

**Boise District Resource Advisory Council Subcommittee Report on
Gateway West Segments 8 and 9 Route Options In or Near the
Morley Nelson Snake River Birds of Prey National Conservation Area**

May 30, 2014

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INTRODUCTION

The Gateway West Transmission Line Project (GWW) is jointly proposed by Idaho Power and Rocky Mountain Power Companies (hereafter the Companies) to build and operate approximately 1,000 miles of new high-voltage transmission lines between the Windstar substation near Glenrock, Wyoming and the Hemingway substation near Melba, Idaho. The Companies are proposing to build this new transmission line to provide electricity to meet increasing customer needs. It will deliver power from existing and future electric resources including coal and wind energy. In addition, the line will provide strength and reliability to the region's transmission system.

The Bureau of Land Management (BLM) released the final environmental impact statement (FEIS) on April 26, 2013, which identified alternative routes for Segments 8 and 9 in and near the Morley Nelson Snake River Birds of Prey National Conservation Area (BOPNCA) in southwestern Idaho. The BOPNCA was designated by Congress in 1993 and became part of the National Landscape Conservation System (NLCS) in 2000, which was formally established by Public Law 111-11 in 2009. The BLM preferred alternatives for Segments 8 and 9 avoided the BOPNCA, based on guidelines in manuals developed in 2012 pursuant to Public Law 111-11. However, the BLM-preferred routes had potential impacts on the Greater sage-grouse (*Centrocercus urophasianus*), scenic resources in Owyhee County, local communities, and private landowners.

The Record of Decision (ROD), issued by BLM in November 2013 deferred the decision to grant rights-of-way (ROW) on federal lands for Segments 8 and 9 because the principal siting issue involves a requirement in the enabling legislation (Public Law 103-64) that the Morley Nelson Snake River Birds of Prey National Conservation Area be managed “to provide for the conservation, protection and enhancement of raptor populations and habitats and the natural and environmental resources and values associated therewith, and of the scientific, cultural, and educational resources and values of the public lands in the conservation area” (Public Law 103-64, Section 3(2)). This requirement differs from some state and local government objectives to avoid private lands and site the Project on public land in the BOPNCA.

The intent of deferring the decision was to provide “additional time for federal, state, and local permitting agencies to pursue a consensus regarding siting routes in these segments” (BLM 2013a). The phased decision allowed BLM to take a fresh look at opportunities. Specific direction from the ROD stated that “The BLM will defer its decision to offer a ROW grant for Segments 8 and 9 due to the lack of complementary siting preferences among federal, state and local authorizing entities in Idaho. The BLM will immediately coordinate with these entities and the Proponents to seek a consensus agreement on the transmission line alignment for these segments. Upon conclusion of this coordination, the BLM will prepare any needed additional environmental analysis, hold a public review and comment period, and issue another ROD for Segments 8 and 9.” (BLM 2013a).

In addition, the ROD stated that “the BLM needs more time to evaluate and refine” the Draft Enhancement Portfolio Proposal (Draft Portfolio) prepared by the Companies “to ensure that it is sufficient” to meet the enhancement requirement of the enabling legislation. The subcommittee's findings are described in an accompanying report: *Boise District Resource Advisory Council Subcommittee Review and Comments on the Gateway West Transmission Line Project*

Mitigation and Enhancement Portfolio for the Morley Nelson Snake River Bird of Prey National Conservation Area.

The enabling legislation (Public Law 103-64), which established the BOPNCA in 1993 defined its purpose to be for the “conservation, protection and enhancement of raptor populations and habitat” while allowing “for diverse appropriate uses of lands in the area to the extent consistent with the maintenance and enhancement of raptor populations and habitats.” The BOPNCA was renamed after Morley Nelson in 2009. Research conducted from 1981 through 1989 in what is now the BOPNCA found that a 500-kV transmission line, built in the early 1980s enhanced opportunities for raptor perching, nesting, and roosting. Unlike smaller distribution lines, large transmission lines cannot electrocute large birds because the wires are too far apart for raptor wings to contact more than one wire at a time. Collision with transmission lines does not appear to be an issue for birds of prey in desert environments possibly because raptors can see and avoid the larger and/or bundled wires used in transmission lines. The transmission line provided both new and alternative nesting substrates for golden eagles (*Aquila chrysaetos*), ferruginous hawks (*Buteo regalis*), red-tailed hawks (*Buteo jamaicensis*), and great horned owls (*Bubo virginianus*). Raptors and ravens were attracted to the 500-kV line, and productivity of hawks and eagles nesting on transmission towers was as good as and sometimes better than that of those nesting in the canyon (Steenhof et al. 1993).

The Omnibus Public Land Management Act of 2009 (Public Law 111-11) also allows for compatible activities and uses of the lands within the NLCS units (also known as National Conservation Lands). A compatible use is one that does not conflict with the values identified in the legislative language that created each National Conservation Lands unit. BLM Manual 6220 developed pursuant to Public Law 111-11, set forth guidelines BLM should consider in siting Rights-of-Ways and Transportation and Utility Corridors on NLCS properties.¹ The manual asserts that BLM should “[t]o the greatest extent possible, subject to applicable law, ...avoid granting new ROWs in Monuments and NCAs.” The manual then gives discretion to BLM to determine whether ROW proposals are consistent with the authority that designated the component.²

When processing a new ROW application, BLM is required to 1) determine consistency of the ROW with the Monument or NCA’s objects and values, 2) consider routing or siting the ROW outside of the Monument or NCA, and 3) consider mitigation of the impacts from the ROW. If a ROW is granted, it must protect the values for which the National Conservation Lands unit was designated. If it is determined through the National Environmental Policy Act (NEPA) that the route for a project is through a National Conservation Lands unit, then impacts must be mitigated. There are concerns nationally, that granting a ROW through the BOPNCA will set an unfavorable precedent for other National Conservation Lands within the system.

PURPOSE AND MEMBERSHIP OF SUBCOMMITTEE

In November 2013, BLM Boise District Manager Jim Fincher asked Resource Advisory Council (RAC) Chairman, Gene Gray, to establish a subcommittee to examine options for resolving siting issues associated with Segments 8 and 9 of the Gateway West transmission line project.

¹ BLM Manual 6220 Section 1.6(E)(1)-(8)

² BLM Manual 6220 Section 1.6(E)(1)-(8)

Gene Gray appointed a subcommittee to initiate discussions on Gateway West Segments 8 and 9 in and near the BOPNCA, to identify any new information, issues, concerns or opportunities that had not been addressed in the environmental analysis, and to evaluate modifications to the alternatives analyzed in the FEIS (including additional route options). The subcommittee was asked to bring forward the information to the BLM Boise District RAC so that the RAC can make recommendations to the BLM Boise District.

Fincher also asked the subcommittee to evaluate the Companies' mitigation and enhancement portfolio for resources within the BOPNCA. A separate report of the subcommittee evaluation of the mitigation and enhancement portfolio accompanies this report.

The subcommittee members are as follows:

Co-chairs: Dr. Neil Rimbey and Karen Steenhof
Members: Gene Gray, Donna Bennett, John Chatburn, Rick Raymondi, Greg Nelson, and Betsy Buffington (John Robison, Ben Otto, and Danielle Murray have participated when Betsy could not attend)
BLM Advisors: Jim Stobaugh, Jim Fincher, Patricia Roller, Dave Murphy, Heather Feeney
Consultants: Scott Flinders, Aaron English, Suzy Cavanagh, Seth Baker, Melissa Thom
Technical
Advisors: Pam Anderson, Rod Fisher, Brian King, Doug Dockter, Stacey Baczkowski, Keith Georgeson, Mike Bracke.

HISTORY

Since its formation in December 2013, the RAC subcommittee held 11 meetings and one work session between December 5, 2013, and May 13, 2014. The Idaho Governor's Office of Energy Resources led two field tours in and around the BOPNCA. The BLM posted the meeting dates in the Federal Register and on the BLM Boise District website. A list of each subcommittee event and attendance is included in Appendix A.

More than 120 different individuals attended at least one of the subcommittee meetings. Fifteen of these were from the BLM, 11 represented the Companies, and 60 were members of the public. The number of people attending meetings ranged from 21 to 51 and averaged 32. The subcommittee heard 20 official presentations from Company staff and other experts. Twenty-two individuals provided public input at one or more meetings. Many of the public who attended meetings stated that they appreciated the process that the subcommittee was using to evaluate several route options in and around the BOPNCA. Several members of the public stated that they are against locating the 500-kV transmission line near dairies, irrigated/pivot agriculture, and residences. Most of the public comments received by the subcommittee were supportive of routes going through the BOPNCA with appropriate mitigation and enhancement.

GEOGRAPHIC SCOPE

At its first meeting the subcommittee agreed to focus on the portions of Segments 8 and 9 west of Nodes 8-01 (just north of Orchard) and 9-01 (just south of Bruneau Dunes State Park (Figure 1). The subcommittee learned that there had been few objections voiced about siting Segments 8 and 9 east of these points.

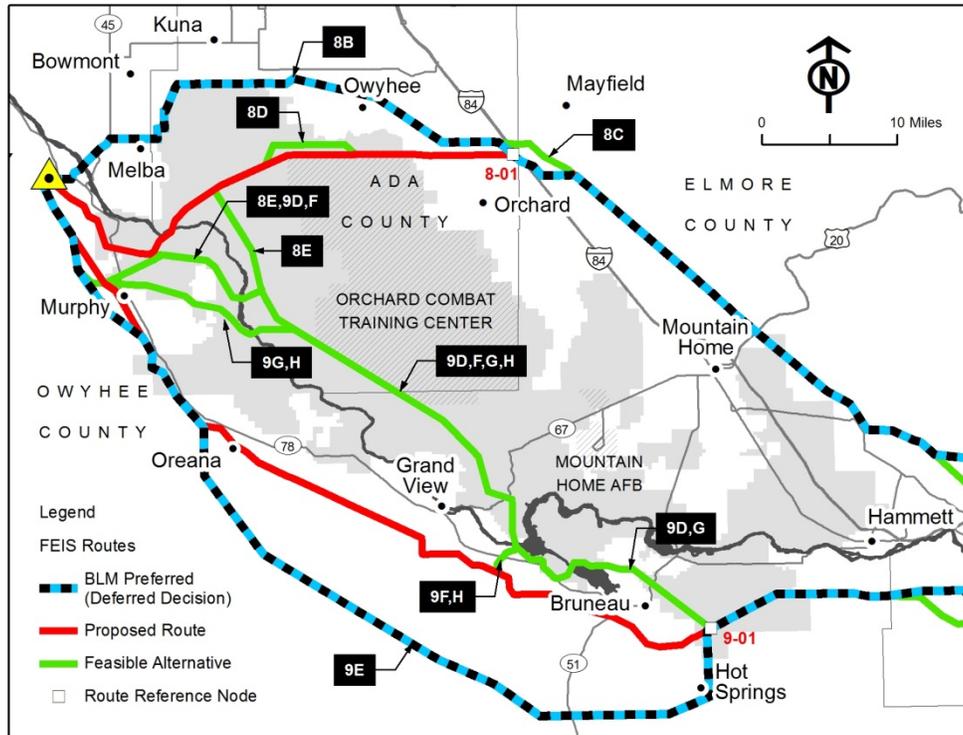


Figure 1. Overview map showing alternatives and nodes from the Final Environmental Impact Statement.

NEW INFORMATION

At the time the Gateway West FEIS was prepared, the Western Electricity Coordinating Council (WECC) recommended that high-voltage transmission lines be separated by at least “the longest span length of the two transmission circuits at the point of separation or 500 feet, whichever is greater, between the transmission circuits³. For GWW, the longest span length was assumed to be 1,500 feet, thereby dictating the minimum distance between existing and proposed transmission lines serving the same load” (BLM 2013b).

The regional transmission planning criteria and guidelines were derived from planning standards developed by the North American Electric Reliability Council and were designed to reduce the risk of:

- a tower falling into an adjacent line
- a snagged shield wire dragged into adjacent line
- an aircraft flying into more than one circuit
- fire, smoke, or dust shorting more than one circuit
- lightning strikes affecting more than one line

³ This recommendation is from the April 18, 2008 approved regional transmission planning criterion (TPL [001-004]-WECC-1-CR).

In December 2011, WECC and the WECC Board of Directors relaxed its regional transmission planning criterion to a minimum of 250 feet from an existing line (BLM 2013b). This change became effective in April 2012. The separation of transmission lines within a common corridor or lines serving the same load is measured between the center lines of the transmission lines. This change in the definition of common corridors provides an opportunity to construct new transmission lines in closer proximity to existing lines and thereby reduce the amount of road construction and visual impacts.

The subcommittee also learned that it would be feasible for Idaho Power to “double circuit” portions of a new 500-kV transmission line with existing 138-kV transmission lines along Baja Road and in the C J Strike Reservoir areas. Co-locating the 500-kV and 138-kV lines on the same structures (double-circuiting) would reduce the physical and visual footprint of new lines.

ROUTING EVALUATION CONSIDERATIONS

Resources and Values

The RAC subcommittee set a goal of identifying routes that had the least possible impact on the least number of people and resources. The subcommittee listed the following resources and values to be considered in their analysis (in no particular order).

- Raptors
- Greater sage-grouse
- Other wildlife
- Vegetation
- National Historic Trails
- Cultural resources
- Visual resources
- Private land
 - residences/sub-divisions
 - irrigated/pivot agriculture
 - feedlots/dairy operations
- Economics
- Recreation
- Unroaded areas
- National Conservation Lands/BOPNCA
- Saylor Creek Training Range
- Orchard Combat Training Center (OCTC)
- State lands
- State, county, and other parks
- Existing energy facilities
- Wetlands/riparian areas

Snake River Crossings

The subcommittee recognized that many of these resources tend to be richest near the Snake River and within the canyon. We identified river crossings as potential bottlenecks and decided to address those as the first stage in our evaluation of potential routes (Figure 2).

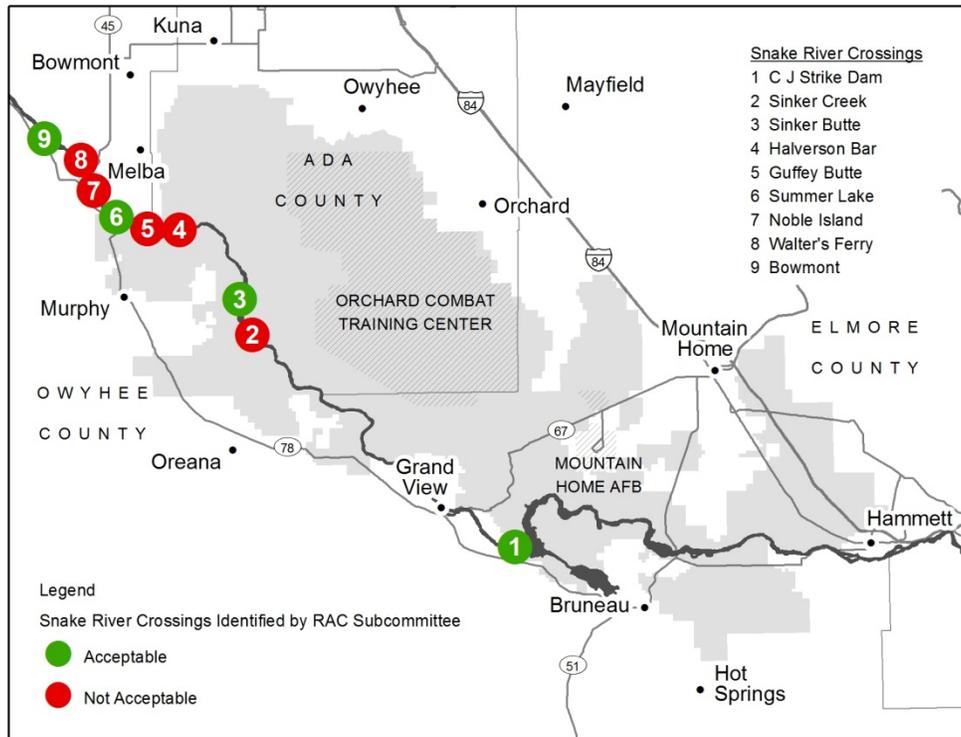


Figure 2. Map of Snake River crossings considered by the subcommittee.

The subcommittee used Snake River crossing locations as a reference point for discussion of potential routes through and north of the BOPNCA. The subcommittee evaluated 10 potential crossings of the Snake River and categorized them as acceptable or unacceptable to the subcommittee based on the number and extent of conflicts with resources. We narrowed the number of acceptable crossings to four. All four acceptable crossings are at locations where transmission lines already cross the Snake River. Below is a list of potential Snake River crossings arranged in order from upstream to downstream, as named by the subcommittee.

1) **C.J. Strike Dam Crossing** – Acceptable

This route would cross the Snake River near C.J. Strike Dam in close proximity to existing transmission lines.

2) **Sinker Creek Crossing** – Not Acceptable

This route would cross both the Snake River and Sinker Creek, affect undeveloped riparian areas and would have a high potential for negative ecological impacts. Compared to many other places in the BOPNCA, this location is relatively remote and very scenic and provides unique opportunities for solitude.

3) **Sinker Butte Crossing** – Acceptable

This route would cross the river parallel to an existing 138-kV transmission line south of Swan Falls Dam. Idaho Power determined that both Segments 8 and 9 could cross at this location with 250 feet separation. However, the subcommittee thinks it would be acceptable for only one additional line to cross in this location.

4) **Halverson Bar Crossing** – Not Acceptable

This route would be located near Celebration County Park and through Halverson Bar, which is an area with non-motorized and scenic classifications, and is within close proximity to several residences on the west side of the Snake River. The Halverson Bar area contains extensive cultural resources. Additionally, the crossing would require towers within the canyon.

5) **Guffey Butte Crossing** – Not Acceptable

This route would be located near Celebration County Park and could interfere with irrigated/pivot agriculture. It is also within close proximity to several residences on the west side of the Snake River.

6) **Summer Lake Crossing** – Acceptable

The route would cross the Snake River near the existing 500-kV Summer Lake transmission line owned by PacifiCorp (formerly Pacific Power & Light, or PP&L) south of Noble Island.

7) **Noble Island Crossing** – Not Acceptable

The route would cross the Snake River at the north end of Noble Island which would require a tower on Noble Island. It would also be located near residences on the south side of the river.

8) **Walter's Ferry Crossing** – Not Acceptable

This route would cross private property, irrigated/pivot agriculture, and areas with cultural resources. It is also within the viewshed of a scenic byway.

9) **Bowmont Crossing** – Acceptable

This route would run parallel to the existing 230-kV Bowmont to Hemingway line that was constructed by Idaho Power in 2010.

ROUTE OPTIONS

The subcommittee worked with the Companies on several design and routing possibilities and evaluated 12 route options for Segment 8 and 14 route options for Segment 9; both new and existing routes for Segments 8 and 9 were considered.

A matrix was developed to quantify resource constraints and features associated with each route; the matrix is included in Appendix B.

A description of each route option considered, including the route details, an inset map, and a route summary, is included in Appendix C.

Maps displaying each route option are included in Appendix D.

Tables 1 and 2 below provide the total length of each route option and the miles of each route option that occur inside the BOPNCA and outside the BOPNCA.

Table 1. Total Mileage for Segment 8 Route Options (from the nodes to the Hemingway substation) Within and Outside of the Morley Nelson Snake River Birds of Prey National Conservation Area.

Route	Total Length	Inside BOPNCA	Outside BOPNCA
Segment 8 (Node 8-01 to Hemingway)			
Applicant Proposed (Appendix D-1) ⁴	40.0	27.8	12.2
Bowmont North (Appendix D-2)	42.5	8.6	33.9
Bowmont South (Appendix D-3)	44.3	20.2	24.1
King Hill-Mayfield Variation (Appendix D-4)	52.2	1.7	50.5
Kuna-Melba (FEIS Alt 8B) (Appendix D-5) ⁵	40.7	-	40.7
Melmont Option 1 (Appendix D-6)	41.5	9.8	31.7
Melmont Option 2 (Appendix D-7)	41.4	9.9	31.5
OCTC Alpha Sector Bypass (FEIS Alt 8D) (Appendix D-8)	8.1	7.9	0.2
Sinker Butte (Appendix D-9)	52.6	40.2	12.4
Summer Lake Option 1 (Appendix D-10) ⁶	38.0	22.9	15.1
Summer Lake Option 2 (Appendix D-11)	36.8	22.7	14.1
Draft Portfolio Proposed Route (Appendix D-25)	52.8	40.2	12.6

⁴ Applicants' Proposed Route

⁵ BLM Preferred Alternative from FEIS

⁶ Subcommittee's recommended route for Segment 8

Table 2. Total Mileage for Segment 9 Route Options (from the nodes to the Hemingway substation) Within and Outside of the Morley Nelson Snake River Birds of Prey National Conservation Area.

Route	Total Length	Inside BOPNCA	Outside BOPNCA
Segment 9 (Node 09-01 to Hemingway)			
Applicant Proposed (Appendix D-1) ⁷	66.6	6.1	60.5
Baja Road – Murphy Flat North Option 1 (Appendix D-2)	67.4	57.4	10.0
Baja Road – Murphy Flat North Option 2 (Appendix D-3)	69.6	55.7	13.9
Baja Road – Murphy Flat North Option 3 (Appendix D-4)	67.5	57.4	10.1
Baja Road – Murphy Flat South (Appendix D-5) ⁸	68.5	53.8	14.7
Baja Road – Sinker Creek (Appendix D-6)	67.0	52.3	14.7
Baja Road – Summer Lake (Appendix D-7)	68.7	57.6	11.1
Bruneau South Variation (FEIS Alt 9H) (Appendix D-8)	21.2	1.4	19.8
Cove Variation (FEIS Alt 9D) (Appendix D-9)	6.3	6.0	0.3
Glenn’s Ferry – Mayfield (Appendix D-10)	75.2	2.0	73.2
Owyhee Uplands (DIES Alt 9E) (Appendix D-10)	78.2	2.7	75.5
Owyhee Uplands (FEIS Alt 9E) (Appendix D-12) ⁹	75.9	6.3	69.5
Sinker Creek Variation (Appendix D-13)	15.4	0.2	15.2
Draft Portfolio Proposed Route (Appendix D-26)	67.2	53.1	14.1

CONCLUSIONS

The majority of the subcommittee members concluded that routes that sought to circumvent the BOPNCA had more impacts on communities, resources and values, and private landowners than routes that traversed the BOPNCA. Seven of 8 subcommittee members concluded that routes with the least amount of impact on resources and people would follow existing transmission line infrastructure within the BOPNCA. By replacing or closely following existing power lines, new visual impacts would be reduced and the amount of new roads required would be minimal both within and outside the BOPNCA. New transmission lines should have no adverse effects on raptors, and if properly designed, they could enhance some raptor populations, particularly ferruginous hawks (Steenhof et al. 1993). This approach would be consistent with directives in BLM Manual 6220 Section E that new ROWs authorized within National Conservation Lands should “share, parallel, or adjoin existing ROWs.”

The majority of the subcommittee concluded that the best route for Segment 8 is Summer Lake Option 1. The route option would parallel the PacifiCorp Summer Lake 500-kV transmission line

⁷ Applicants’ Proposed Route

⁸ Subcommittee recommended route for Segment 9

⁹ BLM Preferred Alternative from FEIS

across the BOPNCA (Figure 3). The updated WECC separation criteria would allow the new transmission line to be 250 feet from the existing line. Therefore, this route should minimize vegetation disturbance by reducing the amount of new access roads within the BOPNCA and elsewhere that would need to be constructed and maintained. The Companies plan to use existing roads near and beneath the existing 500-kV transmission line to minimize the overall disturbance footprint of the new line. Rather than constructing a completely new access road network for the Summer Lake Option 1 route, they would use short spur roads from existing roads to provide access to new towers. This route would minimize impacts on communities and private property in the Kuna and Melba areas of Ada, Canyon, and Owyhee Counties and would avoid critical habitat for slickspot peppergrass (*Lepidium papilliferum* [LEPA]). This route was modified to minimize impacts to the OCTC Alpha Sector and adjacent private property. For a detailed description of Summer Lake Option 1 see Appendix C.

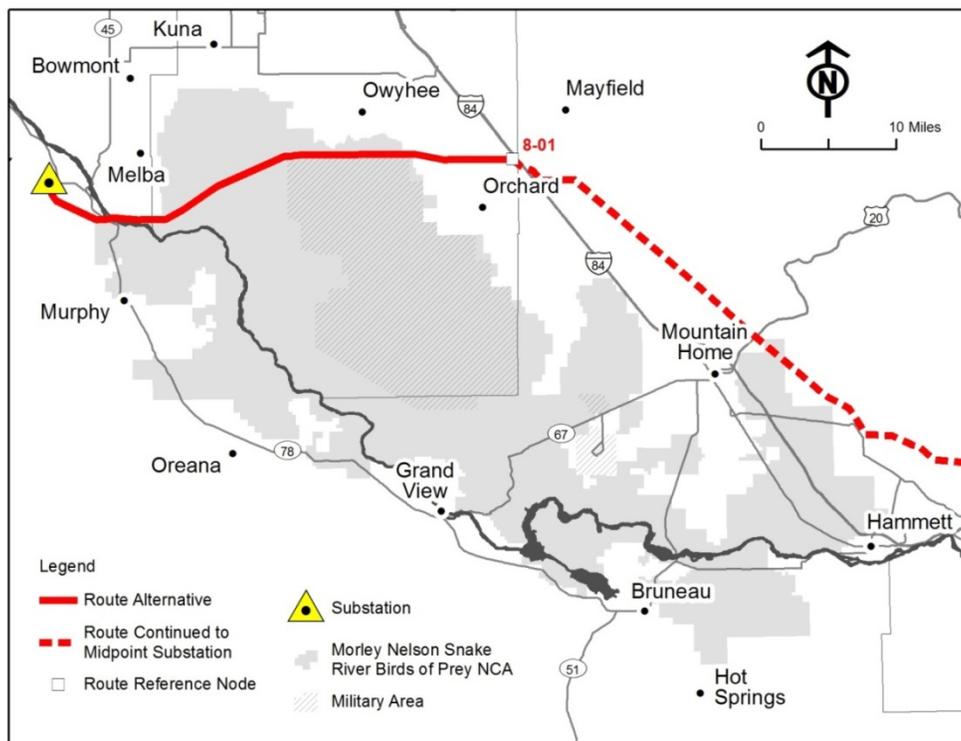


Figure 3. Summer Lake Option 1.

The majority of subcommittee members concluded that the best route for Segment 9 is Baja Road-Murphy Flat South (Figure 4). This option would double circuit the new 500-kV line with existing 138-kV lines for most of the distance through the BOPNCA. The new line would incorporate and replace existing 138-kV lines near C. J. Strike Reservoir in Owyhee County and along Baja Road on public land in Ada and Elmore counties. The line would cross the Snake River near C.J. Strike Dam and above Swan Falls, near Sinker Butte, where an existing 138-kV transmission line crosses the Snake River. The new 500-kV line would traverse public land on Murphy Flat, avoiding historic Oregon Trail ruts. It would cross Highway 78 near the Rabbit Creek Trailhead, and continue north to the Hemingway Substation, outside of preliminary priority sage-grouse habitat and mainly out of view from most subdivisions in Owyhee County. The advantages of this route are that it would: 1) minimize impacts on communities and private

property in Owyhee County, 2) minimize the amount of new road that would need to be constructed and maintained within the BOPNCA and in unroaded areas in Owyhee County; and 3) minimize the construction of transmission towers and roads near Greater sage-grouse leks, and within Greater sage-grouse habitat. For a detailed description of Baja Road-Murphy Flat South, see Appendix C.

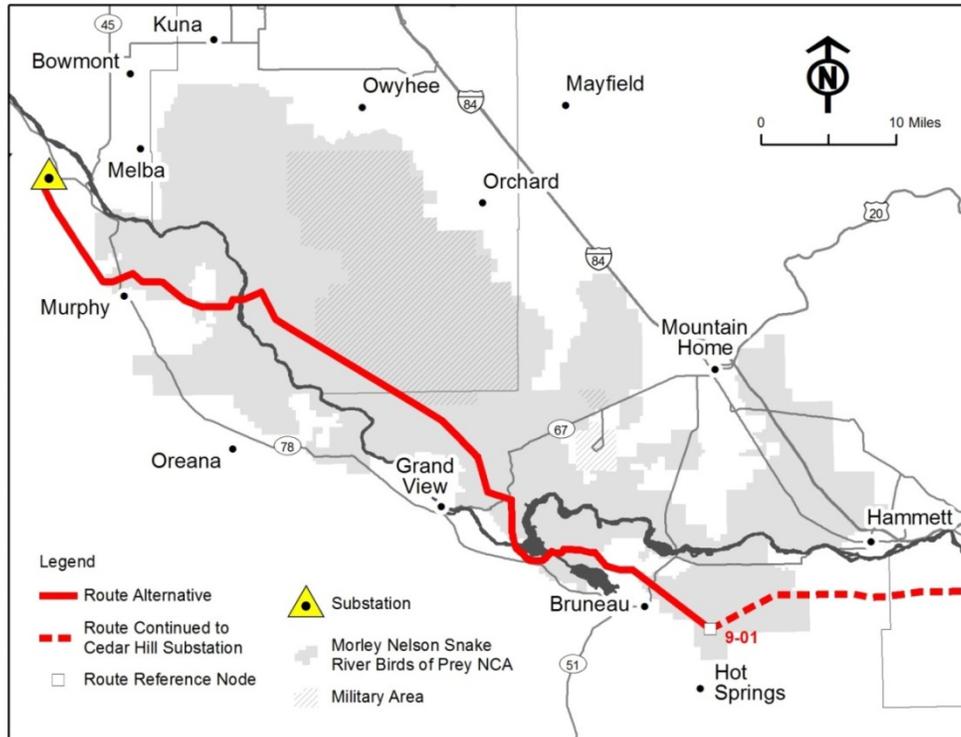


Figure 4. Baja Road-Murphy Flat South.

The subcommittee is aware of and sensitive to concerns that siting new transmission lines within the BOPNCA might set precedents for other National Conservation Lands. We find that the BOPNCA is unique among National Conservation Lands in that the habitat has been seriously degraded by a history of wildfires and a proliferation of invasive species. There was already a great deal of infrastructure within its boundaries at the time it was designated. Scientific research conducted within the BOPNCA indicated that this infrastructure has been compatible with the resources for which the BOPNCA was designated, and some raptor populations may benefit if new transmission towers are designed to provide nesting and perching sites. The subcommittee reviewed the requirements in manuals developed pursuant to Public Law 111-11, and evaluated a comprehensive set of routing options both inside and outside the BOPNCA in developing this report. We recognize the need to mitigate and enhance the BOPNCA, based upon the potential impacts of line siting within the area. Our evaluation of the mitigation and enhancement proposal from the Companies is included in the accompanying document.

Minority Conclusion

Danielle Murray, Policy Director of the Conservation Lands Foundation, comprised the minority. The minority commends the subcommittee on conducting a collaborative and open process and

for all of the time and energy they have dedicated to resolving this issue. However, the minority must respectfully ask the RAC to consider the subcommittee report and make a recommendation absent the majorities' recommendations of specific routes. The minority believes the majority recommendation is inconsistent with legal requirements for protecting the BOPNCA and BLM policy.

NEPA – The minority does not endorse, recommend or agree with ranking the proposed routes for segments 8 and 9 both within and beyond the BOPNCA borders. The subcommittee was formed to identify “opportunities that BLM should consider” and the BLM directed the subcommittee to identify pros and cons of various routes and route options and not advocate for or recommend a particular route. In fact, the BLM must consider all the route options submitted by the subcommittee. The BLM cannot be biased towards an option or else the EIS would become “a foreordained formality” and not meet the requirements of NEPA. In order to fulfill the duties of the subcommittee and avoid any question of influence on the EIS process, the minority cannot advocate for or endorse a single route. Instead, the minority advises that the RAC adopt and endorse the subcommittee report without the conclusion submitted by the majority (above).

Legislation – The NCA contains the greatest concentration of nesting raptors in North America. Unfortunately, 325,000 acres—roughly two-thirds of the NCA’s critical habitat—has been lost to fire since 1979. Drought, fragmentation and off-road vehicle use also continues to threaten the NCA.

The BOPNCA, part of the BLM’s National Conservation Lands, is a unique, fragile and highly damaged ecosystem. The BLM is tasked with conserving, protecting and restoring this nationally significant landscape for the benefit of current and future generations. To ensure its long-term protection, the BLM can only approve actions that will “protect, maintain and enhance” raptor populations, habitat and other purposes for which the NCA was established. Thus, the BLM shall not grant a right of way inside the NCA unless they can demonstrate that the power line enhances cultural and educational resources. There will be inevitable negative effects from constructing the ROW within the BOPNCA on multiple resources, including soil, vegetation, wildlife and visitor experiences.

BLM Policy – As cited in the introduction, policy states that the BLM, “to the greatest extent possible, subject to applicable law, avoid granting new ROWs in Monuments and NCAs and similar designations.” The subcommittee has identified a dozen or so viable routes and segments of routes that could be pieced together to meet the proponents needs that are outside the NCA. The majority recommends siting a line inside the NCA by concluding that other routes have impacts the majority deems undesirable. However, these lines are viable options.

Although the minority appreciates the majority’s interest in ranking certain routes over others, the BLM needs to assess all viable routes, both within and primarily outside the BOPNCA. The BLM should consider all the information provided in subcommittee report with the exception of the ranking presented in the majority conclusion.

REFERENCES

Bureau of Land Management. (2013a). *Record of Decision for the Gateway West Transmission Line Project*. Wyoming State Office: November 12, 2013.

_____. (2013b). *Final Environmental Impact Statement for the Gateway West Transmission Line Project*. Wyoming State Office: April 26, 2013.

Steenhof, K., M.N. Kochert, and J.A. Roppe. 1993. Nesting by raptors and ravens on an electrical transmission line. *Journal of Wildlife Management* 57: 271-281.

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APPENDIX C

RAC Subcommittee Route Options Considered

May 30, 2014

During route option discussions, the subcommittee assigned names to routes options using references to geographic locations. Maps are inset to each route description below and shown in more detail in Appendix D (RAC Subcommittee Route Option Maps).

SEGMENT 8 ROUTE OPTIONS

Applicant Proposed (Appendix D-1)

This is the original Applicant Proposed Route analyzed in detail in the FEIS. This route would use a Snake River crossing south of Halverson Bar/Wees Bar that the subcommittee does not think is an acceptable option. The approach for the crossing runs near Celebration County Park and through Halverson Bar, which is an area with non-motorized and scenic classifications. Additionally, the crossing would require towers within the Snake River canyon.

Route Details

This route option is the original alignment proposed by the Companies in the final environmental impact statement (FEIS) (Figure C-1). The alignment generally parallels 1,500 feet south of the existing Summer Lake 500-kV transmission for 25 miles across the Morley Nelson Snake River Birds of Prey National Conservation Area (BOPNCA), and crosses the Orchard Combat Training Center (OCTC) and the OCTC tank maneuver Alpha Sector for 9.1 miles and 4 miles, respectively. The alignment crosses Swan Fall Road in the BOPNCA at MP 22.2, still 1,500 feet south of and parallel to the existing Summer Lake 500-kV line, and crosses the existing Bowmont to Canyon Creek 138-kV transmission line at milepost (MP) 22.7. At MP 25.2 the alignment turns southwest and crosses the Snake River canyon between MP 26.4 and 27.3 at the culturally sensitive Halverson and Wees Bar non-motorized areas. The alignment continues southwest into the Con Shea Basin of Owyhee County for approximately 2.5 miles before turning in a westerly direction around the southern face of Guffey Butte. At MP 33, the alignment joins the west-wide energy corridor, and generally follows it the remaining 7 miles into the Hemingway substation, crossing the existing Summer Lake 500-kV line at MP 36.2.

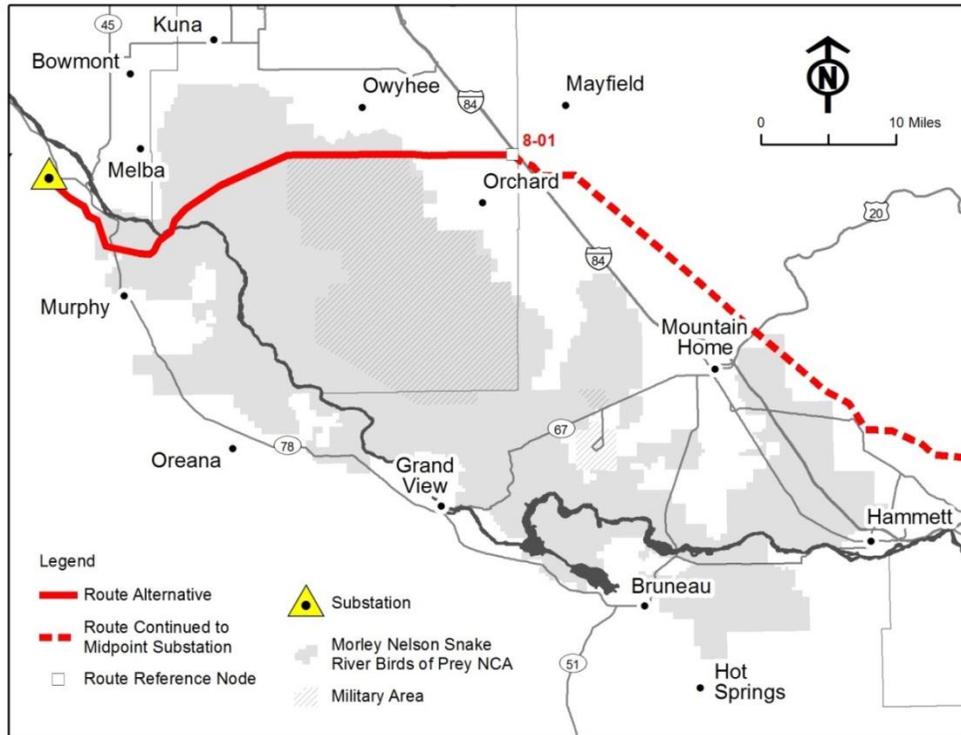


Figure C-1. Applicant Proposed.

Route Detail Summary

- 40.0 miles long, 27.8 miles in BOPNCA
- 1,500 foot offset south of existing Summer Lake 500-kV line
- Crosses 1,500 feet into OCTC for 9.1 miles, including 4.0 miles in the Alpha Sector maneuver area
- Crosses Halverson and Wees Bar non-motorized areas, extensive cultural resources present
- Crosses 1.7 miles of private property
- Crosses 9 private parcels
- Within ¼ mile of 25 residences
- Within 1 mile of 158 residences
- Crosses 0.6 miles of irrigated agriculture
- Within ¼ mile of 1 feedlots/dairies
- Crosses 13.8 miles of slickspot peppergrass (*lepidium papilliferum* [LEPA]) habitat
- Crosses 25.3 miles of shrubs
- Low existing road density (1.9 miles/square mile)
- Non-acceptable crossing of Snake River

Sub-committee comments: The Halverson/Wees Bar area is an undeveloped area that represents significant opportunities for solitude and primitive recreation. The Snake River crossing at Halverson/Wees Bar is not acceptable due to impacts to raptors, scenic resources, non-motorized activities, and extensive cultural resources in area.

BOWMONT NORTH (APPENDIX D-2)

This route option was recommended to follow existing infrastructure across part of the BOPNCA and much of Canyon County. The option would parallel or double-circuit with the existing Idaho Power Company Hemingway to Bowmont 230-kV line, and the existing Bowmont to Mora 138-kV line. The route would cross the Snake River at the existing Bowmont 230-kV crossing. This option would have many private property impacts to large dairies and residences.

Route Details

This route option follows the same alignment as the Kuna-Melba (FEIS Alt 8B) route for the first 10.7 miles before turning west, north of the community of Owyhee. At MP 18, the route crosses the northern part of the BOPNCA, mainly on private in-holdings, and partly on a greenfield (not previously developed) alignment, for approximately 8.5 miles. The route option also crosses approximately 2.4 miles of the southern Kuna municipal impact area. At MP 25, the alignment would double-circuit with the existing Bowmont to Mora 138-kV transmission line along Kuna Cave Road for approximately 4 miles. The alignment crosses extensive irrigated (including pivot irrigation) agriculture, and is within close proximity to several dozen residences and feed lots in Canyon County north of Melba. The alignment generally parallels 200 feet south and east of the existing Hemingway to Bowmont 230-kV double-circuit transmission line (the existing line is currently a single-circuit, but is planned for a double-circuit expansion by Idaho Power) west for approximately 9 miles from Powers Butte along Big Foot Road, and then south along Rim Road, before crossing the Snake River near MP 39. The alignment continues to parallel the existing Bowmont to Mora 138-kV line south adjacent to SR 78 for approximately 3.5 miles into the Hemingway substation.

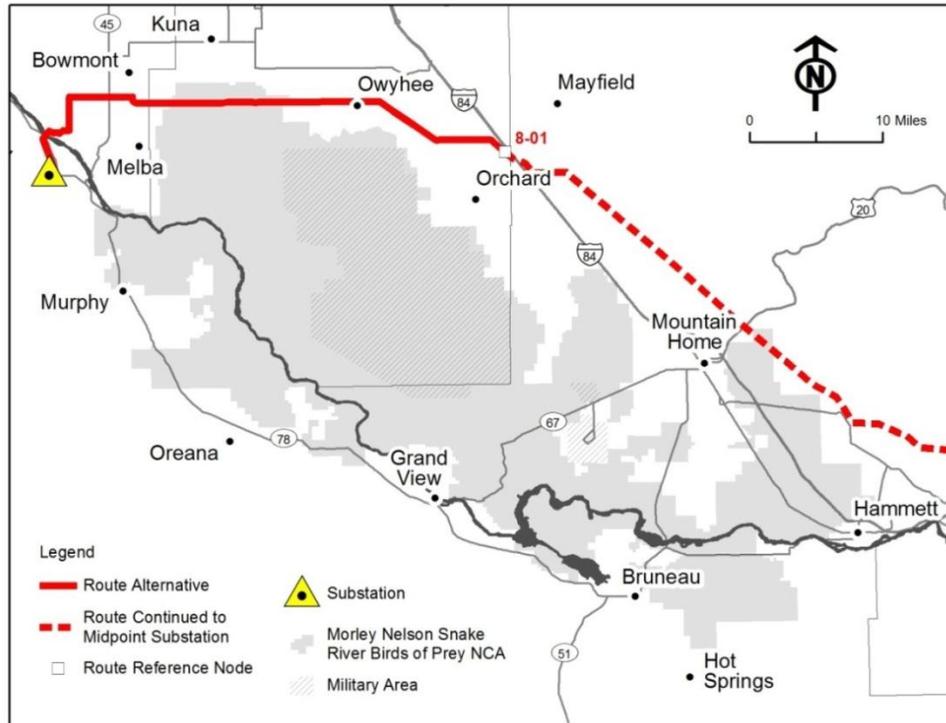


Figure C-2. Bowmont North.

Route Detail Summary

- 42.5 miles long, 8.6 miles in BOPNCA
- Double-circuit with existing 138-kV line along Kuna Cave Road
- Parallels existing 230-kV line (200 foot separation) across Ada and Canyon County north of Melba
- Parallels or double-circuit existing transmission lines for 23.7 miles, 4.2 miles in BOPNCA
- Crosses 23.7 miles of private property
- Crosses 81 non-federal parcels
- Within ¼ mile of 77 residences
- Within 1 mile of 299 residences
- Within 1 mile of Kuna limits, crosses 2.4 miles of Kuna municipal impact area
- Crosses 8.7 miles of irrigated agriculture
- Crosses 13 pivots
- Crosses 1 feedlot/dairy
- Within ¼ mile of 12 feedlots/dairies
- Crosses 9.2 miles of LEPA habitat, including 1.5 miles of critical habitat
- Crosses 9.1 miles of shrubs
- Acceptable crossing of Snake River

Sub-committee comments: There would be extensive private property impacts, particularly feedlots/dairies, irrigated agriculture, and residences.

Bowmont South (Appendix D-3)

This route option was recommended to follow existing infrastructure across parts of the BOPNCA and much of Canyon County. The option would parallel the existing PacifiCorp Summer Lake 500-kV line, before turning north to parallel or double-circuit with the existing Idaho Power Company Bowmont to Mora 138-kV line, and the Hemingway to Bowmont 230-kV line. The route would cross the Snake River at the existing Bowmont 230-kV crossing. This option would have many private property impacts to large dairies and residences.

Route Details

This route option initially follows the same alignment as the Summer Lake Option 1 route (see above) for approximately 17 miles, crossing the BOPNCA adjacent to the existing Summer Lake 500-kV transmission for 9 miles. However, instead of turning southwest to continue to parallel the existing Summer Lake 500-kV transmission line, the route turns generally north for 4 miles on a greenfield alignment across the BOPNCA to join the alignment for the Bowmont North route (see above). The Bowmont South route then follows the same alignment as the Bowmont North route along Kuna Cave Road, Big Foot Road, and Rim Road, the remaining 22 miles into the Hemingway substation.

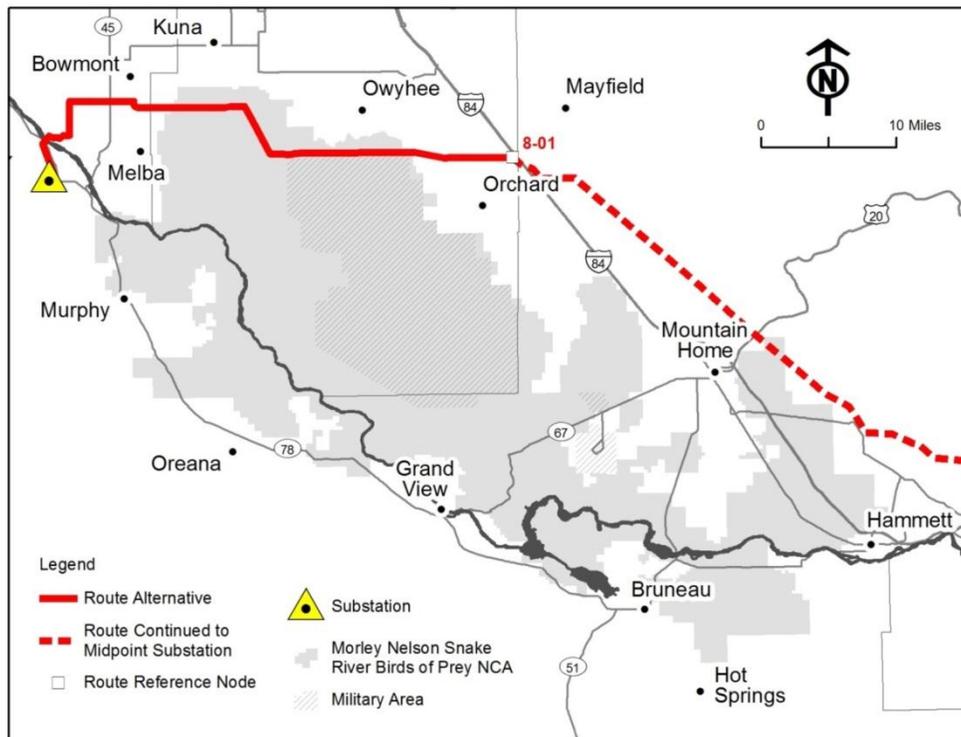


Figure C-3. Bowmont South.

Route Detail Summary

- 44.3 miles long, 20.2 miles in BOPNCA
- 250 foot separation north of existing Summer Lake 500-kV line
- Double-circuit with existing 138-kV line along Kuna Cave Road
- Parallels existing 230-kV line (200 foot separation) across Ada and Canyon County north of Melba
- Parallels or double-circuit existing transmission lines for 29.38 miles, 13.8 miles in BOPNCA
- Requires rebuild of existing Summer Lake 500-kV line (approximately 3,000 feet)
- Crosses 250 feet into OCTC Alpha Sector maneuver area for approximately 2,100 feet
- Crosses 20.5 miles of private property
- Crosses 61 private parcels
- Within ¼ mile of 75 residences
- Within 1 mile of 272 residences
- Within 1 mile of Kuna limits
- Crosses 8.4 miles of irrigated agriculture
- Crosses 16 pivots
- Crosses 1 feedlot/dairy
- Within ¼ mile of 11 feedlots/dairies
- Crosses 12.3 miles of LEPA habitat
- Crosses 14.3 miles of shrubs
- Acceptable crossing of Snake River

Sub-committee comments: There would be extensive private property impacts, particularly feedlots/dairies, irrigated agriculture, and residences.

King Hill-Mayfield Variation (Appendix D-4)

This variation was proposed as a potential single-corridor option for Segments 8 and 9 (see below for the Segment 9 Glenn's Ferry-Mayfield option) north of the BOPNCA. The alignment runs from the King Hill area to Mayfield, southeast of Boise, where it would join the other route options described for Segment 8. A single-corridor option does not meet the project's purpose and need.

Route Details

This route option was suggested as a single-corridor alignment for both Segment 8 and Segment 9 between the King Hill and Glenn's Ferry areas north to Mayfield. The alignment generally parallels 250 feet north of the existing Summer Lake 500-kV transmission line for much of its length in a single-corridor with the Segment 9 Glenn's Ferry-Mayfield route. Although this variation would eliminate the need for a southern route and associated impacts (see Segment 9 options), the single-corridor option does not meet the Proponents' purpose and need for the Project.

Sub-committee comments: Single-corridor of Segments 8 and 9 does not meet Proponents' purpose and need for Project.

Kuna-Melba (FEIS Alt 8B) (Appendix D-5)

This route option was analyzed in detail in the FEIS as Alternative 8B. This route would impact private property in Kuna and uses a Snake River crossing the subcommittee does not think is an acceptable option because it would affect cultural resources.

Route Details

The Kuna-Melba route was analyzed in detail in the FEIS as Alternative 8B. The route successfully avoids crossing the BOPNCA. The route option crosses irrigated agriculture, feed lots, and residences in the Kuna and Melba areas of Ada and Canyon County. The alignment heads in a northwesterly direction for approximately 17 miles, generally parallel to an existing 138-kV transmission line for 5 of those miles. At MP 17, the alignment turns west, crossing into the Kuna municipal impact area near MP 17.3 for approximately 9.2 miles, and across the Kuna city limits for approximately 5.2 miles. The alignment parallels the northern boundary of the BOPNCA, crossing Kuna Butte near MP 25, before turning south near the east side of Powers Butte. The alignment turns west near MP 31.2 along Melba Road and the northern edge of the Melba municipal impact area for approximately 3.5 miles, before turning southwest generally adjacent to SR 45, and crossing the Snake River between MP 37 and 38 approximately 1.25 miles downriver from Walter's Ferry. The alignment then continues west approximately 3 miles across irrigated agriculture and in close proximity to residences in Owyhee County into the Hemingway substation.

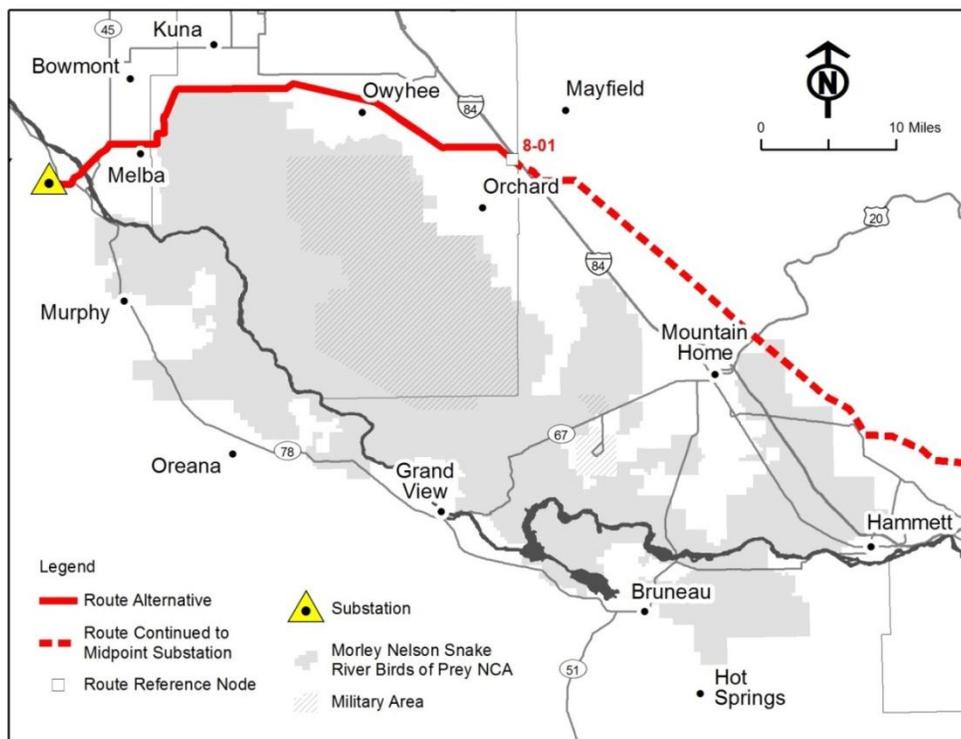


Figure C-5. Kuna-Melba (FEIS Alt 8B).

Route Detail Summary

- 40.7 miles long
- Avoids crossing BOPNCA
- Adjacent to existing transmission lines for approximately 6.6 miles
- Crosses 26.3 miles of private property
- Crosses 99 private parcels
- Within ¼ mile of 75 residences
- Within 1 mile of 511 residences
- Crosses Kuna city limits for 5.1 miles, and Kuna municipal impact area for 9.2 miles
- Crosses 8.9 miles of irrigated agriculture
- Crosses 10 pivots
- Within ¼ mile of 3 feedlots/dairies
- Crosses 19.0 miles of LEPA habitat, including 4.3 miles of critical habitat
- Crosses 7.4 miles of shrubs
- Non-acceptable crossing of Snake River

Sub-committee comments: Extensive private property impacts, particularly feedlots/dairies, irrigated agriculture, and residences; crosses Kuna city limits and municipal impact area.

Melmont Option 1 (Appendix D-6)

This option was proposed as a variant of the Bowmont options described above to avoid potential land use conflicts associated with paralleling or double-circuiting existing infrastructure. Part of this route would parallel the existing Idaho Power Company Hemingway to Bowmont 230-kV line. This option would have many private property impacts to large dairies and residences.

Route Details

The Melmont Option 1 route option follows the same alignment as the Kuna-Melba route for the first 9 miles, before turning west. At MP 17.6 the route enters the BOPNCA on a greenfield alignment for approximately 4.5 miles. At MP 20.2 the alignment turns northwest for approximately 1 mile, continues west an additional mile, and then southwest for another mile, to avoid an existing subdivision on a private in-holding within the BOPNCA south of Kuna. The alignment crosses Swan Falls Road at MP 23.4 before turning west approximately ½ mile south of Kuna Cave Road to minimize impacts to existing irrigated (pivot) agriculture, feed lots, and residences. The alignment continues west for 7.8 miles, leaving the BOPNCA at MP 27.5, adjacent to Melmont Road in Canyon County. At MP 31.5 the alignment turns south adjacent to SR 45 for 1.5 miles. At MP 33 the alignment turns west along the southern face of Hat Butte, and generally follows the quarter section line for 3 miles to minimize impacts to existing pivot irrigation. At MP 36 the route follows the same alignment as the Bowmont routes (see above) the remaining 5.5 miles into the Hemingway substation, crossing the Snake River near MP 38.

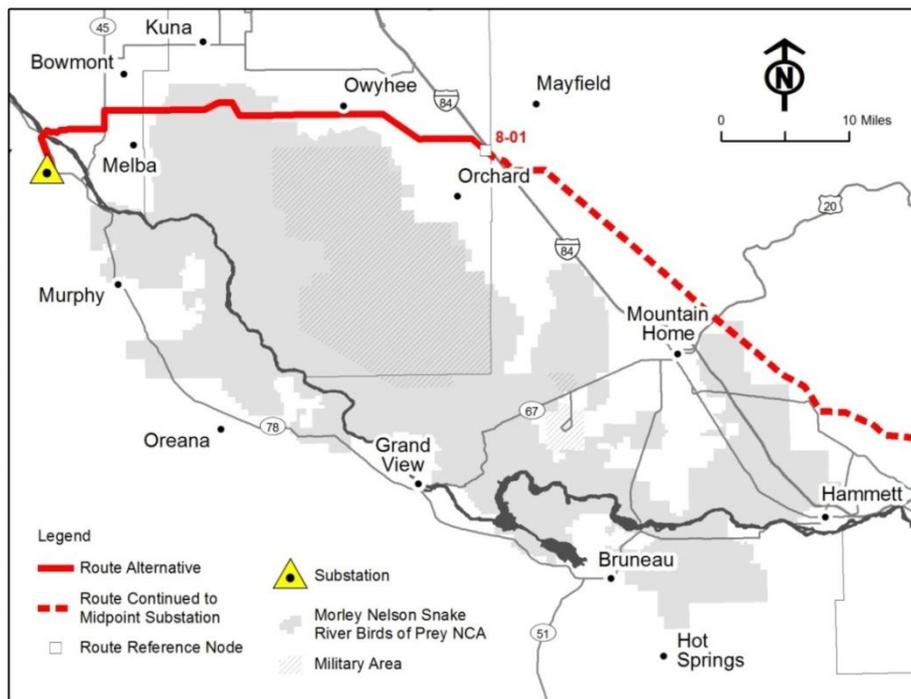


Figure C-6. Melmont Option 1.

Route Detail Summary

- 41.5 miles long, 9.8 miles in BOPNCA
- Parallels or double-circuit existing transmission lines for 8.0 miles
- Crosses 19.3 miles of private property
- Crosses 56 private parcels
- Within ¼ mile of 59 residences
- Within 1 mile of 263 residences
- Within 1 mile of Kuna limits
- Crosses 6.1 miles of irrigated agriculture
- Crosses 6 pivots
- Within ¼ mile of 3 feedlots/dairies
- Crosses 11.8 miles of LEPA habitat, including 2.2 miles of critical habitat
- Crosses 13.2 miles of shrubs
- Acceptable crossing of Snake River

Sub-committee comments: There are still extensive private property impacts, particularly feedlots/dairies, irrigated agriculture, and residences.

Melmont Option 2 (Appendix D-7)

This option was proposed as a variant of the Bowmont options described above to avoid potential land use conflicts associated with paralleling or double-circuiting existing infrastructure. This option shifts ½ mile south and east of the Melmont Option 1 described above for several miles to avoid heavier residential development along Melmont Road and SR 45. Part of this route would parallel the existing Idaho Power Company Hemingway to Bowmont 230-kV line. This option would have many private property impacts to large dairies and residences.

Route Details

The Melmont Option 2 route option generally follows the same alignment as the Melmont Option 1 route described above. However, between MP 27.2 and 32.8 the alignment shifts ¼ mile south and east of Melmont Road and SR 45 in order to minimize impacts to residential development along the arterials.

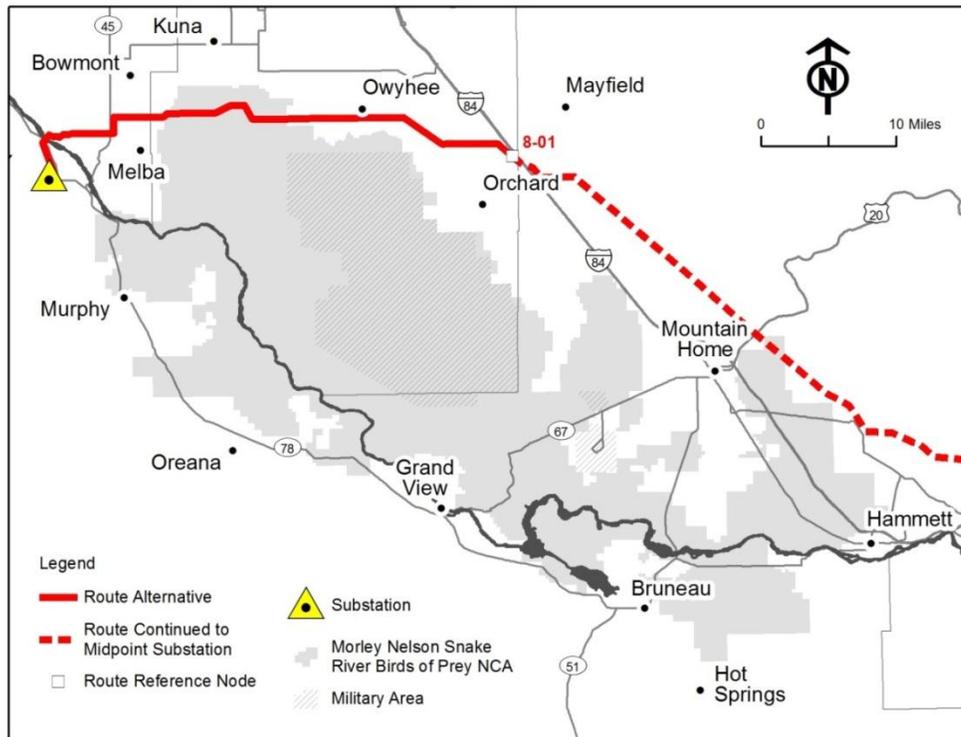


Figure C-7. Melmont Option 2.

Route Detail Summary

- 41.4 miles long, 9.9 miles in BOPNCA
- Parallels or double-circuit existing transmission lines for 8.0 miles
- Crosses 19.1 miles of private property
- Crosses 60 private parcels
- Within ¼ mile of 47 residences
- Within 1 mile of 247 residences
- Within 1 mile of Kuna limits
- Crosses 7.8 miles of irrigated agriculture
- Crosses 9 pivots
- Within ¼ mile of 3 feedlots/dairies
- Crosses 12.1 miles of LEPA habitat, including 2.2 miles of critical habitat
- Crosses 13.4 miles of shrubs
- Acceptable crossing of Snake River

Sub-committee comments: While this route was developed as an option to the Bowmont variations, there are still extensive private property impacts, particularly feedlots/dairies, irrigated agriculture, and residences.

OCTC Alpha Sector Variation (FEIS Alt 8D) (Appendix D-8)

This route option was analyzed in detail in the FEIS as Alternative 8D. This route option avoids crossing the OCTC Alpha Sector. This route would impact private property pivot irrigation systems.

Route Details

Alternative 8D was analyzed in detail in the FEIS. This variation deviates north from Applicant Proposed alternative approximately one-mile to avoid crossing Alpha Sector of OCTC, and to minimize impacts to pivot irrigation on private property.

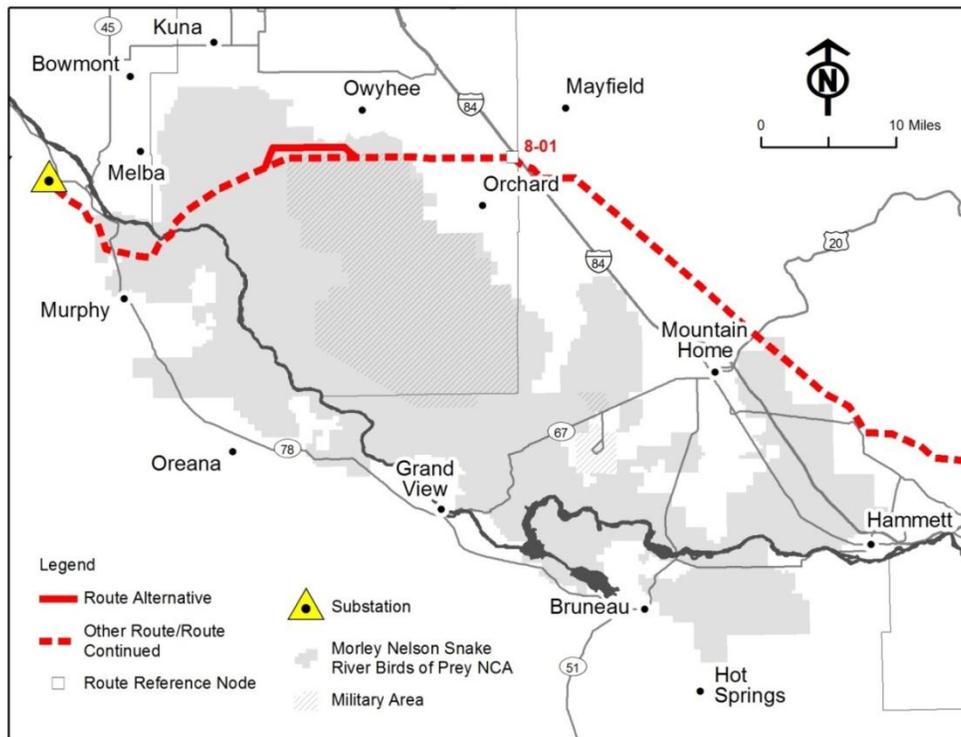


Figure C-8. OCTC Alpha Sector Variation (FEIS Alt 8D).

Route Detail Summary

- 8.1 miles long, 7.9 miles in BOPNCA
- Requires rebuild of existing Summer Lake 500-kV line, approximately 6.5 miles
- Avoids crossing OCTC Alpha Sector maneuver area
- Crosses 4.2 miles of private property
- Crosses 13 non-federal parcels
- Within ¼ mile of 2 residences
- Within 1 mile of 5 residences
- Crosses 1.5 miles of irrigated agriculture
- Crosses 9 pivots
- Within ¼ mile of 2 feedlots/dairies
- Crosses 1.0 mile of LEPA habitat
- Crosses 1.9 miles of shrubs

Sub-committee comments: Alignment may not be necessary with modified alignment to Summer Lake Option, 250 feet north of OCTC.

Sinker Butte (Appendix D-9)

This route option was analyzed in detail in the FEIS as Alternative 8E. The route may result in three transmission lines (the existing Sinker Creek to tap 138-kV line, Segment 8 option, and Segment 9 option) crossing the Snake River at Sinker Butte. The subcommittee prefers this crossing for a Segment 9 route option (see Murphy Flat South below), and thinks that three line crossings is unacceptable because it may increase the potential for avian collisions with the lines.

Route Detail

This route option is a modified alignment for Alternative 8E analyzed in detail in the FEIS. The route follows the same alignment as the Summer Lake Option 1 route (see above) for 22.9 miles. After crossing Swan Falls Road at MP 22.2, the alignment turns south in a new double-circuit alignment with the existing Bowmont to Canyon Creek 138-kV transmission line, off-set from the current ROW approximately 125 feet to the east. This double-circuit alignment continues south approximately 8.5 miles, crossing or adjacent to Swan Falls Road, and past the Dedication Point Overlook, and the turn-off to Swan Falls Dam. Southeast of Swan Falls Dam (MP 31.7) the two circuits separate before crossing the Snake River canyon between MP 33 and 33.5 near the existing Sinker Creek to Tap 138-kV transmission line crossing south of Sinker Butte. On the west side of the canyon, the alignment turns northwest for approximately 3 miles along the western face of Sinker Butte, before turning west. At MP 41.5 the route descends the Murphy Rim and crosses the upper part of the Con Shea Basin south of Guffey Butte. At MP 44 and 45 the alignment passes between several existing subdivisions before turning northwest generally following the west-wide energy corridor on public land for the remaining 7.5 miles into the Hemingway substation. This route shares a common alignment with the Segment 9 Baja Road-Summer Lake route (see below); they cannot be used in conjunction.

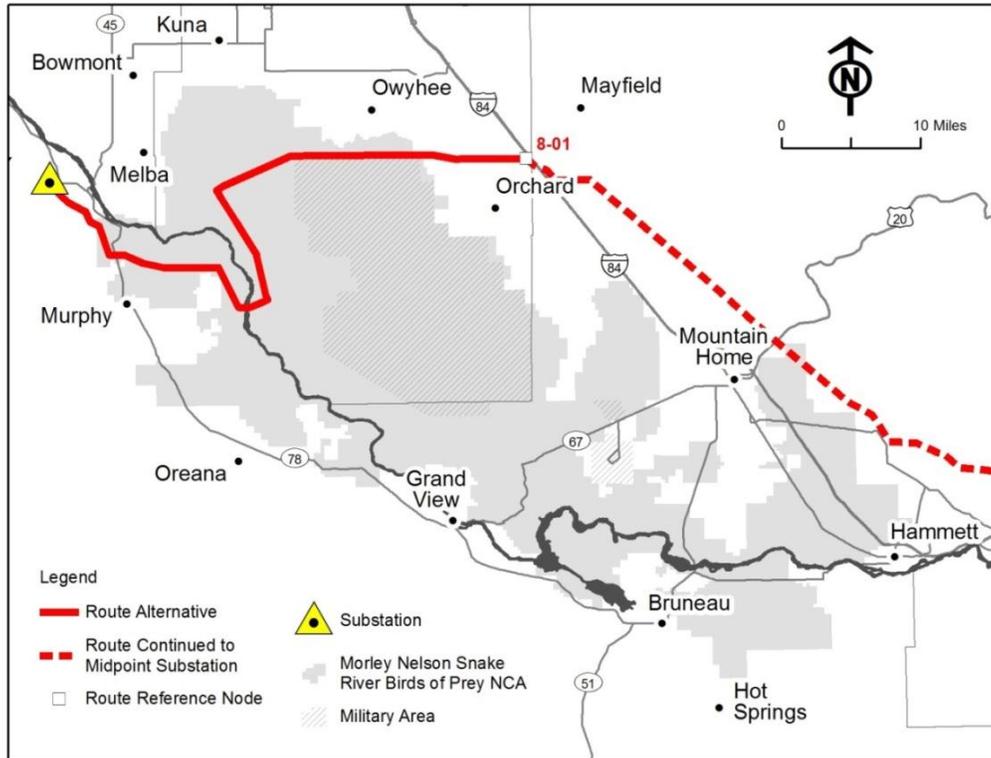


Figure C-9. Sinkers Butte

Route Detail Summary

- 52.6 miles long, 40.2 in BOPNCA
- 250 foot offset south of existing Summer Lake 500-kV line
- Double-circuit with existing 138-kV line
- Parallels or double-circuit existing transmission lines for 25.4 miles, 24.4 miles in BOPNCA
- Requires rebuild of existing Summer Lake 500-kV line (approximately 3,000 feet)
- Crosses 250 feet into OCTC Alpha Sector maneuver area for approximately 2,100 feet
- Crosses 2.6 miles of private property
- Crosses 12 non-federal parcels
- Within ¼ mile of 21 residences
- Within 1 mile of 159 residences
- Within ¼ mile of 1 feedlot/dairy
- Crosses 18.2 miles of LEPA habitat
- Crosses 28.3 miles of shrubs
- Acceptable crossing of Snake River

Sub-committee comments: This option may result in three (3) line crossings of Snake River at same location: existing 138-kV, Segment 8 Sinker Butte, and Segment 9 Murphy Flat.

Sub-committee preference is that only the Segment 9 Murphy Flat route uses this crossing. While this route follows existing infrastructure on the northeast side of the Snake River, there is no infrastructure to co-locate with on the northwest side of the BOPNCA.

Summer Lake Option 1 (Appendix D-10)

This route would parallel the existing Summer Lake 500-kV transmission line across the BOPNCA. The updated WECC separation criteria would allow the new transmission line to be 250 feet from the existing line. Therefore, this route should minimize vegetation disturbance by reducing the amount of new access roads within the BOPNCA and elsewhere that would need to be constructed and maintained. The Companies plan to use existing roads near and beneath the existing 500-kV transmission line to minimize the overall disturbance footprint of the new line. Rather than constructing a completely new access road for the Summer Lake Option 1 route, they would use short spur roads from existing roads to provide access to new towers. This route would minimize impacts on communities and private property in the Kuna and Melba areas of Ada, Canyon, and Owyhee Counties and would avoid critical habitat for slickspot peppergrass (*Lepidium papilliferum* [LEPA]). This route was modified to minimize impacts to the OCTC Alpha Sector and adjacent private property.

Route Detail

The Summer Lake Option 1 route option generally parallels 1,500 feet south of the existing Summer Lake 500-kV transmission line for 5.1 miles before turning northwest and then crossing the existing line at MP 7.1. From there, the alignment generally parallels 250 feet north of the existing line the remaining 30 miles into the Hemingway substation. At milepost (MP) 8.2, the alignment crosses into the BOPNCA, and follows the existing Summer Lake 500-kV transmission line for approximately 8 miles, north of the boundary to the Idaho National Guard's OCTC. At MP 12.7, the alignment crosses Pleasant Valley Road, and continues west for approximately 3.5 miles. To avoid new agricultural impacts on private property, and to minimize impacts to the OCTC's tank maneuver "Alpha Sector", at MP 16.2 the alignment shifts south 250 feet and assumes the existing ROW of the Summer Lake 500-kV transmission line. A 0.9 mile section of the existing Summer Lake 500-kV line would be rebuilt 250 feet south within the Alpha Sector. At MP 16.8, the two routes resume their previous alignments, with the new Summer Lake Option 1 route 250 feet north of the existing Summer Lake 500-kV line. The route crosses Swan Falls Road at MP 22.2 and the existing Bowmont to Canyon Creek 138-kV transmission line at MP 22.9. At MP 27, the alignment turns west (still parallel to the existing line), leaving the BOPNCA at MP 27.2, and crosses 2 miles of irrigated agriculture at the Canyon and Ada county lines, north of Celebration County Park, before crossing the Snake River between MP 30.9 and 31.3 at the southern end of Noble Island. The alignment then turns northwest, and parallels the existing line for approximately 5 miles (crossing Hemingway Butte at MP 35.2), before turning north through the existing China Gulch subdivision and into the Hemingway substation.

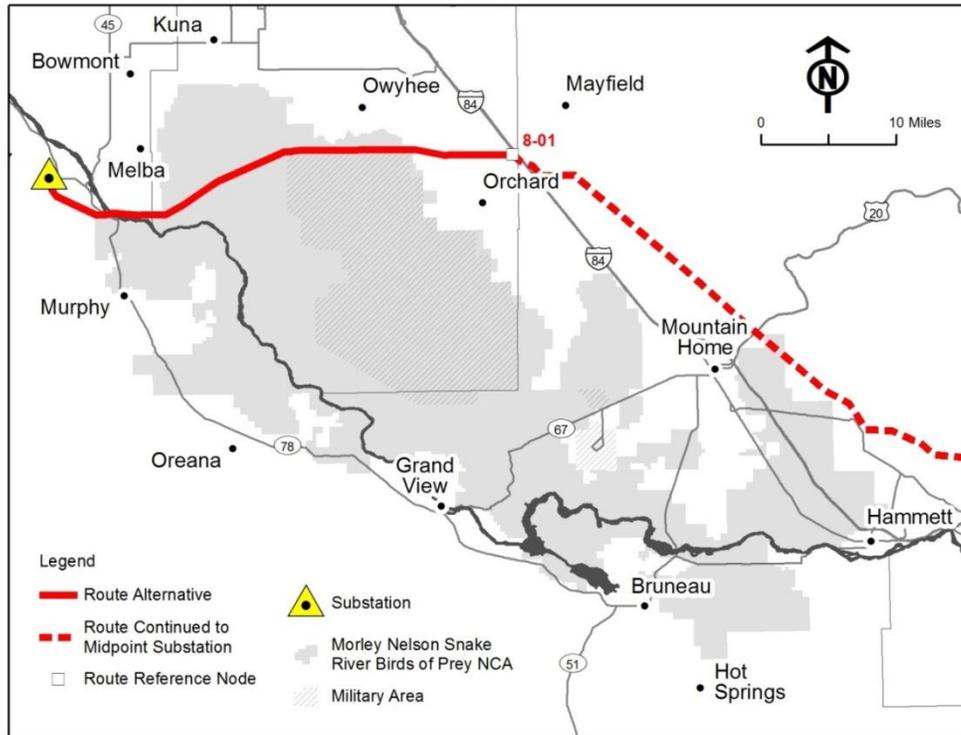


Figure C-10. Summer Lake Option 1.

Route Detail Summary

- 38.0 miles long, 22.9 miles in BOPNCA
- 250 foot offset north of existing Summer Lake 500-kV line, 21.4 miles in BOPNCA
- Requires partial rebuild of existing Summer Lake 500-kV line (approximately 3,000 feet)
- Crosses 250 feet into OCTC Alpha Sector maneuver area for approximately 2,100 feet
- Crosses 6.2 miles of private property
- Crosses 27 non-federal parcels
- Within ¼ mile of 32 residences
- Within 1 mile of 143 residences
- Crosses 1.9 miles of irrigated agriculture
- Crosses 3 pivots
- Crosses 1 feedlot/dairy
- Within ¼ mile of 3 feedlots/dairies
- Crosses 8.4 miles of LEPA general habitat and 3.8 miles of occupied habitat
- Crosses 18.1 miles of shrubs
- Acceptable crossing of Snake River
- City of Kuna preferred route

Sub-committee comments: Uses existing corridor established by Summer Lake 500-kV line across BOPNCA with only 250 foot offset north of existing line. Minimal private property impacts, and minimizes disturbance to OCTC Alpha Sector maneuver area, as well as the minimal needs for access road construction. Preferred by City of Kuna. Route through BOPNCA is co-located with existing infrastructure.

Summer Lake Option 2 (Appendix D-11)

This route option is generally the same as the Summer Lake Option (above); however, east of Swan Falls Road, it shifts an additional 250 feet north of the existing Summer Lake 500-kV line in order to accommodate the Segment 9 Summer Lake route option in a single-corridor. This option is only viable in conjunction with the Segment 9 Summer Lake route option. This single-corridor option does not meet the project's purpose and need.

Route Detail

This route option generally follows the same alignment as the Summer Lake Option route (see above). The primary difference is that at MP 22.2 the alignment shifts an additional 250 feet (500 feet total) north of the existing Summer Lake 500-kV transmission in order to also accommodate the Segment 9 Baja Road-Summer Lake route (see below) in a single-corridor the remaining 13.5 miles into the Hemingway substation. This route would only be suitable in conjunction with the Segment 9 Baja Road-Summer Lake route. The single-corridor option does not meet the Proponents' purpose and need for the Project.

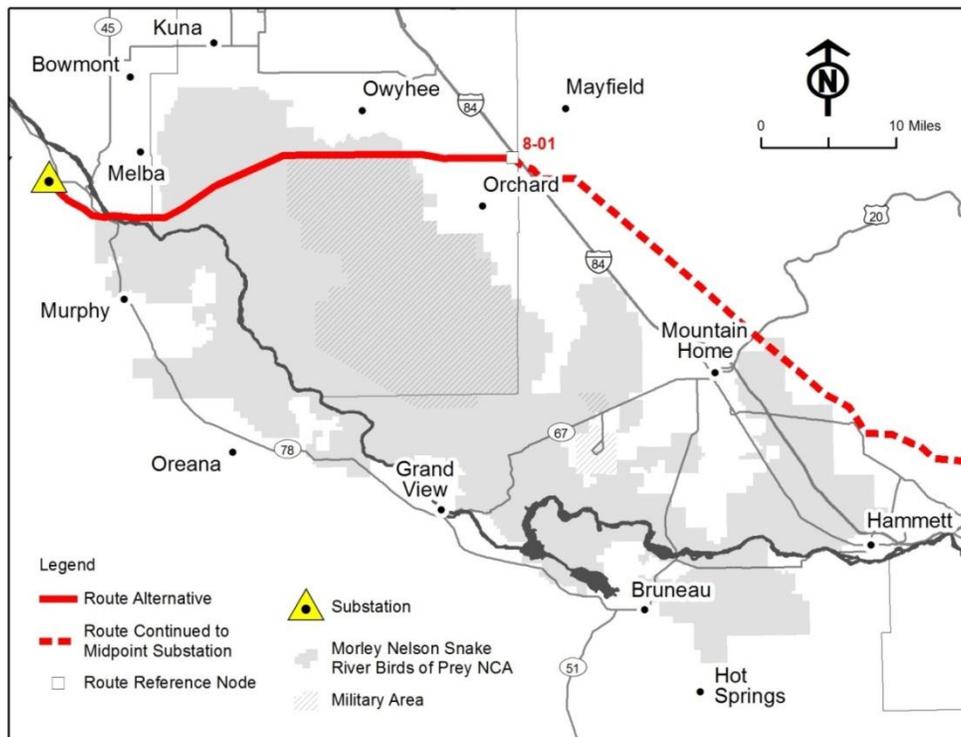


Figure C-11. Summer Lake Option 2.

Sub-committee comments: Single-corridor of Segments 8 and 9 does not meet Proponents' purpose and need for Project.

SEGMENT 9 ROUTE OPTIONS

Applicant Proposed (Appendix D-12)

This route option follows the established 368 Energy Policy Act corridor on public land in Owyhee County, and was analyzed in detail in the FEIS as the Applicant Proposed Route. This route would impact private property and preliminary general sage-grouse habitat.

Route Details

This is the original alignment proposed by the Companies and studied in detail in the FEIS. The route follows the existing West-Wide Energy Corridor (WWE) corridor on public land in Owyhee County, including designated utility corridors across parts of the BOPNCA. The WWE corridor is not designated on private or non-federal land. Between MP 2.5 and 4.5 the current alignment crosses wetlands, irrigated agriculture, and a conservation easement in the Bruneau Valley between Bruneau and Hot Springs. The alignment continues northwest for approximately 18 miles following the WWE corridor on sporadic, isolated parcels of BLM land, crossing irrigated (pivot) agriculture on private property, and in close proximity to residences, west of Bruneau and in the southern part of Grand View. Beginning at MP 25.5 the alignment rejoins a largely unbroken segment of the WWE corridor for approximately 30 miles toward Murphy, crossing small sections of private property along Castle and Catherine Creeks near Oreana, and Sinker Creek south of Murphy. The alignment comes in close proximity to the residences and communities of Oreana and Murphy, generally paralleling ½ to 3 miles southwest of SR 78. At MP 56 north of Murphy the alignment leaves the WWE corridor (avoiding impacts to several existing subdivisions), and continues northwest the remaining 10.5 miles into the Hemingway substation.

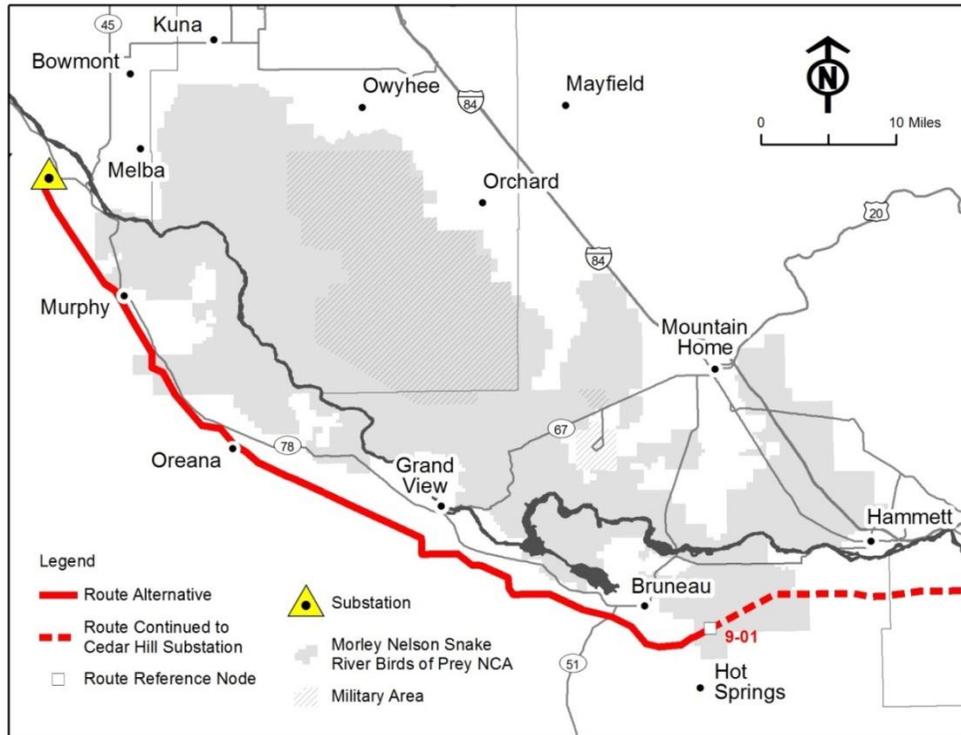


Figure C-12. Applicant Proposed.

Route Details Summary

- 66.6 miles long, 6.1 miles in BOPNCA (mainly in existing utility corridors on public land)
- Utilizes existing utility corridor on public land
- Crosses 19.0 miles of private property
- Crosses 58 non-federal parcels
- Within ¼ mile of 44 residences
- Within 1 mile of 199 residences
- Crosses 7.2 miles of irrigated agriculture
- Crosses 14 pivots
- Crosses 1 feedlot/dairy
- Within ¼ mile of 2 feedlots/dairies
- Crosses 37.7 miles of shrubs
- Crosses 9.0 miles of general sage-grouse habitat
- Low existing road density (1.6 miles/square mile)

Sub-committee comments: Extensive private property impacts, particularly irrigated agriculture and residences, in county with limited tax base, as well as Greater sage-grouse habitat and new access roads.

Baja Road-Murphy Flat North Option 1 (Appendix D-13)

This route option was proposed as a modification of the action proposed and analyzed in the FEIS as Alternative 9D. This route would double-circuit Segment 9 with an existing 138-kV transmission line for most of the distance through the BOPNCA, adjacent to the OCTC, and across the northern part of the Cove Recreation Site and NMA. Segment 9 would separate from the double-circuit configuration on the north side of the Snake River, crossing at Sinker Butte. The route was modified to reduce impacts to homes, historic sites, and an airstrip in the Murphy area.

Route Details

This route option follows the same alignment as the Baja Road-Murphy Flat South route (see above) for 47 miles. After crossing the Snake River, the alignment turns northwest and then follows the same alignment as the Segment 8 Sinker Creek route (see above) the remaining 20 miles into the Hemingway substation.

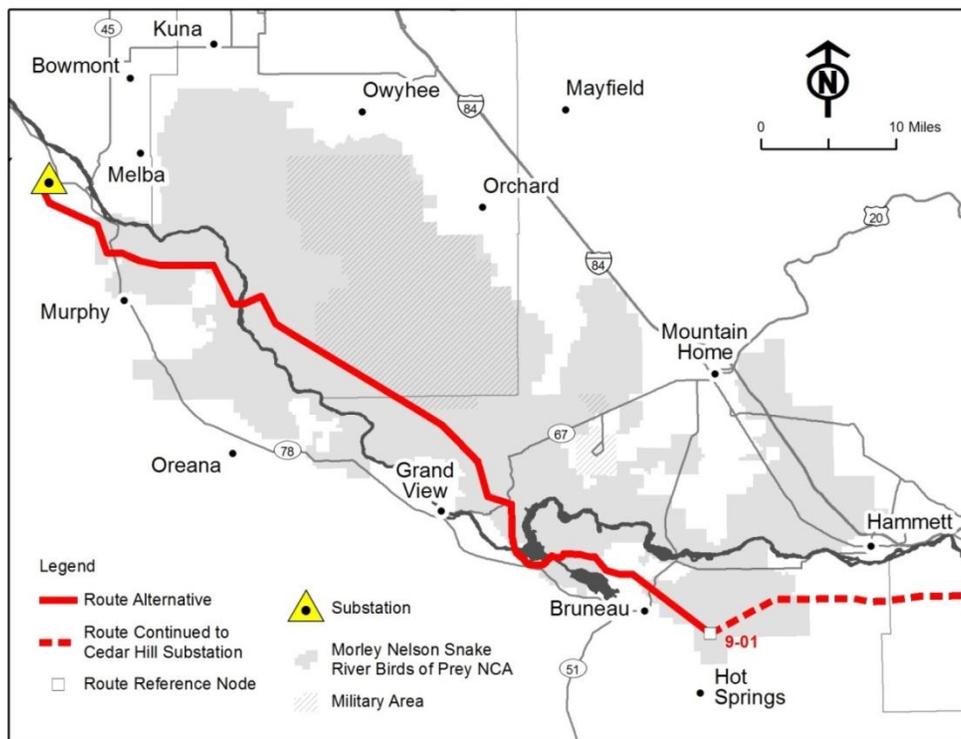


Figure C-13. Baja Road-Murphy Flat North Option 1.

Route Detail Summary

- 67.0 miles long, 57.4 miles in BOPNCA
- Parallels or double-circuit with existing transmission lines 31.0 miles, 29.8 miles in BOPNCA
- Crosses Cove non-motorized area in new double-circuit configuration along existing 138-kV alignment
- Crosses 5.9 miles of private property
- Crosses 26 non-federal parcels
- Within ¼ mile of 24 residences
- Within 1 mile of 156 residences
- Crosses 1.3 miles of irrigated agriculture
- Crosses 3 pivots
- Crosses 38.5 miles of shrubs
- Crosses 1.2 miles of general sage-grouse habitat
- Acceptable crossing of Snake River

Sub-committee comments: Uses existing corridor established by existing 138-kV line across BOPNCA in new double-circuit configuration (56% of length in BOPNCA). Preferred crossing of Snake River at Sinker Butte for Segment 9. While this route follows existing infrastructure on the northeast side of Snake River, there is no infrastructure to co-locate with on the northwest side of the BOPNCA. Minimal private property impacts.

Baja Road-Murphy Flat North Option 2 (Appendix D-14)

This route option is a variation of the Murphy Flat Option 1 (above). The route was modified from Murphy Flat Option 1 to further reduce impacts to homes and existing subdivisions in the Murphy area.

Route Details

This route option follows the same alignment as the Baja Road-Murphy Flat North Option 1 route (see above) for approximately 56.8 miles. After crossing the upper part of the Con Shea Basin, the alignment turns southwest for approximately 2.5 miles following the northwest face of a low rise north of Con Shea Road, and the town of Murphy. At MP 58.9 the alignment crosses SR 78 north of the Rabbit Creek trailhead, before turning west and then northwest, where it joins the alignment for the Segment 9 Applicant Proposed Route (see above) the remaining 10 miles into the Hemingway substation.

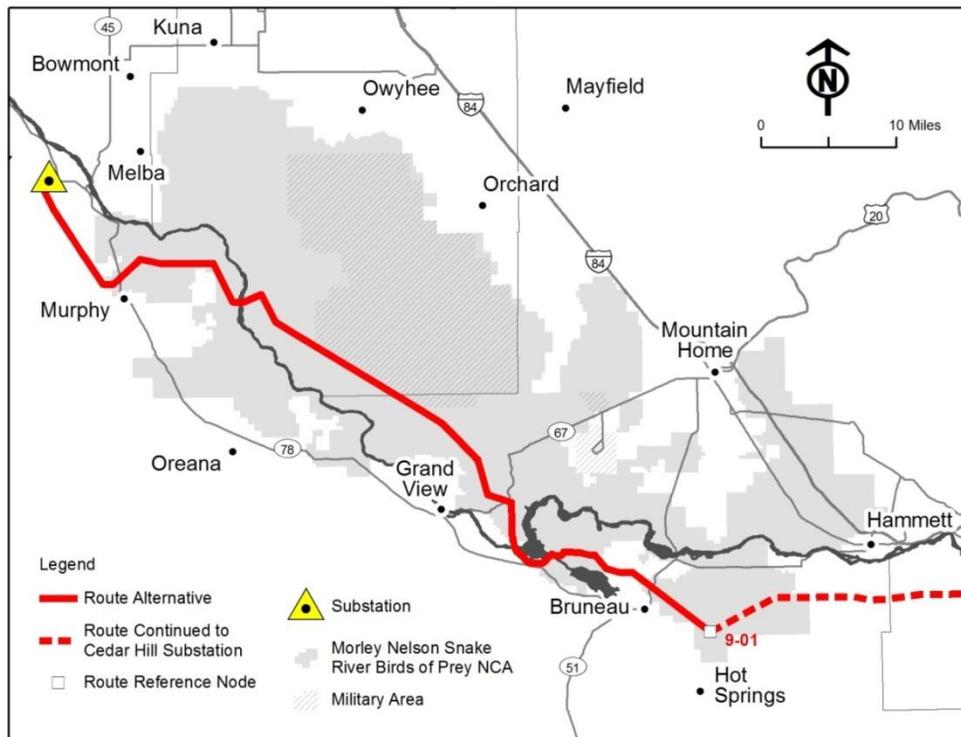


Figure C-14. Baja Road-Murphy Flat North Option 2.

Route Detail Summary

- 69.6 miles long, 55.1 miles in BOPNCA
- Parallels or double-circuit with existing transmission lines 31.0 miles, 29.8 miles in BOPNCA
- Crosses Cove non-motorized area in new double-circuit configuration along existing 138-kV alignment
- Crosses 5.9 miles of private property
- Crosses 25 non-federal parcels
- Within ¼ mile of 19 residences
- Within 1 mile of 87 residences
- Crosses 1.3 miles of irrigated agriculture
- Crosses 3 pivots
- Crosses 39.7 miles of shrubs
- Crosses 8.6 miles of general sage-grouse habitat
- Acceptable crossing of Snake River

Sub-committee comments: Uses existing corridor established by existing 138-kV line across BOPNCA in new double-circuit configuration (56% of length in BOPNCA). Preferred crossing of Snake River at Sinker Butte for Segment 9. While this route follows existing infrastructure on the northeast side of Snake River, there is no infrastructure to co-locate with on the northwest side of the BOPNCA. Minimal private property impacts.

Baja Road-Murphy Flat North Option 3 (Appendix D-15)

This route option is similar to Murphy Flat North Option 1 (above). After crossing the Snake River at Sinker Butte, the route option would shift 250 south and west in order to accommodate the Segment 8 Sinker Butte option in a single-corridor. This single-corridor option does not meet the project's purpose and need.

Route Details

This route option generally follows the same alignment as the Baja Road-Murphy Flat North Option 1 route (see above). The primary difference is that at approximately MP 48.2 the alignment shifts an additional 250 feet south and west of the Segment 8 Sinker Butte route (see above) in a single-corridor the remaining 19.5 miles into the Hemingway substation. This route would only be suitable in conjunction with the Segment 8 Sinker Butte route. The single-corridor option does not meet the Proponents' purpose and need for the Project.

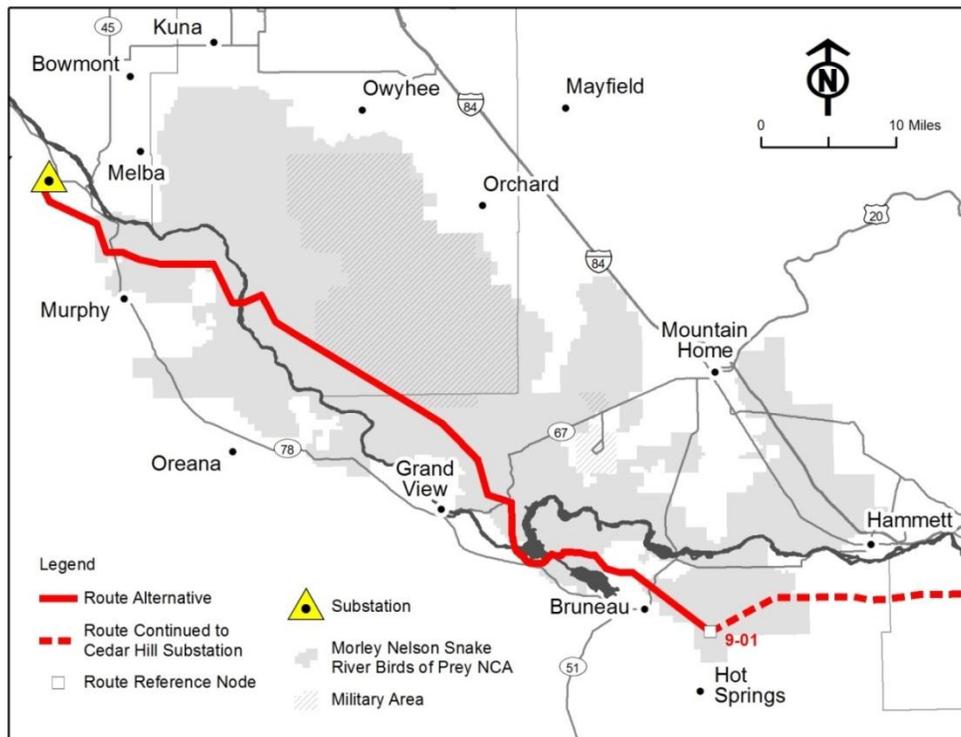


Figure C-15. Baja Road-Murphy Flat North Option 3.

Sub-committee comments: Single-corridor of Segments 8 and 9 does not meet Proponents' purpose and need for Project.

Baja Road-Murphy Flat South (Appendix D-16)

This route option was proposed as a modification of the action proposed and analyzed in the FEIS as Alternative 9G. This option would double circuit the new 500-kV line with existing 138-kV lines for most of the distance through the BOPNCA. The new line would incorporate and replace existing 138-kV lines near C. J. Strike Reservoir in Owyhee County and along Baja Road on public land in Ada and Elmore counties. The line would cross the Snake River near C.J. Strike Dam and above Swan Falls, near Sinker Butte, where an existing 138-kV transmission line crosses the Snake River. The new 500-kV line would traverse public land on Murphy Flat, avoiding historic Oregon Trail ruts. It would cross Highway 78 near the Rabbit Creek Trailhead, and continue north to the Hemingway Substation, outside of preliminary priority sage-grouse habitat and mainly out of view from most subdivisions in Owyhee County. The advantages of this route are that it would: 1) minimize impacts on communities and private property in Owyhee County, 2) minimize the amount of new road that would need to be constructed and maintained within the BOPNCA and in unroaded areas in Owyhee County; and 3) minimize the construction of transmission towers and roads near Greater sage-grouse leks, and within Greater sage-grouse habitat.

Route Details

The Baja Road-Murphy Flat South route generally follows the previous alignment for Alternative 9G studied in detail in the FEIS. Beginning south of Bruneau Dunes State Park, within the BOPNCA, the route leaves the established utility corridor in a northwesterly direction, crossing State Route (SR) 51 at MP 5.5, and leaving the BOPNCA at MP 6.7. At MP 10.3, the route re-enters the BOPNCA, double-circuiting with the existing C J Strike to Bruneau Bridge 138-kV transmission line near or on the current ROW for approximately 3.5 miles. At MP 14, the two circuits separate to permit a more feasible crossing of the Narrows between C J Strike Reservoir and the Bruneau Arm. On the west side of the Bruneau River the two lines again become a double-circuit across the Cove non-motorized and recreation areas, west approximately 3 miles to the C J Strike Dam, where the existing 138-kV line double-circuits with the existing Evander Andrews to C J Strike 138-kV line north toward Mountain Home. The route parallels the existing double-circuit 138-kV line approximately 200 feet to the west for 4 miles, crossing the Snake River down river of the C J Strike Dam between MP 17 and 18. At MP 20.8, the alignment shifts west, and then north again, to avoid encroachment in the Mountain Home AFB controlled airspace, and to avoid new impacts to private agricultural lands. At MP 24.8, the alignment crosses the Grand View Highway, and then joins the existing Bowmont to Canyon Creek 138-kV transmission line in a new double-circuit alignment along the south side of the Big Baja Road. The new double-circuit alignment proceeds northwest, generally parallel to Big Baja Road and adjacent to the southern boundary of the OCTC, for approximately 21 miles to a location southeast of Swan Falls and north of Tick Basin. Here the two circuits separate before crossing the Snake River canyon between MP 47.3 and 47.8 near the existing Sinker Creek to Tap 138-kV transmission line crossing south of Sinker Butte. On the west side of the canyon, the

route turns briefly south, parallel to the existing 138-kV line, and then turns west adjacent to the existing Sinker Creek substation access road. At MP 50.8, the route turns northwest along the east and west faces of several low hills to minimize impacts to irrigated agriculture and to the Oregon National Historic Trail (NHT). Near MP 56, the route descends off of the Murphy Rim and crosses the Con Shea Basin north of Murphy. After crossing SR 78 at MP 57.7 north of the Rabbit Creek trailhead, the alignment rejoins the original Segment 9 Applicant Proposed alternative (see below), and continues in a northwesterly direction for approximately 9.5 miles into the Hemingway substation.

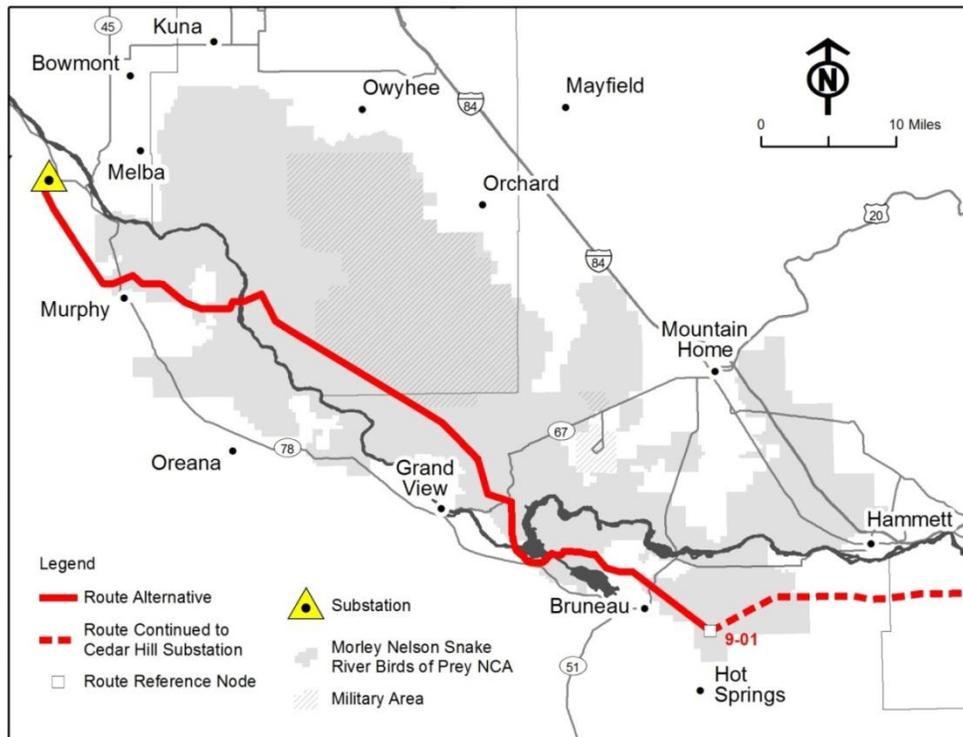


Figure C-16. Baja Road-Murphy Flat South.

Route Detail Summary

- 68.5 miles long, 53.8 miles in BOPNCA
- Double-circuit with existing 138-kV, 31.7 miles in the BOPNCA
- Crosses Cove non-motorized area in new double-circuit configuration along existing 138-kV alignment
- Crosses 5.0 miles of private property
- Crosses 24 non-federal parcels
- Within ¼ mile of 18 residences
- Within 1 mile of 84 residences
- Crosses 1.3 miles of irrigated agriculture
- Crosses 3 pivots

- Crosses 41.5 miles of shrubs
- Crosses 8.6 miles of general sage-grouse habitat
- Acceptable crossing of Snake River
- Owyhee County preferred route

Sub-committee comments: Uses existing corridor established by existing 138-kV line across BOPNCA in new double-circuit configuration (56% of length in BOPNCA). Preferred crossing of Snake River at the existing Sinker Butte crossing for Segment 9. Minimal private property impacts. While this route follows existing infrastructure on the northeast side of the Snake River, there is no infrastructure to co-locate with on the northwest side of the BOPNCA. Preferred by Owyhee County.

Baja Road-Sinker Creek (Appendix D-17)

This route option was analyzed in detail in the FEIS as Alternative 9G. This route crosses both the Snake River and Sinker Creek. The subcommittee thinks the combined ecological and visual impacts of these two crossings make this route less preferred.

Route Details

This route option is a modified alignment of Alternative 9G analyzed in detail in the FEIS. This route option generally follows the same alignment as the Baja Road-Murphy Flat South route (see above), deviating briefly to the west between MP 42.2 and 48.4 to potentially allow the siting of the Segment 8 Sinker Butte route (see above) at the existing Sinker Creek to Tap 138-kV transmission line crossing of the Snake River south of Sinker Butte, instead crossing near the confluence with Sinker Creek (MP 45 to 46.2). Along the west side of the Snake River, the alignment continues northwest an additional 2 miles where it rejoins the alignment for the Baja Road-Murphy Flat South route (see above) the remaining 18.5 miles into the Hemingway substation.

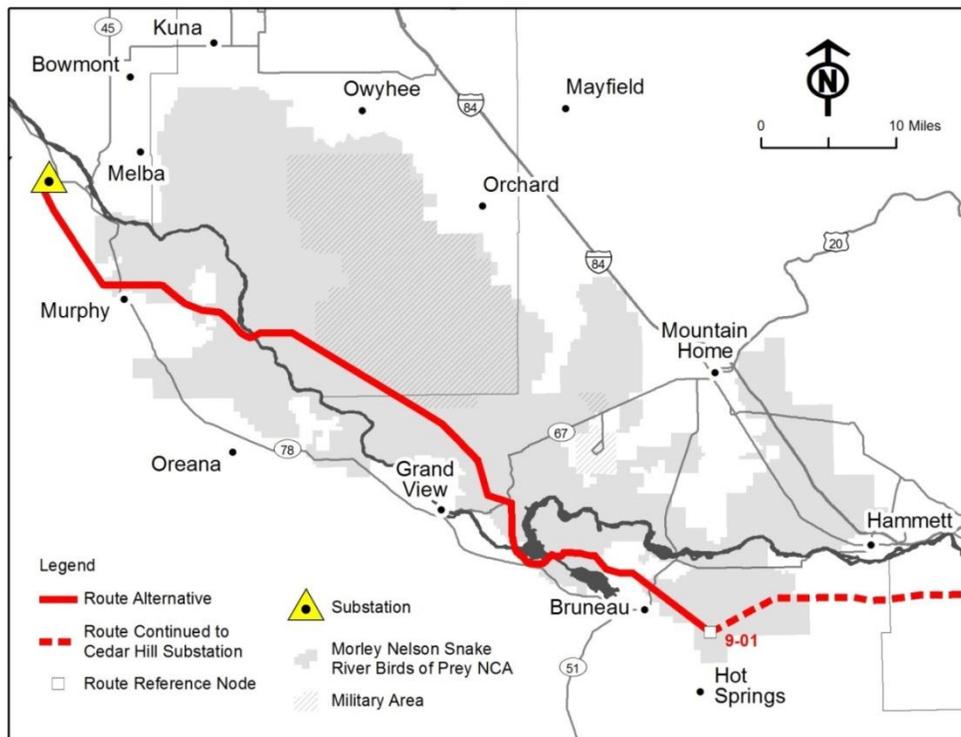


Figure C-17. Baja Road Sinker Creek.

Route Detail Summary

- 67.0 miles long, 52.3 miles in BOPNCA
- Parallels or double-circuit with existing transmission lines 27.2 miles, 26.0 miles in BOPNCA
- Crosses Cove non-motorized area in new double-circuit configuration along existing 138-kV alignment
- Crosses 4.7 miles of private property
- Crosses 23 non-federal parcels
- Within ¼ mile of 19 residences
- Within 1 mile of 88 residences
- Crosses 1.3 miles of irrigated agriculture
- Crosses 3 pivots
- Crosses 42.0 miles of shrubs
- Crosses 8.6 miles of general sage-grouse habitat
- Ecologically sensitive area at Sinker Creek, not an acceptable crossing

Sub-committee comments: Ecologically sensitive area at Sinker Creek, not consistent with BOPNCA direction. While this route follows existing infrastructure on the northeast side of Snake River, there is no infrastructure to co-locate with on the northwest side of the BOPNCA.

Baja Road-Summer Lake (Appendix D-18)

This route option is similar to the Murphy Flat North and South options described above. Instead of crossing the Snake River at Sinker Butte, the option would continue north before crossing and then paralleling 250 feet north of the existing Summer Lake 500-kV line. This route option may not meet the project's purpose and need unless Segment 8 was to use one of the northern route options described above.

Route Details

This route option shares the same alignment as the Baja Road-Murphy Flat North and South route options for approximately 46 miles. Instead of turning west south of Swan Falls to cross the Snake River near the existing Sinker Creek to Tap 138-kV transmission line, the alignment continues north (still in a double-circuit configuration with the existing Bowmont to Canyon Creek 138-kV transmission line) an additional 8.5 miles. At MP 54.6 the route crosses to the north side of the existing Summer Lake 500-kV transmission line, and then turns west, paralleling 250 feet north of the existing Summer Lake 500-kV transmission line in the same alignment as the Segment 8 Summer Lake Option 1 route the remaining 14.2 miles into the Hemingway substation. This route shares a common alignment with the Segment 8 Sinker Butte route (see above), and the Segment 8 Summer Lake Option 1 route (see above); they cannot be used in conjunction. The route may also result in a single-corridor alignment with the existing Summer Lake 500-kV transmission line, and the Segment 8 Summer Lake Option 2 route. The single-corridor option does not meet the Proponents' purpose and need for the Project.

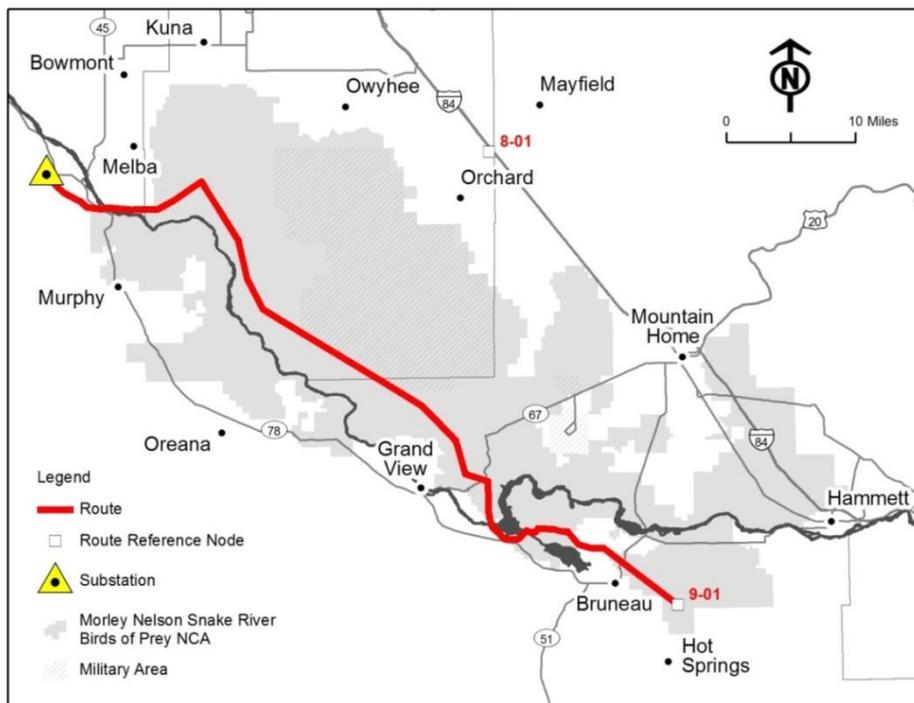


Figure C-18. Baja Road-Summer Lake.

Route Detail Summary

- 68.7 miles long, 57.6 miles in BOPNCA
- Parallels or double-circuit with existing transmission lines 46.3 miles, 43.4 miles in BOPNCA
- Crosses Cove non-motorized area in new double-circuit configuration along existing 138-kV alignment
- Crosses 7.3 miles of private property
- Crosses 34 non-federal parcels
- Within ¼ mile of 46 residences
- Within 1 mile of 185 residences
- Crosses 3.0 miles of irrigated agriculture
- Crosses 5 pivots
- Crosses 1 feedlot/dairy
- Within ¼ mile of 3 feedlots/dairies
- Crosses 37.3 miles of shrubs
- Crosses 6.1 mile of LEPA
- Potential single-corridor with Segment 8 Summer Lake Route does not meet Proponents' purpose and need for Project

Sub-committee comments: Single-corridor of Segments 8 and 9 does not meet Proponents' purpose and need for Project. Sub-committee prefers Summer Lake crossing for Segment 8.

Bruneau South Variation (FEIS Alt 9H) (Appendix D-19)

This route option was analyzed in detail in the FEIS as Alternative 9H. This short variation would avoid the Cove Recreation Site and NMA but would have private property impacts and potential impacts to historic trails.

Route Details

This variation to the Baja Road routes described above is a portion of Alternative 9H analyzed in detail in the FEIS. The alignment follows the Segment 9 Applicant Proposed alternative along the fragmented WWE corridor through the Bruneau and Grand View areas for 18.3 miles, before turning north for approximately 3 miles to rejoin the Baja Road routes near C J Strike Dam. The alignment avoids crossing the Cove non-motorized and recreation areas.

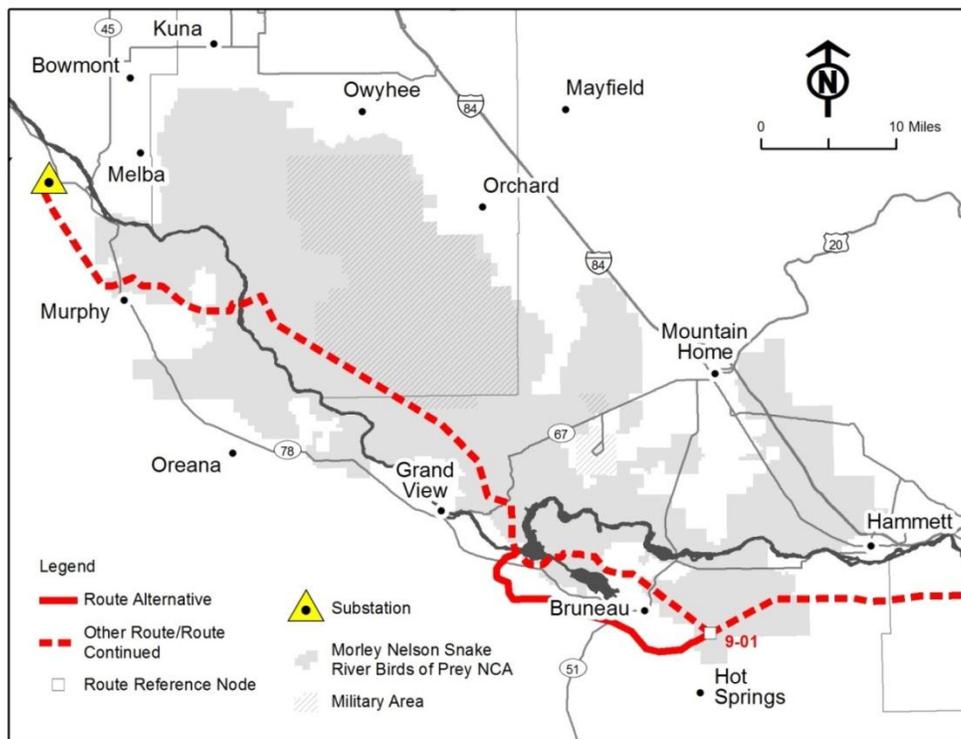


Figure C-19. Bruneau South Variation (FEIS Alt 9H).

Route Detail Summary

- 21.2 miles long, 1.4 miles in BOPNCA
- Utilizes existing utility corridor on public land
- Parallels or double-circuit with existing transmission lines 0.2 miles
- Avoids crossing Cove non-motorized area
- Crosses 10.1 miles of private property
- Crosses 29 non-federal parcels

- Within ¼ mile of 12 residences
- Within 1 mile of 75 residences
- Crosses 3.5 miles of irrigated agriculture
- Crosses 7 pivots
- Crosses 6.7 miles of shrubs
- Acceptable crossing of Snake River

Sub-committee comments: Variation avoids Cove non-motorized area, but extensive private property impacts.

Cove Variation (FEIS Alt 9D) (Appendix D-20)

This route option was analyzed in detail in the FEIS as Alternative 9D. This short route variation crosses the southern part of the Cove Recreation Site and NMA. This route would have potential impacts to historic trails.

Route Details

This variation is a portion of the original alignment for Alternative 9D analyzed in detail in the FEIS). The route crosses the southern end of the Narrows between the C J Strike Reservoir and the Bruneau Arm, and crosses the Cove non-motorized and recreation areas on a greenfield alignment.

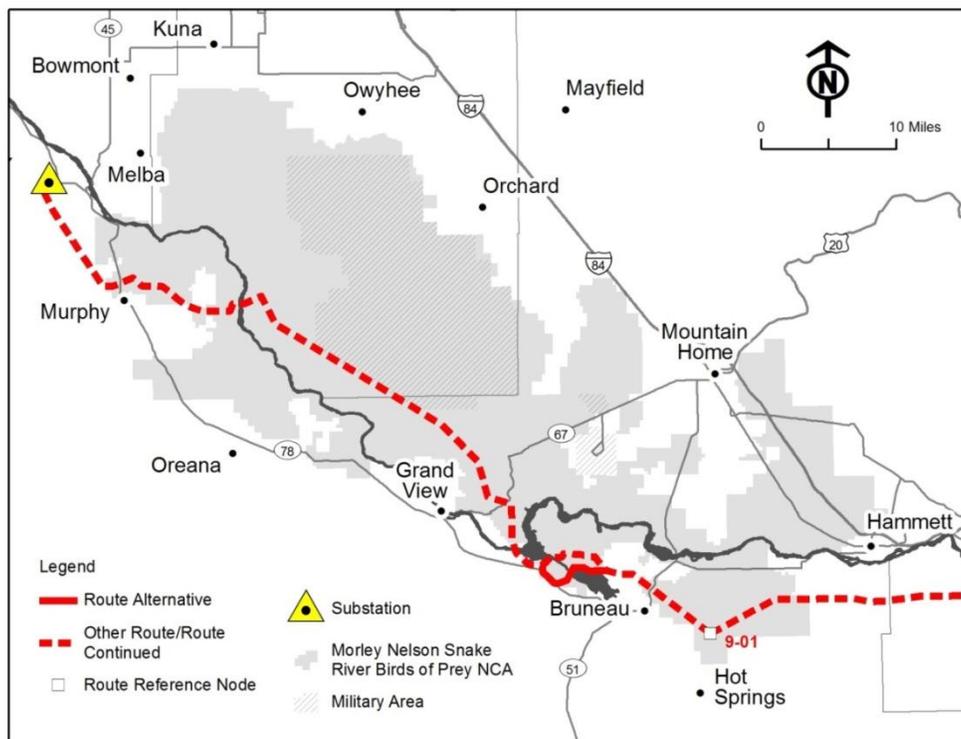


Figure C-20. Cove Variation (FEIS Alt 9D).

Route Detail Summary

- 6.3 miles long, 6.0 miles in BOPNCA
- Greenfield alignment across Cove non-motorized area
- Crosses and/or closely parallels 2 NHTs
- Less acceptable crossing at southern end of Bruneau River Narrows

Sub-committee comments: New double-circuit configuration with existing 138-kV line across northern edge of Cove NCA better option.

Glenn's Ferry-Mayfield (Appendix D-21)

This variation was proposed as a potential single-corridor option for Segments 8 and 9 (see above for the Segment 8 King Hill-Mayfield option) north of the BOPNCA. The alignment runs from the Glenn's Ferry area to Mayfield, southeast of Boise, where it would join the other route options described for Segment 8. A single-corridor route option does not meet the project's purpose and need.

Route Details

This route option was suggested as a single-corridor alignment for Segment 9 along with Segment 8 between the King Hill and Glenn's Ferry areas north to Mayfield. The alignment generally parallels 250 feet south of the existing Summer Lake 500-kV transmission line for much of its length in a single-corridor with the Segment 8 King Hill-Mayfield route. Although this variation would eliminate the need for a southern route and associated impacts (see Segment 8 routes), the single-corridor option does not meet the Proponents' purpose and need for the Project.

Sub-committee comments: Single-corridor of Segments 8 and 9 does not meet Proponents' purpose and need for Project.

Owyhee Uplands (DEIS Alt 9E) (Appendix D-22)

This route option was analyzed in detail in the DEIS as Alternative 9E, but was modified in the FEIS to avoid direct impacts to preliminary priority sage-grouse habitat (see below). This route would impact private property and sage-grouse habitat.

Route Details

This route option is the same as Alternative 9E analyzed in detail in the DEIS. The greenfield route leaves the WWE corridor at MP 0.4 and turns south for approximately 5 miles west of the Bruneau River along the northwest boundary of the Saylor Creek Air Force Range. The alignment crosses the Bruneau River at MP 5.3 south of Hot Springs, and north of Indian Bathtub at the northern end of the Bruneau Canyon. The route then proceeds west for approximately 13 miles along the northern boundary of the Air Force military operations area (MOA) to the south. At MP 18 the alignment turns generally northwest along the foothills to the Owyhee Range, primarily on public land, the remaining 60 miles to the Hemingway substation, crossing Shoofly Creek and the Mud Flat scenic by-way (MP 28), Castle Creek (MP 42.5), Hart and Pickett Creeks (MP 49.8 and 51.8), and Sinker Creek (MP 57.2). The route comes in close proximity to Murphy near MP 67, before rejoining the Segment 9 Applicant Proposed alternative (see above) the remaining 11 miles into the Hemingway substation. The route crosses preliminary priority sage-grouse habitat between MP 43.5 and 63.2, and comes within 0.7 miles of several sage-grouse leks. The route was modified between the DEIS and the FEIS to avoid these sage-grouse impacts (see below).

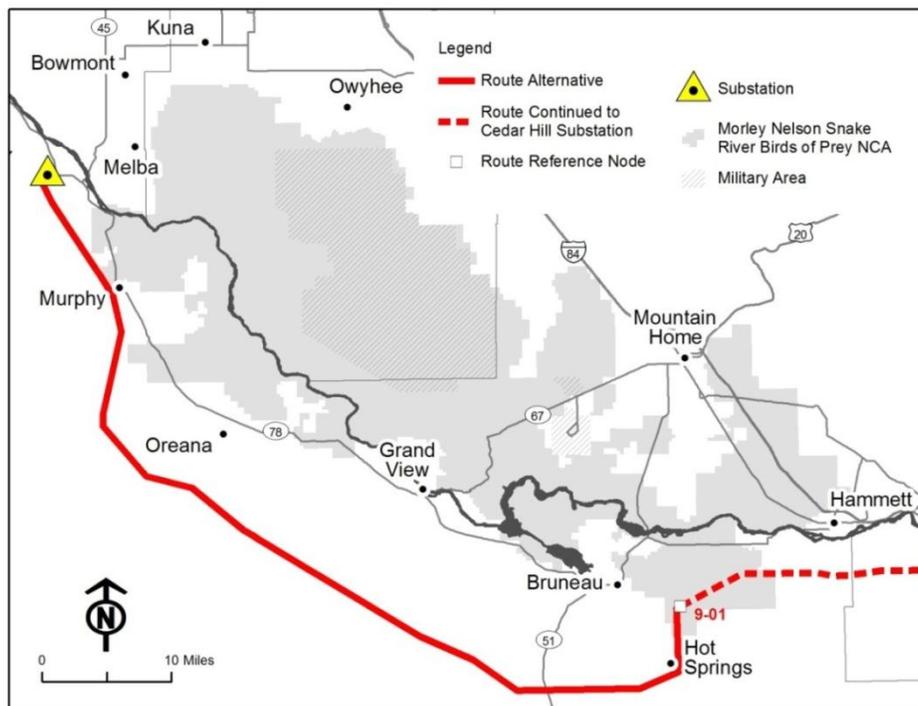


Figure C-21. Owyhee Uplands (DEIS Alt 9E).

Route Detail Summary

- Crosses 19.7 miles of priority sage-grouse habitat
- Crosses 15.6 miles of general sage-grouse habitat
- Greenfield route
- Low existing road density (1.9 miles/square mile)

Sub-committee comments: Extensive adverse impact to sage-grouse priority habitat along greenfield route. Very low existing road density compared to other routes. Visual impacts along undeveloped areas in Owyhee front. Previously modified and eliminated from further consideration between DEIS and FEIS.

Owyhee Uplands (FEIS Alt 9E) (Appendix D-23)

This route option was analyzed in detail in the FEIS as Alternative 9E. This route would impact private property and sage-grouse habitat.

Route Details

This route option is the modified version of Alternative 9E analyzed in detail in the DEIS (see above). This greenfield route follows the same alignment as the Owyhee Uplands (DEIS Alt 9E) route for the first 42 miles. The alignment then deviates in a more northerly direction to avoid crossing preliminary priority sage-grouse habitat. As it continues north, the route crosses private property in close proximity to several residences at Hart Creek (MP 49.5), and Bates Creek (MP 51.5), near Oreana. At MP 52.7 the route rejoins the WWE corridor north in the same alignment as the Segment 9 Applicant Proposed alternative (see above) for 8.2 miles. The route deviates to the northwest to avoid Murphy and several existing subdivisions, before rejoining the Segment 9 Applicant Proposed route (see above) and continuing north 5 miles into the Hemingway substation.

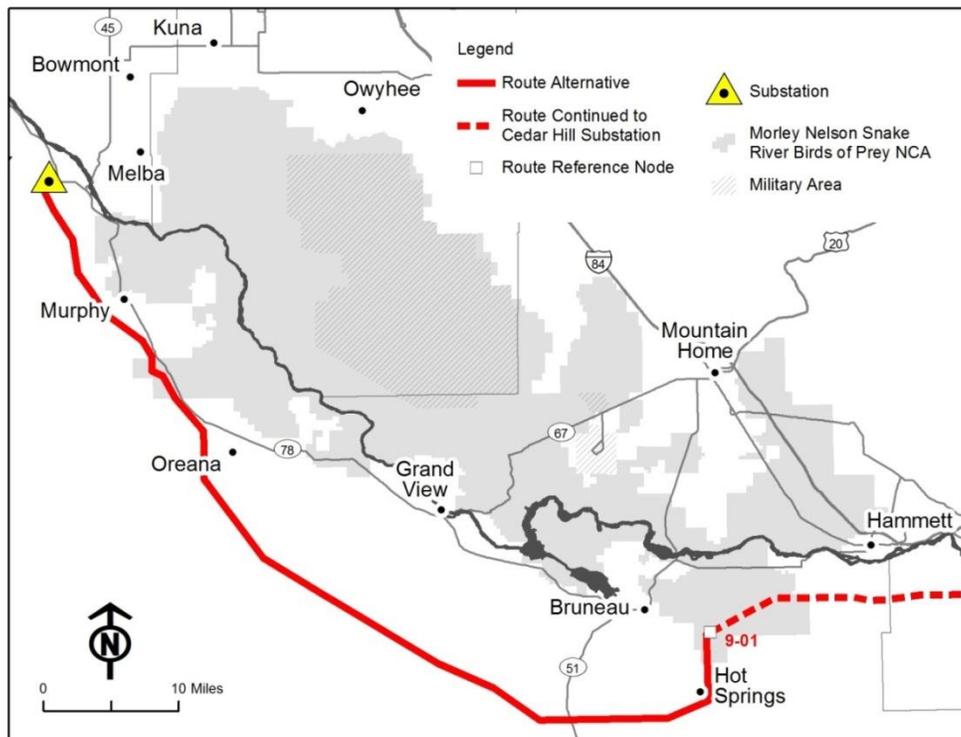


Figure C-23. Owyhee Uplands (FEIS Alt 9E).

Route Details Summary

- 75.9 miles long, 6.3 miles in BOPNCA (mainly in existing utility corridors on public land)
- Crosses 4.1 miles of private property
- Crosses 15 non-federal parcels
- Within ¼ mile of 14 residences
- Within 1 mile of 72 residences
- Crosses 0.2 miles of irrigated agriculture
- Crosses 58.3 miles of shrubs
- Crosses 17.1 miles of general sage-grouse habitat
- Greenfield route
- Low existing road density (1.2 miles/square mile)

Sub-committee comments: Extensive sage-grouse general habitat impacts, and close proximity to priority habitat, along greenfield route. Visual impacts along undeveloped areas in Owyhee front. Very low existing road density compared to other routes.

Sinker Creek Variation (Appendix D-24)

This route variation was proposed to avoid crossing a small crossing of the BOPNCA at Sinker Creek.

Route Details

This variation to the Segment 9 Applicant Proposed alternative (see above) was suggested to avoid crossing a 3.5 mile section of the BOPNCA. The variation turns west for 5 miles out of the WWE corridor at MP 2.2, before turning north again for 8 miles where it rejoins the Segment 9 Applicant Proposed alternative (see above) west of Murphy. This variation avoids land within the BOPNCA. The variation, but crosses 6 miles of preliminary priority sage-grouse habitat, comes within 0.7 miles of two sage-grouse leks, and crosses Sinker Creek in a historically-significant area.

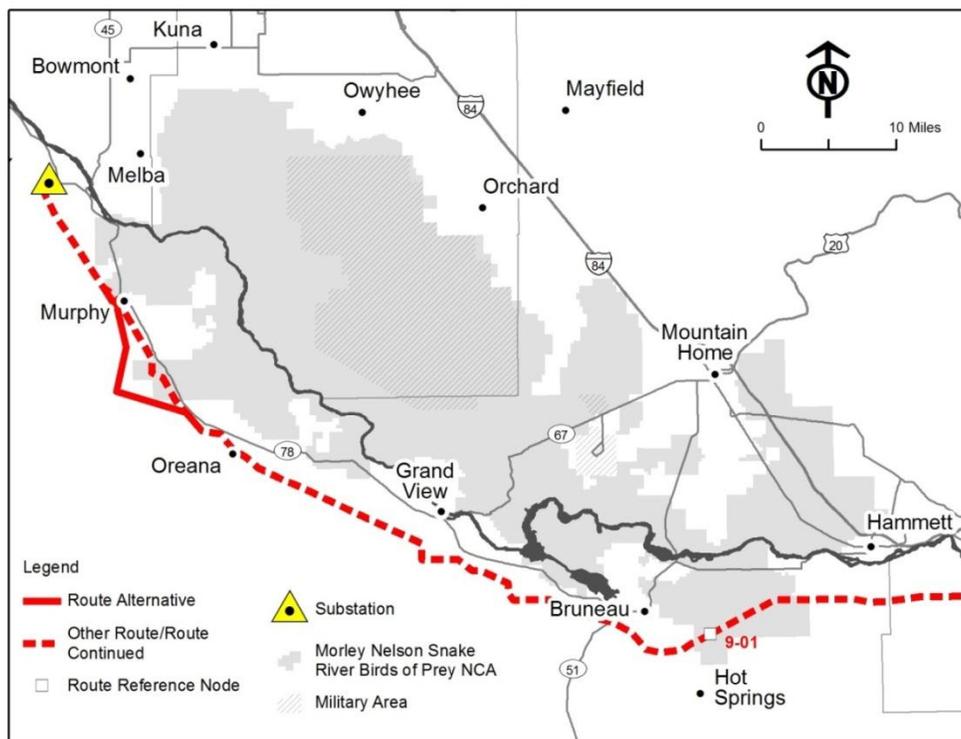


Figure C-24. Sinker Creek Variation.

Route Detail Summary

- 15.4 miles long
- Crosses 0.3 miles of private property
- Crosses 2 non-federal parcels
- Within 1 mile of 41 residences
- Crosses 13.6 miles of shrubs
- Crosses 7.9 miles of sage-grouse habitat, including 6.0 miles of priority habitat
- Greenfield route

Sub-committee comments: This variation limits impacts to the BOPNCA. Variation leave existing utility corridor to avoid small crossing of BOPNCA, but creates extensive sage-grouse priority habitat impacts, along greenfield route. Visual impacts along undeveloped areas in Owyhee front.

DRAFT MITIGATION AND ENHANCEMENT PORTFOLIO PROPOSAL ROUTES

The Companies identified two proposed routes in the Draft Mitigation and Enhancement Portfolio Proposal (Draft Portfolio) to be used as a baseline for estimating the total portfolio value for each route option. The Draft Portfolio routes differ from the Proposed Routes identified and analyzed in the final environmental impact statement (FEIS).

Draft Portfolio Proposed Route for Segment 8 (Appendix D-25)

The Draft Portfolio route for Segment 8 follows the Applicant Proposed Route across the BOPNCA, as modified by Alternatives 8D and 8E. The route is generally the same as the Sinker Butte route option (see above), except that it parallels 1,500 feet south of the existing Summer Lake 500-kV transmission line, incorporates the OCTC Alpha Sector Bypass, and does not include an option to double-circuit with the existing Bowmont to Canyon Creek 138-kV transmission line. This route option was analyzed in detail in the FEIS as the Applicant Proposed Route, Alternative 8D, and Alternative 8E.

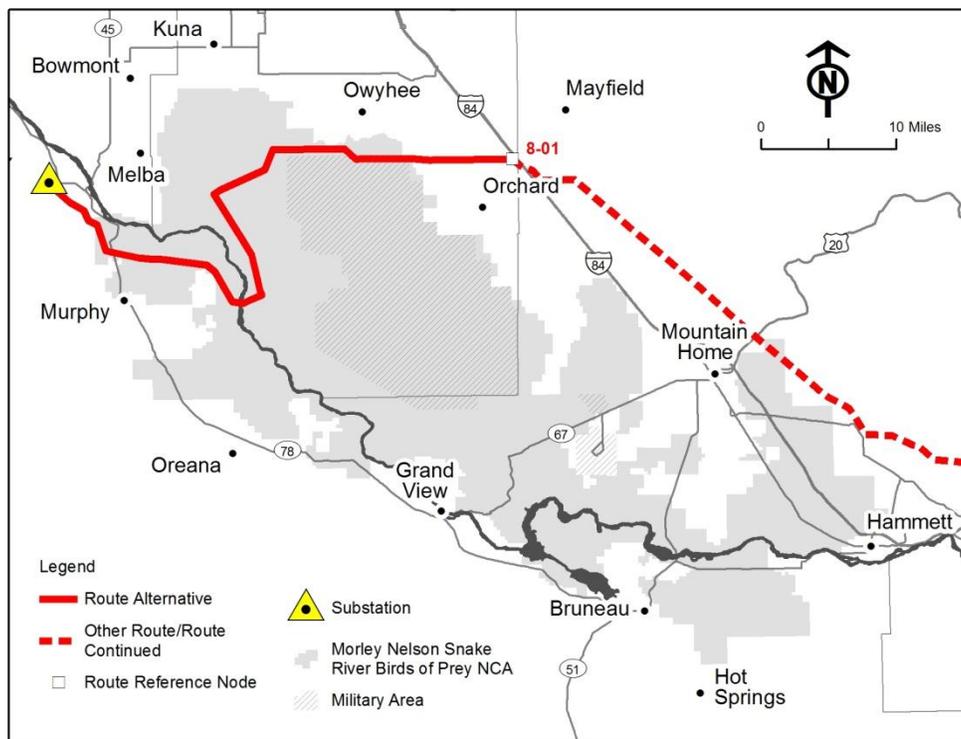


Figure C-25. Draft Portfolio Proposed Route for Segment 8.

Route Detail Summary

- 52.8 miles long, 40.2 in BOPNCA
- 1,500 foot offset south of existing Summer Lake 500-kV line
- Parallels within 300 feet of existing transmission lines 11.4 miles, 11.0 miles in BOPNCA
- Crosses 1,500 feet into the OCTC for 4.4 miles, but avoids crossing the OCTC Alpha Sector maneuver area
- Crosses 5.8 miles of private property
- Crosses 23 non-federal parcels
- Within ¼ mile of 27 residences
- Within 1 mile of 165 residences
- Within ¼ mile of 3 feedlots/dairies
- Crosses 13.8 miles of slickspot peppergrass (*lepidium papilliferum* [LEPA]) habitat
- Crosses 27.5 miles of shrubs
- Acceptable crossing of Snake River

Sub-committee comments: This option may result in three (3) line crossings of Snake River at same location: existing 138-kV, Segment 8 Sinker Butte, and Segment 9 Murphy Flat. Sub-committee preference is that only the Segment 9 Murphy Flat route uses this crossing. While this route follows existing infrastructure on the northeast side of the Snake River, it follows at a greater distance, and there is no infrastructure to co-locate with on the northwest side of the BOPNCA.

Draft Portfolio Proposed Route for Segment 9 (Appendix D-26)

The Draft Portfolio route for Segment 9 generally follows the same alignment as the Baja Road-Sinker Creek route option described above, but crosses the Cove Recreation Site and NMA along the southern greenfield alignment described in the Cove Variation (see above). This route option was analyzed in detail in the FEIS as the Applicant Proposed Route and Alternative 9G.

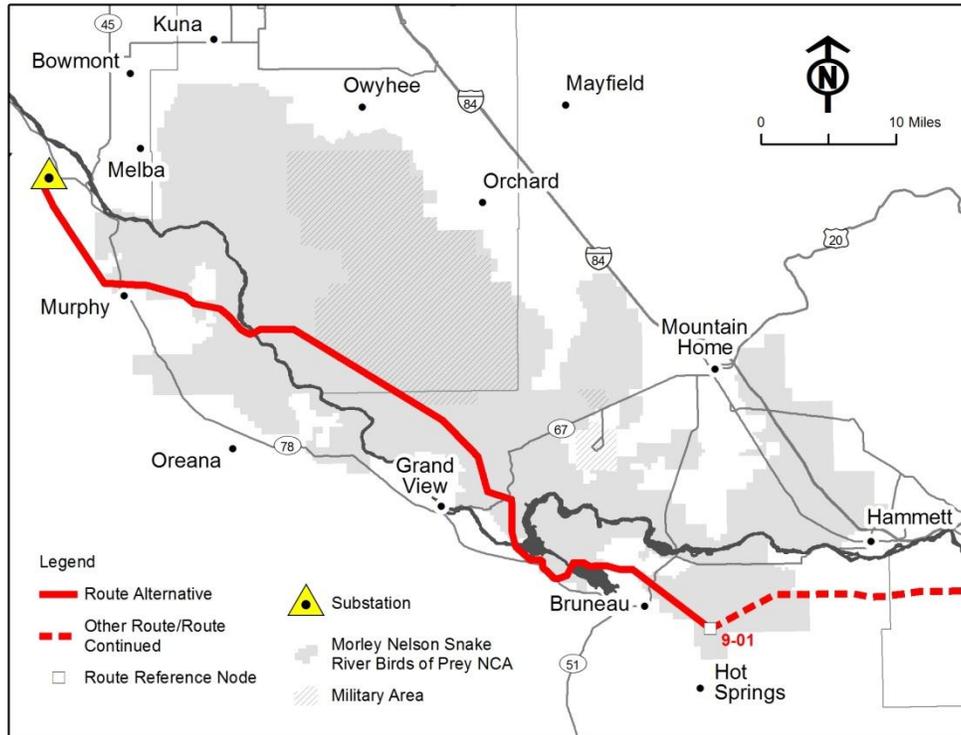


Figure C-26. Draft Portfolio Proposed Route for Segment 9.

Route Detail Summary

- 67.2 miles long, 53.1 miles in BOPNCA
- Parallels within 300 feet of existing transmission lines 23.0 miles, 20.6 miles in BOPNCA
- Crosses Cove non-motorized area on Greenfield alignment
- Crosses 3.8 miles of private property
- Crosses 20 non-federal parcels
- Within ¼ mile of 19 residences
- Within 1 mile of 109 residences
- Crosses 44.4 miles of shrubs
- Crosses 8.6 miles of general sage-grouse habitat
- Ecologically sensitive area at Sinker Creek, not an acceptable crossing

Sub-committee comments: Ecologically sensitive area at Sinker Creek, not consistent with BOPNCA direction. While this route follows existing infrastructure on the northeast side of Snake River, there is no infrastructure to co-locate with on the northwest side of the BOPNCA.