THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Transportation and Public Facilities

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June 14, 2023

See Distribution List

Re: Seward Highway Milepost 98.5–118, Bird Flats to Rabbit Creek
0A31034/Z566310000
Request for Scoping Comments from Agencies

The Alaska Department of Transportation and Public Facilities (DOT&PF) has assumed Federal Highway Administration's (FHWA) responsibilities under 23 U.S. Code 327, and is soliciting agency comments and information regarding a proposed project to reconstruct and add safety improvements to the Seward Highway between Mileposts (MP) 98.5 and 118, Bird Flats to Rabbit Creek. The project limits are shown on the location and vicinity map (Figure 1).

This letter requests comments and information related to the proposed project, located within Sections 5, 6, 8, 9, 10, 14, 15, and 23, Township 10 North (N), Range 1 West (W); Sections 1, 2, 3, and 4, Township 10N, Range 2W; Sections 30, 31, 32, 33, and 34, Township 11N, Range 2W; Sections 4, 9, 10, 15, 22, 23, 25, and 26, Township 11N, Range 3W; and Sections 32 and 33, Township 12N, Range 3W, Seward Meridian. The beginning of the project is located at Latitude 60.9511, Longitude -149.4027 (MP 98.5 at Bird Flats); and the end of the project is located at Latitude 61.0871, Longitude -149.8344 (MP 118, north of Potter Marsh, at the intersection/overpass to Rabbit Creek Road).

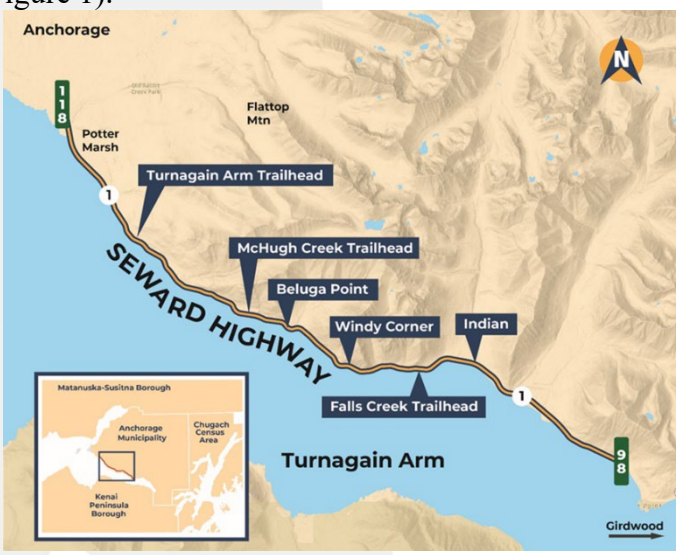

Figure 1: Project Limits

Proposed Project History

The current effort to improve safety along the Seward Highway between Girdwood and Anchorage began in the early 2000s. A Categorical Exclusion prepared for Project Z566310000 (Seward Highway Safety

Improvements, Indian to Potter Marsh, MP 105–115) was approved in 2004 and re-evaluated as part of the smaller Seward Highway MP 105 to 107, Windy Corner project, which commenced in 2013. As a result of public feedback and consultation with FHWA, the Class of Action was revised to an environmental assessment (EA) in 2017. The *Seward Highway Route Development Plan Reconnaissance Study* was completed in 2017, which evaluates potential long-term improvements to the corridor and their associated costs to assist with project planning and programming.[1] To produce the draft EA, DOT&PF conducted agency scoping and public involvement in compliance with National Environmental Policy Act requirements. The *Seward Highway: MP 105 to 107, Windy Corner Environmental Assessment*[2] was made available to the public in March 2020.

After reviewing public comments received on the draft Windy Corner EA, DOT&PF extended the project limits 2.5 miles northward, to between Windy Corner and Rainbow Point. Due to the expanded corridor and passage of time, DOT&PF decided rescoping the project was warranted. In spring 2021, public and agency scoping to cover the changed conditions commenced for the renamed project: Seward Highway MP 105–109.5, Windy Corner to Rainbow Point.

Following the 2021 scoping, DOT&PF expanded the project corridor to its current extent and renamed the project: Seward Highway Reconstruction MP 98.5 to 118, Bird Flats to Rabbit Creek. On January 24, 2023, DOT&PF published a Notice of Intent to Begin Engineering and Environmental Studies and Floodplain Encroachment for this project in several newspapers of record. The current project builds upon the prior work efforts and stakeholder feedback received on the draft Windy Corner EA and Seward Highway MP 105–109.5, Windy Corner to Rainbow Point scoping.[3]

The project team intends to collaborate with stakeholders to identify transportation solutions and safety improvements within the project corridor. We are requesting your comments on the:

- draft purpose and need statement,
- proposed project, and
- preliminary environmental research.

Additionally, we would like to know if:

- further analysis is needed to evaluate sensitive resources potentially impacted by the proposed project,
- regulatory permits and/or clearances are required from your agency, and
- your agency or organization might have any concerns or issues with the proposed project.

Please provide your written comments by **July 14, 2023**. The project team contact information is provided at the end of this letter.

Existing Site Conditions and Facilities

The existing Seward Highway within the project corridor is a two-lane, undivided highway designated as an Interstate highway. The highway consists of two 12-foot-wide travel lanes and 8-foot-wide shoulders

[1] DOT&PF. 2017. Accessed at https://safersewardhighway.com/library.html.
[2] DOT&PF. 2020. *Seward Highway: MP 105 to 107, Windy Corner Environmental Assessment.* Accessed at https://www.windycorner.info/documents/EA_Full_Doc.pdf.
[3] DOWL. 2021. *Seward Highway Windy-Rainbow MP 105–109.5 Scoping Summary Report*. August 2021. Accessed at https://www.windycorner.info/documents/2021%20Scoping%20Summary%20Final_2021-08-31-reduced.pdf.

with rumble strips. The posted speed limit is 55 miles per hour (mph), and passing and acceleration/deceleration lanes are limited. The highway is located between the steep slopes of the Chugach Mountains, the Alaska Railroad Corporation's railroad tracks, and the waters of Turnagain Arm. The existing highway does not meet current design standards, including several curves that do not meet the minimum horizontal radius for a 55-mph design speed, insufficient clear zones, lack of access control for the roadway's functional class, lack of passing opportunities, and proximity to rockfall zones.

The Seward Highway is a National/State Scenic Byway and an All-American Road. It provides the only overland access to communities south of Anchorage (e.g., Girdwood, Seward, Kenai Peninsula) and the Alaska Marine Highway System, which stops at Whittier, Seward, and Homer. The highway supports commercial, recreational, and residential traffic. The 2022 Average Annual Daily Traffic (AADT) along the Seward Highway between MPs 100 (Bird) and 117.5 (Potter Marsh) ranged between 7,427 and 9,598 vehicles. However, the highway serves a substantially higher average daily traffic during the summer season, between May and September. The 2022 AADT between June and August ranged between 10,642 and 16,484 vehicles per day, with some days exceeding 22,000 vehicles.[4] The high volumes create congestion, which contribute to safety concerns. High traffic levels cause long traffic queues to form, which, combined with limited passing opportunities, cause drivers to make unsafe passing maneuvers.

Five trailheads to Chugach State Park (CSP) are within this portion of the Seward Highway corridor. Additionally, 15 scenic/parking turnouts provide sightseers the opportunity to pull over and view the Chugach and Kenai Mountains, Turnagain Arm, bore tides, beluga whales, and Dall sheep as well as provide additional access to CSP. The highway connects directly to 11 small, local roads as well as several residential and commercial driveways. The popularity of the corridor, with travelers stopping frequently as well as pulling onto and off the highway at these access points, contributes to the identified congestion and safety needs.

The Seward Highway segment from Anchorage to Girdwood is one of four designated Safety Corridors in Alaska due to an elevated rate of fatal/major injury crashes within the corridor.[5] From 2016 to 2021, 418 crashes occurred within this corridor, averaging 70 crashes per year. During that period, these crashes resulted in 10 fatalities. The Highway Improvement Safety Plan (HSIP) has identified 15 roadside rockfall zones within the proposed project boundaries. Between 2016 and 2021, 14 crashes were associated with rockfall hazards within the proposed project area; however, the rockfall risk increased threefold between MPs 113 and 114 since the November 2018 earthquake. DOT&PF has been cutting back slopes and placing mesh fencing to mitigate rockfall within this area since 2021 under the HSIP.

Draft Purpose and Need Statement

The purpose of the Seward Highway MP 98.5 to 118, Bird Flats to Rabbit Creek Reconstruction project is to reconstruct this segment of the highway to meet current design standards for a component of the Interstate Highway System and eliminate the current designation as a Highway Safety Corridor. The project purpose can be achieved by improving safety for all users, updating the roadway to current standards, and reducing roadway congestion.

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[4] HDR. 2023. Existing and Future Traffic Analysis Methodology; DOT&PF. n.d. Alaska Traffic Data: Site 000011410031. Accessed at https://alaskatrafficdata.drakewell.com/sitedashboard.asp?node=AKDOT_CCS&cosit=000011410031 on March 23, 2023.

[5] DOT&PF. n.d. Safety Corridor. Accessed at https://dot.alaska.gov/stwdplng/hwysafety/safety_corridors.shtml on March 23, 2023.

This project intends to address three needs:

1. **Improve Safety.** In 2006, this segment of the Seward Highway was designated as the state's first Highway Safety Corridor in recognition of the fatal crash rate at that time. Despite additional enforcement presence, community education, and improved signage, segments still have a higher-than-average crash rate and severity. Improvements that reduce the crash rate must be completed to remove the Safety Corridor designation.
2. **Update Roadway to Current Design Standards.** The existing highway does not meet current design standards for its function and traffic levels. The existing highway contains curves, shoulders, guardrail, and clear zones that do not meet current design standards.
3. **Reduce Congestion.** The highway becomes congested, resulting in reduced travel speeds, long platoons (lines) of vehicles, and a degraded level of service. High traffic density (bumper to bumper) and travel speeds well below the currently posted 55-mph limit leads some drivers to make high-risk maneuvers, resulting in increased crashes and fatalities. Local access (intersections and pull-offs) further worsens roadway congestion due to the prevalence of recreational activities within the corridor.

Proposed Project

DOT&PF is evaluating improvements to mobility and safety for motorized and non-motorized users of the Seward Highway between MPs 98.5 and 118. These improvements are anticipated to include both operational and safety improvements. Improvements may include managing access, incorporating turning and/or acceleration lanes, improving sight distances around curves, or adding travel lanes. Attachment A shows an example cross section of a four-lane divided highway and a separated multi-use pathway. Such upgrades would likely require widening the highway corridor either into the mountainside or toward the marine waters, and may include relocating railroad track sections. Attachment B is series of maps showing the project study area.

Alternative development and analysis will be conducted based on stakeholder input. The project team would appreciate your assistance in identifying resources as well as locations of interest and concern along the existing highway corridor. Please provide your comments regarding resources of specific regulatory or stakeholder interest within the project corridor and vicinity, as well as possible impact avoidance and minimization measures that could be incorporated into the design, no later than **July 14, 2023**.

Preliminary Environmental Research

The project team conducted research using the most current available data to identify environmental resources within the proposed project vicinity; see Attachment C. We would appreciate your review and comments to supplement our understanding of the existing environment. Information will be used to conduct analyses for this project's EA. Please provide your comments and recommendations no later than **July 14, 2023**.

Additional Information

The Project Library page on the project website contains meeting materials, reports, and other pertinent information (available at https://safersewardhighway.com/library.html). The Project Library will be updated throughout the planning process as new information becomes available.

Questions and comments concerning the proposed project can be directed to Taylor Horne, Environmental Lead, at (907) 229-7145 or Taylor.Horne@hdrinc.com.

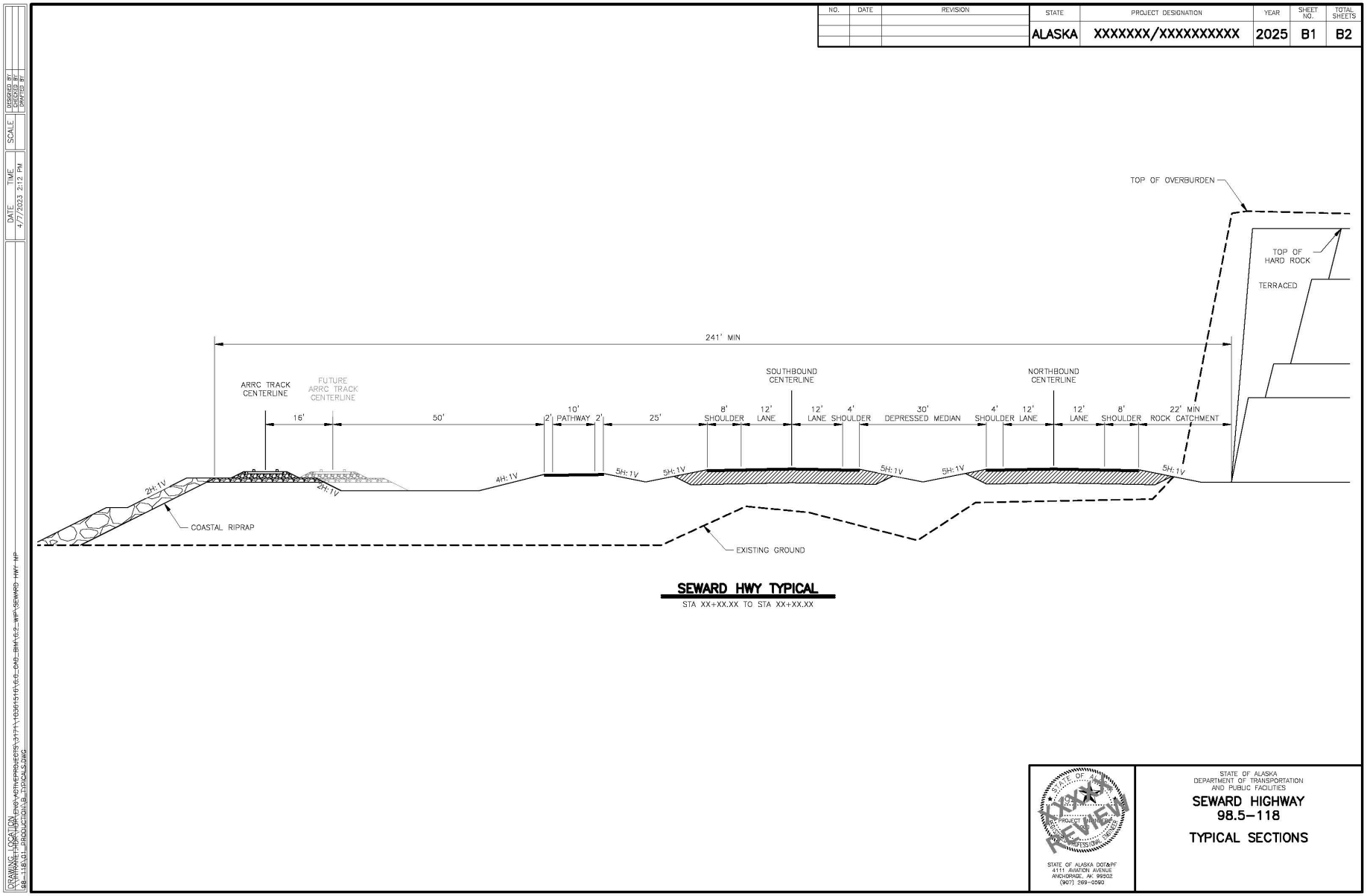
Sincerely,

The Safer Seward Highway Team

Enclosures:
Attachment A: Typical Section
Attachment B: Project Study Area Maps
Attachment C: Preliminary Environmental Research

Distribution List:
Alaska Department of Environmental Conservation: James Rypkema, Jason Olds
Alaska Department of Fish and Game: Ben Mulligan, Josh Brekken
Alaska Department of Natural Resources: Ben Corwin, Matthew Wedeking
Anchorage Metropolitan Area Transportation Solutions: Aaron Jongenelen
Alaska Railroad Corporation: Brian Lindamood
Bureau of Indian Affairs: Stuart Hartford
Bureau of Land Management: Tom Sparks
Cook Inlet Region, Inc.: Sophie Minich
Eklutna, Inc.: Kyle Foster
Eklutna Native Village: Faith Rukovishnikoff
Federal Highway Administration: Sandra Garcia-Aline
Knick Tribal Council: Richard Porter, Kevin Toothaker
Municipality of Anchorage: David Whitfield, Elizabeth Appleby
National Marine Fisheries Service: Angela Tallman, Jill Seymour
State Historic Preservation Office: Judy Bittner, Sarah Meitl
U.S. Army Corps of Engineers: Sara Longan
U.S. Environmental Protection Agency: Susan Sturges
U.S. Fish and Wildlife Service: Sara Boario
U.S. Forest Service: Francisco Sanches, Ruth Damico
U.S. National Parks Service: Elizabeth Bella, Joan Darnell

Attachment A: Example Typical Section



Attachment B: Project Study Area Maps

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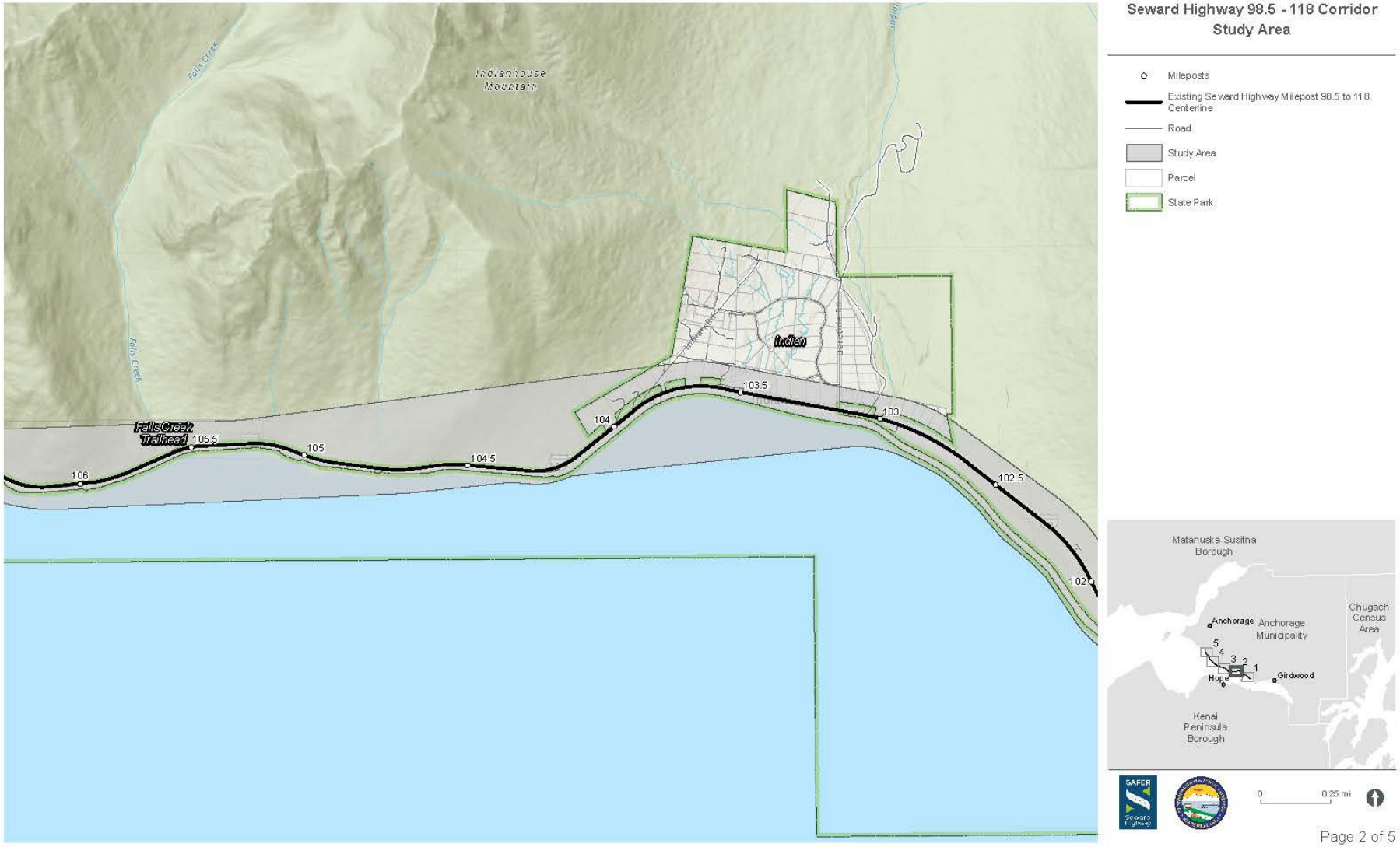

Attachment B: Project Study Area Map

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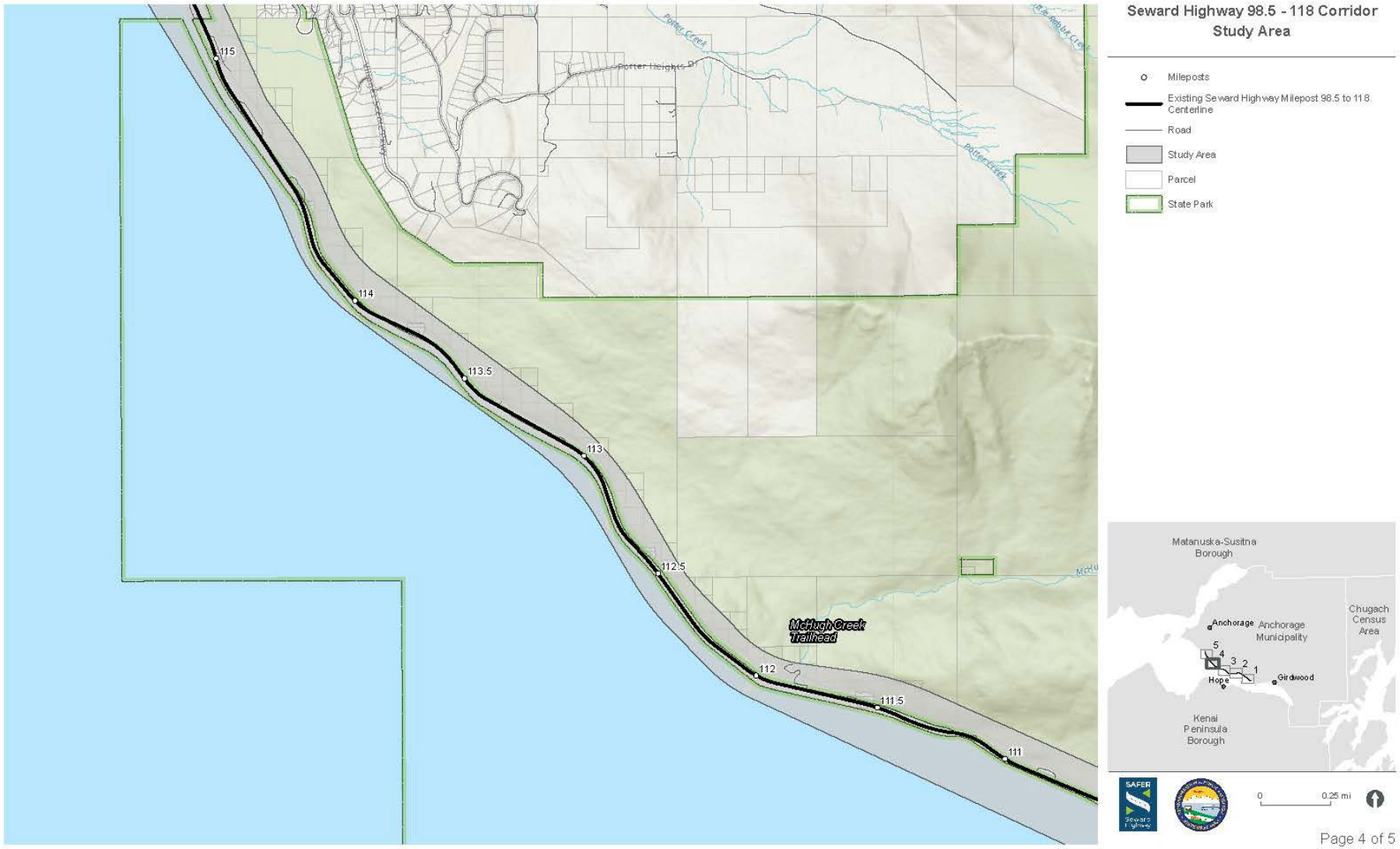

Attachment B: Project Study Area Map

Attachment C
Preliminary Environmental Research

Air Quality: An August 2022 review of the U.S. Environmental Protection Agency's List of Non-attainment Areas for Criteria Pollutants indicated the proposed Seward Highway Milepost (MP) 98.5-118, Bird Flats to Rabbit Creek project is not within an air quality non-attainment or maintenance area for National Ambient Air Quality Standards. Impacts on air quality during construction of the proposed project are anticipated to be minimal and temporary. No long-term impacts on air quality from the proposed project are anticipated.

Bald Eagle Nests: The U.S. Fish and Wildlife Service's (USFWS) Bald Eagle Nest Sites database was reviewed in August 2022, and one nest record (2002) was identified within 660 feet (652 feet actual) of the Seward Highway along the proposed project corridor at approximately MP 114. Bald eagle nests are present on the northwestern end of Potter Marsh and within the Indian/Bird area. The Alaska Department of Transportation and Public Facilities (DOT&PF) will conduct a survey of the proposed project area to determine if active eagle nests occur within the primary (330-foot) or secondary (660-foot) zones of potential alternatives. If an active eagle nest is identified within 660 feet of the proposed project area prior to or during construction, DOT&PF will seek guidance from USFWS regarding how to proceed. With implementation of conservation measures, to be developed in coordination with USFWS, no adverse impacts on bald eagles from the proposed project are anticipated.

Migratory Birds: Migratory birds are protected under the Migratory Bird Treaty Act. The project area contains areas that may provide nesting, rearing, wintering, and migratory habitat for a variety of water and land birds, most notably where the existing highway bisects the Anchorage Coastal Wildlife Refuge (ACWR) adjacent to Potter Marsh. Vegetation clearing and grubbing would not be permitted within the bird nesting window as described by USFWS for this region, except as allowed by federal, state, and local laws and approved by the Project Engineer. Adverse impacts on migratory birds from the proposed project are not anticipated to occur.

Contaminated Sites, Spills, and Underground Storage Tanks: An August 2022 review of the Alaska Department of Environmental Conservation (ADEC) Contaminated Sites Mapper shows one active contaminated site, the Essential 1 Gas Station (Former Shoreside Texaco; File ID 2105.26.001), in Bird Creek approximately 200 feet northeast of the proposed project area. ADEC records indicate residual soil contamination remains at 5 to 42 feet below ground surface, and groundwater contamination occurs at 40 to 50 feet below ground surface. Groundwater continues to be monitored at this location. Due to soil contamination and the depth to groundwater contamination, the likelihood of encountering contamination at this site during project construction appears to be low.

Three additional sites with a status of "clean up complete" are located within the proposed project area: a residence near MP 108 (File ID 2100.38.206), a pipeline leak near MP 102.9 (File ID 2111.38.003), and ACS Indian Substation near MP 103.5 (File ID 2111.38.001). Due to the status of these sites, the likelihood of encountering contamination in these locations during project construction appears to be low. However, ADEC notes in its project files that advanced approval is required from ADEC to transport soil or groundwater from these locations off site.

DOT&PF would coordinate with ADEC regarding contamination at the sites listed above so project design and construction activities can avoid encountering contaminated materials to the greatest extent possible.

Essential Fish Habitat: The entirety of Turnagain Arm is designated Essential Fish Habitat (EFH) for all five Pacific salmon species, and serves as a migratory corridor for salmon and eulachon; however, it is not considered EFH for any non-salmonid marine fish or shellfish. Additionally, anadromous fish resources and EFH are present in eight streams crossing the proposed project corridor.

Since proposed project work is anticipated within Turnagain Arm and anadromous streams, DOT&PF anticipates consulting with the National Marine Fisheries Service (NMFS) regarding work affecting anadromous fish and their EFH. In previous 2003 and 2014 consultations with NMFS for nearby Seward Highway projects, DOT&PF agreed to implement the following conservation measures during construction to minimize impacts on anadromous fish and their habitat:

- In-water construction work would not be conducted between April 1 and June 15 to avoid disturbing out-migrating salmonid fry and smolts.
- In-water and intertidal work would be conducted at low tide, to the extent possible, to reduce sedimentation within the water column.
- All dredge and/or fill material would be free of contaminants prior to placement within the proposed fill area or any off-site location.
- Fill below the high-tide line would be clean shot rock and would be placed when the site is naturally dewatered by lower tide stages.
- During construction, the fill site would be graded to prevent ponding on the fill surface, which could trap fish between high tides.

DOT&PF anticipates the same measures would be applicable to this proposed project. Additionally, a 2001 memorandum of agreement between the Alaska Department of Fish and Game (ADF&G) and DOT&PF for the design, permitting, and construction of culverts for fish passage sets forth the responsibilities of each agency when culvert-related work is conducted within fish-bearing waters. DOT&PF will coordinate with NMFS and ADF&G regarding impacts on anadromous fish or EFH within the proposed project area.

Fish-Bearing Streams: Adult fish use Turnagain Arm as a primary migratory route, returning to spawning streams such as Rabbit, Potter, Indian, and Bird Creeks. The proposed project would cross these and other fish-bearing streams. Since the project proposes work below the ordinary high water of freshwater fish-bearing streams, an ADF&G Fish Habitat Permit is expected to be required at these crossings. DOT&PF would coordinate with ADF&G to ensure construction would follow Fish Habitat Permit stipulations.

Floodplain Management: According to Federal Emergency Management Agency (FEMA) flood maps, portions of the project near Potter Marsh, Indian Creek, and Bird Creek are mapped 100-year floodplains. A flood hazard permit is required from the Municipality of Anchorage to place fill material within a FEMA-mapped 100-year floodplain. Most areas of the proposed project between these waters are Zone D areas, with no FEMA-mapped 100-year floodplain and an undetermined flood hazard. Project activities, such as roadway and railroad realignments as well as roadside ditch drainage work, may result in longitudinal encroachments into FEMA-mapped or unmapped base floodplains (100-year floodplains). Bridge and culvert work may result in transverse encroachments into these floodplains. Base floodplain encroachments are anticipated to be minor, with no net changes to the base flood elevations; therefore, they would not result in significant encroachments as defined in 23 Code of Federal Regulations (CFR) 650.105(q) and U.S. Department of Transportation (USDOT) Order 5650.2(4)(p).

Historical, Archaeological, and Cultural Properties: A preliminary Area of Potential Effects (APE) was established within which to identify cultural resources that may be affected by the proposed project. This preliminary APE has been offset from the existing highway centerline by approximately 550 feet at its narrowest and approximately 1,900 feet at its widest to encompass proposed future alternatives. An additional offset of 500 feet beyond each of the proposed project termini allows for transitions from the project segment to the existing roadway and the placement of guardrail, signs, and/or other roadside hardware that may be required. A review of the Alaska Heritage Resources Survey database identified 56 sites within the study area, of which 10 have been determined eligible for listing in the National Register of Historic Places (NRHP), 24 have been determined not eligible for listing in the NRHP, 3 have "other" status (1 of which is pending consultation), and 19 have no determination of NRHP eligibility.

As part of this proposed project, DOT&PF anticipates conducting a cultural resources survey, determinations of NRHP eligibility, and evaluations of effects. If an adverse effect is determined for any NRHP-eligible cultural resource, DOT&PF would work toward developing a memorandum of agreement with the Alaska State Historic Preservation Office and other appropriate consulting parties to resolve such adverse effects before proceeding with the proposed project.

Land Use and Transportation Plans: The proposed project is #12641 in Alaska's 2020–2023 Statewide Transportation Implementation Plan and associated Amendment #5. The proposed project appears consistent with relevant policies in the following land use and transportation plans:

- *Statewide Transportation Implementation Plan 2020–2023* (2020)
- *Chugach State Park Management Plan* (2016)
- *Chugach Access Plan* (2010)
- *Chugach State Park Trail Management Plan* (2009) and *List of Recommended Revisions* (2016)
- *Turnagain Arm Comprehensive Plan* (2009)
- *Seward Highway Scenic Corridor Enhancements* (2002)
- *Seward Highway Corridor Partnership Plan* (1998)
- *Municipality of Anchorage Areawide Trails Plan* (1997)
- *Turnagain Arm Management Plan for State Lands* (1994)
- *Interpretive Plan for the Seward Highway Scenic Byway* (1993)
- Seward Highway Scenic Corridor Plan (1981)

Chugach State Park (CSP) borders approximately 90 percent of the proposed project corridor on both sides of the highway/railroad right-of-way (ROW), and is zoned as Public Lands and Institutions. The only exceptions are the short stretches of private lands within the communities of Bird, Indian, and Rainbow as well as the private lands north of the weigh station at MP 115. Most of the privately owned land is zoned R-11 Residential, with 35-foot height restrictions on structures and limitations on removing natural vegetation.

The proposed project is expected to be consistent with existing land use plans, and no adverse land use effects are expected to occur as a result of the proposed project.

Rights-of-Way/Rights of Entry: Much of the land within the proposed project corridor is owned by the State of Alaska and managed by DOT&PF, the Alaska Department of Natural Resources (ADNR), and the Alaska Railroad Corporation (ARRC).

Generally, the existing transportation corridor consists of a 300-foot-wide highway ROW and a 200-foot-wide ARRC ROW that are each centered on their respective alignments and overlap for the majority of the corridor.

The highway ROW currently consists of land easements and any additional ROW that may have been purchased as part of past projects to allow for the construction, operation, and maintenance of the Seward Highway. DOT&PF is allowed to permit utilities within its ROW. The ARRC ROW is exclusive to the railroad's purposes and allows ARRC to construct, operate, and maintain railroad facilities as necessary as well as grant permits for utilities that can be located within its ROW.

A total final ROW corridor width of 500 feet would be optimum along the entire transportation corridor. However, given the limited space within this corridor, the ROWs for the road and railroad would likely continue to overlap. Within areas where the existing rail alignment results in greater separation for a wider highway, the total ROW could be wider.

It is anticipated that the proposed project would require new permanent ROW in some locations to shift, widen, and realign the roadway and railroad facilities. Relinquished ROW could be returned to CSP management as mitigation. Should business or residential relocations be required, DOT&PF would conduct those in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act.

DOT&PF anticipates needing Rights of Entry (ROE) agreements with landowners and managers, starting this summer for geotechnical, preliminary design, and environmental analyses of the project study area. Field activities for 2023 may include bathymetric and topographic surveys, geotechnical investigations, and cultural resource surveys. When ROE requests are submitted, they will include details outlining locations, equipment, access routes, and activity durations.

Section 4(f) Lands: Section 4(f) refers to the original section within the USDOT Act of 1966 that provided for consideration of park and recreation lands, wildlife and waterfowl refuges, and historic sites during transportation project development. Before approving a project that uses Section 4(f) property, DOT&PF (on behalf of the Federal Highway Administration [FHWA]) must determine that no feasible and prudent alternative exists that avoids the property, and the project includes all possible planning to minimize harm to the property. Multiple properties afforded protections under Section 4(f) are within the proposed project study area, including CSP, ACWR, and the (historical) Alaska Railroad from Potter to Portage. Additional facilities are anticipated to also qualify, including the "Bird to Gird" multi-use trail, the historic rail building at the southern end of Potter Marsh, and eligible historic properties (i.e., cultural resources eligible for or listed in the NRHP).

DOT&PF will conduct evaluations to identify and characterize Section 4(f) properties; evaluate alternatives; and, if necessary, determine appropriate mitigation measures in cooperation with the 4(f) resources' officials with jurisdiction. If NRHP-listed or eligible properties occur within the proposed project area, efforts will be made to avoid and minimize adverse impacts on these properties and, if necessary, mitigate impacts through the Section 106 and Section 4(f) processes.

Section 6(f) Lands: CSP is a Section 6(f) (of the Land and Water Conservation Act) resource, having received Land and Water Conservation Funds to support land acquisition and park improvements. CSP is accessed from numerous trailheads along the proposed project corridor. Roadway widening and realignment is anticipated to result in conversion of parklands that surround the highway on both sides. Any facilities or trailheads that would be affected by the proposed project would be reconstructed such that there would be no long-term, adverse impacts on park access. The Section 6(f) conversion is

anticipated to be fully mitigated through the acquisition of replacement parklands of equal fair market value and usefulness.

National Parks, Preserves, Monuments, and Wild and Scenic Rivers: No National Parks, Preserves, Monuments, nor Wild and Scenic Rivers are located within the proposed project area or vicinity.

National Wildlife Refuges: No National Wildlife Refuges exist within the proposed project area or vicinity.

State Refuges, Critical Habitat Areas, and Sanctuaries: The ACWR, which includes Potter Marsh, borders both sides of the Seward Highway/ARRC ROWs between MPs 115.25 and 117.5. As previously described, road widening may require up to 43 acres of the ACWR outside the highway and ARRC ROWs. DOT&PF will coordinate with ADF&G regarding the project's impacts on the ACWR.

Threatened and Endangered Species: NMFS listed the Cook Inlet beluga whale (CIBW) distinct population segment (DPS) as endangered under the Endangered Species Act. Critical habitat comprising 3,000 square miles and including all Turnagain Arm waters was designated for the CIBW DPS in 2011. Fill placed below Turnagain Arm mean high water would alter or remove CIBW habitat. Additionally, out-of-water blasting of adjacent rock faces may occur at select areas to move the alignment inland.

DOT&PF and FHWA previously prepared a biological assessment (April 2015) covering an action area (MPs 103.5 to 109.5) within the proposed project area and consulted with NMFS in accordance with Section 7 of the Endangered Species Act. This resulted in the following environmental conservation/mitigation measures related to CIBW for blasting noise:

- The contractor would use protected species observers to determine CIBW presence within a designated area surrounding the blast location. Should an observer notice CIBW within the range prior to a blast, blasting activities would be paused until the whales are outside the designated protection zone.
- In-water fill placement would not occur from April 1 to June 15.
- Fill placement would only occur during daylight hours and would be restricted to within 6 hours of low tide (3 hours before and/or after local low tide).
- On-shore blasting would only occur during daylight hours and would be restricted to within 6 hours of low tide (3 hours before and/or after local low tide).
- Blasting activities would not occur at or below the intertidal zone.

DOT&PF anticipates these measures would be applicable during construction of the proposed project. DOT&F will coordinate with NMFS regarding the potential impacts on protected species and their habitat from the proposed project, and anticipates preparing a new or updated biological assessment.

Water Quality: A review of ADEC records found one impaired waterbody, Little Rabbit Creek, within the proposed project area. This creek passes through Potter Marsh and crosses the Seward Highway through a series of culverts at approximately MP 117.3. The creek is listed as impaired for fecal coliform bacteria. The proposed project would not contribute additional fecal coliform bacteria to the creek. Temporary water quality degradation from sediment may occur during construction. Impacts from increased turbidity are expected to be temporary and not pose long-term threats to aquatic species adapted to the Turnagain Arm area.

A Stormwater Pollution Prevention Plan would be developed for the project in compliance with the Alaska Pollutant Discharge Elimination System permit for construction activities. Temporary water

quality impacts would be minimized through implementation of erosion and sedimentation control measures, as outlined in the proposed project's Stormwater Pollution Prevention Plan.

Wetlands and Waters of the United States: A review of the National Wetlands Inventory found that intertidal estuarine wetlands (exposed and flooded by tides) and subtidal estuarine waters (continuously submerged) of Turnagain Arm comprise the majority of waters of the United States (WOUS) within the proposed project area. These estuarine waters parallel the southwestern side of the highway for the proposed project's length. Additionally, some impounded emergent wetlands are located along the proposed project's length between the roadway embankment and Chugach Mountains. The largest and most prominent of these, located between MPs 115.5 and 118.0, is the 564-acre Potter Marsh. Other scattered emergent, shrub, and forested wetlands are located near the highway opposite Turnagain Arm. These are few and located on the northeastern side of the highway, mostly adjacent to creeks that cross under the highway and empty into Turnagain Arm.

The proposed project is expected to involve the placement of fill into WOUS, including wetlands, to widen and realign the highway.

Impacts on WOUS would require authorization from the U.S. Army Corps of Engineers. Avoidance, minimization, and mitigation measures would be proposed, and conditions of the permit would be followed to avoid and minimize impacts on WOUS. For wetland losses that are unavoidable, compensatory mitigation would be provided in accordance with permit conditions.

Wildlife Habitat: Terrestrial mammals such as moose, Dall sheep, and brown and black bears have been observed within the proposed project area. These animals either reside atop the steep Turnagain Arm hillside or traverse through the area to other habitats. Some wildlife may avoid the project area during construction activities, but the proposed project is not likely to cause permanent adverse impacts on wildlife.

Previous consultation with ADF&G for other nearby projects has resulted in the following guidelines to be implemented during construction:

- The project alignment would seek to avoid and/or minimize impacts on the important habitat areas identified by ADF&G.
- Blasting would not occur when Dall sheep are present within a designated blast zone.
- Blasting operations would not be allowed from May 10 through July 15 to protect Dall sheep during lambing.
- Observers would be used to monitor Dall sheep within 0.25 mile of the blast location. Blasting would be paused until sheep are more than 0.25 mile from blasting operations.

DOT&PF anticipates these conservation measures would be applicable and adequate to minimize potential impacts on Dall sheep from the proposed project.

Traffic Noise: The proposed project is likely to involve the addition of a new through-traffic lane and/or substantially alter the highway alignment as defined in 23 CFR 772. Each of these work activities triggers the need for a traffic noise analysis. Past noise analyses have been completed along the Seward Highway for projects with a similar scope, and noise impacts have generally not been identified. DOT&PF plans to collect noise measurements and use a traffic noise model to identify whether impacts would occur to sensitive land use areas, following the DOT&PF Noise Policy (November 2018).

Invasive Species: A review of the University of Alaska Anchorage's Alaska Exotic Plants Information Clearinghouse, Invasive Plants Mapper identified numerous invasive plant species within the proposed project vicinity.

Mitigation measures proposed to prevent or minimize the introduction and spread of invasive species include:

- Avoiding the use of listed noxious species for landscaping and erosion control purposes
- Sequencing construction activities to minimize the disturbed area
- Implementing timely seeding of project-disturbed areas with non-invasive species

With the implementation of practicable measures to minimize the introduction or spread of invasive species during construction, the proposed project is expected to result in no substantial invasive species impacts.

Material Extraction and Disposal Sites: It is a design goal of the proposed project to avoid and/or minimize the need to extract or dispose material outside the existing and proposed ROW limits. Where practicable, the proposed project would be designed to balance cut and fill operations within ROW limits, leaving minimal to no excess or surplus materials to import from or export to off-site locations. This would minimize extraction or disposal site impacts to resources outside the highway and railroad corridors.