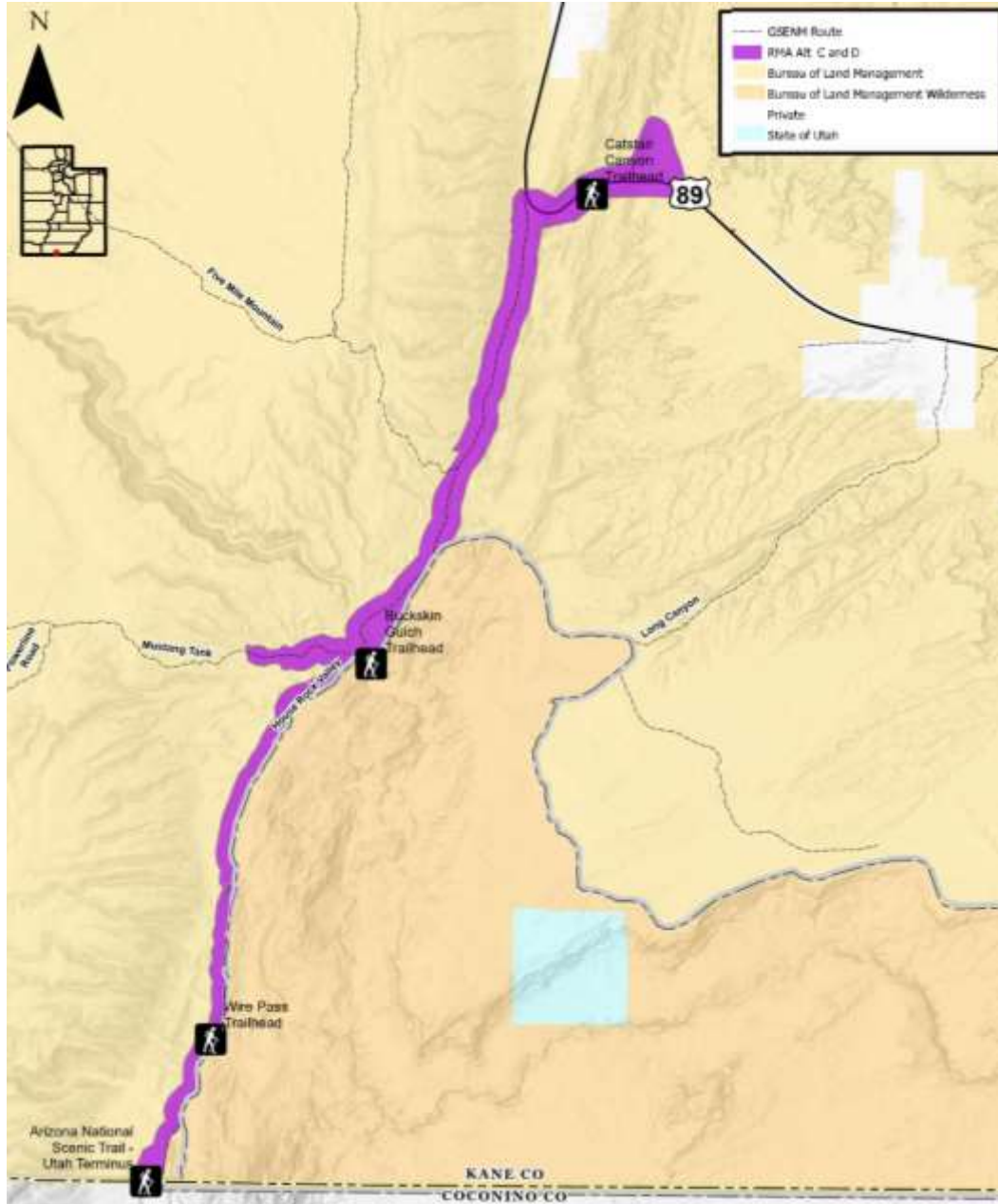
**Figure 1. House Rock Valley Road Recreation Management Area – Alternative B**

**Rationale:** The House Rock Valley Road SRMA encompasses the area along the House Rock Valley Road on the north to the Utah/Arizona Border on the south. The SRMA contains Buckskin Gulch and Wire Pass Trailheads which provide access to the Paria Canyon-Vermilion Cliffs Wilderness Area. Wire Pass Trailhead is also used by those hiking to The Wave which is a well-known international destination. The Wave is not within the SRMA. The SRMA also includes the Utah portion of Stateline Campground which is one of four developed campgrounds within GSENM. Recreation activities include hiking, sightseeing, camping, wildlife viewing, photography, and access for multi-day backpacking trips. House Rock Valley

Road is easily accessible from Highway 89 and Highway 89A and is a connecting route to popular recreation destinations from both directions. The SRMA runs parallel to the popular landmark known as The Cockscomb which provides world class scenery and a fascinating array of geologic features. The area is also home or adjacent to the historic Honeymoon Trail, the Maze prehistoric petroglyph site, and a California Condor release and viewing area.

**House Rock Valley Road Special Recreation Management Area (Alternatives C and D) Framework**

Size: 1,600 acres



**Figure 2. House Rock Valley Road Recreation Management Area – Alternatives C and D**

**Rationale:** The House Rock Valley Road SRMA encompasses the area along US Highway 89 through The Cockscomb and along the House Rock Valley Road on the north to the Utah/Arizona Border on the south. The SRMA contains Catstair Canyon and Buckskin Gulch and Wire Pass Trailheads which provide access to the Paria Canyon-Vermilion Cliffs Wilderness Area. Wire Pass Trailhead is also used by those hiking to The Wave which is a well-known international destination. The Wave is not within the SRMA. The SRMA also includes the Utah portion of Stateline Campground which is one of four developed campgrounds within GSENM. Recreation activities primarily include hiking camping, and access for multi-day backpacking trips. House Rock Valley Road is easily accessible from Highway 89 and Highway 89A and is a connecting route to popular recreation destinations from both directions. The SRMA runs parallel to the popular landmark known as The Cockscomb which provides world class scenery and a fascinating array of geologic features. The area is also home or adjacent to the historic Honeymoon Trail, the Maze prehistoric petroglyph site, and a California Condor release and viewing area.

<b>SRMA OBJECTIVE</b> - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):		
<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• Camping</li> <li>• Hiking</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Relishing group (family/friends) affiliation and togetherness</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/appreciation of outdoor aesthetics and nature’s art, elegance, and splendor Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Stronger ties with family and friends</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Maintenance of distinctive recreation setting, character, and market niche Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

**SRMA DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

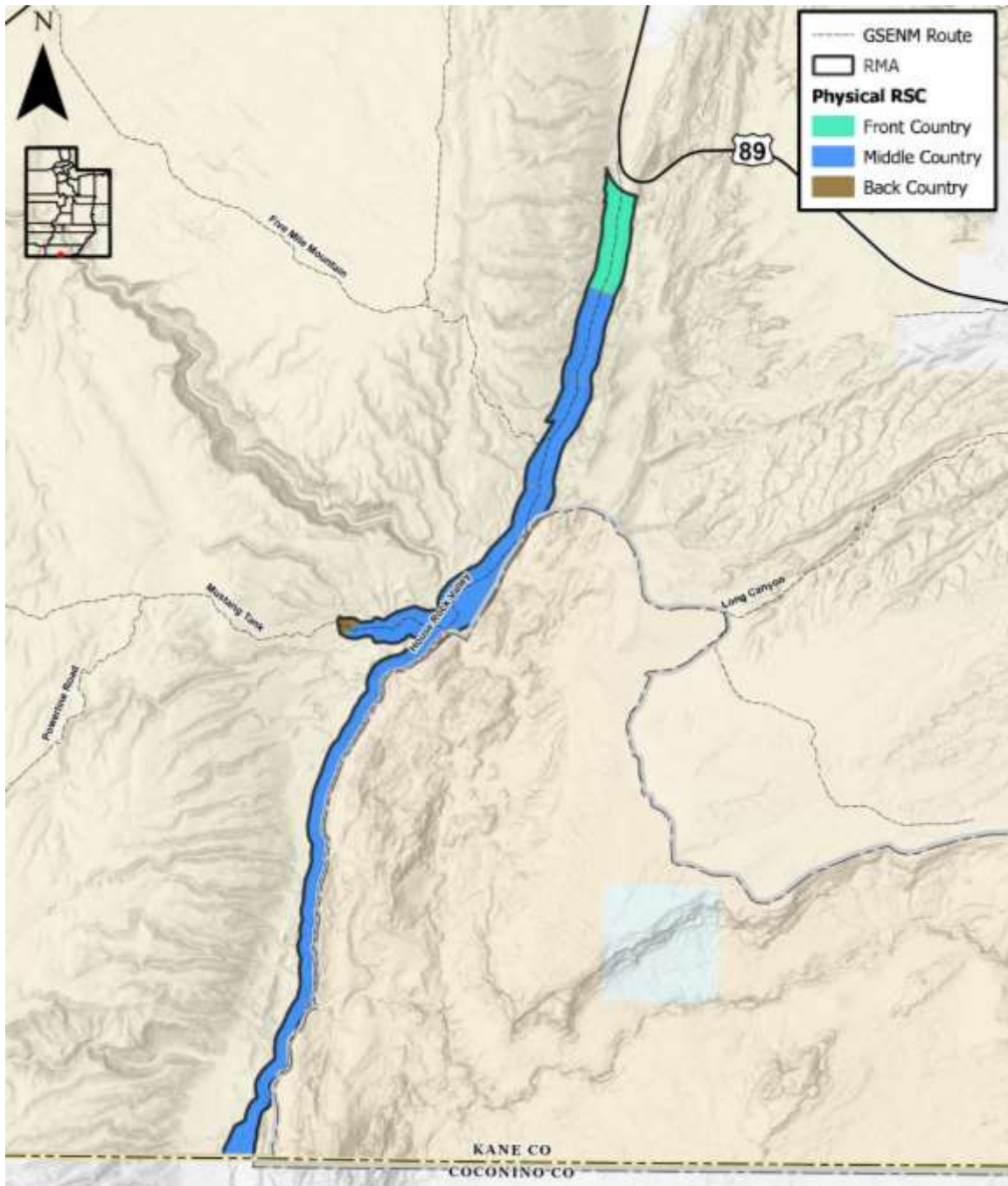
<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

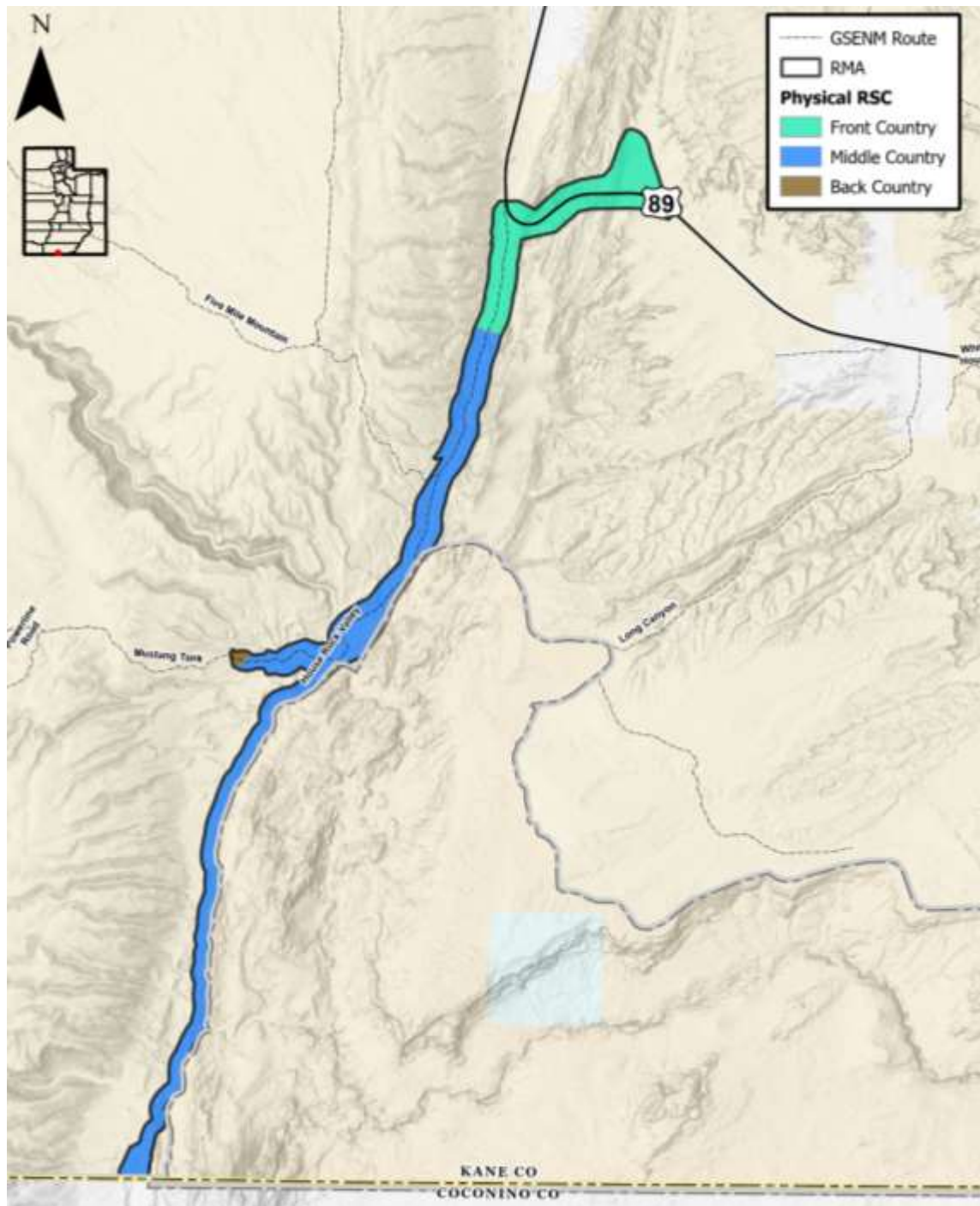
**Remoteness:** (approx. distance from routes): The existing level of remoteness is maintained. House Rock Valley Road will continue to provide auto-touring into a highly scenic, natural landscape as well as access to recreational destinations and other unpaved roads that lead into more remote areas.

**Naturalness:** (landscape texture form, line, color): The existing level of naturalness is maintained. Buckskin Gulch, Wire Pass trailheads, and Stateline Campground are developed recreation sites consisting of vault toilets, parking areas, interpretive/informational signs, solar panels, storage shed, and visitor register boxes. New development will create no more than weak contrast with the landscape character.

**Facilities:** Recreational infrastructure to support a range of recreational activities and learning about GSENM resources would be allowed. Trailheads, developed campground, designated primitive camping areas, vault toilets, and overlooks/waysides will be maintained, improved, and/or developed.



**Figure 3. House Rock Valley Road SRMA Existing and Desired Physical Setting Characteristics - Alternative B**



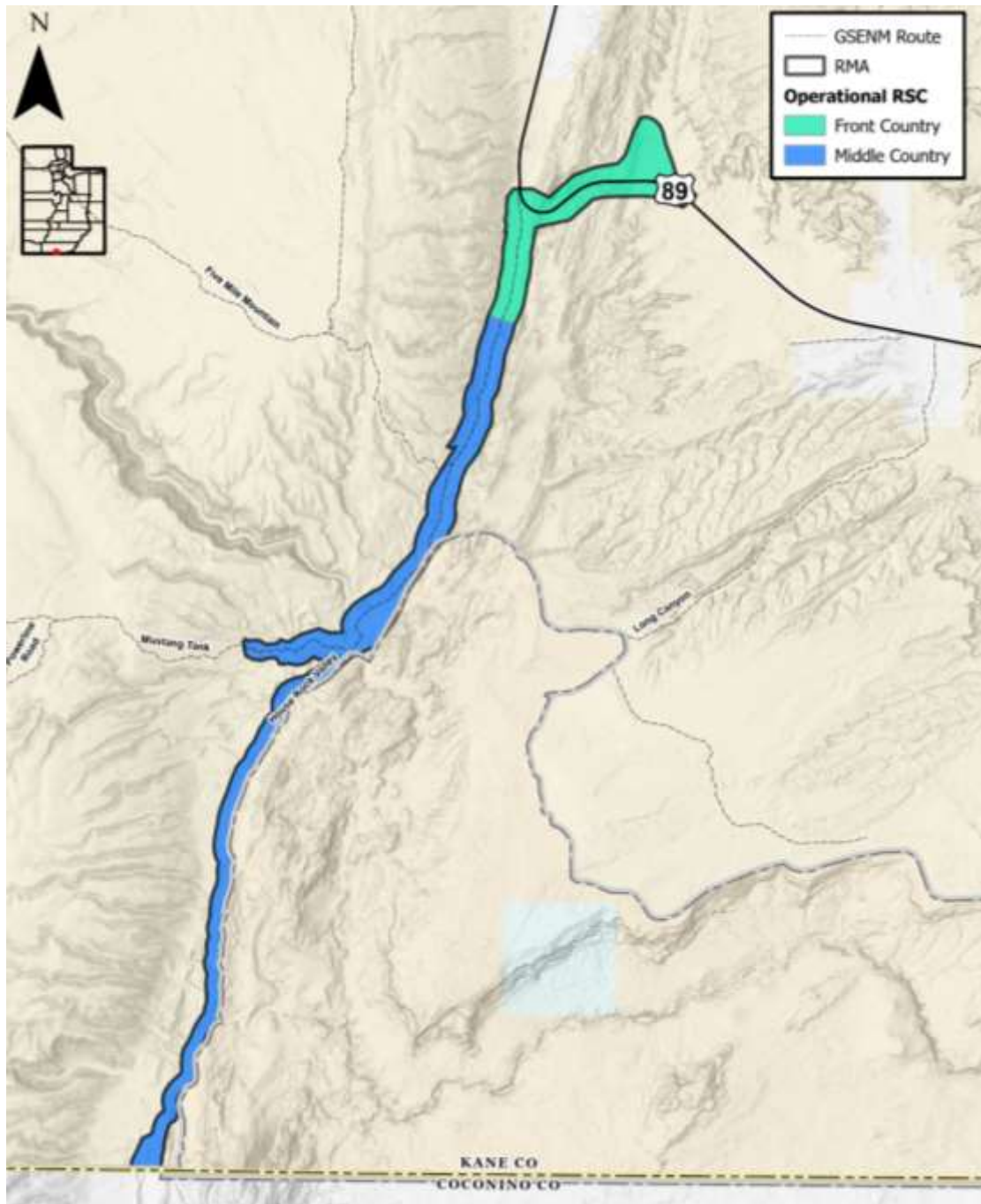
**Figure 4. House Rock Valley Road SRMA Existing and Desired Physical Setting Characteristics – Alternatives C and D**

#### **SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

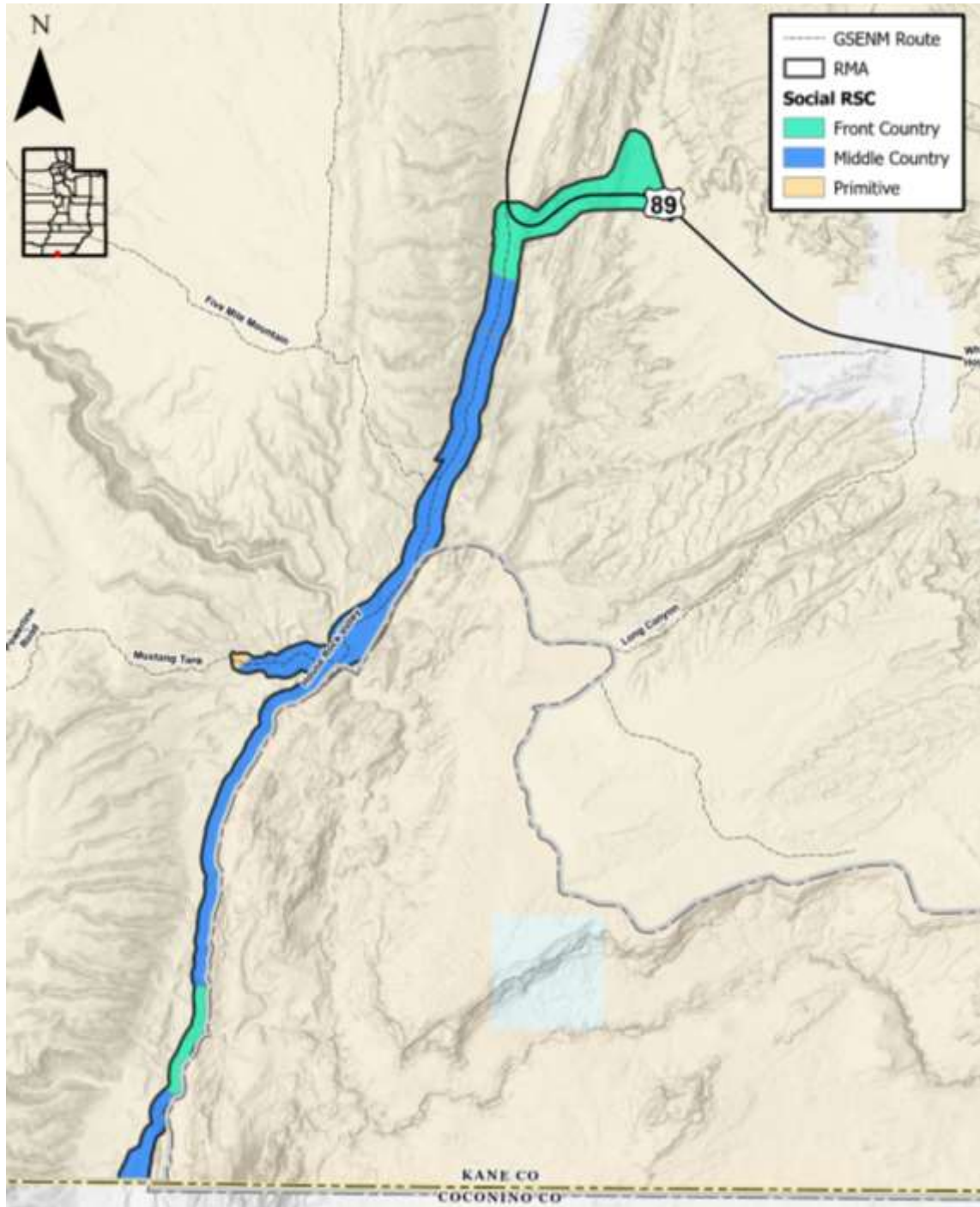
**Contacts:** (average with any other group): The number of contacts is maintained or could increase at key locations. Contacts are influenced by the time of year and time of day. Traveling the road during the spring and fall and during the middle of the day, the number of contacts is higher, whereas in the winter and early morning/evening not encountering anyone else is common.

**Group Size:** (average – other than your own): Most groups in this RMA would continue to be small, though the group size limit would allow groups up to 25.

**Evidence of Use:** The evidence of use would be largely maintained though some areas will be developed/designated for camping and trailheads will be improved. Areas that are currently used for primitive camping that are closed will be reclaimed and the evidence of use will diminish. The user creation of additional primitive camping areas would be curtailed.



**Figure 5. House Rock Valley Road SRMA Existing and Desired Social Setting Characteristics - Alternative B**



**Figure 6. House Rock Valley Road SRMA Existing and Desired Social Setting Characteristics – Alternatives C and D**

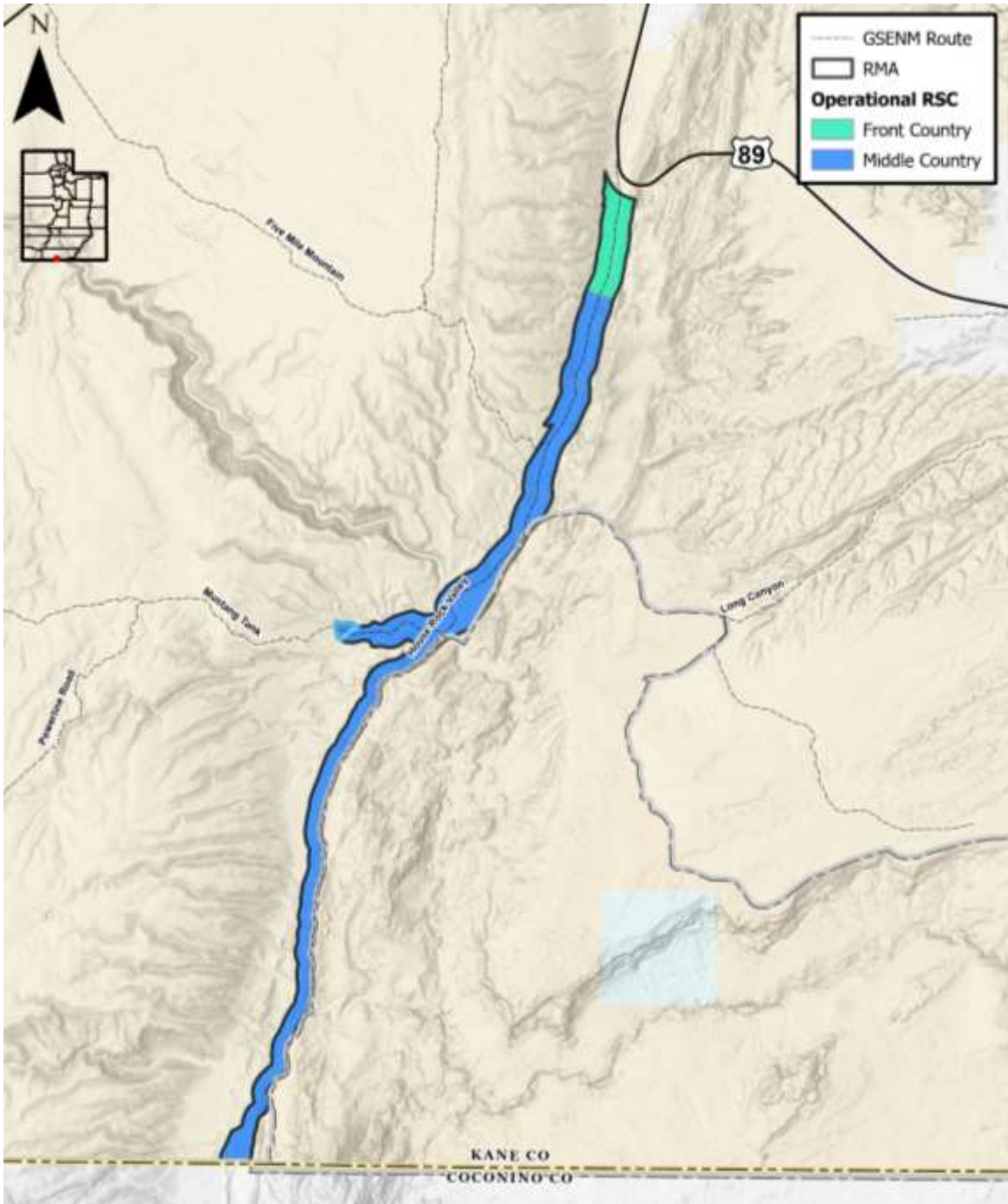
**SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): House Rock Valley Road is mostly maintained dirt and impassible when wet. It is not recommended for 2WD passenger vehicles. The type of access will be maintained.

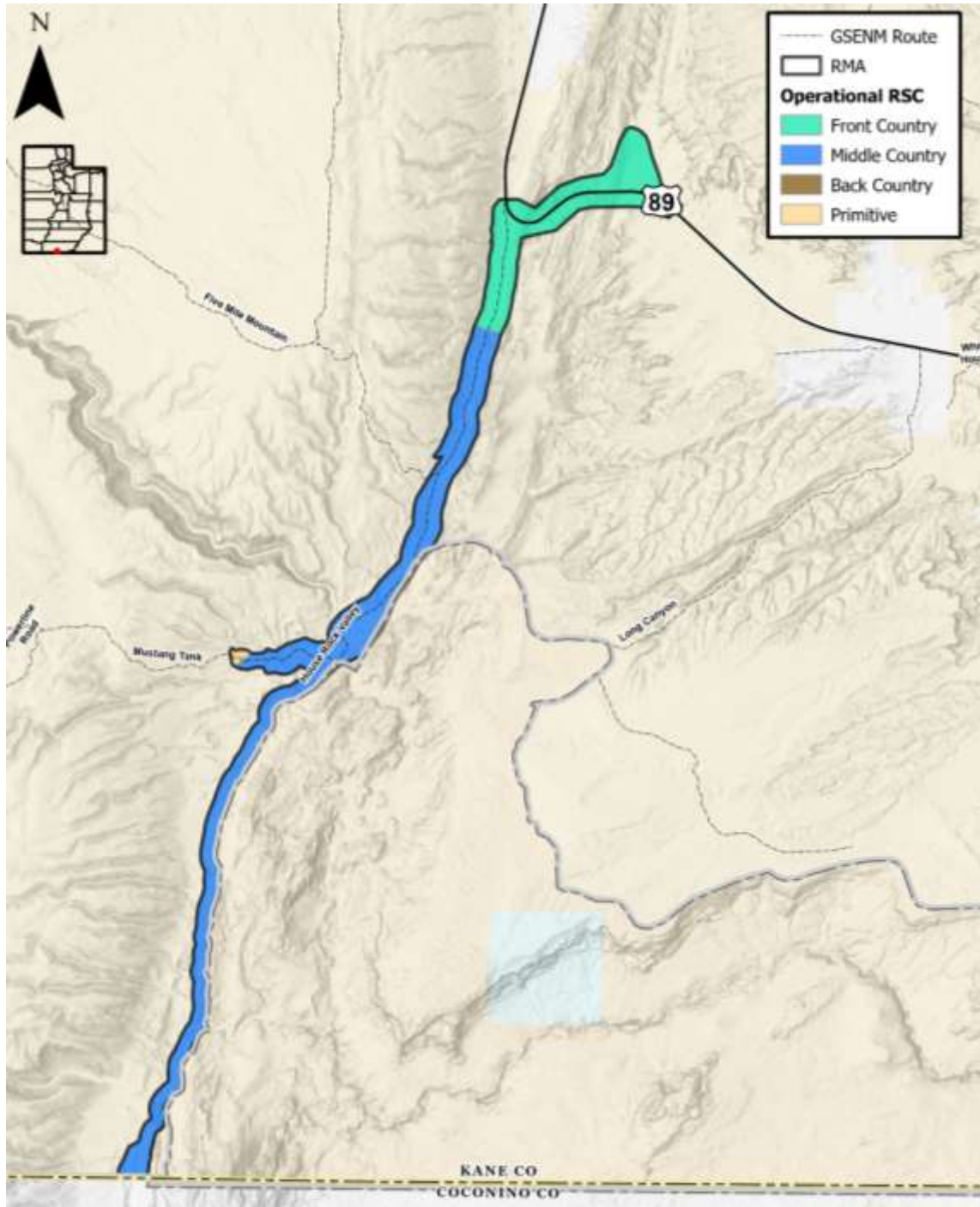


**Visitor Services:** Staff presence will continue to be occasional to regular. Kiosks with maps will continue to be located near each boundary crossing and could be provided at trailheads and designated camping areas.

**Management Controls:** Regulatory and ethics signs will be posted at boundary portals, designated camping areas, and trailheads.



**Figure 7. House Rock Valley Road SRMA Existing and Desired Operational Setting Characteristics – Alternative B**



**Figure 8. House Rock Valley Road SRMA Existing and Desired Operational Setting Characteristics – Alternatives C and D**

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management*

#### *Alternative B (ERMA)*

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### *Alternative C (SRMA)*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.

- Closed:
  - Primitive area
  - WSA/ISAs,
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

**Alternative D (ERMA)**

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.
- Closed:
  - WSA/ISAs
  - Cherry-stemmed routes in WSAs
  - Lands with wilderness characteristics identified for protection
  - Areas of high probability for cultural resources (according to BLM Class I model)
  - Areas of high probability (PFYC Class 5) for paleontological resources

*Aircraft Landing Areas/Strips:*

- Alternatives B (ERMA) and D (ERMA) – Consider appropriate landing areas and landing strips for aircraft.
- Alternative C (SRMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).

*Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

*Visual Resource Management:*

- Managed according to assigned VRM classifications and objectives.

**IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size/Pack Stock Limits:*

- Alternative B (ERMA) and D (ERMA) – Group size/pack stock limits of 25.
- Alternative C (SRMA) – Group size/pack stock limits per Management Area prescriptions.

*Facilities:*

- Allow recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
- Improve/maintain waysides, trailheads, and campground: Buckskin Gulch, Wire Pass, Stateline Campground.
- Improve/maintain information kiosk on north end of House Rock Valley Road.

*Trails:*

Alternative B (ERMA)

- Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.

Alternative C (SRMA)

- Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.

Alternative D (ERMA)

- Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Sensitive resource areas may be closed to camping to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 6 am.

Alternative B (ERMA)

- Allow dispersed camping. Designated dispersed camping areas may be identified and designated on an as-needed basis. Areas may be closed to camping to protect GSENM objects.
- Do not allow campfires in the Escalante and relict plant areas as they are identified. Also prohibit campfires in archaeological and historic sites, rock shelters, or alcoves.
- No camping within 300 feet of livestock corrals or water troughs during livestock grazing season of use.

Alternative C (SRMA)

- Camping allowed per Management Area prescriptions.
- Campfires and wood collection allowed per Management Area prescriptions.

Alternative D (ERMA)

- Camping allowed only in designated camping areas.
- No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Areas adjacent or contiguous to NPS lands requiring human waste removal will require use of personal waste systems.
- Alternative B (ERMA) and C (SRMA) – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.
- Alternative D (ERMA) – Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Not allowed in archeological sites, natural bridges, arches.
- Special Status Species habitat would be closed as needed to protect species.
- May be buffered or seasonally closed to prevent disturbance to raptor nesting.
- Alternative B (ERMA) and C (SRMA) – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.
- Alternative D (ERMA) – Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.
- Alternative B (ERMA)
  - Allow for motorized and nonmotorized SRPs on designated routes.
- Alternative C (SRMA)
  - Allow/prohibit SRPs per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.
- Alternative D (ERMA) – SRPs are permitted, with the following limitations:
  - Prohibit SRPs that provide for intentional visitation to known cultural sites.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative B (ERMA) – Allow nonmotorized competitive events on designated routes.

- Alternative C (SRMA) – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.
- Alternative D (ERMA) – Prohibit competitive events.

*Vending:*

- Vending would be occasional, infrequent, and may be allowed by permit on a case-by-case basis, in association with approved special events or recreation sites. Generally, permits could be issued to provide services needed at recreation sites (such as firewood sales at campgrounds) and services that are commonly offered in conjunction with permitted special events. Criteria and/or stipulations to protect GSENM objects would be included in all permits.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Alternative B (ERMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) is prohibited in WSAs and lands managed to protect wilderness characteristics.
- Alternative C (SRMA) – The takeoff and landing of unmanned aerial systems (drones) to follow Management Area prescriptions.
- Alternative D (ERMA) – The takeoff and landing of unmanned aerial systems (drones) is prohibited.

## **BEST MANAGEMENT PRACTICES – TO GUIDE IMPLEMENTATION**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) that focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update kiosks on north end of SRMA along House Rock Valley Road.
  - Update/install trailhead/campground kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

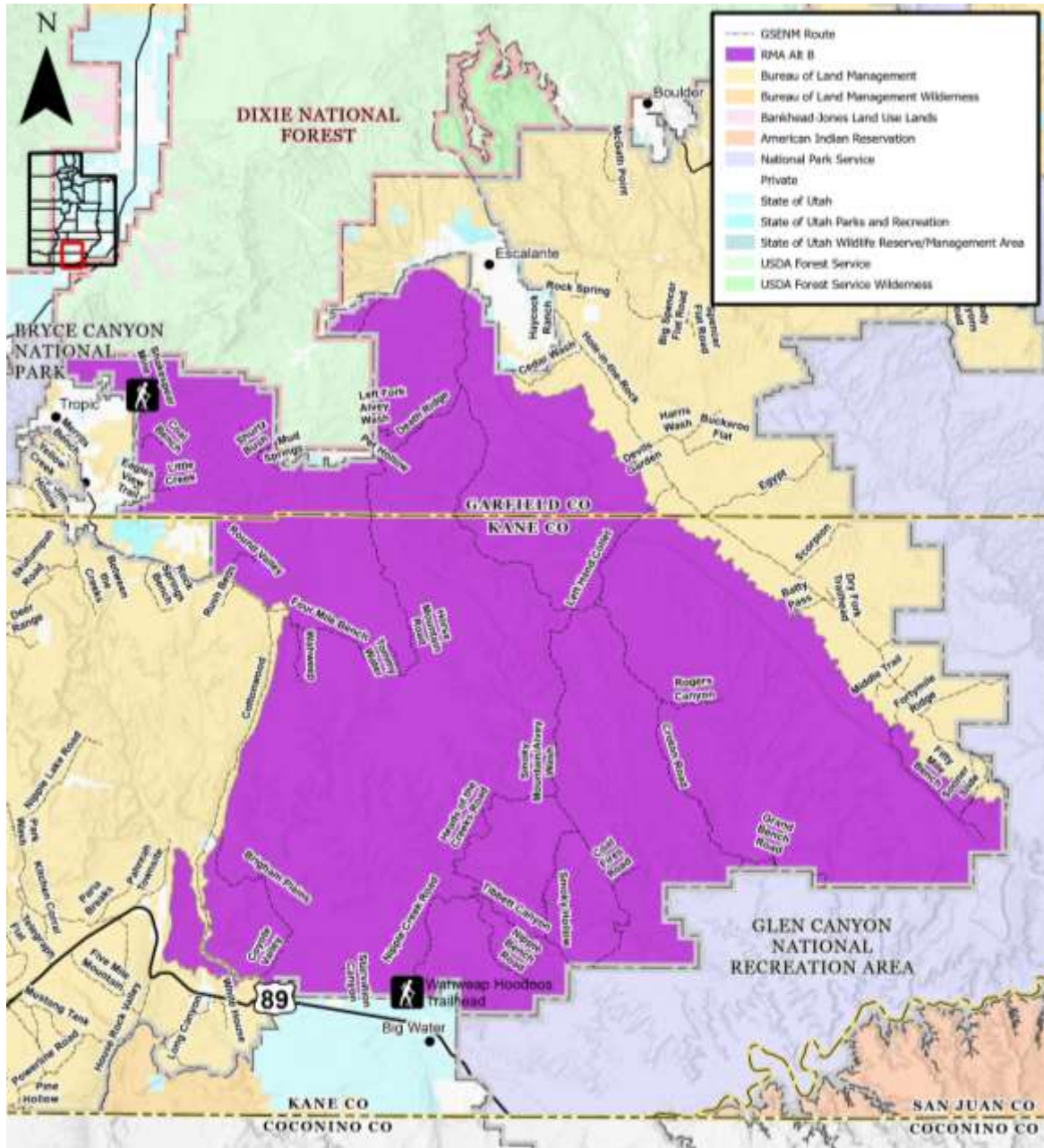
- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.



**Kaiparowits Plateau Recreation Management Area**

**Kaiparowits Plateau Extensive Recreation Management Area (Alternative B) Framework**

Size: 872,900 acres



**Figure 1. Kaiparowits Plateau Recreation Management Area - Alternative B**

*Rationale:* The Kaiparowits Plateau ERMA is at the center of the Grand Staircase-Escalante landscape between the Escalante Canyons and the Grand Staircase physiographic provinces. The Kaiparowits Plateau contains roughly 1,600 square miles of sedimentary rock and is bordered on the east side by the Straight Cliffs, which stretch from near the beginning of the Escalante River to Fiftymile Mountain, and on the west by the East Kaibab Monocline, better known as the Cockscomb. The area is made up of steep-walled

canyons, escarpments, towers, arches, and a series of benches that ascend from the southern boundary of GSENM. This ERMA encompasses the most remote and least developed region of GSENM. Smoky Mountain, Left Hand Collet, Brigham Plains, and Nipple Bench Roads are some of few roads that penetrate this area. Smoky Mountain Road is a Utah State Scenic Backway and requires about 5 hours of rough driving to go between Escalante in the north to Big Water in the south. Several WSAs (The Blues, Wahweap, The Cockscomb, Mud Springs Canyon, Carcass Canyon, Death Ridge, Fiftymile Mountain, and Burning Hills) are within the ERMA and overlay most of its acreage. Popular features within the area are Fiftymile Mountain, The Blues, Wahweap Hoodoos, White Rocks, Kelly Grade, and the Burning Hills. Portions of the area are popular for hunting. The Grand Staircase Loop is a multi-day bikepacking route mostly within the ERMA. The Hayduke Trail (an extremely challenging, 800-mile backcountry route through the Colorado Plateau in Southern Utah and Northern Arizona) passes through this ERMA. The area is popular with recreationalists for overland vehicle camping, exploring its remote location and challenging roads. The Kaiparowits is one of the most remote areas within GSENM and has no recreational developments. It is the most remote, isolated, and wild region within GSENM with limited access to its interior, providing visitors a remote and unconfined recreation experience.

**ERMA OBJECTIVE (Alternative B)** – In the Kaiparowits Plateau ERMA, the recreation and visitor services focus is dispersed, self-directed recreation activities that supports participation in hiking/exploring, backpacking and bikepacking, canyoneering, equestrian, rugged auto touring, and primitive camping in backcountry and primitive settings while prioritizing protection of GSENM objects.

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation experience objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations’ ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

*Comprehensive Trails and Travel Management:*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive area
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

*Aircraft Landing Areas/Strips:*

- The takeoff and landing of unmanned aerial systems (drones) allowed per Management Area prescriptions.

*Lands and Realty:*

- ROW avoidance areas are applied to the ERMA unless ROW exclusion is determined for other resource protections.

*Visual Resource Management:*

- Classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA or suitable WSR wild segment (which are managed as VRM Class I).

**IMPLEMENTATION DECISIONS:**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size /Pack Stock Limits:*

- Group size and pack stock limits per Management Area prescriptions.

*Facilities:*

- Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
- Develop primitive trailhead at Wahweap Hoodoos.
- Develop primitive trailhead at White Rocks.

*Trails:*

- Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.

*Camping:*

- Designate primitive camping areas along open roads as necessary to protect GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping: 10 pm to 6 am.
- Alternative C (ERMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.

*Personal Waste Systems:*

- Areas adjacent or contiguous to NPS lands requiring human waste removal will require use of personal waste systems.
- Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Not allowed on hoodoos, archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed as needed to protect species.
- May be buffered or seasonally closed to prevent disturbance to raptor nesting.
- Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Allow/prohibit motorized SRPs per Management Area prescriptions.
- Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.

*Competitive Events:*

- Prohibit motorized competitive events.
- Allow nonmotorized competitive events (that meet group size limits) on designated routes per Management Area prescriptions.

*Vending:*

- Vending is allowed per Management Area prescriptions.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is allowed per Management Area prescriptions.

*Drone Use:*

- The takeoff and landing of unmanned aerial systems (drones) to follow Management Area prescriptions.

**BEST MANAGEMENT PRACTICES – to guide implementation**

Best management practices for implementation-level planning guidance are presented to illustrate opportunities for active stakeholder collaboration and to provide a suite of possible implementation actions that could be adaptively performed to ensure management effectiveness in meeting recreation and visitor services goals and objectives.

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Install trailhead kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

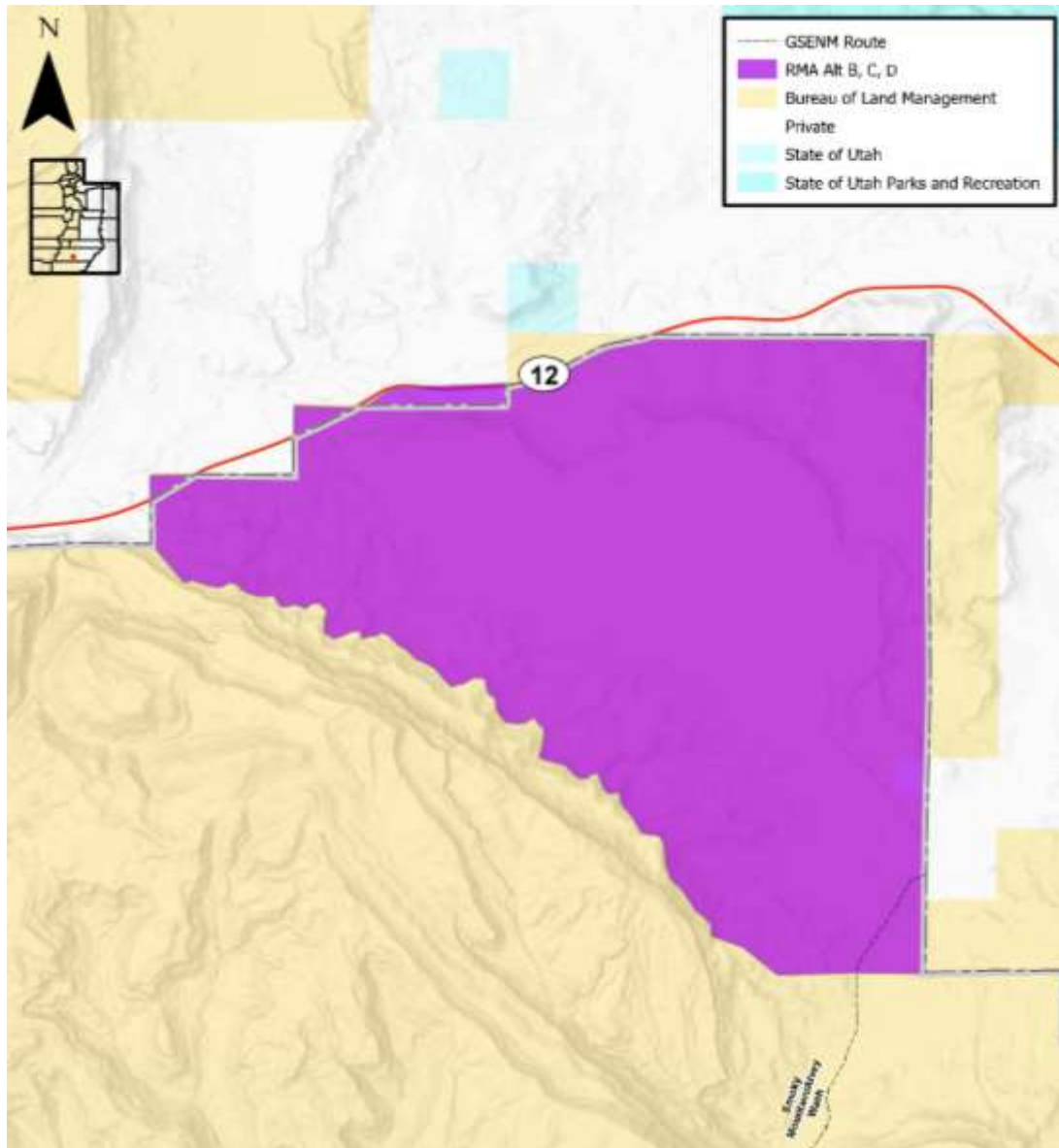
- Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

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### Little Desert Recreation Management Areas

#### *Little Desert Extensive Recreation Management Area (Alternatives B and D) and Special Recreation Management Area (Alternative C) Framework*

Size: 2,400 acres



**Figure 1. Little Desert Recreation Management Area - Alternatives B, C, and D**

*Rationale:* The Little Desert SRMA/ERMA encompasses an area immediately to the west of Escalante and south of HWY 12 and is bounded on two sides by KFO lands and private property. The Escalante Petrified State Park is to the north across HWY 12. It sits mostly below the Straight Cliffs on a bench covered in pinyon/juniper and sagebrush. Petrified wood is present in several areas. The area currently has an open OHV area of about 116 acres in the southern lobe and numerous routes (that are not on the TMP) used for dispersed primitive camping, ATV riding, mountain biking, horseback riding, hiking, and dog walking. Portions of the area serve as de facto local “party spots” and target shooting locations. There are no

developed recreational facilities or trails in the area. Surrounding views of the Aquarius Plateau, Escalante Canyons, and private ranch land contribute positively to the area’s attractiveness for recreational use.

<p><b>SRMA OBJECTIVE (Alternative C)</b> - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):</p>		
<p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>Trail riding (motorized/nonmotorized)</li> <li>Camping</li> <li>Hiking</li> <li>Dog walking</li> </ul>	<p><b>Experiences:</b></p> <ul style="list-style-type: none"> <li>Enjoying needed physical exercise</li> <li>Releasing or reducing stress</li> <li>Enjoying easy access to natural landscapes</li> <li>Relishing group (family/friends) affiliation and togetherness</li> </ul>	<p><b>Benefits:</b></p> <p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>Improved physical and mental fitness, wellbeing, and health maintenance</li> <li>Stronger ties with family and friends</li> <li>Greater sense of personal accountability for acting responsibly on public lands</li> <li>Improved opportunity to experience dark night skies</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>Increased awareness of GSENM objects</li> <li>Greater engagement in stewardship and protection of GSENM objects</li> <li>Enlarged sense of community pride for GSENM</li> <li>Feeling good about how GSENM is managed</li> <li>Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>Increased desirability as a place to live or retire</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>Increased awareness and protection of GSENM objects</li> <li>Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

**SRMA EXISTING AND DESIRED RECREATION SETTING CHARACTERISTICS (RSC) TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities



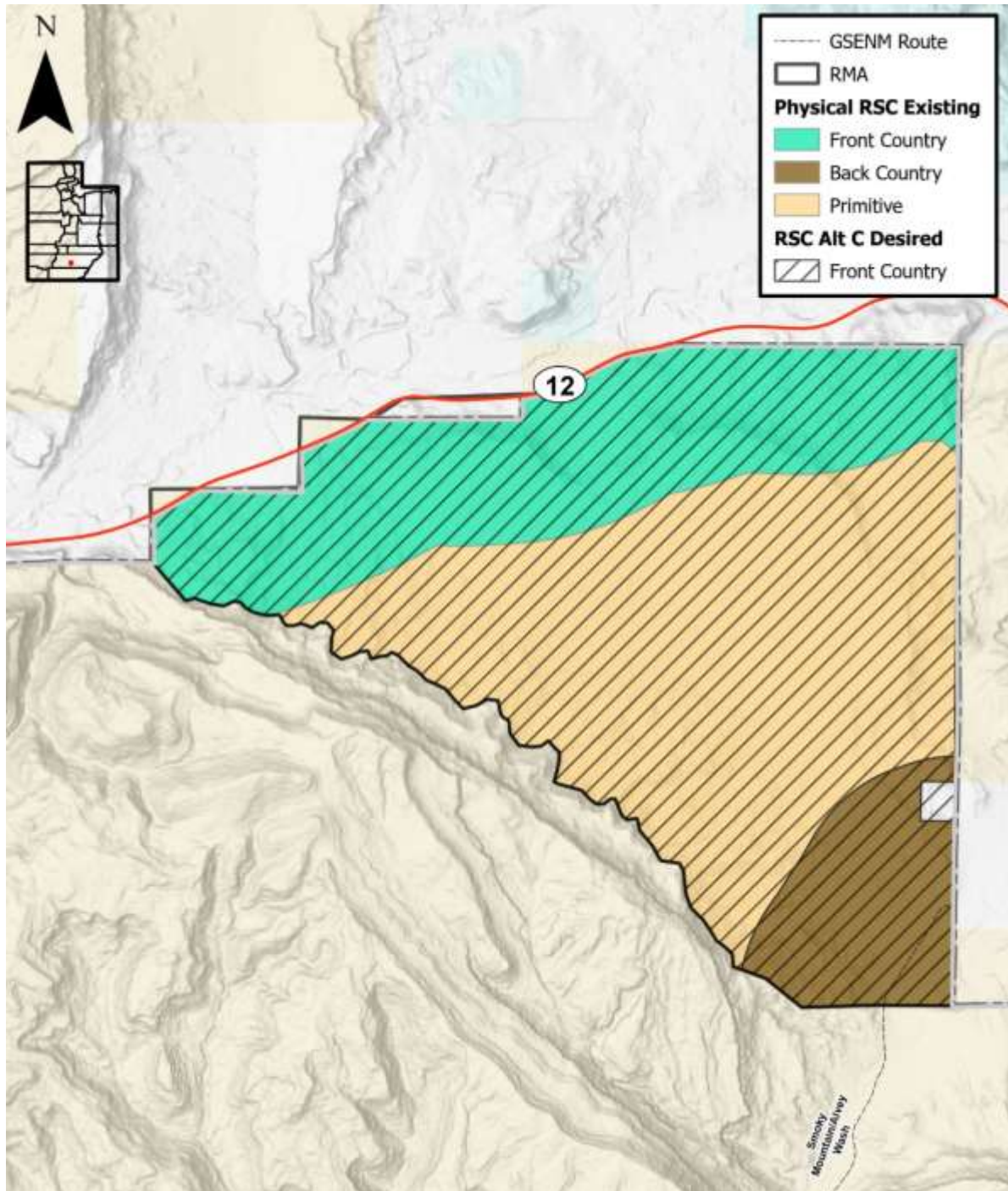
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approx. distance from routes): The RMA is bounded by HWY 12 and Smoky Mountain Road. There is a network of routes regularly used by autos and UTVs that are not on the transportation plan.

**Naturalness:** (landscape texture form, line, color): Unauthorized roads/trails and a powerline are the features that affect the naturalness. Developed facilities would modify the existing naturalness.

**Facilities:** No facilities exist. A campground and trail system would be developed.



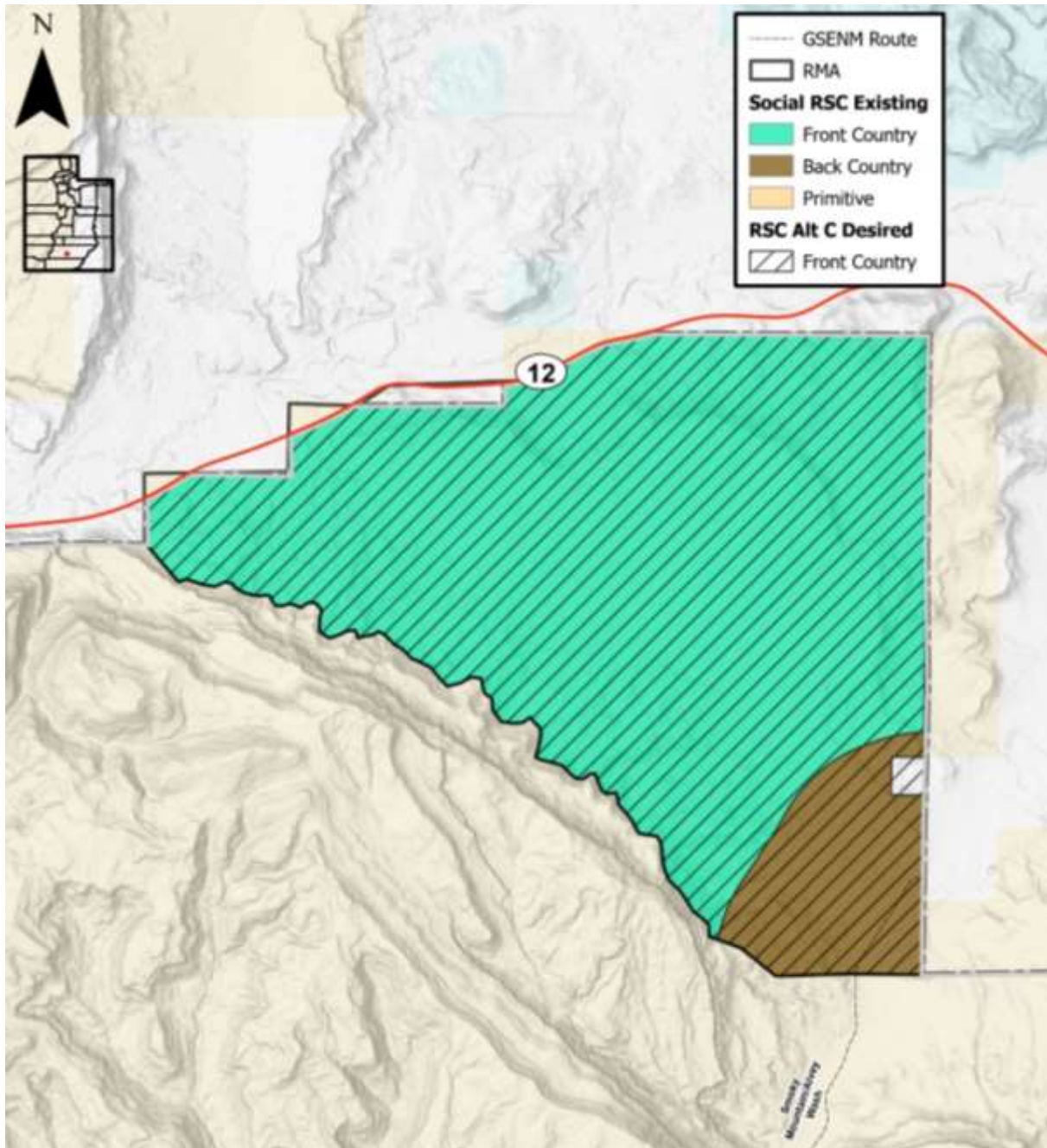
**Figure 2. Little Desert SRMA - Existing and Desired Physical Recreation Setting Characteristics**

**SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

**Contacts:** (average with any other group): The average contacts are currently low. These result from dispersed camping during the visitation season and locals using the unauthorized routes.

**Group Size:** (average – other than your own): Group sizes are also low. Once campground and trail system are developed the group size limits would increase to 75, though groups of 2 to 6 would continue to be the norm.

**Evidence of Use:** The evidence of use is associated with a dirt road, dispersed camping off this road, and unauthorized OHV routes. The evidence of use would shift to designated trails and a developed campground while some user created routes and camp sites would be reclaimed.



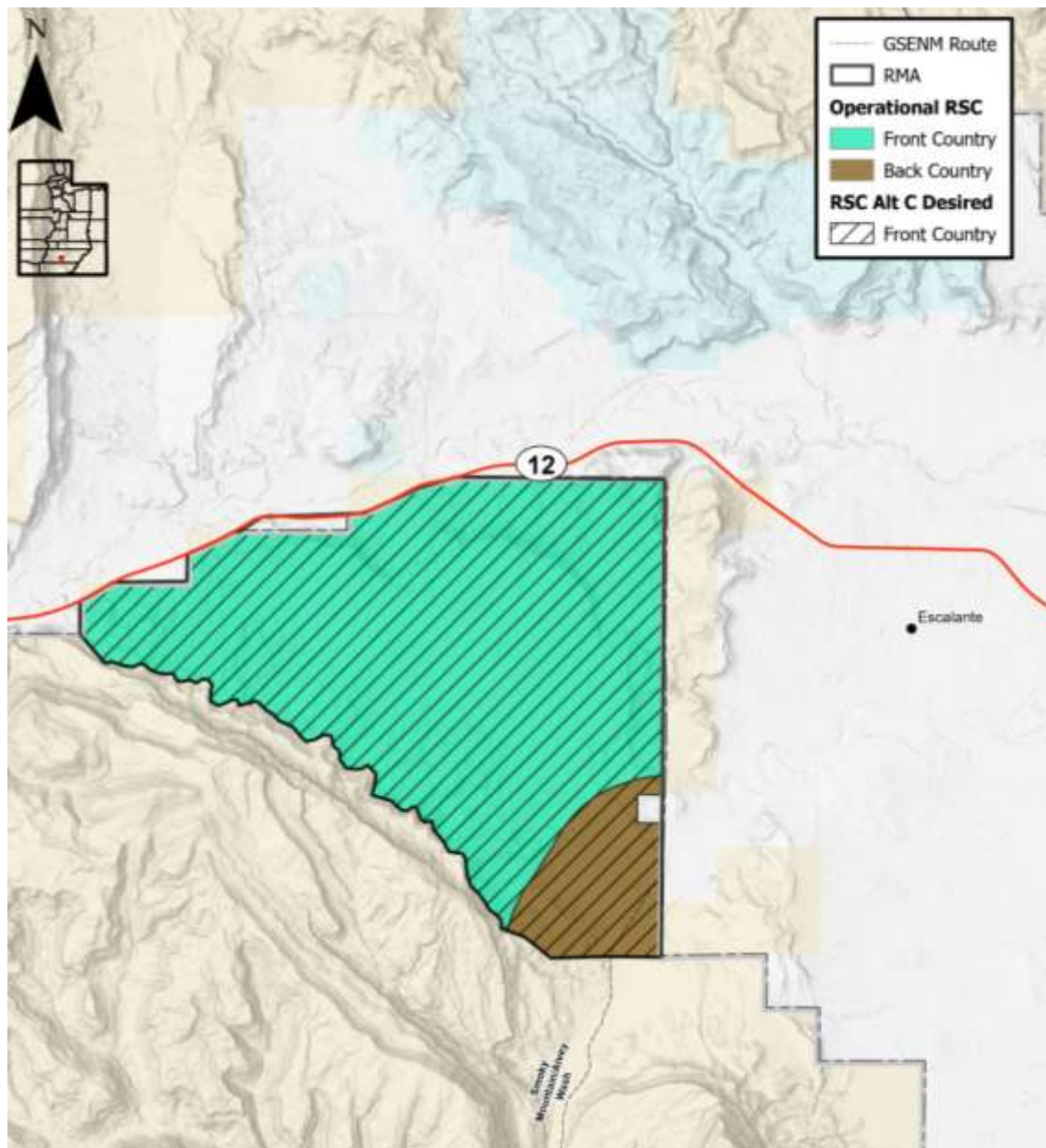
**Figure 3. Little Desert SRMA - Existing and Desired Social Recreation Setting Characteristics**

### SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS

**Access:** (types of travel allowed): The authorized access would shift to designated, open routes available to a mix of vehicle types, including mountain bikes.

**Visitor Services:** Staff presence will become more common with the development of trails and a campground.

**Management Controls:** Rules, regulatory and ethics signs will be posted along the road, trails, at trailheads and at campground.



**Figure 4. Little Desert SRMA - Existing and Desired Operational Recreation Setting Characteristics**

**ERMA OBJECTIVE (Alternative B and D)** - In the Little Desert ERMA, the recreation and visitor services focus on frontcountry, developed recreation activities and visitor services support participation in hiking, biking, and camping while prioritizing protection of GSENM objects.

## LUP MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
- Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
- conflicts with threatened and endangered plant or animal species, and/or
- the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
- Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management:*

#### Alternative B (ERMA)

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- OHV Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### Alternative C (SRMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.

- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive area
  - WSA/ISAs,
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### Alternative D (ERMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.
- OHV Closed:
  - WSA/ISAs
  - Cherry-stemmed routes in WSAs
  - Lands with wilderness characteristics identified for protection
  - Areas of high probability for cultural resources (according to BLM Class I model)
  - Areas of high probability (PFYC Class 5) for paleontological resources

#### *Aircraft Landing Areas/Strips:*

- Alternative B (ERMA) and D (ERMA) – Consider appropriate landing areas and landing strips for aircraft.
- Alternative C (SRMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).

#### *Lands and Realty:*

- ROW avoidance area unless ROW exclusion is determined for other resource protections.

#### *Visual Resource Management:*

- VRM Class II in viewshed along HWY 12, VRM Class III in other areas.

### **IMPLEMENTATION DECISIONS**

#### *Overnight Permits:*

- Permits required for overnight use.

#### *Group Size Limits:*

- 75 individuals/12 stock animals.

*Facilities:*

- Alternative B (ERMA) – Recreation facilities with utilities or paved surfaces could be provided.
- Alternative C (SRMA) – Recreation facilities allowed per Management Area prescriptions.
- Alternative D (ERMA) – Recreation facilities other than limited signage would not be provided.
- Develop the Little Desert Campground, including group camping areas.

*Trails:*

- Alternative B (ERMA) and C (SRMA) – Consider designating motorized recreation trails.
- Alternative B (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.
- Alternative C (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Manage Area prescriptions.
- Alternative D (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Allow camping only in developed campgrounds or designated camping areas.
- Sensitive resource areas may be closed to camping, or a permit system implemented as identified in a future recreational area management plan, to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 6 am.
- Alternative B (ERMA) –
  - Do not allow campfires in relict plant areas as they are identified. Also prohibit campfires in archaeological and historic sites, rock shelters, or alcoves.
  - No camping within 300 feet of livestock corrals or water troughs during livestock grazing season of use.
- Alternative C (SRMA) – Allow campfires per Management Area prescriptions.
- Alternative D (ERMA) – No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Alternative B (ERMA) and C (SRMA) – Require the use of personal waste systems within 300 feet of a water source unless facilities are provided.
- Alternative D (ERMA) – Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Canyoneering, rappelling, and climbing are not allowed in/on archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Alternative B (ERMA) and Alternative C (SRMA) – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.
- Alternative D (ERMA) – Prohibit new fixed anchors in GSENM.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Alternative B (ERMA) –
  - Allow for motorized and nonmotorized SRPs on designated routes.
- Alternative C (SRMA) –
  - Allow/prohibit SRPs per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the Area in which the event occurs.
- Alternative D (ERMA) – SRPs are permitted, with the following limitations:
  - Prohibit SRPs that provide for intentional visitation to known cultural sites.
  - Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative B (ERMA) and Alternative C (SRMA) – Allow nonmotorized competitive events on designated routes.
- Alternative D (ERMA) – Prohibit all competitive events.

*Vending:*

- Vending permits could be issued to provide services needed at recreation sites (such as firewood sales at campgrounds) and services that are commonly offered in conjunction with permitted special events. Criteria and/or stipulations to protect GSENM objects would be included in all vending permits.



*Recreational Target Shooting:*

- Alternative B (ERMA) – Prohibit recreational target shooting within 0.5 mile of residences; from, on, or across routes; campgrounds; developed recreation sites and trails; and designated camping areas.
- Alternative C (SRMA) and D (ERMA) – The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Alternative B (ERMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) is prohibited in WSAs and lands managed to protect wilderness characteristics.
- Alternative C (SRMA) – The takeoff and landing of unmanned aerial systems (drones) allowed per Management Area prescriptions.
- Alternative D (ERMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) in GSENM.

**BEST MANAGEMENT PRACTICES – to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- Alternative B and D (ERMA) – If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.
- Alternative C (SRMA) – If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, GSENM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.

*Monitoring:*

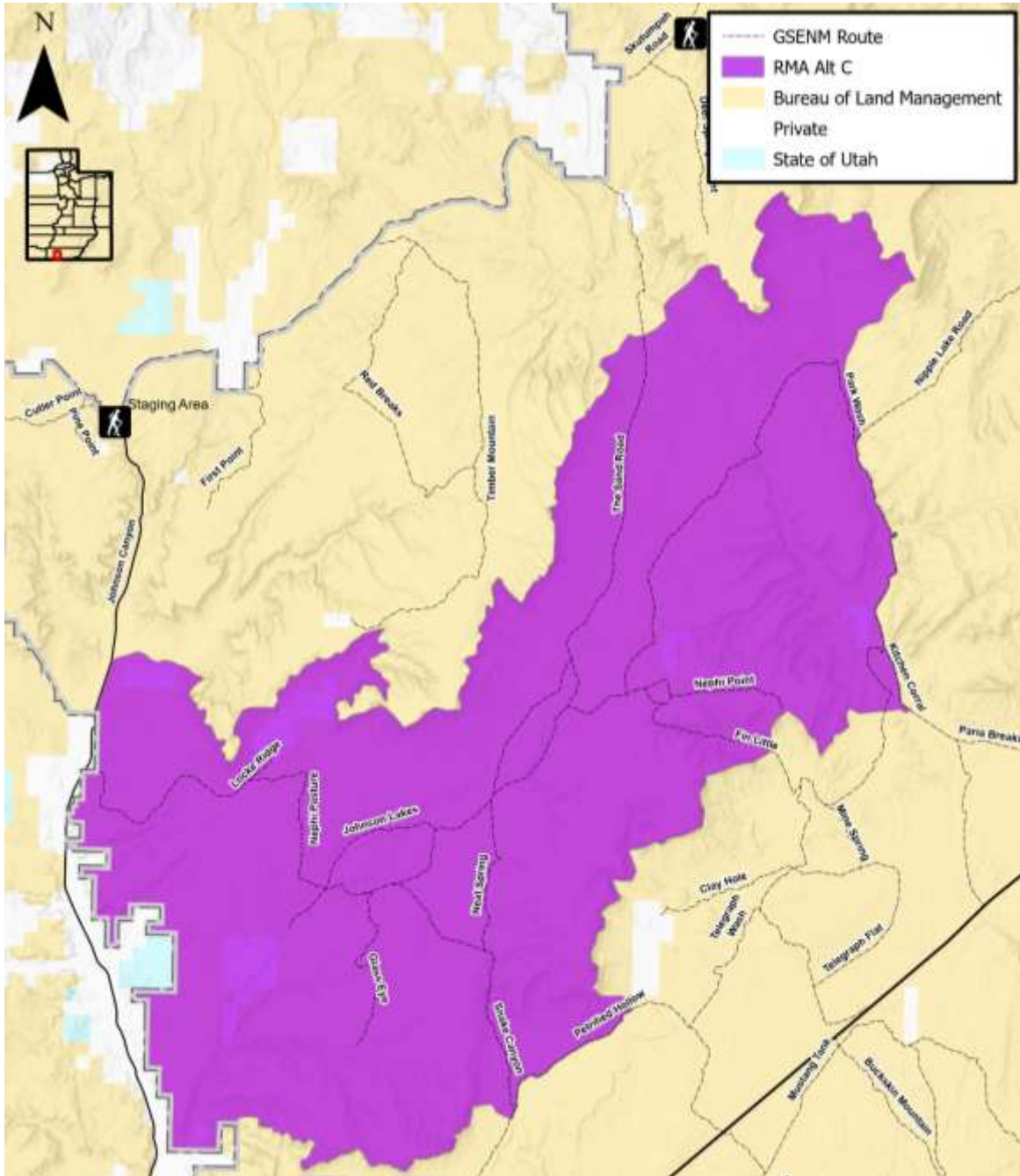
- Alternative B and D (ERMA) – Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

- Alternative C (SRMA) – Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

**Nephi Pasture Recreation Management Areas**

***Nephi Pasture Extensive Recreation Management Area (Alternative C) Framework***

Size: 78,800 acres



**Figure I. Nephi Pasture Recreation Management Area - Alternative C**

*Rationale:* The Nephi Pasture ERMA encompasses an area that stretches between Johnson Canyon Road on the west, Kitchen Corral Wash on the east, the Vermilion Cliffs on the south, and Timber Mountain on the north. The primary roads are Nephi Pasture Road, Sand Road (Great Western Trail), and Kitchen Corral Wash Road - all natural surface roads and impassable during inclement weather. Popular

destinations within this area are Inchworm Arch, Glass Eye Canyon, and Flag Point. The ERMA is the heart of the Pausaugunt Hunting Unit which is well-known for trophy mule deer. It offers a wide network of designated roads which are popular OHV riding destinations including a motorized section of the Great Western Trail. Popular activities include OHV riding, horseback riding, hiking, primitive and dispersed camping, wildlife viewing, hunting, and photography. The area offers numerous opportunities for self-directed exploration in a desert environment. Expanses of colorful Navajo sandstone, deep canyons, and sand dunes contribute to the stunning scenery of this area. It provides opportunities for adventure, outdoor skill-building, solitude, and appreciating nature.

**ERMA OBJECTIVE (Alternative C)** – In the Nephi Pasture ERMA, the recreation and visitor services focus on primitive, dispersed, self-directed recreation activities and visitor services support participation in hiking, hunting, horseback riding, sightseeing, OHV riding, and camping while prioritizing protection of GSENM objects.

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations’ ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management:*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.

*Aircraft Landing Areas/Strips:*

- Consider appropriate landing areas and landing strips for aircraft.

*Lands and Realty:*

- ROW avoidance area unless ROW exclusion is determined for other resource protections.

*Visual Resource Management:*

- Managed according to assigned VRM classifications and objectives.

**IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size Limits:*

- Group size/pack stock limits per Management Area prescriptions.

*Facilities:*

- Facilities allowed per Management Area prescriptions.
  - Improve/maintain the Nephi Pasture Staging Area.

*Trails:*

- Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.

*Camping:*

- Camping allowed per Management Area prescriptions.
- Campfires and wood collection allowed per Management Area prescriptions.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in designated camping areas or dispersed): 10 pm to 6 am.
- Sensitive resource areas may be closed to camping to protect and/or restore GSENM objects.

*Personal Waste Systems:*

- Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.

*Canyoneering, Rappelling, Climbing:*

- Canyoneering, rappelling, and climbing not allowed on archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.

- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Permanent fixed anchors could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.

*Special Recreation Permits:*

- SRPs to be allowed per Management Area prescriptions.
- Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.
- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.

*Competitive Events:*

- Prohibit motorized competitive events.
- Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.

*Vending:*

- Vending is allowed per Management Area prescriptions.

*Recreational Target Shooting:*

- Allow target shooting per Management Area prescription.

*Drone Use:*

- The takeoff and landing of unmanned aerial systems (drones) to follow Management Area prescriptions.

**BEST MANAGEMENT PRACTICES – to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (emergency access, motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update/install trailhead kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

- Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

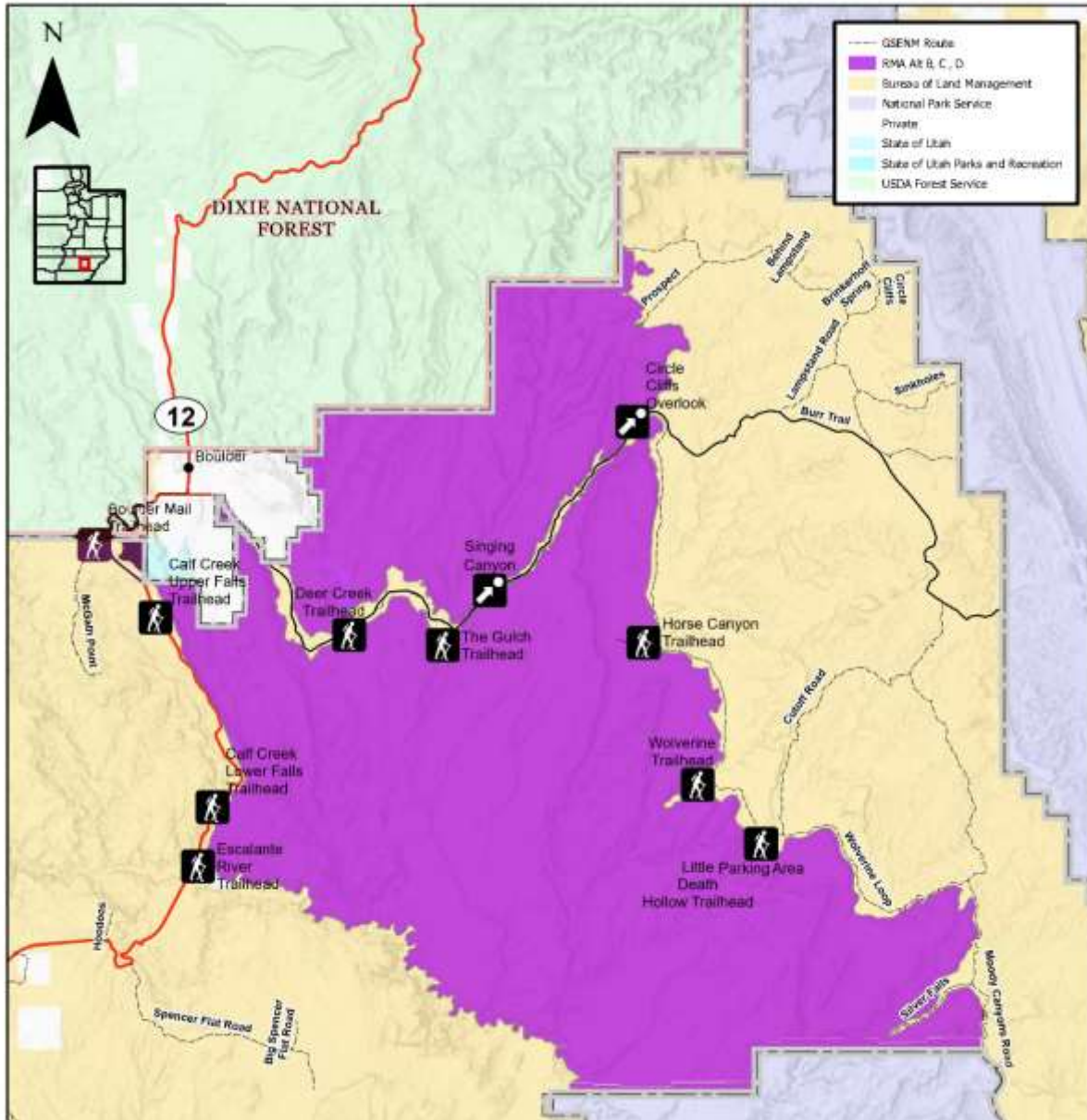
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## North Escalante Canyons Recreation Management Areas

### North Escalante Canyons Extensive Recreation Management Area (Alternatives B and D) and Special Recreation Management Area (Alternative C) Framework

Size: 113,400 acres



**Figure 1. North Escalante Canyons Recreation Management Area - Alternatives B, C, and D**

*Rationale:* The North Escalante Canyons RMA encompasses the numerous canyons and tributaries to the north of the Escalante River: Dry Hollow, Boulder Creek, Deer Creek, Steep Creek, The Gulch, and Horse, Wolverine, and Little Death Canyons. It is bounded by Dixie National Forest to the north, Glen Canyon NRA to the south, Wolverine Loop Road to the east, and the Escalante River to the west. The

area includes the entirety of the Steep Creek WSA and the portion of the North Escalante Canyons-The Gulch WSA northeast of the Escalante River – the majority of the area is within a WSA. The Burr Trail Road RMA separates the northern third of the area from the southern portion, otherwise roads are at the edges. The RMA is popular and highly valued for canyon hiking, backpacking, canyoneering, and photography. Deep canyons with riparian vegetation, expanses of white, pink, and red Navajo sandstone, and salmon sand dunes contribute to the stunning scenery of this area. It provides opportunities for solitude, appreciating nature, adventure, and enjoying quiet and dark night skies.

<p><b>SRMA OBJECTIVE (Alternative C)</b> - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):</p>		
Activities:	Experiences:	Benefits:
<ul style="list-style-type: none"> <li>• Hiking</li> <li>• self-directed wandering/exploring backpacking</li> <li>• camping</li> <li>• canyoneering</li> <li>• nonmotorized boating (Escalante River when flows are high enough)</li> <li>• photography /artistic pursuits</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Enjoying artistic expression of nature</li> <li>• Enjoying exploring on own, being self-reliant</li> <li>• Enjoying and feeling good about solitude, isolation, and independence</li> <li>• Enjoying an escape from crowds of people</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Greater sensitivity to/appreciation of outdoor aesthetics and nature’s art, elegance, and splendor</li> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Enhanced sense of personal freedom</li> </ul> <p>Improved outdoor recreation skills, knowledge, and self confidence Improved physical and mental fitness, well being, and health maintenance</p> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <p>Maintenance of distinctive recreation setting, character, and market niche</p> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

**SRMA EXISTING AND DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approximate distance from routes): Most of the RMA is within a WSA. The existing level of remoteness is maintained.

**Naturalness:** (landscape texture form, line, color): Most of the RMA is within a WSA. The existing level of naturalness is maintained.

**Facilities:** Facilities will not be developed

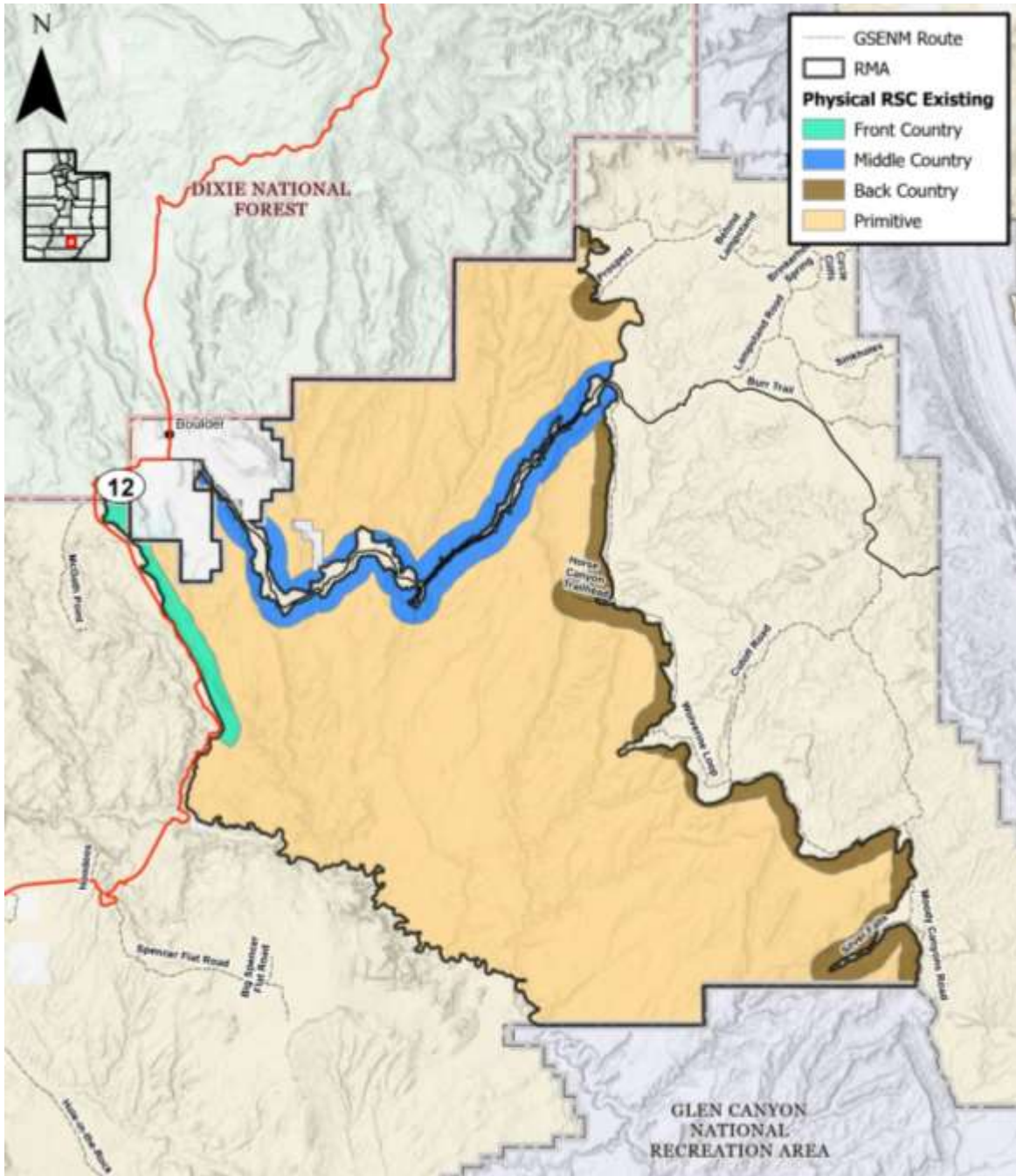


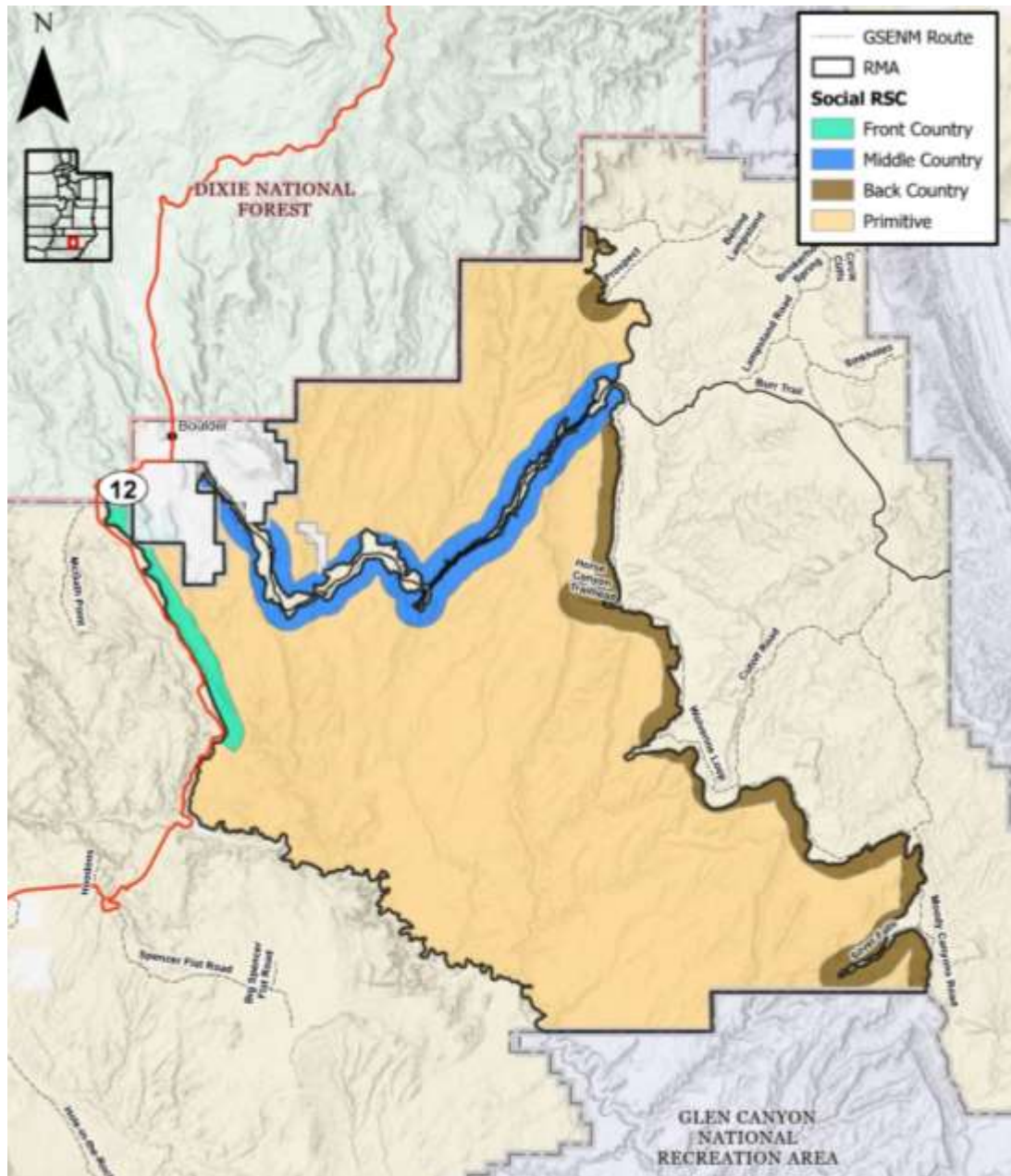
Figure 2. North Escalante Canyons SRMA Existing and Desired Physical Setting Characteristics

### SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS

**Contacts:** (average with any other group): In most locations and instances, contacts of fewer than six will be maintained. Only along more popular hiking and canyoneering routes will contacts of up to 5 likely occur during the busier visitation season times.

**Group Size:** (average – other than your own): Group size limits of up to 12 will be allowed but most groups will continue to be below that maximum.

**Evidence of Use:** The evidence of use will be maintained at rare to none.



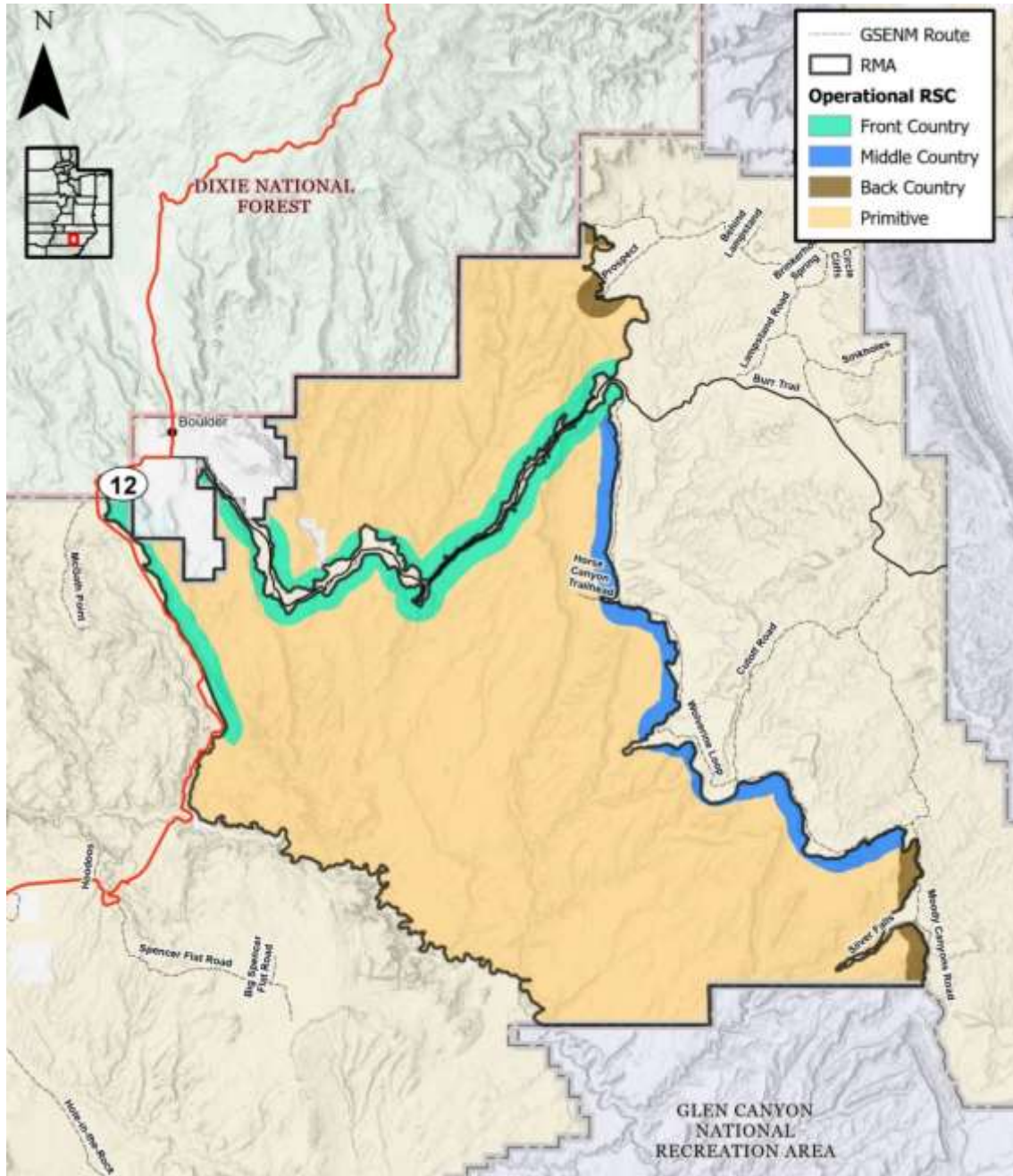
**Figure 3. North Escalante Canyons SRMA Existing and Desired Social Setting Characteristics**

**SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): The nonmechanized/nonmotorized access will be maintained.

**Visitor Services:** Staff presence will continue to be rare due to the remoteness and inaccessibility.

**Management Controls:** Regulatory and ethics signs will continue to be posted at trailheads outside the RMA. Signage inside the area will be rare.



**Figure 4. North Escalante Canyons SRMA Existing and Desired Operational Setting Characteristics**

**ERMA OBJECTIVE (Alternatives B and D)** - In the North Escalante Canyons ERMA, the recreation and visitor services focus on primitive, dispersed, self-directed recreation activities and visitor services maintains the existing recreation setting characteristics that support participation in self-directed hiking/exploring, backpacking, canyoneering, nonmotorized boating on the Escalante River, and photography, while commensurately protecting GSENM objects.

## LUP MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management:*

#### Alternative B (ERMA)

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- OHV Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### Alternative C (SRMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.

- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive area
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### Alternative D (ERMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.
- OHV Closed:
  - WSA/ISAs
  - Cherry-stemmed routes in WSAs
  - Lands with wilderness characteristics identified for protection
  - Areas of high probability for cultural resources (according to BLM Class I model)
  - Areas of high probability (PFYC Class 5) for paleontological resources

#### *Aircraft Landing Areas/Strips:*

- Alternatives B (ERMA) and D (ERMA) – Consider appropriate landing areas and landing strips for aircraft.
- Alternative C (SRMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).

#### *Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

#### *Visual Resource Management:*

- Classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA or suitable WSR wild segment (which are managed as VRM Class I).

## **IMPLEMENTATION DECISIONS**

#### *Overnight Permits:*

- Permits required for overnight use.



*Group Size Limits:*

- Alternative B (ERMA) and D (ERMA) – Group size/pack stock limits of 12.
- Alternative C (SRMA) – Group size/pack stock limits per Management Area prescriptions.

*Facilities:*

- Alternative B (ERMA) and D (ERMA) – Recreation facilities other than limited signage would not be provided.
- Alternative C (SRMA) – Recreation facilities allowed per Management Area prescriptions.

*Trails:*

Alternative B (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.

Alternative C (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.

Alternative D (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Sensitive resource areas may be closed to camping, or a permit system implemented as identified in a future recreational area management plan, to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 6 am.
- Alternative B (ERMA)
  - Allow dispersed camping. Designated dispersed camping areas may be identified and designated on an as-needed basis. Areas may be closed to camping to protect GSENM objects.
  - Do not allow campfires in the Escalante and relict plant areas as they are identified. Also prohibit campfires in archaeological and historic sites, rock shelters, or alcoves.
  - No camping within 300 feet of livestock corrals or water troughs during livestock grazing season of use.
- Alternative C (SRMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.
- Alternative D (ERMA)
  - Camping allowed only in designated camping areas.
  - No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Areas adjacent or contiguous to NPS lands requiring human waste removal will require use of personal waste systems.
- Alternative B (ERMA) and C (SRMA) – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.
- Alternative D (ERMA) – Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Not allowed in archeological sites, natural bridges, arches.
- Special Status Species habitat would be closed as needed to protect species.
- May be buffered or seasonally closed to prevent disturbance to raptor nesting.
- Alternative B (ERMA) and C (SRMA) – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.
- Alternative D (ERMA) – Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.
- Alternative B (ERMA)
  - Allow for motorized and nonmotorized SRPs on designated routes.
- Alternative C (SRMA)
  - Allow/prohibit SRPs per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.
- Alternative D (ERMA) – SRPs are permitted, with the following limitations:
  - Prohibit SRPs that provide for intentional visitation to known cultural sites.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative B (ERMA) – Allow nonmotorized competitive events on designated routes.
- Alternative C (SRMA) – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.
- Alternative D (ERMA) – Prohibit competitive events.

*Vending:*

- Alternative B (ERMA) and D (ERMA) – Vending is not allowed.
- Alternative C (SRMA) – Vending is allowed per Management Area prescriptions.

*Recreational Target Shooting:*

- Alternative B (ERMA) – Prohibit recreational target shooting within 0.5 mile of residences; from, on, or across routes; campgrounds; developed recreation sites and trails; and designated camping areas.
- Alternative C (SRMA) – Allow/prohibit recreational target shooting per Management Area prescriptions.
- Alternative D (ERMA) – The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Alternative B (ERMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) is prohibited in WSAs and lands managed to protect wilderness characteristics.
- Alternative C (SRMA) – The takeoff and landing of unmanned aerial systems (drones) to follow Management Area prescriptions.
- Alternative D (ERMA) – The takeoff and landing of unmanned aerial systems (drones) is prohibited.

**BEST MANAGEMENT PRACTICES - to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- Alternative B and D (ERMA) – If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.
- Alternative C (SRMA) – If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, GSENM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (emergency access, motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Develop route descriptions (print and digital) to share with visitors.

*Monitoring:*

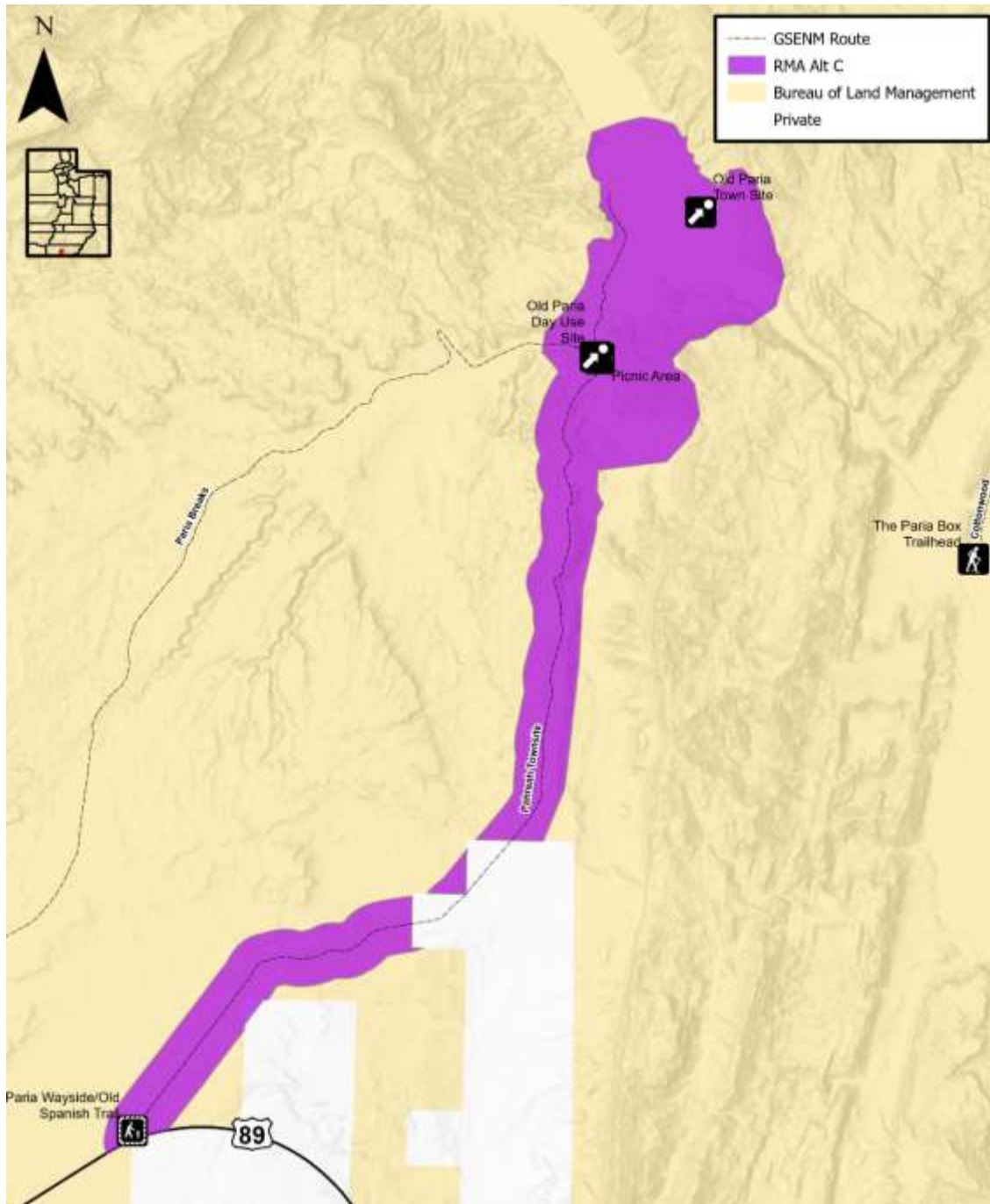
- Alternative B and D (ERMA) – Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

- Alternative C (SRMA) – Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

**Old Paria Recreation Management Areas**

**Old Paria Special Recreation Management Area (Alternatives C and D) Framework**

Size: 1,200 acres



**Figure I. Old Paria Recreation Management Area - Alternatives C and D**

*Rationale:* The Old Paria SRMA encompasses an area historically known as the Paria Townsite which was inhabited from 1870 to 1930. It was later used as a filming location for western movies. The area contains several interesting features including old rock buildings, a pioneer cemetery, day-use area, and interpretive

signs, along with a segment of the Paria River surrounded by cottonwood trees, water willows and other riparian vegetation. The SRMA contains highly scenic landscapes which offer a wide variety of texture and color. The National Historic Old Spanish Trail is another significant feature of the area. The SRMA is accessible by a 5-mile natural surface road going north from U.S. Highway 89. Popular recreation activities in the area include photography, hiking, sightseeing, picnicking, and access to the Paria Canyon for equestrian users and backpacking.

<b>SRMA OBJECTIVE (Alternatives C and D)-</b> In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):		
<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• Scenic auto touring - sightseeing</li> <li>• Photography /artistic pursuits</li> <li>• Hiking</li> <li>• Picnicking</li> <li>• Visiting historic sites</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, and smell) and dark experience of a natural landscape</li> <li>• Enjoying artistic expression of nature</li> <li>• Relishing group (family/friends) affiliation and togetherness Enjoying artistic expression of nature</li> <li>• Appreciating and sharing cultural heritage</li> <li>• Learning more about this specific area</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/appreciation of outdoor aesthetics and nature’s art, elegance, and splendor Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Stronger ties with family and friends</li> <li>• Greater respect for cultural heritage</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Maintenance of distinctive recreation setting, character, and market niche Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

**SRMA DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

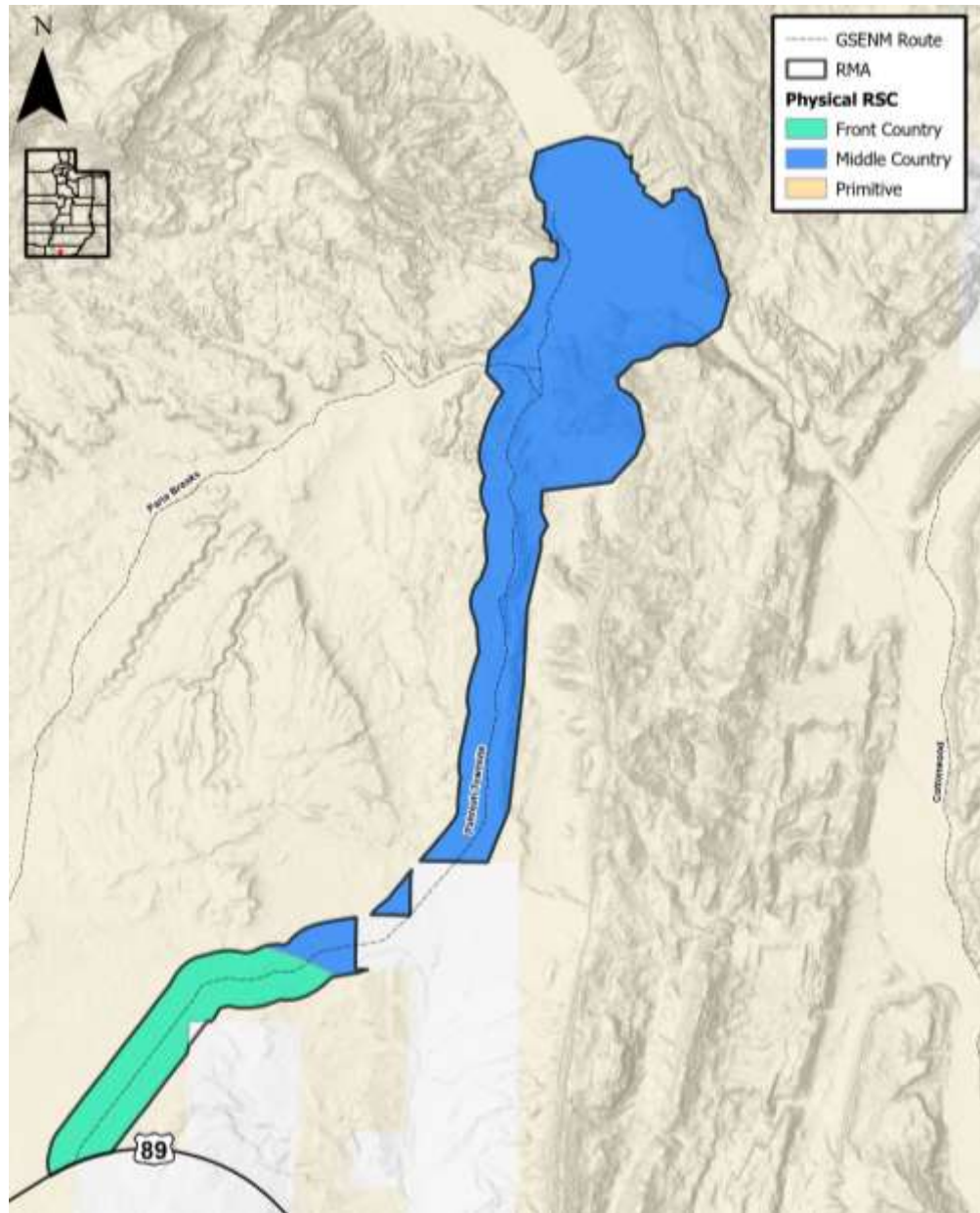
<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approx. distance from routes): The existing level of remoteness is maintained. The Paria Townsite Road will continue to provide auto-touring into a highly scenic, natural landscape as well as access to recreational destinations and other unpaved roads that lead into more remote areas.

**Naturalness:** (landscape texture form, line, color): The existing level of naturalness is maintained. The Paria Day Use Site, which consists of a parking area, register box, vault toilet, picnic area, barbeque grills, and modest signs, is the most developed site in the RMA. New development could create moderate contrast with the landscape character.

**Facilities:** Recreational infrastructure to support a range of recreational activities and learning about GSENM resources would be allowed. Recreational day use site, campgrounds, trailheads, vault toilets, and overlooks/waysides could be maintained, improved, and/or developed.



**Figure 2. Old Paria SRMA Existing and Desired Physical Recreation Setting Characteristics**

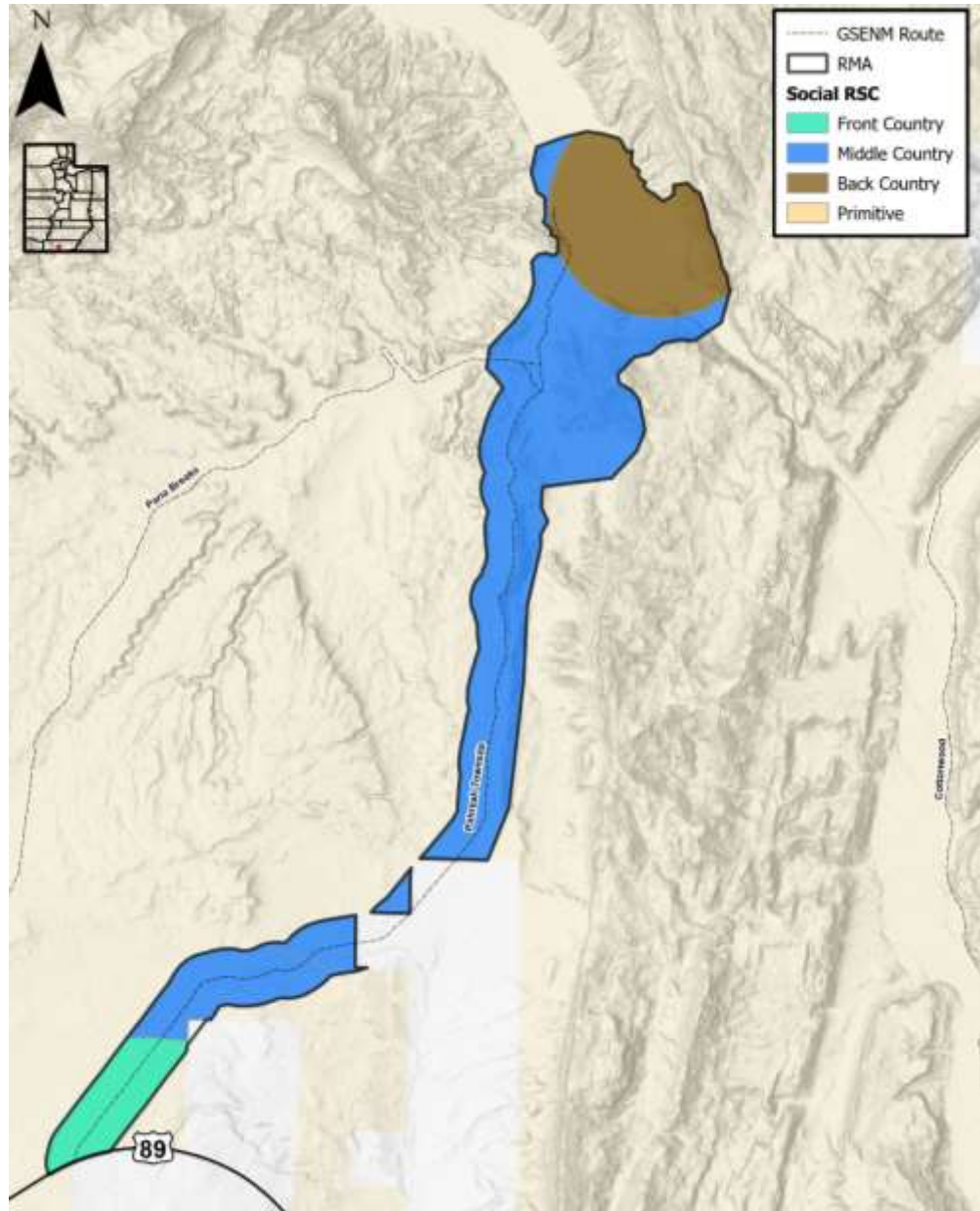
**SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

**Contacts:** (average with any other group): The number of contacts is maintained or could increase at key locations. Contacts are influenced by the time of year and time of day. Traveling the road during the spring and fall and during the middle of the day, the number of contacts is higher, whereas in the winter and early morning/evening not encountering anyone else is common.

**Group Size:** (average – other than your own): Most groups in this RMA would continue to be small, though the group size limit would allow groups up to 75.



**Evidence of Use:** The evidence of use would be largely maintained though some areas will be developed/designated for camping and some trailheads will be improved. Areas that are currently used for primitive camping that are closed will be reclaimed and the evidence of use will diminish. The user creation of additional dispersed camping areas would be curtailed.



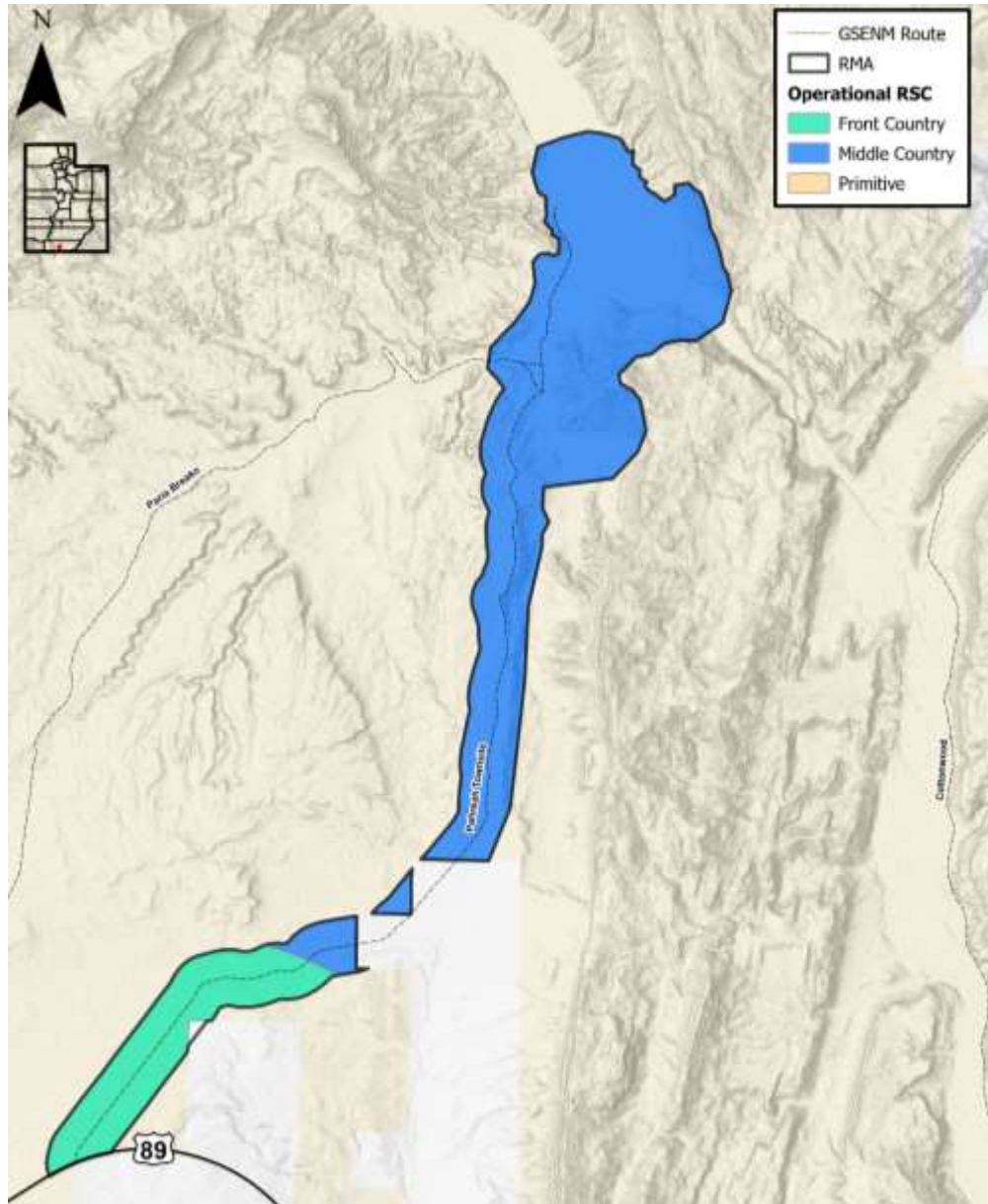
**Figure 3. Old Paria SRMA Existing and Desired Social Recreation Setting Characteristics**

### **SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): The Paria Movie Set Road is mostly maintained natural surface and impassable when wet. It is not recommended for 2WD passenger vehicles. The type of access will be maintained.

**Visitor Services:** Staff presence will continue to be infrequent and occasional. Kiosks with maps will continue to be located at overlooks/waysides and recreation sites.

**Management Controls:** Regulatory and ethics signs will be posted at boundary portals and recreation sites.



**Figure 4. Old Paria SRMA Existing and Desired Operational Recreation Setting Characteristics**

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management*

#### *Alternative C (SRMA)*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive area
  - WSA/ISAs,
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### *Alternative D (SRMA)*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.

- OHV Closed:
  - WSA/ISAs
  - Cherry-stemmed routes in WSAs
  - Lands with wilderness characteristics identified for protection
  - Areas of high probability for cultural resources (according to BLM Class I model)
  - Areas of high probability (PFYC Class 5) for paleontological resources

*Aircraft Landing Areas/Strips:*

- Alternative D (SRMA) – Consider appropriate landing areas and landing strips for aircraft.
- Alternative C (SRMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).

*Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

*Visual Resource Management:*

- Managed according to assigned VRM classifications and objectives.

## **IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size/Pack Stock Limits:*

- Group size/pack stock limit of 25 in SRMA.

*Facilities:*

- Allow recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
- Improve/maintain recreation sites: Paria Day Use Area.
- Improve/maintain information kiosks at Paria Day Use Area and Old Spanish Trail Wayside.

*Trails:*

- Alternative C (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.
- Alternative D (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Sensitive resource areas may be closed to camping to protect and/or restore GSENM objects.

- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 6 am.
- Alternative C (SRMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.
- Alternative D (SRMA)
  - Allow camping only in developed campgrounds or designated camping areas.
  - No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Alternatives C (SRMA) – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSEBN objects.
- Alternative D (SRMA) – Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Canyoneering, rappelling, and climbing not allowed on archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Alternative C (SRMA) – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.
- Alternative D (SRMA) – Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Alternative C (SRMA)
  - SRPs to be allowed per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.
- Alternative D (SRMA) – SRPs are permitted, with the following limitations:
  - Prohibit SRPs that provide for intentional visitation to known cultural sites, except for approved visitation to designated public cultural sites or approved sites by the BLM.
  - Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative C (SRMA) – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.
- Alternative D (SRMA) – Prohibit all competitive events.

*Vending:*

- Vending would be occasional, infrequent, and may be allowed by permit on a case-by-case basis, in association with approved special events or recreation sites. Generally, permits could be issued to provide services needed at recreation sites (such as firewood sales at campgrounds) and services that are commonly offered in conjunction with permitted special events. Criteria and/or stipulations to protect GSENM objects would be included in all permits.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Alternative C (SRMA)– Allow takeoff and landing of unmanned aerial systems (drones) per Management Area prescriptions.
- Alternative D (SRMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) in GSENM.

**BEST MANAGEMENT PRACTICES - to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update kiosks at the beginning of the Paria Townsite Road and at the Paria Day Use Area.
  - Update/install recreation site kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

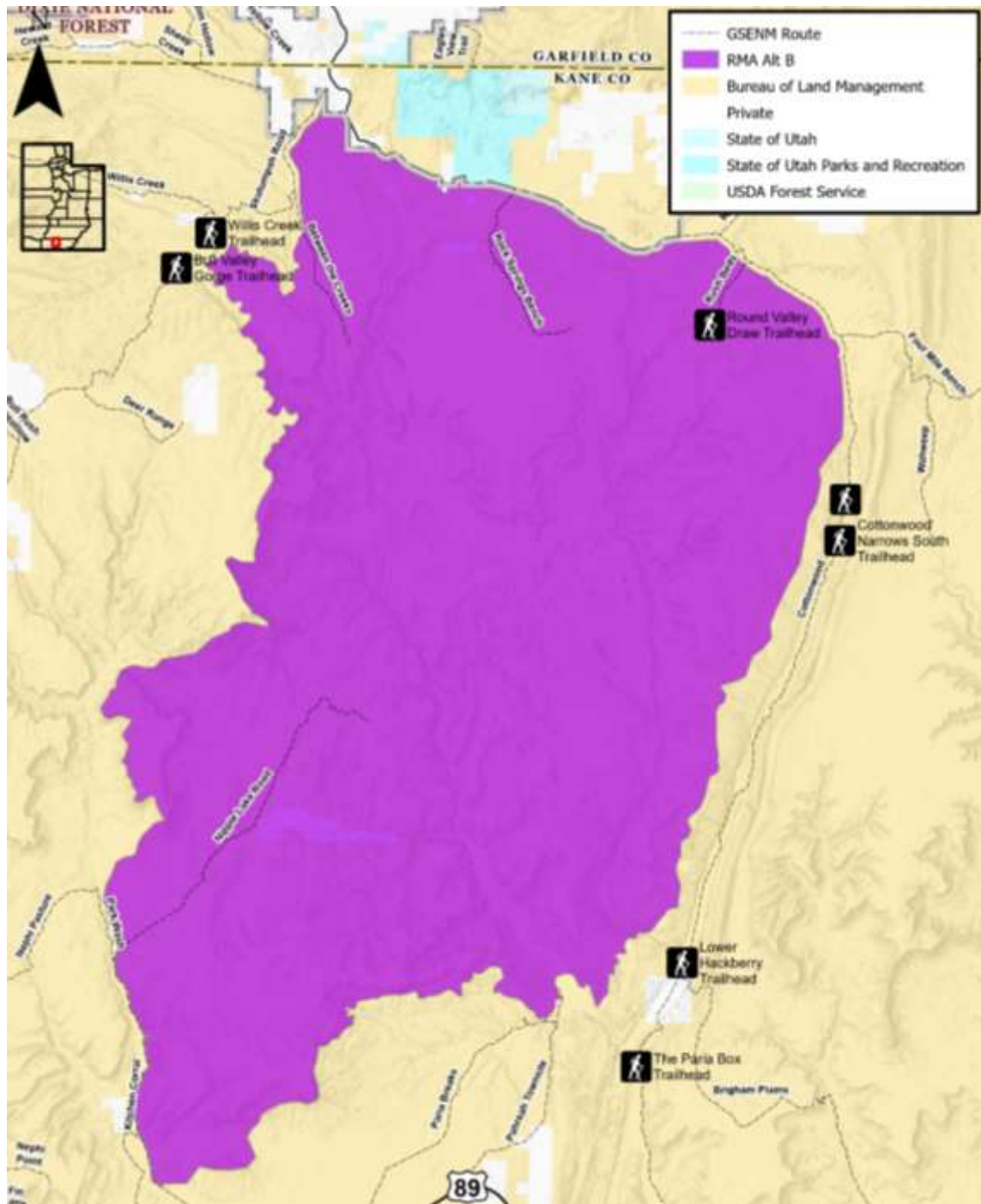
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**Paria-Hackberry Canyons Recreation Management Areas**

**Paria-Hackberry Canyons Extensive Recreation Management Area (Alternative B) Framework**

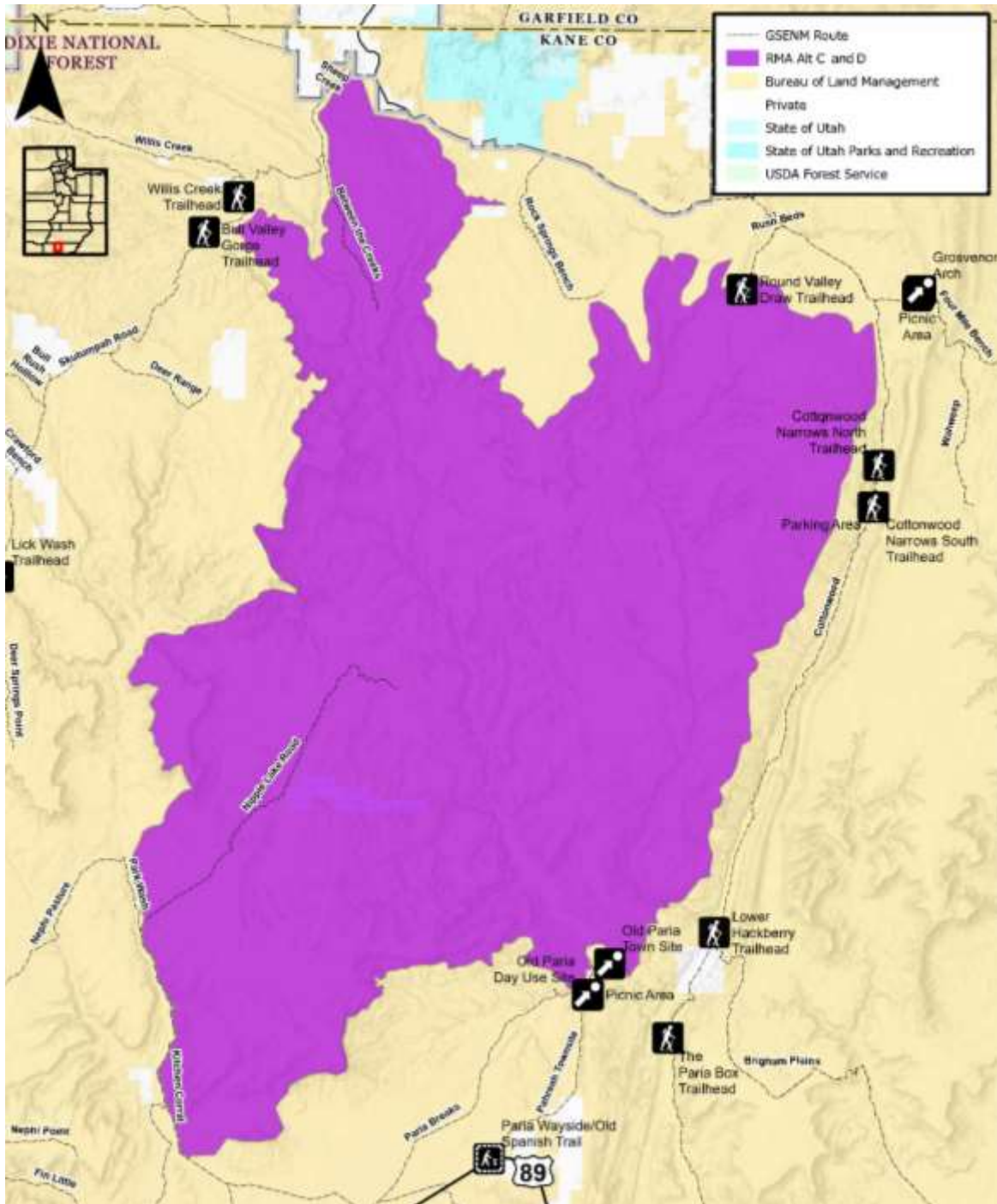
Size: 137,500 acres



**Figure I. Paria-Hackberry Canyons Recreation Management Area - Alternative B**

**Paria-Hackberry Canyons Special Recreation Management Area (Alternative C) and Extensive Recreation Management Area (Alternative D) Framework**

Size: 121,300 acres



**Figure 2. Paria-Hackberry Canyons Recreation Management Area - Alternatives C and D**

*Rationale:* The Paria-Hackberry Canyons RMAs encompasses the Paria River Corridor and Hackberry Canyon areas between Cottonwood Canyon Road on the north and east, Highway 89 on the south and Kitchen Corral Wash Road on the west. Its uniqueness is proven with world class scenery, a wide variety of flora and fauna species, perennial streams and springs, stunning geological features, majestic towering canyon walls, rich prehistoric and historic evidence, legendary dark skies, natural soundscapes, explorable tributary canyons, and primitive recreation opportunities. It lies in the heart of “The Grand Staircase” in the White and Vermilion Cliff “steps”. The Paria River runs through its core. Most of the area is within the Paria Hackberry WSA. The area is popular for hiking, primitive camping, backpacking, canyoneering, equestrian use, reenacting trail rides, and hunting. Its large geographic size ensures ample opportunities for solitude and appreciating nature, enjoying quiet soundscape and dark night skies, and connecting with and learning about prehistoric and historic uses of the land.

<b>SRMA OBJECTIVE (Alternative C)</b> - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):		
<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• Hiking</li> <li>• self-directed wandering/exploring</li> <li>• Backpacking</li> <li>• Camping</li> <li>• Canyoneering</li> <li>• Photography /artistic pursuits</li> <li>• Horseback riding</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Enjoying artistic expression of nature</li> <li>• Enjoying exploring on own, being self-reliant</li> <li>• Enjoying and feeling good about solitude, isolation, and independence</li> <li>• Enjoying an escape from crowds of people</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Greater sensitivity to/appreciation of outdoor aesthetics and nature’s art, elegance, and splendor</li> <li>• Enhanced sense of personal freedom</li> </ul> <p>Improved outdoor recreation skills, knowledge, and self confidence Improved physical and mental fitness, wellbeing, and health maintenance</p> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <p>Maintenance of distinctive recreation setting, character, and market niche</p> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

**SRMA EXISTING AND DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

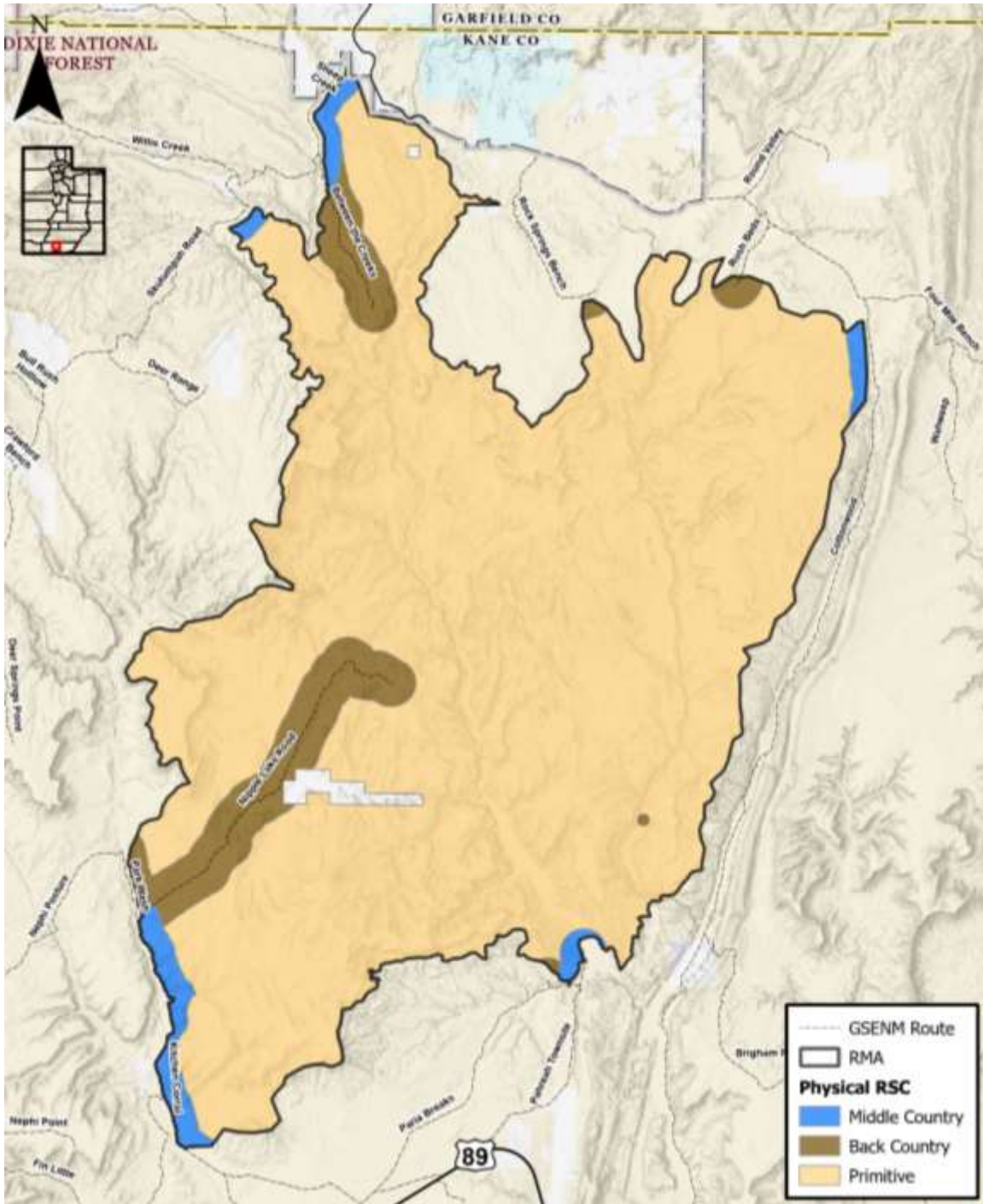
<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approx. distance from routes): Most of the RMA is within a WSA. The existing level of remoteness is maintained.

**Naturalness:** (landscape texture form, line, color): Most of the RMA is within a WSA. The existing level of naturalness is maintained.

**Facilities:** Facilities will not be developed.



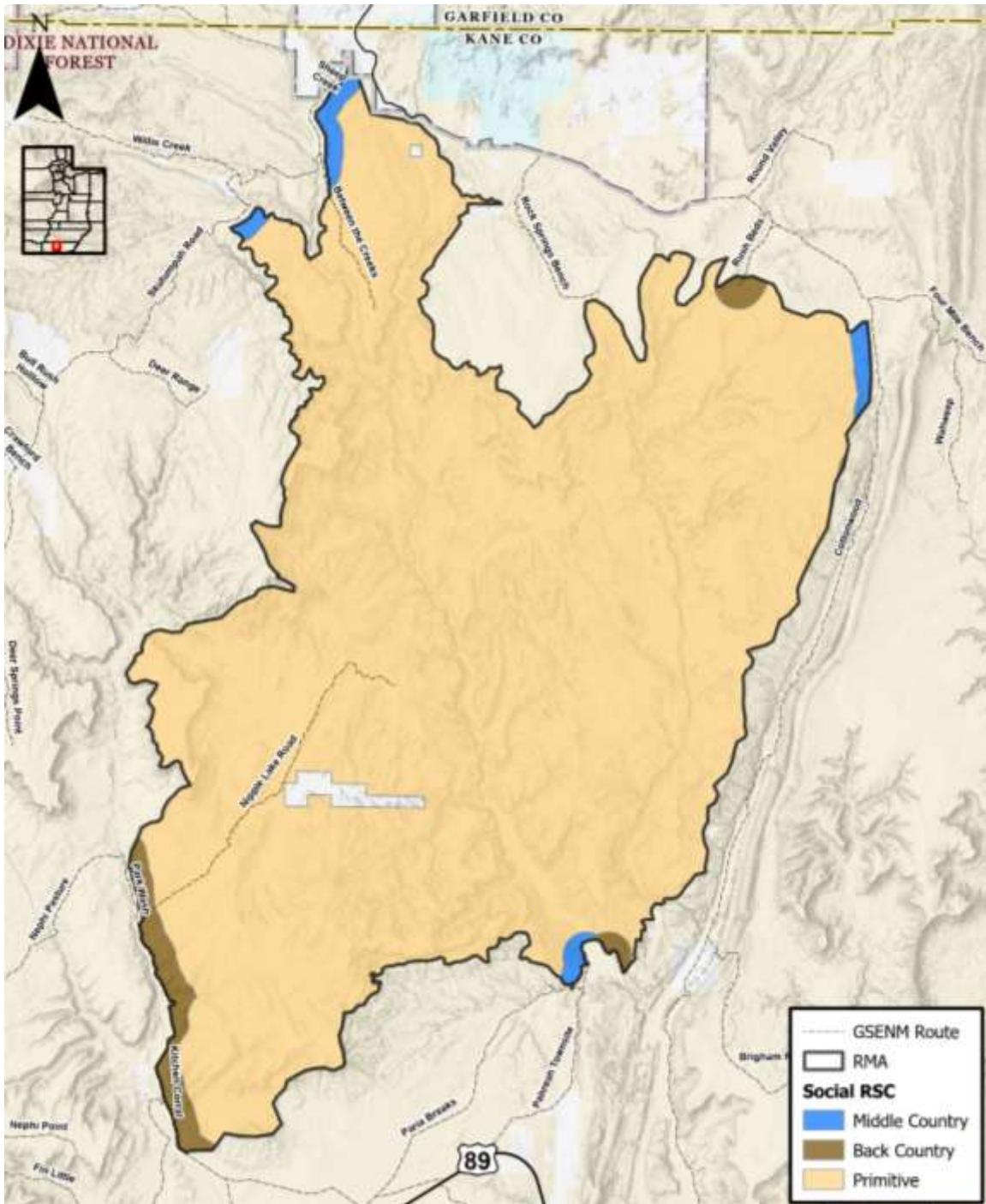
**Figure 3. Paria-Hackberry Canyons SRMA Existing and Desired Physical Recreation Setting Characteristics**

**SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

**Contacts:** (average with any other group): In most locations and instances, contacts of fewer than six will be maintained. Only along more popular hiking and canyoneering routes will contact of up to 5 likely occur during the busier visitation season times.

**Group Size:** (average – other than your own): Group size limits of up to 12 and 25 will be allowed but most groups will continue to be below that maximum.

**Evidence of Use:** The evidence of use will be maintained at rare to none.



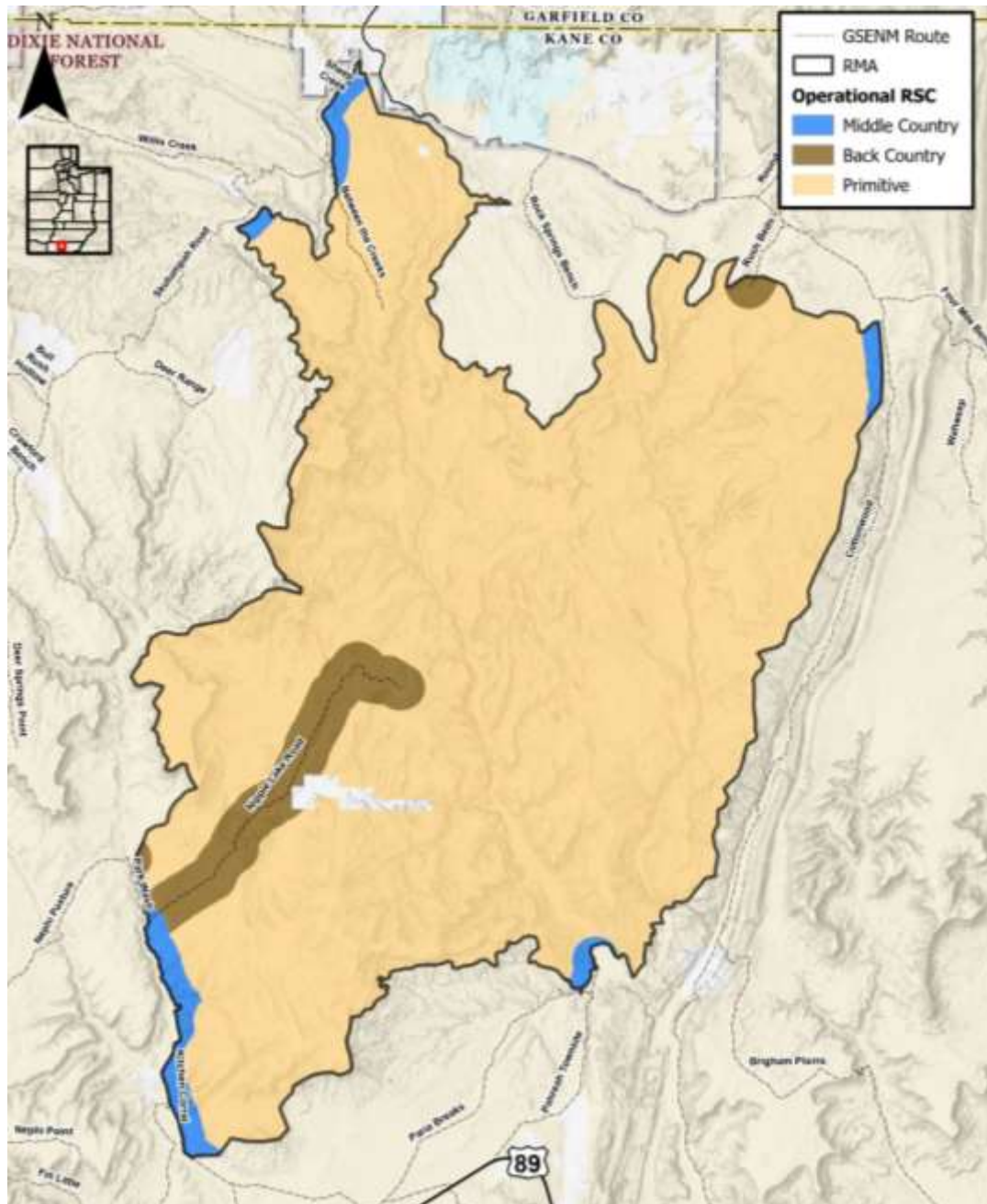
**Figure 4. Paria-Hackberry Canyons SRMA Existing and Desired Social Recreation Setting Characteristics**

## SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS

**Access:** (types of travel allowed): The nonmechanized/nonmotorized access will be maintained.

**Visitor Services:** Staff presence will continue to be rare due to the remoteness and inaccessibility.

**Management Controls:** Regulatory and ethics signs will continue to be posted at trailheads outside the RMA. Signage inside the area will be rare.



**Figure 5. Paria-Hackberry Canyons SRMA Existing and Desired Operational Recreation Setting Characteristics**

**ERMA OBJECTIVE (Alternatives B and D)** - In the Paria-Hackberry Canyons ERMA, the recreation and visitor services focus on primitive, dispersed, self-directed recreation activities and visitor services maintains the existing recreation setting characteristics that support participation in self-directed hiking/exploring, backpacking, canyoneering, horseback riding, and photography, while commensurately protecting GSENM objects.

## LUP MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts to Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management*

#### Alternative B (ERMA)

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- OHV Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### Alternative C (SRMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.



- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive area
  - WSA/ISAs,
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### Alternative D (ERMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.
- OHV Closed:
  - WSA/ISAs
  - Cherry-stemmed routes in WSAs
  - Lands with wilderness characteristics identified for protection
  - Areas of high probability for cultural resources (according to BLM Class I model)
  - Areas of high probability (PFYC Class 5) for paleontological resources

#### *Aircraft Landing Areas/Strips:*

- Alternatives B (ERMA) and D (ERMA) – Consider appropriate landing areas and landing strips for aircraft.
- Alternative C (SRMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).

#### *Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

#### *Visual Resource Management:*

- Classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA or suitable WSR wild segment (which are managed as VRM Class I).

### **IMPLEMENTATION DECISIONS**

#### *Overnight Permits:*

- Permits required for overnight use.

*Group Size Limits:*

- Alternative B (ERMA) and D (ERMA) – Group size/pack stock limits of 12 and 25.
- Alternative C (SRMA) – Group size/pack stock limits per Management Area prescriptions with the exception of group size/pack stock limits of 25 for the Paria River Corridor.

*Facilities:*

- Alternative B (ERMA) and D (ERMA) – Recreation facilities other than limited signage would not be provided.
- Alternative C (SRMA) – Recreation facilities allowed per Management Area prescriptions.

*Trails:*

Alternative B (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.

Alternative C (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.

Alternative D (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Sensitive resource areas may be closed to camping, or a permit system implemented as identified in a future recreational area management plan, to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 6 am.
- Alternative B (ERMA)
  - Allow dispersed camping. Designated dispersed camping areas may be identified and designated on an as-needed basis. Areas may be closed to camping to protect GSENM objects.
  - Do not allow campfires in the Escalante and relict plant areas as they are identified. Also prohibit campfires in archaeological and historic sites, rock shelters, or alcoves.
  - No camping within 300 feet of livestock corrals or water troughs during livestock grazing season of use.
- Alternative C (SRMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.
- Alternative D (ERMA)
  - Camping allowed only in designated camping areas.
  - No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Areas adjacent or contiguous to NPS lands requiring human waste removal will require use of personal waste systems.
- Alternative B (ERMA) and C (SRMA) – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.
- Alternative D (ERMA) – Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Not allowed in archeological sites, natural bridges, arches.
- Special Status Species habitat would be closed as needed to protect species.
- May be buffered or seasonally closed to prevent disturbance to raptor nesting.
- Alternative B (ERMA) and C (SRMA) – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.
- Alternative D (ERMA) – Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.
- Alternative B (ERMA)
  - Allow for motorized and nonmotorized SRPs on designated routes.
- Alternative C (SRMA)
  - Allow/prohibit SRPs per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.
- Alternative D (ERMA) – SRPs are permitted, with the following limitations:
  - Prohibit SRPs that provide for intentional visitation to known cultural sites.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative B (ERMA) – Allow nonmotorized competitive events on designated routes.
- Alternative C (SRMA) – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.
- Alternative D (ERMA) – Prohibit competitive events.

*Vending:*

- Alternative B (ERMA) and D (ERMA) – Vending is not allowed.
- Alternative C (SRMA) – Vending is allowed per Management Area prescriptions.

*Recreational Target Shooting:*

- Alternative B (ERMA) – Prohibit recreational target shooting within 0.5 mile of residences; from, on, or across routes; campgrounds; developed recreation sites and trails; and designated camping areas.
- Alternative C (SRMA) – Allow/prohibit recreational target shooting per Management Area prescriptions.
- Alternative D (ERMA) – The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Alternative B (ERMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) is prohibited in WSAs and lands managed to protect wilderness characteristics.
- Alternative C (SRMA) – The takeoff and landing of unmanned aerial systems (drones) to follow Management Area prescriptions.
- Alternative D (ERMA) – The takeoff and landing of unmanned aerial systems (drones) is prohibited.

**BEST MANAGEMENT PRACTICES - to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- Alternative B and D (ERMA) – If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.
- Alternative C (SRMA) – If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (emergency access, motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Develop route descriptions (print and digital) to share with visitors.

*Monitoring:*

- Alternative B and D (ERMA) – Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

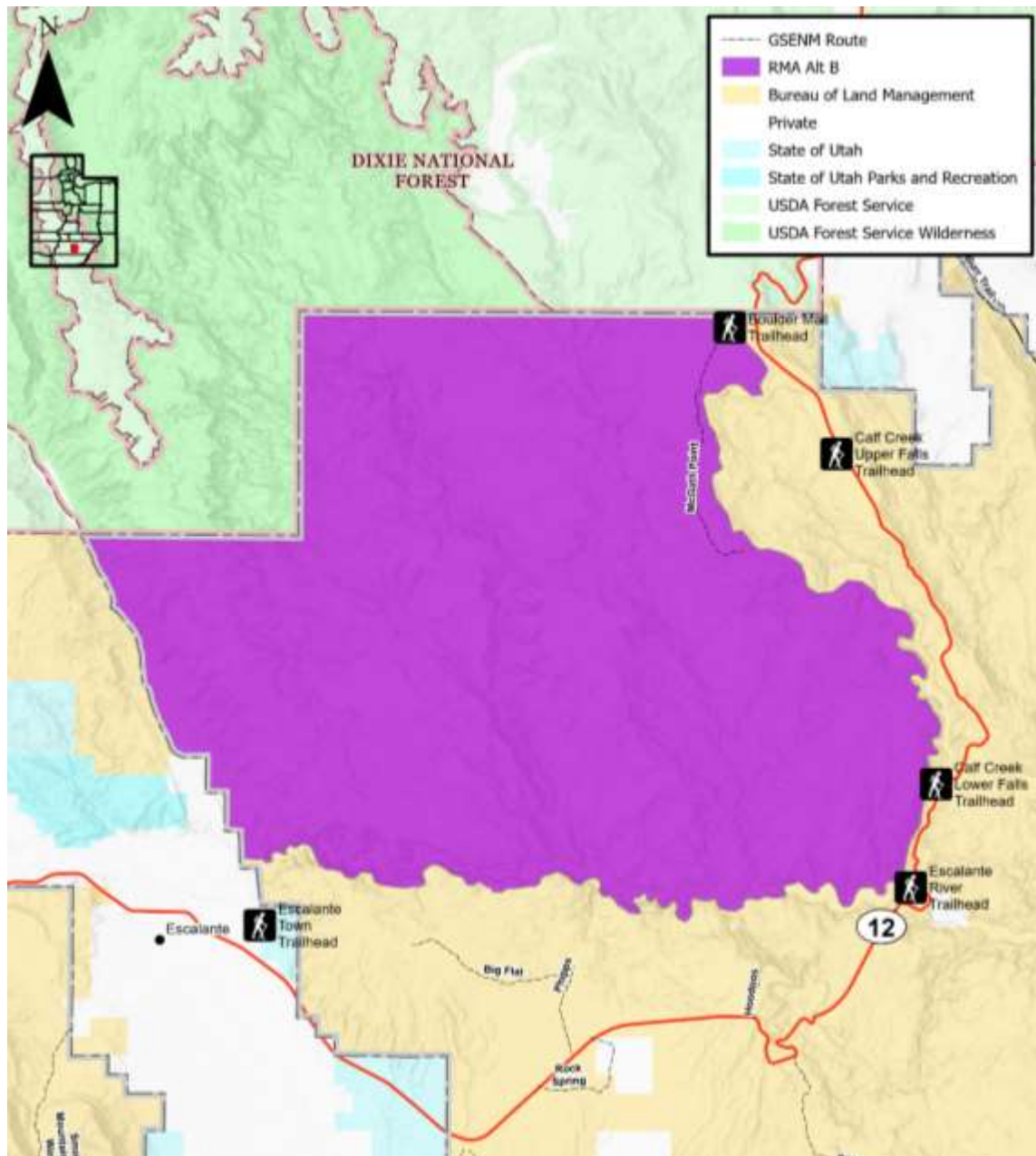
- Alternative C (SRMA) – Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

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## Phipps Death Hollow Recreation Management Areas

### *Phipps Death Hollow Special Recreation Management Area (Alternatives B and C) Framework*

Size: 39,800 acres



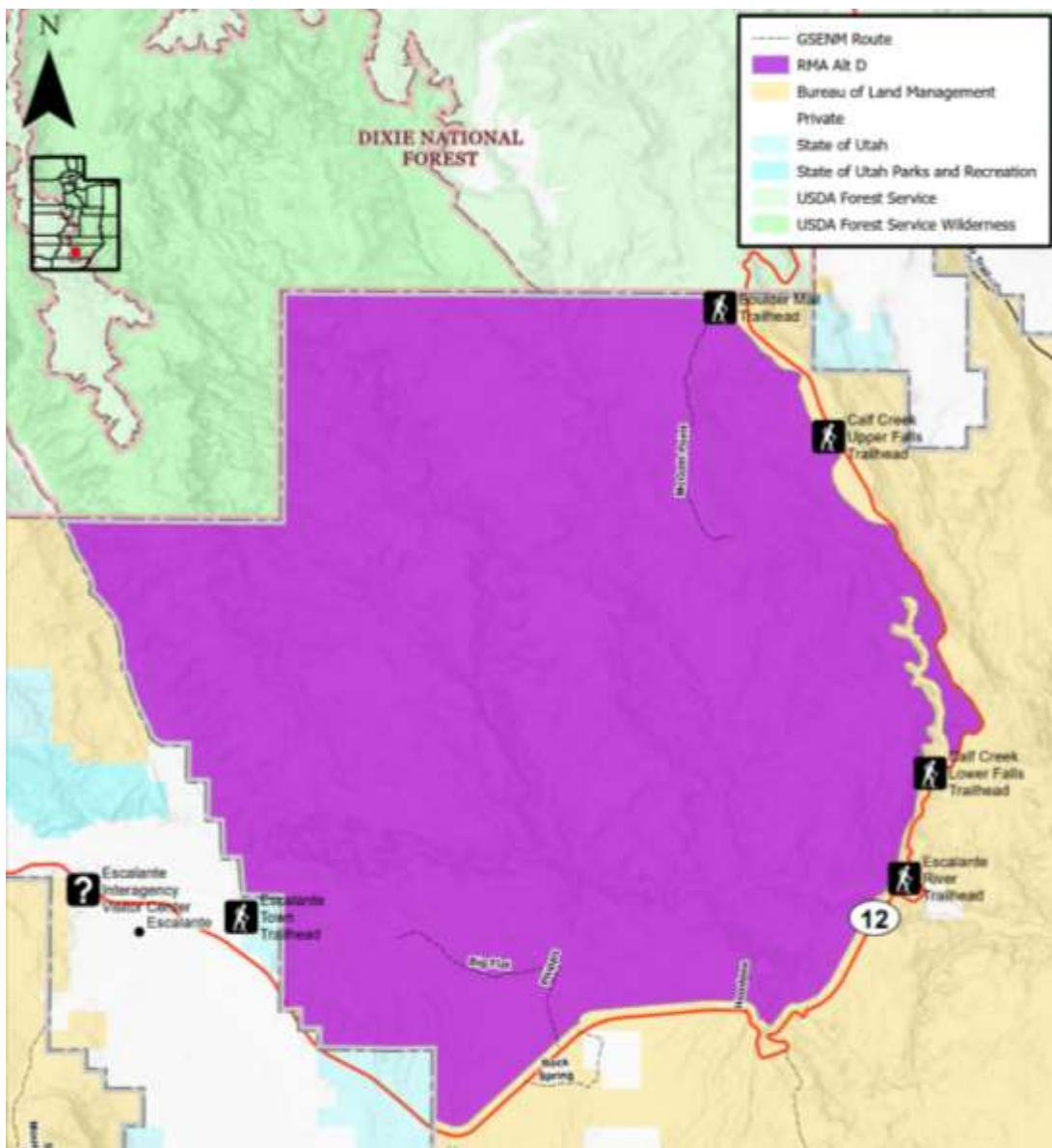
**Figure I. Phipps Death Hollow Recreation Management Area - Alternatives B and C**

*Rationale:* The Phipps Death Hollow SRMA contains the northern reaches of the Escalante River Canyon system bounded by Pine Creek Road on the west, the southern rim of the Escalante River Canyon on the south, Calf Creek Canyon on the east, and Dixie National Forest (including the Box/Death Hollow Wilderness) to the north. Most of the area is in the Phipps Death Hollow Wilderness Study Area. The historic Boulder Mail Trail passes through this area and is a popular backpacking trip. A trek through Death Hollow that begins on the forest and passes through the heart of this area is a popular, technically

challenging backpacking and canyoneering trip. The route along the Escalante River is popular for both a short backpacking trip and day hiking. This SRMA's uniqueness is proven with many riparian ribbons cut deeply through Navajo sandstone, the vegetation mix runs from Ponderosa pine in upland pockets to cottonwoods, willows and orchids along the streams, and it was inventoried as having the highest scenic quality rating on Utah BLM-managed lands. The area is popular for self-directed exploration, day hiking, backpacking, and canyoneering in a remote, backcountry, primitive setting. It provides opportunities for solitude and appreciating nature, enjoying quiet soundscape and dark night skies, and connecting with and learning about GSENM objects.

### ***Phipps Death Hollow Special Recreation Management Area (Alternative D) Framework***

**Size:** 53,100 acres



**Figure 2. Phipps Death Hollow Recreation Management Area - Alternative D**



*Rationale:* The Phipps Death Hollow SRMA contains the northern reaches of the Escalante River Canyon system bounded by the town of Escalante and Pine Creek Road on the west, Highway 12 on the south and east (except for the Calf Creek Recreation Site and Lower Calf Creek Canyon), and Dixie National Forest (including the Box/Death Hollow Wilderness) to the north. Most of the area is in the Phipps Death Hollow Wilderness Study Area. The historic Boulder Mail Trail passes through this area and is a popular backpacking trip. A trek through Death Hollow that begins on the forest and passes through the heart of this area is a popular, technically challenging backpacking and canyoneering trip. The route along the Escalante River from town to the bridge is popular for both a short backpacking trip and day hiking. The Upper Calf Creek Falls are a popular, though steep and exposed half-day hike. The canyons just outside of Escalante on the south side of the river canyon are increasingly popular with local residents for day hiking during the off season. This SRMA's uniqueness is proven with many riparian ribbons cut deeply through Navajo sandstone, the vegetation mix runs from Ponderosa pine in upland pockets to cottonwoods, willows and orchids along the streams, and it was inventoried as having the highest scenic quality rating on Utah BLM lands. The area is popular for self-directed exploration, day hiking, backpacking, and canyoneering in a remote, backcountry, primitive setting. It provides opportunities for solitude and appreciating nature, enjoying quiet soundscape and dark night skies, and connecting with and learning about GSENM objects.

<b>SRMA OBJECTIVE (Alternatives B, C and D) - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):</b>		
Activities:	Experiences:	Benefits:
<ul style="list-style-type: none"> <li>• Hiking</li> <li>• Backpacking</li> <li>• Camping</li> <li>• self-directed wandering/exploring (nonmotorized/nonmechanized)</li> <li>• canyoneering</li> <li>• Photography /artistic pursuits</li> <li>• Visiting geologic sites</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Enjoying artistic expression of nature</li> <li>• Enjoying exploring on own, being self-reliant</li> <li>• Enjoying and feeling good about solitude, isolation, and independence</li> <li>• Enjoying an escape from crowds of people</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/appreciation of outdoor aesthetics and nature’s art, elegance, and splendor</li> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Improved appreciation of nature’s splendor</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Enhanced sense of personal freedom</li> <li>• Improved outdoor recreation skills, knowledge, and self confidence Improved physical and mental fitness, wellbeing, and health maintenance</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride in GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Maintenance of distinctive recreation setting, character, and market niche</li> <li>• Increased desirability as a place to live or retire</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

**SRMA EXISTING AND DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

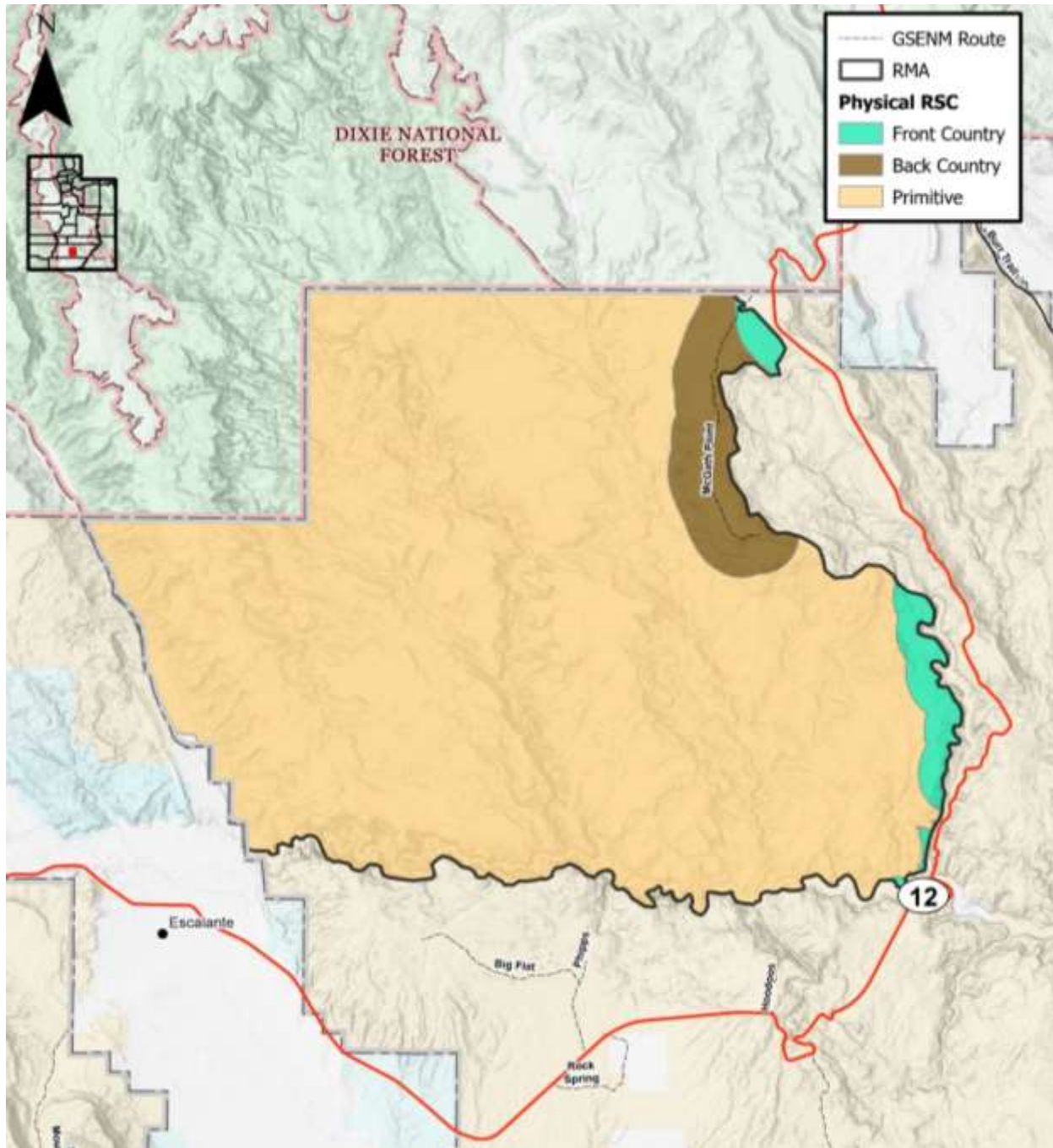
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Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

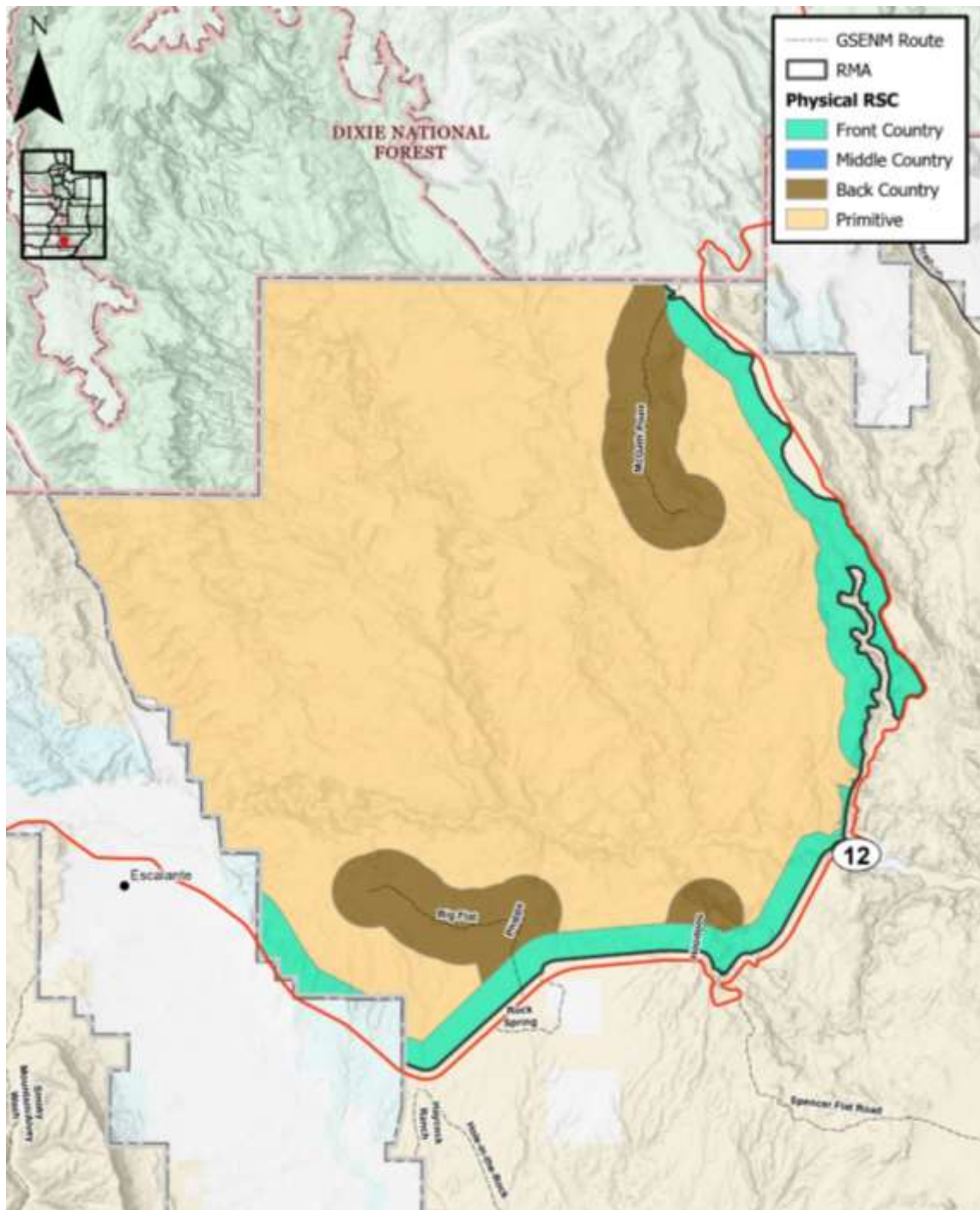
**Remoteness:** (approx. distance from routes): Most of the RMA is within a WSA and without roads. HWY 12 bounds it on one side and a few dirt roads that require 4WD go into the eastern portion. The existing level of remoteness is maintained.

**Naturalness:** (landscape texture form, line, color): Most of the RMA is within a WSA. Local utility lines run along part of the eastern edge and a few livestock grazing water developments are present. The existing level of naturalness is maintained.

**Facilities:** Facilities will only be developed/improved along the eastern side where access is easy.



**Figure 3. Phipps Death Hollow Existing and Desired Physical Setting Characteristics - Alternatives B and C**



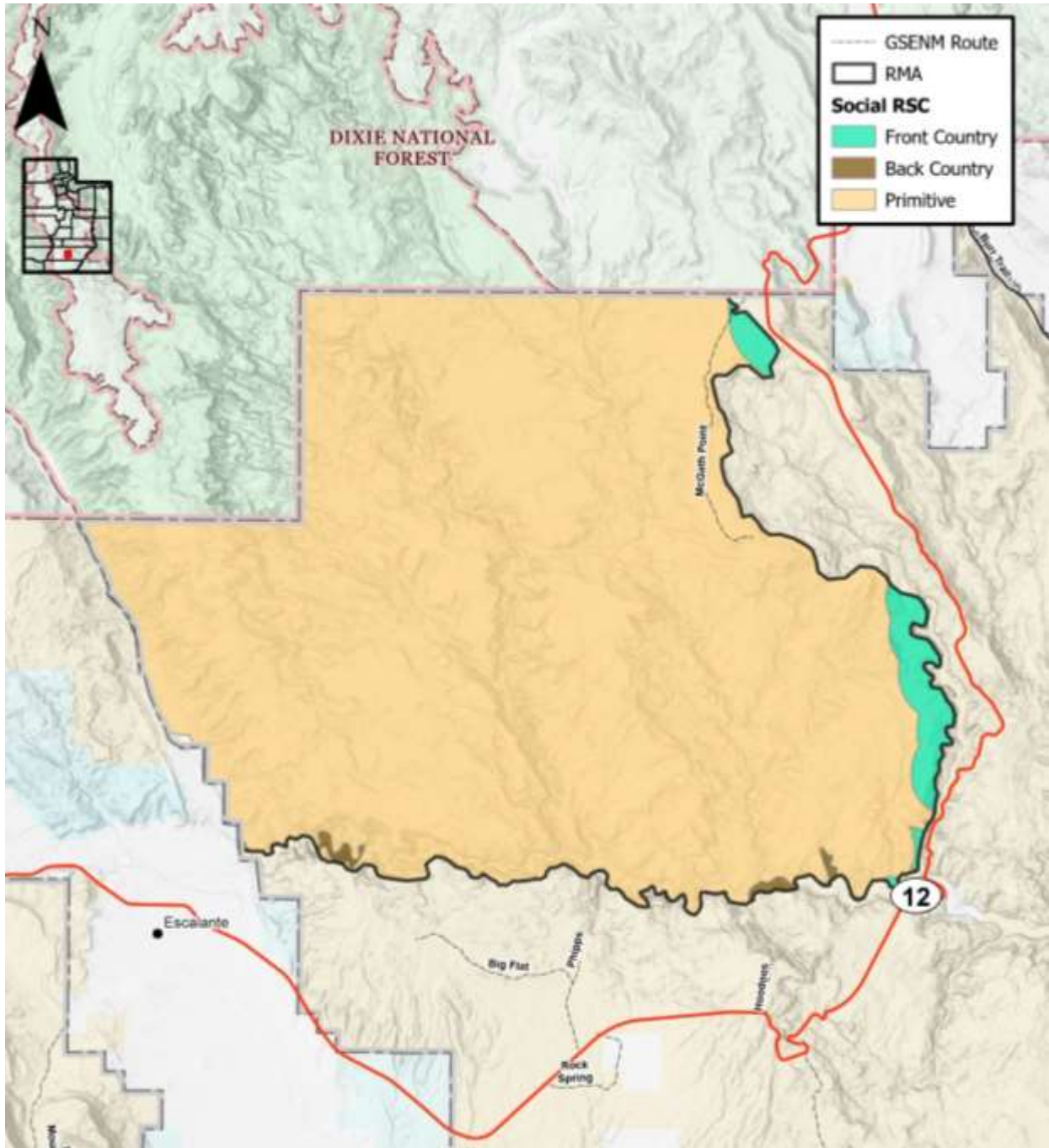
**Figure 4. Phipps Death Hollow SRMA Existing and Desired Physical Setting Characteristics - Alternative D**

**SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

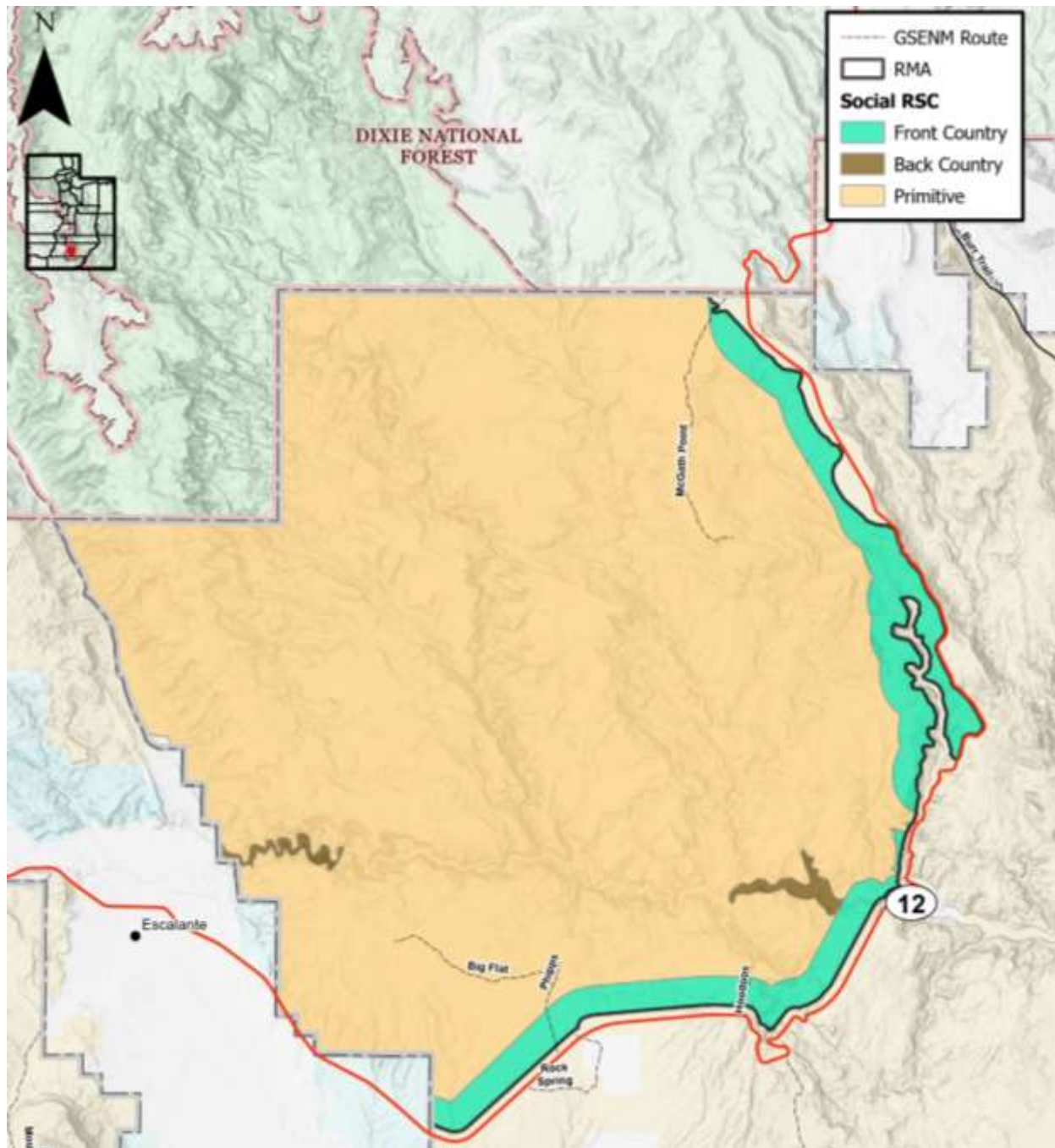
**Contacts:** (average with any other group): In most locations and instances, contacts of fewer than six will be maintained. Only along more popular hiking routes (Upper Calf Creek Falls) will contacts be common during the busier visitation times.

**Group Size:** (average – other than your own): Group size limits of up to 12 will be allowed but most groups will continue to be below that maximum.

**Evidence of Use:** Evidence of use results from peripheral trailheads (Boulder Mail Trail, Upper Calf Creek Falls) and dispersed camping. The evidence of use will be maintained at small areas of alteration along travel corridors to none away the travel corridors.



**Figure 5. Phipps Death Hollow SRMA Existing and Desired Social Setting Characteristics - Alternatives B and C**



**Figure 6. Phipps Death Hollow SRMA Existing and Desired Social Setting Characteristics - Alternative D**

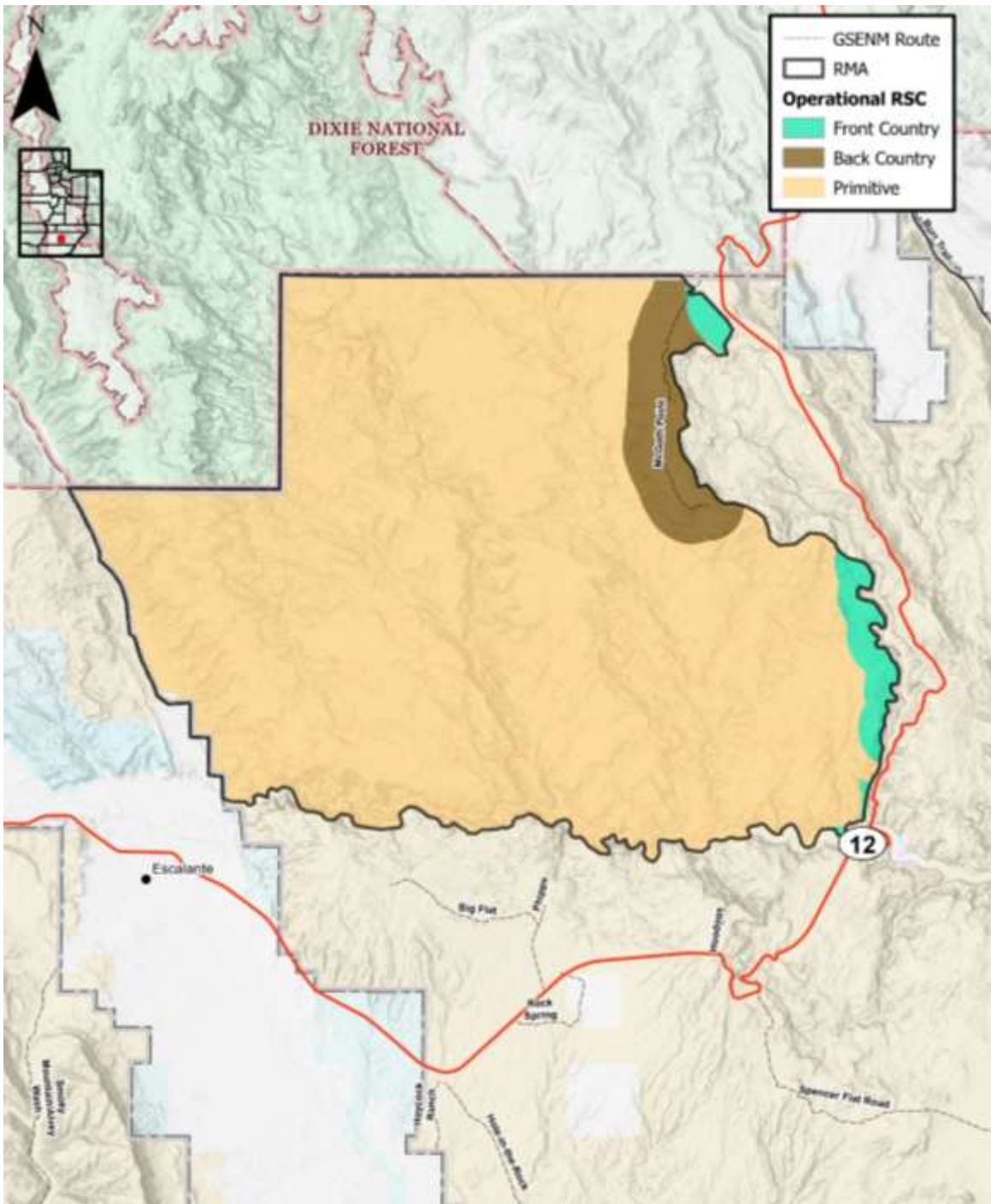
### **SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): The range of access will be maintained, most of which is nonmotorized/nonmechanized.

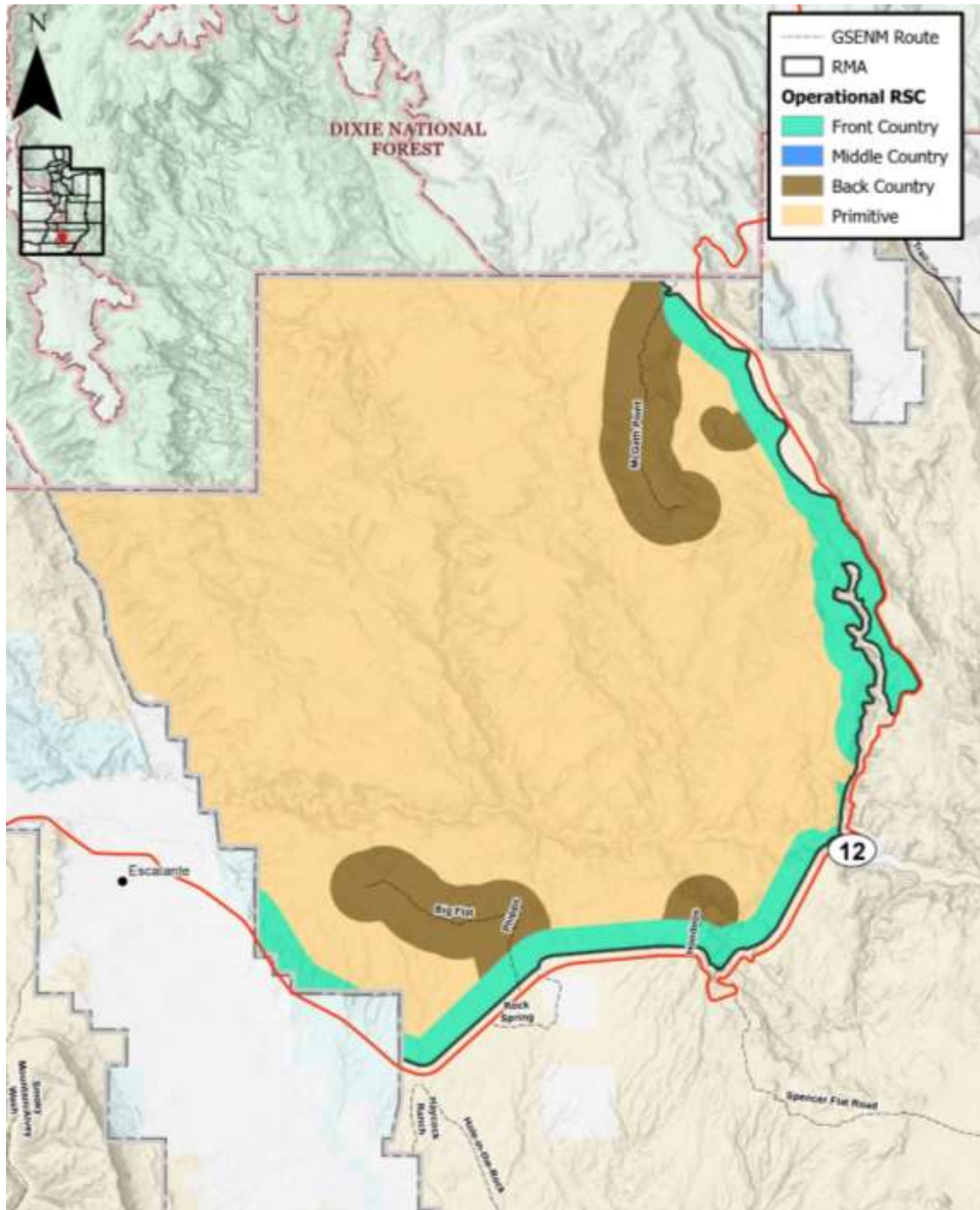
**Visitor Services:** Staff presence will continue to be infrequent and rare due to the remoteness and limited accessibility of most of the RMA.



**Management Controls:** Regulatory and ethics signs will continue to be posted at trailheads. Signage inside the area will be rare.



**Figure 7. Phipps Death Hollow SRMA Existing and Desired Operational Setting Characteristics - Alternatives B and C**



**Figure 8. Phipps Death Hollow Existing and Desired Operational Setting Characteristics - Alternative D**

## LUP MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., If the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management:*

#### Alternative B

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- OHV Closed:
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### Alternative C

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.

- OHV Closed:
  - Primitive area
  - WSA/ISAs,
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### Alternative D

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.
- OHV Closed:
  - WSA/ISAs
  - Cherry-stemmed routes in WSAs
  - Lands with wilderness characteristics identified for protection
  - Areas of high probability for cultural resources (according to BLM Class I model)
  - Areas of high probability (PFYC Class 5) for paleontological resources

#### *Aircraft Landing Areas/Strips:*

- Alternatives B and D – Consider appropriate landing areas and landing strips for aircraft.
- Alternative C – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).

#### *Lands and Realty:*

- Alternatives B and C – ROW exclusion areas.
- Alternative D – ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

#### *Visual Resource Management:*

- The SRMA is classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA (which are managed as VRM Class I).

## **IMPLEMENTATION DECISIONS**

#### *Overnight Permits:*

- Permits required for overnight use.

#### *Group Size/Pack Stock Limits:*

- Group size/pack stock limit of 12 in SRMA.

*Facilities:*

- Alternative B – Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
- Alternative C – Allow recreational infrastructure per Management Area prescriptions.
- Alternative D – Recreational infrastructure would not be provided.

*Trails:*

- Alternative B – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.
- Alternative C – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.
- Alternative D – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Designate primitive camping areas along Escalante River, the Boulder Mail Trail, and in Death Hollow.
- Sensitive resource areas may be closed to camping, or a permit system implemented as identified in a future recreational area management plan, to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 30-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in designated camping areas or dispersed): 10 pm to 6 am.
- Alternative B
  - Allow dispersed camping. Designated dispersed camping areas may be identified and designated on an as-needed basis.
  - Do not allow campfires in the Escalante Canyons or relict plant areas as they are identified. Also prohibit campfires in archaeological and historic sites, rock shelters, or alcoves.
- Alternative C
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.
- Alternative D
  - Allow camping only in designated primitive camping areas.
  - No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Alternatives B and C – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.
- Alternative D – Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Canyoneering, rappelling, and climbing not allowed on/in archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Alternative B and Alternative C – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.
- Alternative D – Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.
- Alternative B – Allow for motorized and nonmotorized SRPs on designated routes.
- Alternative C
  - SRPs to be allowed per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.
- Alternative D – SRPs are permitted, with the following limitations:
  - Prohibit SRPs that provide for intentional visitation to known cultural sites.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative B – Allow nonmotorized competitive events on designated routes.
- Alternative C – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.
- Alternative D – Prohibit all competitive events.

*Vending:*

- Vending would not be allowed.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Alternative B – Prohibit takeoff and landing of unmanned aerial systems (drones) is prohibited in WSAs and lands managed to protect wilderness characteristics.
- Alternative C – Allow takeoff and landing of unmanned aerial systems (drones) per Management Area prescriptions.
- Alternative D – Prohibit takeoff and landing of unmanned aerial systems (drones) in GSENM.

**BEST MANAGEMENT PRACTICES – to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

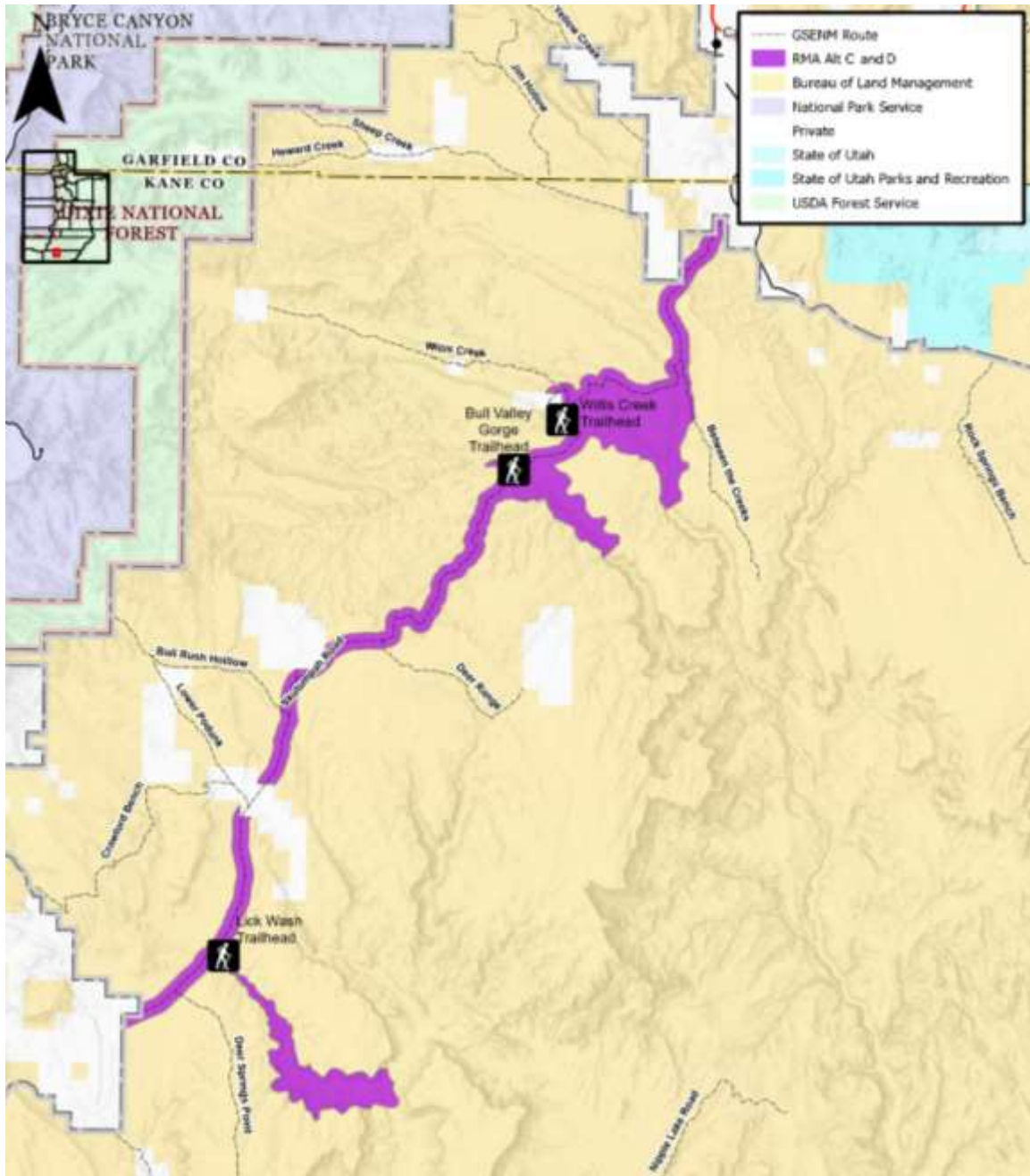
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**Skutumpah Corridor Recreation Management Areas**

**Skutumpah Corridor Special Recreation Management Area (Alternatives C and D) Framework**

Size: 5,300 acres



**Figure I. Skutumpah Corridor Recreation Management Area - Alternatives C and D**

*Rationale:* The Skutumpah Corridor SRMA encompasses the area along Skutumpah Road, which offers a premier auto touring experience in the far western region of GSENM, it provides trailhead access for day hiking, horseback riding, and backpacking in backcountry, primitive settings, and provides connectivity between Johnson Canyon and Cottonwood Canyon Road. Skutumpah Road is approximately 33 miles of

gravel and natural surface road that becomes impassable during inclement weather. This SRMA includes several popular slot canyon hiking opportunities including Lick Wash, Bull Valley Gorge, and Willis Creek. Sheep Creek is popular for equestrian use. Other recreation opportunities include auto touring-sightseeing, camping, and hiking. It offers majestic views of Bryce Canyon National Park to the west and Powell Point to the north. In the east it parallels the rugged and remote Paria-Hackberry WSA.

<b>SRMA OBJECTIVE (Alternatives C and D) - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):</b>		
<b>Activities:</b>	<b>Experiences:</b>	<b>Benefits:</b>
<ul style="list-style-type: none"> <li>• scenic auto touring - sightseeing</li> <li>• photography /artistic pursuits</li> <li>• camping</li> <li>• hiking</li> <li>• horseback riding</li> <li>• canyoneering</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Enjoying a wide variety of environments within a single corridor/drive</li> <li>• Enjoying artistic expression of nature</li> <li>• Relishing group (family/friends) affiliation and togetherness Enjoying artistic expression of nature</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/appreciation of outdoor aesthetics and nature’s art, elegance, and splendor Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Stronger ties with family and friends</li> <li>• Improved outdoor recreation skills, knowledge, and self confidence</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Maintenance of distinctive recreation setting, character, and market niche Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

**SRMA DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approximate distance from routes): The existing level of remoteness is maintained. Skutumpah Road will continue to provide auto-touring into a highly scenic, natural landscape as well as access to recreational destinations and other unpaved roads that lead into more remote areas.

**Naturalness:** (landscape texture form, line, color): The existing level of naturalness is maintained. Willis Creek, Bull Valley Gorge and Lick Wash trailheads which consist of a parking area, register box, and modest signs are the most developed sites in the RMA. New development will create no more than weak contrast with the landscape character.

**Facilities:** Basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources would be allowed. Basic trailheads, designated primitive camping areas, vault toilets, and overlooks/waysides will be maintained, improved, and/or developed.

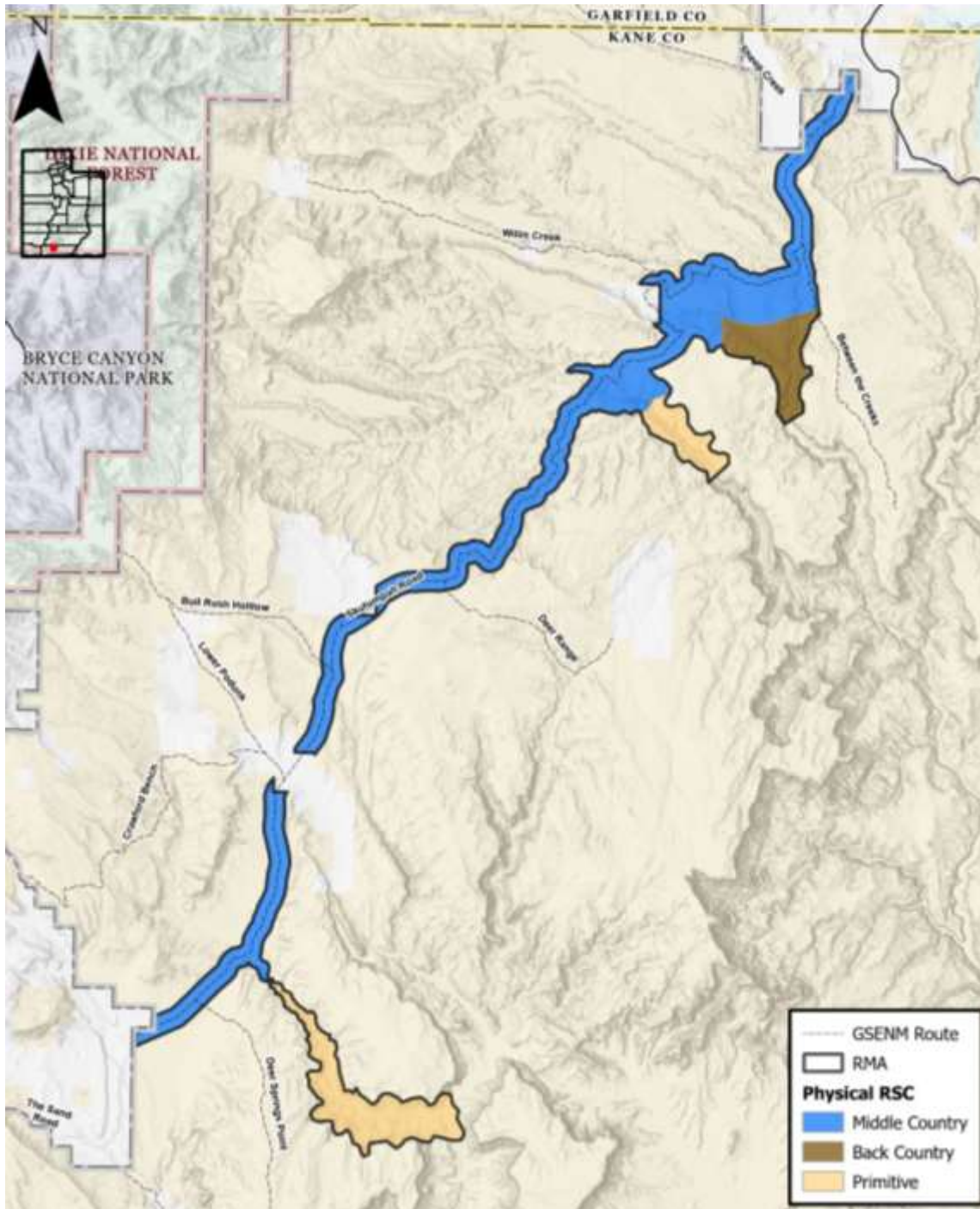


Figure 2. Skutumpah Corridor SRMA Existing and Desired Physical Recreation Setting Characteristics

### SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS

**Contacts:** (average with any other group): The number of contacts is maintained or could increase at key locations. Contacts are influenced by the time of year and time of day. Traveling the road during the spring and fall and during the middle of the day, the number of contacts is higher, whereas in the winter and early morning/evening not encountering anyone else is common.

**Group Size:** (average – other than your own): Most groups in this RMA would continue to be small, though the group size limit would allow groups up to 25.

**Evidence of Use:** The evidence of use would be largely maintained though some areas will be developed/designated for camping and some trailheads will be improved. Areas that are currently used for primitive camping that are closed will be reclaimed and the evidence of use will diminish. The user creation of additional dispersed camping areas would be curtailed.

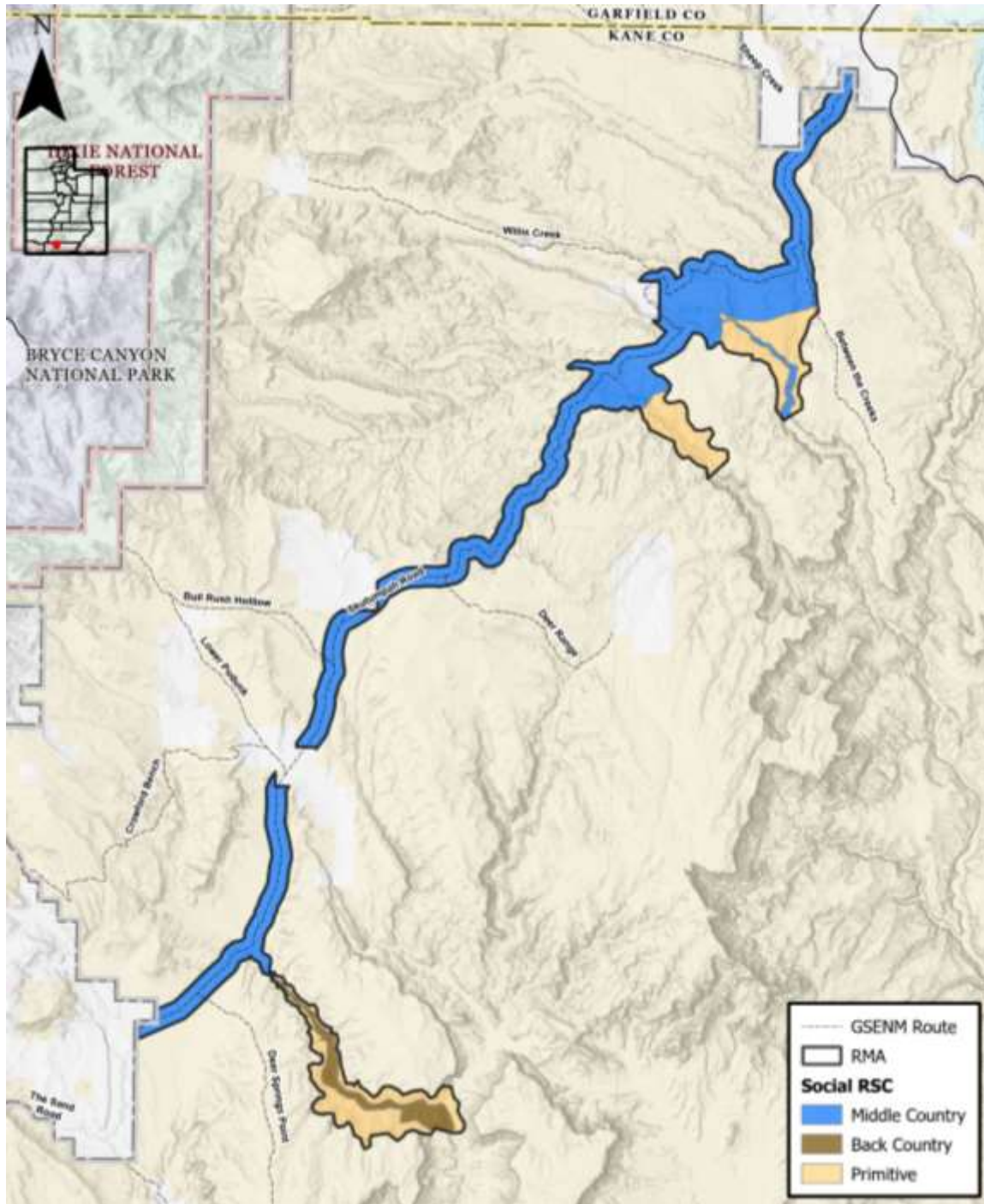


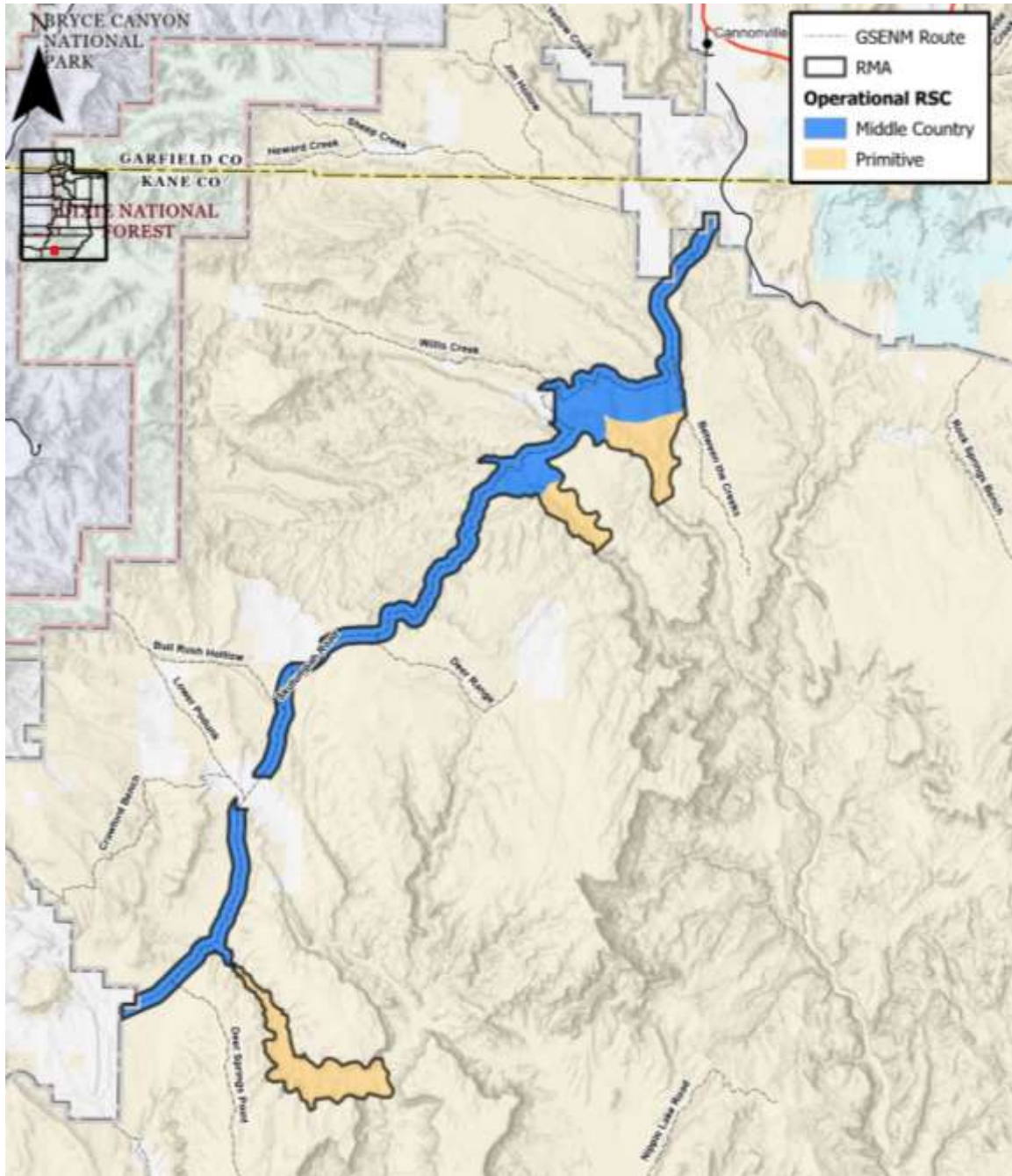
Figure 3. Skutumpah Corridor SRMA Existing and Desired Social Recreation Setting Characteristics

**SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): Skutumpah Corridor is mostly maintained dirt and impassable when wet. It is not recommended for 2WD passenger vehicles. The type of access will be maintained.

**Visitor Services:** Staff presence will continue to be infrequent and occasional. Kiosks with maps will continue to be located near each boundary crossing and could be provided at trailheads and designated camping areas.

**Management Controls:** Regulatory and ethics signs will be posted at boundary portals, designated camping areas, and trailheads.



**Figure 4. Skutumpah Corridor SRMA Existing and Desired Operational Recreation Setting Characteristics**

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management*

#### *Alternative C (SRMA)*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- Closed:
  - Primitive area
  - WSA/ISAs,
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### *Alternative D (SRMA)*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.



- Closed:
  - WSA/ISAs
  - Cherry-stemmed routes in WSAs
  - Lands with wilderness characteristics identified for protection
  - Areas of high probability for cultural resources (according to BLM Class I model)
  - Areas of high probability (PFYC Class 5) for paleontological resources

*Aircraft Landing Areas/Strips:*

- Alternative C (SRMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).
- Alternative D (SRMA) – Consider appropriate landing areas and landing strips for aircraft.

*Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

*Visual Resource Management:*

- Managed according to assigned VRM classifications and objectives.

## **IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size/Pack Stock Limits:*

- Group size/pack stock limit of 25 in SRMA.

*Facilities:*

- Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
- Improve/maintain trailheads: Willis Creek, Bull Valley Gorge, and Lick Wash.
- Improve/maintain information kiosks on both ends of Skutumpah Road.

*Trails:*

- Alternative C (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to management Area prescriptions.
- Alternative D (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Sensitive resource areas may be closed to camping to protect and/or restore GSENM objects.

- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 6 am.
- Alternative C (SRMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.
- Alternative D (SRMA)
  - Allow camping only in developed campgrounds or designated camping areas.
  - No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Alternatives C (SRMA) – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSEBN objects.
- Alternative D (SRMA) – Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Canyoneering, rappelling, and climbing not allowed on archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Alternative C (SRMA) – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.
- Alternative D (SRMA) – Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Alternative C (SRMA)
  - SRPs to be allowed per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the Area in which the event occurs.
- Alternative D (SRMA) – SRPs are permitted, with the following limitations:
  - Prohibit SRPs that provide for intentional visitation to known cultural sites, except for approved visitation to designated public cultural sites or approved sites by the BLM.
  - Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative C (SRMA) – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.
- Alternative D (SRMA) – Prohibit all competitive events.

*Vending:*

- Vending would be occasional, infrequent, and may be allowed by permit on a case-by-case basis, in association with approved special events or recreation sites. Generally, permits could be issued to provide services needed at recreation sites (such as firewood sales at campgrounds) and services that are commonly offered in conjunction with permitted special events. Criteria and/or stipulations to protect GSENM objects would be included in all permits.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Alternative C (SRMA) – Allow takeoff and landing of unmanned aerial systems (drones) per Management Area prescriptions.
- Alternative D (SRMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) in GSENM.

**BEST MANAGEMENT PRACTICES – to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update kiosks on each end of SRMA along Skutumpah Road.
  - Update/install trailhead kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

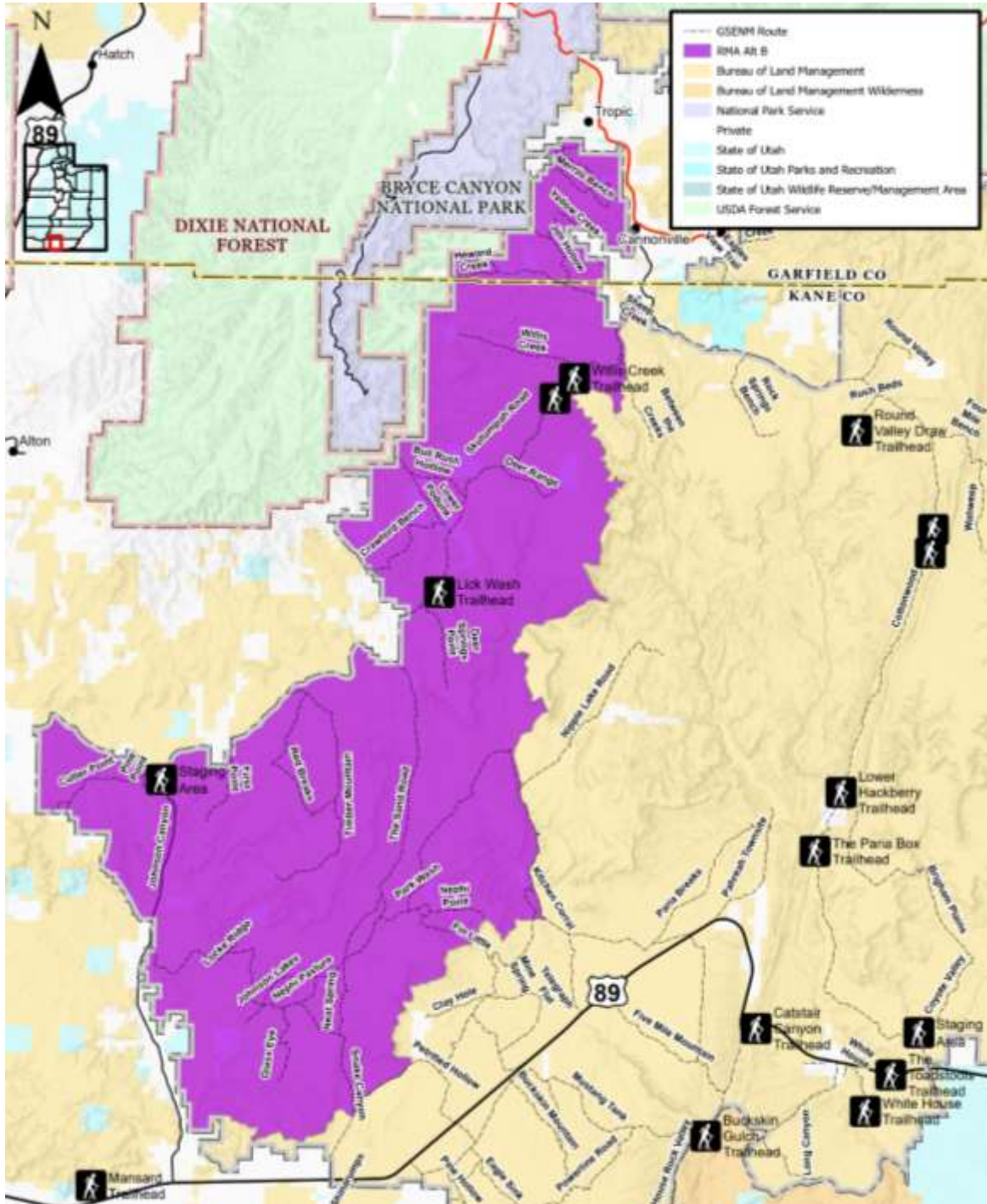
*Monitoring:*

- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

**Skutumpah Terrace-Deer Range Recreation Management Areas**

**Skutumpah Terrace-Deer Range Extensive Recreation Management Area (Alternative B) Framework**

Size: 216,800 acres (Alternative B)

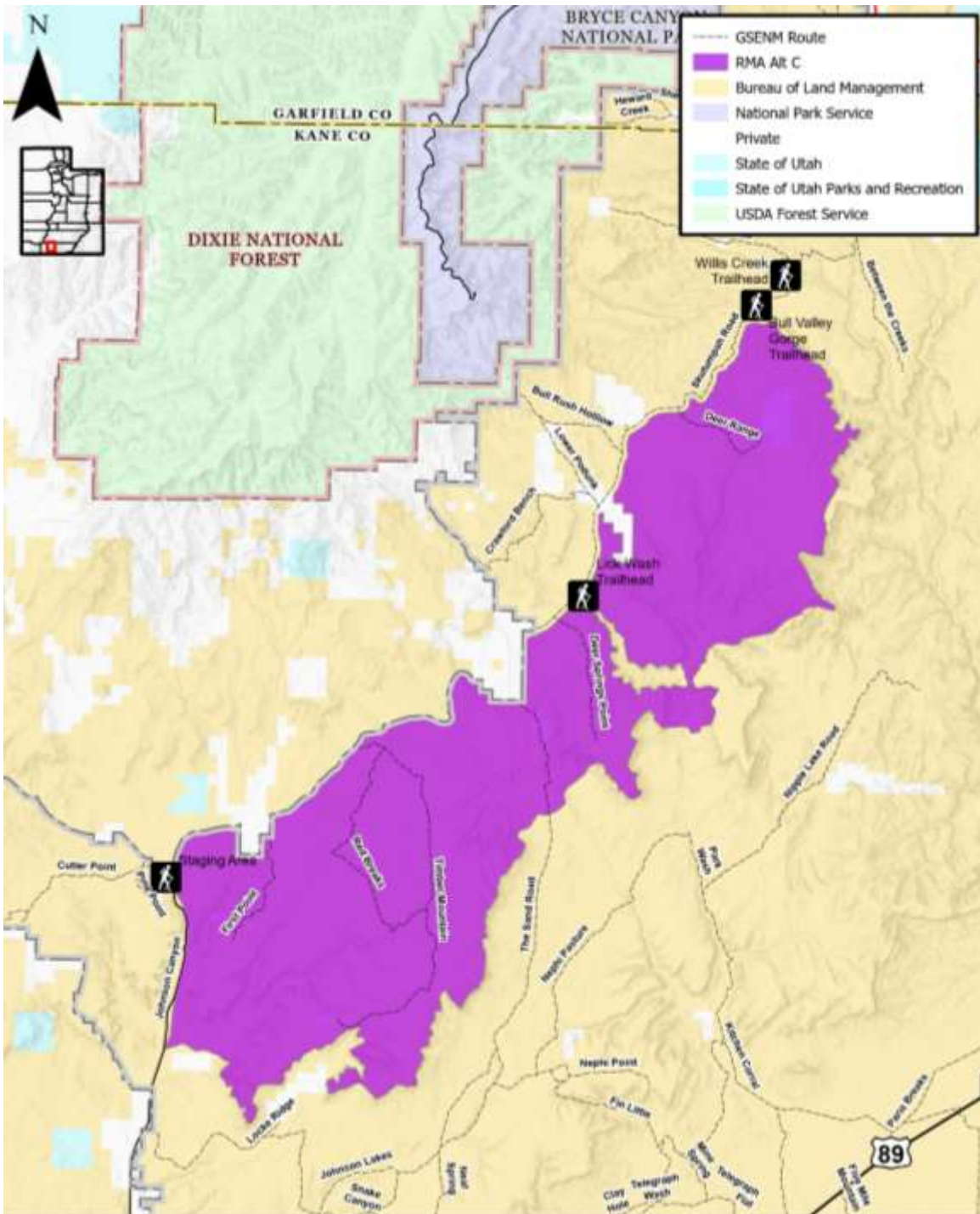


**Figure I. Skutumpah Terrace-Deer Range Recreation Management Area – Alternative B**

*Rationale:* The Skutumpah Terrace-Deer Range ERMA encompasses an area that stretches from the GSENM boundary on the west, to the Kitchen Corral Wash Road on the east, the community of Tropic on the north, and U.S. Highway 89 on the south. It includes part of the Paria-Hackberry WSA. The primary roads into this ERMA are Skutumpah Road and Kitchen Corral Wash Road, both dirt and gravel roads. Popular destinations within this area are Lick Wash, Bull Valley Gorge, Willis Creek, Inchworm Arch, Glass Eye Canyon, and Flag Point. The area also provides access to the Paria River Corridor. The ERMA is the heart of the Pausaugunt Hunting Unit, which is well-known for trophy mule deer. It offers a wide network of designated roads which are popular OHV riding destinations including a motorized section of the Great Western Trail. Popular activities include OHV riding, horseback riding, hiking, dispersed primitive camping, wildlife viewing, hunting, and photography. The area offers numerous opportunities for self-directed exploration in a desert environment.

**Skutumpah Terrace-Deer Range Extensive Recreation Management Area (Alternative C) Framework**

Size: 70,500 acres (Alternative C)



**Figure 2. Skutumpah Terrace-Deer Range Recreation Management Area – Alternative C**

*Rationale:* The Skutumpah Terrace-Deer Range ERMA encompasses an area that stretches from Johnson Canyon Road on the west, Skutumpah Road on the north, and the White Cliffs on the east and south. It

contains a portion of the Paria-Hackberry WSA. The primary roads into this ERMA are the Timber Mountain and Deer Range roads, both of which are natural surface and impassable during inclement weather. The ERMA is the heart of the Pausaugunt Hunting Unit which is well-known for trophy mule deer. It offers a few designated roads which include a motorized section of the Great Western Trail which is a popular OHV riding destination. Popular activities include OHV riding, horseback riding, hiking, dispersed primitive camping, wildlife viewing, hunting, and photography. The area offers numerous opportunities for self-directed exploration in a desert environment.

**ERMA OBJECTIVE (Alternatives B and C)** – In the Skutumpah Terrace-Deer Range ERMA, the recreation and visitor services focus on recreation activities and visitor services supports participation in OHV riding, horseback riding, hunting, hiking, and camping while prioritizing protection of GSENM objects.

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations’ ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., If the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management:*

#### Alternative B (ERMA)

- Until travel management planning is completed, the route designations in the 2000 MMP and the two designations in the 2020 RMPs will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- OHV Closed:
  - WSA/ISAs



- Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)
- No Mans Mesa RNA

#### Alternative C (ERMA)

- Until travel management planning is completed, the route designations in the 2000 MMP will apply (i.e., the closure of Inchworm Arch Road).
- Close Inchworm Arch Road to motorized travel.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive area
  - WSA/ISAs,
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)
  - No Mans Mesa RNA

#### *Aircraft Landing Areas/Strips:*

- Alternatives B and C (ERMA) – Consider appropriate landing areas and landing strips for aircraft.

#### *Lands and Realty:*

- ROW avoidance area unless ROW exclusion is determined for other resource protections.

#### *Visual Resource Management:*

- Managed according to assigned VRM classifications and objectives.

### **IMPLEMENTATION DECISIONS**

#### *Overnight Permits:*

- Permits required for overnight use.

#### *Group Size Limits:*

- Alternative B (ERMA) – Group size/pack stock limits of 25 except for WSAs where the group size/pack stock limits is 12.
- Alternative C (ERMA) – Group size/pack stock limits per Management Area prescriptions.

#### *Facilities:*

Alternative B (ERMA) – Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.

Alternative C (ERMA) – Facilities allowed per Management Area prescriptions.

*Trails:*

Alternative B (ERMA)

- Close Willis Creek Canyon to equestrian use.
- Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas.

Alternative C (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.

*Camping:*

- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 6 am.
- Sensitive resource areas may be closed to camping to protect and/or restore GSENM objects.
- Alternative B (ERMA)
  - Allow dispersed camping. Designated dispersed camping areas may be identified and designated on an as-needed basis.
  - Campfires allowed only in designated fire grates or mandatory fire pans/blankets. Where fire pans/blankets are used, ash removal is required. Allow collection of dead and down wood where campfires are allowed. Removal of unused imported firewood required.
- Alternative C (ERMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.

*Personal Waste Systems:*

- Alternative B and C (ERMA) – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.

*Canyoneering, Rappelling, Climbing:*

- Canyoneering, rappelling, and climbing not allowed on archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Alternative B and C (ERMA) – Permanent fixed anchors could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.

- Alternative B (ERMA)
  - SRPs are permitted, with the following limitations:
    - Limit noncompetitive motorized SRPs to a total maximum of 15 vehicles.
    - Prohibit SRPs that provide for intentional visitation to cultural sites except for approved visitation to designated public cultural sites or sites approved by the BLM.
    - Limit the number of SRPs to ensure that a self-directed visitor experience is achieved.
- Alternative C (ERMA)
  - SRPs to be allowed per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.

#### *Competitive Events:*

- Prohibit motorized competitive events.
- Alternative B (ERMA) – Allow nonmotorized competitive events on designated routes.
- Alternative C (ERMA) – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.

#### *Vending:*

- Alternative B (ERMA) – Vending within GSENM would be occasional, infrequent, and may be allowed by permit on a case-by-case basis, in association with approved special events or recreation sites. Generally, permits could be issued to provide services needed at recreation sites (such as firewood sales at campgrounds) and services that are commonly offered in conjunction with permitted special events. Criteria and/or stipulations to protect GSENM objects would be included in all permits.
- Alternative C (ERMA) – Vending is allowed per Management Area prescriptions.

#### *Recreational Target Shooting:*

- Alternative B (ERMA) – Prohibit recreational target shooting within 0.5 mile of residences; from, on, or across routes; campgrounds; developed recreation sites and trails; and designated camping areas.
- Alternative C (ERMA) – Allow target shooting per Management Area prescription.

#### *Drone Use:*

- Alternative B (ERMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) in WSAs and lands managed to protect wilderness characteristics.
- Alternative C (ERMA) – The takeoff and landing of unmanned aerial systems (drones) to follow Management Area prescriptions.

### **BEST MANAGEMENT PRACTICES – to guide implementation**

#### *Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.

- If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (emergency access, motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update/install trailhead kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

- Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

**Smoky Mountain-Left Hand Collett Roads RMA**

**Smoky Mountain-Left Hand Collett Roads Extensive Recreation Management Area**

**(Alternative C) Framework**

Size: 11,000 acres



**Figure 1. Smoky Mountain-Left Hand Collett Roads Recreation Management Area - Alternative C**

*Rationale:* The Smoky Mountain-Left Hand Collett Roads Corridors ERMA encompasses the corridors along the two main backcountry roads that provide access to and across the Kaiparowits Plateau, which is the most remote and least developed physiographic province of GSENM and sits between the Escalante Canyons to the east and the Grand Staircase to the west. Both corridors are surrounded by WSAs (Carcass Canyon, Death Ridge, Fiftymile Mountain, and Burning Hills). Popular features of the Smoky Mountain Road include Kelly Grade, the steep passage up the face of the plateau, and the Burning Hills where coal seams release smoke from fires deep within the earth. The Left Hand Collett Road branches off Smoky Mountain and joins with Hole in the Rock Road at Twentyfive Mile Wash. The loop this creates has become popular for OHV driving and riding. The descent from the top of the plateau down Left Hand Collett Canyon is particularly challenging and scenic, and the Twentymile Dinosaur Track site is at the mouth of the canyon and is a popular destination. Both road corridors provide unlimited access to primitive camping, self-directed hiking and canyon exploration in a remote setting, and to hunting. There are no recreational developments within these corridors.

**ERMA OBJECTIVE (Alternative C)** – In the ERMA, the recreational focus is dispersed, self-directed recreation activities that support participation in OHV touring and primitive camping, while prioritizing protection of GSENM objects.

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., If the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

*Comprehensive Trails and Travel Management:*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive area
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

*Aircraft Landing Areas/Strips:*

- Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).

**IMPLEMENTATION DECISIONS:**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size /Pack Stock Limits:*

- Group size and pack stock limits per Management Area prescriptions.

*Facilities:*

- Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
- Develop basic overlook at top of Kelly Grade with interpretive panel(s).
- Develop north portal on north end with GSENM sign and updated kiosks panels.

*Trails:*

- Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.

*Camping:*

- Designate primitive camping areas along open roads as necessary to protect GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping: 10 pm to 6 am.
- Alternative C
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.

*Personal Waste Systems:*

- Areas adjacent or contiguous to NPS lands requiring human waste removal will require use of personal waste systems.
- Alternative C – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.

*Canyoneering, Rappelling, Climbing:*

- Not allowed in/on archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed as needed to protect species.
- May be buffered or seasonally closed to prevent disturbance to raptor nesting.
- Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Allow/prohibit motorized SRPs per Management Area prescriptions.
- Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.

*Competitive Events:*

- Prohibit motorized competitive events.
- Allow nonmotorized competitive events on designated routes per Management Area prescriptions.

*Vending:*

- Vending allowed per Management Area prescriptions.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting allowed per Management Area prescriptions.

*Drone Use:*

- The takeoff and landing of unmanned aerial systems (drones) allowed per Management Area prescriptions.

**BEST MANAGEMENT PRACTICES – to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.



- If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update/install trailhead and portal kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

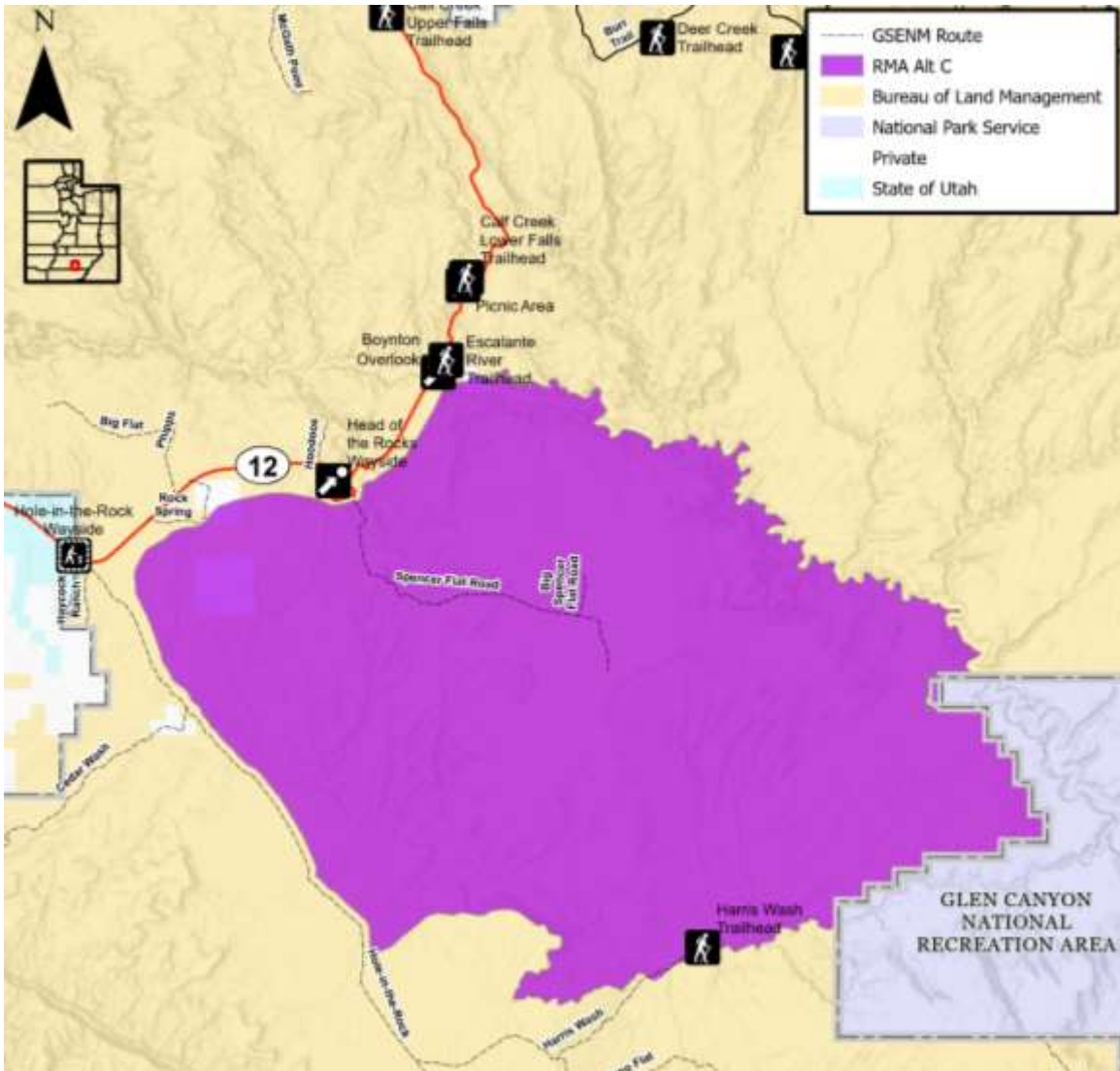
- Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

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**Spencer Flats-Red Breaks Recreation Management Areas**

***Spencer Flats Special Recreation Management Area (Alternative C) Framework***

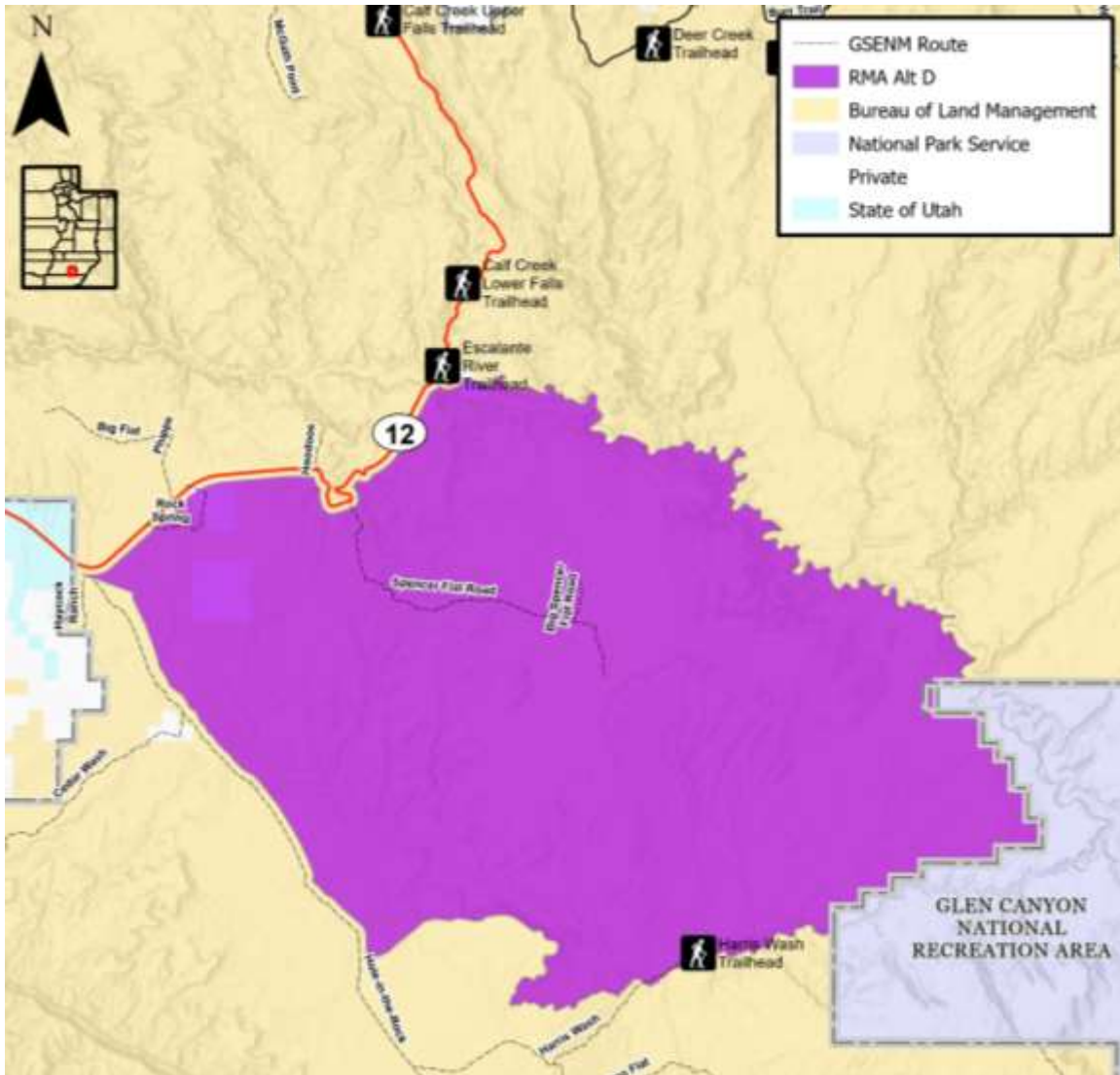
Size: 59,800 acres



**Figure I. Spencer Flats Recreation Management Area – Alternative C**

**Spencer Flats Extensive Recreation Management Area (Alternative D) Framework**

Size: 60,700 acres



**Figure 2. Spencer Flats Recreation Management Area – Alternative D**

<b>SRMA OBJECTIVE (Alternative C)</b> - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):		
Activities:	Experiences:	Benefits:
<ul style="list-style-type: none"> <li>• Hiking</li> <li>• self-directed wandering/exploring</li> <li>• Camping</li> <li>• canyoneering</li> <li>• photography/artistic pursuits</li> <li>• visiting geologic sites</li> <li>• weddings</li> </ul>	<ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Enjoying exploring on own</li> <li>• Relishing group (family/friends) affiliation and togetherness</li> <li>• Enjoying artistic expression of nature</li> <li>• Enjoying needed physical exercise</li> <li>• Enjoying easy access to natural landscapes</li> </ul>	<p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Improved physical and mental fitness, wellbeing, and health maintenance</li> <li>Greater sensitivity to/awareness of outdoor aesthetics and nature’s art and its elegance</li> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Stronger ties with family and friends</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Maintenance of distinctive recreation setting, character, and market niche</li> <li>Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>

**SRMA EXISTING AND DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

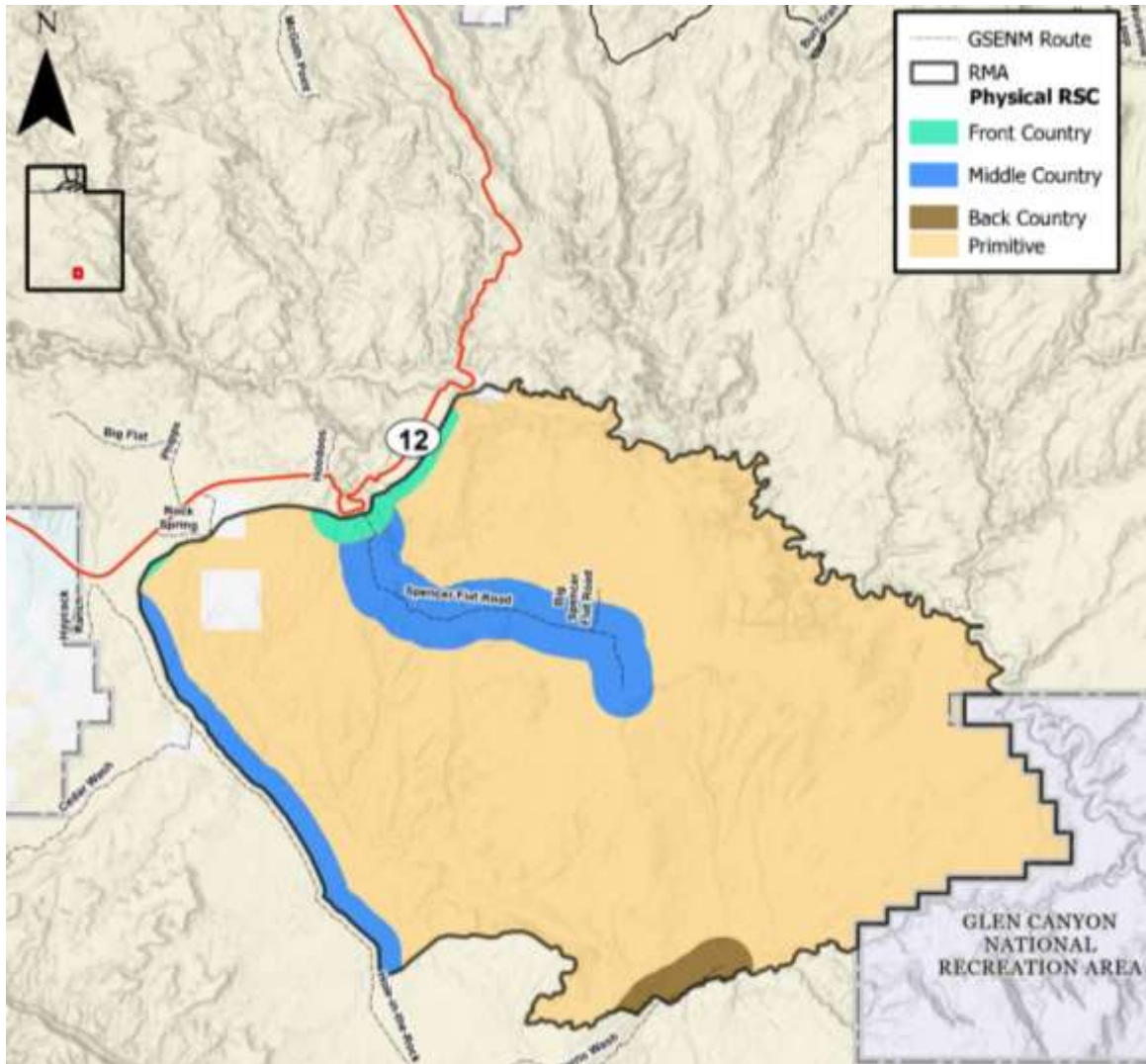
<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approx. distance from routes): Currently the Spencer Flat and The V Road (opened in the 2020 RMP) provide access into the interior of the RMA. The level of remoteness will depend on whether or not the V Road is open on the TMP. If the V Road is not open, more of the RMA will be primitive; if open, more of it will be backcountry.

**Naturalness:** (landscape texture form, line, color): Most of the RMA is within a WSA. The existing level of naturalness is maintained.

**Facilities:** A modest trailhead exists at Harris Wash. Development of a trailhead on Spencer Flat could occur.



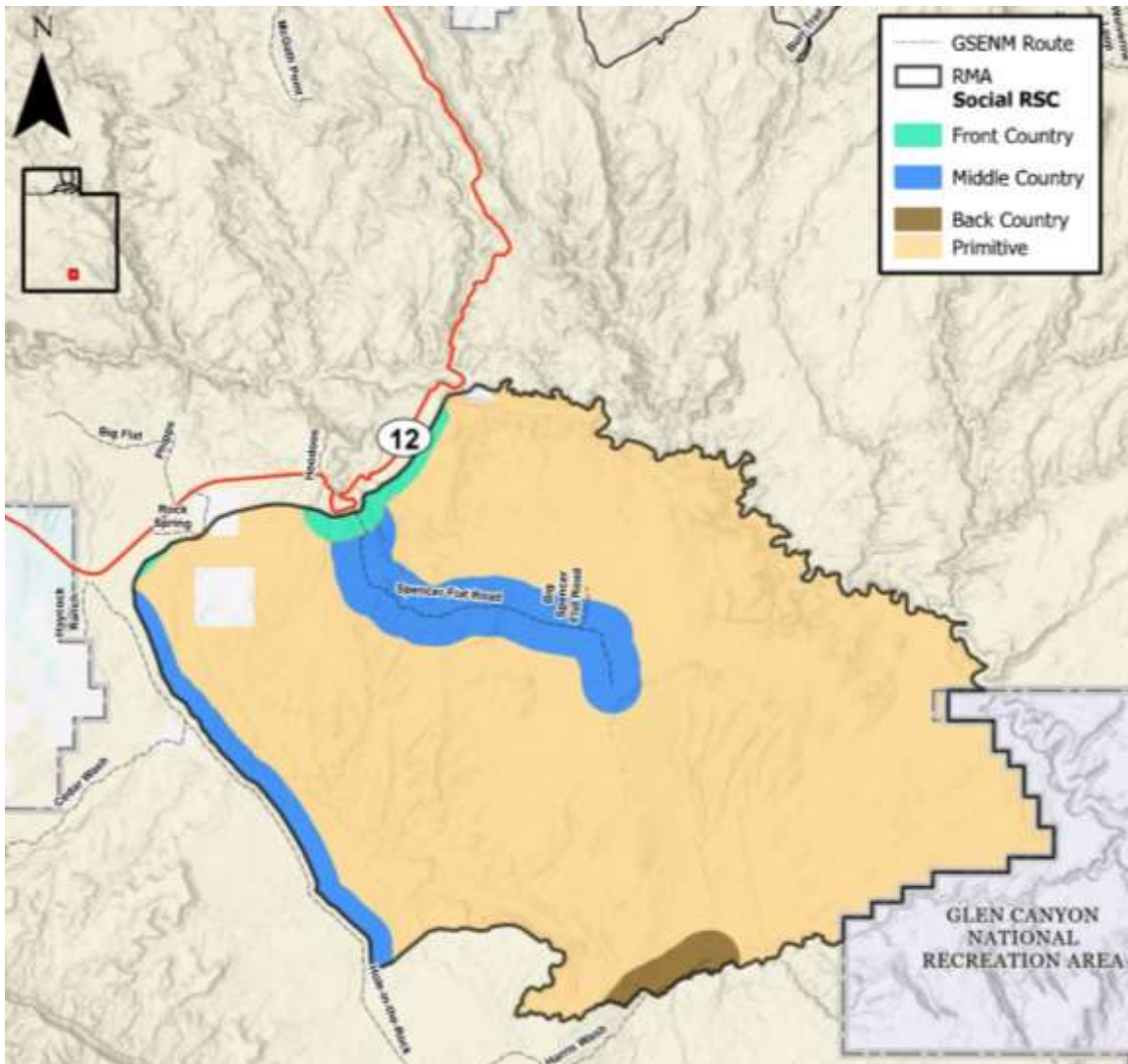
**Figure 3. Spencer Flats SRMA - Existing and Desired Physical Recreation Setting Characteristics**

### **SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

**Contacts:** (average with any other group): Contacts along Spencer Flat Road sometimes exceed 15 during the visitation season with the amount of dispersed camping and hiking that occurs from it. Contacts of fewer than six are common throughout most of the area. The numbers of contacts would be largely maintained.

**Group Size:** (average – other than your own): Group size limits along road could be up to 25. Most hiking groups are fewer than six.

**Evidence of Use:** The evidence of use is associated with the road and several regularly used primitive campsites. Once away from the travel corridors, evidence of use is rare.



**Figure 4. Spencer Flats SRMA – Existing and Desired Social Recreation Setting Characteristics**

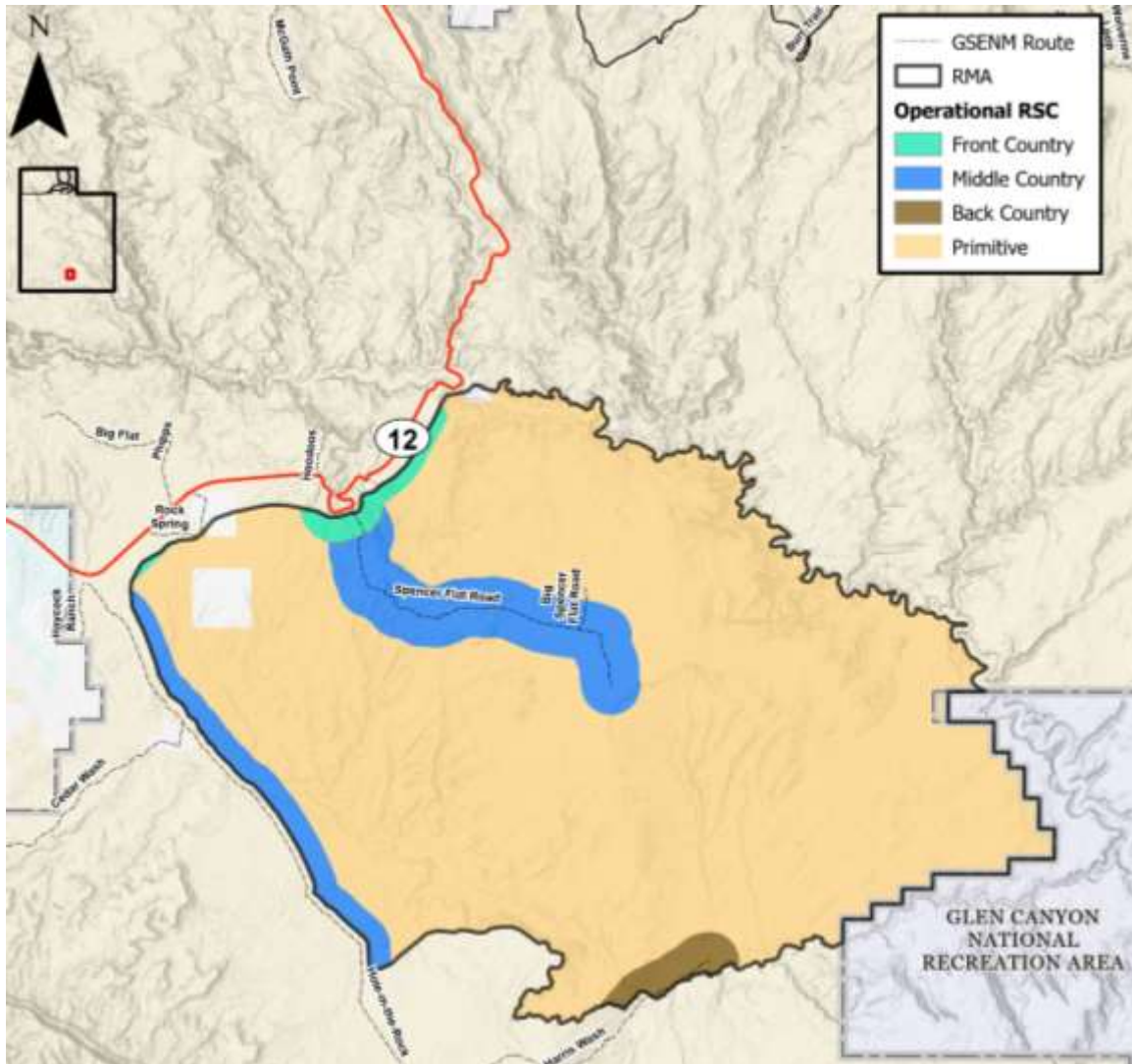
### **SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): The access ranges from 2WD vehicles on Spencer Flat Road to 4WD on the V Road to nonmotorized/nonmechanized in much of the area. The level of access will depend on whether the V Road is open on the TMP. If the V Road is not open, more of the RMA will be primitive; if open, more of it will be backcountry.

**Visitor Services:** Staff presence will continue to be rare.

**Management Controls:** Regulatory and ethics signs will be posted along the road, at designated camping areas, and at trailheads. Signage away from the trailheads or road will be rare.





**Figure 5. Spencer Flats SRMA – Existing and Desired Operational Recreation Setting Characteristics**

**ERMA OBJECTIVE (Alternative D)** - In the Spencer Flats-Red Breaks ERMA, the recreation and visitor services focus on primitive, dispersed, self-directed recreation activities and visitor services supports participation in hiking, canyoneering, and camping while prioritizing protection of GSENM objects.

## LUP MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### Allocation:

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:

- Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
- conflicts with threatened and endangered plant or animal species, and/or
- the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
- Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

*Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., If the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

*Comprehensive Trails and Travel Management:*

- Alternatives C (SRMA)
  - Until travel management planning is completed, the route designations in the 2000 MMP will apply (i.e., the closure of V-Road).
  - Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
  - Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
  - OHV Closed:
    - Primitive area
    - WSA/ISAs
    - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)
- Alternative D (ERMA)
  - Until travel management planning is completed, the route designations in the 2000 MMP will apply (i.e., the closure of V-Road).
  - Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
  - Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.
  - OHV Closed:
    - WSA/ISAs
    - Cherry-stemmed routes in WSAs
    - Lands with wilderness characteristics identified for protection
    - Areas of high probability for cultural resources (according to BLM Class I model)
    - Areas of high probability (PFYC Class 5) for paleontological resources

*Aircraft Landing Areas/Strips:*

- Alternative C (SRMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).
- Alternative D (ERMA) – Consider appropriate landing areas and landing strips for aircraft.

*Lands and Realty:*

- ROW avoidance area unless ROW exclusion is determined for other resource protections.

*Visual Resource Management:*

- Classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA or suitable WSR wild segment (which are managed as VRM Class I).

## **IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size Limits:*

- Alternative C (SRMA) – Group size/pack stock limits per Management Area prescriptions.
- Alternative D (ERMA) – Group size/pack stock limits of 25 or 12 in WSAs.

*Facilities:*

- Alternatives C (SRMA)
  - Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
  - Develop an orientation wayside with kiosk at beginning of Spencer Flat Road.
  - Develop Big Spencer Flats Trailhead to provide access to Cosmic Navel and other destinations.
- Alternatives D (ERMA) – For areas outside of RMAs, recreation facilities other than limited signage would not be provided.

*Trails:*

- Alternative C (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.
- Alternative D (ERMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 7 pm.
- Sensitive resource areas may be closed to camping to protect and/or restore GSENM objects.
- Alternative C (SRMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.
- Alternative D (ERMA)
  - Camping is allowed only in developed campgrounds or designated camping areas.
  - No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Areas adjacent or contiguous to NPS lands requiring human waste removal will require use of personal waste systems.
- Alternative C (SRMA) – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.
- Alternative D (ERMA) – Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing:*

- Canyoneering, rappelling, and climbing not allowed on the Cosmic Navel, archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Alternative C (SRMA) – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.
- Alternative D (ERMA) – Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.
- Alternative C (SRMA)
  - SRPs to be allowed per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.

- Alternative D (ERMA) – SRPs are permitted, with the following limitations:
  - Prohibit SRPs that provide for intentional visitation to known cultural sites.
  - Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative C (SRMA) – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.
- Alternative D (SRMA) – Prohibit competitive events.

*Vending:*

- Alternative C (SRMA) – Vending is allowed per Management Area prescriptions.
- Alternative D (ERMA) – Vending is not allowed.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Alternative C (SRMA) – The takeoff and landing of unmanned aerial systems (drones) to follow Management Area prescriptions.
- Alternative D (ERMA) – The takeoff and landing of unmanned aerial systems (drones) is prohibited.

**BEST MANAGEMENT PRACTICES - to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- Alternative C (SRMA) – If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.
- Alternative D (ERMA) – If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (emergency access, motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update/install trailhead kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.
  - Target visitor information products and signs to prevent collection of iron concretions in locations where this is a concern.

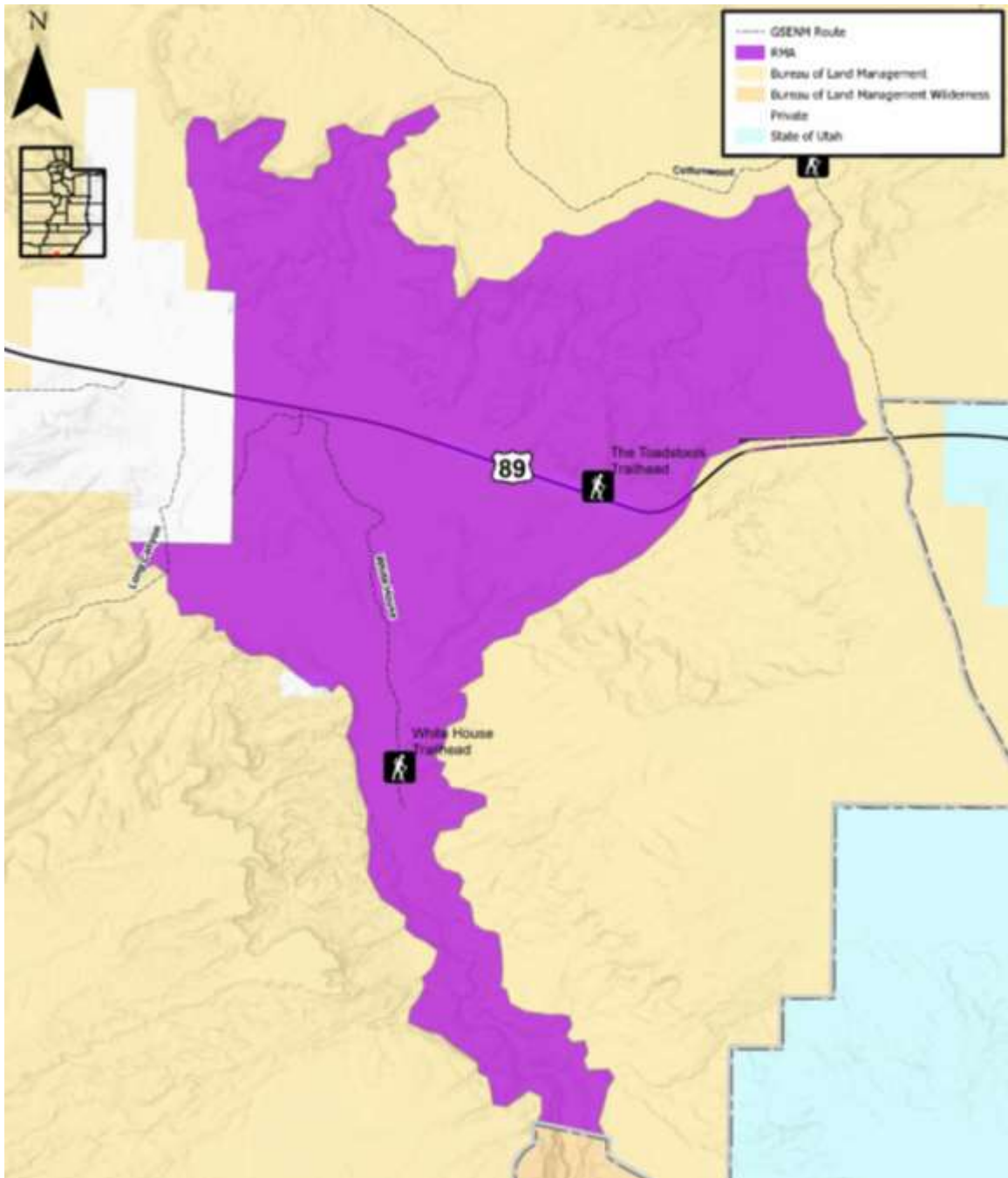
*Monitoring:*

- Alternative C (SRMA) – Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.
- Alternative D (ERMA) – Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

**Toadstools Recreation Management Areas**

**Toadstools Special Recreation Management Areas (Alternatives C and D) Framework**

Size: 4,400 acres



**Figure I. Toadstools Recreation Management Area - Alternatives C and D**

*Rationale:* The Toadstools SRMA encompasses popular recreation destinations in a concentrated geographic region from Cottonwood Road to the north and the Paria Canyon Vermilion Cliffs Wilderness boundary to the south. The SRMA contains the popular Toadstools Trail, White House Campground and

Trailhead, Paria Contact Station, and a section of the Paria River. Toadstools is a popular recreation destination featuring several geologic hoodoo formations. It is considered an easy hike and very accessible with the trailhead immediately adjacent to U.S. Highway 89. White House Campground is one of three campgrounds within GSENM. It is known as the northern staging area and starting point for backpacking along the Paria River ending at Lee’s Ferry in Glen Canyon National Recreation Area. Popular recreation activities in the SRMA include hiking, exploring, developed camping, and photography. The Paria Contact Station provides recreation, safety, and resource protection information along with recreation permits for both front country and back country visitors and offers drinking water and garbage services.

<p><b>SRMA OBJECTIVE</b> - In visitor surveys/assessments, 75% of respondents who participated in targeted activities (listed below) report the ability to realize the targeted experiences and benefits (listed below):</p>		
<p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>• Hiking</li> <li>• Visiting geologic sites</li> <li>• Photography/artistic pursuits</li> <li>• Camping</li> <li>•</li> </ul>	<p><b>Experiences:</b></p> <ul style="list-style-type: none"> <li>• Savoring the total sensory (sight, sound, smell, dark) experience of a natural landscape</li> <li>• Enjoying easy access to natural landscapes</li> <li>• Relishing group (family/friends) affiliation and togetherness Enjoying artistic expression of nature</li> <li>• Enjoying artistic expression of nature</li> </ul>	<p><b>Benefits:</b></p> <p><i>Personal:</i></p> <ul style="list-style-type: none"> <li>• Greater sensitivity to/awareness of outdoor aesthetics and nature’s art and its elegance</li> <li>• Greater sense of personal accountability for acting responsibly on public lands</li> <li>• Greater awareness of GSENM as a special place</li> <li>• Improved opportunity to experience dark night skies and natural quiet</li> <li>• Stronger ties with family and friends</li> </ul> <p><i>Community:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness of GSENM objects and resources</li> <li>• Greater engagement in stewardship and protection of GSENM objects</li> <li>• Enlarged sense of community pride for GSENM</li> <li>• Feeling good about how GSENM is managed</li> <li>• Valued sense of community dependency on public lands</li> </ul> <p><i>Economic:</i></p> <ul style="list-style-type: none"> <li>• Maintenance of distinctive recreation setting, character, and market niche Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</li> </ul> <p><i>Environmental:</i></p> <ul style="list-style-type: none"> <li>• Increased awareness and protection of GSENM objects</li> <li>• Greater sense of collective ownership and stewardship of public lands/GSENM</li> <li>• Reduced vandalism and negative human impacts such as litter, vegetative trampling, social trails, and off-road vehicle travel</li> </ul>



**SRMA DESIRED RECREATION SETTING CHARACTERISTICS TABLE**

Existing RSCs have **bold black borders** and the desired RSCs have **blue shading**.

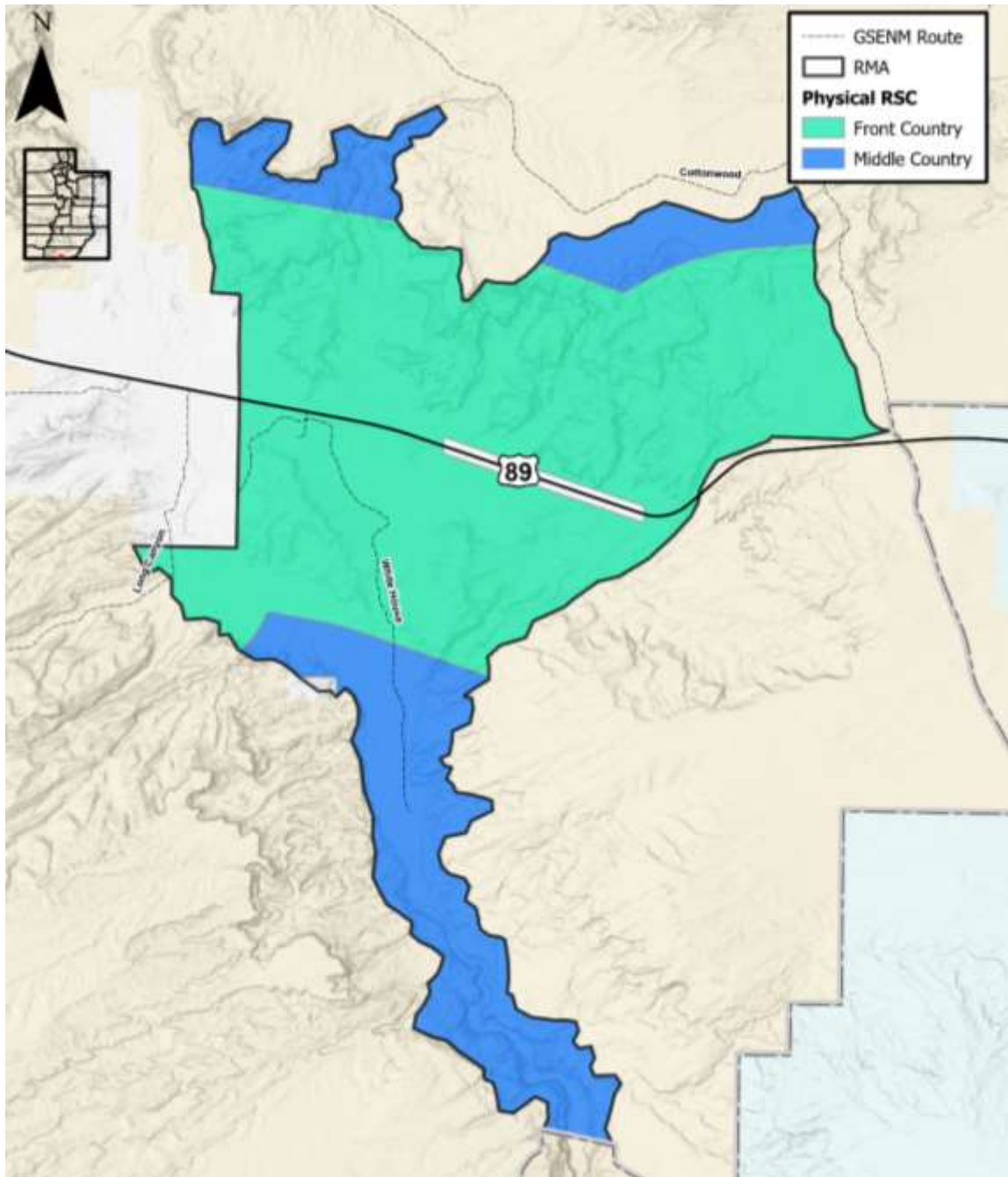
<b>PHYSICAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Remoteness	> ½ mile open roads	near secondary and tertiary open roads	near primary interior roads	near highways
Naturalness	undisturbed	largely intact	retained	partially modified
Facilities	no structures	rare and isolated	basic facilities	developed facilities
<b>SOCIAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Contacts	<6 contact per day	7–15 per day	15–29 per day	>30 per day
Group Size	<3	4–6	7–12	>12
Evidence of Use	no alterations	alterations rare	small alterations	large alterations
<b>OPERATIONAL</b>	<i>Primitive</i>	<i>Back Country</i>	<i>Middle Country</i>	<i>Front Country</i>
Access	nonmotorized	4WD	AWD HC	2WD
Visitor Services	rarely present	infrequently present	occasionally present	regularly present
Regulation	rarely posted	infrequently posted	commonly posted	clearly posted

**SRMA EXISTING AND DESIRED PHYSICAL RECREATION SETTING CHARACTERISTICS**

**Remoteness:** (approximate distance from routes): The existing level of remoteness is maintained. The Toadstools and Paria River trails will continue to provide easy access into a highly scenic, natural landscape.

**Naturalness:** (landscape texture form, line, color): The existing level of naturalness is maintained. The White House Campground is a developed campground consisting of parking areas, fire rings, tent pads, picnic tables, interpretive signs, walk-in campsites, and vault toilets. Garbage dumpsters and drinking water are available at the beginning of the campground access road near the Paria Contact Station. New developments could impact the naturalness of the area.

**Facilities:** Recreational infrastructure to support a range of recreational activities and learning about GSENM resources would be allowed. Recreational trailheads, campground, vault toilets, interpretive waysides/trails will be maintained, improved, and/or developed.



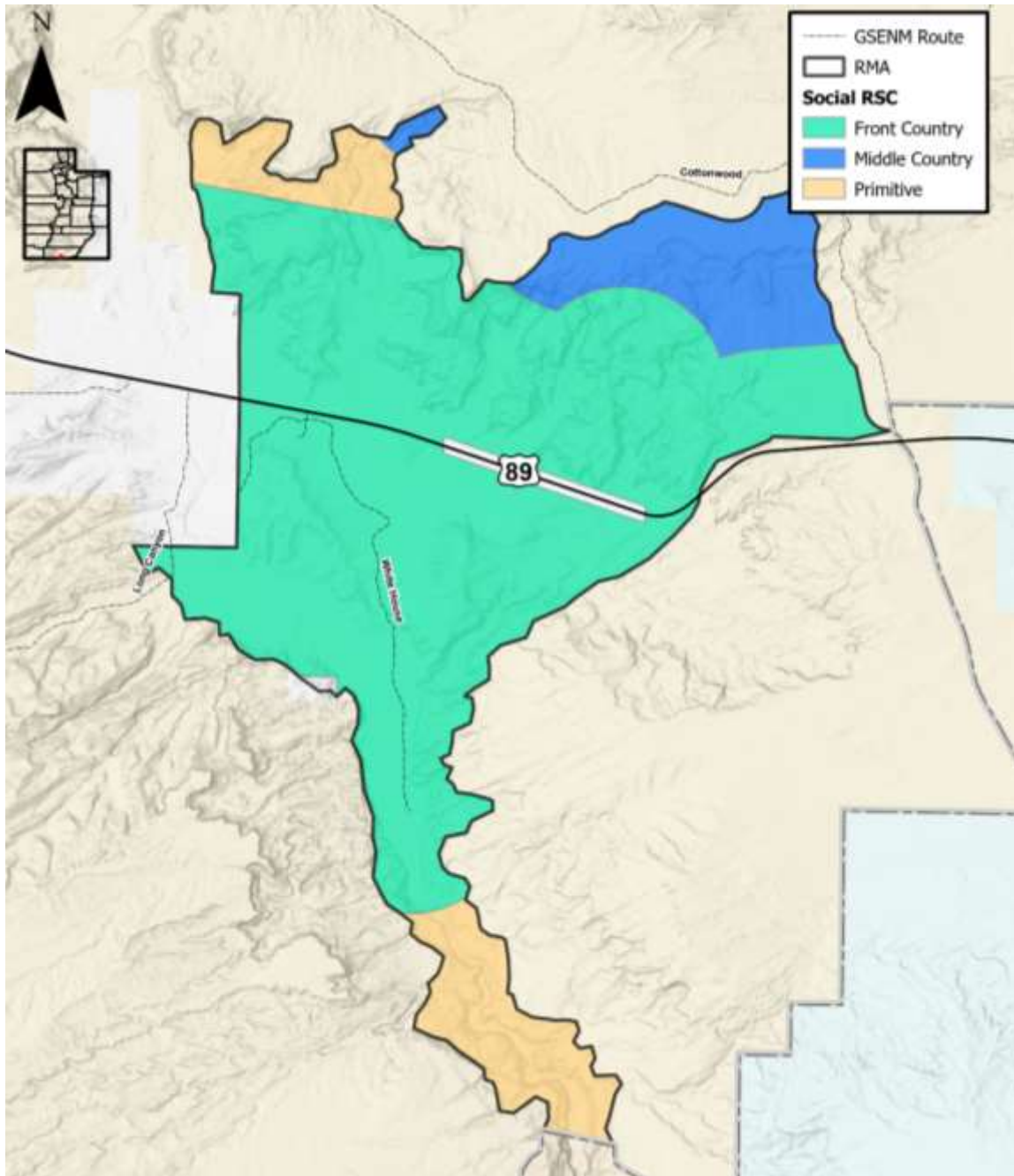
**Figure 2. Toadstools SRMA - Existing and Desired Physical Recreation Setting Characteristics**

### **SRMA EXISTING AND DESIRED SOCIAL RECREATION SETTING CHARACTERISTICS**

**Contacts:** (average with any other group): The number of contacts is maintained or could increase at key locations. Contacts are influenced by the time of year and time of day. Traveling during the spring and fall and during the middle of the day, the number of contacts is higher, whereas in the winter and early morning/evening not encountering anyone else is common.

**Group Size:** (average – other than your own): Most groups would continue to be between 2-6 individuals, which is much smaller than the group size limit of 75.

**Evidence of Use:** The evidence of use would be largely maintained though some areas will be developed/designated for camping and some trailheads will be improved. Areas that are currently used for primitive camping that are closed will be reclaimed and the evidence of use will diminish. The user creation of additional dispersed camping areas would be curtailed.



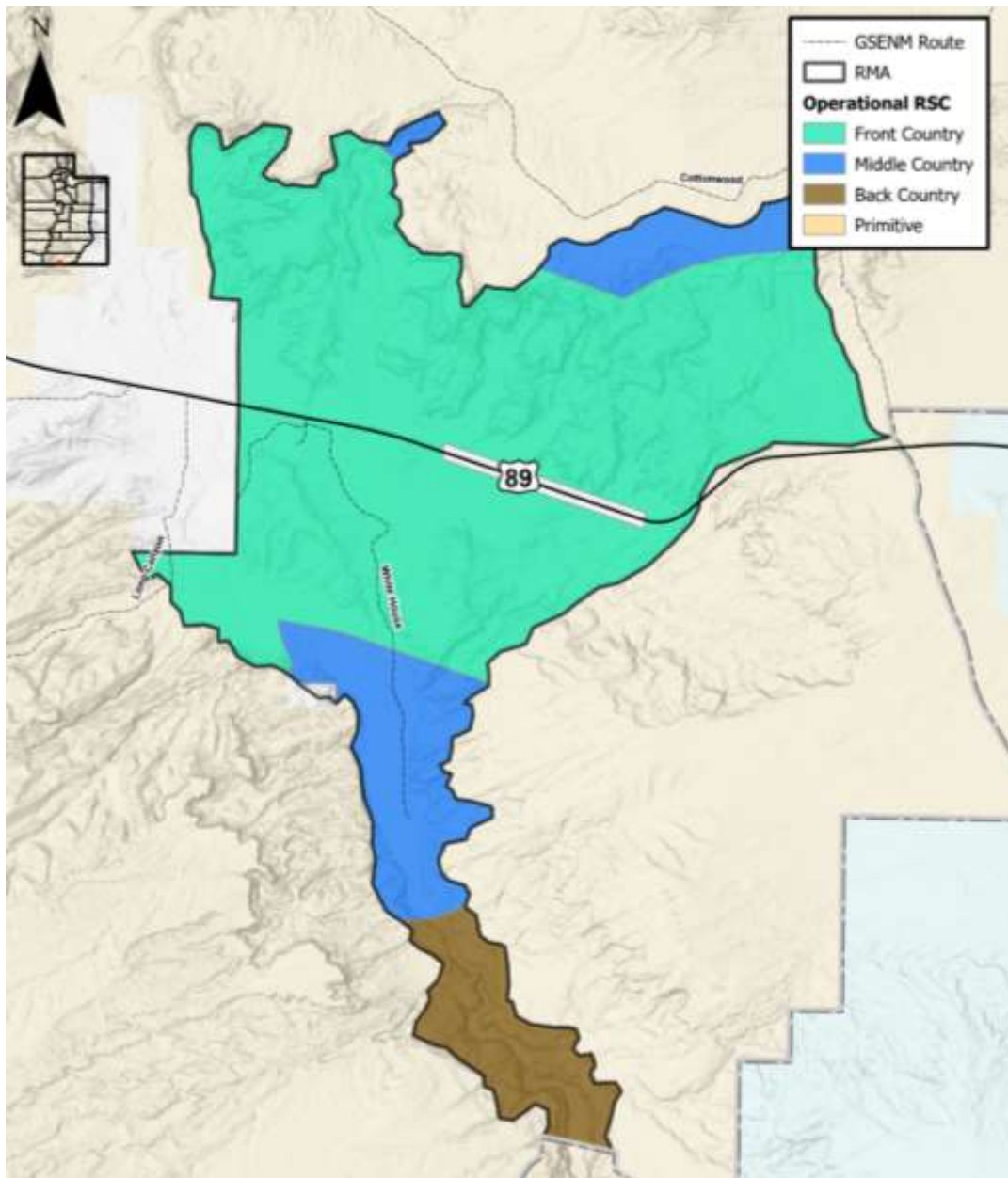
**Figure 3. Toadstools SRMA – Existing and Desired Social Recreation Setting Characteristics**

**SRMA EXISTING AND DESIRED OPERATIONAL RECREATION SETTING CHARACTERISTICS**

**Access:** (types of travel allowed): The White House Campground and Paria Contact Station roads are gravel surfaces and regularly maintained. They are recommended for 2WD passenger vehicles. The type of access will be maintained.

**Visitor Services:** Staff presence will continue to be occasional. Kiosks with maps will continue to be located at waysides, trailheads, and recreation sites.

**Management Controls:** Regulatory and ethics signs will be posted at recreation facilities and sites.



**Figure 4. Toadstools SRMA – Existing and Desired Operational Recreation Setting Characteristics**

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts on Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management*

#### *Alternative C (SRMA)*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- Closed:
  - Primitive area
  - WSA/ISAs,
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

#### *Alternative D (SRMA)*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Prohibit the designation of OHV routes not included in the 2000 GSENM TMP for public use, as modified by this planning process unless needed for public safety and/or enhance the protection of GSENM objects.

- Closed:
  - WSA/ISAs
  - Cherry-stemmed routes in WSAs
  - Lands with wilderness characteristics identified for protection
  - Areas of high probability for cultural resources (according to BLM Class I model)
  - Areas of high probability (PFYC Class 5) for paleontological resources

*Aircraft Landing Areas/Strips:*

- Alternative C (SRMA) – Consider appropriate landing areas and landing strips for aircraft (except for in the primitive area, which is closed to OHV travel).
- Alternative D (SRMA) – Consider appropriate landing areas and landing strips for aircraft.

*Lands and Realty:*

- ROW avoidance areas are applied to the SRMA except for areas of SRMA within WSAs which are managed as ROW exclusion areas.

*Visual Resource Management:*

- Managed according to assigned VRM classifications and objectives.

## **IMPLEMENTATION DECISIONS**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size/Pack Stock Limits:*

- Group size/pack stock limit of 75/25 in SRMA.

*Facilities:*

- Allow basic and developed recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
- Improve/maintain recreation sites: White House Campground and Trailhead, Toadstools Trailhead, Nautilus Trailhead, and Paria Contact Station.
- Improve/maintain information kiosks at Toadstools Trailhead, White House Campground and Trailhead.

*Trails:*

- Alternative C (SRMA) – Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.
- Alternative D (SRMA)– Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited areas. Prohibit designating new nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV closed areas, unless the creation of such a trail would provide for enhanced protection of GSENM objects.

*Camping:*

- Sensitive resource areas may be closed to camping to protect and/or restore GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping (in campgrounds, designated camping areas or dispersed): 10 pm to 6 am.
- Alternative C (SRMA)
  - Camping allowed per Management Area prescriptions.
  - Campfires and wood collection allowed per Management Area prescriptions.
- Alternative D (SRMA)
  - Allow camping only in developed campgrounds or designated camping areas.
  - No fires except in designated fire grates. Campfire wood collecting not allowed. Removal of unused imported firewood required.

*Personal Waste Systems:*

- Alternatives C (SRMA) – Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.
- Alternative D (SRMA) – Require the use of personal waste systems unless facilities are provided.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Canyoneering, rappelling, and climbing are not allowed on archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed to canyoneering, climbing, and rappelling as needed to protect species.
- Raptor nesting sites may be buffered or seasonally closed to prevent disturbance from canyoneering, climbing, and rappelling.
- Alternative C (SRMA) – Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.
- Alternative D (SRMA) – Prohibit new fixed anchors.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Alternative C (SRMA)
  - SRPs to be allowed per Management Area prescriptions.
  - Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the Area in which the event occurs.
- Alternative D (SRMA) – SRPs are permitted, with the following limitations:
  - Prohibit SRPs that provide for intentional visitation to known cultural sites, except for approved visitation to designated public cultural sites or approved sites by the BLM.

- Limit the number of SRPs to ensure that an undeveloped, primitive, and self-directed visitor experience is achieved.

*Competitive Events:*

- Prohibit motorized competitive events.
- Alternative C (SRMA) – Allow/prohibit nonmotorized competitive events on designated routes per Management Area prescriptions.
- Alternative D (SRMA) – Prohibit all competitive events.

*Vending:*

- Vending would be occasional, infrequent, and may be allowed by permit on a case-by-case basis, in association with approved special events or recreation sites. Generally, permits could be issued to provide services needed at recreation sites (such as firewood sales at campgrounds) and services that are commonly offered in conjunction with permitted special events. Criteria and/or stipulations to protect GSENM objects would be included in all permits.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is prohibited.

*Drone Use:*

- Alternative C (SRMA) – Allow takeoff and landing of unmanned aerial systems (drones) per Management Area prescriptions.
- Alternative D (SRMA) – Prohibit takeoff and landing of unmanned aerial systems (drones) in GSENM.

**BEST MANAGEMENT PRACTICES – to guide implementation**

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that social RSCs are not being achieved, visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, targeted outcomes, RSCs, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Update kiosks at the beginning of the Toadstools Trail and White House Campground.



- Update/install recreation site kiosks.
- Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

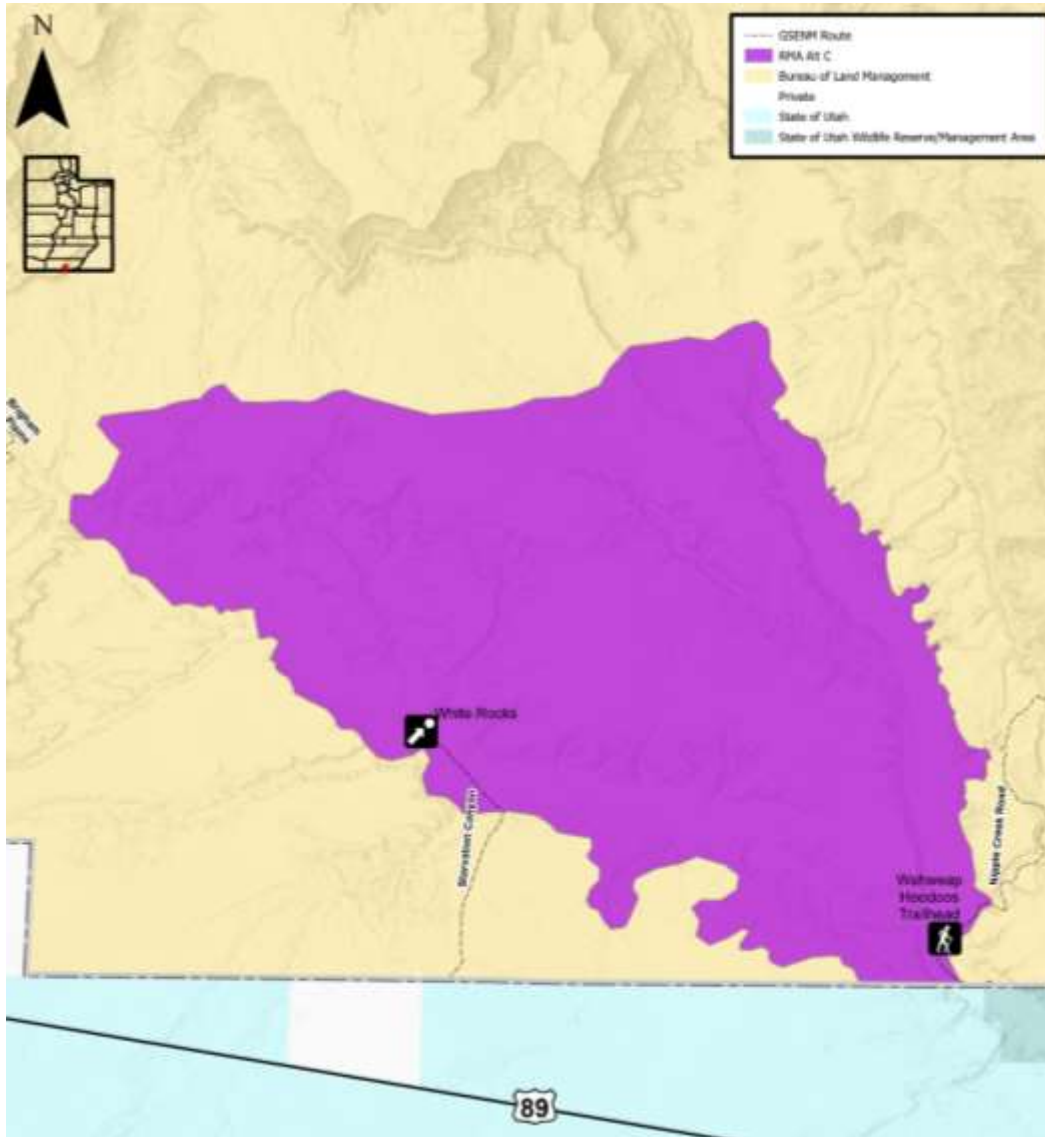
- Monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor surveys) on 5-year intervals or as funding allows. Monitor activity participation and RSCs annually during the primary use season of March through October.

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## Wahweap Hoodoos-White Rocks Recreation Management Area

### Wahweap Hoodoos-White Rocks Extensive Recreation Management Area (Alternative C) Framework

Size: 12,400 acres



**Figure 1. Wahweap Hoodoos – White Rocks Recreation Management Area – Alternative C**

*Rationale:* The Wahweap Hoodoos-White Rocks ERMA encompasses the areas around the Wahweap Hoodoos north of Big Water and White Rocks north of Church Wells. Most of this ERMA is within the Wahweap WSA. The area has become popular for hikers and photographers because of the uniqueness of the slender, white, dark sandstone-capped hoodoos. Motorized access to the area is around the periphery. The distance from Nipple Canyon Road to the Wahweap Hoodoos is about eight miles roundtrip through a dry, exposed landscape; and the hike from the end of Starvation Canyon Road to the White Rocks features is more than a mile. Both destinations are for those seeking an “off-the-beaten”

path hiking experience with unique photography opportunities as a reward. There are no recreational developments in this area.

**ERMA OBJECTIVE (Alternative C)** – In the Wahweap Hoodoos-White Rocks ERMA, the recreation and visitor services focus on dispersed, self-directed recreation activities that support participation in hiking and photography while prioritizing protection of GSENM objects.

## LAND USE PLANNING MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

### *Allocation:*

- Allocations would be allowed for the protection of GSENM objects, to control crowding, and/or to meet recreation objectives. During Plan implementation, allocation of use (e.g., visitation limits) may be established as needed to protect GSENM objects, control crowding, and meet recreation objectives. The following indicators will be used to determine when and where allocation of use need to be made or changed:
  - Resource damage (e.g., proliferation of campsites, human waste problems, social trailing or vandalism to historical, archaeological, paleontological sites, or destruction of biological soil crusts),
  - conflicts with threatened and endangered plant or animal species, and/or
  - the number of social encounters become unacceptable. Total numbers of people and group size will be considered.
  - Impacts to Tribal Nations' ability to engage in traditional and ceremonial practices.

### *Special Recreation Permits:*

- SRPs are issued as a discretionary action for activities that:
  - are consistent with protection of GSENM objects and resource/program objectives.
  - are within budgetary/workload constraints (e.g., if the BLM is unable to fulfill or complete all the necessary steps of issuing and managing an SRP, then an SRP may not be issued).
  - would not cause public health and safety issues or create user conflicts.

### *Comprehensive Trails and Travel Management:*

- Until travel management planning is completed, the route designations in the 2000 MMP will apply.
- Consider motorized, mechanized, and nonmotorized/nonmechanized route designations.
- Only consider the designation of OHV routes that would be in addition to the 2000 GSENM TMP for public use, as modified by this planning process, if the additional routes would increase public safety and/or enhance protection of GSENM objects.
- OHV Closed:
  - Primitive area
  - WSA/ISAs
  - Lands with wilderness characteristics identified for protection within WSAs (formerly SITLA parcels)

*Aircraft Landing Areas/Strips:*

- The takeoff and landing of unmanned aerial systems (drones) allowed per Management Area prescriptions.

*Lands and Realty:*

- ROW avoidance areas are applied to the ERMA unless ROW exclusion is determined for other resource protections.

*Visual Resource Management:*

- Classified as VRM Class II and managed under VRM Class II objectives for all areas of SRMA not within a WSA or suitable WSR wild segment (which are managed as VRM Class I).

**IMPLEMENTATION DECISIONS:**

*Overnight Permits:*

- Permits required for overnight use.

*Group Size /Pack Stock Limits:*

- Group size and pack stock limits per Management Area prescriptions.

*Facilities:*

- Allow basic recreational infrastructure to support a range of recreational activities and learning about GSENM resources.
- Develop primitive trailhead at Wahweap Hoodoos.
- Develop primitive trailhead at White Rocks.

*Trails:*

- Consider designating nonmotorized recreational trails (e.g., hiking, bicycling, horseback riding) in OHV limited and OHV closed areas, according to Management Area prescriptions.

*Camping:*

- Designate primitive camping areas along open roads as necessary to protect GSENM objects.
- Apply a 14-day camping limit. Campers must relocate at least a 25-mile radius away and may not return within 30 days to a previous campsite.
- Quiet hours when camping: 10 pm to 6 am.
- Camping allowed per Management Area prescriptions.
- Campfires and wood collection allowed per Management Area prescriptions.

*Personal Waste Systems:*

- Areas adjacent or contiguous to NPS lands requiring human waste removal will require use of personal waste systems.
- Require personal waste systems at designated primitive camping areas. Require the use of personal waste systems within 300 feet of a water source. Personal waste systems may be required in other locations to protect GSENM objects.

*Canyoneering, Rappelling, Climbing Restrictions:*

- Not allowed on hoodoos, archeological sites, natural bridges, and arches.
- Special Status Species habitat would be closed as needed to protect species.
- May be buffered or seasonally closed to prevent disturbance to raptor nesting.
- Permanent fixed anchors outside of WSAs could be permitted if shown to be consistent with the protection of GSENM objects and would enhance public safety.

*Special Recreation Permits:*

- Multiyear SRPs are subject to annual review to ensure the continued consistency with the protection of GSENM objects.
- Allow/prohibit motorized SRPs per Management Area prescriptions.
- Group sizes will be determined in accordance with the requirements of the most restrictive prescriptions for the area in which the event occurs.

*Competitive Events:*

- Prohibit motorized competitive events.
- Allow nonmotorized competitive events (that meet group size limits) on designated routes per Management Area prescriptions.

*Vending:*

- Vending is allowed per Management Area prescriptions.

*Recreational Target Shooting:*

- The discharge of firearms for recreational target shooting is allowed per Management Area prescriptions.

*Drone Use:*

- The takeoff and landing of unmanned aerial systems (drones) to follow Management Area prescriptions.

**BEST MANAGEMENT PRACTICES – to guide implementation**

Best management practices for implementation-level planning guidance are presented to illustrate opportunities for active stakeholder collaboration and to provide a suite of possible implementation actions that could be adaptively performed to ensure management effectiveness in meeting recreation and visitor services goals and objectives.

*Management:*

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* implementation actions to respond to future recreation issues and the results of monitoring.
- If future monitoring indicates that visitor health and safety issues exist, resource damage is occurring or user conflicts need to be addressed, the BLM may implement additional visitor use restrictions for private and commercial recreation use per direction in Allocation section above.

*Administration:*

- Administrative use authorizations (motorized access, drone use, etc.) can be granted on a case-by-case basis by the authorized officer.

*Information and Education:*

- Target visitor information efforts on protection of GSENM objects, orientation, safety, and stewardship/user ethics information to help preserve the special landscape character of this place and the recreation opportunities it provides.
  - Install trailhead kiosks.
  - Develop attraction and route descriptions (print and digital) to share with visitors.

*Monitoring:*

- Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., user groups, nongovernmental organizations, etc.).

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# Appendix F

## Analytical Framework

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# Appendix F. Analytical Framework

## F.1 INTRODUCTION

This appendix presents the background for and approach to identifying the environmental, social, and economic impacts on the human and natural environment that are predicted to result from implementing the alternatives presented in **Chapter 2**. The goals, objectives, and actions described in Chapter 2 by alternative are generally plan-level decisions and do not result in direct, on-the-ground changes. Plan-level decisions establish allocations that identify the uses that are allowed, restricted, or prohibited on BLM-managed lands and federal mineral estate. These allocations set the stage to guide future land management actions and subsequent site-specific or implementation decisions and the corresponding resource use levels.

Because the alternatives provide a broad management framework, the exact location, timing, and level of development or resource extraction are not known and cannot be accurately predicted. The actual levels of activities may be more than or less than the levels estimated for analysis purposes; however, the estimated levels allow the BLM to analyze and display the relative differences among the alternatives.

Impact analyses and conclusions are based on interdisciplinary team knowledge of the resources and the planning area, information provided by experts in the BLM, monitoring data and information contained in pertinent literature, and professional judgment. The baseline used for the impact analysis is the current condition or situation, as described in the *Affected Environment* sections of **Chapter 3**.

The methodology for the impact assessment conforms to the guidance found in the following sections of the Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act (NEPA): 40 Code of Federal Regulations (CFR) 1502.24 (Methodology and Scientific Accuracy), 40 CFR 1508.7 (Cumulative Impact), and 40 CFR 1508.8 (Effects). The CEQ regulations require that agencies “rigorously explore and objectively evaluate” the impact of all alternatives.

## F.2 DIRECT AND INDIRECT IMPACTS

Direct and indirect impacts are considered in **Chapter 3**:

**Direct Effects**—Effects that are caused by the proposed action and occur at the same time and place. Examples of direct effects are filling of wetlands through the placement of gravel pads, and direct mortality of wildlife or vegetation.

**Indirect Effects**—Effects that are caused by the proposed action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects “may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.” Indirect effects are caused by the proposed action, but do not occur at the same time or place as the direct effects.

Potential effects are quantified where possible using geographic information systems (GIS) and other applications; in the absence of quantitative data, best professional judgment prevailed. Impacts are

sometimes described using ranges of potential impacts or in qualitative terms. The standard definitions for terms used in the analysis are as follows, unless otherwise stated:

**Context**—Describes the area or location (site-specific, local, planning area-wide, or regional) in which the potential impact would occur. Site-specific impacts would occur at the location of the action, local impacts would occur in the decision area, planning area-wide impacts would affect most or all of the planning area, and regional impacts would extend beyond the planning area boundaries.

**Duration**—Describes the length of time an effect would occur, either short term or long term. The temporal scale of effects is defined for each resource below.

**Intensity**—Impacts are discussed using quantitative data where possible.

### F.3 CUMULATIVE IMPACTS

The cumulative impact analysis considers impacts of a proposed action and its alternatives that may not be consequential when considered individually; however, when they are combined with impacts of other actions, they may be consequential.

The purpose of the cumulative impacts analysis is to determine if the impacts of the actions considered in this EIS, together with other past, present, and reasonably foreseeable future actions (RFFA), could interact or accumulate over time and space, either through repetition or combined with other impacts, and under what circumstances and to what degree they might accumulate.

Additional requirements of other regulatory agencies would further reduce any cumulative impacts.

#### **Method**

The method used for cumulative impacts analysis consists of the following steps:

- Identify issues, characteristics, and trends in the affected environment that are relevant to assessing cumulative effects of the action alternatives. This includes discussions on lingering effects from past activities that demonstrate how they have contributed to the baseline condition for each resource. This information is summarized in **Chapter 3**.
- Define the spatial (geographic) and temporal (time) frame for the analysis. This timeframe may vary between resources depending on the historical data available and the relevance of past events to the current baseline.
- Identify past, present, and RFFA from human activities that could have additive or synergistic effects. Summarize past and present actions within the defined temporal and spatial time frames, and identify any RFFA that could have additive, countervailing, or synergistic effects on identified resources.
- Use a specific method to screen all the direct and indirect effects, when combined with the effects of external actions, to capture those synergistic and incremental effects that are potentially cumulative in nature. Both adverse and beneficial effects of external factors are assessed and then evaluated in combination with the direct and indirect effects for each alternative on the various resources to determine if there are cumulative effects.

- Evaluate the impact of the potential cumulative effects and assess the relative contribution of the action alternatives to cumulative effects.

The analysis also considers the interaction among the impacts of the alternatives with the impacts of various past, present, and RFFA, as follows:

- Additive—the impacts of actions add together to make up the cumulative impact
- Countervailing—the impacts balance or mitigate the impacts of other actions
- Synergistic—the impact of the actions together is greater than the sum of their individual impacts

In the GSENM, both the temporal and geographic scope of the cumulative impact analysis could vary according to the resource under consideration. Generally, the appropriate timeframe for cumulative impacts analysis spans through the life of the plan. Climate change may require a larger temporal scale to see measurable changes. The geographic scope generally encompasses the planning area but could extend beyond for some resources (for example, air resources).

### ***Past, Present, and Reasonably Foreseeable Future Actions***

Relevant past and present actions are those that have influenced the current condition of the resource. For the purposes of this resource management plan (RMP)/environmental impact statement (EIS), past and present actions are human-controlled events. Past actions were identified using agency documentation, National Environmental Policy Act (NEPA) analyses, reports and resource studies, peer-reviewed literature, and best professional judgment.

The term RFFA is used in concert with the CEQ definitions of indirect and cumulative effects, but the term itself is not defined further. Most regulations that refer to “reasonably foreseeable” do not define the meaning of the words but do provide guidance on the term. Typically, RFFAs are based on such documents as plans, permit applications, and fiscal appropriations. RFFAs considered in the cumulative effects analysis consist of projects, actions, or developments that can be projected, with a reasonable degree of confidence, to occur over the life of the plan.

Recent environmental reports, surveys, research plans, NEPA compliance documents, and other source documents were evaluated to identify these actions. RFFAs were assessed to determine if they were speculative and would occur within the analytical timeframe of the GSENM RMP/EIS. Projects and activities considered in the cumulative effects analysis are summarized below.

#### *Lands and Realty*

All these lands actions are underway and proceeding to the extent legally possible (for example, Skutumpah road paving).

- Re-Issue Garkane Energy’s Cottonwood/Cockscomb 138 Kilovolt Transmission Line Right-of-Way (ROW; Categorical Exclusion 2012 DOI-BLM-UT-0300-2012-0004-CX) – Ongoing vegetation maintenance under transmission lines.
- Buckskin to Kanab, Utah and Fredonia, Arizona Transmission Line (Environmental Assessment [EA] 2016 DOI-BLM-UT-0300-2015-0039-EA) – Still being implemented. See <https://eplanning.blm.gov/eplanning-ui/project/50548/510>.

- Arcacian Infracom I, LLC-Broadband Fiber project Right-of-Way (categorical exclusions in development) – Kanab Field Office and Grand Staircase-Escalante National Monument; this involves all underground lines.
- Dumas Direct Land Sale (EA in development; DOI-BLM-UT-P020-2022-0013-EA) – Awaiting posting notice of realty action due to needing new appraisal. See <https://eplanning.blm.gov/eplanning-ui/project/2020901/510>.
- Skutumpah road paving (EA DOI-BLM-UT-P020-2022-0014-EA) – Awaiting secretarial order instruction memorandum and court ruling in 2023; if the decision is upheld, then the EA that was in development would proceed. See <https://eplanning.blm.gov/eplanning-ui/project/2021444/510>.
- Lake Powell Pipeline ROW – U.S. Department of the Interior, Bureau of Reclamation – Pending ROW with the BLM. There may be pump stations on both private land and on BLM-managed land (in GSENM and Kanab Field Office). See <https://lpputah.org/draft-environmental-impact-statement/> and <https://www.usbr.gov/uc/DocLibrary/EnvironmentalImpactStatements/LakePowellPipeline/index.html>.
- Solar Energy Development on School and Institutional Trust Lands Administration land near Big Water – Large solar farms. Installation is underway.
- Title 23 ROWs – These were granted to federal highways, prior to establishment of GSENM, without an expiration date, for use in projects that involve federal funding. There are at least three Title 23 ROWs (near the Paria Contact Station, near Henriville Creek, and across the highway from Kitchen Corral). Gravel can be removed as part of the project but is not available to the BLM or counties. Use level is not tracked and could be substantial.
- Future road maintenance for Skutumpah, Cottonwood, Hole-in-the-Rock Road, and House Rock Valley Roads is likely but not currently being planned.
- Cottonwood Creek Acquisition, Purchase of a Private Land Parcel within GSENM (EA 2023 DOI-BLM-UT-P010-2023-0007-EA) – Preliminary EA published in July 2023 for a public comment period. This would involve acquisition of a largely natural square mile of private land. See <https://eplanning.blm.gov/eplanning-ui/project/2025825/510>.

#### *Livestock Grazing*

\*These actions noted with an asterisk (\*) might proceed only if the GSENM Approved RMP provides for such proposals.

- Rangeland Wells and Pipelines (EA; decision record in 2022) – Decision and appeal. A stay was denied; the projects are currently partly implemented and underway. See <https://eplanning.blm.gov/eplanning-ui/project/88913/510>.
- \*GSENM Water Catchment Projects (EA in development) – The EA needs revision to conform to the current RMPs. Implementation would be at least a few years in the future. Development of the EA could resume if the anticipated new GSENM RMP/EIS record of decision allows for the proposal. See <https://eplanning.blm.gov/eplanning-ui/project/88914/510>.
- \*Stair Canyon (EA in development) – Proposal for approximately 10 miles of pipeline replacement. Implementation would be at least a few years in the future. Development of the EA could resume if the anticipated new GSENM RMP/EIS record of decision allows for the proposal.



### Minerals

- Up to 10 producing oil and gas wells and 4 exploration wells in the planning area – Upper Valley Oil Field, Garfield County.
- Alton Coal Mine on Kanab Field Office – Various ePlanning documents, but all are for the same mine. Based on monitoring and sampling nitrous oxide and visibility do not substantially affect nearby Class I areas (confirmed with Utah Air Quality Specialist.).
- Creamsicle Alabaster Mine – The validity exam is almost complete. No ePlanning posts have been made to date. The rough estimate of the area is 2 acres. The claimant provided notice for exploration activity in 2019. The operator conducted exploration under this notice in 2020; it expired in September 2021. Since GSENM was designated in October 2021, a plan of operations was required to continue mining activities. In December 2021, the claimant filed a plan of operations, which triggered the need for a valid existing rights examinations.
- Berry Patch Alabaster Project (EA in development) – Locatable mine claims for alabaster. The EA for the plan of operations is finished but not posted. The BLM awaits a request for a validity exam from the proponent. The rough estimate of the area is 2 acres. See <https://eplanning.blm.gov/eplanning-ui/project/1504591/510>.

### Vegetation Projects and Wildlife

\*These actions noted with an asterisk (\*) might proceed only if the GSENM Approved RMP provides for such proposals.

- Upper Kanab Creek Watershed (EA; decision record in 2011) – There will not be further new work approved using this Color Country District vegetation management EA (that is, through determinations of NEPA adequacy), but there still may be very minor mechanized work authorized under completed NEPA. This project shares some boundary with GSENM. Also, there are both hydrologic unit codes 10 and 12 watersheds that span the EA project area and GSENM. At a minimum, there continue to be overlapping effects on vegetation and hydrology. See <https://eplanning.blm.gov/eplanning-ui/project/111082/510>.
- Kanab Field Office Noxious and Invasive Vegetation Management (EA; decision record in 2021) – The Kanab Field Office shares boundaries with GSENM; this EA provides the potential to reduce weed spread into GSENM. See <https://eplanning.blm.gov/eplanning-ui/project/2014291/510>.
- \*Skutumpah Terrace, Sagebrush Steppe Enhancement Project (EA; decision record in 2019) – Decision and appeal. The EA and decision record are being revised. See <https://eplanning.blm.gov/eplanning-ui/project/69546/510>.
- \*Maintenance of existing nonstructural range improvements is likely but not currently being planned.

### Recreation

- Kanab Field Office projects, such as those related to, but not limited to, hiking and mountain bike trails, camping, and trailhead developments, have the potential to disperse visitors out of GSENM.
- Calf Creek Recreation Site Deferred Maintenance and Improvements Project (EA; decision record in 2023) – Decision and appeal. The stay was denied; the proposal will begin implementation in Fall 2023 and will proceed during GSENM RMP/EIS development.

- Special Recreation Permits – Various. Special recreation permits are a small part of overall recreation use; dispersed public visitation is most of the use. One large wilderness therapy program operates in GSENM. Special recreation permits vary by alternative, but they would still be a small fraction of the total recreation use.

*Other*

- Programmatic EA for Small-Scale Dinosaur Excavations in Poorly Vegetated Badlands Setting (EA; decision record in 2006), and paleontological excavation projects under associated determinations of NEPA adequacy – Determinations of NEPA adequacy with decisions from 2006 forward, and most recently in 2013, 2014, 2015, 2016, 2018, 2019, and 2020. The rough estimate of total open excavations is approximately 5 sites, each approximately 20 square meters or 0.02 acres in sum. This is typical of what would be open at any given time. Using this as an average, excavations have made a total disturbance of 0.46 acres over the last 23 years; this number is likely somewhat high. Areas are restored and then monitored for weeds for a few years.

#### **F.4 RESOURCE METHODOLOGY AND ASSUMPTIONS**

For organizational purposes, **Chapter 3** is divided into sections by subject area (such as water resources, vegetation, and recreation) from the land use planning handbook, BLM Handbook H-1601-1. Though they are described and analyzed in discrete sections, these subjects are dynamic and interrelated. A change in one resource can have cascading or synergistic impacts on other resources. For example, erosion affects water quality, which in turn affects fish populations, which can have implications on other human outcomes, such as health and sociocultural systems. As a result, there is some overlap among the resource sections in Chapter 3, and the impacts described in one section may depend on the analysis from another section. During the writing process, resource specialists shared data and discussed interrelated aspects of the analyses to better capture the interrelated nature of environmental resources. The analysis scale, assumptions, methodology and techniques, unit of measure, data used, analytical conclusions to be answered, and analysis display for each resource analysis are detailed below. The impact analyses for direct, indirect, and cumulative impacts for all resources are found in Chapter 3.

#### **F.5 AIR RESOURCES – AIR QUALITY**

***How would proposed management actions and land use allocations contribute to air pollutant emissions and affect air quality and visibility?***

*Geographic and Temporal Scale of Analysis*

- The analysis scale is the planning area air basins for the life of the RMP.

*Relevant Assumptions*

- Demands for motorized use trends would continue.
- Prescribed burning would follow Utah Smoke Management Program regulations and permit conditions.
- Air quality and visibility trends would follow the trends estimated by the U.S. Environmental Protection Agency (EPA) in the most recent regional haze modeling.
- BLM-authorized activities would not result in exceedances of National Ambient Air Quality Standards (NAAQS).

*Analysis Methodology and Techniques*

- Discuss baselines and trends for criteria air pollutants and air quality related values such as visibility and deposition.
- Provide a quantitative discussion of the nature and type of air impacts based on management actions and land use allocations for each alternative.
- Provide a qualitative discussion of fugitive dust from natural processes.

*Units of Measure*

- Tons of criteria and hazardous pollutant emissions
- Tons of fugitive dust emissions

*Relevant Data and Information to Be Used*

- Trends in criteria air pollutant emissions and concentrations
- Trends in visibility in Class I areas
- Acres of land use allocations
- Emissions inventory data
- EPA emission factors

*Analytical Conclusions to Be Answered*

- How would the action alternatives affect air quality and visibility when compared with current management?

*Analysis Display*

- Existing criteria pollutant emissions by planning area county
- Air monitoring data for the past 3 years compared with the NAAQS
- Trends in ozone and particulate matter concentrations
- Trends in visibility in Class I areas
- Trends in deposition (that is, when compounds of various types of air pollution are deposited on the earth's surface through rain, clouds, snow, fog, or as dry particles)
- Table of emissions by BLM-authorized activity

**F.6 AIR RESOURCES – CLIMATE CHANGE*****What would be the expected contribution to greenhouse gas emissions from proposed management?****Geographic and Temporal Scale of Analysis*

- Climate change is a global issue, and the geographic analysis area for greenhouse gases (GHGs) cannot be restricted to one region. For the purposes of the RMP/EIS, the GHG and climate change geographic analysis area is focused on Utah and the United States.
- The temporal scale is both 20 years and 100 years to represent the differing effects from shorter- and longer-lived GHGs based on their 20-year and 100-year global warming potential.

*Relevant Assumptions*

- For cumulative effects analysis purposes, GHG emissions from other federal, state, and private lands would follow current trends.

*Analysis Methodology and Techniques*

- Quantitatively assess emissions of carbon dioxide, methane, and nitrous oxide from discretionary uses.
- For context, compare emissions from BLM-authorized activities with GHG emissions at other geographic scales (such as the BLM, state, US, and global) and other equivalency metrics (such as emissions from home energy use, emissions avoided by wind turbines, or carbon sequestered by acres of US forests annually).

*Units of Measure*

- Metric tons of carbon dioxide, methane, and nitrous oxide emissions and their carbon dioxide equivalent (CO<sub>2</sub>e)

*Relevant Data and Information to Be Used*

- PRISM Climate Group data sets (1991–2020) for the average annual temperature and precipitation
- National Oceanic and Atmospheric Administration State Climate Summary for Utah (Frankson et al. 2022)
- 2020 BLM Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends (BLM 2022)
- Fourth National Climate Assessment, Southwest Region (Gonzalez et al. 2018)
- Climate Change 2021: The Physical Science Basis (Intergovernmental Panel on Climate Change 2021)
- Colorado Plateau Rapid Ecological Assessment (Bryce et al. 2012)

*Analytical Conclusions to Be Answered*

- Would the action alternatives result in a change in GHG emissions compared with current management?

*Analysis Display*

- Graphical displays of annual temperatures and precipitation
- Tables of emissions

***How would proposed management affect long-term carbon storage and sequestration in GSENM?****Geographic and Temporal Scale of Analysis*

- The analysis scale is the decision area for the life of the RMP.

*Relevant Assumptions*

- None

#### *Analysis Methodology and Techniques*

- Describe the carbon sequestration potential of decision area lands and qualitatively discuss the potential changes based on management actions and the potential outcome vegetation management on carbon storage and sequestration over the long term.

#### *Units of Measure*

- Acres

#### *Relevant Data and Information to Be Used*

- 2020 BLM Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends (BLM 2022)

#### *Analytical Conclusions to Be Answered*

- Would the action alternatives result in a change in carbon storage capacity compared with current management?

#### *Analysis Display*

- None

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## F.7 SOIL RESOURCES

### ***How would proposed management affect biological soil crusts?***

#### *Geographic and Temporal Scale of Analysis*

- The analysis area for biological soil crusts covers the decision area and includes all land not covered by a waterbody or exposed bedrock, as soils are generally ubiquitous. The analysis includes current conditions (where current data are available) or more recent available data sets. The temporal scale of the analysis is the life of the RMP.

#### *Relevant Assumptions*

- Soils occur on all land within the decision area, except those covered by a body of water or exposed bedrock.

#### *Analysis Methodology and Techniques*

- Evaluate the changes to the management of activities and the trends in land use and qualitatively and quantitatively assess the level of potential impact on biological soil crusts to identify areas where protection or restoration is needed.

#### *Units of Measure*

- Acres and locations of biological soil crust types (throughout the decision area)
- Acres and locations of biological soil crusts currently impacted by or that are projected to be impacted by discretionary uses

#### *Relevant Data and Information to Be Used*

- Maps of biological soil crust types from BLM data sources
- Maps or reports of surface disturbance or land use activities and trends
- BLM Assessment, Inventory, and Monitoring (AIM) Strategy data for site-specific interpretations that have applicability across larger areas

#### *Analytical Conclusions to Be Answered*

- Locations of biological soil crusts and a specific delineation of areas in need of special attention for protection or restoration

#### *Analysis Display*

- The display will include a map delineating areas of biological soil crust types and specific locations that require special attention, protection, or restoration. This will be supplemented with BLM AIM Strategy data to support a narrative regarding trends in biological soil crust conditions.

**How would proposed management affect vulnerable soils?***Geographic and Temporal Scale of Analysis*

- The analysis area for soils covers the decision area and includes all land not covered by a waterbody or exposed bedrock, as soils are generally ubiquitous. The analysis includes current conditions (where current data are available) or more recent available data sets. The temporal scale of the analysis is the life of the RMP.

*Relevant Assumptions*

- Soils occur on all land within the decision area, except those covered by a body of water or exposed bedrock.

*Analysis Methodology and Techniques*

- Evaluate the changes to the management of activities and the trends in land use to assess the level of potential impact qualitatively and quantitatively on sensitive soils.

*Units of Measure*

- Acres and locations of sensitive soil types throughout the decision area
- Acres and locations of sensitive soils currently impacted by or projected to be impacted by discretionary uses

*Relevant Data and Information to Be Used*

- Maps of soil types (including sensitive soil types such as biological soil crusts) derived from U.S. Department of Agriculture, Natural Resources Conservation Service Soil Survey Geographic Database data (Order 3 mapping) or from BLM data sources (such as ecological site groupings)
- Maps or reports of surface disturbance or land use activities and trends
- BLM AIM Strategy data for site-specific interpretations that have applicability across larger areas

*Analytical Conclusions to Be Answered*

- Locations of sensitive soils and specific delineation of sensitive soil areas in need of special attention for protection or restoration

*Analysis Display*

- The display will include a map delineating areas of sensitive soil types and specific locations that require special attention, protection, or restoration. This will be supplemented with BLM AIM Strategy data to support narrative regarding trends in sensitive soil conditions.

**How would proposed management affect soil health and ecological function?***Geographic and Temporal Scale of Analysis*

- The analysis area for soils covers the decision area and includes all land not covered by a waterbody or exposed bedrock, as soils are generally ubiquitous. The analysis includes current conditions (where current data are available) or more recent available data sets. The temporal scale of the analysis is the life of the RMP.

#### *Relevant Assumptions*

- Soils occur on all land within the decision area, except those covered by a body of water or exposed bedrock.

#### *Analysis Methodology and Techniques*

- Evaluate how changes to data collection (including increased data collection) could be applied to better protect or improve management of soil resources.
- Qualitatively and quantitatively evaluate how protection of soil resources and restoration of soils could impact soil health and function.

#### *Units of Measure*

- Identify locations and acres where data collection changes could occur and what proposed data collection methods would be recommended for those areas.
- Evaluate semi-quantitatively the acres of impact and volume of soil resource impacts (if applicable) that could result from land use allocations or vegetation management.

#### *Relevant Data and Information to Be Used*

- Compilation of all existing data sets for soils, including location-specific information
- Maps of soil types (including biological soil crusts) derived from U.S. Department of Agriculture, Natural Resources Conservation Service Soil Survey Geographic Database data (Order 3 data) or from BLM data sources
- Map of areas of concern where protection or restoration may be needed
- Reports on efficacy of various management practices and actions, including restoration and protection

#### *Analytical Conclusions to Be Answered*

- Identify the types and locations of 1) recommended changes to data collection (inventory and monitoring) and 2) land use allocations or vegetation management that would protect soil resources and improve soil health and function.

#### *Analysis Display*

- Description of inventory and monitoring practices and locations of where changes to inventory are most needed
- Maps of potential protection and restoration areas and outcomes of implementing those actions

## **F.8 VEGETATION**

### ***How would existing and proposed land use allocations and discretionary uses affect terrestrial vegetation, including special status plant species?***

#### *Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area. The temporal analysis scale is the life of the RMP.



*Relevant Assumptions*

- Current drought trends will continue.
- Historical reference conditions are not necessarily the desired conditions.

*Analysis Methodology and Techniques*

- Qualitative discussion of relationships between soils, vegetation, and discretionary uses in the context of increasing drought, fire, and invasives
- Qualitative discussion of the effects of discretionary uses on vegetation metrics (for example, the variance of existing from desired vegetation, using ecological site groups in areas of certain discretionary uses) by alternative

*Units of Measure*

- Acres or miles of land use allocations in each alternative

*Relevant Data and Information to Be Used*

- Inventories and data related to the effects of discretionary uses on vegetation metrics
- Studies and metrics that correlate with 1) projections of use patterns and levels, and 2) the potential for development of additional infrastructure and facilities related to discretionary uses
- GSENM data, relevant studies related to vegetation management, ecological site groups, and summary results of existing climate modeling
- Acres of vegetation types (ecological site groups) across the decision area
- Potential and known special status plant species in the decision area with habitat types and allotments

*Analytical Conclusions to Be Answered*

- Qualitatively discuss how each alternative would affect conditions and trends in vegetation communities (including special status species) in the decision area, regarding each alternative's prescriptions for discretionary uses.

*Analysis Display*

- Table of acres or miles of land use allocations overlaid with ecological site groups for each alternative

***How would vegetation management and restoration approaches affect landscape-scale ecological functioning, terrestrial vegetation, and special status plant species?****Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area. The temporal analysis scale is the life of the RMP.

*Relevant Assumptions*

- Current drought trends will continue.
- Resilient vegetation is defined as having the capacity to recover when altered by stressors like drought and disturbances like inappropriate livestock grazing and altered fire regimes.

#### *Analysis Methodology and Techniques*

- Describe and compare short-term and long-term effects of management approaches (for example, the duration of benefit).
- Qualitatively describe potential effects of active and passive management approaches on both landscape and local scales.
- Compare types of vegetation management proposed under each alternative.

#### *Units of Measure*

- Acres of vegetation treatment types in each alternative

#### *Relevant Data and Information to Be Used*

- GSENM data, relevant studies related to vegetation management, ecological site groups, and summary results of existing climate modeling
- Acres of vegetation types
- Types of vegetation restoration in each alternative
- Potential and known special status plant species in the decision area with habitat types and allotments.

#### *Analytical Conclusions to Be Answered*

- Qualitatively discuss outcomes and projected trends for vegetation health and resiliency for each alternative, with consideration of the projected success of restorations based on each alternative's countervailing aspects (for example, certain discretionary use patterns) and climate change.

#### *Analysis Display*

- No analysis display will be included.

## **F.9 WATER RESOURCES**

***How would management decisions of activities that disturb soils and accelerate erosion affect water resources (groundwater, surface water, wetlands, riparian areas, floodplains, and water quality)?***

***How would proposed management impact water quality (and water quality standards set by the State of Utah and the U.S. Environmental Protection Agency) and protection of dependent resources?***

#### *Geographic and Temporal Scale of Analysis*

- The analysis area is the sub-basins (hydrologic unit code 8) and sub-watersheds (hydrologic unit codes 10 and 12) that cross into the decision area. The temporal scale of analysis is the life of the RMP.

#### *Relevant Assumptions*

- Current drought trends will continue.

*Analysis Methodology and Techniques*

- Quantify floodplain and riparian areas that are open or closed to discretionary uses that cause surface disturbance.
- Quantify floodplain and riparian areas that are open or closed to discretionary uses that cause surface disturbance that are adjacent to 303(d)-listed impaired streams.
- Quantify watersheds within assessment units identified as impaired by the Utah Division of Water Quality in 2022 that are open or closed to discretionary uses that cause surface disturbance. Identify all impaired streams listed on the most recent 2022 Integrated Report, specifically within Utah's 303(d) list in the decision area and analysis area, and quantify perennial and intermittent waterbodies in the decision area and analysis area.
- Evaluate the trends in water quality throughout the analysis area using the 303(d) list of impaired waters from the past 20 years.
- Quantify the number, location, and types of water rights in the analysis area and decision area since 2000.
- Estimate potential changes in precipitation from climate change and include a qualitative discussion on how that would affect hydrology, water quantity, and water quality in the surface water and groundwater in the analysis area.
- Quantify changes in the streamflow since 2000.

*Units of Measure*

- Acres
- Miles of stream
- Number of springs and seeps
- Acre-feet per year for water use

*Relevant Data and Information to Be Used*

- Southwest Regional Gap Analysis Project for riparian areas
- Soil Survey Geographic Database Data
- National Hydrography Dataset for surface waters
- National Wetlands Inventory for wetlands
- BLM wetland mapping data
- Utah Division of Water Quality Ambient Water Quality Management System data for sites in GSENM
- Federal Emergency Management Agency mapped floodplains
- Data from the BLM on improved riparian areas
- GIS coverage of existing and proposed land use allocations
- BLM lotic AIM Strategy data
- BLM riparian and wetland AIM Strategy data
- Proper functioning condition
- Range Improvement Project Database
- U.S. Geological Survey Principal Aquifers

- U.S. Geological Survey flow data
- Utah Geological Survey springs and wells

#### *Analytical Conclusions to Be Answered*

- Analyze the impacts on riparian areas, wetlands, and aquatic ecosystems from proposed management in the alternatives
- Analyze the changes in the water quantity from climate change and authorized consumption

#### *Analysis Display*

- Map to identify impaired stream reaches and hydrologic unit code 8 watershed boundaries
- Table to summarize the acres of floodplains and riparian areas that are open or closed to discretionary uses that cause surface disturbance
- Table to summarize trends in 303(d) impaired waters
- Table to summarize the BLM's collected water quality data trends from 2018 to the present
- Table to summarize the number, location, and types of water rights in the decision area since 2000
- Flowchart to summarize the BLM process for monitoring and reviewing water rights (current and new applications) and estimating impacts on the decision area
- Table or graphical figure to quantify the changes in the streamflow since 2000 inside the decision area

## **F.10 NOXIOUS WEEDS AND INVASIVE, NONNATIVE PLANTS**

### ***How would proposed vegetation management and land use allocations affect noxious and invasive, nonnative plants?***

#### *Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area. The temporal analysis scale is the life of the RMP.

#### *Relevant Assumptions*

- Invasive plant species are more likely to become established and spread in areas where the ground surface has been recently disturbed.
- Invasive plant species tend to become established along developed roads, trails, and ROWs; at recreational destinations; at livestock developments; and in other congregation areas.
- Natural (such as wind, water, and wildlife) and human (such as recreationists, motor vehicles, and livestock) sources will continue to introduce noxious and nonnative, invasive plant species to the decision and overall planning areas.
- Fire and the lack of proper rehabilitation also contribute to weed spread.
- Cooperative noxious weed management would continue to be carried out with Kane and Garfield Counties in the Color Country Cooperative Weed Management Area.
- Vegetation management will include implementing best management practices to minimize noxious and invasive plant spread.

- Vegetation restorations will be monitored for the establishment and spread of noxious and invasive plant species, and control methods will be carried out, as needed.

#### *Analysis Methodology and Techniques*

- Qualitatively discuss the effects of land uses on noxious and invasive plant species' establishment and spread.
- Compare which alternatives would have the greatest impacts on noxious and invasive plant species' establishment and spread based on acres or miles of land use allocations.
- Assess the likely establishment and spread of invasive plants by alternative based on the estimated acres of ground disturbance and allowable treatment type by alternative.
- Describe the likely effectiveness of treatments (for example, herbicides or no herbicides) on controlling invasive plant species by alternative.

#### *Units of Measure*

- Acres of noxious and invasive plant species infestations
- Counts of noxious and invasive plant species observations
- Acres or miles of land use allocations by alternative

#### *Relevant Data and Information to Be Used*

- BLM corporate spatial data for noxious and invasive plant species
- BLM terrestrial AIM Strategy data for monitoring plots in the decision area
- Data and literature on the effectiveness of treating invasive plants with proposed treatment methods

#### *Analytical Conclusions to Be Answered*

- Compare the likely impact of each alternative on the establishment and spread of invasive plant species. Draw conclusions about which alternatives would likely result in the greatest and least invasive plant species' establishment and spread in GSENM.

#### *Analysis Display*

- No analysis display will be included.

## **F.11 CULTURAL RESOURCES**

### ***How would proposed management impact historic properties?***

#### *Geographic and Temporal Scale of Analysis*

- The geographic scale for the analysis of impacts on historic properties includes the full GSENM decision area. The temporal scale for the analysis includes current and reasonably foreseeable impacts on districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture.

#### *Relevant Assumptions*

- None identified at this time.

*Analysis Methodology and Techniques*

- The analysis will include an overlay of management actions with the locations of previously recorded cultural resources that are documented in the Utah Division of State History's database of documented archaeological and historic architectural locations.

*Units of Measure*

- Counts of known historic properties, archaeological sites, and historic architectural locations subject to impacts from management alternatives

*Relevant Data and Information to Be Used*

- Relevant data include the spatial extent of land use allocations by alternatives and the locations of known historic properties, archaeological sites, and historic architectural locations.

*Analytical Conclusions to Be Answered*

- The analysis will show which management alternatives would have the least and most potential impact on known historic properties, archaeological sites, and historic architectural locations.

*Analysis Display*

- The count of known historic properties, archaeological sites, and historic architectural locations impacted by management alternatives will be displayed in a tabular format.

***How would proposed management protect cultural resources, including cultural landscapes, traditional uses, and historical properties?****Geographic and Temporal Scale of Analysis*

- The geographic scale for the analysis of management alternatives to protect cultural resources, including cultural landscapes, traditional uses, and historic properties, includes the full GSENM decision area. The temporal scale of the analysis includes those efforts to protect cultural resources occurring now and those that are reasonably foreseeable in the future.

*Relevant Assumptions*

- The past and current types, scale, and relative distribution of efforts to protect cultural resources accurately reflect anticipated future efforts and use.

*Analysis Methodology and Techniques*

- Qualitative analysis of protection measures for cultural resources employed during past and current uses, and subsequent projects on those measures for reasonably foreseeable efforts and use

*Units of Measure*

- Qualitative assessment of protection measures

*Relevant Data and Information to Be Used*

- Relevant data include descriptions of past and current protection measures used to protect cultural resources, and projections of reasonably foreseeable uses.

*Analytical Conclusions to Be Answered*

- The analysis will apply past and present measures to protect cultural resources during use.

*Analysis Display*

- The results of the analysis will be described in text.

**F.12 TRIBAL INTERESTS*****How would proposed management ensure continued traditional uses of religious or cultural resource sites important to Tribal Nations and local communities?****Geographic and Temporal Scale of Analysis*

- The geographic scale for the analysis of impacts on traditional uses of religious or cultural importance to Tribal Nations and local communities includes the full GSENM decision area. The temporal scale for analysis includes current and reasonably foreseeable traditional uses of religious or cultural importance to Tribal Nations and local communities.

*Relevant Assumptions*

- The types of traditional uses of religious or cultural importance to Tribal Nations and local communities (for example, plant collection) are known or can be inferred and can be shown on a map.

*Analysis Methodology and Techniques*

- The analysis will include an overlay of land use allocations with mapped areas of known traditional use. It will also include a qualitative analysis of management actions with types of traditional uses.

*Units of Measure*

- Number of traditional use areas of religious or cultural importance to Tribal Nations and local communities subject to impacts from management alternatives and an identification and analysis of the types of traditional use subject to impacts from management alternatives

*Relevant Data and Information to Be Used*

- Relevant data include the spatial extent of land use allocations by alternative and traditional use areas and a list of the types of traditional use.

*Analytical Conclusions to Be Answered*

- The analysis will show which management alternatives would have the least and most potential impact on traditional use areas of religious or cultural importance to Tribal Nations and local communities.

*Analysis Display*

- The number of known locations anticipated to be impacted by the land use allocations will be displayed in a tabular format and in a text description of anticipated impacts from management actions on the types of traditional use.

***How would proposed management impact landscapes of religious or cultural importance to Tribal Nations and local communities?***

*Geographic and Temporal Scale of Analysis*

- The geographic scale for the analysis of impacts on landscapes of religious or cultural importance to Tribal Nations and local communities includes the full GSENM decision area. The temporal scale for the analysis includes current and reasonably foreseeable impacts on landscapes of religious or cultural importance to Tribal Nations and local communities.

*Relevant Assumptions*

- Landscapes of religious or cultural importance to Tribal Nations and local communities are known or can be inferred and can be shown on a map.

*Analysis Methodology and Techniques*

- The analysis will include an overlay of land use allocations with mapped landscapes of religious or cultural importance to Tribal Nations and local communities.

*Units of Measure*

- Number of landscapes of religious or cultural importance to Tribal Nations and local communities subject to impacts from management alternatives

*Relevant Data and Information to Be Used*

- Relevant data include the spatial extent of land use allocations by alternatives and landscapes of religious or cultural importance to Tribal Nations and local communities.

*Analytical Conclusions to Be Answered*

- The analysis will show which management alternatives would have the least and most potential impact on landscapes of religious or cultural importance to Tribal Nations and local communities.

*Analysis Display*

- The number of known locations anticipated to be impacted by land use allocation will be displayed in a tabular format.

**F.13 PALEONTOLOGICAL AND GEOLOGICAL RESOURCES**

***How would proposed management decisions regarding paleontological resource management (such as curation, protection, survey, collection, outreach, and interpretation) impact paleontological resources, research communities, local communities, and visitor experiences?***

*Geographic and Temporal Scale of Analysis*

- The analysis scale is the decision area for the life of the RMP.

*Relevant Assumptions*

- Documentation and potential excavation would allow for research and interpretive uses.
- Public education would increase the public's awareness of the need for protection.



- Late Cretaceous fossils from GSENM are extremely important to researchers, are globally significant, and carry high public interest.

#### *Analysis Methodology and Techniques*

- The analysis will qualitatively and quantitatively review existing data and current conditions and trends.

#### *Units of Measure*

- The unit of measure will vary by alternative. It will include measures such as acres of potential fossil yield classification (PFYC) system class 3, 4, and 5; the number of known localities; and the trends in survey, collection, and preservation.

#### *Relevant Data and Information to Be Used*

- The data and information to be used will depend on the alternative and may include some of the following:
  - Assessment of the significance of Kaiparowits vertebrate paleontology to the research community
  - Number of acres in areas with significant fossil potential being proactively inventoried
  - Number of fossils currently in collections being actively managed to curatorial standards
  - Monetary/economic value of fossil resources to the regional economy
  - Number of research papers or publications produced annually on significant resources
  - Number of significant fossils collected and curated annually
  - Available space for curation of future collections at interested approved repositories
  - Number of partnerships formed to leverage resources and scientific expertise in management
  - Number of in situ field sites monitored for resource condition and trend
  - Number of paleontology-specific exhibits or other interpretive materials or events produced each year
  - Number of in situ fossil sites dedicated for public visitation and supported by interpretation, signage, and other methods
  - Number of visitors to field sites per year

#### *Analytical Conclusions to Be Answered*

- The analysis will draw conclusions about the quantitative and qualitative changes to the above data and information under each alternative.

#### *Analysis Display*

- The analysis will be displayed in a PFYC map and map with paleontological resource.

#### ***How would land use allocations and discretionary uses impact paleontological resources?***

##### *Geographic and Temporal Scale of Analysis*

- The analysis scale is the decision area for the life of the RMP.

*Relevant Assumptions*

- Ground disturbing activities in areas with high and very high PFYC ratings are likely to disturb significant fossils. Once impacted, paleontological resources cannot return to their original condition, and they lose important contextual data and scientific value.

*Analysis Methodology and Techniques*

- The analysis will intersect PFYC units with land use allocations under each alternative. The analysis will quantify or qualitatively assess degrees of impact associated with different disturbance levels.

*Units of Measure*

- Number of sites with paleontological resources affected
- Acres of geological units with moderate to very high potential to contain important paleontological resources

*Relevant Data and Information to Be Used*

- GIS data of site locations and geological units with varying potential for containing important paleontological resources

*Analytical Conclusions to Be Answered*

- The analysis will determine the differences in the number of sites with paleontological resources affected and/or the acres of geological units with moderate to very high potential to contain important paleontological resources impacted by each alternative. May be discussed qualitatively if exact areas and locations are not known.

*Analysis Display*

- The analysis will be displayed in a PFYC map and map with paleontological resource.

***How would land use allocations and discretionary uses impact unique geological features?****Geographic and Temporal Scale of Analysis*

- The analysis scale is the unique features of exposed bedrock for the life of the RMP.

*Relevant Assumptions*

- Increased traffic to interpreted areas creates potential negative impacts on special geological features, including arches, canyons, hoodoos, and cliffs.
- Once impacted, geological features are not likely to return to their original condition.

*Analysis Methodology and Techniques*

- The analysis will intersect select locations such as the Toadstools or Wahweap Hoodoos with defined alternative footprints or qualitatively discuss the potential for impacts by alternative.

*Units of Measure*

- Number of current locations of unique and interpreted geological features or with the potential to be interpreted and experience high visitation

*Relevant Data and Information to Be Used*

- Locations of unique and interpreted geological features or those with the potential for future interpretation
- Mapped geologic units to locate potential interpreted sites
- Estimates of visitor numbers

*Analytical Conclusions to Be Answered*

- The analysis will determine the number of sites and anticipated impacts on those sites under each alternative.

*Analysis Display*

- The analysis will be displayed in a map of geological units with point locations of unique geological features.

**F.14 FISH AND WILDLIFE*****How would proposed management affect wildlife, fisheries, and special status species resources?****Geographic and Temporal Scale of Analysis*

- The geographic scale of analysis is the immediate habitat for key species found in GSENM. The temporal scale of analysis is the life of the RMP.

*Relevant Assumptions*

- None identified at this time.

*Analysis Methodology and Techniques*

- Habitat for special status species and big game species will be overlaid with land use allocations to describe potential impacts on species displacement or migration based on species tolerance. An analysis of discretionary uses that may be authorized under each alternative will be described in the context of how such uses tend to impact species.

*Units of Measure*

- Acres of habitat types
- Acres of land use allocations

*Relevant Data and Information to Be Used*

- Critical habitat areas
- Occupied habitat areas
- Recreational use data

*Analytical Conclusions to Be Answered*

- Discuss the impacts of land use allocations and discretionary uses on fish and wildlife species and their habitat.

*Analysis Display*

- The analysis will be described in text, with a tabular presentation of acres overlapping of land use allocations that may impact fish and wildlife.

**F.15 VISUAL RESOURCES*****How would proposed management affect inventoried visual values, including scenic quality, and the public's highly valued experience of enjoying scenery?****Geographic and Temporal Scale of Analysis*

- The geographic scope for the analysis corresponds to the visible area surrounding GSENM up to 15 miles beyond the boundary, which is associated with the limit of the background distance zone of the GSENM visual inventory. The temporal scope of the analysis is the life of the RMP.

*Relevant Assumptions*

Assumptions for the analysis of the visual resource issues noted above include:

- Based on project implementation and use trends over the past 25 years, the development of recreation, livestock grazing, and community-scale utility infrastructure and vegetation management would continue to be the primary types of projects that could affect visual resource values in GSENM.
- Visual design considerations to minimize visual contrast and to protect the scenic quality will be incorporated into all surface-disturbing projects regardless of size, potential impact, or visual resource management (VRM) class.
- The contrast rating analysis will be used to evaluate proposed projects in GSENM to reduce the contrast and determine conformance with visual objectives.
- The construction of residential, commercial, recreational, and utility infrastructure near GSENM and on inholdings will continue.
- Trends in drought and wildfires that affect vegetation and surface water will continue.

*Analysis Methodology and Techniques*

- Effects on scenic quality resulting from different VRM class allocations, which allow for varying levels of modification to the characteristic landscape, will be compared with the inventoried Class A, B, and C scenic quality areas under each RMP alternative. These changes to the characteristic landscape could decrease the scenic quality inventory key factor scores (specifically vegetation, adjacent scenery, and cultural modification) and lead to diminishing scenic quality, where the designated VRM class objectives would allow these types of management activities. Effects on scenic quality will also be discussed qualitatively.
- Effects on sensitivity and distance zones will be analyzed qualitatively using the best available data.

*Units of Measure*

- The analysis will use the acres of proposed VRM class objectives within Class A, B, and C scenic quality areas under different VRM class objective allocations.

*Relevant Data and Information to Be Used*

- GSENM visual resource inventory, including scenic quality

- GSENM VRM classes
- GSENM Recreation Experience Baseline Study

#### *Analytical Conclusions to Be Answered*

- The level of protection provided in each alternative to visual values will be determined and explained qualitatively. Additionally, for scenic quality, the scenic quality scores (A, B, or C) compared with the VRM class allocations across alternatives will identify areas and acres of protection levels provided by each alternative. The management of other resources and discretionary uses, and how those might affect scenic quality, will also be examined and explained in a narrative format.

#### *Analysis Display*

- Tables and maps will be developed to display the scenic quality ratings and the proposed VRM classes across the range of RMP alternatives.

## **F.16 DARK NIGHT SKIES**

### ***How would proposed management actions affect dark night skies?***

#### *Geographic and Temporal Scale of Analysis*

- The geographic scope for the dark night skies analysis corresponds to the planning area and adjacent communities producing sky glow in GSENM. The temporal scope of the analysis will be the life of the RMP.

#### *Relevant Assumptions*

Assumptions for the analysis of the dark night sky issues noted above include:

- Visitors and local residents appreciate and value night skies that are unimpaired by light pollution.
- The quality of dark night skies depends on the weather, the clarity of the air, and the amount of light pollution present.
- Protection of dark nights skies is most successful as a result of coordination with federal, state, county, tribal, and local partners.

#### *Analysis Methodology and Techniques*

- A qualitative assessment of different management approaches across alternatives will be used. I analysis will compare areas of more stringent dark night sky management, including areas where no projects that require artificial light would be allowed or where they would be allowed but only with restrictive best management practices, with the existing sky brightness level to identify the extent of GSENM where these increased protections would occur.

#### *Units of Measure*

- Acres of GSENM with differing management approaches to protect dark night skies compared with 1) those areas already impacted by sky glow and 2) the portions of GSENM largely unaffected by sky glow

*Relevant Data and Information to Be Used*

- The New World Atlas of Artificial Night Sky Brightness (Falchi et al. 2016)
- Areas in GSENM proposed for differing ranges and types of dark night sky protection measures under different RMP alternatives
- Grand Staircase-Escalante National Monument Night Sky Quality Research Report (International Dark-Sky Association and Ogden Valley Starry Nights Chapter 2016)

*Analytical Conclusions to Be Answered*

- The analysis of the different RMP alternatives will compare the acres of GSENM with increased dark night sky management requirements and the existing sky brightness thresholds. By comparing where more stringent management of dark skies could occur with the existing sky brightness levels, the analysis will identify the portions of GSENM where the dark night sky resource would be most and least protected. The BLM will also examine how other resources and resource uses would affect dark night skies and explain the analysis in a narrative format.

*Analysis Display*

- Tables and maps will be developed to display the existing sky brightness levels and areas where differing management prescriptions would occur across the range of RMP alternatives.

**References**

Falchi, F., P. Cinzano, D. Duriscoe, C. M. Kyba, C. D. Elvidge, K. Baugh, B. Portnov, et al. 2016. Supplement to The New World Atlas of Artificial Night Sky Brightness. Internet website: <https://doi.org/10.5880/GFZ.I.4.2016.001>.

International Dark-Sky Association and Ogden Valley Starry Nights Chapter. 2016. Grand Staircase-Escalante National Monument Night Sky Quality Research Report. June. Ogden, Utah.

**F.17 NATURAL SOUNDSCAPES*****How would proposed management affect natural quiet soundscapes?****Geographic and Temporal Scale of Analysis*

- The geographic scope for the natural soundscapes analysis corresponds to the planning area and the area within 3 miles<sup>1</sup> of the planning area. The temporal scope of the analysis will be the life of the RMP.

*Relevant Assumptions*

Assumptions for analysis of the soundscape issues noted above include:

- Visitors and local residents appreciate and value quiet natural soundscapes, and they are intrinsic to the visitor experience of GSENM.
- Noise caused by airplane traffic and recreational use will continue.

<sup>1</sup> Noise decreases with distance according to the inverse square law, 6 decibels with a doubling of distance. Significant noise levels will likely decrease to nonsignificant levels within 3 miles.

- Protection of natural soundscapes is most successful as a result of coordination with federal state, county, tribal, and local partners, including the NPS air tour management plans for adjacent NPS units.

#### *Analysis Methodology and Techniques*

- The BLM has identified standards for managing soundscapes indirectly for other resources. For example, near greater sage-grouse leks, there is a limit of increasing noise 10 A-weighted decibels above the background, which equates to doubling the existing sound levels. Based on the quiet landscapes that comprise GSENM, this standard would be appropriate for other noise-sensitive receptors, including developed and primitive recreation locations.
- Since there are no management classifications, like BLM VRM classes for visual resources, this analysis will first focus on a qualitative assessment of different management approach alternatives. The RMP alternatives will include differing best management practices to reduce impacts on natural soundscapes. Additionally, the BLM will map areas where motorized use is allowed or where there is other planned development, including new recreation sites (where these are identified in the range of RMP alternatives); this will identify the extent of GSENM where noise-producing management activities may occur. These areas will then be compared with the different existing soundscape conditions in GSENM to identify where existing soundscapes are most likely to be impacted.

#### *Units of Measure*

- Acres of GSENM where noise-producing management activities and uses may occur.

#### *Relevant Data and Information to Be Used*

- Land use allocations by alternative
- Discretionary uses by alternative
- NPS Sound Map: Existing Conditions
- GSENM Acoustic Monitoring Report (Southern Utah University 2020)

#### *Analytical Conclusions to Be Answered*

- The analysis of the different RMP alternatives will compare the acres of GSENM where noise-producing management activities and uses may occur and the existing soundscape conditions. By identifying the acres where these activities may occur, compared with the existing soundscape conditions thresholds (such as A-weighted decibels), the extent of GSENM where noise levels could increase can be quantified, including where existing soundscapes are highly intact. The analysis of discretionary uses and how those might affect natural soundscapes will also be examined and explained in a narrative format.

#### *Analysis Display*

- Tables and maps will be developed to display the existing soundscape conditions (such as A-weighted decibels thresholds) and how many acres could have increased noise pollution within these areas (which would affect natural soundscapes) across the range of RMP alternatives.

**References**

Southern Utah University. 2020. Baseline Acoustic Monitoring of Grand Staircase-Escalante National Monument: Final Project Report. Cedar City, Utah.

**F.18 FIRE AND FUELS MANAGEMENT*****How would land use allocations and discretionary uses affect fire and fuels?****Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area. The temporal analysis scale is the life of the RMP.

*Relevant Assumptions*

- Fire starts will increase with increasing recreational use
- Discretionary uses and allocations can affect the methods and complexity of fire response
- Climate trends will continue

*Analysis Methodology and Techniques*

- Generalized descriptions of the major plant community types, including LANDFIRE Vegetation Condition Classes, are used to estimate fuels and potential fire risks.
- Qualitatively discuss the potential effects on the fire regime and fuels from discretionary uses.
- Qualitative discussion how discretionary uses and allocations affect fire response.
- Qualitatively discuss how each alternative would contribute to changing the fire regime and fuels in the decision area.

*Units of Measure*

- Acres and miles of land use allocations alternative

*Relevant Data and Information to Be Used*

- LANDFIRE Vegetation Condition Classes
- Acres or miles of land use allocations overlaid with LANDFIRE Vegetation Condition Classes

*Analytical Conclusions to Be Answered*

- Qualitatively discuss how each alternative would contribute to trends in fire and fuels in the decision area.

*Analysis Display*

- Table of acres available for land use allocations in each LANDFIRE Vegetation Condition Class

***How would vegetation management actions affect fire and fuels?****Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area. The temporal analysis scale is the life of the RMP.



*Relevant Assumptions*

- Desired conditions are resistance and resilience. Historical conditions are not necessarily desired conditions.
- Prescribed fire is not appropriate in many areas without mechanical pre-treating
- Fuels treatments can affect the methods and complexity of fire response
- Climate trends will continue.

*Analysis Methodology and Techniques*

- Generalized descriptions of the major plant community types are used to estimate fuels and potential fire risks.
- Qualitatively discuss the potential effects on the fire regime and fuels from the various vegetation management and restoration actions.
- Qualitative discussion how vegetation/fuels treatments affect fire response
- Qualitatively discuss how each alternative would contribute to trends in the fire regime and fuels in the decision area.

*Units of Measure*

- Qualitative discussion for each Vegetation Condition Class

*Relevant Data and Information to Be Used*

- Fire regime or LANDFIRE Vegetation Condition Classes, or both

*Analytical Conclusions to Be Answered*

- Qualitatively discuss the potential effects from vegetation management in each alternative.

*Analysis Display*

- Table showing decision area acres in each fire regime and/or LANDFIRE Vegetation Condition Class

**F.19 LANDS WITH WILDERNESS CHARACTERISTICS*****How would proposed management affect the size; apparent naturalness; outstanding opportunities for solitude or primitive, unconfined recreation; and supplemental values of lands with wilderness characteristics?****Geographic and Temporal Scale of Analysis*

- The geographic scale of the analysis consists of the extent of the identified lands with wilderness characteristics. The temporal scale of the analysis is the life of the RMP.

*Relevant Assumptions*

- Trends in demand for recreational use will continue into the foreseeable future.

#### *Analysis Methodology and Techniques*

- The analysis will determine whether land use allocations or discretionary uses would impact the requirements of naturalness, size, and opportunities for solitude or primitive and unconfined recreation to be considered lands with wilderness characteristics.

#### *Units of Measure*

- Acres of lands with wilderness characteristics on BLM-managed lands within the planning area

#### *Relevant Data and Information to Be Used*

- Inventory forms or background information for lands with wilderness characteristics within the decision area
- Geospatial data of lands with wilderness characteristics units

#### *Analytical Conclusions to Be Answered*

- The analysis will include a narrative discussion of how land use allocations and discretionary uses across the decision area under each alternative would affect the naturalness, size, and opportunities for solitude or primitive and unconfined recreation of lands with wilderness characteristics.

#### *Analysis Display*

- A map displaying lands with wilderness characteristics as updated in the 2020 inventory
- A table displaying lands with wilderness characteristics units and acreages
- A table displaying acres of lands with wilderness characteristics with land use allocations by alternative.
- Conclusions will be explained in the text.

## **F.20 FORESTRY AND WOODLAND PRODUCTS**

### ***How would vegetation management decisions affect woodland and forestry product harvest in the planning area?***

#### *Geographic and Temporal Scale of Analysis*

- The geographic scale of the analysis is the decision area. The temporal scale of the analysis is the life of the RMP.

#### *Relevant Assumptions*

- The levels of demand for woodland products will remain relatively stable over the life of the RMP.

#### *Analysis Methodology and Techniques*

- To discern what effect proposed management decisions about vegetation management actions and areas open to woodland product harvest would have on forestry and woodland product harvests, specialists will first conduct a GIS analysis of the acres of woodland types in the decision area. Those woodland types and acreages determined to be available for woodland product harvest will be identified and compared with past and planned vegetation management. Those open acres that have received treatments will be reviewed to determine whether the impact was positive or negative regarding woodland and forestry product harvest. Impacts on woodlands and

forestry products from other resource management activities in the planning area, such as vegetation management and recreation, will also be taken into consideration.

- Methodology and techniques for the analysis of forestry and woodland products are:
  - Conduct the GIS analysis of acres of woodland types that occur in the decision area
  - Conduct the GIS analysis of acres of woodland types that would be open or closed to woodland product harvest
  - Conduct the GIS analysis of acres of woodland habitat that have received vegetation management
  - Provide a qualitative analysis and discussion of planned forestry management and how it would impact woodlands
  - Analyze impacts on woodlands from other resource management activities in the decision area

#### *Units of Measure*

- Acres of woodland types in the decision area (LANDFIRE and AIM Strategy data)
- Acres of woodland types that would be open to woodland product harvest
- Acres of woodlands that have received vegetation management
- Acres of proposed fuels or vegetation management actions in woodland types

#### *Relevant Data and Information to Be Used*

- LANDFIRE data for woodland types (such as pinyon-juniper, wooded riparian areas, conifer forest, and deciduous trees)
- GIS data for areas open or closed to woodland product harvest
- AIM Strategy data on the forest types within the decision area
- BLM data for the volume of woodland product sales and permits for the past 4 to 5 fiscal years, as available
- BLM woodland product data

#### *Analytical Conclusions to Be Answered*

- How will decisions about vegetation management impact woodlands and forestry?

#### *Analysis Display*

- The analysis display will consist of a map showing woodland types and areas open and closed to woodland product harvest and tables showing acres of forest type.

## **F.21 LIVESTOCK GRAZING**

***How would proposed management impact livestock grazing and ranching operations under existing permits and leases?***

***How would proposed management impact rangeland conditions?***

#### *Geographic and Temporal Scale of Analysis*

- The analysis area includes all BLM-managed livestock grazing allotments in the decision area, as well as those that overlap Glen Canyon, the BLM Kanab Field Office, and the BLM Arizona Strip

Field Office. Two allotments that overlap the decision area are managed by the BLM Arizona Strip Field Office and will not be analyzed. The temporal analysis scale is the life of the RMP.

#### *Relevant Assumptions*

- There may be minor discrepancies between the actual acres of allotments in GSENM and the GIS layers. This because the GIS data were determined using global positioning system units with varying accuracy and drawn on a computer screen with aerial imagery from a series of flights georeferenced slightly differently.
- Campground development, recreation site development, ROW development, and other development may make areas unsuitable for livestock grazing because this would reduce the areas where livestock are able to graze.
- After a wildfire, prescribed burn or other treatments which remove a significant volume of vegetation, it may take two or more growing seasons to rehabilitate vegetation to a level that would be appropriate for grazing.

#### *Analysis Methodology and Techniques*

The analysis of the alternatives' effects on rangelands and livestock grazing are based on the following:

- Changes in forage availability
- Changes in rangeland capability
- Extent of vegetation management in GSENM
- Extent of land use allocations

#### *Units of Measure*

- Number and size (acres) of allotments that are managed by the BLM, including those that overlap another agency-managed surface
- Acres available and unavailable for grazing
- Total permitted animal unit months
- Acres of land use allocations
- Acres of anticipated vegetation management

#### *Relevant Data and Information to Be Used*

- Types of discretionary uses proposed in each alternative
- Acres and miles of land use allocations in each alternative

#### *Analytical Conclusions to Be Answered*

- Analyze which alternatives would have the most or least potential impacts on livestock grazing operations.
- Analyze impacts on livestock operations from management decisions for other resource areas.
- Analyze impacts on rangeland health from vegetation management and livestock grazing.

*Analysis Display*

- Tables illustrating acres of proposed land management allocations by alternative, including acres available to livestock grazing

**F.22 RECREATION*****How would proposed management affect the BLM's ability to provide recreation opportunities and infrastructure while protecting GSENM objects of historical and scientific interest?****Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area. The temporal analysis scale is the life of the RMP.

*Relevant Assumptions*

- Trends in recreational demands, as indicated by visitor use, will continue.
- Changing access to BLM-managed lands may increase recreational demand in some areas, while decreasing demand in other areas by dispersing recreation throughout the decision area.

*Analysis Methodology and Techniques*

- Designation of recreation management areas: Quantitatively compare acres of recreation management areas to characterize recreation opportunities and types for the alternatives.
- Land use allocations and discretionary uses: Quantitatively and qualitatively compare disturbance acres to characterize impacts to recreation opportunities and access for the alternatives.
- Visitor health and safety: Qualitatively compare user conflicts for the alternatives.

*Units of Measure*

- The analysis will examine recreation management areas under each alternative, as measured by acres and types of recreation. The analysis will also examine how acres of land use allocations and discretionary uses affect recreation and visitor services, by alternative.

*Relevant Data and Information to Be Used*

- GIS data of land use polygons for recreation management areas, including acres of existing areas and those areas proposed under each alternative
- Information on existing recreation opportunities within the planning area for recreation service providers other than the BLM
- Road and trail networks for areas where designated travel for recreation (such as off-highway vehicle [OHV], all-terrain vehicle/utility task vehicle, and mountain bike) use is occurring

*Analytical Conclusions to Be Answered*

- Alternatives will be compared, discussing the effects on recreation management areas, permits, and types of recreation that would result from implementing the alternatives' management actions and allowable uses.

*Analysis Display*

- The analysis will be presented through tables and maps that show existing and proposed land use land use allocations for the areas listed above in *Relevant Data and Information to Be Used*.

## F.23 TRAVEL MANAGEMENT

### **How would proposed management affect the travel and transportation system in GSENM?**

#### *Geographic and Temporal Scale of Analysis*

- The geographic scale of the analysis will be the decision area, and the temporal scale will be the life of the RMP.

#### *Relevant Assumptions*

- Trends in demand for travel routes will continue, especially near communities.
- Changing the size and distribution of land use allocations for OHV use has a direct effect on OHV use patterns, which influence OHV use opportunities, public safety, and user conflicts.
- The BLM will determine the final travel management network of routes and trails at the implementation level. The current travel plan will remain in effect until updated implementation level travel planning occurs.

#### *Analysis Methodology and Techniques*

- To demonstrate current conditions, the analysis will use GIS data for the acres of OHV area designations and miles of designated routes. Also, the acres of OHV area designations and miles of designated routes will provide a baseline for areas that could be affected by possible changes to land use allocations for OHV use.

#### *Units of Measure*

- The analysis will examine travel designations under each alternative as measured by miles of routes and their designations and acres of OHV area designations.

#### *Relevant Data and Information to Be Used*

- Route and trail networks for areas where OHV use is limited to designated routes

#### *Analytical Conclusions to Be Answered*

- Alternatives will be compared with a discussion of the effects on OHV areas, transportation, and access that would result from implementing management actions and allowable uses to meet resource and resource use objectives for the various programs.

#### *Analysis Display*

- The analysis will use tables and maps that show existing and proposed route designations and existing and proposed OHV area designations.

## F.24 LANDS AND REALTY

### **How would proposed management affect land use authorizations and land tenure in the decision area?**

#### *Geographic and Temporal Scale of Analysis*

- The geographic scale of analysis is the decision area. The temporal scale of analysis is the life of the RMP.

*Relevant Assumptions*

The assumptions for the analysis of impacts on land use authorizations and land tenure are:

- The demand for new ROWs and other land use authorizations (for example, film permits) will remain stable or increase slightly throughout the life of the RMP.
- Expanding uses adjacent to GSENM or on private inholdings in GSENM, particularly residential and commercial development, increases the demand for ROWs on the BLM-managed lands to accommodate those uses.
- Land tenure adjustments, including acquisition of inholdings and land exchanges, improve land management efficiency by acquiring lands to consolidate federal ownership, providing connectivity of important resource values, and adjusting ownership patterns in a manner that furthers GSENM's protective purposes.

*Analysis Methodology and Techniques*

- The analysis of impacts on land use authorizations and land tenure under each alternative would include the following steps:
  1. Query the BLM's LR2000 database and conduct a GIS analysis to determine acres of ROWs and land use authorizations, ROW exclusion areas, and ROW avoidance areas within the decision area.
  2. Conduct a GIS analysis of acres of designated and de facto (corridors with existing ROWs) utility corridors within the planning area.
  3. Conduct a GIS analysis of acres of designated communication sites within the decision area.
  4. Conduct a GIS analysis of acres of land not managed by the BLM within the planning area. The acres of land not managed by the BLM within the planning area would remain the same in all alternatives, but the criteria used to evaluate lands for potential acquisition may vary between alternatives. These acreages and criteria will help the responsible official understand the differences between the alternatives regarding the ability of managers to issue land use authorizations and to acquire or exchange land within the planning area.
  5. Using this data, conduct a quantitative analysis to compare a change in land use authorizations, utility corridors, and communication sites within each alternative. Conduct a qualitative analysis to describe impacts on lands and realty actions based on actions under other resource programs under each alternative. Analyze land tenure by comparing previous GSENM boundaries to the present decision area boundaries, comparing land tenure criteria within each alternative, and assessing the BLM's ability to engage in land exchanges.

*Units of Measure*

- Acres will be used to measure impacts on land use authorizations and land tenure under each alternative.

*Relevant Data and Information to Be Used*

- The data and relevant information to be used in the analysis consist of:
  1. GIS data for the acres of ROW avoidance, exclusion, and utility corridors in the decision area under each alternative

2. Information from the 2000 MMP (BLM 2000), 2020 GSENM RMP (BLM 2020a) and 2020 KEPA RMP (BLM 2020b)

#### *Analytical Conclusions to Be Answered*

- The acres available or unavailable for ROWs, utility corridors, and communication sites will be compared by alternative. Land tenure would be analyzed by comparing the land tenure criteria in each alternative and the opportunity those criteria will provide the BLM the ability to engage in land acquisitions and exchanges. A qualitative discussion about the extent to which management would or would not change opportunities for land use authorizations will be included.

#### *Analysis Display*

- The analysis display will consist of maps showing ROW avoidance areas, ROW exclusion areas, designated utility corridors, and communication sites under each alternative. A table with acreages of these attributes will also be displayed for each alternative. Written criteria will be established to guide how the acquisition of inholdings will be considered.

#### **References**

- BLM (United States Department of the Interior, Bureau of Land Management). 2000. Grand Staircase-Escalante National Monument Management Plan. February. Internet website:  
[https://eplanning.blm.gov/public\\_projects/2020343/200528424/20069859/250076041/2000%20GS%20ENM%20Monument%20Management%20Plan.pdf](https://eplanning.blm.gov/public_projects/2020343/200528424/20069859/250076041/2000%20GS%20ENM%20Monument%20Management%20Plan.pdf).
- \_\_\_\_\_. 2020a. Record of Decision and Approved Resource Management Plan for the Kanab-Escalante Planning Area. February. Internet website:  
[https://eplanning.blm.gov/public\\_projects/lup/94706/20012472/250017031/KEPA\\_ROD\\_and\\_ARMP\\_Febryary2020.pdf](https://eplanning.blm.gov/public_projects/lup/94706/20012472/250017031/KEPA_ROD_and_ARMP_Febryary2020.pdf).
- \_\_\_\_\_. 2020b. Record of Decision and Approved Resource Management Plans for the Grand Staircase-Escalante National Monument. February. Internet website:  
[https://eplanning.blm.gov/public\\_projects/lup/94706/20012470/250017029/GSENM\\_ROD\\_and\\_ARMPs\\_February2020.pdf](https://eplanning.blm.gov/public_projects/lup/94706/20012470/250017029/GSENM_ROD_and_ARMPs_February2020.pdf).

## **F.25 SPECIAL DESIGNATIONS – AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACECs), RESEARCH NATURAL AREAS, AND OTHER SPECIAL MANAGEMENT DESIGNATIONS**

### ***How would management affect the relevant and important values of potential ACECs?***

#### *Geographic and Temporal Scale of Analysis*

- The analysis area for ACECs will consist of each proposed ACEC within the decision area. The temporal scale of the analysis is the life of the RMP.

#### *Relevant Assumptions*

- None identified at this time.



*Analysis Methodology and Techniques*

- Impacts on potential ACECs would result from management actions that would irreparably damage the identified relevant and important values. Surface-disturbing activities typically provide the greatest threat to historical and cultural, paleontological, geological, scenic, and natural relevant and important values.
- To determine whether the management direction of each alternative protects the relevant and important resource values associated with each potential ACEC, first the BLM will list and map the locations of potential ACECs by alternative. Next, special management needed to protect or maintain each ACEC's relevant and important values will be defined by alternative. Finally, for each alternative, the BLM will determine whether specific management activities or the lack of management direction would affect the relevant and important values that do not receive special management attention.

*Units of Measure*

- The analysis will use the acres within each potential ACEC that would be impacted by land use allocations, where applicable. Other impacts will be described qualitatively.

*Relevant Data and Information to Be Used*

- GIS data of potential ACEC boundaries
- GIS data of potential ACEC boundaries with overlapping acreages of other land use allocations by alternative

*Analytical Conclusions to Be Answered*

- The analysis will provide a description of how land use allocations and management direction for each alternative affect the relevant and important values for each area. Under some alternatives, the BLM may conclude that some potential ACECs require no special management to protect the relevant and important values, and, therefore, ACEC designation is unnecessary.

*Analysis Display*

- The analysis will be presented through text that describes the impacts that each proposed management action would have on the relevant and important values identified for each proposed ACEC. Tables will also be included that show a breakdown of proposed ACEC acreages, designations by alternative, applicable relevant and important values, and management direction, if designated.

**F.26 SPECIAL DESIGNATIONS – NATIONAL TRAILS*****How would management affect the nature and purpose of the Old Spanish National Historic Trail (OSNHT)?****Geographic and Temporal Scale of Analysis*

- The analysis area for national trails is the OSNHT management corridor or inventory corridor that was established during the inventory conducted for this planning effort. Linearly, it consists of 36 miles of trail. Its width or corridor will be established by a viewshed analysis and various other practices established in BLM Manual 6280. The temporal scale of the analysis is the life of the RMP.

*Relevant Assumptions*

- None identified.

*Analysis Methodology and Techniques*

- To determine whether the management direction of each alternative meets the requirements and purposes set forth in the National Trails System Act, Federal Land Policy and Management Act, and other laws and policies applicable to the OSNHT, the following analysis methodologies and techniques will be used. First, all trail inventory work conducted will be done in accordance with BLM Manual 6280 and BLM Technical Reference 6280-I Volumes 1 and 2. Reference to the Comprehensive Administrative Strategy will be made for all high potential sites and segments and all objectives that are stated within that document. Special management needed will be defined by alternative; if needed, special management will be applied to the proposed management corridor for each alternative.

*Units of Measure*

- The BLM will use the acres within the OSNHT management corridor or inventory corridor and the existing and proposed management corridors to disclose impacts and management actions for each alternative. Other impacts will be described qualitatively, as needed.

*Relevant Data and Information to Be Used*

- The BLM is currently conducting an inventory based on the methodology that was approved in 2020. This inventory, along with all cultural, recreational, visual, and natural resource data within the corridor area, will be used. In addition, all relevant OSNHT planning documents, such as the Comprehensive Administrative Strategy and existing planning documents, will be used.

*Analytical Conclusions to Be Answered*

- The analysis will provide a description of how the OSNHT will be affected by each proposed alternative's land use allocations and management direction.

*Analysis Display*

- The analysis will be presented through text, maps, and tables that describe the impacts each proposed alternative would have on the OSNHT.

**F.27 SPECIAL DESIGNATIONS – SCENIC ROUTES*****How would management impact the viewshed surrounding scenic routes and the experience of enjoying scenic routes within the planning area?****Geographic and Temporal Scale of Analysis*

- The geographic analysis scale for scenic routes will include the route and viewshed or “seen area” from the route. The temporal scale of the analysis is the life of the RMP.

*Relevant Assumptions*

- Visitors and local residents enjoy and value the experience of appreciating scenery when traveling on scenic routes.

*Analysis Methodology and Techniques*

- Potential impacts on scenic routes would be assessed by comparing the levels of change to the landscape characteristic that could occur under differing VRM classifications across alternatives. Impacts on the viewsheds would also examine how other management actions affect the viewshed across alternatives. Impacts on the experience of enjoying scenic routes would be assessed qualitatively by examining the effects of other management actions across alternatives.

*Units of Measure*

- The analysis will use the acres of VRM classes that would protect the scenic route viewshed and any applicable land use allocations that would impact or protect scenic route viewsheds. Other impacts will be discussed qualitatively.

*Relevant Data and Information to Be Used*

- GIS data of scenic routes
- Viewshed analysis to determine the “seen area”
- VRM class data within route viewsheds
- Land use allocations overlapping with routes and viewsheds
- US Department of Transportation highway statistics for Scenic Byway 12 and Recreation Management Information System statistics for use numbers for GSENM interior routes, as applicable
- Scenic Byway 12 Economic Impact Study

*Analytical Conclusions to Be Answered*

- The analysis will provide a description of how land use allocations and management direction for each alternative affect the viewshed surrounding scenic routes.

*Analysis Display*

- A table showing the acres of VRM classes within the viewsheds of scenic routes by alternative will be included for the analysis. Additionally, the analysis will include map(s) depicting the viewshed or “seen area” of scenic routes within the planning area.

## **F.28 SPECIAL DESIGNATIONS – MORMON PIONEER NATIONAL HERITAGE AREA (BOULDER LOOP AND UNDER THE RIM DISTRICTS)**

### ***How would management impact the cultural, historic, and natural resources for which National Heritage Areas were designated?***

*Geographic and Temporal Scale of Analysis*

- The analysis area for National Heritage Areas is the acreage within the designated boundary of the Mormon Pioneer National Heritage Area. Two of the five districts of the Mormon Pioneer National Heritage Area are included within GSENM; these are the Boulder Loop District and Under the Rim District.

*Relevant Assumptions*

- None identified.

*Analysis Methodology and Techniques*

- To determine whether the management direction of each alternative meets the requirements and purposes set forth in the National Heritage Areas Act of 2006, Federal Land Policy and Management Act, and other laws and policies applicable to the Mormon Pioneer National Heritage Area, all management actions would follow the goals outlined in the 2009 Management Plan. Special management needed will be defined by alternative.

*Units of Measure*

- The BLM will use the acres within the Mormon Pioneer National Heritage Area that overlap the GSENM to disclose impacts and management actions for each alternative. Other impacts will be described qualitatively, as needed.

*Relevant Data and Information to Be Used*

- All cultural, recreational, visual, and natural resource data within the heritage area will be used. In addition, all relevant Mormon Pioneer National Heritage Area planning documents, such as the 2009 Management Plan and existing planning documents, will be used.

*Analytical Conclusions to Be Answered*

- The analysis will provide a description of how the Mormon Pioneer National Heritage Area will be affected by each proposed alternative's land use allocations and management direction.

*Analysis Display*

- The analysis will be presented through text, maps, and tables that describe the impacts each proposed alternative would have on the Mormon Pioneer National Heritage Area.

**F.29 SPECIAL DESIGNATIONS – WILD AND SCENIC RIVERS*****How would management affect the free-flowing condition, water quality, outstandingly remarkable values, and tentative classification of river segments found suitable for inclusion in the National Wild and Scenic Rivers System?****Geographic and Temporal Scale of Analysis*

- The analysis area for wild and scenic rivers (WSRs) is the suitable river corridors (0.25 miles of land from the ordinary high-water mark on each side of the segment) on BLM-managed lands in GSENM. The temporal scale of the analysis is the life of the RMP.

*Relevant Assumptions*

- Until the record of decision for this RMP is adopted, the BLM will manage all suitable stream segments under interim protective measures, as required by the Wild and Scenic Rivers Act and BLM Manual 6400, Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management (BLM 2012). This procedure and the interim protective measures would ensure that the outstandingly remarkable values for which these river segments were found eligible and suitable are not compromised until Congress decides regarding WSR designation. The interim management policy requires the BLM to protect the identified outstandingly remarkable values, the free-flowing condition of the stream segment, and the classification of the segment (allowable level of stream corridor development). In the case of segments classified as wild, the BLM must also maintain the water quality.

*Analysis Methodology and Techniques*

- The BLM will determine whether the management direction of each alternative protects outstandingly remarkable values of suitable WSRs. First, the BLM will list and map the locations of the suitable WSR segments by alternative. Next, special management needed to protect or maintain the outstandingly remarkable values of suitable WSRs will be defined by alternative. Finally, for each alternative, the BLM will determine whether specific management activities or the lack of management direction would affect the outstandingly remarkable values, free-flowing condition, or classification of suitable WSRs that do not receive special management attention.

*Units of Measure*

- Measurements will be made in miles and acres of each suitable river corridor that would be impacted by a management action, where applicable. Other impacts will be described qualitatively.

*Relevant Data and Information to Be Used*

- GIS data for suitable river corridors on BLM-managed lands in GSENM
- Miles of suitable river corridors by administrative unit and tentative classification (wild, scenic, or recreational)
- GIS data of suitable river corridors with overlapping acreages of other land use allocations for each alternative

*Analytical Conclusions to Be Answered*

- The analysis will provide a description of how land use allocations and management direction for each alternative affect the suitable WSR segments and corridors.

*Analysis Display*

- The analysis will be presented through text that describes the impacts each proposed management action would have on the suitable WSR segments and corridors. The analysis will also include a table showing impacts on suitable WSR segments by alternative.

**References**

BLM (United States Department of the Interior, Bureau of Land Management). 2012. Manual 6400—Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management. Rel. 6-136. BLM, Washington, DC. July 13.

**F.30 SPECIAL DESIGNATIONS – WILDERNESS STUDY AREAS*****How would management actions affect the non-impairment standard in wilderness characteristics of Wilderness Study Areas (WSAs)?****Geographic and Temporal Scale of Analysis*

- The analysis areas for WSAs will comprise each WSA within the decision area. The temporal scale of the analysis will be the life of the RMP.

#### *Relevant Assumptions*

- Consistent with BLM Manual 6330, Management of Wilderness Study Areas (BLM 2012), the BLM will manage WSAs to not impair their suitability for preservation as wilderness until Congress either designates or releases all portions of WSAs from further consideration for wilderness.

#### *Analysis Methodology and Techniques*

- The BLM will determine whether the management direction of each alternative protects the suitability of each WSA for preservation as wilderness. First, the BLM will list and map the locations of the existing and proposed WSAs and instant study areas (ISAs) in the planning area by alternative. Next, management needed to protect or maintain the wilderness characteristics of WSAs and ISAs will be defined by alternative (activities must be temporary and create no new surface disturbance). Finally, the BLM will determine whether specific management activities or the lack of management direction would affect the wilderness characteristics for WSAs and ISAs.

#### *Units of Measure*

- Measurements will be in acres within each WSA and ISA that would be impacted by a management action, where applicable. Other impacts will be described qualitatively.

#### *Relevant Data and Information to Be Used*

- WSA inventories and monitoring reports for BLM-managed lands within the planning area
- GIS data of lands with WSA parcel boundaries
- Acres of WSAs by alternative, with overlapping acreages of other land use allocations

#### *Analytical Conclusions to Be Answered*

- The analysis will provide a description of how land use allocations and management direction for each alternative affect each WSA in GSENM.

#### *Analysis Display*

- The analysis will be presented through text that describes the impacts that each proposed management action would have on each WSA and ISA. Additionally, a table showing the impacts on each WSA and ISA by alternative and map(s) depicting WSA and ISA boundaries in GSENM will be included as part of the analysis.

### **References**

BLM (United States Department of the Interior, Bureau of Land Management). 2012. Manual 6330—Management of Wilderness Study Areas. BLM, Washington, DC.

## **F.31 SOCIAL AND ECONOMIC VALUES**

### ***How would BLM management actions impact local and regional economic interests and conditions?***

#### *Geographic and Temporal Scale of Analysis*

- The socioeconomic analysis area will include Garfield and Kane Counties. GSENM is in these counties, and any impacts on the economy or employment will most likely occur in and around the population centers within these two counties.

- Historical data will be averaged over 5 years (2015 to 2019). Where feasible, 2020 data will not be used, especially for tourism and recreation data; this is because the 2020 data are often considered to be an outlier due to the COVID-19 pandemic.

#### *Relevant Assumptions*

- Expenditure and management inputs will be modeled as a direct, one-time shock to the economy to analyze the impacts. Actual spending levels and the associated contributions would vary by year. However, the model provides an estimate of the total economic contributions with the best information available.

#### *Analysis Methodology and Techniques*

- Historical data will be averaged over 5 years (2015 to 2019). Where feasible, 2020 data will not be used, especially for tourism and recreation data; this is because the 2020 data are often considered to be an outlier due to the COVID-19 pandemic.
- The BLM will estimate the economic impacts of the management alternatives for affected resource uses using the Impact Analysis for Planning Model (IMPLAN) economic impact model. The IMPLAN model was originally developed by the United States Department of Agriculture, Forest Service and is commonly used by the BLM, the Forest Service, and many other government and private sector organizations to estimate the total economic impacts of various activities and policies. The model tracks inter-industry and consumer spending in a local or regional economy; this allows an estimation of indirect and induced economic impacts in the economy that result from the original economic activity or change in economic activity. Indirect impacts result from the inter-industry transactions (for example, when a recreation outfitter buys supplies from a local grocery store). Induced impacts result from re-spending of household income (for example, when employees of the recreation outfitter buy goods for personal use at a local grocery store). Outputs of the IMPLAN model include employment, labor income, value added, and gross regional economic output.

#### *Units of Measure*

- The units of measure for the direct, indirect, and induced output would be the number of employees (jobs) and 2022 dollars for labor income, value added, and gross regional economic output.

#### *Relevant Data and Information to Be Used*

- Permitted animal unit months
- Visitor use data

#### *Analytical Conclusions to Be Answered*

- The analysis will show the direct, indirect, and induced jobs, income, value added, and economic output that would be created from the proposed management.

#### *Analysis Display*

- The input data used in the IMPLAN model will be provided in tables and discussed in paragraph form. The output data will also be displayed in a table and interpreted.

### **How would BLM management actions impact social conditions and values of communities?**

#### *Geographic and Temporal Scale of Analysis*

- The geographic scale of the analysis is the decision area.
- Historical data will be averaged over 5 years from 2015 to 2019. Where possible, 2020 data will not be used, especially for tourism and recreation data; this is because the 2020 data are often considered to be an outlier due to the COVID-19 pandemic.

#### *Relevant Assumptions*

- None identified at this time.

#### *Analysis Methodology and Techniques*

- Historical data will be averaged over 5 years from 2015 to 2019. Where possible, 2020 data will not be used, especially for tourism and recreation data; this is because the 2020 data are often considered to be an outlier due to the COVID-19 pandemic.
- Nonmarket values are the benefits that individuals attribute to experiences of the environment or uses of natural and cultural resources that do not involve market transactions and, therefore, lack prices. There are many types of nonmarket values. Three nonmarket values are considered in the analysis: 1) the benefits to local communities from the amenity values provided by open space and scenic landscapes; 2) the benefits to individuals, such as the value to recreationists and visitors above and beyond the cost that they pay to recreate; and 3) ecosystem service values, which refer to the ways that healthy ecosystems support, enable, or protect human activity.
- In examining nonmarket values, economists often distinguish between “use values” and “nonuse values.” A use value refers to the benefits an individual derives from some direct experience or activity, such as climbing a spectacular peak, hunting, or viewing wildlife. In contrast, a nonuse value refers to the utility or psychological benefit some people derive from the existence of some environmental condition that may never be directly experienced, such as an unspoiled landscape or the continued presence of an endangered species. Estimating nonuse values for specific resources is difficult and often controversial. BLM guidance (BLM 2013) recommends that use values be emphasized rather than nonuse values.
- Nonmarket values are important to consider because they help tell the entire socioeconomic story. Estimates of nonmarket values supplement estimates of income generated from commodity uses to provide a more complete picture of the economic implications of proposed resource management decisions. It is difficult to put a dollar number on those values, but the correct answer is not “zero.” The BLM is increasingly asked to consider these nonmarket values (in effect, to replace that “zero” with a more useful number for planning and analysis purposes). In some cases, these values can be calculated if appropriate information is available. In other cases, this is not possible, but it may be helpful to discuss these values qualitatively or to provide examples of these values in analogous situations.
- Proximity to open spaces can affect property values. This analysis will use literature to examine the economic benefits to local economies from this proximity to open spaces. Economic benefits to individuals will be measured using consumer surplus values to calculate the value of GSENM to recreationists and visitors. Consumer surplus is defined as the maximum dollar amount, above any actual payments made, that a consumer would be willing to pay to enjoy a good or service. For instance, hikers pay a market price for gasoline used to reach a trail but pay nothing to use



the trail. Any amount that a recreationist would be willing to pay to use this otherwise free resource represents the nonmarket consumer surplus value of that resource to that consumer.

- A 2016 report summarized the findings of consumer surplus values per person per day by recreational activity from 421 studies (totaling 3,192 different value estimates) covering the United States and Canada from 1958 to 2015 (Rosenberger 2016). These values, or a range of values from specific individual studies that are most comparable to the decision area, will be applied to recreational usage figures (for example, visitor days) to estimate the recreation-related nonmarket use value—the consumer surplus—for the decision area. Economic benefits from ecosystem services will be examined by providing an inventory of the ecosystem benefits from GSENM, including any applicable benefits from potable water from groundwater recharge, flood control from intact wetlands, and carbon sequestration from healthy forests and certain agricultural lands.

#### *Units of Measure*

- The units of measure for the analysis will be the dollar increases in property values and dollar values of consumer surplus for recreational activities.

#### *Relevant Data and Information to Be Used*

- Data will be collected on property value impacts from proximity to open spaces, as well as consumer surplus values for recreational activities. Data on recreational usage, such as visitor days, will be used. Information on ecosystem conditions from other resource areas will also be gathered.

#### *Analytical Conclusions to Be Answered*

- The analysis will highlight the value that the proposed management offers to individuals from natural resources that cannot be quantified from the economic impact analysis or any other market mechanism.

#### *Analysis Display*

- The results of the analysis will be displayed in a table and discussed quantitatively, when possible. When the BLM cannot quantify the values, a qualitative discussion will be provided.

#### **References**

BLM (United States Department of the Interior, Bureau of Land Management). 2013. BLM Instruction Memorandum 2013-131—Guidance on Estimating Nonmarket Environmental Values, Ch. I. BLM, Washington Office, Washington, DC. Internet website: <https://www.blm.gov/policy/im-2013-131-ch1>.

Rosenberger, R S. 2016. Recreation Use Values Database – Summary. Corvallis, OR: Oregon State University, College of Forestry. <https://revaluation.forestry.oregonstate.edu/>.

## F.32 ENVIRONMENTAL JUSTICE

### ***How would BLM management actions impact the environment, health, and livelihoods of communities with environmental justice concerns?***

#### *Geographic and Temporal Scale of Analysis*

- The environmental justice analysis area includes Garfield and Kane Counties, which are the counties that encompass GSENM. The proposed management would directly affect the populations in these counties, as well as the surrounding counties in Utah (Beaver, Iron, Piute, San Juan, Washington, and Wayne Counties) and Arizona (Coconino and Mohave Counties), which might have cultural or historical ties to the planning area. Reference areas will be used to set a threshold for comparing the percent of minority, low-income, and Native American populations in each county to the reference areas in order to identify environmental justice communities. The reference areas will be the respective state averages (that is, Utah and Arizona).

#### *Relevant Assumptions*

- None identified at this time.

#### *Analysis Methodology and Techniques*

- Executive Order 12898 requires federal agencies to identify environmental justice communities in and around the planning area and determine whether there are disproportionate high and adverse impacts on these communities from the proposed action. Environmental justice communities are defined as communities that have high percentages of the population that identify as low-income, minority, and/or Native American
- To identify environmental justice populations, the CEQ issued guidance for federal agencies. The CEQ states that minority populations are present where the percentage of people who identify as American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic of any ethnicity is greater than or equal to 50 percent or is meaningfully greater than the percentage of people who identify as a minority population in a reference area (CEQ 1997). The CEQ guidance does not specify how to identify a “low-income population.” However, in practice a similar approach used for minority populations can be followed—where persons in poverty status are greater than 50 percent of the area’s total population, or where the percentage in poverty is equal to or greater than the percentage in the general population or an appropriate comparison area (the reference population).
- The CEQ guidance does not define what constitutes meaningfully greater. However, the BLM recommends using 10 percentage points as the threshold of “meaningfully greater” for a minority population. The BLM’s guidance indicates that a low-income population is present if the poverty rate of a defined geographic area is at or above the poverty rate of the reference area.
- For the purpose of this analysis, the thresholds stated above (from the CEQ and the BLM) will be used to identify any low-income or minority communities in the environmental justice analysis area. The reference areas are the respective states where the counties are located (that is, Utah and Arizona).

- The CEQ explains, regarding disproportionately high and adverse effects, that the following factors should be considered when examining whether human health effects are disproportionately high and adverse (CEQ 1997):
  - Are the health effects significant or above generally accepted normal rates or risks?
  - Are the risks or rates of harm to environmental justice communities significant and greater than the risk or rate to the general public or comparison community?
  - Are the environmental justice communities impacted by cumulative effects?
- The CEQ states that the following issues should be considered when examining whether environmental effects are disproportionately high and adverse:
  - Are the impacts on the environment significant and do they negatively harm environmental justice communities?
  - Are the impacts on the environment more harmful to environmental justice communities than on the general population or comparison community?
  - Are the environmental justice communities impacted by cumulative effects?
- In the analysis, these issues will be examined with regards to impacts from the proposed management on the identified environmental justice communities.

#### *Units of Measure*

- The units of measurement for the analysis, when possible, will be reported in dollar impacts on the environmental justice communities. When it is not possible to quantify the impacts, a qualitative discussion on the impacts will be provided.

#### *Relevant Data and Information to Be Used*

- To determine whether environmental justice communities exist in the analysis area, county-level data will be collected from the U.S. Census Bureau on the number of individuals who fall below the poverty line and the number of individuals who identify as one or more minority ethnicities or races (American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic) within the environmental justice area.
- To determine potential adverse and disproportionate impacts on environmental justice communities in the analysis area, data on impacts from the proposed management will be collected from other resource topic areas, in addition to any impacts from proposed management on social and economic values.

#### *Analytical Conclusions to Be Answered*

- The analysis will determine whether there are significant impacts from the proposed management, and whether those impacts are disproportionate and adverse on environmental justice communities.

#### *Analysis Display*

- The results of the analysis will be displayed in a table, when possible, and discussed quantitatively and qualitatively. Maps will be provided on the environmental justice analysis area and will highlight any identified environmental justice populations.

**References**

CEQ (Council on Environmental Quality). 1997. Environmental Justice Guidance under the National Environmental Policy Act. Internet website: <https://www.epa.gov/environmentaljustice/ceq-environmental-justiceguidance-under-national-environmental-policy-act>.

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# Appendix G

Inchworm Arch Road Interdisciplinary Route Evaluation  
Form and Analysis

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# Appendix G. Inchworm Arch Road Interdisciplinary Route Evaluation Form and Analysis

**Table G-I. Inchworm Arch Road – Route Evaluation Form**

Evaluation Form for Interdisciplinary Route Analysis										
1	<b>Route ID</b>	Inchworm Arch Road						2	<b>Length</b>	2.4 miles
3	<b>Location</b>	Inchworm Arch trail (off-highway vehicle [OHV]), Nephi Pasture Area, Kane County						4	<b>Date</b>	07/31/2023
5	<b>ID Team</b>	Allysia Angus, Cameron McQuivey, Sandra Zarzycka, Jason Bybee, Clay Stewart, Levi LeFevre, Sean Stewart; United States Department of the Interior, Bureau of Land Management (BLM)								
6	<b>Route Type</b>	Road	X	Primitive Road	Trail	Way	Transportation linear disturbance			
7	<p><b>Purpose of and Need for Motorized and Nonmotorized Travel on the Route:</b>            This route is currently a designated route in the current travel plan. The route receives use from OHVs (primarily utility task vehicles [UTVs], with some all-terrain vehicle [ATV] and motorcycle use). Hikers, mountain bikers, and equestrian riders also use the route. The estimated percentage of use along the route by OHV and nonmotorized use is unknown. Prior to the 2020 decision to designate the route, the route in its previous alignment traveled along a user-created route through a pinyon-juniper desert landscape composed of sandy benches and dry washes and intersected recorded archaeological sites. The 2020 decision to designate the route required the BLM to re-route the alignment of the travel surface to avoid adverse impacts to sensitive resources, including the recorded archaeological sites.</p> <p>The purpose of and need for the route is to access a natural arch site at the end of the road. At the end of the OHV route, a 500-foot user-created foot trail provides access to the natural arch. The foot trail continues beyond the arch, accessing the canyon bottom.</p> <p><b>Additional Comments Regarding the Purpose of and Need for Motorized and Nonmotorized Travel on the Route:</b> Inchworm Arch is popular with residents and has become increasingly popular with visitors. Due to the history of this route and the access it provides to a popular attraction (the natural arch), it is expected that the public will continue to want access (motorized and nonmotorized) to visit this resource.</p>									
8	<p><b>Potential Resource and/or User Conflicts from Motorized and Nonmotorized Travel on the Route:</b> Known adverse impacts on resources have been mitigated; ongoing monitoring of this route since its realignment and designation has shown very few impacts on resources, the only occurrence of which is temporary in nature, resulting from the occasional OHV driving off the route. These few occurrences of off-route disturbances are easily raked out by park rangers and become mostly, if not completely, unnoticeable. The foot trails are user created to access the arch and surrounding area.</p> <p><b>Additional Comments Regarding Potential Resource and/or User Conflicts from Motorized and Nonmotorized Travel on the Route:</b> Kane County Travel Council has identified this site as a destination for the OHV community. It is expected that the marketing and promotion of this site will continue.</p>									

Evaluation Form for Interdisciplinary Route Analysis							
9	<b>Route Designation Alternatives:</b> Potential routes designations include, but are not limited to, open to all forms of travel, open with mitigation, open to specific vehicle types, limited to nonmotorized forms of travel, limited seasonally, and closed.						
	<b>No Action</b>	OHV-open	<b>Alternative B</b>	OHV-open	<b>Alternative C</b>	OHV-open	<b>Alternative D</b>
<p><b>Comments:</b> Under Alternatives A, B, and C, the route would remain designated in the transportation plan and would remain open and available to motorized use. Under Alternative D, the route would be designated as OHV-closed and removed from the transportation plan. If it were closed in Alternative D, it is expected that OHV use will continue unrestricted, unless physical closures of the route and enforcement are actively established. Tools used to close the trail may include fencing, boulders, post and rail, and signage. Based on the remote location of the trail, monitoring would be intermittent, and the closures would be difficult to maintain.</p>							
10	<p><b>Recommended Mitigation Measures to Minimize User and Resource Conflicts for Each Alternative:</b>                      Alternatives A, B, and C: The route would continue as a designated OHV-open route in the transportation plan; no new mitigation measures would be needed, other than continued monitoring to ensure that use of the previous alignment is not used by OHVs.                      Alternative D: The route would be designated as closed and removed from the transportation plan.</p>						
11	<p><b>Summary Regarding the Interdisciplinary Team’s Proposed Action Recommendation:</b>                      The route provides access to a popular location emphasizing a natural arch. There is a high potential for off-route incursions (trespass), as impacts were identified on the field survey. The field team recommendations are to keep the route with appropriate re-routes around archaeological sites, install barriers to keep OHVs in the parking area and reduce impacts at and around the arch, install educational/interpretive panels, delineate the parking area, prohibit camping in the parking area, and develop the foot trail and viewing location to reduce resource damages.</p>						

**Table G-2. Inchworm Arch Road – Route Evaluation Checklist**

Evaluation Checklist for Interdisciplinary Route Analysis					
Purpose and Need Criteria			Resource Criteria		
Administrative Uses			Resource	Potentially Affected?	Comment
Use	Yes	Comment			
Compliance/Enforcement Monitoring	X	Archaeology, paleontology, GSENM objects	* Air Quality – Dust	X	OHV use of routes creates dust
Fire Suppression			* Air Quality – Nonattainment Area		
Predator Control			* Wildlife		
Public Safety	X	Search and Rescue access to site	* Special Status Species #1 Habitat		
Training Area/Facility			* Proximity to Special Status Species #1 Habitat		
Vegetation Treatment Area			* Special Status Species #2 Habitat		

**Evaluation Checklist for Interdisciplinary Route Analysis**

Wildlife Water			* Proximity to Special Status Species #2 Habitat		
Other Administrative Uses			In a Wash		
<i>Commercial Uses</i>			Wash Crossing	X	
<i>Use</i>	Yes	<i>Comment</i>	Proximity to a Wash	X	
Ranching			Redundant Route		
Mining			Herd Management Area		
Mineral/Materials			* Vegetation		
Fluid Minerals			* Special Status Plant Species #1		
Renewable Energy			* Special Status Plant Species #2		
Right-of-Way			Invasive Nonnative Vegetation	X	Scotch thistle ( <i>Onopordum acanthium</i> ) is present in the washes near this road
Utility			Other Vegetation		
Special Recreation Permits	X		* Soils	X	Sandy soils with minimal pedogenic development in this area—low to moderate potential for erosion in disturbed sands depending on slope
Other Commercial Uses			Erosive Soils	X	Soils are mostly sandy and well drained with low runoff potential
<i>Public Uses</i>			Other Sensitive Soils	X	Cryptobiotic soils—potential for moderate to high early and late successional crust cover (Bowker et al. 2006 Biological Soil Crust Model)
<i>Use</i>	Yes	<i>Comment</i>	* Watershed		
Property Access			Water Quality		
Class B Road			Stream Crossing		
Other Public Uses			* Cultural Resource Site		

**Evaluation Checklist for Interdisciplinary Route Analysis**

<i>Recreational Uses</i>			Proximity to Cultural Resource Site	X	High density; realigned to avoid cultural sites
<i>Use</i>	<i>Yes</i>	<i>Comment</i>	High Probability Cultural Resource Area	X	High density along ridge crest
OHV Use	X	Include trail in travel management plan	* Paleontological Resources		
Trailhead Access	X		* Visual Resource Management Class	X	VRM Class II
Loop/Connector Trail	X	Users use this route as a loop	Known Visual Scar	X	Trail visible/aerial
Dispersed Camping	X	Limited	* Area of Critical Environmental Concern		
Developed Camping			* Wilderness		
* Hunting	X	Very popular with deer hunters	* Wilderness Study Area		
* Recreational Shooting	X		* Natural Area		
* Fishing			Wilderness Characteristics		
* Equestrian	X		Other Wilderness Characteristic Considerations		
* Mountain Biking	X		* Wild and Scenic River		
* Hiking	X		* National Historic Trail		
Permitted OHV Events	X		Special Recreation Management Area	X	Extensive Recreation Management Area; proposed Special Recreation Management Area
Wildlife Viewing	X	Popular during mule deer migration and hunting times	Recreation Management Zone	X	Extensive Recreation Management Area; proposed Special Recreation Management Area
Rock hounding	X		Prescribed Recreation Setting (Recreation Opportunity Spectrum)	X	Undeveloped, primitive, self-directed accommodating motorized and nonmotorized
Picnicking	X		* Conflicts with Other Recreational Users		

**Evaluation Checklist for Interdisciplinary Route Analysis**

Pullouts	X		* Noise	X	Motorized vehicle use on route creates intermittent noise. Some road and other human-generated noise may be heard from Johnson Canyon corridor (3+ miles away) and Highway 89 corridor (5+ miles away), though distance would diminish it.
Woodcutting			* Adjacent Communities	X	Private property is close to roads off main access route
Other Recreational Uses	X	Photography	Other Criteria		

\* Signifies that there is an applicable law, regulation, Executive Order, or policy that **REQUIRES** this use, resource, or conflict to be considered.

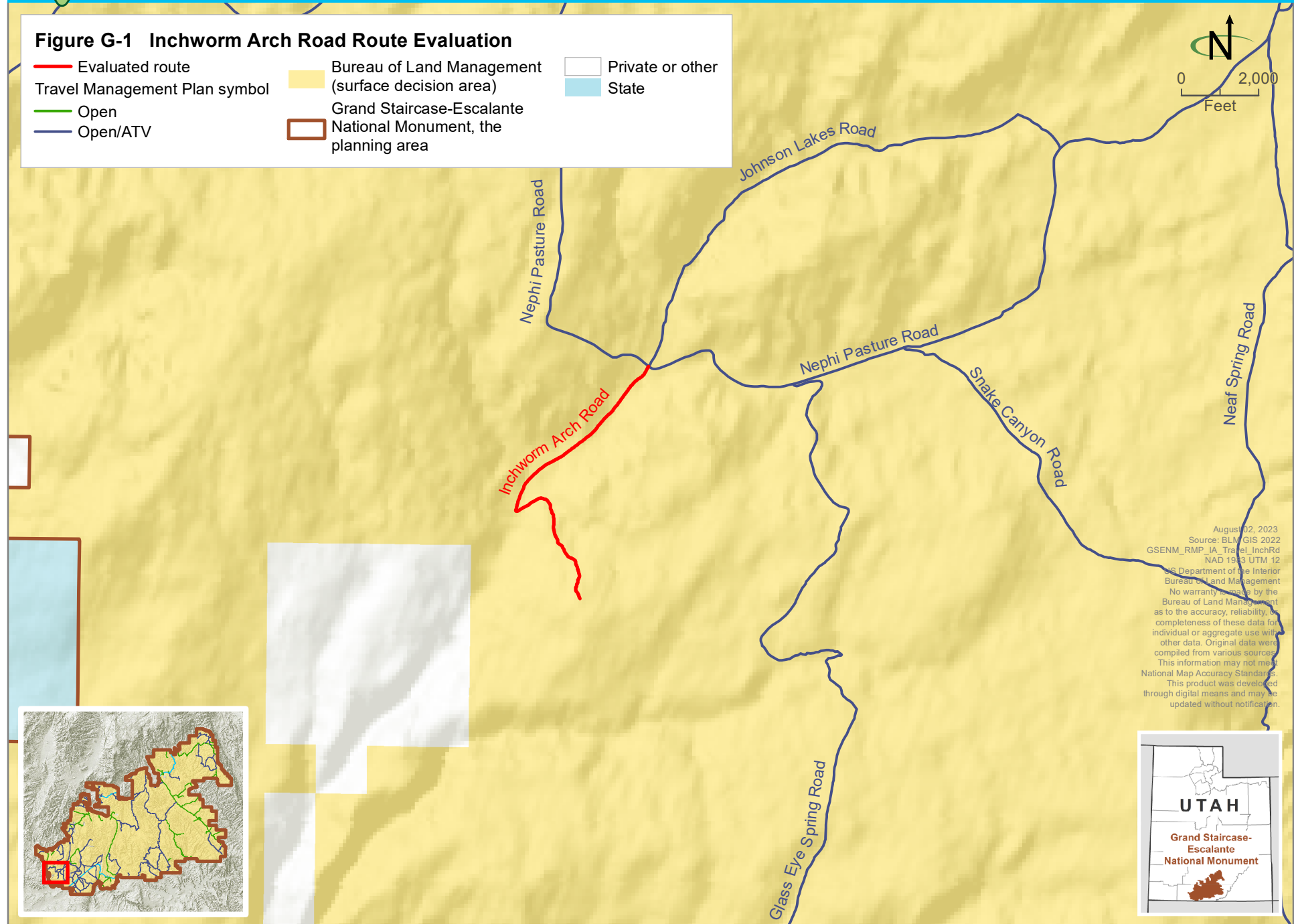
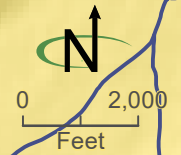
Note: There is a presumption that boxes left unmarked were considered by the interdisciplinary team, and the team determined that a purpose and need is not present and/or user/resource conflicts do not exist.



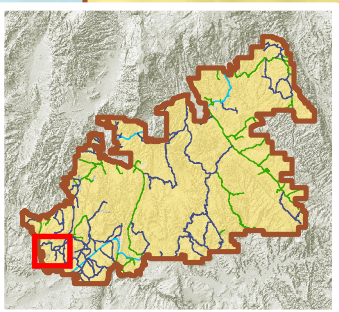
Grand Staircase-Escalante National Monument

**Figure G-1 Inchworm Arch Road Route Evaluation**

- |  |                 |  |  |  |                  |
|--|-----------------|--|--|--|------------------|
|  | Evaluated route |  | Bureau of Land Management (surface decision area)              |  | Private or other |
|  | Open            |  | Grand Staircase-Escalante National Monument, the planning area |  | State            |
|  | Open/ATV        |  |  |  |                  |



August 02, 2023  
 Source: BLM GIS 2022  
 GSENM\_RMP\_IA\_Travel\_InchRd  
 NAD 1983 UTM 12  
 U.S. Department of the Interior  
 Bureau of Land Management  
 No warranty is made by the  
 Bureau of Land Management  
 as to the accuracy, reliability,  
 completeness of these data for  
 individual or aggregate use with  
 other data. Original data were  
 compiled from various sources.  
 This information may not meet  
 National Map Accuracy Standards.  
 This product was developed  
 through digital means and may be  
 updated without notification.



### **G.1 IMPLEMENTATION-LEVEL ROUTE ANALYSIS FOR INCHWORM ARCH ROAD**

The closure of a designated route in the Grand Staircase-Escalante National Monument (GSENM) decision area is an implementation-level decision. Alternatives A, B, and C do not propose changes to the current GSENM OHV route network. Alternative D, however, amends the current GSENM OHV route network through an implementation-level decision to close the Inchworm Arch Road to OHV use. This route is currently used by local residents and tourists to access a geological formation, known as the Inchworm Arch, a natural arch, due the popularity of this natural attraction and documented use of this route prior to its designation in the 2020 GSENM Resource Management Plan (BLM 2020). Under Alternative D, it is expected that the exclusion of this route from the GSENM OHV route network could result in illegal use by users and potential adverse impacts resulting from cross-country travel to sensitive resources. These potential adverse impacts on resources could be avoided using proper closure techniques and ensuring consistent monitoring and enforcement of the closure. Alternatives A, B, and C would continue to allow OHV use of the designated route; because the route has been re-routed and aligned to avoid sensitive resources, no measurable impacts are anticipated under Alternatives A, B, or C. **Table G-3** includes detailed analyses of the effects of excluding the Inchworm Arch Road from the GSENM route inventory.

**Table G-3. Inchworm Arch Road – Affected Environment and Effects Analysis**

Resources and Uses	Affected Environment	Alternatives A, B, and C	Alternative D
Route Overview	<p>Prior to the 2020 decision to designate the route, the route in its previous alignment traveled along a user-created route through a pinyon-juniper desert landscape composed of sandy benches and dry washes and intersected recorded archaeological sites. The 2020 decision to designate the route required the BLM to re-route the alignment of the travel surface to avoid adverse impacts on sensitive resources, including the recorded archaeological sites.</p> <p>At the end of the OHV route, a 500-foot user-created foot trail provides access to the natural arch. The foot trail continues beyond the arch, accessing the canyon bottom. The destination is well known locally and promoted in the community, as well as by trail guides and online.</p>	The designated route would remain open to OHV use.	The designated route would be closed to OHV use. Proper closure techniques would be identified by specialists to close the route on the ground; this closure would be coupled with enforcement efforts and consistent monitoring.
Cultural Resources	<p><u>Resource:</u> The route was re-routed in 2020 to avoid damage and degradation to recorded cultural sites along the original route.</p> <p><u>Condition:</u> The route in its current alignment avoids cultural resources.</p> <p><u>National Historic Preservation Act Section 106 status:</u> A Class III intensive cultural resource survey was conducted along the entire length of the new (current) and former routes. The BLM conducted <u>National Historic Preservation Act Section 106</u> consultation with the State Historic Preservation Officer (SHPO), which resulted in SHPO concurrence of a no adverse effect determination. No archaeological sites are adversely affected by the realigned route designation, as no archaeological sites are located within the route.</p>	Continued motorized and nonmotorized use of the realigned route would not adversely impact cultural resources, because the new route alignment avoids cultural resources. The BLM has limited control over off-route incursions (trespass), and allowing OHV access could therefore enable effects on cultural resources adjacent to the re-route.	Closure to OHV use could reduce potential impacts on cultural resources adjacent to the re-route by reducing potential for off-route incursions (trespass).



Resources and Uses	Affected Environment	Alternatives A, B, and C	Alternative D
Monument Objects	<p>Presidential Proclamation 10286 and Proclamation 6920 identify geologic resources, including arches such as Inchworm, as objects.</p>	<p>Existing visitation levels would continue to Inchworm Arch, and visitation is expected to increase based upon expected continued annual visitation increases to GSENM. Additionally, non-BLM-derived promotion of the area is expected to continue. This visitation has the potential to affect Inchworm Arch through vandalism, arch swinging, or similar human-caused effects.</p>	<p>Visitation would be expected to be slightly less than existing conditions, with a corresponding decrease in effects on Inchworm Arch from decreased arch visitation due to eliminating nearby OHV access to the arch, thereby limiting visitation only to those visitors who are willing to hike to the arch.</p>
Visual Resources	<p><u>Resource:</u> The route is in an area that is Visual Resource Inventory Class II; Scenic Quality A; High Sensitivity; and in the Seldom Seen Distance Zone.</p> <p><u>Condition:</u> The inventoried visual values are stable. The route, which predominantly travels through a pinyon/juniper forest, causes negligible to minor visual contrast because it creates a thin linear disturbance on the landscape similar to other routes in the area and is only visible when traveling it or nearby.</p>	<p>The linear disturbance created by the route would persist and could modestly widen with increasing use over time. Under these alternatives, the area would be managed as VRM Class II, and the negligible to weak contrast the route would create would meet the visual objectives.</p>	<p>Under this alternative, the area would also be managed as VRM Class II. Without active reclamation, the route would continue to create a linear disturbance causing negligible to weak visual contrast for years. Closing and blocking the route to OHV use would decrease the potential for route widening and, over time, revegetation would diminish the width and visibility of the linear disturbance. Closing the route would also meet visual objectives.</p>

Resources and Uses	Affected Environment	Alternatives A, B, and C	Alternative D
Soil and Water Resources	<p><u>Resource:</u> The route crosses mostly sandy and well-drained soils with low runoff potential. Sandy soils with minimal pedogenic development occur in this area, with a low to moderate potential for erosion in disturbed sands. A small portion of the route crosses areas of steeper slopes and soils with high runoff potential.</p> <p><u>Condition:</u> Recent monitoring efforts indicate minimal off-route incursions (trespass) by recreationists. Activity off-route can result in soil loss, especially in areas with high runoff potential. The route runs adjacent to washes, which could be affected by recreationists directly (for example, driving through washes) or via erosion in the watershed.</p>	Continued use of the realigned route would have minimal impacts on soil resources. Additionally, because the area also has the potential for moderate to high early successional cryptobiotic soil crusts, potential impacts on those soils resources could occur from off-route incursions (trespass). The BLM has limited control over off-route incursions, and allowing OHV access would therefore allow effects on soils from such incursion to continue.	Closure to OHV use could reduce potential soil loss along the routes, reducing impacts on soil resources, and could also reduce potential impacts on sensitive cryptobiotic soil crusts by reducing potential for off-route incursions (trespass). Additionally, closure would allow soils and biological soil crusts to be restored.
Recreational Uses and Access	<p><u>Resource:</u> Inchworm Arch is popular with local residents and visitors, and the route receives use by the public. There is a user-created foot trail from the parking site to the arch viewing area. Recreational access occurs via OHV, hiking, equestrian use, and mountain biking. Other activities along the route include hunting and fishing, recreational shooting, photography, wildlife viewing, and limited dispersed camping. The route is the only motorized access to Inchworm Arch. The Kane County Travel Council has identified this site as a destination for the OHV community.</p> <p><u>Condition:</u> The area is managed as an Extensive Recreation Management Area, primarily catering to undeveloped, primitive, self-directed recreation use accommodating both motorized and nonmotorized uses. The foot trails are user created.</p>	Allowing continued OHV use of the designated route would continue to provide recreational opportunities for those seeking access to Inchworm Arch, as well as those seeking opportunities for hunting, recreational shooting, and other uses. Conversely, allowing OHV access along the route could increase conflicts between hikers, mountain bikers, and OHV users. Increases in OHV use would increase the potential for dust, which could adversely affect recreationists at Inchworm Arch and along the route.	Closure to OHV use would likely displace recreationists who access Inchworm Arch. Inchworm Arch is popular with local residents and visitors, and it is expected that the public would continue to seek access to visit this resource; closure to OHV use would limit such access.
Lands with Wilderness Characteristics	This area surrounding the Inchworm Arch route was inventoried in 2018, and no lands with wilderness character occur in the vicinity.	No effects would occur.	No effects would occur.

<b>Resources and Uses</b>	<b>Affected Environment</b>	<b>Alternatives A, B, and C</b>	<b>Alternative D</b>
Lands and Realty	<p><u>Resource:</u> The route crosses close to private property.</p> <p><u>Condition:</u> There is a high potential for off-route incursions (trespass) by recreationists, and past incursions were noted during the BLM's field survey. Such incursions could lead to trespass issues on adjacent private lands.</p>	<p>Allowing continued OHV use of the designated route could increase incursions (trespass) on adjacent private lands, although these incidents have not been documented since the re-route of the route was completed. Signage and the development of pullouts have helped reduce the potential for such effects by directing OHV users to remain on route and by providing safe locations on BLM-managed land to pull off route.</p>	<p>Closure to OHV use would decrease incursions (trespass) on adjacent private lands.</p>
Socioeconomic	<p>There is limited special recreation permit use. The region is primarily focused on hunting and sightseeing.</p>	<p>Continued OHV access to the destination may result in an increase in special recreation permit use. Along with non-BLM promotion of the area, this could result in an increased economic benefit to the community.</p>	<p>Due to advertising of the arch by the county and other recreation websites and social media, restricting OHV access to the destination would result in a decrease in motorized special recreation permit use, resulting in a similar reduced economic benefit to the community.</p>

## **G.2 REFERENCES**

BLM (United States Department of the Interior, Bureau of Land Management). 2020. Record of Decision and Approved Resource Management Plans for the Grand Staircase-Escalante National Monument. Internet website: [https://eplanning.blm.gov/public\\_projects/lup/94706/20012470/250017029/GSENM\\_ROD\\_and\\_ARMPs\\_February2020.pdf](https://eplanning.blm.gov/public_projects/lup/94706/20012470/250017029/GSENM_ROD_and_ARMPs_February2020.pdf).

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# Appendix H

Evaluation of Nominated Areas of Critical Environmental  
Concern, Research Natural Areas, and Outstanding  
Natural Areas

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# Appendix H. Evaluation of Nominated Areas of Critical Environmental Concern and Research Natural Areas

## H.1 SUMMARY AND INTRODUCTION

### H.1.1 Summary

As part of the United States Department of the Interior, Bureau of Land Management (BLM), Grand Staircase-Escalante National Monument (GSENM) resource management plan (RMP) revision, the BLM interdisciplinary team analyzed whether nominated areas of critical environmental concern (ACECs) met the relevance and importance criteria and if special management attention is needed. The Interdisciplinary Team also evaluated research natural areas (RNAs) where special management attention beyond what is provided by the RNA designation was needed, and, if so, whether the area met relevance and importance criteria to also be considered for designation as an ACEC. All nominated RNAs were evaluated as ACECs and are referred to as RNAs (ACECs) in the draft RMP/draft environmental impact statement (EIS). All the nominated RNAs had the primary purpose of protecting resources due to concerns regarding vulnerability and, therefore, are best evaluated as an ACEC. The BLM interdisciplinary team analyzed nine ACECs and found that six met the relevance and importance criteria. Further, if special management would be required, these nominations are analyzed in the draft RMP/EIS.

### H.1.2 Introduction

The Federal Land Policy and Management Act (FLPMA) requires that priority shall be given to the designation and protection of ACECs. ACECs are defined in FLPMA Section 103(a) (43 United States Code 1702) and in 43 Code of Federal Regulations (CFR) 1601.0-5(a) as “areas within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.” The following analysis and the resultant findings for ACEC relevance and importance criteria has been performed pursuant to FLPMA Section 202(c)(3) (43 United States Code 1712), 43 CFR 1610.7-2, and BLM Manual 1613, *Areas of Critical Environmental Concern*.

## H.2 REQUIREMENTS FOR ACEC DESIGNATION

To be eligible for designation as an ACEC, an area must meet the relevance and importance criteria described in 43 CFR 1610.7-2 and BLM Manual 1613, and it must require special management to protect the relevant and important values from irreparable damage. The relevance and importance criteria were used to evaluate all nominated ACECs, including RNAs that were also nominated as ACECs. Any nominated ACECs that met both the relevance and importance criteria and for which special management attention has been identified have been carried forward as potential ACECs, and they are further considered for designation and management in the draft RMP/EIS. Relevance and importance are defined as follows:

**Relevance**—There shall be present a significant historic, cultural, or scenic value; a fish or wildlife resource or other natural system or process; or natural hazard.

**Importance**—The above-described value, resource, system, process, or hazard shall have substantial significance and value, which generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern. A natural hazard can be important if it is a significant threat to life or property.

### **H.2.1 Relevance**

An area meets the relevance criterion if it contains one or more of the following:

1. A significant historic, cultural, or scenic value (including, but not limited to, rare or sensitive archeological resources and religious or cultural resources important to Native Americans).
2. A fish and wildlife resource (including, but not limited to, habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).
3. A natural process or system (including, but not limited to, endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).
4. Natural hazards (including, but not limited to, areas of: avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action might meet the relevance criteria if it is determined through the resource management planning process to have become part of a natural process.

### **H.2.2 Importance**

An area meets the importance criterion if it meets one or more of the following:

1. Has more than locally significant qualities that give it: special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
2. Has qualities or circumstances that make it: fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
3. Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.
4. Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.
5. Poses a significant threat to human life and safety or to property.

Additional clarification provided in BLM Instruction Memorandum 2023-013 states that during review of relevance and importance, evaluations should consider “whether relevant values contribute to landscape intactness, climate resiliency, habitat connectivity, or opportunities for conservation or restoration, or have substantial significance to Tribes or Alaska Native Corporations, as defined in the Alaska National Interest Lands Conservation Act, in a way that may support Tribal co-stewardship or traditional and customary uses.”

### **H.2.3 Special Management Attention**

Special management attention refers to “management prescriptions developed during preparation of an RMP or amendment expressly to protect the important and relevant values of an area from the potential effects of actions permitted by the RMP, including proposed actions deemed to be in conformance with the terms, conditions, and decisions of the RMP” (BLM Manual 1613.12). Thus, these are management

measures that would not be necessary and prescribed if the relevant and important values were not present.

A management prescription is considered special if it is unique in the area involved and it includes terms and conditions specifically to protect the values found in the area.

BLM Instruction Memorandum 2023-013 also states that “Where the authorized officer finds that an area meets the criteria for relevance and importance and determines that special management attention may be needed but a planning process governing that area is not underway or imminent, the authorized officer has discretion to provide temporary management and implementation actions to protect values in that area, as long as the actions are consistent with applicable law, regulation, and the approved RMP, until an evaluation can be completed during planning (MS-1613.21(E)). Upon starting the development, revision, or amendment of an RMP for which designation of ACECs is within the scope of the amendment, all areas in the planning area that have relevant and important values and may require special management attention must be considered for potential designation as an ACEC. If, during a planning process, the authorized officer finds that the criteria for relevant and important values are met but determines that special management is unnecessary (or, for existing ACECs, no longer necessary) to protect those values, then the authorized officer will ensure the contemporaneous decision file contains appropriate justification for the determination and is appropriately considered through the accompanying National Environmental Policy Act analysis.”

#### **H.2.4 Evaluation Process**

In compiling a list of areas to be analyzed in this report, the BLM interdisciplinary team followed the guidance set forth in BLM Manual 1613 and BLM Instruction Memorandum 2023-013, and they considered areas nominated for ACEC consideration by the public during scoping.

ACECs may be nominated by BLM staff, other agencies, or members of the public at any time. During the RMP revision scoping process, the BLM solicited nominations and comments from the public and other agencies.

As part of the formal outreach process, the BLM received nominations from the Grand Canyon Trust, Pew Charitable Trusts, and Utah Native Plant Society. The following ACECs were nominated: Warm Creek ACEC, White Cliffs ACEC, Willis Creek ACEC, Seaman’s Wash-Petrified Hollow ACEC, Little No Mans Mesa RNA (ACEC), Spring Point RNA (ACEC), Smokey Mesa RNA (ACEC), Big Bowns Bench RNA (ACEC), Fiftymile Mountain RNA (ACEC), and No Mans Mesa RNA (ACEC). The original nominations, including size, rationale, importance, and suggested management, can be found in the 2022 GSENM Final Scoping Report (<https://eplanning.blm.gov/eplanning-ui/project/2020343/570>).

### **H.3 SUMMARY OF ACEC AND RNA (ACEC) EVALUATIONS**

The BLM interdisciplinary team reviewed all ACEC and RNA nominations to determine if the area met the relevance and importance criteria. **Table H-1** provides a summary of the evaluation process of all nominated ACECs and RNAs.

**Table H-1  
Summary of Nominated ACECs and RNAs (ACECs)**

Name of Nominated ACEC/RNA	Internal (BLM) or External Nomination	Value(s) Assessed	Rationale	Meets Relevance and Importance Criteria (and is Carried Forward as Potential ACEC)?
Warm Creek ACEC	External	Special Status Plants	<b>Relevance:</b> Of the seven rare plants evaluated, only the Smoky Mountain globemallow ( <i>Sphaeralcea fumariensis</i> ) meets the relevance criteria. <b>Importance:</b> None of the seven rare plants evaluated meet the importance criteria.	No
Warm Creek ACEC	External	Paleontology Geology	<b>Relevance:</b> Only portions (the western portion of the nominated area) meet the relevance criteria and contain significant vertebrate fossils. <b>Importance:</b> Only portions (the western portion of the nominated area) meet the importance criteria.	Yes, but only portions
Warm Creek ACEC	External	Scenic (Visual) Resources	<b>Relevance:</b> The area does not meet necessary established criteria to be considered a “significant scenic value.” <b>Importance:</b> Because the area failed to meet relevance criteria, importance criteria have not been evaluated. <sup>1</sup>	No
Warm Creek ACEC	External	Wildlife Resources	<b>Relevance:</b> Four of the eight species evaluated were determined to be relevant. <b>Importance:</b> None of the four species that meet relevance criteria meet the importance criteria.	No
Warm Creek ACEC	External	Cultural	<b>Relevance:</b> This area does not meet relevance criteria. Ancestral Puebloan cultural sites across the nominated ACEC are prevalent. <b>Importance:</b> Because the area failed to meet relevance criteria, importance criteria have not been evaluated. <sup>1</sup>	No
White Cliffs ACEC	External	Special Status Plants	<b>Relevance:</b> Of the three rare plants evaluated, none meet the relevance criteria. <b>Importance:</b> Of the three rare plants evaluated, none meet the importance criteria.	No
White Cliffs ACEC	External	Paleontology Geology	<b>Relevance:</b> Yes, the White Cliffs geomorphological feature is present in the nominated area. <b>Importance:</b> No, the White Cliffs form a broad outcrop belt that extends far beyond the limits of the nominated ACEC.	No

Name of Nominated ACEC/RNA	Internal (BLM) or External Nomination	Value(s) Assessed	Rationale	Meets Relevance and Importance Criteria (and is Carried Forward as Potential ACEC)?
White Cliffs ACEC	External	Scenic (Visual) Resources	<p><b>Relevance:</b> Yes, portions of the nominated area were inventoried as Scenic Quality A and as High Sensitivity.</p> <p><b>Importance:</b> No, the nomination does not meet any of the noted importance criteria (state or national scenic designations or proximity to foreground viewsheds of national parks or wilderness areas).</p>	No
White Cliffs ACEC	External	Wildlife Resources	<p><b>Relevance:</b> Five of the nine species evaluated were determined to be relevant.</p> <p><b>Importance:</b> None of the nine species evaluated were determined to be important.</p>	No
White Cliffs ACEC	External	Cultural	<p><b>Relevance:</b> No, this nominated area does not meet relevance criteria. Cultural sites across the nominated ACEC are sparse.</p> <p><b>Importance:</b> Because the area failed to meet relevance criteria, importance criteria have not been evaluated.<sup>1</sup></p>	No
Willis Creek ACEC	External	Special Status Plants	<p><b>Relevance:</b> Of the 13 rare plants evaluated, the Cronquist's phacelia (<i>Phacelia cronquistiana</i>), escarpment milkvetch (<i>Astragalus striatiflorus</i>), and kodachrome bladderpod (<i>Physaria tumulosa</i>) meet the relevance criteria.</p> <p><b>Importance:</b> Of the 13 rare plants evaluated, none meet the importance criteria.</p>	No
Willis Creek ACEC	External	Paleontology Geology	<p><b>Relevance:</b> Yes, slot canyons are present in the nominated area.</p> <p><b>Importance:</b> Yes, the slot canyons in the nominated area are unique and of outstanding character.</p>	Yes
Willis Creek ACEC	External	Scenic (Visual) Resources	<p><b>Relevance:</b> Yes, portions of the nominated area were inventoried as Scenic Quality A and as High Sensitivity.</p> <p><b>Importance:</b> Yes, some portion of the nominated area meet the importance criteria.</p>	Yes, but only portions
Willis Creek ACEC	External	Wildlife Resources	<p><b>Relevance:</b> Three of the eight species evaluated were determined to be relevant.</p> <p><b>Importance:</b> None of the nine species evaluated were determined to be important.</p>	No

Name of Nominated ACEC/RNA	Internal (BLM) or External Nomination	Value(s) Assessed	Rationale	Meets Relevance and Importance Criteria (and is Carried Forward as Potential ACEC)?
Willis Creek ACEC	External	Cultural	<p><b>Relevance:</b> No, this nominated area does not meet relevance criteria. There are known sites throughout the area with many remnants of Ancestral Puebloan culture.</p> <p><b>Importance:</b> Because the area failed to meet relevance criteria, importance criteria have not been evaluated.<sup>1</sup></p>	No
Seaman's Wash-Petrified Hollow ACEC	External	Special Status Plants	<p><b>Relevance:</b> Of the four rare plants evaluated, the Kane breadroot (<i>Pediomelum epipselum</i>), Kanab thelypody (<i>Thelypodopsis ambigua</i> var. <i>erecta</i>), and Atwood's pretty phacelia (<i>Phacelia pulchella</i> var. <i>atwoodii</i>) meet the relevance criteria.</p> <p><b>Importance:</b> Of the four rare plants evaluated, none meet the importance criteria.</p>	No
Seaman's Wash-Petrified Hollow ACEC	External	Paleontology Geology	<p><b>Relevance:</b> Yes, petrified wood and gypsiferous soils are present in the nominated area.</p> <p><b>Importance:</b> No, these resources are found throughout the Colorado Plateau.</p>	No
Seaman's Wash-Petrified Hollow ACEC	External	Wildlife Resources	<p><b>Relevance:</b> Unique wildlife and habitat was determined not to be relevant.</p> <p><b>Importance:</b> Because the area failed to meet relevance criteria, importance criteria have not been evaluated.<sup>1</sup></p>	No
Seaman's Wash-Petrified Hollow ACEC	External	Soils	<p><b>Relevance:</b> Yes, soils containing gypsum are present in the nominated area alongside biological soil crusts.</p> <p><b>Importance:</b> No, the distribution of these soils is similar, if not less than, other areas in GSENM.</p>	No
Little No Mans Mesa RNA (ACEC)	External	Vegetation	<p><b>Relevance:</b> The relevance criteria was met by comparing Little No Mans Mesa to No Mans Mesa. The rationale is that No Mans Mesa is an RNA (ACEC) and that the two mesas are similar, and they could serve as undisturbed control areas for research.</p> <p><b>Importance:</b> The importance criteria was met by comparing Little No Mans Mesa to No Mans Mesa. The rationale is that No Mans Mesa is an RNA (ACEC) and that the two mesas are similar, and they could serve as undisturbed control areas for research.</p>	Yes

Name of Nominated ACEC/RNA	Internal (BLM) or External Nomination	Value(s) Assessed	Rationale	Meets Relevance and Importance Criteria (and is Carried Forward as Potential ACEC)?
Spring Point RNA (ACEC)	External	Vegetation	<p><b>Relevance:</b> Only portions of the nominated area (Little Spring Point [Boot Allotment]) meet the relevance criteria. The relevance criteria are met from an ecological perspective by serving as an undisturbed (ungrazed) control area for research.</p> <p><b>Importance:</b> Only portions of the nominated area (Little Spring Point [Boot Allotment]) meet the importance criteria. The importance criteria are met from an ecological perspective by serving as an undisturbed (ungrazed) control area for research.</p>	Yes, but only portions (Spring Point Boot to be called "Little Spring Point")
Spring Point RNA (ACEC)	External	Geology	<p><b>Relevance:</b> No geological or paleontological values are listed in the nomination, which is located upon an inselberg composed of Navajo Sandstone. Furthermore, none of exceptional significance are known to occur in the nominated area.</p> <p><b>Importance:</b> No geological or paleontological values are listed in the nomination. Furthermore, none of exceptional significance are known to occur in the nominated area.</p>	No
Smoky Mesa RNA (ACEC)	External	Vegetation	<p><b>Relevance:</b> Yes, the relevance criteria are met because the vegetation community within this area is simple, stable, and unaltered by anthropogenic disturbances. It also could be used as a reference area for other vegetation communities in the region.</p> <p><b>Importance:</b> No, the largely undisturbed nature of Smoky Mesa is likely to be preserved under its current management. Vehicles cannot access the mesa because it is mostly used for day-use hiking and photography. The plant community dominated by Utah juniper and single-leaf ash is unusual, but it is not under threat by existing GSENM uses. Also, neither species is specifically sought out for vegetative material. Special status plants are unknown from the mesa top, but Smoky Mountain globemallow may be present because it is in the region. Because there is no threat to the unusual vegetation on Smoky Mesa, it does not meet importance criteria.</p>	No

Name of Nominated ACEC/RNA	Internal (BLM) or External Nomination	Value(s) Assessed	Rationale	Meets Relevance and Importance Criteria (and is Carried Forward as Potential ACEC)?
Smoky Mesa RNA (ACEC)	External	Geology	<p><b>Relevance:</b> No geological or paleontological values are listed in the nomination. Furthermore, there are none of exceptional significance that are known to occur in the nominated area, which is located upon the top of an inselberg underlain by the Drip Tank Member of the Straight Cliffs Formation.</p> <p><b>Importance:</b> No geological or paleontological values are listed in the nomination. Furthermore, none of exceptional significance are known to occur in the nominated area.</p>	No
Big Bowns Bench RNA (ACEC)	External	Vegetation	<p><b>Relevance:</b> The remoteness, lack of livestock grazing, and intactness of native vegetation communities support the relevance criteria.</p> <p><b>Importance:</b> Big Bowns Bench is useful as a reference area, but with grazing no longer an issue, current management is sufficient for protection.</p>	No
Big Bowns Bench RNA (ACEC)	External	Soil Resources	<p><b>Relevance:</b> Yes, partially because Big Bowns Bench contains undisturbed and relic biological soil crusts. Although due to the extensiveness of sandy soils on the Bench, relic biological soils crusts are not continuous, but patchy, as seen in other parts in GSENM. These patches are currently not mapped.</p> <p><b>Importance:</b> No, Big Bowns Bench is not significantly more suitable than surrounding benches for any portion of biological soil crusts.</p>	No



Name of Nominated ACEC/RNA	Internal (BLM) or External Nomination	Value(s) Assessed	Rationale	Meets Relevance and Importance Criteria (and is Carried Forward as Potential ACEC)?
Big Bowns Bench RNA (ACEC)	External	Wildlife	<p><b>Relevance:</b> Yes, for some, but not all, species. Relevance is met for desert bighorn sheep (<i>Ovis canadensis nelsoni</i>), because the entire nominated area provides year-long crucial habitat for desert bighorn sheep. The nominated area does not meet relevance criteria for diversity of bird and insect species because there are not comparable observations between nearby areas that are managed differently (grazing and recreation).</p> <p><b>Importance:</b> The nominated area is not considered important, because desert bighorn sheep habitat is not greater than ones that are locally significant. The portion of habitat in the nominated area is not of substantial significance and value, especially compared to any similar resource. Because the area failed to meet relevance for avian and insect diversity, importance criteria have not been evaluated for these species.<sup>1</sup></p>	No

H. Evaluation of Nominated Areas of Critical Environmental Concern and Research Natural Areas

Name of Nominated ACEC/RNA	Internal (BLM) or External Nomination	Value(s) Assessed	Rationale	Meets Relevance and Importance Criteria (and is Carried Forward as Potential ACEC)?
Fiftymile Mountain RNA (ACEC)	Internal	Cultural Resources	<p><b>Relevance:</b> Yes, this nominated area meets relevance criteria. There are many known prehistoric and historic sites throughout the area, most notably Freemont and Ancestral Puebloan sites. Site types vary from temporary camps, lithic scatters, and granaries to multiroom structures. Site densities within this nominated area are higher than average across GSENM. The predictive model<sup>4</sup> depicts nearly the entirety of the nominated area, which consists of moderate-to-high probability of cultural sites. The nominated area contains archaeological sites, which depict a cultural crossroads where Fremont and Ancestral Pueblo cultures intermingled making this a unique location within GSENM. The nominated area also contains important historic sites of early pioneers, including historic cabins. The density and significance of cultural sites within the nominated area meet relevance criteria.</p> <p><b>Importance:</b> Yes, this nominated area meets importance criteria. Cultural resources within the nominated area have substantial significance and values. There is a high density of significant archaeological sites, which are considered fragile, sensitive, and irreplaceable resources that are threatened and vulnerable to adverse change. The nominated area contains archaeological sites spanning the prehistoric and historic periods. The diversity and density of cultural sites spanning multiple time periods gives this nominated area special worth and distinctiveness. Namely, the diversity in Freemont and Ancestral Puebloan sites warrant significance and protection.</p>	Yes
No Mans Mesa RNA (ACEC)	Existing RNA	Relic plant communities	<p><b>Relevance:</b> The RNA is an isolated mesa 3 miles long. The area is valuable as a scientific reference point for its relic plant communities and was designated in 1986 to give primary emphasis on management of scientific and research values.</p> <p><b>Importance:</b> The importance criteria was met because this area serves as an undisturbed control area for research.</p>	Yes

<sup>4</sup>A nominated area must meet both relevance and importance to be considered a potential ACEC. As such, if relevance criteria are not met, then importance criteria were not evaluated.

A BLM interdisciplinary team reviewed the relevance and importance criteria in the context of the management alternatives proposed in **Chapter 2, Section 2.4.3**, Alternatives Comparison. Based on that review, two ACECs and four RNAs (ACECs) would require additional management: Warm Creek ACEC, Willis Creek ACEC, Little No Mans Mesa RNA (ACEC), Little Spring Point RNA (ACEC), Fiftymile Mountain RNA (ACEC), and No Mans Mesa RNA (ACEC). See **Chapter 2, Section 2.4.3**, Alternatives Comparison, Areas of Critical Environmental Concern, for special management direction associated with each potential ACEC and RNA (ACEC).

Potential management actions for the potential ACECs and RNAs (ACECs) that met the relevance and importance criteria include:

**Warm Creek ACEC**

- No additional management is identified. Management proposed in Alternative B would provide sufficient protection.

**Willis Creek ACEC**

- VRM Class II

**Little No Mans Mesa RNA (ACEC)**

- Manage as unavailable for livestock grazing
- Prohibit campfires
- Prohibit camping
- Manage as right-of-way (ROW) exclusion
- Facilitate scientific research
- Prohibit recreational target shooting

**Little Spring Point RNA (ACEC)**

- Manage as unavailable for livestock grazing
- Prohibit campfires
- Prohibit camping
- Manage as ROW exclusion
- Facilitate scientific research
- Prohibit recreational target shooting

**Fiftymile Mountain RNA (ACEC)**

- Allow camping by permit only
- Manage as ROW exclusion
- Develop a coordinated monitoring plan with the grazing permittee to identify potential impacts from livestock grazing and include adaptive management thresholds in the applicable allotment management plans.
- Facilitate scientific research
- Prohibit recreational target shooting

**No Mans Mesa RNA (ACEC)**

- Manage as unavailable for livestock grazing
- Close to motorized OHV use
- Prohibit camping unless authorized under a research permit
- Prohibit campfires
- Facilitate scientific research
- Prohibit recreational target shooting

**H.4 SUMMARY OF OUTSTANDING NATURAL AREA (ONA) EVALUATIONS**

There are five ONAs (The Gulch, Escalante Canyons, Phipps-Death Hollow, Devil’s Garden, and North Escalante Canyon), two recreation areas (Deer Creek and Calf Creek), one historic site (Dance Hall Rock), and the Wolverine Petrified Wood Natural Environmental Area that predated the initial monument designation. In the preparation of this RMP/EIS, these areas were evaluated as ACECs using the same criteria as previously discussed. These evaluations determined that none of these previously designated areas should be carried forward because they do not meet both the relevance and importance criteria and do not require special management attention. **Table H-2** summarizes these evaluations.

**Table H-2  
Summary of ONAs**

Name of ONA	Values Assessed	Rationale	Meets Relevance and Importance Criteria?
The Gulch	Scenic (Visual) and Botanical Resources	<b>Relevance:</b> The scenic and botanical resources meet the relevance criteria. <b>Importance:</b> The area does not have more than locally significant qualities because it is similar to many other canyon and riparian areas in southern Utah.	No
Escalante Canyons Tracts 1 and 5	Scenic (Visual) Resources	<b>Relevance:</b> The scenic resources meet the relevance criteria. <b>Importance:</b> The area does not have more than locally significant qualities because it is similar to the Escalante Canyons area.	No
North Escalante Canyons Tracts 2, 3, and 4	Scenic (Visual) Resources	<b>Relevance:</b> The scenic resources meet the relevance criteria. <b>Importance:</b> The area does not have more than locally significant qualities because it is similar to the Escalante Canyons area.	No
Phipps-Death Hollow	Rare Geological Features and Scenic (Visual) Resources	<b>Relevance:</b> The scenic and geological resources meet the relevance criteria. <b>Importance:</b> The scenic and geological resources meet the importance criteria.	Yes, but no additional management is needed

Name of ONA	Values Assessed	Rationale	Meets Relevance and Importance Criteria?
Devil's Garden	Scenic (Visual) Resources	<p><b>Relevance:</b> The area does not meet necessary established criteria to be considered a "significant scenic value."</p> <p><b>Importance:</b> Because the area failed to meet relevance, importance criteria have not been evaluated.</p>	No
Wolverine Petrified Wood Area	Rare Geological Features and Scenic (Visual) Resources	<p><b>Relevance:</b> The scenic and geological resources meet the relevance criteria.</p> <p><b>Importance:</b> The scenic and geological resources meet the importance criteria.</p>	Yes, but no additional management is needed
Calf Creek Recreation Area	Scenic (Visual), Cultural, and Historical Resources	<p><b>Relevance:</b> The scenic, cultural, and historical resources meet the relevance criteria.</p> <p><b>Importance:</b> The relevance criteria are not fragile, sensitive, or irreplaceable.</p>	No
Deer Creek Recreation Area	Scenic (Visual) and Historical Resources	<p><b>Relevance:</b> The scenic and historical resources meet the relevance criteria.</p> <p><b>Importance:</b> There are no relevance factors that are vulnerable to adverse change.</p>	No
Dance Hall Rock Historic Site	Historical Resources	<p><b>Relevance:</b> The historical resources meet the relevance criteria.</p> <p><b>Importance:</b> There are no relevance factors that are vulnerable to adverse change.</p>	No

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