

Denali National Park and Preserve Geohazard Preliminary Response Plan (2020-2024)

PEPC 95472, 95985, 95986, 95987, 95988, 95989

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Introduction

Recent geohazard event frequency and magnitude have highlighted the need for additional planning. Safety and road resilience concerns may require monitoring and/or repairs at any of the more than 140 unstable slopes identified along the 92-mile Denali Park Road, as well as new sites as we identify them. The list of geohazard locations changes with time and weather and seismic events.

The purpose of this Preliminary Response Plan is to provide efficient compliance with existing laws and policy while addressing challenges with the Denali Park Road ("Road"). This suite of recommended actions that may need to be taken maximizes road resilience, safety, and protection of park resources.

Not defining allowable actions proactively could result in longer periods of road restrictions and closures, and alterations to the visitor experience. It could also contribute to rapid deterioration and functional loss of the historic Road and raise the potential for resource harm in the urgency to keep the Road passable.

This Preliminary Response Plan is divided into multiple sections. Section 1 covers actions that can take place within the Road's 300' wide right-of-way (ROW). Section 2 covers actions that can take place beyond the ROW, which for the purposes of this document is considered within designated wilderness. There may be instances where work is needed outside of the ROW but not within designated wilderness. These instances must follow guidance under Section 2 or seek Superintendent approval to operate under Section 1.

This Preliminary Response Plan complies with and builds upon programmatic compliance already approved under the following that are necessary to keep the road functional pre- and post-event:

- The 2007 Denali National Park and Preserve *Road Design Standards* and the 2005 *Denali Park Routine Road Maintenance, Repair and Operating Standards* (PEPC #10607);
- Nationwide Programmatic Agreement between the National Park Service, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act (2008);

Additionally, guidance from the following documents are incorporated:

- Denali Park Road Cultural Landscape Report (2019);
- National Park Service Procedural Manuals #77-1 Wetland Protection (2016) and #77-2 Floodplain Management (2002).

And finally, new programmatic compliance was completed to cover all remaining actions:

- Categorical Exclusion (CE) 3.3 C9, C10, C16, E5 and undocumented CE 3.2 E satisfying the National Environmental Protection Act (NEPA);
 - o C9 Repair, resurfacing, striping, installation of traffic control devices, repair/replacement of guardrails, etc, on existing roads.
Guidance: This CE also applied to road maintenance, rehabilitation, repaving, and reconstruction on existing roads within the existing road prism. Actions taken under this CE may also include repair or replacement of culverts, signs, surfacing of right-turn lanes at intersections in previously disturbed areas, seal coating a parking lot, maintenance of existing ravel road in the same footprint, routine roadside brushing, routine ditching, adding gravel, grading, and other modifications.
 - o C10: Installation of wells, comfort stations, and pit toilets in areas of existing use in developed areas.
Guidance: Other examples include pump houses and vault toilets.
 - o C16: Landscape and landscape maintenance in previously disturbed or developed areas.
 - o E5: Nondestructive data collection, inventory (including field, aerial, and satellites surveying and mapping), study, research, and monitoring activities.
Guidance: Some examples include vegetation plots and monitoring, soil surveys, species monitoring, and other nondestructive research activities that require a research permit.
 - o Undocumented Categorical Exclusion 3.2 E: Routine and continuing government business, including such things as supervision, administration, operations, maintenance, renovations, and replacement activities having limited context and intensity (e.g. limited size and magnitude or short-term effects);
- Programmatic Agreement for the Denali Park Road satisfying Section 106 of the National Historic Preservation Act (NHPA);
- Minimum Requirements Analysis required by the Wilderness Act.

NOTE regarding emergency actions: Emergency actions essential to protecting property and public health are limited to the minimum action required and that all possible steps are taken to mitigate the short- and long-term adverse impacts of these actions on floodplain and wetland values, cultural sites, wilderness areas, and other natural resources (NPS 2002, p. 9). Emergency actions must be documented afterwards and appropriate planning should be initiated to mitigate any adverse impacts to the resource.

NOTE regarding cultural resources: If the project activities include ground disturbance, archeological monitoring may be appropriate throughout the ground disturbing activities, in accordance with any recommendations from the Cultural Management Team (CRM). When monitoring is recommended, members of any appropriate Federally recognized Indian Tribe may be invited to participate in monitoring.

NOTE regarding renewal: All compliance elements of this Preliminary Response Plan have a five-year renewal cycle from time of adoption but may be renewed by a memo to file if there are no changes to recommended actions and no new affects to the environment.

This document includes:

Section 1: Actions approved within the ROW and outside of designated wilderness

Section 2: Actions approved beyond the ROW and within designated wilderness

Section 3: All other geohazard actions

Section 4: Reporting on all actions

Section 5: Actions explicitly not allowed without further compliance

Section 6: Definitions

Section 7: References

Appendix A: Categorical Exclusions

Appendix B: Park Road Programmatic Agreement

Appendix C: Minimum Requirements Analysis

Appendix D: US Army Corps of Engineers Emergency Protocols for Clean Water Act
Section 404 Permits

Appendix E: Wetland Procedures Emergency Actions and Excepted Actions

Appendix F: Floodplain Procedures for Emergency Actions and Excepted Actions

1) Section 1: Actions approved within the ROW and outside of designated wilderness include:

A. Monitoring of Geohazards

- i) Geotechnical Drilling and Installations. Drilling and installation of subsurface instrumentation within the ROW without vegetation or ground disturbance beyond the drill hole and for the purpose of understanding geologic material integrity and its relationship to other geologic layers¹.
 - a) Boreholes may be up to 10" in diameter, drilled no more than 200' deep, have caps flush with surface, and may have steel casing.
 - b) Instrumentation and subsurface installations must be recovered when possible or safely abandoned in place when necessary.
 - c) All holes without instrumentation will be backfilled at the conclusion of drilling and the grout at the surface will be stained to match the surrounding rock.
 - d) If located in wetlands, actions could fit under Section 404 Nationwide Permit (NWP) 5 or 6 (Appendix D). USACE consultation required.
- ii) Installation of temporary (in place 6 months or less) monitoring equipment to monitor active geohazards².
 - a) Monitoring equipment may be placed at up to 10 locations along the park road in one calendar year if the location of the equipment does not adversely affect the park road historic district, cultural landscape, or any other historic properties.
 - b) Equipment must be chosen and located to minimize visibility to visitors while providing the needed information. When possible, all equipment must be painted to match the natural surroundings to reduce its visibility.
 - c) This action includes the following installations as well as others that are comparable in scope, scale, and impact:
 - (a) GPS monuments. Up to 40 metal monuments can be installed at each geohazard area. Monuments can be rebar up to 5/8" diameter with up to a 2" aluminum cap. The monuments should be installed so that the caps are flush with the ground level.
 - (b) Time lapse cameras. Up to three time-lapse cameras per location and small solar charging stations can be installed.
 - (c) Total station and prisms. The prisms should be standard total station reflector prisms that would allow for real time tracking with the total station. The prisms can be up to 2" in diameter. They should be placed on 1-2' tall posts.

¹ CE 3.3 C10, PEPC 95987

² CE 3.3 E5, PEPC 95989

- (d) Solar panel arrays (including inverters, chargers, batteries, etc.) under 40 square feet in area.
 - (e) Installation of scientific measuring devices such as water level recorders, water-quality monitoring stations, small weirs or flumes, or similar devices necessary for monitoring of, or research on, wetland resources that result in no new ground disturbance.
 - (f) Installation of traffic counter equipment in up to 5 locations along the park road.
- iii) Access to Monitor Geohazards.
- a) Road access is the primary means to access geohazard sites³.
 - b) Fixed wing or helicopter access may be allowed when road access is not feasible, and they meet the objective provided below (as well as others that are comparable in scope, scale, and impact)⁴.
 - (a) Flying via fixed wing for photogrammetry monitoring or to access sites.
 - (b) Helicopter use for the purpose of monitoring instrumentation or geohazard progression.
 - c) All flights must be able to land at an established airstrip, on the Road, or within the Road ROW with minimal impact to visitors and wildlife⁵.
 - (a) Vegetation clearing for landing zones. Removal of vegetation is allowed as long as it does not contribute to the significance of any historic property and equipment and methods are used that do not introduce ground disturbance beyond documented natural or historic disturbance⁶.
 - (b) Any brush cutting beyond 5 meters from the Road structure must be MBTA-compliant and within park brushing guidelines and not affect any historic properties⁷. Park avian crew must be notified if brush clearing is anticipated.

B. Road and other infrastructure maintenance⁸

- i) Maintenance and repair including:
 - a) Existing roads, parking areas, and existing features may be repaired or resurfaced in-kind. The project, including staging areas, cannot exceed the area of the existing surface and cannot exceed the depth of the existing disturbance.
 - b) Existing infrastructure in wetlands that are currently serviceable facilities or structures of .1 acre or less can include full reconstruction of instream

³ CE 3.3 E5, PEPC 95989

⁴ CE 3.3 E5, PEPC 95989

⁵ CE 3.2 E, PEPC 95985

⁶ CE 3.3 C9, PEPC 95986; also PEPC 10607 Park Road Maintenance Standards

⁷ CE 3.3 C9, PEPC 95986; also PEPC 10607 Park Road Maintenance Standards

⁸ CE 3.3 C9, PEPC 95986

diversions, water intake or outfall structures, or similar, legal and permitted instream structures that are damaged or destroyed by a geohazard event.

- (a) This work would fit under NWP 3, Maintenance, no Preconstruction Notification Required (Appendix D). USACE consultation required.
- ii) Installation of engineered materials within the ROW to protect infrastructure
 - a) that will not impact the Park Road Historic District, cultural landscape, or any other historic properties.
 - b) The following installations are approved as well as others that are comparable in scope, scale, and impact:
 - (a) Engineered slope-regrade, drainage, retaining, and internal slope reinforcement structures could include: Gabions, crib-block walls, culverts, anchors, bolts, pins, retention nets, rockfall ditches, fences, walls, drains, surface drains, ditches, French drains, trench drains, counterfort drains, deep drains, drainage tunnels, drainage wells, horizontal and sub-horizontal drainage bores, electro-osmotic de-watering, vacuum and siphon drains, ferro-cement coatings, benches, retaining walls, piles, piers, porous fill, concrete cribbing, check dams (various materials and designs), re-grading (slope geometry modification), removal of unstable material, counterweight berms, buttress counterforts, concrete and reinforced earth retaining walls, large diameter caissons, ground anchors, lime/cement stabilization, grouting, soil nailing, biotechnical slope stabilization (combination of vegetative and structures), steel pipe grid dams, heat treatment, and freezing.
- iii) Placement of temporary signage within the road structure to reduce risks.
- iv) All other activities covered under the 2007 Denali National Park and Preserve Road Design Standards and the 2005 Denali Park Routine Road Maintenance, Repair and Operating Standards (#10607).

C. Storage and Staging of Heavy Equipment and Road Repair Materials⁹

- i) Heavy equipment and road construction materials for geohazard risk reduction efforts may be temporarily (not to exceed 2 months) stored at established pullouts or other locations where safe, practical, and necessary.

D. Debris Removal.

These actions apply to debris on the road structure or within the ROW resulting from a geohazard event where material was deposited on the Road as part of a natural process and the Road interrupted its natural flow. This action includes the following activities as well as others that are comparable in scope, scale, and impact¹⁰:

⁹ CE 3.2 E, PEPC 95985

¹⁰ CE 3.2 E, PEPC 95985

- i) Organic material may be removed and disposed of at an approved location to be used for future road maintenance or reclamation efforts.
- ii) Rockfall may be removed and stored at one of the active gravel pits for future use.
- iii) Material may be over-boarded when it will not go into designated wilderness, wetlands or stream channels, or affect the Park Road Historic District, Cultural Landscape or other Historic Property. Material may be pushed off the road surface downslope only if the slope will not exceed Design Standards, the push pile has no or minor visual impact, and no active streams are rerouted or dammed, OR there is an immediate life and safety need including evacuation of visitors or employees¹¹.
- iv) In some cases, staff may re-locate material in the immediate area for temporary (no more than 2 months) placement.

E. Drainage¹²

- i) Preventative temporary or permanent drainage measures within the Road ROW may be taken if conditions from or during a geohazard event pose a threat to the road structure or road users.
 - a) This action requires a Section 404 permit under NWP 14, Linear Transportation Projects or other appropriate NWP (Appendix D). USACE consultation required.
- ii) Mitigations implemented mimic natural processes and do not further inhibit fish passage.
- iii) Culverts and other drainage structures will return surface flows to their original channels below the road structure, matching at culvert outlet the original rate, slope, and direction of water flow to the extent possible and practical. The smallest appropriately sized culvert should be used. Culvert placements should minimize impacts to Road character.

F. Rehabilitation¹³

- i) A Roads supervisor must notify re-vegetation staff and facilities manager/park engineer within 24 hours to begin planning for any necessary revegetation and stabilization needs. Additional compliance may be needed for revegetation and stabilization efforts.
- ii) Actions designed to restore degraded (or completely lost) wetland, stream, riparian, or other aquatic habitats or ecological processes are allowed when:
 - a) Reestablishing environments in which natural ecological processes can, to the extent practicable, function as they did prior to disturbance AND

¹¹ CE 3.3 C16, PEPC 95988

¹² CE 3.3 C9, PEPC 95986

¹³ CE 3.3 C16, PEPC 95988

- b)* Actions cause a cumulative total of up to 0.25 acres of new, long-term adverse impacts on natural wetlands that are directly associated with and necessary for restoration (e.g., small structures) (NPS 2006).
- c)* Note: These activities may fit under NWP 27, Aquatic Habitat Restoration, Enhancement and Establishment activities. If the restoration work is not needed immediately, normal procedures would be followed. See Appendix D. USACE consultation required.
- d)* Note: Restoration projects related to wetland credits may be covered by a memo to file under this compliance with appropriate documentation and consultation.

2) Section 2: Actions approved beyond the ROW and in designated wilderness include:

Note: See Appendix B for the full Minimum Requirements Analysis

A. Least Impactful – Actions to be considered first

- i) Monitoring with no installations¹⁴
- ii) Modification of streambeds without dredging, filling, or use of motorized equipment or installations, and which would not change the natural character of the streambed or natural stream functions¹⁵
 - a) Examples of authorized work: minor restoration efforts using handwork with hand tools to redirect stream channel to its original alignment following a flood event, moving rocks manually, and clearing debris from infrastructure manually.

B. More Impactful

These may only be implemented under this compliance if the least impactful actions aren't feasible; actions must be documented in PEPC afterwards

- i) Monitoring including temporary installation of equipment for less than six months at a time¹⁶
- ii) Material distribution from the Road where it won't adversely affect the Denali Park Road Cultural Landscape or Historic District¹⁷
- iii) Fixed-wing landings for the purposes of monitoring and transportation¹⁸

C. Most Impactful

These may only be implemented under this compliance if the least and more impactful actions aren't feasible or it is a matter of health and safety; call required to DMT member prior to action and actions must be documented in PEPC afterwards

- i) Monitoring including temporary installation of equipment (not including drilling) for the purposes of having real-time data to inform decisions related to health and safety¹⁹
- ii) Material distribution from the Road at any location for the purposes of health and safety²⁰

¹⁴ CE 3.2 E (or Y), PEPC 95985

¹⁵ CE 3.3 C16, PEPC 95988

¹⁶ CE 3.3 E5, PEPC 95989

¹⁷ CE 3.3 C16, PEPC 95988

¹⁸ CE 3.2 E, PEPC 95985

¹⁹ CE 3.3 E5, PEPC 95989

²⁰ CE 3.3 C16, PEPC 95988

iii) Helicopter landings for the purposes of monitoring and transportation²¹

3) Section 3: All other geohazard actions

All other geohazard actions are subject to case-by-case notification of and approval by the management and compliance teams.

4) Section 4: Reporting on all actions

Reporting on all actions taken under this compliance shall be provided by the appropriate supervisor or division lead at the next management and/or compliance meetings, and be documented in PEPC, including:

- A. description of the project area;
- B. quantity and quality of effects on terrain;
- C. material used or removed;
- D. methods employed;
- E. traffic control used or in place;
- F. lifespan of the mitigation; and;
- G. a map showing boundaries;
- H. Next steps to mitigate impacts to the resource, such as the initiation of a new compliance project or the notification for inclusion in a major planning document.

5) Section 5: Actions explicitly not approved in any location without further compliance

- A. New ground disturbance for drilling, installation of temporary monitoring equipment, and similar activities outside of the scope of this Categorical Exclusion or the Park Road Programmatic Agreement
- B. Permanent installations that will negatively impact the historic character of the Road or that are outside of the Road ROW.
- C. Any 4(c) prohibition to the Wilderness Act not analyzed and approved in the associated Minimum Requirements Analysis in Appendix B
- D. Any modification of wetlands or floodplains, except as allowed under emergency and excepted actions in Appendix E and F
 - i) Actions outside the scope of this compliance may require a wetlands or floodplains Statement of Findings (SOF)
- E. Any activity requiring dredge or fill within a wetland or floodplain, except as allowed under emergency and excepted actions in Appendix C

²¹ CE 3.2 E, PEPC 95985

- i) Dredge and fill activities require consultation with the Army Corps of Engineers who will issue 404 Permit (Clean Water Act Sec 404 Permit) regardless of emergency. If a permit is required during normal operations, a permit is still required under emergency operations. Notify NEPA Coordinator if these actions are needed.
- F. Any activity within an anadromous stream (requires ADF&G fish permit)
 - i) As of May 2020 the only anadromous stream along the Road is Moose Creek.
 - ii) Check ADFG Alaska Fish Resource Monitor site for updates
(adfg.maps.arcgis.com)
- G. Any non-DOI fleet UAS operations

6) Section 6: Definitions

Geohazard – A result of active geologic processes that can be hazardous to people or infrastructure, and often occur rapidly without much warning (NPS 2019).

Emergency Action – Actions essential to protecting property, park infrastructure, and public health and safety from an immediate threat (NPS 2002).

Landslide – A geologic feature where a mass of earth or rock moves down a slope or separates from a rock face. They can occur over time or all at once (NPS 2019).

Material Distribution – The act of pushing material off the side on the park road without any intentional landscaping.

Material Storage – The storage of organic material somewhere that it can be accessed and repurposed when needed.

Minimum Requirement Analysis (MRA) – A process required by law whenever land managers consider use prohibited by Section 4(c) of the Wilderness Act. The resulting document defines the minimum tool that is authorized to complete the work (U of M, n.d.).

Mudflow/Debris Flow – A moving mass of earth (mud, soil, sand, rock, water) that travels down a slope and often coincide with heavy rain and flash flooding (NPS 2019).

Right of Way (ROW) - Refers to a 300' exclusion through Denali's Designated Wilderness in which the Denali Park Road travels. Additional cutouts along the Park Road exist in areas of existing or potential development as of 1980 (see Appendix E). ROW, as used in this document, does not apply to ownership of land.

Road Structure – A disturbed area of the Park Road including back, fill, and cut slopes.

Unmanned Aerial Systems (UAS) – Sometimes referred to as drones, are multi-use aircraft controlled from a licensed operator on the ground (FHA 2019).

7) Section 7: References

Federal Highway Administration (FHA). 2019. *Unmanned Aerial Systems*. Webpage accessed 5/22/2020. <https://www.fhwa.dot.gov/uas/>

National Park Service (NPS). 2019. *Alaska Nature and Science. Geohazards*. Webpage accessed 5/22/2020. <https://www.nps.gov/subjects/aknatureandscience/geohazards.htm>

National Park Service (NPS). 2006. United States Department of the Interior, National Park Service, Water Resources Division. Reissued June 2006. *National Park Service Procedural Manual #77-1: Wetland Protection*.

National Park Service (NPS). 2002. United States Department of the Interior, National Park Service. October 2002. *National Park Service Procedural Manual #77-2: Floodplain Management*.

University of Montana (U of M). N.d. *Wilderness Connect for Practitioners. Minimum Requirements Analysis*. Webpage accessed 5/22/2020. <https://wilderness.net/practitioners/minimum-requirements-analysis/default.php>

Appendix A: Categorical Exclusions

PEPC 95472: GeoHazards Preliminary Response Plan (2020-2024)

Undocumented Categorical Exclusion 3.2 R: Adoption of approval of surveys, studies, reports, plans and similar documents which will result in recommendations or proposed actions which would cause no or only minimal environmental impact.

PEPC 95985: Routine Operations related to GeoHazards Preliminary Response Plan

Undocumented Categorical Exclusion 3.2 E: Routine and continuing government business, including such things as supervision, administration, operations, maintenance, renovations, and replacement activities having limited context and intensity (e.g. limited size and magnitude or short-term effects);

PEPC 95986: Park Road ROW and Infrastructure Repair related to GeoHazards Preliminary Response Plan

C9 Repair, resurfacing, striping, installation of traffic control devices, repair/replacement of guardrails, etc, on existing roads.

Guidance: This CE also applied to road maintenance, rehabilitation, repaving, and reconstruction on existing roads within the existing road prism. Actions taken under this CE may also include repair or replacement of culverts, signs, surfacing of right-turn lanes at intersections in previously disturbed areas, seal coating a parking lot, maintenance of existing gravel road in the same footprint, routine roadside brushing, routine ditching, adding gravel, grading, and other modifications.

PEPC 95987: Drilling related to GeoHazards Preliminary Response Plan

C10: Installation of wells, comfort stations, and pit toilets in areas of existing use in developed areas.

Guidance: Other examples include pump houses and vault toilets.

PEPC 95988: Landscape Maintenance related to GeoHazards Preliminary Response Plan

C16: Landscape and landscape maintenance in previously disturbed or developed areas.

PEPC 95989: Nondestructive Monitoring related to GeoHazards Preliminary Response Plan

E5: Nondestructive data collection, inventory (including field, aerial, and satellites surveying and mapping), study, research, and monitoring activities.

Guidance: Some examples include vegetation plots and monitoring, soil surveys, species monitoring, and other nondestructive research activities that require a research permit.



Categorical Exclusion Documentation Form (CE Form)

Project: GeoHazards Preliminary Response Plan (2020-2024)

PEPC Project Number: 95472

Description of Action (Project Description):

Recent geohazard event frequency and magnitude have highlighted the need for additional planning. Safety and road resilience concerns may require monitoring and/or repairs at any of the more than 140 unstable slopes identified along the 92-mile Denali Park Road, as well as new sites as we identify them. The list of geohazard locations changes with time and weather and seismic events.

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This Preliminary Response Plan complies with and builds upon programmatic compliance already approved under the following that are necessary to keep the road functional pre- and post-event: - The 2007 Denali National Park and Preserve Road Design Standards and the 2005 Denali Park Routine Road Maintenance, Repair and Operating Standards (PEPC #10607); - Nationwide Programmatic Agreement between the National Park Service, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act (2008);

Additionally, guidance from the following documents are incorporated: - Denali Park Road Cultural Landscape Report (2019); - National Park Service Procedural Manuals #77-1 Wetland Protection (2016) and #77-2 Floodplain Management (2002). And finally, new programmatic compliance was completed to cover all remaining actions: - Categorical Exclusion (CE) 3.3 C9, C10, C16, E5 and undocumented CE 3.2 E satisfying the National Environmental Protection Act (NEPA); o C9 Repair, resurfacing, striping, installation of traffic control devices, repair/replacement of guardrails, etc, on existing roads. Guidance: This CE also applied to road maintenance, rehabilitation, repaving, and reconstruction on existing roads within the existing road prism. Actions taken under this CE may also include repair or replacement of culverts, signs, surfacing of right-turn lanes at intersections in previously disturbed areas, seal coating a parking lot, maintenance of existing gravel road in the same footprint, routine roadside brushing, routine ditching, adding gravel, grading, and other modifications. o C10: Installation of wells, comfort stations, and pit toilets in areas of existing use in developed areas. Guidance: Other examples include pump houses and vault toilets. o C16: Landscape and landscape maintenance in previously disturbed or developed areas. o E5: Nondestructive data collection, inventory (including field, aerial, and satellites surveying and mapping), study, research, and monitoring activities. Guidance: Some examples include vegetation plots and monitoring, soil surveys, species monitoring, and other nondestructive research activities that require a research permit. o Undocumented Categorical Exclusion 3.2 E: Routine and continuing government business, including such things as supervision, administration,

operations, maintenance, renovations, and replacement activities having limited context and intensity (e.g. limited size and magnitude or short-term effects); - Programmatic Agreement for the Denali Park Road satisfying Section 106 of the National Historic Preservation Act (NHPA); - Minimum Requirements Analysis required by the Wilderness Act.

NOTE regarding emergency actions: Emergency actions essential to protecting property and public health are limited to the minimum action required and that all possible steps are taken to mitigate the short- and long-term adverse impacts of these actions on floodplain and wetland values, cultural sites, wilderness areas, and other natural resources (NPS 2002, p. 9). Emergency actions must be documented afterwards and appropriate planning should be initiated to mitigate any adverse impacts to the resource.

NOTE regarding cultural resources: If the project activities include ground disturbance, archeological monitoring may be appropriate throughout the ground disturbing activities, in accordance with any recommendations from the Cultural Management Team (CRM). When monitoring is recommended, members of any appropriate Federally recognized Indian Tribe may be invited to participate in monitoring.

NOTE regarding renewal: All compliance elements of this Preliminary Response Plan have a five-year renewal cycle from time of adoption but may be renewed by a memo to file if there are no changes to recommended actions and no new affects to the environment.

See the full document attached.

Project Locations:

Location

County:	Denali Borough	State:	AK
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There are no required mitigations identified.

CE Citation: CEs for Which No Formal Documentation is Necessary

3.3 code = R, Adoption or approval of surveys, studies, reports, plans and similar documents which will result in recommendations or proposed actions which would cause no or only minimal environmental impact.

CE Justification:

All actions within this plan have approved compliance (PEPC # 95985, 95986, 95987, 95988, and 95989). This project allows for the adoption of the GeoHazards Preliminary Response Plan overall.

Decision: I find that the action fits within the categorical exclusion above. Therefore, I am categorically excluding the described project from further NEPA analysis. No extraordinary circumstances apply.

Signature

Superintendent:

BROOKE MERRELL

Digitally signed by BROOKE
MERRELL
Date: 2020.08.19 08:09:08 -08'00'

Date: _____

Brooke Merrell (Acting Deputy Superintendent)

Extraordinary Circumstances:

If implemented, would the proposal...	Yes/No	Notes
A. Have significant impacts on public health or safety?		
B. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?		
C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))?		
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?		
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?		
F. Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?		
G. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office?		
H. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species?		
I. Violate a federal, state, local or tribal law or requirement imposed for the protection of the environment?		
J. Have a disproportionately high and adverse effect on low income or minority populations (EO 12898)?		
K. Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)?		
L. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?		



Categorical Exclusion Documentation Form (CE Form)

Project: Routine Operations related to GeoHazards Preliminary Response Plan

PEPC Project Number: 95985

Description of Action (Project Description):

Recent geohazard event frequency and magnitude have highlighted the need for additional planning. Safety and road resilience concerns may require monitoring and/or repairs at any of the more than 140 unstable slopes identified along the 92-mile Denali Park Road, as well as new sites as we identify them. The list of geohazard locations changes with time and weather and seismic events.

Not defining allowable actions proactively could result in longer periods of road restrictions and closures, and alterations to the visitor experience. It could also contribute to rapid deterioration and functional loss of the historic Road and raise the potential for resource harm in the urgency to keep the Road passable.

The following actions are part of the Maintenance and Monitoring GeoHazards Preliminary Response Plan (PEPC #95472). The purpose of this Preliminary Response Plan is to provide efficient compliance with existing laws and policy while addressing challenges with the Denali Park Road ("Road"). Below is a set of recommended actions that may need to be taken related to routine operations that maximizes road resilience, safety, and protection of park resources.

Within the Road Right of Way and outside of Designated Wilderness 1. Access 1.a All flights, helo and fixed wing, must be able to land at an established airstrip, on the Road, or within the Road ROW with minimal impact to visitors and wildlife. 2. Storage and Staging of Heavy Equipment and Road Repair Materials 2.a Heavy equipment and road construction materials for geohazard risk reduction efforts may be temporarily (not to exceed 2 months) stored at established pullouts or other locations where safe, practical, and necessary. 3. Debris Removal. These actions apply to debris on the road structure or within the ROW resulting from a geohazard event where material was deposited on the Road as part of a natural process and the Road interrupted its natural flow. This action includes the following activities as well as others that are comparable in scope, scale, and impact: 3.a Organic material may be removed and disposed of at an approved location to be used for future road maintenance or reclamation efforts. 3.b Rockfall may be removed and stored at one of the active gravel pits for future use. 3.c In some cases, staff may re-locate material in the immediate area for temporary (no more than 2 months) placement.

Within Designated Wilderness 1. Access by foot or vehicle is approved by the MRA as a 'least impactful' action 2. Access by fixed-wing landing for the purposes of monitoring and transportation is approved by the MRA as a "more impactful" action requiring documentation in this project 3. Helicopter landings for the purposes of monitoring and transportation is approved by the MRA as a "most impactful" action requiring documentation in this project and prior approval from a DMT member

Project Locations:

Location

County:	Denali Borough	State:	AK
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There are no required mitigations identified.

CE Citation: CEs for Which No Formal Documentation is Necessary

3.3 code = E, Routine and continuing government business, including such things as supervision, administration, operations, maintenance, renovations, and replacement activities having limited context and intensity (e.g., limited size and magnitude or short-term effects).

CE Justification:

Decision: I find that the action fits within the categorical exclusion above. Therefore, I am categorically excluding the described project from further NEPA analysis. No extraordinary circumstances apply.

Signature

Superintendent:

BROOKE MERRELL

Digitally signed by BROOKE
MERRELL

Date: 2020.08.19 08:04:04 -08'00'

Date: _____

Brooke Merrell (Acting Deputy Superintendent)

Extraordinary Circumstances:

If implemented, would the proposal...	Yes/No	Notes
A. Have significant impacts on public health or safety?	No	Keeping the road free and clear of material improves health and safety by keeping access open. GARs are implemented by staff every time a fixed wing or helo flight is taken.
B. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?	No	Keeping the road free and clear of material maintains the Park Road Cultural Landscape. Storage is compliant with Programmatic Agreement.
C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))?	No	No change to alternatives uses of available resources.
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?	No	No change to environmental effects from regular road maintenance, other than it is more temporally sensitive and may be a greater quantify of material than usual.
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	No	
F. Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?	No	
G. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office?	No	These actions will maintain the Denali Park Road Historic District and Cultural Landscape.
H. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species?	No	No endangered species exist in the park.
I. Violate a federal, state, local or tribal law or requirement imposed for the protection of the environment?	No	
J. Have a disproportionately high and adverse effect on low income or minority populations (EO 12898)?	No	
K. Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)?	No	Allows access to be maintained.
L. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?	No	Material would only be moved from within the park and to the closest reasonable location.



Categorical Exclusion Documentation Form (CE Form)

Project: Park Road ROW and Infrastructure Repair related to GeoHazards Preliminary Response Plan

PEPC Project Number: 95986

Description of Action (Project Description):

Recent geohazard event frequency and magnitude have highlighted the need for additional planning. Safety and road resilience concerns may require monitoring and/or repairs at any of the more than 140 unstable slopes identified along the 92-mile Denali Park Road, as well as new sites as we identify them. The list of geohazard locations changes with time and weather and seismic events.

Not defining allowable actions proactively could result in longer periods of road restrictions and closures, and alterations to the visitor experience. It could also contribute to rapid deterioration and functional loss of the historic Road and raise the potential for resource harm in the urgency to keep the Road passable.

The following actions are part of the Maintenance and Monitoring GeoHazards Preliminary Response Plan (PEPC #95472). The purpose of this Preliminary Response Plan is to provide efficient compliance with existing laws and policy while addressing challenges with the Denali Park Road ("Road"). Below is a set of recommended actions that may need to be taken related to road and infrastructure maintenance that maximizes road resilience, safety, and protection of park resources.

Within the Road Right of Way and outside of Designated Wilderness 1. Vegetation clearing for landing zones. Removal of vegetation is allowed as long as it does not contribute to the significance of any historic property and equipment and methods are used that do not introduce ground disturbance beyond documented natural or historic disturbance. 2. Any brush cutting beyond 5 meters from the Road structure must be MBTA-compliant and within park brushing guidelines and not affect any historic properties. 3. Road and Infrastructure Maintenance and repair including: 3.1 Existing roads, parking areas, and existing features may be repaired or resurfaced in-kind. The project, including staging areas, cannot exceed the area of the existing surface and cannot exceed the depth of the existing disturbance. 3.2 Existing infrastructure in wetlands that are currently serviceable facilities or structures of .1 acre or less can include full reconstruction of instream diversions, water intake or outfall structures, or similar, legal and permitted instream structures that are damaged or destroyed by a geohazard event. 4. Installation of engineered materials within the ROW to protect infrastructure 4.1 that will not impact the Park Road Historic District, cultural landscape, or any other historic properties. 4.2 The following installations are approved as well as others that are comparable in scope, scale, and impact: 4.2.a Engineered slope-regrade, drainage, retaining, and internal slope reinforcement structures could include: Gabions, crib-block walls, culverts, anchors, bolts, pins, retention nets, rockfall ditches, fences, walls, drains, surface drains, ditches, French drains, trench drains, counterfort drains, deep drains, drainage tunnels, drainage wells, horizontal and sub-horizontal drainage bores, electro-osmotic de-watering, vacuum and siphon drains, ferro-cement coatings, benches, retaining walls, piles, piers, porous fill, concrete cribbing, check dams (various materials and designs), re-grading (slope geometry modification), removal of unstable material, counterweight berms, buttress counterforts, concrete and reinforced earth retaining walls, large diameter caissons, ground anchors, lime/cement stabilization, grouting, soil nailing, biotechnical slope stabilization (combination of vegetative and structures), steel pipe grid dams, heat treatment, and freezing. 5. Placement of temporary signage within the road structure to reduce risks. 6. All other activities covered under the 2007 Denali National Park and Preserve Road Design Standards and the 2005 Denali Park Routine Road Maintenance, Repair and Operating Standards (#10607). 7. Drainage 7.a Preventative temporary or permanent drainage measures within the Road ROW may be taken if conditions from or during a geohazard event pose a threat to the road structure or road users. 7.b Mitigations implemented mimic natural processes and do not further inhibit fish passage. 7.c Culverts and other drainage structures will return surface flows to their original channels below the road structure, matching at culvert outlet the original rate, slope, and direction of water flow to the extent possible and practical. The smallest appropriately sized culvert should be used. Culvert placements should minimize impacts to Road character.

Project Locations:

Location

County: Denali Borough

State: AK

There are no required mitigations identified.

CE Citation: C.9 Repair, resurfacing, striping, installation of traffic control devices, repair/replacement of guardrails, etc., on existing roads.

CE Justification:

This CE covers routine maintenance and repairs to the Denali Park Road that are caused by geohazards and aren't already covered under existing compliance. This will allow field staff to make immediate repairs [within appropriate scope] to maintain access and preserve the cultural and historic Park Road.

Decision: I find that the action fits within the categorical exclusion above. Therefore, I am categorically excluding the described project from further NEPA analysis. No extraordinary circumstances apply.

Signature

Superintendent: BROOKE MERRELL Digitally signed by BROOKE MERRELL
Date: 2020.08.19 08:06:35 -08'00' **Date:** _____
Brooke Merrell (Acting Deputy Superintendent)

Extraordinary Circumstances:

If implemented, would the proposal...	Yes/No	Notes
A. Have significant impacts on public health or safety?	No	
B. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?	No	
C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))?	No	
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?	No	
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	No	
F. Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?	No	
G. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office?	No	
H. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species?	No	
I. Violate a federal, state, local or tribal law or requirement imposed for the protection of the environment?	No	
J. Have a disproportionately high and adverse effect on low income or minority populations (EO 12898)?	No	
K. Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)?	No	
L. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?	No	



Categorical Exclusion Documentation Form (CE Form)

Project: Drilling related to GeoHazards Preliminary Response Plan

PEPC Project Number: 95987

Description of Action (Project Description):

Recent geohazard event frequency and magnitude have highlighted the need for additional planning. Safety and road resilience concerns may require monitoring and/or repairs at any of the more than 140 unstable slopes identified along the 92-mile Denali Park Road, as well as new sites as we identify them. The list of geohazard locations changes with time and weather and seismic events.

Not defining allowable actions proactively could result in longer periods of road restrictions and closures, and alterations to the visitor experience. It could also contribute to rapid deterioration and functional loss of the historic Road and raise the potential for resource harm in the urgency to keep the Road passable.

The following actions are part of the Maintenance and Monitoring GeoHazards Preliminary Response Plan (PEPC #95472). The purpose of this Preliminary Response Plan is to provide efficient compliance with existing laws and policy while addressing challenges with the Denali Park Road ("Road"). Below is a set of recommended actions that may need to be taken related to landscape maintenance that maximizes road resilience, safety, and protection of park resources.

Within the Road Right of Way and outside of Designated Wilderness 1. Geotechnical Drilling and Installations: Drilling and installation of subsurface instrumentation within the ROW without vegetation or ground disturbance beyond the drill hole and for the purpose of understanding geologic material integrity and its relationship to other geologic layers. 1.a Boreholes may be up to 10" in diameter, drilled no more than 200' deep, have caps flush with surface, and may have steel casing. 1.b Instrumentation and subsurface installations must be recovered when possible or safely abandoned in place when necessary. 1.c All holes without instrumentation will be backfilled at the conclusion of drilling and the grout at the surface will be stained to match the surrounding rock.

Within Designated Wilderness Drilling within designated wilderness will require addition 106 and MRA compliance.

Project Locations:

Location

County:	Denali Borough	State:	AK
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There are no required mitigations identified.

CE Citation: C.10 Installation of wells, comfort stations and pit toilets in areas of existing use and in developed areas.

CE Justification:

This CE streamlines compliance needed to monitor changes in and threats to the Denali Park Road by melting permafrost. Drilling within designated wilderness will require addition 106 and MRA compliance.

Decision: I find that the action fits within the categorical exclusion above. Therefore, I am categorically excluding the described project from further NEPA analysis. No extraordinary circumstances apply.

Signature

Superintendent:

BROOKE MERRELL
Digitally signed by BROOKE
MERRELL
Date: 2020.08.19 07:34:31 -08'00'

Brooke Merrell (Acting Deputy Superintendent)

Date: _____

Extraordinary Circumstances:

If implemented, would the proposal...	Yes/No	Notes
A. Have significant impacts on public health or safety?		
B. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?		
C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))?		
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?		
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?		
F. Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?		
G. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office?		
H. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species?		
I. Violate a federal, state, local or tribal law or requirement imposed for the protection of the environment?		
J. Have a disproportionately high and adverse effect on low income or minority populations (EO 12898)?		
K. Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)?		
L. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?		



Categorical Exclusion Documentation Form (CE Form)

Project: Landscape Maintenance related to GeoHazards Preliminary Response Plan

PEPC Project Number: 95988

Description of Action (Project Description):

Recent geohazard event frequency and magnitude have highlighted the need for additional planning. Safety and road resilience concerns may require monitoring and/or repairs at any of the more than 140 unstable slopes identified along the 92-mile Denali Park Road, as well as new sites as we identify them. The list of geohazard locations changes with time and weather and seismic events.

Not defining allowable actions proactively could result in longer periods of road restrictions and closures, and alterations to the visitor experience. It could also contribute to rapid deterioration and functional loss of the historic Road and raise the potential for resource harm in the urgency to keep the Road passable.

The following actions are part of the Maintenance and Monitoring GeoHazards Preliminary Response Plan (PEPC #95472). The purpose of this Preliminary Response Plan is to provide efficient compliance with existing laws and policy while addressing challenges with the Denali Park Road ("Road"). Below is a set of recommended actions that may need to be taken related to landscape maintenance that maximizes road resilience, safety, and protection of park resources.

Within the Road Right of Way and outside of Designated Wilderness 1. Material may be over-boarded when it will not go into designated wilderness or affect the Park Road Historic District, Cultural Landscape or other Historic Property. Material may be pushed off the road surface downslope only if the slope will not exceed Design Standards, the push pile has no or minor visual impact, and no active streams are rerouted or dammed, OR there is an immediate life and safety need including evacuation of visitors or employees. 2. Rehabilitation 2.a A Roads supervisor must notify re-vegetation staff and Chief of Maintenance/park engineer within 24 hours to begin planning for any necessary revegetation and stabilization needs. Additional compliance may be needed for revegetation and stabilization efforts. 2.b Actions designed to restore degraded (or completely lost) wetland, stream, riparian, or other aquatic habitats or ecological processes are allowed when: 2.b.1 Reestablishing environments in which natural ecological processes can, to the extent practicable, function as they did prior to disturbance AND 2.b.2 Actions cause a cumulative total of up to 0.25 acres of new, long-term adverse impacts on natural wetlands that are directly associated with and necessary for restoration (e.g., small structures) (NPS 2006).

Within Designated Wilderness 1. Modification of streambeds without dredging, filling, or use of motorized equipment or installations, and which would not change the natural character of the streambed or natural stream functions (approved in the MRA as a "least impactful" action) 1.a Examples of authorized work: minor restoration efforts using handwork with hand tools to redirect stream channel to its original alignment following a flood event, moving rocks manually, and clearing debris from infrastructure manually. 2. Material distribution from the Road in areas that do not adversely affect the Denali Park Road Cultural Landscape or Historic District. 3. Material distribution from the Road at any location for the purposes of health and safety (approved in the MRA as a "most impactful" action requiring documentation and approval from a DMT member)

Project Locations:

Location

County: Denali Borough **State:** AK

There are no required mitigations identified.

CE Citation: C.16 Landscaping and landscape maintenance in previously disturbed or developed areas.

CE Justification:

This CE streamlines compliance needed to maintain access and protect the Denali Park Road as a historic and cultural resource during geohazard incidents.

Decision: I find that the action fits within the categorical exclusion above. Therefore, I am categorically excluding the described project from further NEPA analysis. No extraordinary circumstances apply.

Signature

Superintendent:

BROOKE MERRELL

Digitally signed by BROOKE
MERRELL
Date: 2020.08.19 07:43:08 -08'00'

Date: _____

Brooke Merrell (Acting Deputy Superintendent)

Extraordinary Circumstances:

If implemented, would the proposal...	Yes/No	Notes
A. Have significant impacts on public health or safety?	No	
B. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?	No	
C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))?	No	
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?	No	
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	No	
F. Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?	No	
G. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office?	No	
H. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species?	No	
I. Violate a federal, state, local or tribal law or requirement imposed for the protection of the environment?	No	
J. Have a disproportionately high and adverse effect on low income or minority populations (EO 12898)?	No	
K. Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)?	No	
L. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?	No	



Categorical Exclusion Documentation Form (CE Form)

Project: Nondestructive Monitoring related to GeoHazards Preliminary Response Plan

PEPC Project Number: 95989

Description of Action (Project Description):

Recent geohazard event frequency and magnitude have highlighted the need for additional planning. Safety and road resilience concerns may require monitoring and/or repairs at any of the more than 140 unstable slopes identified along the 92-mile Denali Park Road, as well as new sites as we identify them. The list of geohazard locations changes with time and weather and seismic events.

Not defining allowable actions proactively could result in longer periods of road restrictions and closures, and alterations to the visitor experience. It could also contribute to rapid deterioration and functional loss of the historic Road and raise the potential for resource harm in the urgency to keep the Road passable.

The following actions are part of the Maintenance and Monitoring GeoHazards Preliminary Response Plan (PEPC #95472). The purpose of this Preliminary Response Plan is to provide efficient compliance with existing laws and policy while addressing challenges with the Denali Park Road ("Road"). Below is a set of recommended actions that may need to be taken related to nondestructive monitoring that maximizes road resilience, safety, and protection of park resources.

Within the Road Right of Way and outside of Designated Wilderness 1. Installation of temporary (in place 6 months or less) monitoring equipment to monitor active geohazards. 1.a Monitoring equipment may be placed at up to 10 locations along the park road in one calendar year as long as the location of the equipment does not adversely affect the park road historic district, cultural landscape, or any other historic properties. 1.b Equipment must be chosen and located to minimize visibility to visitors while providing the needed information. When possible, all equipment must be painted to match the natural surroundings to reduce its visibility. 1.c This action includes the following installations as well as others that are comparable in scope, scale, and impact: 1.c.1 GPS monuments. Up to 40 metal monuments can be installed at each geohazard area. Monuments can be rebar up to 5/8" diameter with up to a 2" aluminum cap. The monuments should be installed so that the caps are flush with the ground level. 1.c.2 Time lapse cameras. Up to three time-lapse cameras per location and small solar charging stations can be installed. 1.c.3 Total station and prisms. The prisms should be standard total station reflector prisms that would allow for real time tracking with the total station. The prisms can be up to 2" in diameter. They should be placed on 1-2' tall posts. 1.c. 4 Solar panel arrays (including inverters, chargers, batteries, etc.) under 40 square feet in area. 1.c. 5 Installation of scientific measuring devices such as water level recorders, water-quality monitoring stations, small weirs or flumes, or similar devices necessary for monitoring of, or research on, wetland resources that result in no new ground disturbance. 1.c.6 Installation of traffic counter equipment in up to 5 locations along the park road.

Within Designated Wilderness 1. Monitoring with no installations (approved per MRA as a 'least impactful' action) 2. Monitoring including temporary installation of equipment for less than six months at a time (approved per MRA as a 'more impactful' action requiring documentation in this PEPC project) 3. Monitoring including temporary installation of equipment for the purposes of having real-time data to inform decisions related to health and safety (approved per MRA as a 'most impactful' action requiring documentation in this PEPC project as well as previous approval from a DMT member)

Project Locations:

Location

County:	Denali Borough	State:	AK
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There are no required mitigations identified.

CE Citation: E.5 Nondestructive data collection, inventory (including field, aerial, and satellite surveying and mapping), study, research, and monitoring activities.

CE Justification:

The CE streamlines requests for nondestructive monitoring methods with temporary installations for the purposes of better understanding the dynamic changes to the landscape and Denali Park Road from geohazards.

Decision: I find that the action fits within the categorical exclusion above. Therefore, I am categorically excluding the described project from further NEPA analysis. No extraordinary circumstances apply.

Signature

Superintendent: BROOKE MERRELL Digitally signed by BROOKE MERRELL
Date: 2020.08.19 08:01:03 -08'00' **Date:** _____
Brooke Merrell (Acting Deputy Superintendent)

Extraordinary Circumstances:

If implemented, would the proposal...	Yes/No	Notes
A. Have significant impacts on public health or safety?	No	
B. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?	No	
C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))?	No	
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?	No	
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	No	
F. Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?	No	
G. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office?	No	
H. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species?	No	
I. Violate a federal, state, local or tribal law or requirement imposed for the protection of the environment?	No	
J. Have a disproportionately high and adverse effect on low income or minority populations (EO 12898)?	No	
K. Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)?	No	
L. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?	No	

**PROGRAMMATIC AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE,
DENALI NATIONAL PARK AND PRESERVE
AND
THE ALASKA STATE HISTORIC PRESERVATION OFFICER
REGARDING ROUTINE MAINTENANCE, REPAIR, OPERATIONS, BRIDGE AND
CULVERT REPLACEMENTS, GEOHAZARD MONITORING, AND EMERGENCY
MAINTENANCE ON THE DENALI PARK ROAD CORRIDOR**

WHEREAS, National Park Service (NPS), Denali National Park and Preserve (DNPP) undertakings include the routine maintenance, repair, operations, bridge and culvert replacements, as well as monitoring and emergency maintenance activities related to geohazard events of the Denali Park Road corridor with specific activities that include monitoring, road maintenance and repair, heavy equipment storage, removal and storage of desirable and undesirable material storage, drainage, rehabilitation, and evacuation; and

WHEREAS, DNPP determined in consultation with the State Historic Preservation Officer (SHPO) that the 2019 Park Road MP 62.7 and 63 Bypass Construction project resulted in an adverse effect to the Park Road; and

WHEREAS, DNPP determined in consultation with SHPO that removal of the Mission 66 bridges, including the Ghiglione bridge, is an adverse effect to the Park Road; and

WHEREAS, DNPP is the lead federal agency responsible for conducting Section 106 reviews, pursuant to the National Historic Preservation Act of 1966 (and its implementing regulation 36 CFR Part 800) within DNPP, including for projects initiated by the Federal Highway Administration (FHWA), per the 1983 Interagency Agreement between NPS and FHWA, and

WHEREAS, the State of Alaska is the owner of the of the Kantishna Road between the original park boundary north of Wonder Lake (approximately mile 88.0) and the road end (approximately mile 92.5); and the State of Alaska Department of Transportation and Public Facilities (DOT&PF), Northern Region, is responsible for the management, maintenance and repair thereof and so is herein included as an invited signatory, and

WHEREAS, for the purpose of this document the Kantishna Road is considered part of the Denali Park Road, and

WHEREAS, geohazard frequency and magnitude have increased beyond documented historical norms resulting in road closures, with safety and road resiliency concerns that require monitoring and repairs of the more than 140 unstable slopes along the Denali Park Road corridor August 2020; and

WHEREAS, DNPP has defined the physical Area of Potential Effects (APE) for the Denali Park Road corridor as encompassing the entire approximately 92-mile long road and a 300-foot wide Right-of-Way (150' on either side from center of road) (Attachment A). The APE for other effects (such as visual or noise effects), includes a one milewide perimeter that surrounds the direct APE; and

WHEREAS, DNPP has determined that the activities listed above constitute undertakings, as defined at 36 CFR 800.16(y) that may affect the Mount McKinley National Park Road Historic District (AHRs site numbers HEA-00517, HEA-00429, and MMK-00171), which is also a recognized Cultural Landscape, eligible for listing in the National Register of Historic Places, and;

WHEREAS, DNPP has consulted with the SHPO pursuant to 36 CFR Part 800, the regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108); and

WHEREAS, DNPP has initiated consultation with: the Native Village of Cantwell, Native Village of Minto, Manly Hot Spring Village, Nenana Native Association, Nikolai Village, Native Village of Tanana, Telida Village, Tanana Chiefs Conference, Ahtna Incorporated., Doyon Limited, Cook Inlet Region Inc., Seth-De-Ya Corporation, Tozitna Limited, Toghoththele Corporation, and MTNT Limited (letters sent May 12th, 2020), inviting consultation on this Programmatic Agreement (PA) regarding the effects of undertakings on historic properties, and has invited them to sign this PA as Concurring Parties, and DNPP received a response from Tanana Chiefs Conference indicating their desire to continue consultation and no other responses; and

WHEREAS, DNPP has initiated consultation with: the Denali Citizens Council, Matanuska-Susitna Borough, Denali Borough, Talkeetna Community Council, the Talkeetna Historical Society, and the public (letters sent May 12th, 2020), inviting consultation on this PA regarding the effects of undertakings on historic properties, and has invited them to sign this PA as Concurring Parties, and DNPP received no responses; and

WHEREAS, in accordance with 36 CFR § 800.14(b)), DNPP has notified the Advisory Council on Historic Preservation (ACHP) of its intent to execute a Programmatic Agreement with specified documentation, and the ACHP has chosen not to participate in the consultation (letter dated July 22nd, 2020) pursuant to 36 CFR § 800.6(a)(1)(iii); and

NOW, THEREFORE, DNPP and the SHPO agree that the following stipulations shall be implemented in order to take into account the effect of the undertakings on historic properties.

STIPULATIONS

The NPS DNPP Superintendent shall ensure that the following measures are carried out:

I. Administrative Stipulations

- A. In the event that another federal agency, not initially a party to this PA, receives an application for funding/license/permit for the Undertaking, as it is described in this PA, that agency may fulfill its Section 106 responsibilities by stating in writing that it concurs with the terms of this PA and by notifying the Signatories that it intends to do so. Such agreement shall be evidenced by execution of a Signature Page and filing it with the ACHP, and implementation of the terms of this PA.
- B. This PA may be executed in counterparts, with a separate page for each Signatory and Invited Signatory.
- C. Email will be an acceptable form of communication between the Consulting Parties and is an appropriate method of “notification” or “in writing” where it is called for in this PA, unless otherwise described. If a Consulting Party does not have access to email or consistently available internet service, then the DNPP will ensure that other forms of communication are made available. All the Consulting Parties should immediately notify the DNPP if a point of contact within their organization changes and provide updated information.

II. Alternate Procedures

- A. DNPP, in consultation with SHPO and DOT&PF, will follow an alternate procedure to comply with Section 106 of the National Historic Preservation Act regarding undertakings for the Park Road that are included in Attachments B and C.
 - 1. DNPP Cultural Resource Management (CRM) Team will review undertakings to determine if activities are covered in Attachments B and C. If so, the DNPP CRM Team will document to file the finding and include the undertaking in the annual report.
 - 2. If the project activities include ground disturbance, archaeological monitoring may be appropriate throughout the ground disturbing activities, in accordance with any recommendation of the CRM Team. When monitoring is recommended, members of any appropriate Federally recognized Indian Tribes may be invited to participate in monitoring.
 - 3. DNPP may not use alternative procedures if an undertaking’s APE has not been inventoried for historic properties or if there is potential to adversely affect a known historic property that is not part of the Park Road.
 - 4. This PA does not cover large road realignment design projects, development of new gravel source sites, or permanent road closures.
- B. DNPP will use standard Section 106 (36 CFR 800) for undertakings that are not included in Attachments B and C, or are otherwise precluded from this PA.

III. Activities with No Potential for Adverse Effect

See Attachment B

IV. Activities That May Result in Adverse Effects

See Attachment C

V. Mitigation

- A. This mitigation covers potential adverse effects to the park road historic district and/or cultural landscape, as identified under Attachment C, as well as for the known adverse effect that occurred during the 2019 Park Road MP 62.7 and 63 Bypass Construction project and for the removal of the Mission 66 bridges. It does not provide mitigation for actions that cause unanticipated effects on historic properties other than the Park Road that may occur during implementation of PA activities.
- B. The Denali Park Road Cultural Landscape Report (CLR) will be used to guide specific recommendations for the treatment of the Park Road Historic District, Cultural Landscape, and the features including, but not limited to the following:
 1. Bridge replacements. The CLR will be used to guide specific treatment recommendations for bridges. Prior to project implementation, existing bridges will be documented so that each type and/or variation of bridge will include full HABS/HAER documentation, with lesser documentation required for repetitive types.
 - a. Ghiglione Bridge. Complete HABS/HAER Level I documentation, following guidelines for inclusion in the Library of Congress. The Ghiglione Bridge will be used as the type bridge for all of the remaining Mission 66 bridges on the Park Road.
 - b. Remaining Mission 66 Bridges. Complete photo documentation. Once the initial type (the Ghiglione Bridge) is extensively documented, then the following same type will be photo-documented. Digital photographs will be retained in park files and copies submitted to SHPO.
- C. Preparation of podcast and/or audiobook based on DNPP's *Snapshots of the Past* publication that is consistent with the traveler-in-mind narrative to present historic information in sequence with the road mileposts.
 1. Submittals:
 - a. A draft outline of the podcast text will be prepared within five years of the signing of this PA and will be submitted to SHPO and other signatories for a 30 day review.
 - b. Six months after receiving SHPO comments on the outline, DNPP will submit a final draft of the podcast narrative to SHPO and other signatories for review.
 - c. SHPO and other signatories will have 30 days to review and return comments.

- d. Six months after receiving SHPO comments, DNPP will submit a copy of the final narrative to SHPO and other signatories. The final narrative will be submitted for publication and eventual release to the public. The product will be available for download on the NPS web site.
- D. A public information brief that describes the historic road and cultural landscape, the geological and environmental changes of the landscape that the road is experiencing, the park's efforts to address these changes, and visitor awareness and safety information. The information will be posted on the park website, social media platforms, and will be on display in the visitor center(s). It will be updated prior to each visitor summer season.
 - 1. Submittals:
 - a. A draft of the first annual brief will be prepared within three years of the signing of this PA and will be submitted to the SHPO and other signatories for a 30 day review.
 - b. Two months after receiving SHPO comments on the brief, DNPP will submit a final draft of the brief to the SHPO and other signatories for review.
 - c. SHPO and other signatories will have 30 days to review and return comments.
 - d. Four months after receiving SHPO comments, DNPP will submit a copy of the final brief to SHPO and other signatories. The final brief will be posted on the park website, social media platforms, and will be on display in the visitor center(s).
 - e. Subsequent versions/ updates of the briefing will be addressed through comments in the annual report to SHPO.

VI. DURATION

This PA will expire ten years from the date of its execution. Prior to such time, DNPP may consult with the other signatories to reconsider the terms of the PA and amend it in accordance with Stipulation X below.

VII. POST-REVIEW DISCOVERIES

In the event that historic properties are discovered during project implementation or unanticipated effects on historic properties occurs, DNPP shall consult with SHPO and other consulting parties under 36 CFR §800 in order to make reasonable efforts to avoid, minimize, or mitigate adverse effects to such properties.

VIII. MONITORING AND REPORTING

Each year, following the execution of this PA until it expires or is terminated, DNPP shall provide the SHPO with a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received regarding DNPP's efforts to carry out the terms of this PA.

- A. The Annual report will include:
 - 1. A list of the undertakings carried out pursuant this PA with a short description and the Attachment citation that allowed application of the alternative procedure;
 - 2. A list of the upcoming projects; and
 - 3. All monitoring reports or inventory reports that were conducted pursuant to this PA.

IX. DISPUTE RESOLUTION

Should any signatory or concurring party to this PA object at any time to any actions proposed or the manner in which the terms of this PA are implemented, DNPP shall consult with such party to resolve the objection. If DNPP determines that such objection cannot be resolved, DNPP will follow the process outlined in 36 CFR §800.7:

- A. Forward all documentation relevant to the dispute, including the DNPP and proposed resolution, to the ACHP. The ACHP shall provide DNPP and with its advice on the resolution of the objection within forty-five (45) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, DNPP shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties and provide them with a copy of this written response. DNPP will then proceed according to its final decision.
- B. If the ACHP does not provide its advice regarding the dispute within the forty-five (45) day-time period, DNPP may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, DNPP shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.
- C. It is the responsibility of DNPP to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

Concurring Parties and Consulting Parties (which includes members of the public) may bring objections or concerns to any of the Signatories who may then utilize the objections process outlined in Stipulation IX.

X. AMENDMENTS

This PA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

- A. PA Attachments may be amended with a streamlined process as follows. Any PA Signatory may propose an amendment to an Attachment by submitting a request in writing to DENA. If DENA concurs that the amendment improves or updates the Attachment(s), DENA will share the proposed amendment with the Consulting Parties for a 30-day review and comment period. If no comments are received at the end of the

review period, DENA will move forward with the proposed amendment and will provide Consulting Parties with a revised version of the Attachment(s).

XI. TERMINATION

If any signatory to this PA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Stipulation X, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the PA upon written notification to the other signatories.

Once the PA is terminated, and prior to work continuing on any covered undertaking, DNPP must either (a) execute another agreement pursuant to 36 CFR § 800.14(b) or (b) comply with 36 CFR 800 with regard to each undertaking pursuant to 36 CFR 800.14(b)(2)(v). DNPP and shall notify the signatories and concurring parties as to the course of action it will pursue.

XII. ANTI-DEFICIENCY ACT

All requirements set forth in this PA requiring the expenditure of DNPP funds are expressly subject to the availability of appropriations and the requirements of the Anti-Deficiency Act (31 U.S.C. Section 1341). No obligation undertaken by DNPP under the terms of this PA will require or be interpreted to require a commitment to expend funds not obligated for a particular purpose.

- A. If DNPP cannot perform any obligations set forth in the PA due to the unavailability of funds, the signatories to this PA intend the remainder of the agreement to be executed.
- B. In the event that any obligation under the PA cannot be performed due to the unavailability of funds, DNPP agrees to utilize its best efforts to renegotiate the provision and may require that the parties initiate consultation to develop an amendment to this PA when appropriate.

Execution of this PA by the DNPP and SHPO and implementation of its terms evidence that DNPP have taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

XIII. REFERENCES

National Park Service, “Denali National Park and Preserve Gravel Acquisition Plan”, Denali National Park and Preserve, 2003.

National Park Service, “Denali National Park and Preserve Road Design Standards”, Denali National Park and Preserve, Revised 2007.

National Park Service, “Denali Park Road Maintenance, Repair and Operating Standards”, Denali National Park and Preserve, 2005.

National Park Service, "Mount McKinley National Park Road Historic District: Cultural Landscape Report" by Laurie Matthews, Robert Z. Melnick, Rachel Edmonds, Edward San Filippo, and Mathangi Murthy. Portland: MIG, Inc., 2018.

National Park Service, "Mount McKinley National Park Road Historic District: National Register of Historic Places Nomination," Denali National Park and Preserve, 2020.

**PROGRAMMATIC AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE,
DENALI NATIONAL PARK AND PRESERVE
AND
THE ALASKA STATE HISTORIC PRESERVATION OFFICER
REGARDING ROUTINE MAINTENANCE, REPAIR, OPERATIONS, BRIDGE AND
CULVERT REPLACEMENTS, GEOHAZARD MONITORING, AND EMERGENCY
MAINTENANCE ON THE DENALI PARK ROAD CORRIDOR**

Signatory

DENALI NATIONAL PARK AND PRESERVE

BROOKE MERRELL Digitally signed by BROOKE MERRELL
Date: 2020.08.17 08:33:12 -08'00'

Brooke Merrell, Acting Deputy Superintendent

Date

**PROGRAMMATIC AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE,
DENALI NATIONAL PARK AND PRESERVE
AND
THE ALASKA STATE HISTORIC PRESERVATION OFFICER
REGARDING ROUTINE MAINTENANCE, REPAIR, OPERATIONS, BRIDGE AND
CULVERT REPLACEMENTS, GEOHAZARD MONITORING, AND EMERGENCY
MAINTENANCE ON THE DENALI PARK ROAD CORRIDOR**

Signatory

ALASKA STATE HISTORIC PRESERVATION OFFICER



Judith E. Bittner, State Historic Preservation Officer

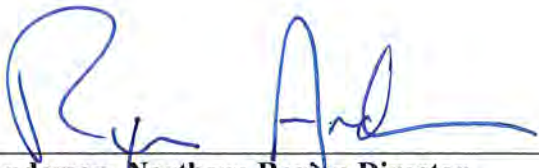


Date

**PROGRAMMATIC AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE,
DENALI NATIONAL PARK AND PRESERVE
AND
THE ALASKA STATE HISTORIC PRESERVATION OFFICER
REGARDING ROUTINE MAINTENANCE, REPAIR, OPERATIONS, BRIDGE AND
CULVERT REPLACEMENTS, GEOHAZARD MONITORING, AND EMERGENCY
MAINTENANCE ON THE DENALI PARK ROAD CORRIDOR**

Invited Signatory

**STATE OF ALASKA, DEPARTMENT OF TRANSPORTATION AND PUBLIC
FACILITIES**



Ryan Anderson, Northern Region Director

8/17/2020

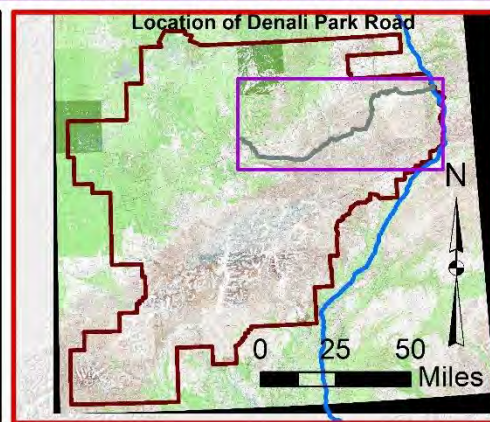
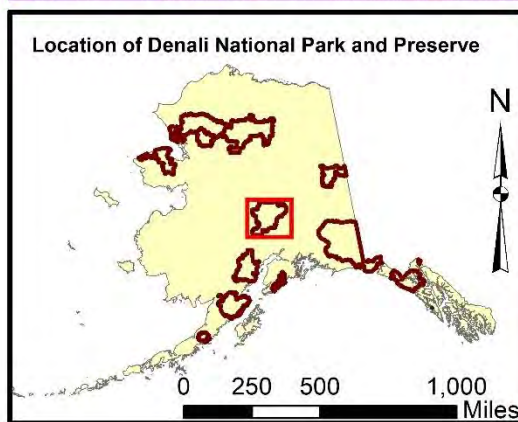
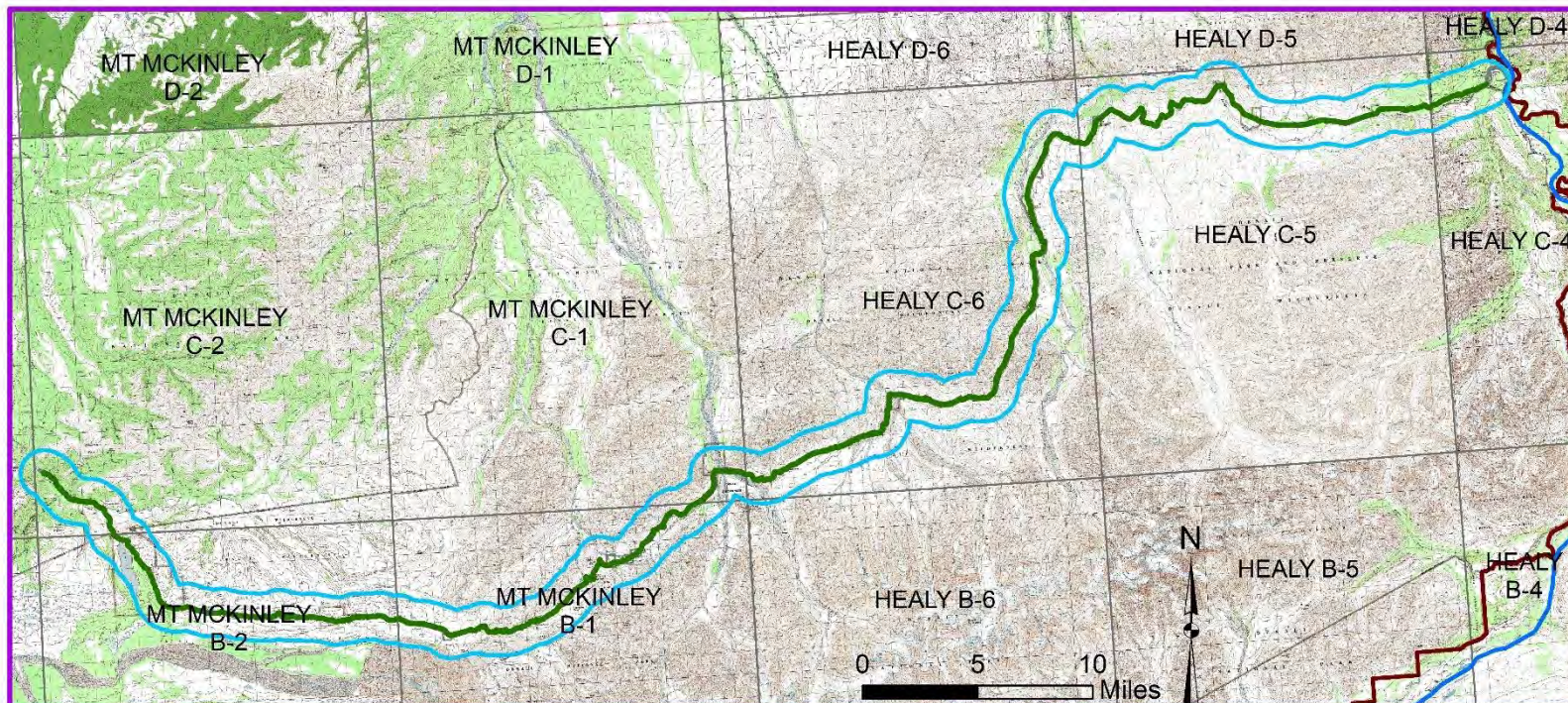
Date

ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Overview of the Area of Potential Effect

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior



Legend

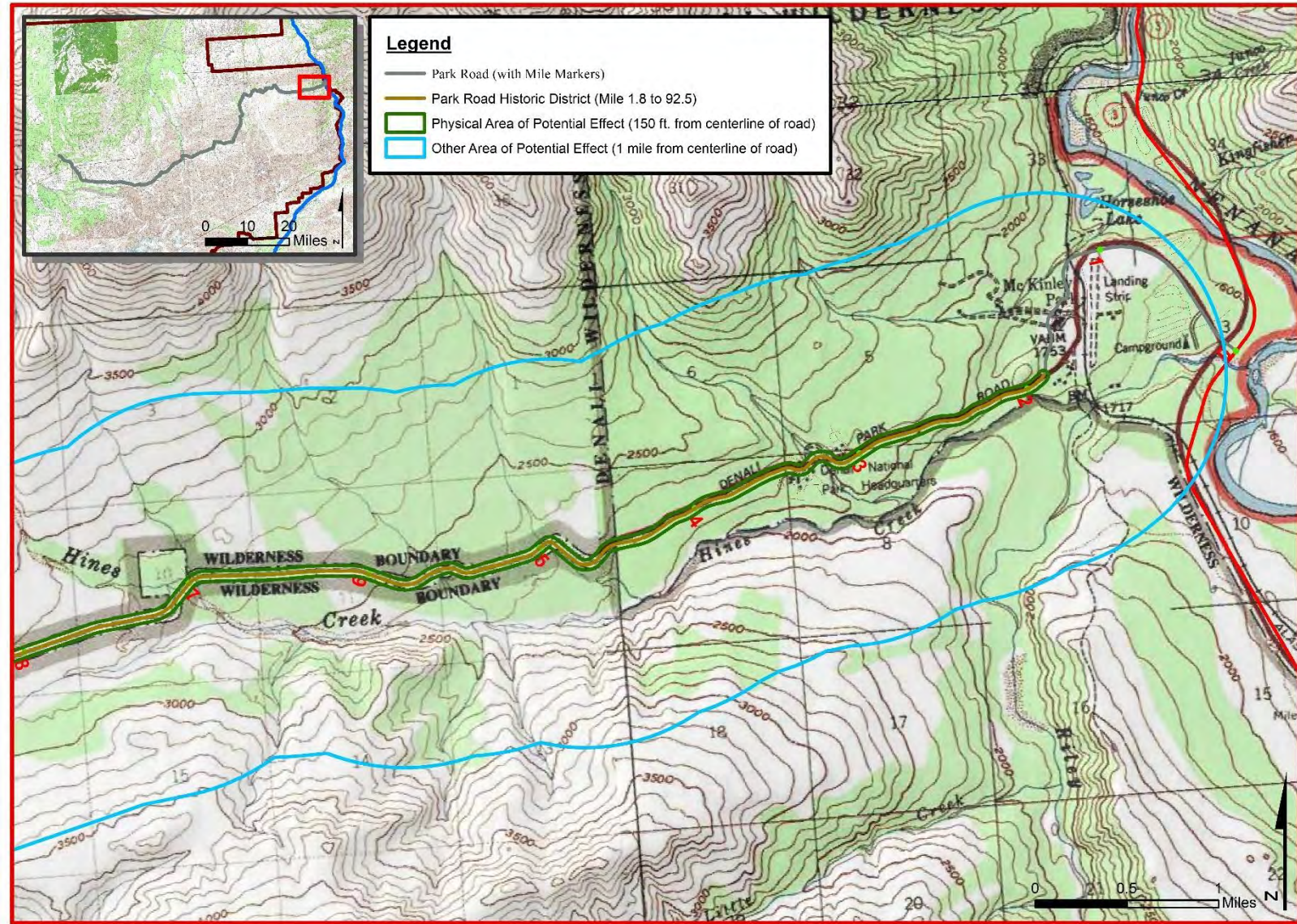
- Park Road
- George Parks Highway
- Park Road Historic District (Mile 1.8 to 92.5)
- Physical Area of Potential Effect (150 ft. from centerline of road)
- Other Area of Potential Effect (1 mile from centerline of road)
- Park Boundary
- Alaska USGS Topo Index 63K

ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Mile 0 to 8

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior

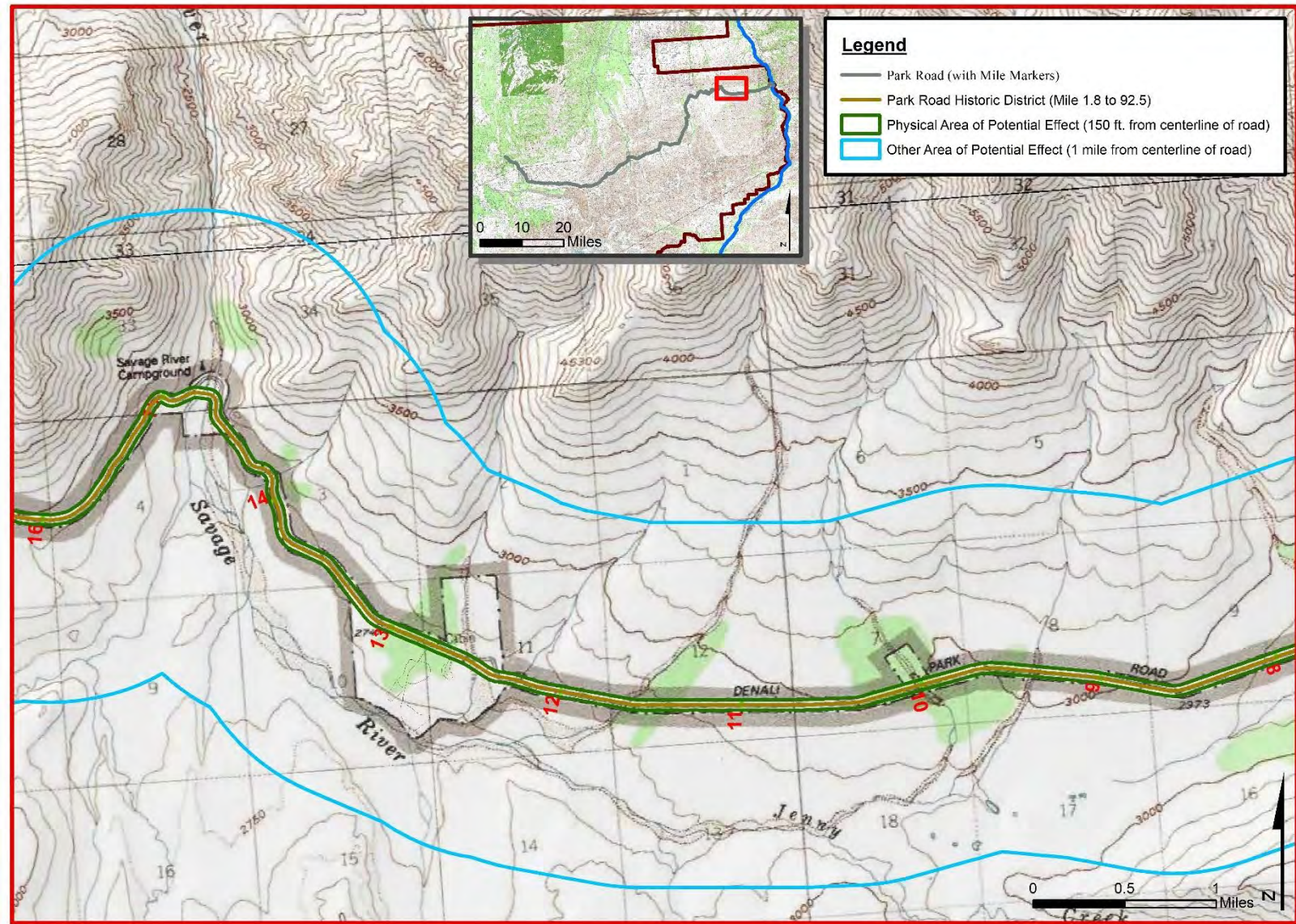


ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Mile 8 to 16

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior

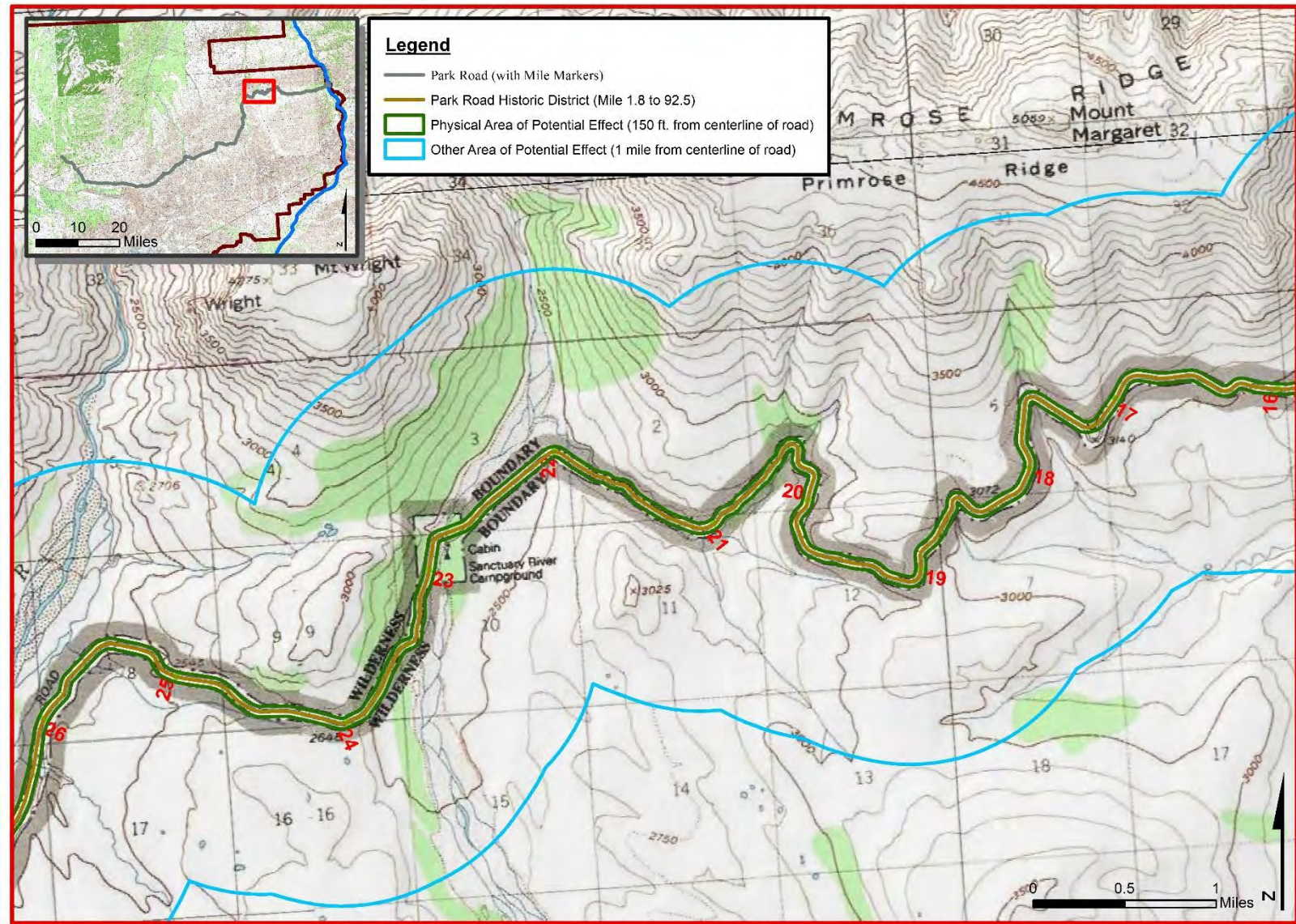


ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Mile 16 to 26

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior

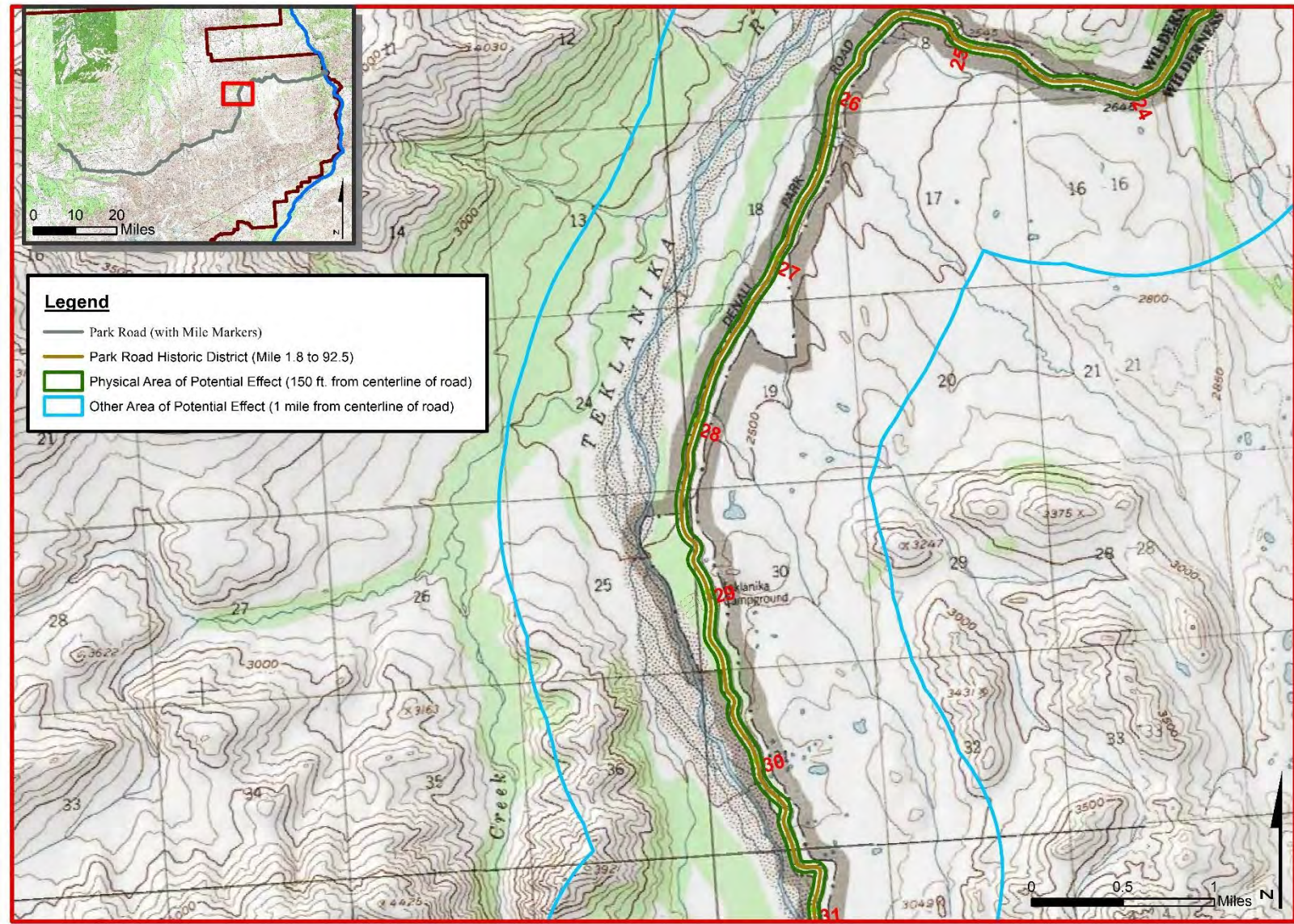


ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Mile 26 to 31

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior

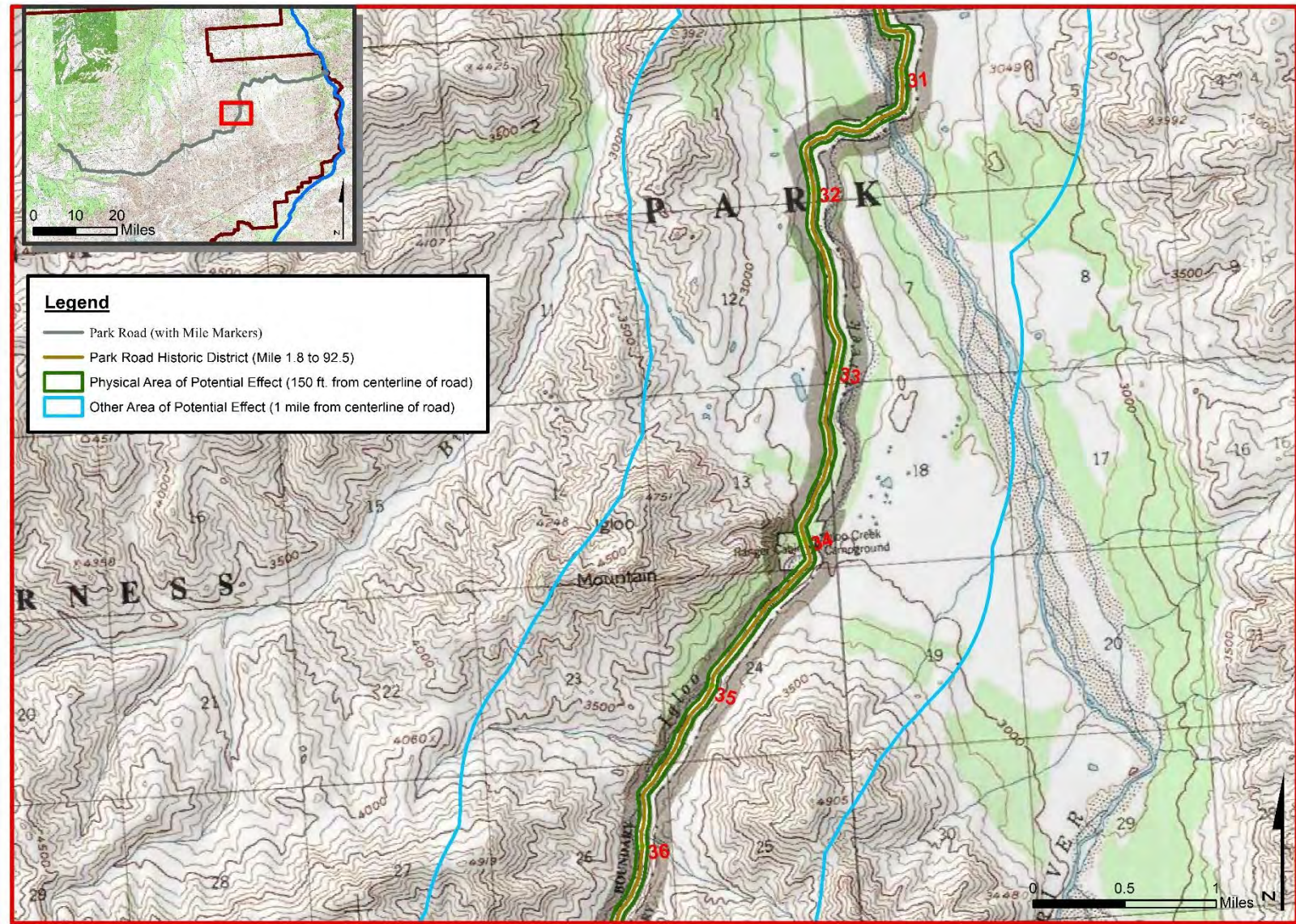


ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Mile 31 to 36

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior

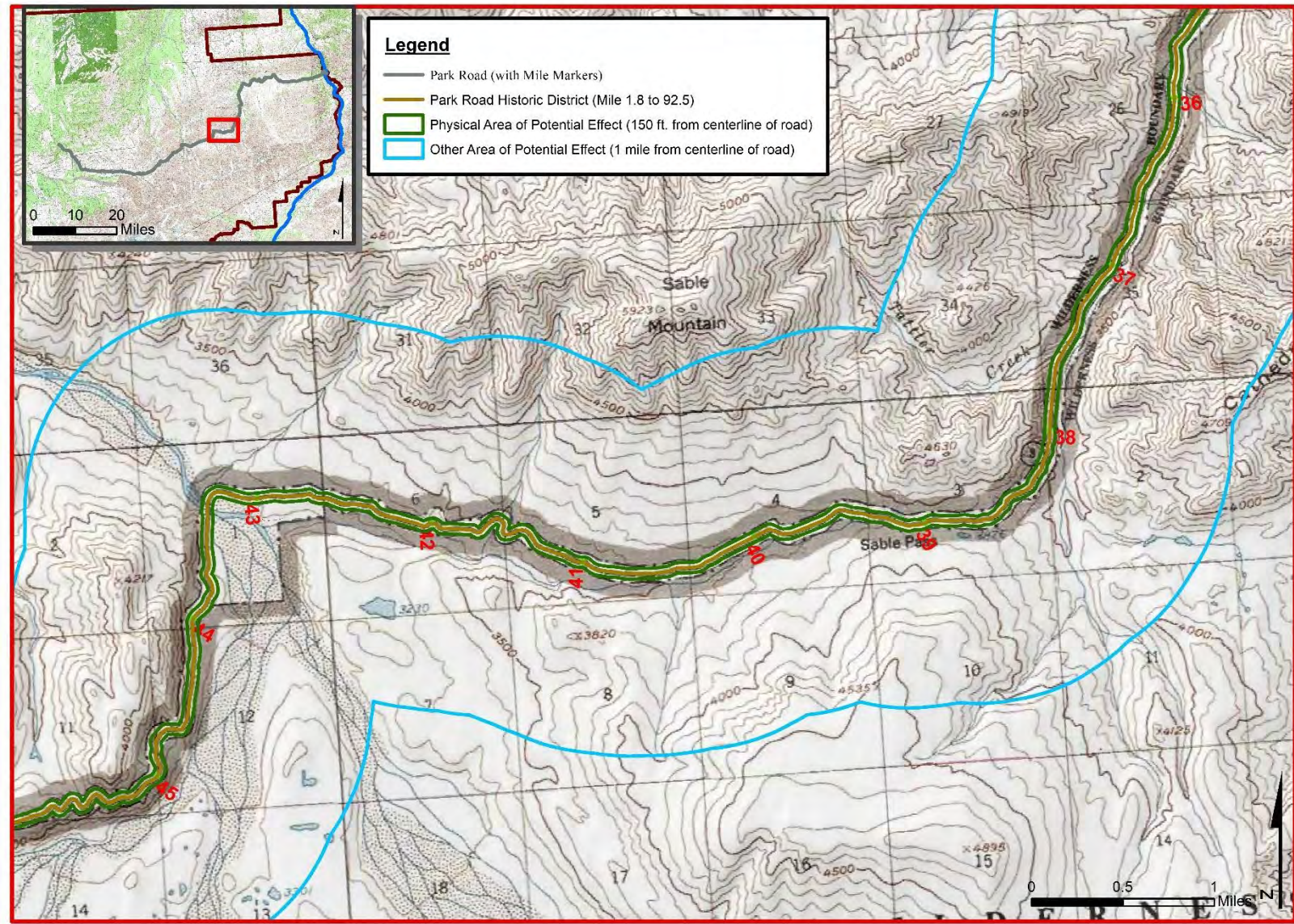


ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Mile 36 to 45

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior

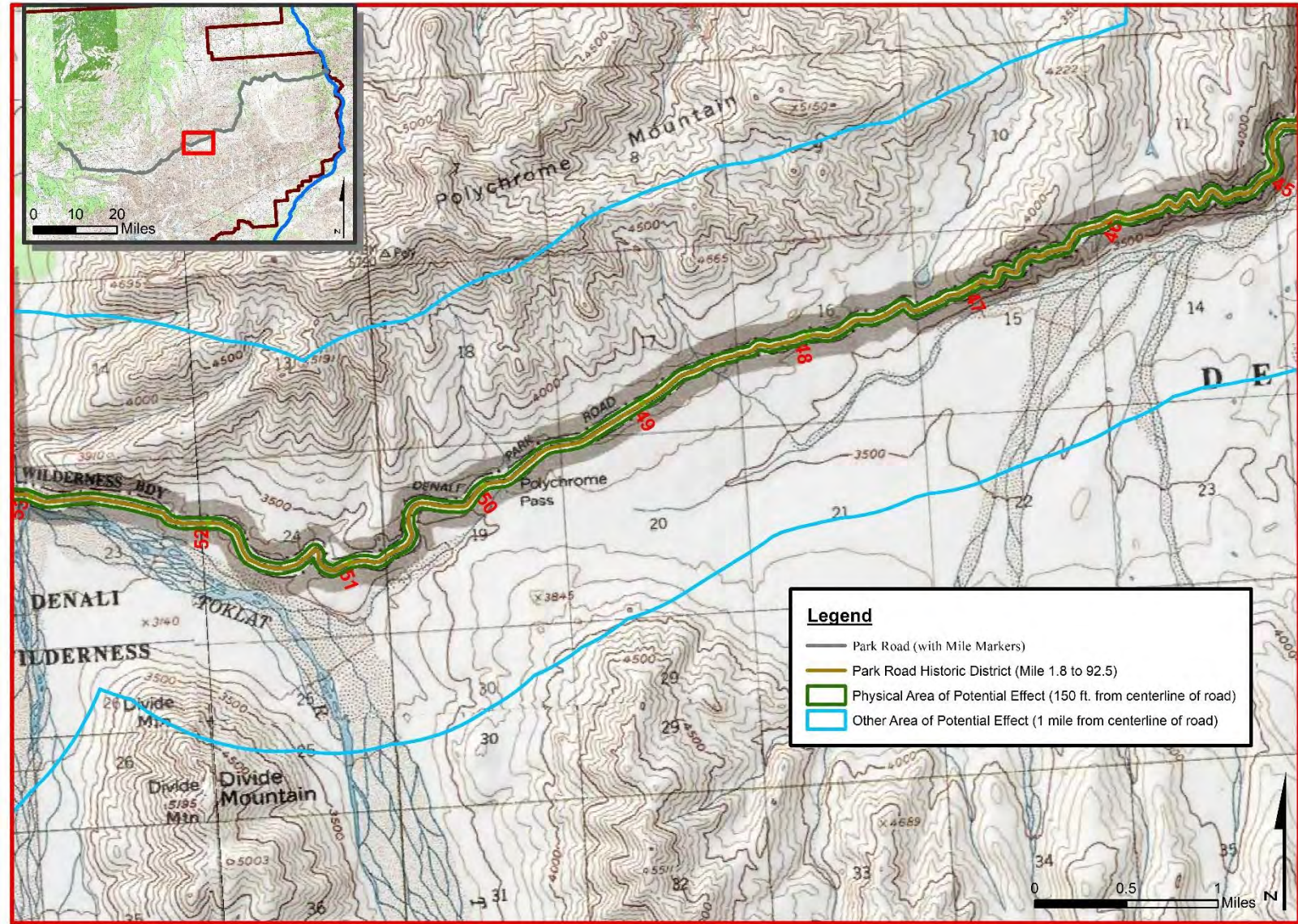


ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Mile 45 to 53

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior

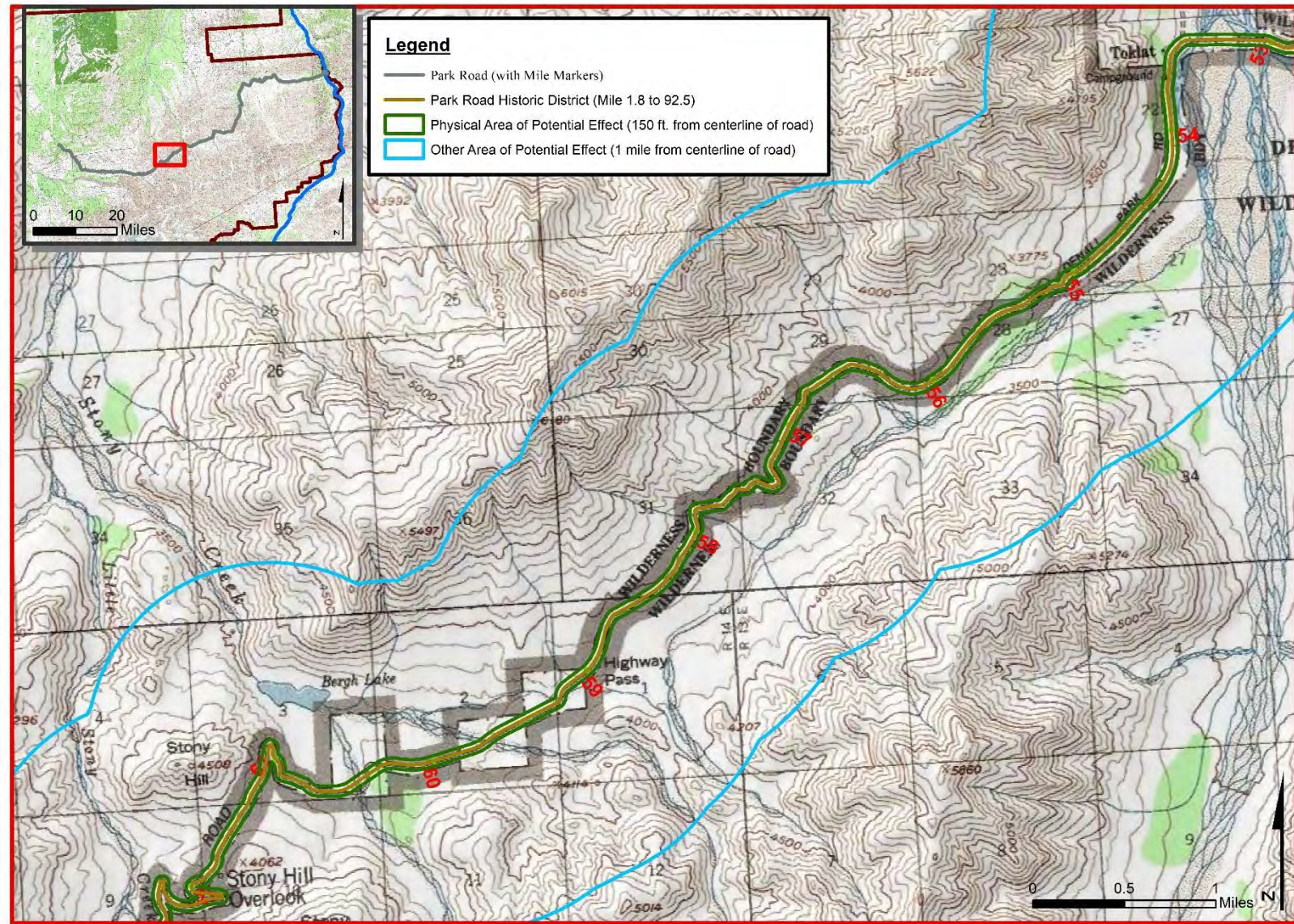


ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Mile 53 to 62

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior

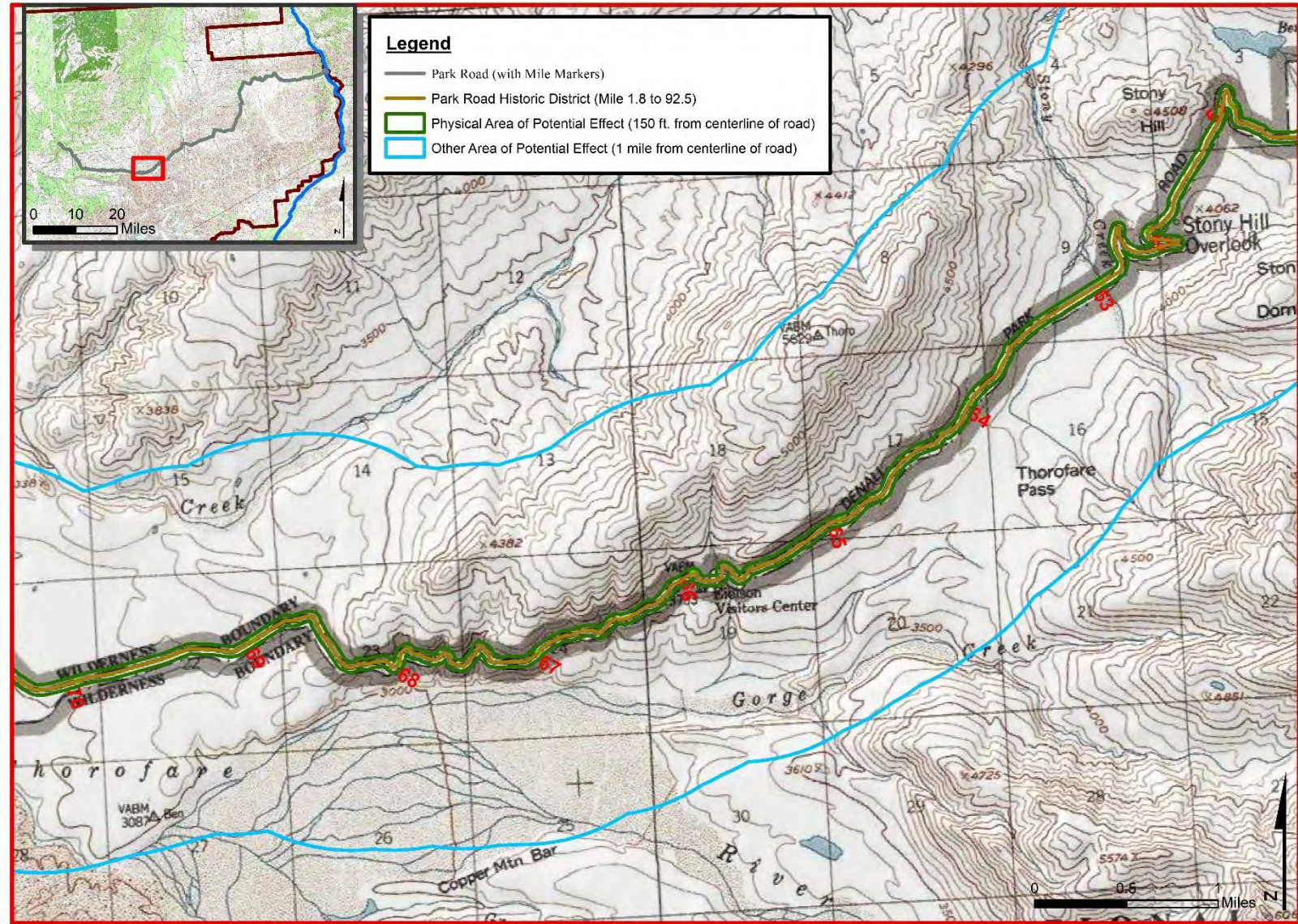


ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Mile 62 to 70

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior

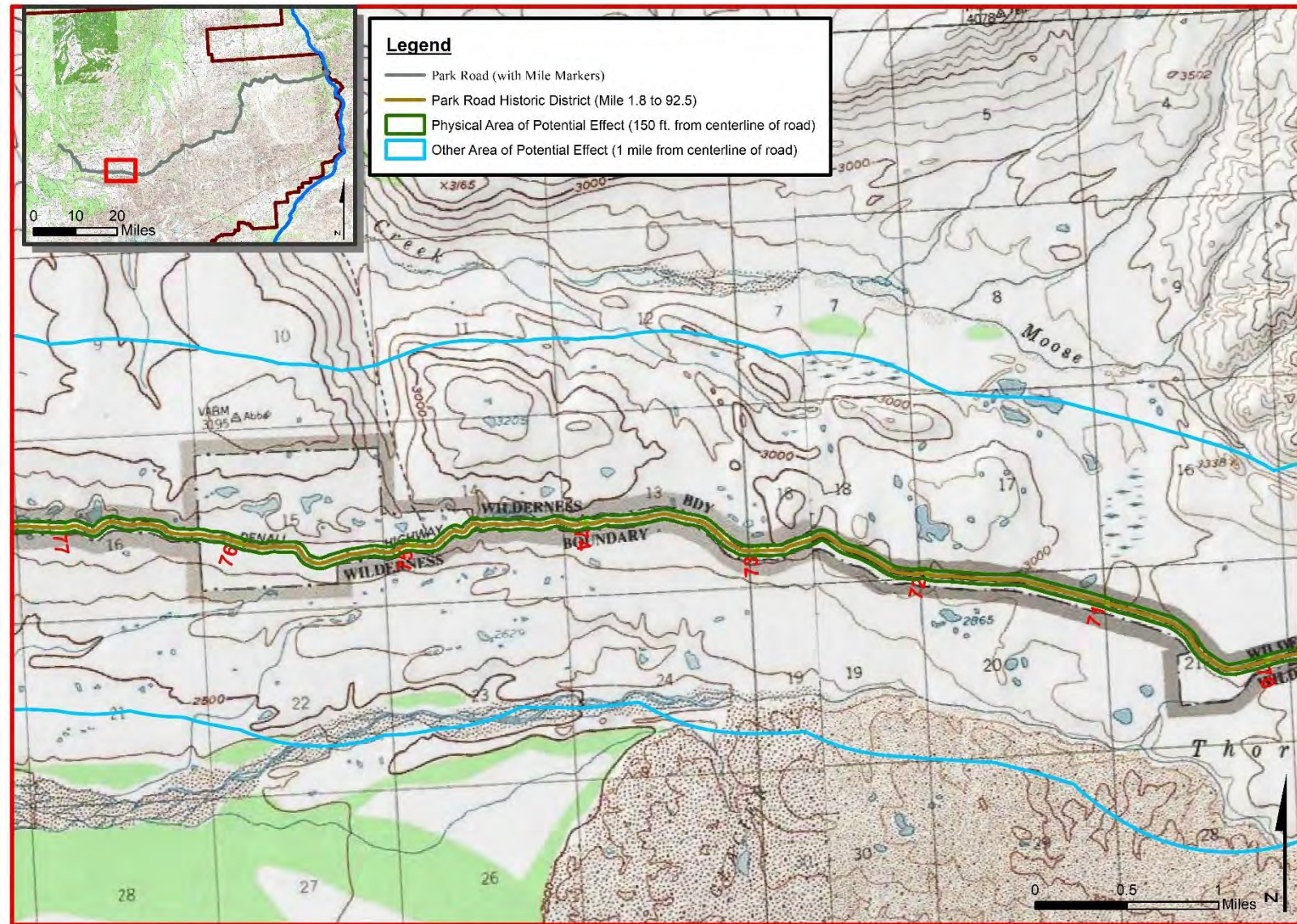


ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Mile 70 to 77

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior

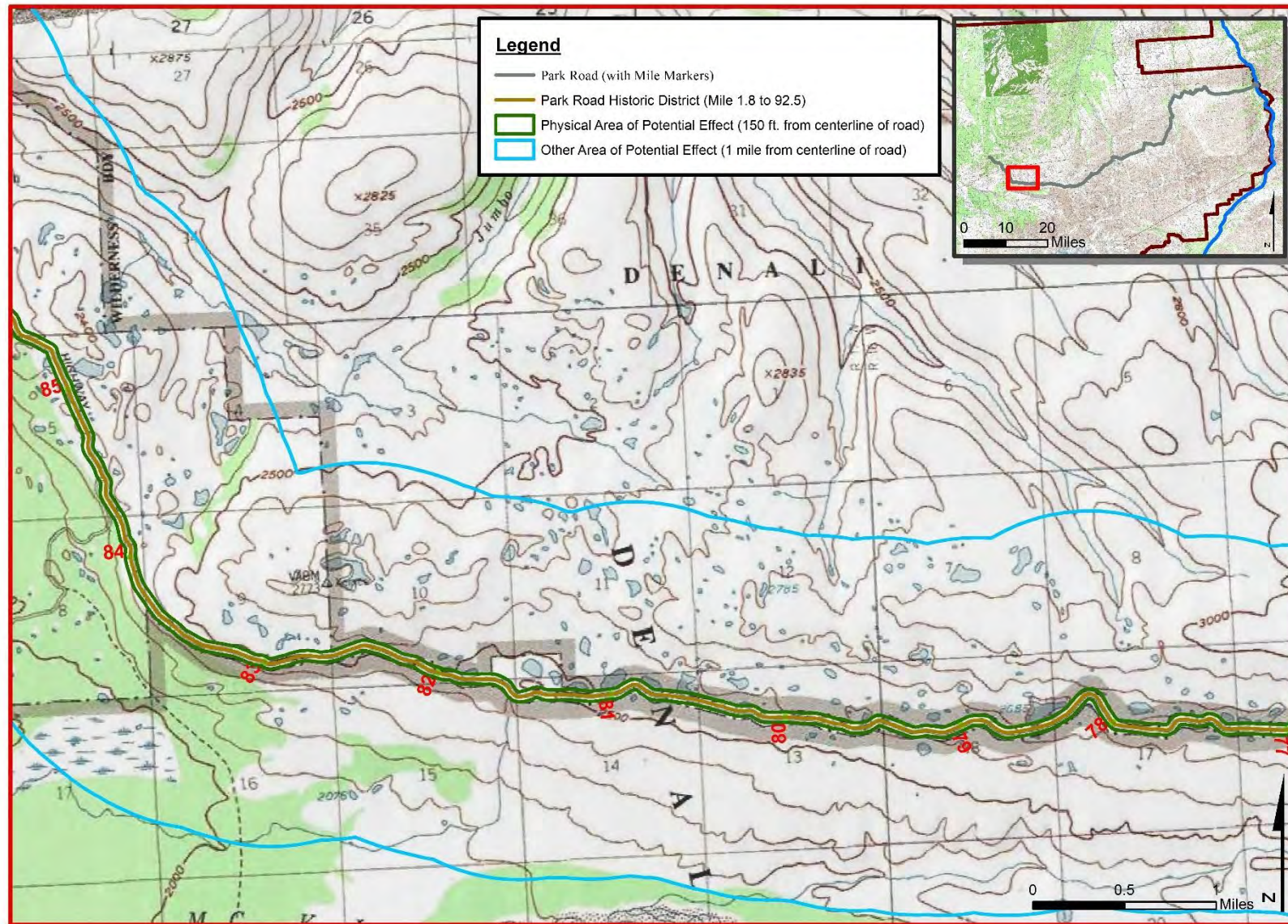


ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Mile 77 to 85

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior

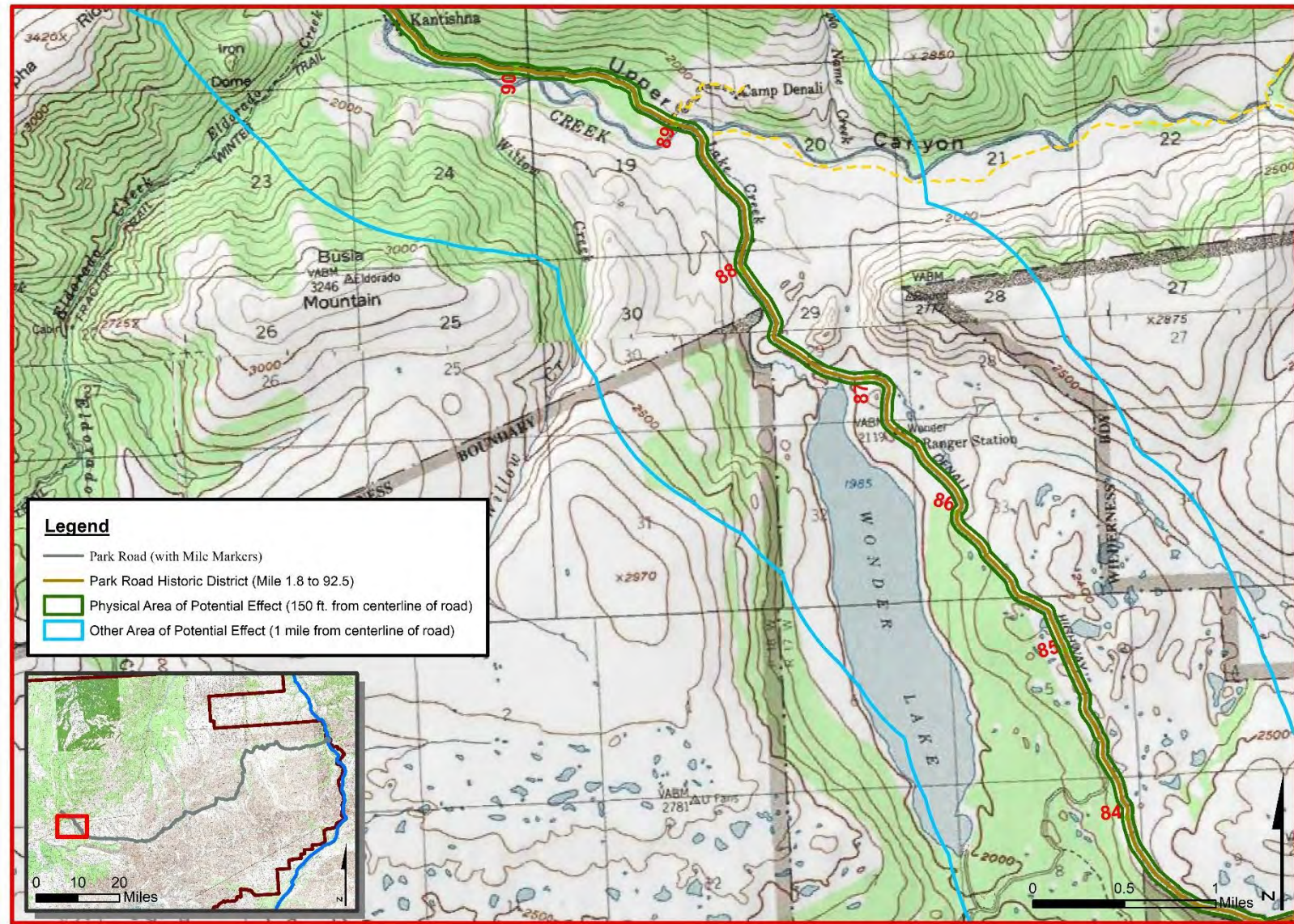


ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Mile 85 to 90

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior

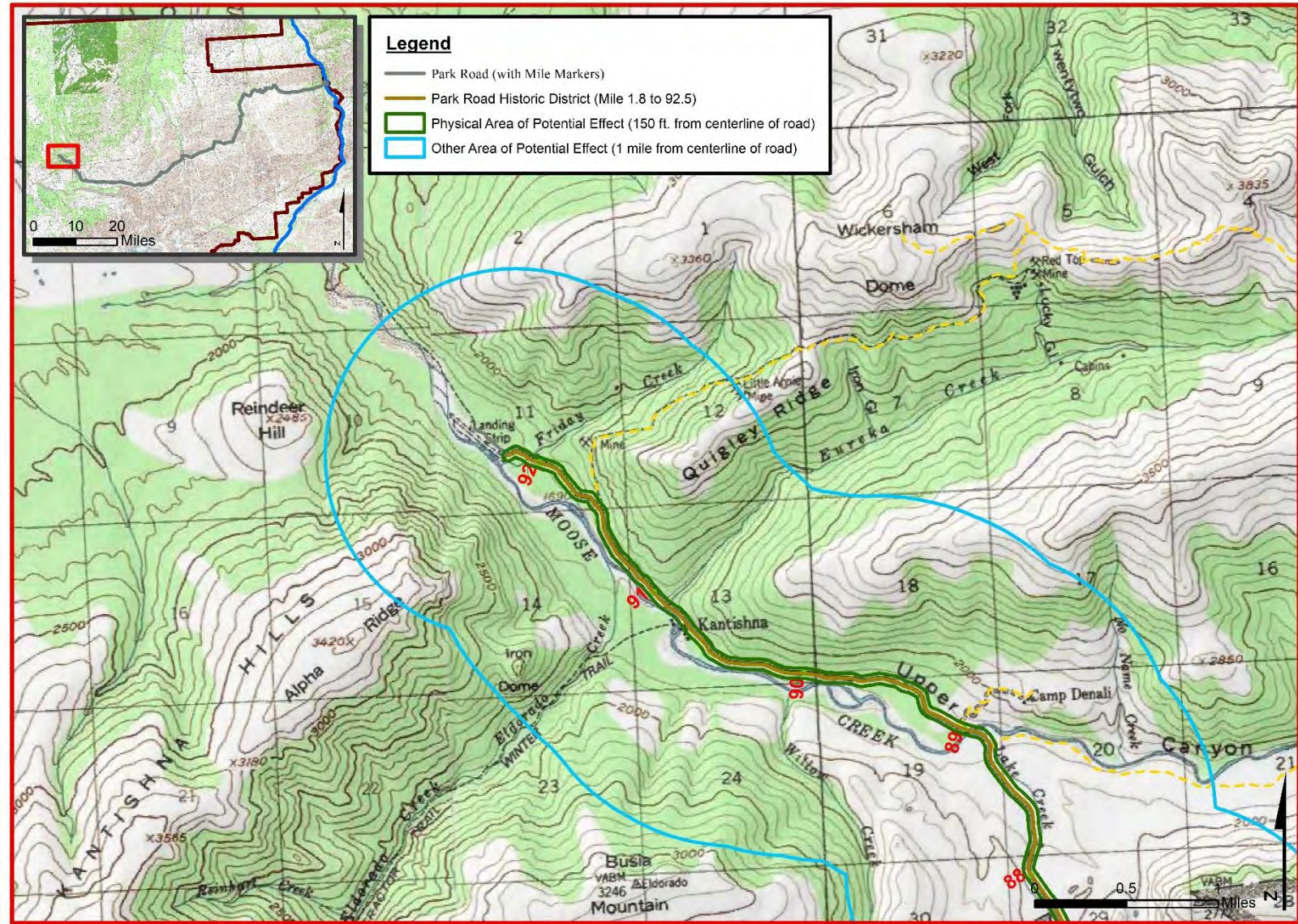


ATTACHMENT A- DENALI PARK ROAD AREA OF POTENTIAL EFFECT

(Additional Cultural Resources Not Displayed)

Denali Park Road Programmatic Agreement Mile 90 to 92.5

Denali National Park and Preserve
National Park Service
U.S. Department of the Interior



ATTACHMENT B: Activities with No Potential for Adverse Effect

ATTACHMENT B: Activities with No Potential for Adverse Effect

- A. The following activities do not have a potential for adverse effect as they take place within the existing road right of way (ROW), within previously disturbed areas, are small in size, and/or temporary, and present no lasting visual impact on historic properties. Implementation of these activities will require no further consultation with SHPO or other parties other than annual reporting.
- B. When possible, any installations will be painted to match the existing terrain and will be sited in such a way to make them less visible from the Park Road.
- C. These actions include the following undertakings as well as others that are comparable in scope, scale, and impact:
 - 1. Road-Related Monitoring:
 - a. Geotechnical Drilling and Installations. This action includes the following installations as well as others that are comparable in scope, scale, and impact:
 - i. Drilling and installation of subsurface instrumentation within the road structure or ROW without substantial new vegetation or ground disturbance for the purpose of understanding geologic material integrity and its relationship to other geologic layers.
 - ii. Boreholes may be up to 8" in diameter, have caps flush with surface, and may have steel casing.
 - iii. Instrumentation and subsurface installations must be recovered when possible or safely abandoned in place when necessary.
 - iv. All holes without instrumentation will be backfilled at the conclusion of drilling and the grout at the surface will be stained to match the surround rock.
 - b. Traffic Monitoring equipment:
 - i. Installation of temporary (in place 6 months or less) monitoring equipment to monitor active geohazards. Up to 10 temporary monitoring equipment locations may be operational concurrently along the park road in one calendar year as long as the location of the equipment does not adversely affect the park road historic district, cultural landscape or any other historic properties, as determined by the DNPP CRM Team. Equipment must be chosen and located to minimize visibility to visitors while providing the needed information. When possible, all equipment must be painted to match the natural surroundings to reduce its visibility.
 - c. GPS monuments: Up to 40 metal monuments can be installed at each geohazard area. Monuments can be rebar up to 5/8" diameter with up to a 2" aluminum cap. The monuments should be installed so that the caps are flush with the ground level; they should not be visible.
 - d. Time lapse cameras. Up to three time lapse cameras per location may be installed.

ATTACHMENT B: Activities with No Potential for Adverse Effect

- e. Total station and prisms. The prisms should be standard total station reflector prisms that would allow for real time tracking with the total station. The prisms can be up to 2" in diameter. They should be placed on posts or rebar up to 2 feet tall.
- f. Solar Panel arrays (including inverters, chargers, batteries, etc.) under 40 square feet in area.
- g. Installation of scientific measuring devices such as water level recorders, water quality monitoring stations, small weirs or flumes, or similar devices necessary for monitoring of or research on wetland resources that result in no new ground disturbance.
- h. Installation of traffic counter equipment in up to 5 locations along the park road.

2. Road Maintenance:

- a. Installation of engineered materials such as geotextile fabric placed under the substrate within the road structure that is not plainly visible to visitors.
- b. Placement of temporary safety-related signage within the roadway (including ditches and associated structures). Temporary is defined as the time required to complete the task and reopen the road without undue risk to visitor or staff safety.
- c. Routine maintenance and repair activities as covered under the *2005 Denali Park Road Routine Maintenance, Repair and Operating Standards* (Road MRO Standards) and the *2007 Denali National Park and Preserve Road Design Standards* (Road Design Standards), and to include dust suppressant activity. This excludes new construction of bridges, new (not replacement) culverts, and permanent signage.
- d. Engineered internal slope reinforcement structures, following the Road MRO standards and the Road Design Standards, may be pursued where conditions resulting in a geohazard event pose a threat to the road structure and when the installation of the structures would not adversely affect the park road historic district, cultural landscape or any other historic properties, as determined by the DNPP CRM Team.
 - i. Installation of stabilizing structures such as gabions, crib-block walls, anchors, bolts, pins, retention nets, fences, walls, ferro-cement coatings, benches, retaining walls, piles, piers, porous fill, concrete cribbing, check dams (various materials and designs), concrete and reinforced earth retaining walls, large diameter caissons, counterweight berms, buttress counterforts, ground anchors, lime/cement stabilization, grouting, soil nailing, steel pipe grid dams, heat treatment, and freezing.
 - ii. Re-grading (slope geometry modification).
 - iii. Removal of unstable material, biotechnical slope stabilization (combination of vegetative and structures).
 - iv. Culverts. Activities to include installation of new culverts, with the smallest appropriately sized culvert to be used. Culvert placements should minimize impacts to road character.

ATTACHMENT B: Activities with No Potential for Adverse Effect

- v. Ditches and drains. Activities to include installation of new drainage including: ditches, rockfall ditches, surface drains, french drains, trench drains, counterfort drains, deep drains, drainage tunnels, drainage wells, horizontal and sub-horizontal drainage bores, electro-osmotic de-watering, vacuum and siphon drains. Any new drainage should not impact historic ditches or any other historic property, as determined by the DNPP CRM Team.
 - e. Use of existing material sources. The park follows the 2003 DNPP Road gravel acquisition plan, and the *2019 Mount McKinley National Park Road Historic District Cultural Landscape Report* (CLR) in pulling gravel from the Toklat River and the East Fork River beds with additional sources identified as appropriate for use in the CLR.
- 3. Storage of Heavy Equipment and Road Repair Materials:
 - a. Heavy equipment and road construction materials may be temporarily staged or stored at established pullouts or other locations as safe and practical. Visual impacts to the road and other historic properties will be minimized as much as possible.
- 4. Clearing the Road/Material Removal:
 - a. In instances where material accumulation on the park road occurs as a natural process or where the road has interrupted the natural flow of material:
 - i. Removal of mudflow material, and disposal at park approved locations to be used for reclamation efforts. To date, mudflow material has had little reclamation potential, and this type of activity is not anticipated to increase in the near future.
 - ii. Allowing self-distributing excessively liquid or large amounts of material into the surrounding terrain if it will not change the historic character and experience of the park road. In some cases, staff will relocate such material in the immediate area for temporary or permanent placement.
 - iii. Material may be pushed off the road surface downslope only if the slope deposit will not exceed the Road Design Standards, and that the push pile will have minimal visual impact.
- 5. Replacement or Repair on Non-Contributing Bridges, Culverts, or other associated features
 - a. Replacement or Repair on Non-Contributing features along the DNPP Road will follow the guidance of the CLR.
- 6. Road Closures
 - a. Road closures are considered temporary, and associated road barriers/signs will follow the Road Design Standards or Road MRO Standards.

ATTACHMENT B: Activities with No Potential for Adverse Effect

7. Work that follows the Treatment Framework and Recommendations of the CLR, including projects that could affect the road including but not limited to:
 - a. Road Access
 - b. Drainage
 - i. Culvert Design
 - ii. Drainage Maintenance and Aufeis Management
 - iii. Ditches
 - iv. Low Water Crossings
 - c. Visual Impacts
 - i. Contemporary Buildings and Structures
 - ii. Signs
 - iii. Dust
 - d. Views
 - e. Bridge and low water crossing replacements
 - f. Preservation of the road profile
 - g. Pullouts
 - h. Rest areas and rest stops
 - i. Site-specific realignments and reroutes that will not adversely impact the Park Road Historic District, Cultural Landscape, or any other Historic Property
 - j. Off-season use
 - k. Climate change
 - l. Emergency ingress/ egress
 - m. Gravel extraction

ATTACHMENT B: Activities with No Potential for Adverse Effect

ATTACHMENT C: Activities That May Result in Adverse Effects

ATTACHMENT C: Activities That May Result in Adverse Effects

- A. Small scale or incremental changes to the road alignment, which may over time cumulatively have an adverse effect to the overall historic road alignment.
- B. Installation of engineered materials within the road structure that are plainly visible to visitors and permanent.
- C. Temporary monitoring and related equipment and or signs that present adverse visual impacts to the historic district and which become permanent.
- D. Replacement or new culverts that are significantly larger, or are of a significantly different type, that either individually or cumulatively have an adverse visual impact to the historic district or cultural landscape.
- E. Removal of the of Mission 66 bridges which are contributing features to the Park Road Historic District and Cultural Landscape.
- F. Alterations to historic ditches due to the needs of modern drainage operations.
- G. Creation of bypass during culvert work at mile 62.7 and 63 without required geotextile fabric underlay and removal of tundra.
- H. Road closures that become permanent.
- I. When self-distributing excessively liquid or large amounts of material flows or is pushed (to make the road passible) into the surrounding terrain and it does exceed the Road Design Standards and does change the historic character and experience of the park road.

Appendix C: Minimum Requirements Analysis



ARTHUR CARHART NATIONAL WILDERNESS TRAINING CENTER

MINIMUM REQUIREMENTS DECISION GUIDE WORKBOOK

“...except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act...”

-- The Wilderness Act of 1964

Project Title:

**Programmatic Geohazard Monitoring and
Emergency Maintenance on the Denali Park
Road (2020-2024)**

MRDG Step 1: Determination

Determine if Administrative Action is Necessary

Description of the Situation

What is the situation that may prompt administrative action?

Recent geohazard event frequency and magnitude have highlighted the need for additional planning. Safety and road resilience concerns may require monitoring and/or repairs at any of the more than 140 unstable slopes identified along the 92-mile Denali Park Road, as well as new sites as we identify them. The list of geohazard locations changes with time and weather and seismic events.

The purpose of this programmatic MRA is to accompany a programmatic CE and PA that provides efficient compliance with existing laws and policy while addressing challenges with the Denali Park Road (“Road”). This approach maximizes road resilience, safety, and protection of park resources.

Not defining allowable actions proactively could result in longer periods of road restrictions and closures, and alterations to the visitor experience. It could also contribute to rapid deterioration and functional loss of the historic Road and raise the potential for resource harm in the urgency to keep the Road passable.

Work may be required within the road structure (disturbed area including backfill, and cut slopes), the Road's 300' wide right-of-way (ROW), and designated wilderness. The following actions necessary to keep the road functional pre- and post-event are approved within these documents:

- The 2007 Denali National Park and Preserve *Road Design Standards* and the 2005 *Denali Park Routine Road Maintenance, Repair and Operating Standards* (PEPC #10607);
- Categorical Exclusion 3.2 C9 satisfying the National Environmental Protection Act (NEPA);
- C9 Repair, resurfacing, striping, installation of traffic control devices, repair/replacement of guardrails, etc, on existing roads.

Guidance: This CE also applied to road maintenance, rehabilitation, repaving, and reconstruction on existing roads within the existing road prism. Actions taken under this CE may also include repair or replacement of culverts, signs, surfacing of right-turn lanes at intersections in previously disturbed areas, seal coating a parking lot, maintenance of existing gravel road in the same footprint, routine roadside brushing, routine ditching, adding gravel, grading, and other modifications.

- Programmatic Agreement for the Denali Park Road satisfying Section 106 of the National Historic Preservation Act (NHPA) and the Denali Park Road Cultural Landscape Report;
- Minimum Requirements Analysis satisfying the Wilderness Act.

Options Outside of Wilderness

Can action be taken outside of wilderness that adequately addresses the situation?

☐ YES

STOP – DO NOT TAKE ACTION IN WILDERNESS

☒ NO

EXPLAIN AND COMPLETE STEP 1 OF THE MRDG

Explain:

Much of the time, actions taken to address geohazards along the Denali Park Road can be taken outside of designated wilderness, but certain unstable slopes stretch into designated wilderness. The preferential action will always be one outside of designated wilderness, but this programmatic MRA strives to illustrate varying degrees of impact of each possible action. These actions will range from no action in designated wilderness to 4c prohibited activities within designated wilderness, depending on the situation.

Criteria for Determining Necessity

Is action necessary to meet any of the criteria below?

A. Valid Existing Rights or Special Provisions of Wilderness Legislation

*Is action necessary to satisfy valid existing rights or a special provision in wilderness legislation (the Wilderness Act of 1964 or subsequent wilderness laws) that **requires** action? Cite law and section.*

☐ YES ☒ NO

Explain:

B. Requirements of Other Legislation

Is action necessary to meet the requirements of other federal laws? Cite law and section.

☒ YES ☐ NO

Explain:

Cultural Resources, including Cultural Landscape, Historic Sites, Archeology Sites, Buildings, Structures, and Ethnographic Resources, are found throughout DENA, including in Wilderness. These sites are not movable; it is required by law that these sites be visited and their condition assessed. It is required that cultural resources be protected and maintained according to the pertinent laws and policies governing cultural resources. These laws include the Antiquities Act and the Historic Sites, Buildings and Antiquities Act, as well as subsequent historic preservation legislation, including the National Historic Preservation Act, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act. This project will encompass all activities that help fulfill the Park's legal responsibilities under Section 110 of the National Historic Preservation Act (54 U.S.C. 306102) to identify, evaluate, and protect historic Properties. Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001 et seq. [Nov. 16, 1990], Section 3.

Clean Water Act Section 404

"In carrying out his functions relating to the discharge of dredged or fill material under this section, the Secretary may, after notice of opportunity for public hearing, issue general permits on a State, regional, or nationwide basis for any category of activities involving discharges of dredged or fill material if the Secretary determines that the activities in such category are similar in nature, will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effects on the environment."

C. Wilderness Character

Is action necessary to preserve one or more of the five qualities of wilderness character?

UNTRAMMELED

☐ YES ☒ NO

Explain:

UNDEVELOPED

☐ YES ☒ NO

Explain:

NATURAL

☐ YES ☒ NO

Explain:

SOLITUDE OR PRIMITIVE & UNCONFINED RECREATION

☐ YES ☒ NO

Explain:

OTHER FEATURES OF VALUE

☒ YES ☐ NO

Explain:

NPS Management Policy, 2006

6.3.8 Cultural Resources

"The Wilderness Act specifies that the designation of any area of the park system as wilderness "shall in no manner lower the standards evolved for the use and

preservation of" such unit of the park system under the various laws applicable to that unit (16 USC 1133(a)(3)). Thus, the laws pertaining to historic preservation also remain applicable within wilderness but must generally be administered to preserve the area's wilderness character. The responsible decision-maker will include appropriate consideration of the application of these provisions of the Wilderness Act in analyses and decision-making concerning cultural resources.

Cultural resources that have been included within wilderness will be protected and maintained according to the pertinent laws and policies governing cultural resources using management methods that are consistent with the preservation of wilderness character and values. These laws include the Antiquities Act and the Historic Sites, Buildings and Antiquities Act, as well as subsequent historic preservation legislation, including the National Historic Preservation Act, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act. The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation projects provide direction for protection and maintenance..."

The Denali Park Road is in the process of being nominated to the National Register of Historic Places; it is both a Historic District (HD) and a Cultural Landscape (CL). The road is historically significant for its association with the period of scenic road development in National Park Service (NPS) in the 1920s and 1930s, for its shuttle bus system, as well as for its association with the Mission 66 park development program in the 1950s and 1960s. The road is also a rustic example of landscape engineering combining NPS aesthetic road design principles with the ARC's experience constructing roads in northern environments. Preservation of the Denali Park Road and other cultural resources may require action in wilderness.

Step 1 Determination

Is administrative action necessary in wilderness?

Criteria for Determining Necessity

- | | | |
|--|---|--|
| A. Existing Rights or Special Provisions | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| B. Requirements of Other Legislation | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| C. Wilderness Character | | |
| Untrammeled | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| Undeveloped | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |

Natural	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Solitude/Primitive/Unconfined	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Other Features of Value	<input type="checkbox"/> XYES	<input type="checkbox"/> NO

Is administrative action necessary in wilderness?

☒ YES

EXPLAIN AND PROCEED TO STEP 2 OF THE MRDG

☐ NO

STOP – DO NOT TAKE ACTION IN WILDERNESS

Explain:

The National Environmental Policy Act of 1969 mandates that government, as trustees of the environment, preserve our historical, cultural and natural resources while providing safe and cultural pleasing surroundings without degradation, risk to health and safety, and undesirable consequences. This could mean that limited and restrained action may be needed in wilderness to preserve the Park Road as a cultural resource and/or for the purpose of health and safety of our staff and visitors.

Cultural resources that have been included within wilderness will be protected and maintained according to the pertinent laws and policies governing cultural resources using management methods that are consistent with the preservation of wilderness character and values. These laws include the Antiquities Act and the Historic Sites, Buildings and Antiquities Act, as well as subsequent historic preservation legislation, including the National Historic Preservation Act, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act. The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation projects provide direction for protection and maintenance..."

The Alaska Native Interests Lands Act of 1980 does not apply with this project. While the federal government is required to provide adequate and feasible access under reasonable regulation to our inholders at the end of the Park Road, a Right of Way Certificate of Access is granted through a process laid out in CFR and not automatically granted via the restricted Park Road. No laws exist mandating that the park maintain transportation access along the Park Road, although not running a shuttle system would be an adverse effect.

MRDG Step 2

Determine the Minimum Activity

Other Direction

Is there “special provisions” language in legislation (or other Congressional direction) that explicitly **allows** consideration of a use otherwise prohibited by Section 4(c)?

AND/OR

Has the issue been addressed in agency policy, management plans, species recovery plans, or agreements with other agencies or partners?

☒ YES

DESCRIBE OTHER DIRECTION

☐ NO

SKIP AHEAD TO TIME CONSTRAINTS BELOW

Describe Other Direction:

The issue of taking action in wilderness to maintain the Denali Park Road has not been explicitly addressed in previous documents, but several plans address management and maintenance of the Park Road itself to maintain its unique character.

Vehicle Management Plan (PEPC #22494) – The purpose of the proposed National Park Service action is to improve the management of vehicles along the 92-mile-long Denali Park Road. The goal of the Denali National Park and Preserve Vehicle Management Plan / Environmental Impact Statement is to provide a high-quality experience for visitors; protect wilderness resources and values, scenic values, wildlife, and other park resources; and maintain the unique character of the Park Road.

2004 Denali Park Road routine Maintenance and Operating Standards (PEPC #10607) –

Preventive maintenance shall be a planned strategy of cost-effective treatments to the existing roadway and its appurtenances that preserves this road system, retards future deterioration and maintains or improves the functional condition of the road (without substantially increasing the structural capacity).

These standards were developed to reduce the negative effects of weather, vegetation growth, deterioration of roadway elements, traffic wear surfaces and other types of associated damage.

2007 Park Road Design Standards (PEPC #10607) – These standards guide repair of the Denali Park Road to work toward achieving the desired service condition for the

numbers and size of design vehicle it is presently required to carry. The standards also provide quantitative guidance to the Federal Highways Administration in designing and engineering repair projects for the park road that do not change its unique character. The overall management goal is to preserve the unique character of the Denali Park Road and the visitor experience it provides.

Reestablish Design Standards on the Denali Park Road Miles 15-18 (PEPC #62737)
 Reestablish Design Standards on the Denali Park Road Miles 19-21 (PEPC #68593)
 Reestablish Design Standards on the Denali Park Road Miles 15-31 (PEPC #77581)

Time Constraints

What, if any, are the time constraints that may affect the action?

Geohazards can occur at any time of year along the Park Road. Maintenance of the park road due to impacts from geohazard events typically occurs between Spring Road Opening and mid-October, although this time frame expands as geohazard events continue to impact the Park Road is greater intensity and with greater frequency. Monitoring has occurred year-round at hotspots such as Pretty Rocks.

If geohazard events pose an immediate threat to staff, visitors, or to the Park Road (or other historical and cultural resources), immediate action, often identified by those in the field, may be required to ensure the safety of persons in the area, to maintain access, or to preserve historical and cultural resources from irreparable damage.

Components of the Action

What are the discrete components or phases of the action?

Component X: *Example: Transportation of personnel to the project site*

Component 1: Transportation of personnel to site.

Component 2: Monitoring.

Component 3: Modification of streambeds.

Component 4: Material distribution.

Proceed to the alternatives.

Refer to the [MRDG Instructions](#) regarding alternatives and the effects to each of the comparison criteria.

MRDG Step 2: Alternatives

Alternative 1: No 4c prohibited actions in designated wilderness.

Description of the Alternative

What are the details of this alternative? When, where, and how will the action occur? What mitigation measures will be taken?

All efforts are successfully made to address geohazards along the park road using methods that don't require 4c prohibited action inside designated wilderness.

Component Activities

How will each of the components of the action be performed under this alternative?

<u>Component of the Action</u>		Activity for this Alternative
X	Example: Transportation of personnel to the project site	Example: Personnel will travel by horseback
1	Monitoring.	Visual observations. No installations.
2	Light modification of streambeds.	Modification of streambeds without dredging or filling and <u>not</u> using motorized equipment or any other prohibited C4 actions and which would not change the natural character of the streambed or natural stream functions; e.g. minor restoration efforts post flood using handwork with hand tools to direct stream into its original alignment towards a culvert/drain after a flood event.

Wilderness Character

What is the effect of each component activity on the qualities of wilderness character? What mitigation measures will be taken?

UNTRAMMELED

<u>Component Activity for this Alternative</u>	Positive	Negative	No Effect
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X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Visual observations. No installations.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Modification of streambeds without dredging or filling and <u>not</u> using motorized equipment or any other prohibited C4 actions and which would not change the natural character of the streambed or natural stream functions; e.g. minor restoration efforts post flood using handwork with hand tools to direct stream flow into its original alignment towards a culvert/drain after a flood event.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects			1	NE
<u>Untrammed Total Rating</u>		-1		

Explain:

Streambed modification intentionally manipulates the biophysical environment of the designated wilderness.

UNDEVELOPED

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Visual observations. No installations.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Modification of streambeds without dredging or filling and <u>not</u> using motorized equipment or any other prohibited 4C actions and which would not change the natural character of the streambed or natural stream functions; e.g. minor restoration efforts post flood using handwork with handtools to direct stream flow back towards a culvert/drain after a flood event.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects			0	NE
<u>Undeveloped Total Rating</u>		0		

Explain:

NATURAL

Component Activity for this Alternative		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Visual observations. No installations.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Modification of streambeds without dredging or filling and <u>not</u> using motorized equipment or any other prohibited 4C actions and which would not change the natural character of the streambed or natural stream functions; e.g. minor restoration efforts post flood using handwork with handtools to direct stream flow back towards a culvert/drain after a flood event.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects			0	NE
Natural Total Rating		0		

Explain:

SOLITUDE OR PRIMITIVE & UNCONFINED RECREATION

Component Activity for this Alternative		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Visual observations. No installations.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Modification of streambeds without dredging or filling and <u>not</u> using motorized equipment or any other prohibited C4 actions and which would not change the natural character of the streambed or natural stream functions; e.g. minor restoration efforts post flood using handwork with hand tools to direct stream into its original alignment towards a culvert/drain after a flood event.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects			1	NE
Solitude or Primitive & Unconfined Rec. Total Rating		-1		

Explain:

Visitor encounters with human-caused landscape modifications is a specific measure in the Solitude quality of wilderness character at Denali. If the streambed

modifications are obvious and take place in designated wilderness in areas of the backcountry where visitors travel, it will impact the Solitude quality of wilderness character. Project liaison will work with Backcountry Information Center to properly notify backcountry users of project impacts.

OTHER FEATURES OF VALUE

Component Activity for this Alternative		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Visual observations. No installations.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Modification of streambeds without dredging or filling and <u>not</u> using motorized equipment or any other prohibited C4 actions and which would not change the natural character of the streambed or natural stream functions; e.g. minor restoration efforts post flood using handwork with hand tools to direct stream flow into it original alignment towards a culvert/drain after a flood event.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects			0	NE
Other Features of Value Total Rating		0		

Explain:

Summary Ratings for Alternative 1

Wilderness Character	
Untrammeled	-1
Undeveloped	0
Natural	0
Solitude or Primitive & Unconfined Recreation	-1
Other Features of Value	0
Wilderness Character Summary Rating	-2

MRDG Step 2: Alternatives

Alternative 2: Some 4c prohibited actions inside designated wilderness.

Description of the Alternative

What are the details of this alternative? When, where, and how will the action occur? What mitigation measures will be taken?

B. *More Impactful – These may only be implemented under this compliance if the least impactful actions (Alternative A) aren't feasible and must be documented as such in PEPC*

- i. Monitoring including temporary installation of equipment for less than six months at a time
- ii. Responding to geohazards that are blocking the park road by pushing materials off the park road and into the surrounding terrain, including into wilderness, but not exceeding the Road Design Standards and not changing the historic character and experience of the park road.
- iii. Fixed wing landings for the purposes of monitoring and transportation

Component Activities

How will each of the components of the action be performed under this alternative?

Component of the Action		Activity for this Alternative
X	<i>Example: Transportation of personnel to the project site</i>	<i>Example: Personnel will travel by horseback</i>
1	Transportation of personnel to project site.	Personnel will travel via fixed wing aircraft. Aircraft will land in designated wilderness.
2	Monitoring.	Personnel will monitor geohazard using temporary installations of equipment for less than six months at a time.
3	Materials distribution.	Materials will be pushed off the side of the park road into designated wilderness in specified areas under specified circumstances.

Wilderness Character

What is the effect of each component activity on the qualities of wilderness character? What mitigation measures will be taken?

UNTRAMMELED

Component Activity for this Alternative		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Personnel will travel via fixed wing aircraft. Aircraft will land in designated wilderness.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Personnel will monitor geohazard using temporary installations of equipment for less than six months at a time.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Materials will be pushed off the side of the park road into designated wilderness in specified areas under specified circumstances.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects			0	NE
Untrammeled Total Rating		0		

Explanation:

If the biophysical environment of the designated wilderness is intentionally manipulated by this action, this would be a "Negative".

UNDEVELOPED

Component Activity for this Alternative		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Personnel will travel via fixed wing aircraft. Aircraft will land in designated wilderness.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Personnel will monitor geohazard using temporary installations of equipment for less than six months at a time.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Materials will be pushed off the side of the park road into designated wilderness in specified areas under specified circumstances.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects			2	NE
Undeveloped Total Rating		-2		

Explanation:

The Undeveloped quality tracks non-recreational installations as well as the administrative use of motor vehicles and mechanical transport. This alternative proposes both the use of installations and motor vehicle transport.

NATURAL

Component Activity for this Alternative		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Personnel will travel via fixed wing aircraft. Aircraft will land in designated wilderness.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Personnel will monitor geohazard using temporary installations of equipment for less than six months at a time.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Materials will be pushed off the side of the park road into designated wilderness in specified areas under specified circumstances.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects			0	NE
Natural Total Rating		0		

SOLITUDE OR PRIMITIVE & UNCONFINED RECREATION

Component Activity for this Alternative		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Personnel will travel via fixed wing aircraft. Aircraft will land in designated wilderness.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Personnel will monitor geohazard using temporary installations of equipment for less than six months at a time.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Materials will be pushed off the side of the park road into designated wilderness in specified areas under specified circumstances.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects			3	NE
Solitude or Primitive & Unconfined Rec. Total Rating		-3		

Explanation:

The Solitude quality measures remoteness from sights and sounds of people both inside and outside the designated wilderness. The sounds of aircraft transporting

personnel and machinery pushing materials off the road are impacts to this quality. The visibility of installations in designated wilderness impacts this quality. Project liaison will work with BIC to properly notify backcountry users of project impacts.

OTHER FEATURES OF VALUE

Component Activity for this Alternative		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Personnel will travel via fixed wing aircraft. Aircraft will land in designated wilderness.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Personnel will monitor geohazard using temporary installations of equipment for less than six months at a time.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Materials will be pushed off the side of the park road into designated wilderness in specified areas under specified circumstances.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects			0	NE
Other Features of Value Total Rating		0		

Explanation:

It is understood that all installations and material distribution will comply with Cultural Resources Programmatic Agreement, so no effects to the “Other” quality are registered here.

Summary Ratings for Alternative 2

Wilderness Character	
Untrammeled	0
Undeveloped	-2
Natural	0
Solitude or Primitive & Unconfined Recreation	-3
Other Features of Value	0
Wilderness Character Summary Rating	-5

MRDG Step 2: Alternatives

Alternative 3:

More intensive 4c prohibited actions in designated wilderness, including some emergency provisions.

Description of the Alternative

What are the details of this alternative? When, where, and how will the action occur? What mitigation measures will be taken?

C. Most Impactful – These may only be implemented under this compliance if the least and more impactful actions (Alternatives A and B) aren't feasible or it is a matter of health and safety and must be documented as such in PEPC

- i. Monitoring, including temporary installation of monitoring equipment (not including drilling) for the purposes of having real time data to inform decisions related to health and safety
- ii. Material distribution from the Road at any location for the purposes of health and safety
- iii. Helicopter landings for the purposes of monitoring and transportation

Component Activities

How will each of the components of the action be performed under this alternative?

<u>Component of the Action</u>		Activity for this Alternative
X	<i>Example: Transportation of personnel to the project site</i>	<i>Example: Personnel will travel by horseback</i>
1	Transportation of personnel to project site	Personnel will travel via helicopter.
2	Monitoring	Monitoring including temporary installation of equipment for the purposes of health and public safety.
3	Material distribution	Material distribution from the Denali Park Road at any location for the purposes of health and public safety.

Wilderness Character

What is the effect of each component activity on the qualities of wilderness character? What mitigation measures will be taken?

UNTRAMMELED

Component Activity for this Alternative		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Personnel will travel via helicopter.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Monitoring including temporary temporary of equipment.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Material distribution from the Denali Park Road at any location.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects			0	NE
Untrammeled Total Rating		0		

Explanation:

If the biophysical environment of the designated wilderness is intentionally manipulated by material distribution, this would be a “Negative.”

UNDEVELOPED

Component Activity for this Alternative		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Personnel will travel via helicopter.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Monitoring including temporary installation of equipment.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Material distribution from the Denali Park Road at any location.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects			2	NE
Undeveloped Total Rating		-2		

Explanation:

The use of helicopters and installations both degrade the Undeveloped quality of wilderness character.

NATURAL

Component Activity for this Alternative		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Personnel will travel via helicopter.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Monitoring including temporary installation of equipment.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Material distribution from the Denali Park Road at any location.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects			0	NE
Natural Total Rating		0		

SOLITUDE OR PRIMITIVE & UNCONFINED RECREATION

Component Activity for this Alternative		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Personnel will travel via helicopter.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Monitoring including temporary installation of equipment.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Material distribution from the Denali Park Road at any location.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects			3	NE
Solitude or Primitive & Unconfined Rec. Total Rating		-3		

Explain:

The remoteness from sights and sounds of modern human occupation, including impacts to soundscape and viewshed, is tracked in the Solitude quality. The sounds of helicopter use and the visibility of helicopters, temporary installation equipment and landscape modifications due to material distribution all negatively affect this quality of wilderness character. Project liaison will work with BIC to properly notify backcountry users of project impacts.

OTHER FEATURES OF VALUE

Component Activity for this Alternative		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Personnel will travel via helicopter.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2	Monitoring including temporary installation of equipment.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Material distribution from the Denali Park Road at any location.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects			0	NE
<u>Other Features of Value Total Rating</u>		0		

Explain:

It is understood that all material distribution and excavation will comply with the Cultural Resources Programmatic Agreement and Section 106, so no effects are registered in this quality.

Summary Ratings for Alternative 3

Wilderness Character	
<u>Untrammeled</u>	0
<u>Undeveloped</u>	-2
<u>Natural</u>	0
<u>Solitude or Primitive & Unconfined Recreation</u>	-3
<u>Other Features of Value</u>	0
Wilderness Character Summary Rating	-5

MRDG Step 2: Alternatives Not Analyzed

Alternatives Not Analyzed

What alternatives were considered but not analyzed? Why were they not analyzed?

No Action – Denali Park Road maintenance and response to geohazards must be undertaken.

Permanent installations requiring drilling in wilderness, slingload operations in wilderness or heavy equipment in wilderness – This alternative not analyzed because these impacts should be assessed on a case-by-case basis and are not allowable operations within the parameters of this programmatic MRA.

MRDG Step 2: Alternative Comparison

[Alternative 1:](#) No 4c prohibited actions in designated wilderness.

[Alternative 2:](#) Some 4c prohibited actions inside designated wilderness.

[Alternative 3:](#)

Wilderness Character	Alternative 1		Alternative 2		Alternative 3	
	+	-	+	-	+	-
Untrammeled		1	0		0	
Undeveloped	0			2		2
Natural	0		0		0	
Solitude/Primitive/Unconfined		1		3		3
Other Features of Value	0		0		0	
Total Number of Effects		2		5		5
Wilderness Character Rating	-2		-5		-5	

MRDG Step 2: Determination

Refer to the [MRDG Instructions](#) before identifying the selected alternative and explaining the rationale for the selection.

Selected Alternative

- | | |
|--|---|
| <input checked="" type="checkbox"/> Alternative 1: | No 4c prohibited actions in designated wilderness. |
| <input checked="" type="checkbox"/> Alternative 2: | Some 4c prohibited actions inside designated wilderness. |
| <input checked="" type="checkbox"/> Alternative 3: | More intensive 4c prohibited actions in designated wilderness, including some emergency provisions. |

Explain Rationale for Selection:

In this programmatic compliance, Alternative 1 must be the preferred alternative until it no longer allows for completion of necessary project work. Then proceed to Alternative 2. Similarly, once Alternative 2 no longer allows for completion of necessary project work, proceed to Alternative 3. Departure from Alternative 1 (the minimum requirement) must be documented in PEPC and must receive Superintendent approval.

Describe Monitoring & Reporting Requirements:

In order to keep this document nimble and useful, uses of the 4c prohibited activities described in this document in Alternative 3 can be approved via a phone call to the Superintendent in emergency situations. All departures from Alternative 1 must be documented in PEPC and must have Superintendent approval. Additionally, all mitigations within this MRA regarding consultation and coordination with Sec. 106 coordinator and Backcountry Information Center must be followed to ensure cultural resources protection and backcountry user safety.

Approvals

Which of the prohibited uses found in Section 4(c) of the Wilderness Act are approved in the selected alternative and for what quantity?

Prohibited Use

Quantity

- | | |
|---|----------------|
| <input checked="" type="checkbox"/> Mechanical Transport: | Helicopter use |
| <input type="checkbox"/> Motorized Equipment: | |

<input type="checkbox"/>	Motor Vehicles:	
<input type="checkbox"/>	Motorboats:	
<input checked="" type="checkbox"/>	Landing of Aircraft:	Helicopter landing
<input type="checkbox"/>	Temporary Roads:	
<input type="checkbox"/>	Structures:	
<input checked="" type="checkbox"/>	Installations:	Monitoring installations (no drilling approved)

Record and report any authorizations of Wilderness Act Section 4(c) prohibited uses according to agency policies or guidance.

Refer to agency policies for the following signature authorities:

Prepared	Name		Position	
	Kristin Pace		Wilderness Coordinator	
	Signature		Date	
	/s/ Kristin Pace		8/18/20	

Recommended	Name		Position	
	Signature		Date	

Recommended	Name		Position	
	Signature		Date	

Approved	Name		Position	
			Acting Deputy Superintendent	
	Signature		Date	
	/S/ Brooke Merrell		8/19/2020	

Appendix D: US Army Corps of Engineers Emergency Protocol for US Waterways

EMERGENCY (Defined in 33 CFR 325.2[e][4]): A situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action, requiring a permit, is not undertaken within a time period less than the normal time needed to process an application under standard procedures. Even in an emergency situation, reasonable efforts will be made to receive comments from interested federal, state, and local agencies and the affected public.

The NPS should contact the Corps Regulatory Division either by email or phone with details requiring the needed emergency discharge of fill. (Date emergency occurred, location of discharge, extent of discharge, material to be discharged, type of work, etc.)

The Corps will determine the possibility of alternatives to an emergency permit such as:

- | | |
|--|---|
| <input type="checkbox"/> Regional General Permit | <input type="checkbox"/> Alternative Design |
| <input type="checkbox"/> Nationwide Permit | <input type="checkbox"/> Alternative Location |
| <input type="checkbox"/> Permit Modification | <input type="checkbox"/> Alternative Method |

The Corps will determine the appropriate permitting process to use and will coordinate with the NPS regarding information needs, etc.

The following are examples of Nationwide Permits that could be used for typical emergency discharge needs, in-lieu of emergency procedures (see <https://www.poa.usace.army.mil/Missions/Regulatory/Permits/Nationwide-Permits/>):

NWP 3, Maintenance

NWP 13, Bank Stabilization

NWP 14, Linear Transportation Projects

NWP 18, Minor Discharges

NWP 19, Minor Dredging

NWP 27, Aquatic Habitat Restoration, Establishment and Enhancement Activities

NWP 45, Repair of Uplands Damaged by Discrete Events.

Appendix E: Wetland Procedures for Emergency and Excepted Actions

The following section is an excerpt from the NPS Procedural Manual on Wetland Protection (#77-1). Please see manual for full text.

Nation Park Service Procedural Manual #77-1: Wetland Protection

Reissued June 21, 2016

EXCERPTED IN FULL FROM PAGES 12-17:

4.2 Excepted Actions

This subsection identifies certain types of activities that require modified approaches to achieve the objectives of E.O. 11990 while reducing delay and paperwork. "Excepted actions" described in this subsection are those actions that may be excepted from the Statement of Findings requirements described in Sections 5.3.4 - 5.3.6 and the compensation requirements discussed in Section 5.2.3 of these procedures. If actions are "excepted" from these two requirements under this subsection, requirements to avoid wetlands and minimize unavoidable wetland impacts, to the extent practicable (Sections 5.2.1 and 5.2.2), still apply and should be addressed in the appropriate NEPA document.

Exceptions described in the following subsections do not imply exemption from the Clean Water Act (including Section 404 permits for discharge of dredged or fill material in waters of the U.S.), Section 7(a) of the Wild and Scenic Rivers Act, Section 10 of the Rivers and Harbors Act (USACE permits for projects in navigable waters), the Endangered Species Act, or other laws, regulations or procedures governing NPS activities.

4.2.1 Potential Exceptions for Certain "Water Dependent" and Maintenance Activities

Certain types of activities cannot accomplish their intended purposes unless they are located in or are carried out in close proximity to aquatic environments (i.e., they are "water dependent"). Following is a list of such actions that may be excepted from the Statement of Findings procedures outlined in Sections 5.3.4 - 5.3.6 and the compensation requirement discussed in Section 5.2.3 of these procedures. This list also includes a limited exception (#7 below) for maintenance, repair, or renovation (but not full reconstruction or expansion) of currently serviceable facilities or structures.

For an action to be excepted from the Statement of Findings and compensation requirements, the conditions and Best Management Practices (BMPs) referred to in Section 4.2.2 below and listed in Appendix 2 must be satisfied. If one or more of these conditions/BMPs are not met, the action reverts to full compliance with D.O. #77-1 and

these procedures. The NPS Water Resources Division is available for consultation to help determine if an action should be excepted.

Acreage limits in the excepted actions below apply to “single and complete projects.” Single and complete projects are located on discrete sites and have “independent utility” (i.e., are fully functional units by themselves). For example, a park proposes to construct two small canoe ramps on a lake at separate locations 1.5 miles apart, and each ramp is fully functional by itself (not dependent on the other ramp or on later project phases to perform its intended function). In this case, the 0.1 acre threshold in exception #2 below may be applied separately at each canoe ramp because each is a single and complete project.

In a contrasting example, a park proposes to construct a new sewer line that would be buried under three stream channels. In this case, the single and complete project is the entire sewer line, so the threshold in exception #5 below is the cumulative limit of wetland disturbance for the three stream crossings, and not applicable to each individual crossing. This is because each crossing doesn’t have independent utility (i.e., isn’t functional by itself without being part of the entire sewer line).

Actions that may be excepted from the Statement of Findings (Sections 5.3.4 - 5.3.6) and compensation (Section 5.2.3) requirements:

1. Scenic overlooks and foot/bike trails or boardwalks, including signs, where primary purposes include public education, interpretation, or enjoyment of wetland resources and where total wetland impacts from fill placement are 0.1 acre or less (Parking lots, access roads, borrow sites, and other associated facilities can not be excepted.)
2. Small boat ramps/launches, piers, or docks with total long-term wetland impact for the entire project (both onsite and offsite) of 0.1 acre or less.
3. Use and maintenance of unimproved backcountry vehicle stream crossings (use of stream channels as road corridors can not be excepted).
4. Minor stream crossings using bridges or other structures that completely span the channel and associated wetland habitat (i.e., no pilings, fill, or other support structures in the wetland/stream habitat).
5. Minor stream crossings for underground utility lines, including electrical lines, telecommunications cables, or water, sewer, gas or other pipelines, if the cumulative wetland disturbance (stream channel plus non-riverine wetlands immediately adjacent to the channel) totals 0.1 acre (4,356 ft²) or less. This exception requires that: 1) directional drilling under the stream channel and adjacent wetlands has been evaluated during the NEPA process and determined not to be practicable; 2) restoration of pre-construction contours and elevations, soil/substrate characteristics, and wetland/riparian vegetation is accomplished as part of the project; 3) the project will not result in adverse impacts on surface or ground water hydrology (e.g., no wetland drainage); and 4) best

management practices for protection of aquatic life (e.g., siltation controls, measures to protect fish migration and spawning) are implemented throughout the construction and restoration processes.

6. Installation of scientific measuring devices such as water level recorders, water quality monitoring stations, small weirs or flumes, or similar devices necessary for monitoring of or research on wetland resources.

7. Maintenance, repair, or renovation (but not full reconstruction¹ or expansion) of currently serviceable facilities or structures:

- that were under construction or were completed prior to May 28, 1980 (date when original "NPS Floodplain Management and Wetland Protection Guidelines" were published) but whose retention has been reviewed and justified according to Section 5.6 of these procedures, or
- that were completed after publication of the May 28, 1980 guidelines (or subsequent revisions, including this Procedural Manual) and for which compliance with them is on record.

This exception allows for minor (0.1 acre or less) deviations in the structure's configuration or fill footprint in wetlands due to changes in construction codes, methods, or safety standards (e.g., handicap accessibility), but does not apply to other types of reconstruction/expansion (e.g., road widening to increase capacity, road re-routing) or conversion to other uses that cause new adverse impacts on wetlands.

8. Bridge replacements (full reconstruction of existing bridges). This exception allows for up to 0.25 acre of new, permanent impacts on wetlands. Temporary, construction-related impacts on wetlands of 0.25 acre or less may be allowed under this exception if disturbed sites are actively restored to pre-disturbance conditions during, or immediately after, construction.

9. Actions designed to restore degraded (or completely lost) wetland, stream, riparian, or other aquatic habitats or ecological processes. For this exception, "restoration" refers to reestablishing environments in which natural ecological processes can, to the extent practicable, function as they did prior to disturbance.

- Short-term (temporary) wetland disturbances that are directly associated with and necessary for implementing the restoration may be allowed under this exception.
- Conditions 1 and 2 in Appendix 2 [see full Do 77-1 for appendix] may be waived for this excepted action if adverse impacts on hydrology and fauna exceed "minor" but are necessary to achieve restoration objectives. Justification for this waiver must be included in the NEPA document.
- Actions causing a cumulative total of up to 0.25 acres of new, long-term adverse impacts on natural wetlands may be allowed under this exception if they are directly associated with and necessary for the restoration (e.g., small structures).

- Some "artificial wetlands" (see definitions in Section 4.2.3 below) may have been constructed on sites that were originally 100% upland habitat (e.g., wetlands sustained by water pumps or other means). Restoration of such sites to upland habitat may also be considered under this exception.

4.2.2 Conditions and Best Management Practices for Actions Listed in 4.2.1 to Qualify as Excepted

Appendix 2 [see full Do 77-1 for appendix] presents a set of conditions that must be satisfied and best management practices (BMPs) that must be implemented for a proposed action to qualify for the exceptions in this subsection. If one or more of the conditions or BMPs cannot be met, then the action reverts to full compliance with these procedures.

4.2.3 Activities with Adverse Impacts on "Artificial" Wetlands

"Artificial" wetlands are those that have been created on former uplands or in deepwater habitats as a result of human activities. Such wetlands may be incidental (e.g., formed due to leakage from irrigation systems or in artificial impoundments created by inadequate road drainage) or may be intentional (e.g., associated with constructed ponds or reservoirs in uplands or associated with spoil islands created in deepwater habitats). For this subsection, constructed ponds and other small intentional artificial wetlands are defined as less than five acres in size, while larger intentional artificial wetlands or reservoirs are five acres or larger.

Proposed actions in incidental wetlands or small intentional wetlands can have significant adverse impacts on NPS resources and purposes even though the habitats are artificial. Decisions on these actions must include consideration of the potential loss of aquatic resource functions and values, including those described in Section 5.3.3 of these procedures. These decisions must also take into account NPS management policies allowing preservation of such resources under a number of special circumstances, including:

1. when needed to "maintain the closest approximation of the natural condition when a truly natural system is no longer attainable" (NPS Management Policies 2006, Chapter 4.1),
2. for the benefit of threatened or endangered species (NPS Management Policies 2006, Chapter 4.4.2.3),
3. for cultural resources management purposes (NPS Management Policies 2006, Chapter 5), or
4. when directed by Congress (NPS Management Policies 2006, Chapter 4.1).

Proposed actions in incidental artificial wetlands or small intentional artificial wetlands are subject to NPS NEPA compliance procedures. However, actions impacting these types of artificial wetlands may be excepted from the Statement of Findings requirements of Sections 5.3.4 - 5.3.6 and the compensation requirements of Section 5.2.3 of these procedures if, after evaluation of impacts on wetland functions and values, the anticipated wetland loss or degradation is determined to be minor (including no adverse impacts on state or federally listed or candidate species or their critical habitats). The NPS Water Resources Division is available for consultation to help determine if an action should be excepted. Note: This NPS exception does not imply exception from compliance with Section 404 of the Clean Water Act (which does regulate many artificial wetlands) or any other relevant laws, regulations, or procedures.

Construction, deposition of fill material, and other activities with adverse impacts on larger (> 5 acres) intentional wetlands/reservoirs are also subject to NPS NEPA compliance procedures and must comply fully with D.O. #77-1 and these procedures (though other exceptions in Section 4.2 may apply).

Artificial ponds, channels, or similar features that are used for the sole purpose of active stormwater, wastewater, or drinking water treatment are not considered wetlands for purposes of these procedures. However, if such systems retain wetland characteristics as defined in Section 4.1.1 of these procedures after they have been abandoned, they revert to the procedures for artificial wetlands discussed previously in this Section.

4.2.4 Emergency Actions

When the NPS performs emergency actions essential to protect property and public health and safety from an immediate threat, modified procedures for compliance with D.O. #77-1 and this manual are necessary. Taking into consideration the need for rapid action in emergency situations, practicable steps to avoid and minimize potential adverse impacts on wetlands must be taken. However, the other procedures described in this document for compliance with D.O. # 77-1 (e.g., Statements of Findings) are not required prior to implementing emergency actions.

After emergency actions are complete, restoration of wetlands that are damaged by the actions should occur as soon as possible. During the next revision of the park General Management Plan or other relevant park planning document, actions that would lessen the frequency of such emergencies or eliminate them entirely should be evaluated and implemented, where practicable.

Note: This NPS exception does not imply exemption from the requirements of Section 404 of the Clean Water Act. In order to allow emergency work without delays, each NPS unit should contact the local USACE District Office regarding emergency authorization procedures.

Appendix F: Floodplain Procedures for Emergency and Excepted Actions

The following section is an excerpt from the NPS Procedural Manual on Floodplain Management (#77-2). Please see manual for full text.

Nation Park Service Procedural Manual #77-2: Floodplain Management

October 2002

EXCERPTED IN FULL FROM PAGE 9:

V. SCOPE

A. Applicability

This procedural manual applies to all NPS proposed actions, including the direct and indirect support of floodplain development and channel modifications that could adversely affect the natural resources and functions of floodplains or increase flood risks. If the cost of obtaining precise floodplain information is prohibitive, the NPS will assume the project is within a regulatory floodplain unless the site can be determined beyond reasonable doubt to be outside the floodplain.

This procedural manual will apply to actions implemented prior to the Executive Order (May 28, 1980), including existing developments, when those actions are the subject of regularly occurring updates of official NPS planning documents. This procedural manual also applies to roads and to actions that are functionally dependent upon locations in proximity to water and for which non-floodplain sites are never a practicable alternative. Examples of actions functionally dependent upon water include: marinas, docks, piers, water intake facilities, sewage outfalls, bridges, flood control facilities, water monitoring stations, drainage ditches, debris removal, outdoor water sports facilities, boardwalks to interpret wetlands, and similar water-dependent actions.

While non-floodplain locations may not be a practicable alternative for these types of activities, minimization of impacts to the natural resources of floodplains remains an important requirement.

B. Excepted Actions

This procedural manual does not apply to historic or archaeological structures, sites, or artifacts whose location is integral to their significance.

This procedure does not apply to certain park functions that are often located near water for the enjoyment of visitors but require little physical development and do not involve overnight occupation. Examples include:

- Picnic facilities, scenic overlooks, foot trails, and small associated daytime parking facilities in non-high hazard areas provided that the impacts of these facilities on floodplain values are minimized;
- Isolated backcountry sites, natural or undeveloped sites along trails or roads, survey and study sites, or other similar activities; and
- Emergency actions essential to protecting property and public health, provided that emergency actions are limited to the minimum required and that all possible steps are taken to mitigate the short- and long-term adverse impacts of these actions on floodplain values.