



U.S. Department of the Interior
Bureau of Land Management
Fish & Wildlife Service

Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit Draft Environmental Impact Statement and Draft Resource Management Plan Amendments

June 2020

Volume 1: Executive Summary



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United States Department of the Interior



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In Reply Refer To:
2800 (UTC0300)
UTU-93620

Dear Reader:

Enclosed for your review and comment are the Draft Environment Impact Statement (EIS) and Draft Resource Management Plan (RMP) amendments that have been prepared to disclose the potential impacts of the following four Federal actions:

1. Issuance of a highway right-of-way across Bureau of Land Management (BLM)-administered lands.
2. Amendment of the Red Cliffs National Conservation Area (NCA) RMP.
3. Issuance of an Incidental Take Permit (ITP) by the U.S. Fish and Wildlife Service (USFWS) for the take of Mojave desert tortoise (*Gopherus agassizii*).
4. Amendment of the St. George Field Office RMP.

The Utah Department of Transportation (UDOT) applied for a right-of-way across BLM-administered lands in the Red Cliffs NCA to construct a 4-lane highway referred to as the Northern Corridor. Because the issuance of a right-of-way would not be in conformance with the existing Red Cliffs NCA RMP, the BLM is also considering potential amendments to the Red Cliffs NCA RMP necessary to approve the right-of-way. Washington County has prepared an Amended Habitat Conservation Plan (HCP) and applied to the USFWS for a renewal of the County's ITP authorizing the take of Mojave desert tortoise. If the BLM authorizes a right-of-way across the Red Cliffs NCA, which also comprises the Red Cliffs Desert Reserve (Reserve) created by the 1995 Washington County HCP, the Amended HCP would expand the Reserve to create proposed Reserve Zone 6. The BLM is considering an amendment to the existing St. George Field Office RMP that would alter the management of the BLM-administered lands within proposed Reserve Zone 6 to be consistent with the management of that area as described in the Amended Washington County HCP.

In coordination with UDOT and Washington County and in consideration of issues raised during public scoping, the BLM and USFWS have developed five alternatives and a No Action Alternative that are evaluated in this EIS. These alternatives are described in Chapter 2 of the Draft EIS. The Draft EIS and RMP amendments were prepared by the BLM and the USFWS in accordance with the National Environmental Policy Act of 1969 (NEPA), including Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA at 40 Code of Federal Regulations (CFR) Parts 1500-1508; U.S. Department of the Interior regulations at 43 CFR Part 46; the Federal Land Policy and Management Act of 1976 and BLM land-use planning regulations (43 CFR 1610); the

BLM's regulations related to the issuance of rights-of-way (43 CFR 2800); the Endangered Species Act (16 USC 1532 *et seq.*), and the USFWS's regulations related to the administration of Incidental Take Permits at 50 CFR 17; and other applicable laws, regulations, and directives.

The BLM and the USFWS encourage the public to review and provide comments on the Draft EIS, Draft RMP amendments, and the Draft Amended HCP. The Draft EIS, Draft RMP amendments, and the Draft Amended HCP are available on the BLM's project website at <https://go.usa.gov/xw8TX>.

Public comments will be accepted for 90 calendar days following the U.S. Environmental Protection Agency's publication of its Notice of Availability in the *Federal Register*. The BLM and USFWS can best use your comments and resource information submissions if they are received within the review period. Comments on the Draft EIS should be as specific as possible. Responses to substantive comments (40 CFR 1503.3) will be included in the Final EIS. Comments may be submitted either via email or regular mail:

Email: [BLM UT NorthernCorridor@blm.gov](mailto:BLM_UT_NorthernCorridor@blm.gov)

Mail: Bureau of Land Management, Attn.: Northern Corridor
345 East Riverside Drive
St. George, UT 84790

To facilitate analysis of comments and information submitted, we encourage you to submit comments in an electronic format. Before including your address, telephone number, email address, or other personal identifying information in your comment, please be advised your entire comment, including your personal identifying information, may be made publicly available at any time. Although you may ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

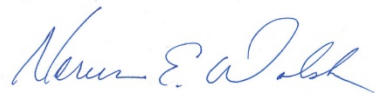
To the greatest extent possible, both the BLM and USFWS are working to maintain services, including opportunities for public engagement consistent with evolving guidance provided by the Centers for Disease Control and Prevention and State and local health authorities. The BLM and USFWS will announce public involvement activities at least 15 days in advance through media releases, mailed notifications, and/or the BLM's ePlanning website.

Thank you for your interest and review of the Draft EIS and Draft RMP amendments. We appreciate the information and suggestions you contribute to the process.

Sincerely,



Anita Bilbao
Acting State Director
BLM Utah



Noreen Walsh
Regional Director
USFWS Region 6

Acronyms and Abbreviations

°C	degree(s) Celsius
°F	degree(s) Fahrenheit
ACEC	Area of Critical Environmental Concern
ACS	American Community Survey
AIM	assessment, inventory, and monitoring
APE	Area of Potential Effect
AQI	Air Quality Index
AU	Analytical Unit
AUM	animal unit month
BLM	Bureau of Land Management
BP	before present
CFR	<i>Code of Federal Regulations</i>
CO	carbon monoxide
CO ₂	carbon dioxide
County	Washington County
CSU	controlled surface use
CWBDS	Creosotebush-White Bursage Desert Scrub Community
dBA	A-weighted decibel(s)
DMPO	Dixie Metropolitan Planning Organization
EA	Environmental Assessment
ECHO	Enforcement and Compliance History Online
EIA	Energy Information Administration
EIS	Environmental Impact Statement
EJ	Environmental Justice
EPA	U.S. Environmental Protection Agency
ERMA	Extensive Recreation Management Area
ESA	Endangered Species Act
EVT	Existing Vegetation Types
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FLPMA	Federal Land Policy and Management Act
GHG	greenhouse gas
GIS	geographic information system
HCP	Habitat Conservation Plan

I-15	Interstate 15
ID	identification
IPCC	Intergovernmental Panel on Climate Change
ITP	Incidental Take Permit
KOP	Key Observation Point
LU	Landscape Unit
LWCF	Land and Water Conservation Fund
MBTA	Migratory Bird Treaty Act
MMT CO₂e	million metric tons equivalent carbon dioxide
MP	milepost
MSAT	mobile source air toxic
NAAQS	National Ambient Air Quality Standards
NCA	National Conservation Area
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO₂	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NO_x	nitrogen oxides
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSO	no surface occupancy
NTP	Notice to Proceed
O₃	ozone
OHV	off-highway vehicle
OPLMA	Omnibus Public Lands Management Act
Pb	lead
PFYC	Potential Fossil Yield Classification
PM	particulate matter
PM₁₀	particulate matter less than 10 microns
PM_{2.5}	particulate matter less than 2.5 microns
POD	Plan of Development
ppm	part(s) per million
PUP	Public Use Plan
Reserve	Red Cliffs Desert Reserve
RMP	Resource Management Plan
RMZ	Recreation Management Zone
ROD	Record of Decision

ROW	right-of-way
SGFO	St. George Field Office
SHPO	State Historic Preservation Officer
SITLA	School and Institutional Trust Lands Administration
SO₂	sulfur dioxide
SO_x	sulfur oxides
SQRU	scenic quality rating unit
SR 18	State Route 18
SRMA	Special Recreation Management Area
SRP	Special Recreation Permit
SWCA	SWCA Environmental Consultants
SWPP	stormwater and pollution prevention plan
TCA	Tortoise Conservation Area
TNC	The Nature Conservancy
TRI	Toxic Release Inventory
U.S.C.	United States Code
UDNR	Utah Department of Natural Resources
UDOT	Utah Department of Transportation
UDWR	Utah Division of Wildlife Resources
URTD	Upper Respiratory Tract Disease
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
UTTR	Utah Test and Training Range
UVRU	Upper Virgin River Recovery Unit
VCC	Vegetation Condition Class
VMT	vehicle miles traveled
VOC	volatile organic compound
VRI	Visual Resource Inventory
VRM	Visual Resource Management
WOUS	Waters of the United States (more commonly Waters of the U.S.)

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ES Executive Summary

ES.1 Introduction

The Utah Department of Transportation (UDOT) applied to the Bureau of Land Management (BLM) for a right-of-way (ROW) grant on September 18, 2018, to construct a multi-lane, divided highway (referred to as the Northern Corridor) across the Red Cliffs National Conservation Area (NCA). The Red Cliffs NCA was designated by Congress through the Omnibus Public Land Management Act of 2009 (OPLMA) (16 USC 460www; Public Law 111-11, Title 1, Subtitle O, Section 1974). The Congressionally defined purpose of the 45,000-acre NCA is to conserve, protect, and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the Red Cliffs NCA and to protect each species that is located in the NCA and listed as a threatened or endangered species under the Endangered Species Act (ESA). Section 1974 states that the NCA shall be managed by the Secretary of the Interior through the BLM and that the Secretary shall only allow uses of the NCA that the Secretary determines would further a purpose for which the NCA was designated.

OPLMA Subtitle O, Section 1977 also directs the Secretary to develop a comprehensive travel management plan for the land managed by the BLM in Washington County and, in accordance with the Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701 et seq.), “in developing the travel management plan, the Secretary shall—(A) in consultation with appropriate Federal agencies, State, tribal, and local governmental entities (including Washington County and St. George City, Utah), and the public, identify one or more alternatives for a northern transportation route in the County.”

The BLM is considering several alternative northern transportation routes as part of this Draft EIS in response to the UDOT ROW application.¹ The BLM is utilizing the National Environmental Policy Act of 1969 (NEPA) process to, in addition to analyzing the potential impacts of the proposed ROW, evaluate if the ROW application is consistent with the statutory purposes of the Red Cliffs NCA and whether it is necessary to amend the Red Cliffs NCA RMP to accommodate a ROW, or deny UDOT’s application. If a ROW is granted and the RMP is also amended, BLM will then be able to fully consider that ROW as a specific northern transportation route (i.e. a Northern Corridor) as part of a future travel management planning process as Congress has instructed in Section 1977 of OPLMA.

Fully evaluating UDOT’s ROW application and potential amendments to the Red Cliffs NCA RMP will also further the Department of the Interior’s policy goals, as stated in the Strategic Plan for Fiscal Years 2018-2022, to “enhance conservation stewardship whereby all levels of government and private landowners work cooperatively together in an atmosphere of mutual respect to achieve shared natural resource management goals across landscapes” and to “[develop] and [maintain] strong partnerships with State, local, and private stakeholders in shared conservation stewardship.” UDOT is seeking to meet the transportation demands of Washington County’s anticipated continued growth through 2050 and Washington County is also seeking a renewed Incidental Take Permit (ITP) in order to meet the needs of its increasing population. Washington County’s current transportation infrastructure may not accommodate the County’s projected growth, and it is trying to balance that future growth with the statutory and regulatory provisions

¹ The term “Northern Corridor” is a general reference to the concept of a corridor between Interstate 15 and Utah State Highway 18, while “northern transportation route” is the specific term of art connecting in Section 1977 of OPLMA. Although the terms “Northern Corridor,” “northern transportation route,” and ROW are used throughout the DEIS, UDOT’s ROW application has not been designated the “Northern Corridor.”

governing the Red Cliffs NCA and larger Red Cliffs Desert Reserve, and the protected wildlife that resides on those lands.

The Red Cliffs NCA comprises 73 percent of the land base of a multi-jurisdictional, 62,000-acre reserve known locally as the Red Cliffs Desert Reserve (the Reserve). The Reserve was established in 1996 in connection with the U.S. Fish and Wildlife Service's (USFWS) approval of the County's Habitat Conservation Plan (HCP) for the threatened Mojave desert tortoise. Also in 1996, the USFWS issued an ITP to the County for the take associated with otherwise lawful activities in the County. As a result of the ITP and protective management of the Reserve's land base by the respective land managing agencies, necessary development has been able to occur in tortoise habitat on non-Federal lands in the County.

ES.2 Agencies' Purpose and Need for the Federal Action

ES.2.1 Right-of-way Application and Red Cliffs National Conservation Area Resource Management Plan Amendment

UDOT has applied for a ROW to construct a multi-lane, divided highway on BLM-administered lands within the Red Cliffs NCA and the overlapping Red Cliffs Desert Reserve with the objective of reducing congestion, increasing capacity, and improving east-west mobility on arterial and interstate roadways between SR 18 and I-15 at milepost 13. In accordance with and taking into account the provision of OPLMA and Department of the Interior policies, the BLM's purpose and need for action is to respond to UDOT's application for a ROW grant under Title V of FLPMA, BLM's ROW regulations, 43 CFR part 2800, and other applicable Federal laws. In this Draft EIS, the BLM will consider the potential impacts of the proposed ROW (Alternative 3, as described in Chapter 2) and reasonable alternatives. At the conclusion of the NEPA process, the BLM will decide whether to approve, approve with modifications, or deny issuance of a ROW grant to UDOT for the Northern Corridor and whether to approve an amendment to the RMP.

In particular, under OPLMA Subtitle O, Section 1977, the BLM is required to develop a comprehensive travel management plan for the land managed by the BLM in Washington County and, in doing so, to "identify one or more alternatives for a northern transportation route" in the county. In 2016, as part of developing the current Red Cliffs NCA RMP, BLM considered an alternative that included a Northern Corridor in the NCA. However, at that time, BLM did not have a specific ROW application to consider as part of that planning process. Instead, the BLM relied on several conceptual alignments from the Dixie Metropolitan Planning Organization that were based on Washington County's, a cooperating agency in developing that RMP, recommendations. While the BLM eventually selected a different alternative that did not include a corridor, the selected alternative did create an avoidance area that could accommodate a Northern Corridor alignment in the NCA. Under the 2016 RMP, an avoidance area is an area identified through resource management planning to be avoided but that may be available for ROW location with special stipulations.

The BLM has now received a specific ROW application from UDOT. The ROW application is designed to address the growing population and transportation needs in Washington County. However, the application seeks a ROW in the NCA that is larger than the current avoidance area can accommodate and, thus, cannot be granted without also amending the Red Cliffs NCA RMP.

Responding to UDOT's ROW application also furthers the Department of the Interior's policy goals, as stated in the Strategic Plan for Fiscal Years 2018-2022, to "enhance conservation stewardship whereby all levels of government and private landowners work cooperatively together in an atmosphere of mutual respect to achieve shared natural resource management goals across landscapes" and to "[develop] and [maintain] strong partnerships with State, local, and private

stakeholders in shared conservation stewardship.” UDOT is seeking to meet the transportation demands of Washington County’s anticipated continued growth through 2050 and Washington County is also seeking a renewed Incidental Take Permit in order to meet the needs of its increasing population. Washington County’s current transportation infrastructure may not accommodate the County’s projected growth, and it is trying to balance that future growth with the statutory and regulatory provisions governing the Red Cliffs NCA and larger Red Cliffs Desert Reserve, and the protected wildlife that resides on those lands.

ES.2.2 St. George Field Office Resource Management Plan Amendment

Washington County has submitted an Amended HCP to the USFWS that would expand the Reserve by approximately 6,800 acres to include proposed Reserve Zone 6 (refer to Map 1.1-1). The purpose of the SGFO RMP Amendment is to allow possible management changes for approximately 3,471 acres in proposed Zone 6 to offset impacts if a ROW is granted within the Red Cliffs NCA and Reserve. The need for this amendment is to allow the BLM to consider measures to support the proposed Washington County HCP and the associated HCP Implementation Agreement.

ES.2.3 Issuance of Amended Incidental Take Permit and Amended Habitat Conservation Plan

The purpose of the USFWS’s Federal action of approving an Amended HCP and issuing an ITP is to authorize take of the Mojave desert tortoise incidental to the covered activities proposed by the County, while ensuring conservation of the species by minimizing and mitigating the impacts from the anticipated take to the maximum extent practicable. Issuance of such a permit will allow the County to proceed with covered activities while complying with the ESA. It also will provide regulatory assurances to the County that the USFWS would not impose additional Mojave desert tortoise conservation measures during the 25-year duration of the permit as long as the County is properly implementing the Amended HCP and the existence of any listed species is not jeopardized. The applicant’s Amended HCP must include all elements as required by ESA Section 10(a)(2)(A) and satisfy the issuance criteria for incidental take authorization that are outlined in Section 10(a)(2)(B).

The need for the USFWS’s proposed action is to respond to the County’s application for an ITP that addresses covered activities that have the potential to result in take of threatened and endangered species, pursuant to ESA Section 10(a)(1)(B) and its implementing regulations and policies. Before making a permit issuance decision, the USFWS must analyze the impacts of implementing the proposed Amended HCP and ITP to the human environment, disclose those analyses to the public, and consider public feedback. The USFWS must conduct intra-USFWS ESA Section 7 consultation to ensure the permit issuance criterion for not jeopardizing the continued existence of Federally listed species is met. The USFWS must determine if the HCP satisfies all statutory and regulatory requirements, including ESA Section 10(a)(2)(B) issuance criteria. The USFWS will evaluate whether the amended conservation strategy offsets to the maximum extent practicable the take requested in the Amended HCP.

ES.3 Applicant’s Interest and Objectives

ES.3.1 Right-of-Way Applicant’s Objectives

UDOT submitted a ROW application for construction, operation, and maintenance of a new highway with the objective of reducing congestion, increasing capacity, and improving east-west mobility on arterial and interstate roadways between State Route 18 (SR 18) and Interstate 15 (I-15) at milepost 13. This objective is driven by the current and forecasted population growth within the county, which will continue to increase demand on the transportation network.

Currently, the existing transportation network between SR 18 and I-15 is not adequate to meet future (2050) travel demand in the northeastern and northwestern areas of St. George based on traffic projections from the Dixie Metropolitan Planning Organization's (DMPO) regional travel demand model (DMPO 2019).

ES.3.2 Incidental Take Permit Applicant's Objectives

Washington County, in coordination with the USFWS, prepared an HCP in 1995 that provided for the conservation of the Upper Virgin River population of the Mojave desert tortoise and supported issuance of an ITP by the USFWS to Washington County in 1996. The ITP issued to Washington County expired in 2016. Prior to its expiration, the County applied to renew the ITP. Pursuant to 50 CFR 13.22, activities authorized by the ITP are continuing while USFWS processes the application. Washington County's objective is to continue its successful partnership with the USFWS and other HCP partners for a 25-year extended ITP term to authorize take in Washington County and to complete the contemplated conservation actions. The County is restating and amending the HCP to carry forward the conservation measures from the 1995 HCP along with such amendments as addressing the changed circumstance of the Northern Corridor if a route is approved that crosses the Reserve.

ES.4 Issues and Areas of Controversy

The BLM and the USFWS have identified issues to be addressed in the Draft EIS through public and internal scoping and through outreach to cooperating agencies and American Indian Tribes. The public scoping period began December 5, 2019, and extended through January 6, 2020. A public scoping meeting was held in St. George on December 17, 2019. A total of 17,258 submissions were received from the public during the scoping period. Comments were documented, reviewed, and organized into issue categories, which were either to be analyzed in detail in the Draft EIS or were beyond the scope of the Draft EIS, and therefore, not analyzed in detail in the Draft EIS.

Many of the public comments received during the scoping period raised issues that were beyond the scope of the development of the Draft EIS. When deciding which issues to address, the agencies considered the following:

- How the issues related to the purpose and need for the actions.
- Whether the issues address points of disagreements, debate, or dispute about an anticipated outcome from a proposed action.
- Whether a detailed analysis of environmental impacts related to the issue is necessary to make a reasoned choice between alternatives.
- Whether environmental impacts associated with the issue are a significant point of contention among the public and other agencies.
- Whether there are potentially significant impacts on resources associated with the issue and can those impacts be mitigated.

Table ES.4-1 presents the primary issues identified during scoping that are within the scope of the development of the Draft EIS. Issues considered but not analyzed in detail are described in Draft EIS Section 1.5.2 and listed in Table 1.5-2.

Table ES.4-1. Issues Analyzed in Detail in the Environmental Impact Statement

Resource Topic	Issues
Air Quality	How would the proposed Northern Corridor impact the air quality of the community?
Alternatives	<p>Why would the UDOT Application Alignment be chosen for the proposed Northern Corridor highway?</p> <p>Could Red Hills Parkway be used as an alternative to the proposed Northern Corridor highway?</p> <p>Could access from Red Hills Parkway to Interstate 15 be provided?</p> <p>Would the BLM consider Conserve Southwest Utah's Community Transportation Alternative?</p> <p>Are alternatives to the proposed Northern Corridor highway outside of the Red Cliffs NCA available?</p> <p>Would a no action alternative to the proposed Northern Corridor highway be considered?</p> <p>Could improvements to other roadways in St. George or Washington County be used as an alternative to the proposed Northern Corridor highway?</p> <p>Could transit improvements be used as an alternative to the proposed Northern Corridor highway?</p> <p>Could alternative land use development strategies be used as an alternative to the proposed Northern Corridor highway?</p> <p>Could active transportation improvements be used as an alternative to the proposed Northern Corridor highway?</p> <p>Could a more northern route (than the UDOT Application Alignment) be used as an alternative to the proposed Northern Corridor highway?</p> <p>Could the proposed Northern Corridor highway be elevated to limit impacts to sensitive areas?</p> <p>Would mitigation for the effects of the proposed Northern Corridor highway be included?</p> <p>Could an alternative route to the proposed Northern Corridor be considered that avoids impacts to Green Springs' residents?</p> <p>Would the proposed Northern Corridor highway allow utility easements in the same ROW?</p> <p>Would the proposed Northern Corridor highway result in additional congestion to area roadways?</p> <p>Is the proposed Northern Corridor highway a viable solution to accomplish the traffic objectives?</p> <p>Would the Northern Corridor alleviate existing and future congestion caused by increased population?</p>
Cultural Resources and Native American Concerns	How would cultural and historic resources be preserved?
Fire and Fuels Management	Would the proposed Northern Corridor highway introduce invasive plant species, resulting in an increased risk of fire?
Geology, Mineral Resources, and Soils	How would the proposed Northern Corridor highway affect soil, rock formations, and biological soil crusts?
Human Health and Safety	Would the proposed Northern Corridor highway affect the health of those who use the Red Cliffs NCA?
Land Use and Access	<p>How would the Northern Corridor affect existing land uses and/or users and access?</p> <p>Would impacts be temporary or long-term?</p>
Noise	Would noise from the proposed Northern Corridor highway have an effect on the surrounding residents and wildlife?
Paleontological	How would the proposed Northern Corridor highway impact paleontological resources?

Resource Topic	Issues
Proposed Zone 6	Could proposed Zone 6 successfully mitigate for impacts to the Mojave desert tortoise? How would the management of proposed Zone 6 impact existing recreation use?
Recreation Resources	How would the proposed Northern Corridor highway impact existing recreational opportunities?
Red Cliffs National Conservation Area and the Red Cliffs Desert Reserve	Would the Red Cliffs NCA be harmed by the proposed Northern Corridor highway? Would the entire Red Bluff Area of Critical Environmental Concern (ACEC) be used as the new reserve?
Socioeconomics	How would the proposed Northern Corridor highway impact the local economy of Washington County? How would the proposed Northern Corridor highway impact homes in the area? How would the proposed Northern Corridor highway impact local businesses?
Vegetative Communities, Including Noxious Weeds	How would the proposed Northern Corridor highway impact plants and ecology of the Red Cliffs NCA and Reserve? Would the proposed Northern Corridor highway result in an increase in invasive plant species?
Visual Resources	How would visual resources be maintained and protected? Would there be increased light impacts from the proposed Northern Corridor highway?
Wildlife	How would the proposed Northern Corridor highway impact the Mojave desert tortoise? Would proposed mitigation measures allow for Mojave desert tortoise to cross the new road? How would the proposed Northern Corridor highway impact all wildlife in the area? What is the impact to the Mojave desert tortoise if the HCP is amended for the proposed Northern Corridor highway? Would impacts to the Mojave desert tortoise be mitigated?
Water Resources	How would the proposed Northern Corridor highway affect water resources and water quality, including groundwater?

ES.4.1 Alternatives Considered

The Federal actions associated with the Northern Corridor, Red Cliffs NCA RMP Amendment, SGFO RMP Amendment, and Washington County HCP and ITP are interrelated, and some of the actions are interdependent. The USFWS's decision of whether to issue an ITP is determined by whether permit issuance criteria are met. If permit issuance criteria are met, USFWS could select the action alternative independent of any BLM decision. The BLM's decision regarding amendments to the Red Cliffs NCA and SGFO RMPs will inform the location and nature of the Northern Corridor ROW, as well as determine whether the changed circumstance related to the construction of the proposed Northern Corridor across Zone 3 of the Reserve in the Washington County HCP is triggered. Therefore, the BLM and the USFWS have developed distinct alternatives containing the relevant Federal actions for analysis in this Draft EIS. Additional information regarding the development of alternatives and details regarding each alternative are included in Chapter 2 of this Draft EIS. Maps of the Northern Corridor alignments are shown on Map 2.2-1 in Appendix B. The BLM and USFWS have identified Alternative 3 (UDOT Application Northern Corridor Alignment and issuing an ITP based on the Amended HCP) as the agencies' preferred ROW alignment and ITP issuance alternative for the purposes of public comment and review, with Alternative B identified as the preferred for the two RMP amendments.

ES.4.2 Alternative 1 – No Action Alternative

Under Alternative 1, the BLM would deny UDOT's application for a ROW across the Red Cliffs NCA for the Northern Corridor, and the USFWS would deny Washington County's application for an ITP. The BLM would not amend the RMPs for the Red Cliffs NCA or SGFO. The Northern Corridor would not be constructed, and compliance with the ESA for lawful activities in Washington County that may result in the take of Mojave desert tortoise would be completed through other avenues.

ES.4.3 Alternative 2 – T-Bone Mesa Alignment for the Northern Corridor

Under Alternative 2, the BLM would grant UDOT a ROW across the public lands in the Red Cliffs NCA for the Northern Corridor on the T-Bone Mesa Alignment, and the USFWS would issue an ITP for the take of Mojave desert tortoise to Washington County as described in Section 2.4. The changed circumstance related to the construction of the Northern Corridor across the Reserve described in the HCP would be triggered, and proposed Zone 6 of the Reserve would be created. The BLM would amend both the Red Cliffs NCA and SGFO RMPs, though the nature of the amendments could vary as described in Sections 2.3 and 2.4 of this Draft EIS.

ES.4.4 Alternative 3 – UDOT Application Alignment for the Northern Corridor

Under Alternative 3, the BLM would grant UDOT a ROW across public lands in the Red Cliffs NCA for the Northern Corridor on the UDOT ROW application alignment, and the USFWS would issue an ITP for the take of Mojave desert tortoise to Washington County as described in Section 2.4. The changed circumstance related to the construction of the Northern Corridor across the Reserve described in the HCP would be triggered, and proposed Zone 6 of the Reserve would be created. The BLM would amend both the Red Cliffs NCA and SGFO RMPs, though the nature of the amendments could vary as described in Sections 2.3 and 2.4 of this Draft EIS.

ES.4.5 Alternative 4 – Southern Alignment for the Northern Corridor

Under Alternative 4, the BLM would grant UDOT a ROW across public lands in the Red Cliffs NCA for the Northern Corridor on the Southern Alignment, and the USFWS would issue an ITP for the take of Mojave desert tortoise to Washington County as described in Section 2.4. The changed circumstance related to the construction of the Northern Corridor across the Reserve described in the HCP would be triggered, and proposed Zone 6 of the Reserve would be created. The BLM would amend both the Red Cliffs NCA and SGFO RMPs, though the nature of the amendments could vary as described in Sections 2.3 and 2.4 of this Draft EIS.

ES.4.6 Alternative 5 – Red Hills Parkway Expressway for the Northern Corridor

Under Alternative 5, the BLM would grant necessary ROW amendments to the existing FLPMA Title V ROW for the Red Hills Parkway, and the USFWS would issue an ITP for the take of Mojave desert tortoise to Washington County as described in Section 2.4. The changed circumstance related to the construction of the Northern Corridor across the Reserve described in the HCP would not be triggered, and proposed Zone 6 of the Reserve would not be created. The BLM would not amend the Red Cliffs NCA RMP or the SGFO RMP.

ES.4.7 Alternative 6 – St. George Boulevard/100 South One-way Couplet for the Northern Corridor

Under Alternative 6, the BLM would not grant a ROW in the Red Cliffs NCA for the Northern Corridor, but improvements to St. George Boulevard and 100 South would be made to respond to future transportation needs in Washington County. The USFWS would issue an ITP for the take of Mojave desert tortoise to Washington County as described in Section 2.4. The changed

circumstance related to the construction of the Northern Corridor across the Reserve described in the HCP would not be triggered, and proposed Zone 6 of the Reserve would not be created. The BLM would not amend the Red Cliffs NCA and SGFO RMPs and would request UDOT withdraw the ROW application.

ES.5 Summary Comparison of the Alternatives

Table ES.5-1 summarizes and compares resource impacts for each alternative considered in the Draft EIS. A detailed description of the impacts by resource is included in the environmental consequences portion of Chapter 3.

ES.5.1 Red Cliffs National Conservation Area Resource Management Plan Amendments

An amendment to the Red Cliffs NCA RMP would be necessary for any of the Northern Corridor action alternatives that would cross areas identified as avoidance areas for new ROWs in the 2016 Red Cliffs NCA RMP (BLM 2016). As described in Section 2.6, the BLM has developed two action alternatives for the Red Cliffs NCA RMP Amendment that could be applied to Northern Corridor alternatives that are located within the avoidance areas established in the 2016 Red Cliffs NCA RMP. Either of the action alternatives could be selected by the BLM in association with a Northern Corridor ROW alternative that crosses the existing avoidance areas in the Red Cliffs NCA. The No Action Alternative represents current management of the Red Cliffs NCA and could be applied to the No Action Alternative for the Northern Corridor or Northern Corridor alternatives located outside the Red Cliffs NCA.

Red Cliffs NCA RMP Amendment Alternative B would allow for a one-time exception to LAR-13 Criteria E for the issuance of a Title V ROW for the Northern Corridor project, manage the Northern Corridor ROW as BLM Visual Resource Management (VRM) Class IV, and manage the 600-foot-wide area around the selected route for the Northern Corridor as part of the Rural Zone. Red Cliffs NCA RMP Amendment Alternative C would be similar except a new aboveground and buried utility ROW corridor would be established around the selected route for the Northern Corridor. In general, impacts on resources associated with both amendment alternatives would be the same as those anticipated from the Northern Corridor. The potential future development of aboveground and buried utilities, facilitated by Red Cliffs NCA RMP Amendment Alternative C, would result in additional ground-disturbing activities and resource impacts each time a utility is given a ROW. These future utility developments would require separate applications and site-specific NEPA analysis. The designation of a new ROW corridor on BLM-administered land would increase opportunities for the BLM to meet future demands for compatible ROWs by co-locating utilities but may increase conflicts between land and realty decisions and other resources.

Table ES.5-1. Alternative Comparison by Resource Table

Resource Topic	Alternative 1 – No Action Alternative	Alternative 2 – T-Bone Mesa Northern Corridor Alignment	Alternative 3 – UDOT Application Northern Corridor Alignment	Alternative 4 – Southern Northern Corridor Alignment	Alternative 5 – Red Hills Parkway Expressway Northern Corridor Alignment	Alternative 6 – One-way Couplet for Northern Corridor Alignment
Vegetative Communities, Including Noxious Weeds and Invasive Species	No direct and adverse impacts on native vegetation communities within the Red Cliffs NCA. Vegetation communities in the HCP Permit Area would continue to be impacted as a result of development throughout the St. George Area. No additional protections added to vegetation communities in proposed Zone 6.	Direct and adverse impacts to vegetation communities, including native desert scrub vegetation. Dust deposition and potential to spread exotic invasive species. Impacts in the HCP Permit Area would be similar but likely more intense than Alternative 1 because of the potential increased pace of development. Native vegetation communities in the proposed Zone 6 area would benefit from additional conservation measures.	Impacts on vegetation communities would be similar to Alternative 2, except fewer acres of desert scrub vegetation would be adversely impacted.	Impacts on vegetation communities would be similar to Alternative 2, except more acres of desert scrub vegetation would be impacted.	Impacts on vegetation communities would be minimal compared to Alternatives 2, 3, and 4 with less acres of native desert scrub impacted. No additional protections added to vegetation communities in proposed Zone 6.	Impacts on vegetation communities would be minimal compared to Alternatives 2, 3, and 4 with minimal native desert scrub impacted. No additional protections added to vegetation communities in proposed Zone 6.
Special Status Plants	No direct and adverse impacts on special status plant populations in the Red Cliffs NCA. Special status plants in the HCP Permit Area would continue to be impacted as a result of development throughout the St. George Area including occupied habitat for four Federally listed plants, modeled suitable habitat for five Federally listed plants, and critical habitat for three Federally listed plants. No additional protections added to special status plant populations in proposed Zone 6.	No direct and adverse impacts on special status plant populations in the Red Cliffs NCA. Impacts on the special status plant populations in the HCP Permit Area would be similar to Alternative 1. Four special status plants would benefit from designation and incorporation of proposed Zone 6 into the Red Cliffs Desert Reserve.	Direct and adverse impacts on dwarf bear-poppy suitable habitat and potential indirect impacts to Virgin thistle occupied habitat within the Red Cliffs NCA. Impacts on the special status plant populations in the HCP Permit Area would be similar to Alternative 1. Effects from the designation of proposed Zone 6 would be the same as Alternative 2.	Direct and adverse impacts on more dwarf bear-poppy suitable habitat compared to Alternative 3 and potential indirect impacts to two areas of Virgin thistle occupied habitat within the Red Cliffs NCA. Impacts on the special status plant populations in the HCP Permit Area would be similar to Alternative 1. Effects from the designation of proposed Zone 6 would be the same as Alternative 2.	Direct and adverse impacts on dwarf bear-poppy suitable habitat within the Red Cliffs NCA would be similar to Alternative 3. Impacts on the special status plant populations in the HCP Permit Area would be similar to Alternative 1. No additional protections added to special status plant populations in proposed Zone 6.	No direct and adverse impacts on special status plant populations in the Red Cliffs NCA. Impacts on the special status plant populations in the HCP Permit Area would be similar to Alternative 1. No additional protections added to special status plant populations in proposed Zone 6.
General Wildlife	No direct and adverse impacts on general wildlife within the Red Cliffs NCA. General wildlife communities in the HCP Permit Area would continue to be impacted as a result of development throughout the St. George area. No additional protections added to general wildlife in proposed Zone 6.	Direct and adverse impacts to general wildlife within the Red Cliffs NCA include habitat loss and fragmentation south of the Northern Corridor. Impacts in the HCP Permit Area would be similar but likely more intense than Alternative 1 because of the potential increased pace of development. General wildlife in the proposed Zone 6 area would benefit from additional conservation measures.	Impacts on general wildlife would be similar to Alternative 2 except increased loss of habitat but less habitat fragmentation south of the Northern Corridor. Impacts in the HCP Permit Area would be similar but likely more intense than Alternative 1 because of increased potential development. General wildlife in the proposed Zone 6 area would benefit from additional conservation measures.	Impacts on general wildlife would be similar to Alternative 2 except increased loss of habitat but less habitat fragmentation south of the Northern Corridor. Impacts in the HCP Permit Area would be similar but likely more intense than Alternative 1 because of increased potential development. General wildlife in the proposed Zone 6 area would benefit from additional conservation measures.	Impacts on general wildlife would be minimal and occur at small areas impacted by construction that are currently unpaved. Impacts in the HCP Permit Area would be similar but likely more intense than Alternative 1 because of increased potential development. No additional protections added to general wildlife in proposed Zone 6.	Impacts are similar to Alternative 5.

Resource Topic	Alternative 1 – No Action Alternative	Alternative 2 – T-Bone Mesa Northern Corridor Alignment	Alternative 3 – UDOT Application Northern Corridor Alignment	Alternative 4 – Southern Northern Corridor Alignment	Alternative 5 – Red Hills Parkway Expressway Northern Corridor Alignment	Alternative 6 – One-way Couplet for Northern Corridor Alignment
Special Status Wildlife	No impacts on Mojave desert tortoise and other special status wildlife in the Red Cliffs NCA. Impacts on Mojave desert tortoise associated with the decision not to grant an ITP would be similar to the existing Countywide ITP and require individual ITPs throughout the County for developers and cities to remain in compliance with the ESA, without the benefit of a comprehensive conservation program and associated funding for the Reserve. Additional permitting required for new development in the county may slow loss and fragmentation of Mojave desert tortoise habitat. No additional protections added to special status wildlife, including Mojave desert tortoise, in proposed Zone 6.	The Northern Corridor would impact Mojave desert tortoise through direct loss and fragmentation of occupied habitat. Additionally, estimated displacement of Mojave desert tortoise individuals would necessitate their relocation. Direct and adverse impacts to other special status wildlife include habitat loss, degradation, and fragmentation. The Amended HCP would facilitate development resulting in direct loss of Mojave desert tortoise habitat and fragmentation of habitat on non-Federal lands potentially at a faster pace than Alternative 1. Special status wildlife, including Mojave desert tortoise, in proposed Zone 6 would benefit from additional conservation measures.	Impacts are similar to Alternative 2 except more Mojave desert tortoise occupied habitat would be lost, less habitat fragmented, and estimated displacement of more individuals.	Impacts are similar to Alternatives 2 and 3 except more Mojave desert tortoise occupied habitat would be lost, less habitat fragmented, and estimated displacement of more individuals.	Direct loss and indirect impacts of Mojave desert tortoise occupied habitat would occur, but within much smaller areas along the existing roadway that are currently unpaved. No relocation or fragmentation is anticipated. Direct and adverse impacts to special status wildlife include habitat loss and degradation, but also within a much smaller area than Alternatives 2, 3, and 4. Impacts from the Amended HCP would be the same as Alternative 2. No additional protections added to special status wildlife, including Mojave desert tortoise, in proposed Zone 6.	There would be no direct loss of Mojave desert tortoise habitat, and 11 acres of potential indirect impacts. Impacts from the Amended HCP would be the same as Alternative 2. No additional protections added to special status wildlife, including Mojave desert tortoise, in proposed Zone 6.
ESA Section 6 Land Acquisition Grants	No direct or indirect impacts to Section 6 lands.	Construction would result in habitat loss on Section 6 lands, habitat degradation to Mojave desert tortoise and other wildlife, and fragmentation of Section 6 lands. These changes would degrade the conservation value of the Section 6 lands such that some lands would no longer meet the intended purpose of long-term conservation identified in the grant agreement. Approximately 6 percent of Section 6 lands within the Reserve would need to be mitigated through transfer, replacement, or repayment to the United States.	Impacts are similar to Alternative 2 except approximately 5 percent of Section 6 lands within the Reserve would need to be mitigated through transfer, replacement, or repayment to the United States.	Impacts are similar to Alternative 2 except approximately 5 percent of Section 6 lands within the Reserve would need to be mitigated through transfer, replacement, or repayment to the United States.	No physical encroachment or fragmentation of the Section 6 lands would occur. Section 6 parcels immediately adjacent to Red Hills Parkway would retain their conservation value and would continue to comply with the terms and conditions for long-term conservation set forth in the grants.	No direct or indirect impacts to Section 6 lands.
Geology, Mineral Resources, and Soils	No impacts on geology, mineral resources, or soils would occur. Sensitive soils and soil crusts in proposed Zone 6 would be vulnerable to potential adverse impacts.	Construction would result in soil disturbance and potential soil erosion beyond the ROW. The Amended HCP and SGFO RMP Amendment would limit surface disturbance and development of mineral resources within the proposed Zone 6 boundaries.	Compared to Alternative 2, construction would result in more acres of soil disturbance and more acres of potential soil erosion beyond the ROW. The Amended HCP and SGFO RMP Amendment would limit surface disturbance and development of mineral resources within the proposed Zone 6 boundaries.	Compared to Alternatives 2 and 3, construction would result in more acres of soil disturbance and more acres of potential soil erosion beyond the ROW. The Amended HCP and SGFO RMP Amendment would limit surface disturbance and development of mineral resources within the proposed Zone 6 boundaries.	Compared to Alternatives 2, 3, and 4 this alternative would only require modification and improvement to existing roadways which would result in fewer acres of soil disturbance and fewer acres of potential soil erosion beyond the ROW. Impacts within Zone 6 would be the same as Alternative 1.	Compared to Alternatives 2, 3, and 4 this alternative would only require modification and improvement to existing roadways, which would result in fewer acres of soil disturbance and more acres of potential soil erosion beyond the ROW. Impacts within Zone 6 would be the same as Alternative 1.
Paleontology	No impacts would occur; however, SITLA lands in proposed Zone 6 would remain vulnerable to potential disturbance.	No impacts on sensitive geological units containing fossil resources (Potential Fossil Yield Classification [PFYC] Classes 3-5). The designation of Zone 6 would protect PFYC Class 4 areas on SITLA land from most future development.	Impacts are similar to Alternative 2.	Impacts are similar to Alternative 2.	Impacts are similar to Alternative 1.	Impacts are similar to Alternative 1.

Resource Topic	Alternative 1 – No Action Alternative	Alternative 2 – T-Bone Mesa Northern Corridor Alignment	Alternative 3 – UDOT Application Northern Corridor Alignment	Alternative 4 – Southern Northern Corridor Alignment	Alternative 5 – Red Hills Parkway Expressway Northern Corridor Alignment	Alternative 6 – One-way Couplet for Northern Corridor Alignment
Prime and Unique Farmland	No impacts on prime and unique farmland.	The Northern Corridor would not impact prime or unique farmland. The designation of Zone 6 would prevent potential future agricultural use of an area of soil designated as prime farmland if irrigated.	Impacts are similar to Alternative 2.	Impacts are similar to Alternative 2.	Construction would impact less than 3 acres of prime farmland if irrigated.	Alternative 6 would impact approximately 27 acres of prime farmland if irrigated.
Wetlands, Floodplains, and Waters of the U.S. (WOUS)	No impacts on wetlands, floodplains, and (WOUS. Proposed Zone 6 would not receive additional protection for wetlands, floodplains, and WOUS.	Construction of the Northern Corridor would impact a small area of WOUS and floodplains. The designation of Zone 6 would provide additional protection for wetlands, floodplains, and WOUS.	Compared to Alternative 2, construction of the Northern Corridor would impact the same amount of WOUS and fewer acres of floodplains. The designation of Zone 6 would provide additional protection for wetlands, floodplains, and WOUS.	Compared to Alternative 2, construction of the Northern Corridor would impact more acres of WOUS and fewer acres of floodplains. The designation of Zone 6 would provide additional protection for wetlands, floodplains, and WOUS.	Construction of the Northern Corridor would impact a small area in a floodplain. The proposed Zone 6 would not receive additional protection for wetlands, floodplains, and WOUS.	No impacts on wetlands or WOUS; a small area would be crossed within a Federal Emergency Management Agency-mapped 100-year floodplain in an area of existing urban development. The proposed Zone 6 would not receive additional protection for wetlands, floodplains, and WOUS.
Water Resources	No impacts on water resources. No additional protections added to water resources in proposed Zone 6.	The Northern Corridor would, as a result of additional impervious surfaces, generate more runoff than the existing condition. The designation of Zone 6 would protect water resources from most future ground-disturbing activities.	Impacts are similar to Alternative 2 except additional impervious surfaces would generate additional runoff.	Impacts are similar to Alternative 2 except additional impervious surfaces would generate additional runoff.	No impacts on water resources except for modification and improvement at tie-ins to connect to existing roadways. No additional protections added to water resources in proposed Zone 6.	No impacts on water resources except for modification and improvement at tie-ins to connect to existing roadways. No additional protections added to water resources in proposed Zone 6.
Air Quality	Traffic congestion and delay would continue to worsen resulting in degradation of air quality.	Short-term dust and exhaust emissions during construction. Compared to Alternative 1, the Northern Corridor is likely to provide air quality benefits to sensitive receptors, including Class I areas (Zion National Park). Compared to Alternatives 5 and 6, traffic would operate at higher speeds (less stop and go traffic) resulting in less congestion and delay and improved air quality conditions, including potential reductions in mobile source air toxic (MSAT) and greenhouse gas (GHG) emissions.	Impacts are similar to Alternative 2.	Short-term dust and exhaust emissions during construction. Compared to all other action alternatives, the Southern alignment would not reduce traffic off other roads as effectively. Therefore, similar to Alternative 1, congestion and delay would continue to worsen on other roads resulting in little to no improvement on air quality conditions.	Short-term dust and exhaust emissions during construction. No significant impacts on Class I areas (Zion National Park). Similar to Alternatives 2 and 3, traffic would operate at higher speeds (less stop and go traffic) along the expressway alignment with no signalized intersections, resulting in less congestion and delay. Air quality would improve, including potential reductions in MSAT and GHG emissions.	Short-term dust and exhaust emissions during construction. No significant impacts on Class I areas (Zion National Park). Compared to Alternatives 2, 3, and 5, travel speeds would be slowest in this urban area since vehicles would need to slow down and stop at flow-controlled intersections. However, the corridor and intersections would operate more efficiently resulting in less air emissions. With the One-way Couplet, traffic flow would operate in one direction with only one approach of vehicles idling at signalized intersections.

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Visual Resources	No impacts beyond existing conditions and trends. Continued current management of authorized and casual recreation uses in proposed Zone 6 may result in new visual impacts.	The Northern Corridor would alter the existing landscape character creating a strong linear feature and introducing motion into a primarily static landscape. These impacts on views would be most intense in the Green Springs residential area and along the City Creek trail system. Inconsistent with BLM VRM Class III objectives necessitating an amendment of these areas to BLM VRM Class IV. Additional restrictions on uses in proposed Zone 6 would reduce potential changes to landscape character.	Impacts on visual resources would be similar to Alternative 2 except this alternative would be more visible from some residences in the Green Springs residential area, expand the area of cultural modifications at the Cottonwood Springs Road interchange, and block views of distant mountains because of the more elevated interchange at the Red Hills Parkway.	Impacts on visual resources would be similar to Alternatives 2 and 3 except for increased visibility from the Green Springs residential area, dominating views from the Middleton residential area because of a bridge expected to be required east of Cottonwood Springs Road, and introducing new transportation elements into an unmodified area viewed from Pioneer Park and trails within and outside the Red Cliffs NCA.	Impacts on visual resources would be mostly associated with proposed highway structures and the flyover connections to I-15. Impacts in other areas would be minimal as no new roadway would be constructed and new interchanges would occur in areas with existing transportation features. Since only minimal adverse impacts are expected on BLM-administered lands, the objectives for BLM VRM Class III would be met, and no amendment is required.	Impacts on visual resources would include removing the existing median and associated vegetation and historic-style light posts as well as increasing traffic on these roads resulting in an adverse impact to sensitive viewers. No impacts on BLM-administered lands, and no VRM amendment is required.
Cultural Resources and Native American Concerns	Existing development on non-Federal lands would continue and could impact cultural resources. No impacts from construction of the Northern Corridor would occur and there would be no changes from the current condition in proposed Zone 6.	The Northern Corridor would directly impact National Register of Historic Places (NRHP)-eligible archaeological sites, eligible under Criterion D. No indirect impacts to cultural resources. The designation of Zone 6 would protect potential cultural resources from most future ground-disturbing activities. Issuance of the ITP could result in impacts on cultural resources on non-Federal lands.	Impacts are similar to Alternative 2 except more NRHP-eligible sites would be impacted. Indirect impacts to a prehistoric rock art panel in the Area of Potential Effects.	Impacts are similar to Alternative 2 except less NRHP-eligible sites would be impacted.	Impacts are similar to Alternative 2 except fewer NRHP-eligible sites would be impacted.	Impacts are similar to Alternative 1.
Recreation and Visitor Services	No impacts beyond existing conditions and trends.	The Northern Corridor would physically cross existing and proposed trail networks, modify the recreation setting, and may adversely impact off-road trail users because of change in visitor experience, while potentially providing access to users who do not currently use the area, such as road cyclists. Red Cliffs NCA RMP Amendment Alternative A would have similar impacts to the recreation setting and visitor experience if ROW is still granted, but management of the area would remain consistent with the Frontcountry Recreation Management Zone (RMZ), while Alternatives B and C would amend an area of Frontcountry RMZ to Rural RMZ. Additional restrictions on recreation use in proposed Zone 6 would increase opportunities for a more remote and natural setting, reduce availability of trails through closure of user-created routes, and limit or prohibit certain recreation activities.	Impacts are similar to Alternative 2 except fewer acres would be amended to Rural RMZ.	Impacts are similar to Alternative 2 except fewer acres would be amended to Rural RMZ. The Pioneer Hills Trailhead is located within the Northern Corridor ROW.	Impacts on recreation resources would include physically crossing existing trails and the expanded highway encroaching on Pioneer Park. No amenities or recreation opportunities at the park would change, but access points may be reconfigured. Visitor experience may change because of visual impacts, but overall experience would not be substantially altered.	Impacts on recreation and visitor services would be limited to changes in traffic patterns.

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Land and Water Conservation Fund (LWCF) Act Lands [Section 6(f) Properties]	No Federal or State LWCF lands are affected.	Construction of the Northern Corridor would not wholly or partially convert any State LWCF/Section 6(f) properties to a non-recreational use. However, construction of the Northern Corridor would directly encroach on a number of parcels BLM had previously used LWCF to acquire and incorporate into the NCA.	Impacts are similar to Alternative 2 except fewer acres of parcels BLM had previously used LWCF to acquire and incorporate into the NCA would be impacted.	Impacts are similar to Alternative 2 except more acres of parcels BLM had previously used LWCF to acquire and incorporate into the NCA would be impacted.	Construction of the Northern Corridor would require acquisition of an area of Pioneer Park not actively used for recreation, potentially requiring a reconfiguration of park access and in-kind mitigation because of partial conversion to a non-conforming use, subject to approval from the National Park Service.	No Federal or State LWCF lands are affected.
BLM Transportation and Travel Management	No impacts to BLM transportation or travel management.	Trails and routes crossed by the Northern Corridor may need to be temporarily closed during construction. Designated BLM routes within the Red Cliffs NCA would be directly impacted requiring final design of the project to accommodate these crossings. As the HCP is implemented, the total length of routes in proposed Zone 6 would be limited to 65 miles.	Impacts are similar to Alternative 2 except less length of designated BLM routes within the Red Cliffs NCA would be directly impacted.	Impacts are similar to Alternative 2 except more length of designated BLM routes within the Red Cliffs NCA would be directly impacted.	No impacts to BLM transportation or travel management.	No impacts to BLM transportation or travel management.
National Conservation Area	The assessment of impacts on the NCA's objects and values is included in other resource sections of this Draft EIS as outlined in Section 3.18, Table 3.18-1.	The assessment of impacts on the NCA's objects and values is included in other resource sections of this Draft EIS as outlined in Table 3.18-1.	The assessment of impacts on the NCA's objects and values is included in other resource sections of this Draft EIS as outlined in Table 3.18-1.	The assessment of impacts on the NCA's objects and values is included in other resource sections of this Draft EIS as outlined in Table 3.18-1.	The assessment of impacts on the NCA's objects and values is included in other resource sections of this Draft EIS as outlined in Table 3.18-1.	The assessment of impacts on the NCA's objects and values is included in other resource sections of this Draft EIS as outlined in Table 3.18-1.
Area of Critical Environmental Concern (ACEC)	No impacts beyond existing conditions and trends.	Additional restrictions on authorized activities where proposed Zone 6 overlaps the Red Bluff ACEC would increase protection of relevant and important values including dwarf bear-claw poppy and highly erodible soils.	Impacts are the same as Alternative 2.	Impacts are the same as Alternative 2.	No impacts beyond existing conditions and trends.	No impacts beyond existing conditions and trends.
BLM Lands and Realty	No impacts on BLM lands and realty.	The Northern Corridor would cross compatible existing ROWs and a ROW avoidance area in the Red Cliffs NCA requiring a plan amendment. Existing ROWs could be impacted during the construction and may need to be relocated. Potential designation of a ROW corridor through the Red Cliffs NCA RMP Amendment could lead to future ROWs through the NCA, but consolidated along the Northern Corridor alignment. Additional restrictions on development in proposed Zone 6 could reduce the BLM's ability to meet future demands for ROWs (or reauthorize existing ROWs) as well as land tenure decisions. Additional discussion of the Red Cliffs NCA RMP and SGFO RMP amendments are included in Sections ES.5.1 and ES.5.2.	Impacts are similar to Alternative 2.	Impacts are similar to Alternative 2.	No impacts on BLM lands and realty.	No impacts on BLM lands and realty.
Livestock Grazing	No impacts on livestock grazing.	The SGFO RMP Amendment to establish proposed Zone 6 would either make the entire area unavailable for grazing or reduce the areas available for grazing, in addition to reducing available animal unit months in two allotments.	Impacts are the same as Alternative 2.	Impacts are the same as Alternative 2.	No impacts on livestock grazing.	No impacts on livestock grazing.

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Fire and Fuels Management	No impacts on fire and fuels management.	The Northern Corridor would increase accessibility into the Red Cliffs NCA and Reserve and could provide a barrier to spreading active wildfires. This increased accessibility would improve response for wildfire suppression. Construction activities and use of roads may potentially introduce new ignition sources and increase fire risk, and the presence of the Northern Corridor may affect prioritization of wildfire suppression activities. Additional management in proposed Zone 6 would further restrict authorized and casual uses that can introduce new ignition sources.	Impacts are similar to Alternative 2.	Impacts are similar to Alternative 2.	No impacts on fire and fuels management.	No impacts on fire and fuels management.
Noise	No impacts beyond existing conditions and trends.	Temporary elevated noise levels during construction activities. The Northern Corridor traverses an area where no existing highway exists, and the design detail needed to model projected noise is not available, though elevated noise levels from the use of the Northern Corridor would be anticipated to occur. If found to exceed UDOT noise abatement criteria noise levels, noise barriers would be evaluated based on UDOT’s feasible and reasonable criteria.	Impacts are the same as Alternative 2.	Impacts are the same as Alternative 2.	Temporary elevated noise levels during construction activities. Noise levels are anticipated to increase with future traffic volumes. However, there is no anticipated significant increase in future noise levels compared to ambient noise level.	Temporary elevated noise levels during construction activities. Noise levels are anticipated to increase with future traffic volumes. However, there is no anticipated significant increase in future noise levels compared to ambient noise level.
Hazardous Materials and Solid Waste	No potential introduction of hazardous materials within the Red Cliffs NCA and the Reserve.	Construction equipment may inadvertently release oil, petroleum, or lubricants. Vehicles on the Northern Corridor may release waste products or hazardous materials from a crash or other traffic incident.	Impacts are the same as Alternative 2 except potential to cross the former Rocky Mountain Recycling landfill.	Impacts are the same as Alternative 2.	By following existing transportation routes, there is a higher potential for construction activities to encounter wastes or contaminated soils from past leaks or spills.	Impacts are the same as Alternative 5.
Human Health and Safety	No impacts beyond existing conditions and trends.	To reduce new safety risks for recreational users, consideration of trail crossings would occur during final design of the highway. Once constructed, the Northern Corridor would facilitate improved emergency access in the NCA.	Impacts are the same as Alternative 2.	Impacts are the same as Alternative 2.	No impacts beyond existing conditions and trends anticipated after construction activities.	Modification to traffic patterns associated with changing St. George Boulevard and 100 South to one-ways would increase potential conflict points.
Socioeconomics	Increased congestion on existing roadways in the St. George area would extend the time needed to complete some trips compared to traffic conditions today. Congestion is expected to increase as the population continues to grow, which will impact economic activity in the downtown area.	The Northern Corridor would serve as an alternative transportation route to mitigate increased traffic expected with the projected population growth. More restrictive management guidance in proposed Zone 6 could impact livestock grazing permittees through restricting livestock grazing.	Impacts are the same as Alternative 2.	Impacts are the same as Alternative 2.	Widening the portions of the roadway outside of the NCA would require structure relocations and property acquisitions.	This alternative could result in social and economic impacts to the areas within 0.25 mile of both St. George Boulevard and 100 South. Land acquisitions and relocations would be needed with the eastern portion of this alternative where St. George Boulevard and 100 South tie in with I-15. No full takes or property relocations would be needed; however, the alternative could potentially require changes to routes, relocating bus stops, and reconfiguring or relocating the SunTran main transfer station at 100 South just west of 1000 East.
Environmental Justice	No impacts beyond existing conditions and trends.	Not anticipated to disproportionately affect environmental justice populations.	Impacts are the same as Alternative 2.	Impacts are the same as Alternative 2.	Impacts are the same as Alternative 2.	Impacts are the same as Alternative 2.

ES.5.2 St. George Field Office Resource Management Plan Amendments

As described in more detail in Section 2.4 of the Draft EIS, if a Northern Corridor alignment crossing Zone 3 of the Reserve is approved by the BLM, the Washington County HCP would trigger a changed circumstance that would establish and manage proposed Zone 6 of the Reserve.

The BLM is a signatory to the HCP Implementation Agreement. If the changed circumstance described in the Amended HCP is triggered, the BLM would amend the existing SGFO RMP to align the management of the BLM-administered lands within proposed Reserve Zone 6 with the management described in the Washington County HCP. The BLM has developed the alternatives described in Section 2.4 to complete this task.

SGFO RMP Amendment Alternative B would manage the BLM-administered lands in Reserve Zone 6 as an exclusion area for new ROWs; close area to fluid mineral leasing and exploration; recommend all lands for withdrawal from locatable mineral entry and closed to mineral material sales; retain all Federal lands and identify all non-Federal lands for acquisition; provide additional protection for special status species and plants; make all lands unavailable for livestock grazing; restrict or prohibit some recreation activities; develop an implementation-level recreation area management plan; and manage travel systems in a sustainable and comprehensive manner to minimize impacts on Mojave desert tortoise, maintain visitor safety, and prevent unauthorized cross-country travel.

SGFO RMP Amendment Alternative C would be similar but less restrictive, because the BLM would manage the BLM-administered lands in Reserve Zone 6 as an avoidance area for new ROWs, manage unincorporated areas of Zone 6 as open for fluid mineral leasing with no surface occupancy stipulations, only make portions of the Box Canyon and Curly Hollow allotments unavailable for livestock grazing, and reduce restrictions on recreation activities compared to SGFO RMP Amendment Alternative B. Both amendment alternatives would generally be beneficial for resources, because ground-disturbing activities would be more limited than under current management by applying more restrictive management prescriptions. SGFO RMP Amendment Alternative B would impact opportunities for some types of recreation through prohibiting specific activities and impact livestock grazing through making areas unavailable for grazing. The BLM's ability to meet future demand for ROWs would be decreased by managing more administrative area for ROW avoidance and exclusion. Existing ROWs would be renewed with more restrictive prescriptions to meet the proposed Reserve Zone 6 goals and objectives. SGFO RMP Amendment Alternative C would have less impact on recreation and livestock grazing because of less stringent management prescriptions.

In addition to the planning-level actions described in the amendment alternative, future implementation-level actions may be required to fully implement the management of proposed Reserve Zone 6 as described in the Washington County HCP. The BLM would work with Washington County, UDOT, SITLA, and other HCP partners to complete necessary implementation-level actions in accordance with the HCP. Additional NEPA analysis may be necessary for the BLM to implement some actions.

ES.6 Summary of Consultation and Coordination

ES.6.1 Public Involvement and Scoping

The scoping period began with the publication of the Notice of Intent in the *Federal Register* on December 5, 2019, and extended through January 6, 2020. During the scoping period, the BLM and USFWS sought public comments to identify issues to be addressed in the Draft EIS. A public

scoping meeting was held on December 17, 2019, at the Dixie Convention Center in St. George. In total, 17,258 submissions were received from the public during the scoping period.

Information about scoping meetings, comments received, comment analysis, and issue development can be found in the scoping report available on the [BLM's ePlanning website](#).²

ES.6.2 Endangered Species Act Section 7 Consultation

Section 7(a)(2) of the ESA requires that each Federal agency ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. If an action agency determines a proposed action may affect listed species or designated critical habitat, consultation between that agency and the USFWS is required under Section 7 of the ESA.

As part of ongoing communications and coordination among Federal agencies and the non-Federal applicants, the BLM, USFWS, UDOT, and Washington County have been sharing information and meeting to discuss the potential impacts of the actions on threatened and endangered species and designated critical habitats. The USFWS, as co-lead and potential issuer of the ITP, reviewed internal documents that preceded publication of the Draft EIS, including UDOT's ROW application and Plan of Development and Washington County's early drafts of the HCP. Information received from the USFWS, including recommended conservation measures, has been incorporated into the Draft EIS and proposed actions as a result of these conversations.

The BLM will complete a formal consultation with the USFWS under Section 7 of the ESA regarding the potential impacts of the BLM's Federal actions for the ROW application and potential RMP amendments. The USFWS will conduct an intra-agency Section 7 consultation regarding the potential effects of issuing an ITP to Washington County. The BLM and USFWS will not sign Records of Decision until the formal Section 7 consultation is complete.

ES.6.3 National Historic Preservation Act Section 106 Consultation

The potential issuance of a ROW and amendments to the RMPs by the BLM, and issuance of an ITP by the USFWS are Federal undertakings and are therefore subject to Section 106 of the National Historic Preservation Act (NHPA). Section 106 through its implementing regulations (36 CFR 800) defines Federal undertakings as any project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency, those carried out with Federal financial assistance, and those requiring a Federal permit, license or approval. The regulations require Federal agencies to consider the effects of their undertakings that have the potential to impact historic properties including any district, site, building, structure, or object that is listed on or eligible for listing on the NRHP and provide the State Historic Preservation Officer (SHPO), affected Tribes, and other consulting parties an opportunity to comment.

The BLM and USFWS notified the public that they would coordinate their public consultation obligations under the NHPA (54 U.S.C. 306108) through this NEPA process, as provided for in 36 CFR 800.2(d)(3) as a component of the Notice of Intent to prepare an EIS (84 *Federal Register* 66692-66694). The BLM and the USFWS each independently initiated the Section 106 process by establishing the undertaking (pursuant to 36 CFR 800.3.a), identifying and consulting with interested parties, identifying points in the process to seek input from the public, and notifying the public of proposed actions.

Currently, the BLM and the USFWS are each independently consulting with the Utah SHPO and American Indian Tribes (Table ES.6-1) regarding efforts to identify cultural resources and evaluate

² <https://go.usa.gov/xw8TX>

them for NRHP eligibility (36 CFR 800.4), and assessing effects of the project on historic properties by applying the criteria of adverse effect (36 CFR 800.5). The BLM and the USFWS will continue consultation to identify processes to resolve any adverse effects to historic properties (36 CFR 800.6), including development of an archaeological treatment plan when potential adverse effects have been determined, and potentially a programmatic agreement or other applicable compliance documents to resolve future but presently unknown effects of the USFWS's issuance of an ITP to Washington County. The American Indian Tribes and agencies participating in the BLM's Section 106 consultation will have the opportunity to participate in the development of a Memorandum of Understanding and Historic Properties Treatment Plan, which will be completed prior to the BLM issuing a Record of Decision.

Because four of the proposed Northern Corridor alternatives involve lands owned either by SITLA or the Utah Division of Wildlife Resources, the BLM has consulted with representatives of both State agencies. They have agreed that the BLM will serve as the lead agency for consultations to satisfy the requirements of Section 106 of the NHPA and State agency compliance requirements under Utah Code Annotated 9-8-404. The BLM has identified other interested parties for this Section 106 process.

ES.6.4 American Indian Tribal Consultation and Coordination

Federal law requires the BLM and USFWS to consult with American Indian Tribes during the planning and NEPA process. In December 2019, the BLM initiated government-to-government consultations with 14 American Indian Tribes and Bands that claim affiliation to southwestern Utah, requesting information about sacred sites or places of traditional cultural importance (refer to Table ES.6-1). On December 30, 2019, the Hopi Tribe responded to this initial consultation, stating concerns that the proposed Northern Corridor would adversely impact cultural and natural resources that are significant to the Tribe. The BLM presented information on the proposed Northern Corridor highway and the two RMP amendments at the February 10, 2020, Tribal Council meeting of the Paiute Indian Tribe of Utah. Tribal consultations will be ongoing throughout this planning and NEPA process.

The USFWS has initiated government-to-government consultations in April 2020 with 17 American Indian Tribes and Bands and associated Tribal historic preservation offices that claim affiliation to southwestern Utah, requesting information about sacred sites or places of traditional cultural importance. The Hopi Tribe responded to USFWS with concerns regarding impacts on cultural and natural resources significant to the Tribe.

Tribal consultations will be ongoing throughout this planning and NEPA process.

Table ES.6-1. American Indian Tribes Invited to Participate in Government-to-Government Consultation

Cedar Band of Paiutes	Kanosh Band of Paiutes	Paiute Indian Tribe of Utah
Chemehuevi Indian Tribe	Koosharem Band of Paiutes	Pueblo of Zuni ^a
The Hopi Tribe ^a	Las Vegas Paiute Tribe	San Juan Southern Paiute Tribe
Indian Peaks Band of Paiutes	Moapa Band of Paiute Indians	Shivwits Band of Paiutes
Kaibab Band of Paiute Indians	Navajo Nation ^a	

^a The USFWS also sent letters to the Hopi Cultural Preservation Office, Navajo Nation Heritage and Historic Preservation Department, and Zuni Heritage and Historic Preservation Office.

ES.6.5 Cooperating Agencies

Federal regulations direct the BLM and USFWS to invite eligible Federal agencies, State and local governments, and Federally recognized American Indian Tribes to participate as cooperating agencies when developing the Draft EIS. The groups listed in Table ES.6-2 were invited to participate as cooperating agencies in the preparation of the Draft EIS.

The BLM and USFWS are communicating regularly with the cooperating agencies to review development of alternatives and the analysis contained in the Draft EIS. This process has included cooperating agency workshops, meetings, and conference calls completed on January 28, April 10, and April 29, 2020. During these workshops, the BLM and USFWS worked with the cooperating agencies to review the following:

- Issues raised during scoping.
- Alternatives developed for consideration in the Draft EIS.
- Preliminary portions of the Draft EIS.

Table ES.6-2. Invited Cooperating Agencies

Agencies Invited to be Cooperating Agencies	Accepted (Yes/No)
U.S. Army Corps of Engineers	No
State of Utah – Public Lands Policy Coordinating Office	Yes
Washington City	Yes
Dixie Metropolitan Planning Organization	Yes
City of St. George	Yes
City of Ivins	Yes
Santa Clara City	Yes
City of Hurricane	Yes

ES.7 Distribution of the Draft Environmental Impact Statement

An administrative Draft EIS was prepared by the BLM and USFWS and distributed to the cooperating agencies for review. The BLM and USFWS made changes to the Draft EIS in response to the comments received from the cooperating agencies during the review period. After the comments on the administrative Draft EIS were addressed, the BLM and USFWS provided notice regarding the Draft EIS publication, and distributed the document to the agencies and organizations that expressed an interest in the planning process, including the cooperating agencies and American Indian Tribal governments. A notice that the document was available for review was also posted on the [BLM's ePlanning website](#)³ and in the *Federal Register*. A complete mailing and distribution list for the Draft EIS is available in the Administrative Record.

ES.8 Relationship to Other Policies, Plans, and Programs

The BLM and the USFWS recognize the importance of State, Tribal, and local plans. The BLM and USFWS have developed the Draft EIS and Draft RMP amendments to be consistent with or complementary to the management actions in State, Tribal, and local plans and policies to the maximum extent possible, consistent with FLPMA, OPLMA, and other applicable laws and regulations governing the administration of public lands.

To support the development of the Draft EIS and Draft RMP amendments, the BLM and USFWS conducted a detailed review of relevant State and County plans to evaluate the consistency of these plans with the alternatives presented in the Draft EIS. The results of this review and coordination with local governments related to this subject can be found in Appendix H, Inconsistencies Between the Northern Corridor Project and the Land Use Plans, Policies, and Controls of Washington County and the City of St. George.

³ <https://go.usa.gov/xw8TX>