

APPENDIX M
DRAFT SECTION 4(F) AND SECTION 6(F)
EVALUATION

M. SECTION 4(F) AND SECTION 6(F) EVALUATION

This appendix includes impact analyses for Section 4(f) of the U.S. Department of Transportation Act and Section 6(f) of the Land and Water Conservation Fund Act.

M.1 Section 4(f) Analysis

The U.S. Department of Transportation (USDOT) regulation known as “Section 4(f)” is not applicable to the Surface Transportation Board (STB or the Board) actions; however, it is applicable to the proposed Port MacKenzie Rail Extension (project) through the involvement of the Federal Railroad Administration (FRA).¹ The FRA could provide funding for the proposed rail line.

Section 4(f) was originally established in the U.S. Department of Transportation Act of 1966 (49 United States Code [U.S.C.] Section 1653(f) and later recodified as 49 U.S.C. 303. In 2005, Congress enacted legislation that required the USDOT to issue additional regulations that clarify 4(f) standards and procedures (USDOT, 2005). These new regulations were finalized in March, 2008, at 23 Code of Federal Regulations (CFR) 774. Section 4(f) mandates that the Secretary of Transportation shall not approve any transportation project requiring the use of publicly-owned parks, recreation areas or wildlife and waterfowl refuges, or significant historic sites, regardless of ownership, unless:

- There is no prudent and feasible alternative to using that land.
- The program or project includes all possible planning to minimize harm to the public park, recreation area, wildlife or waterfowl refuge, or significant site, resulting from that use.

To be protected under Section 4(f), public parks and recreation facilities must be considered “significant” (USDOT, 2005). Historic sites qualifying for Section 4(f) protection must be officially listed on, or eligible for inclusion on the *National Register of Historic Places*, or contribute to a historic district that is eligible for or listed on the National Register.

A “use” of properties protected under Section 4(f) occurs under either of the following conditions (23 CFR 771.135(p)):

- When land from a qualifying 4(f) property is acquired and permanently incorporated into a transportation facility.
- When there is a temporary occupancy of 4(f) land during construction of the transportation facility that is considered adverse to the preservationist purposes of the Section 4(f) statute.

In addition, a “constructive use” could occur when no land is acquired from a Section 4(f) property but the proximity of the project results in indirect impacts which would “substantially impair” the current use of the property such as visual, noise, or vibration impacts, or impairment of property access.

¹ The lead agency for the Port MacKenzie Extension is the STB. FRA is a cooperating agency in NEPA process. Section 4(f) does not apply to the STB, so the FRA acts as lead agency in regard to the Section 4(f) analysis.

Section 6009(a) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act of 2003: A Legacy for Users (SAFETEA-LU), amended existing Section 4(f) legislation to simplify the processing and approval of projects that have only *de minimis* impacts on resources protected by Section 4(f). A *de minimis* finding refers to a finding that a project would have little or no influence to the activities, features, and/or attributes of the Section 4(f) resource. This revision provides that once USDOT determines that the transportation use of any Section 4(f) property would result in a *de minimis* impact on that property, after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, an analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete for that resource.

A finding of *de minimis* impact on a historic site may be made when:

- The process required by Section 106 of the National Historic Preservation Act (NHPA) of 1966 results in the determination of “no adverse affect” or “no historic properties affected” with the concurrence of the State Historic Preservation Office (SHPO) if participating in the Section 106 consultation.
- SHPO is informed of the lead agency’s intent to make a *de minimis* impact finding based on their written concurrence in the Section 106 determination.
- The lead agency has considered the view of any consulting parties participating in the Section 106 consultation.

Transportation project use of a park, recreation area, or wildlife and waterfowl refuge that qualifies for Section 4(f) protection may be determined to be *de minimis* if the following criteria are met:

- The transportation use of the Section 4(f) resource, together with any avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).
- The official(s) with jurisdiction over the property are informed of the lead agency’s intent to make the *de minimis* finding based on their written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).
- The public has been afforded an opportunity to review and comment on the impacts of the project on the protected activities, features, and attributes of the Section 4(f) resource.

Section M.1.d summarizes the Section 4(f) uses for proposed rail line segments that could impact Section 4(f) resources and includes the No-Action Alternative for comparison.

M.1.a Purpose and Need

The Alaska Railroad Corporation (ARRC or the Applicant) has stated that the purpose of the Port MacKenzie Rail Extension is to provide rail service to Port MacKenzie and connect the Port with the remainder of the ARRC rail system, providing Port MacKenzie customers and shippers multi-modal options for movement of freight to and from the Port similar to that offered by other

ports handling large vessels. At present, freight truck is the only available mode of surface transportation for bulk materials and other freight to and from the Port. Because of the economics and efficiencies offered by direct rail service, the Applicant anticipates that bulk commodity movements to and from the Port would likely be by rail if such an option were available. The Applicant states that the proposed rail line would also support its statutory goal to foster and promote long-term economic growth and development in the State of Alaska.

M.1.b Proposed Action and Alternatives

The proposed Port MacKenzie Rail Extension would involve construction and operation of a single-track rail line from Port MacKenzie to a point on the existing ARRC main line between Wasilla and just north of Willow, Alaska. ARRC proposes to construct and maintain the rail line to Class 4 standards², and ARRC proposes to transport commercial freight on the rail line. The specific commodities to be shipped would be dependent on the Port MacKenzie customers that would choose to use the proposed rail line. The right-of-way (ROW) could contain an above-ground power line, buried utility lines, and an access road. In addition, ARRC would construct one rail line siding within the existing main line ROW at the tie-in location with the rail extension. The proposed action consists of a number of physical elements including (see Chapter 2 of this Draft Environmental Impact Statement [EIS]):

- Right-of-way (ROW) for rail line;
- Rail associated facilities (including towers and sidings);
- Bridges and Culverts;
- Access Roads; and
- Existing Grade Crossings.

Construction activities would include clearing within the ROW, constructing a permanent access road within the ROW, building a suitable railbed, track construction, acquisition of materials for rail construction (ballast, subballast, large armor rock, and materials for construction of rail ties and rails), creating construction staging areas, temporary bridges, and permanent associated facilities for the rail line. ARRC would also construct a terminal reserve area along the southern terminus of the rail line. This area would eventually consist of yard sidings, storage areas, and a terminal building to support train maintenance. ARRC has proposed two terminal reserve areas, but would build only one depending on which alternative the Board authorizes, if any.

ARRC anticipates that construction would take approximately 24 months. The specific timeframe and sequence of construction would depend on funding, final design, and permit conditions, such as requirements to avoid sensitive breeding periods for migratory birds and raptors and when salmon are spawning, incubating, or rearing in specific areas. Wintertime construction activities would be limited due to weather considerations and overall construction timing would be determined in consultation with land managers in consideration of human and environmental factors. The area in the ROW that is cleared of vegetation for construction, but

² The Federal Railroad Administration (FRA) establishes the standards for class of track and maximum operating speed for passenger and freight on each class of track (49 Code of Federal Regulations [CFR] 213). Design and construction of the proposed Port MacKenzie Rail Extension to Class 4 standards would be required for ARRC's desired operating speed for freight (60 miles per hour) service.

not needed for permanent structures, would be restored to natural conditions, to the extent practicable, consistent with rail line operating requirements.

Train frequency could vary but ARRC anticipates that traffic on the Port MacKenzie Rail Extension would average 2 freight trains per day (one in each direction), with an average of 40 to 80 freight cars each.³ Train speeds would not exceed 60 miles per hour. ARRC would conduct periodic maintenance and inspections to ensure operation of a safe and reliable rail line. The primary maintenance activities would include signal testing and inspection; minor rail, tie, and turnout replacement; and routine ballasting and surfacing tasks. Additional activities would be performed on an as-needed basis and would include vegetation control, snow removal, and vehicle and equipment maintenance.

The alternatives discussed in the EIS are the outcome of an extensive alternatives analysis process that began with the 2003 Matanuska-Susitna Borough (MSB) study to identify potential corridors that could be used for both road and rail connections between Port MacKenzie and the existing ARRC mainline or the George Parks Highway. The 2003 corridor study identified eleven potential alignments.

From September to December 2007, MSB and ARRC jointly conducted an analysis based on rail line engineering requirements and available environmental data to re-evaluate the alignments from the 2003 MSB study and develop feasible rail line alignments that could minimize potential impacts to the environment. The analysis considered factors that influence the development of a rail line, such as land management/ownership and human and environmental factors. These included: waterbodies, anadromous streams, archaeological and historic properties, native allotments, parks and refuges, wetlands, wetland banks, limiting soils, prison facilities, developed parcels, and land ownership. These factors were translated into a Geographic Information System analysis, whereby they could be used cumulatively to determine 5,000-foot-wide corridors for the possible Port MacKenzie Rail Extension. Engineers then identified 200-foot-wide zones within these corridors that were both feasible from an engineering standpoint and would best minimize potential impacts.

Members of the public had the opportunity to comment on ARRC's preliminary alignments at five public meetings in October 2007. ARRC held meetings in the communities of Wasilla, Big Lake, Willow, Knik, and Houston. ARRC received a total of 361 comments from the public regarding Port MacKenzie Rail Extension alignments. Based on this information, in January 2008, ARRC issued the Preliminary Environmental and Alternatives Report (ARRC 2008), which presented eight possible alignment configurations. These eight potential rail line alignments are different from, although some are similar to, the eleven road/rail line corridors identified in 2003.

The Board's Section on Environmental Analysis (SEA) reviewed the alignment development process during the National Environmental Policy Act (NEPA) scoping period, and requested

³ This estimated level of train traffic, which would be sufficient to fill approximately 13 Panamax class ships per year with bulk materials at Port MacKenzie, was based on market opportunities at the time of filing and the supply based infrastructure and equipment limitations. Based on current market opportunities, ARRC now estimates ship traffic for export of bulk commodities from the Port MacKenzie Rail Terminal would include five Panamax class ships per year. Thus, the estimated average of two trains per day used in the EIS analysis is conservative.

that the Applicant complete refinements to the alignments based on public comment and consultation with cooperating agencies. Both SEA and the cooperating agencies utilized the purpose and need factor (as described in Section M.1.a) to review ARRC's initial alignments. Through this review, SEA and the cooperating agencies selected a reasonable range of alternatives to study in detail in the EIS and to eliminate alternatives and segments from detailed study. SEA and the cooperating agencies considered eliminating from detailed study segments that did not meet fundamental components of the purpose and need, would lead to substantially greater adverse environmental impacts, or that featured insurmountable construction and/or operations limitations.

A summary of the alignment development process and alternatives analyzed and eliminated from consideration is available in Chapter 2 of the Draft EIS. There is no option for the Board to authorize an individual segment;⁴ the Board would only authorize a complete route from Port MacKenzie to ARRC's main line, which would be comprised of a combination of the segments under consideration.

M.1.c Section 4(f) Property Description

A publicly-owned park, recreation area, or wildlife and waterfowl refuge must be a "significant" resource for Section 4(f) to apply. Pursuant to 23 CFR 771.135(c), 4(f) resources are presumed to be significant unless the official having jurisdiction over the site concludes that the entire site is not significant. SEA, on behalf of FRA, consulted with the agencies with jurisdiction over the Section 4(f) resources. These agencies have commented on the significance of the Section 4(f) resources that would be crossed by one or more of the proposed rail line segments. This section describes SEA's preliminary determination of Section 4(f) properties that are located within the project area. Figures M-1 through Figure M-3 show these resources and the proposed rail line segments analyzed in detail in the Draft EIS. The resources discussed below as qualifying for protection under Section 4(f) because their primary purpose is for recreation are publicly accessible either through public easements or public ownership, or both.

M.1.c.1 Parks and Recreation Areas

Three state recreation areas and 13 officially recognized trails identified in adopted public documents that are located within the project area are considered to qualify as Section 4(f) resources. These 13 officially recognized trails have been specifically established within currently adopted plans by the Alaska Department of Natural Resources (ADNR) and/or MSB and are located on state or MSB property and/or have a recorded public ROW or easement. In some cases, there are additional trails located within other Section 4(f) properties in the project area. These trails are not discussed separately as individual 4(f) resources, instead they are considered in this evaluations as a component of another Section 4(f) property.

⁴ An alignment consists of a combination of segments from Port MacKenzie to the ARRC mainline. ARRC identified segments and alignments. Alignments that SEA and the cooperating agencies selected for analysis in detail in the EIS are referred to as alternatives.

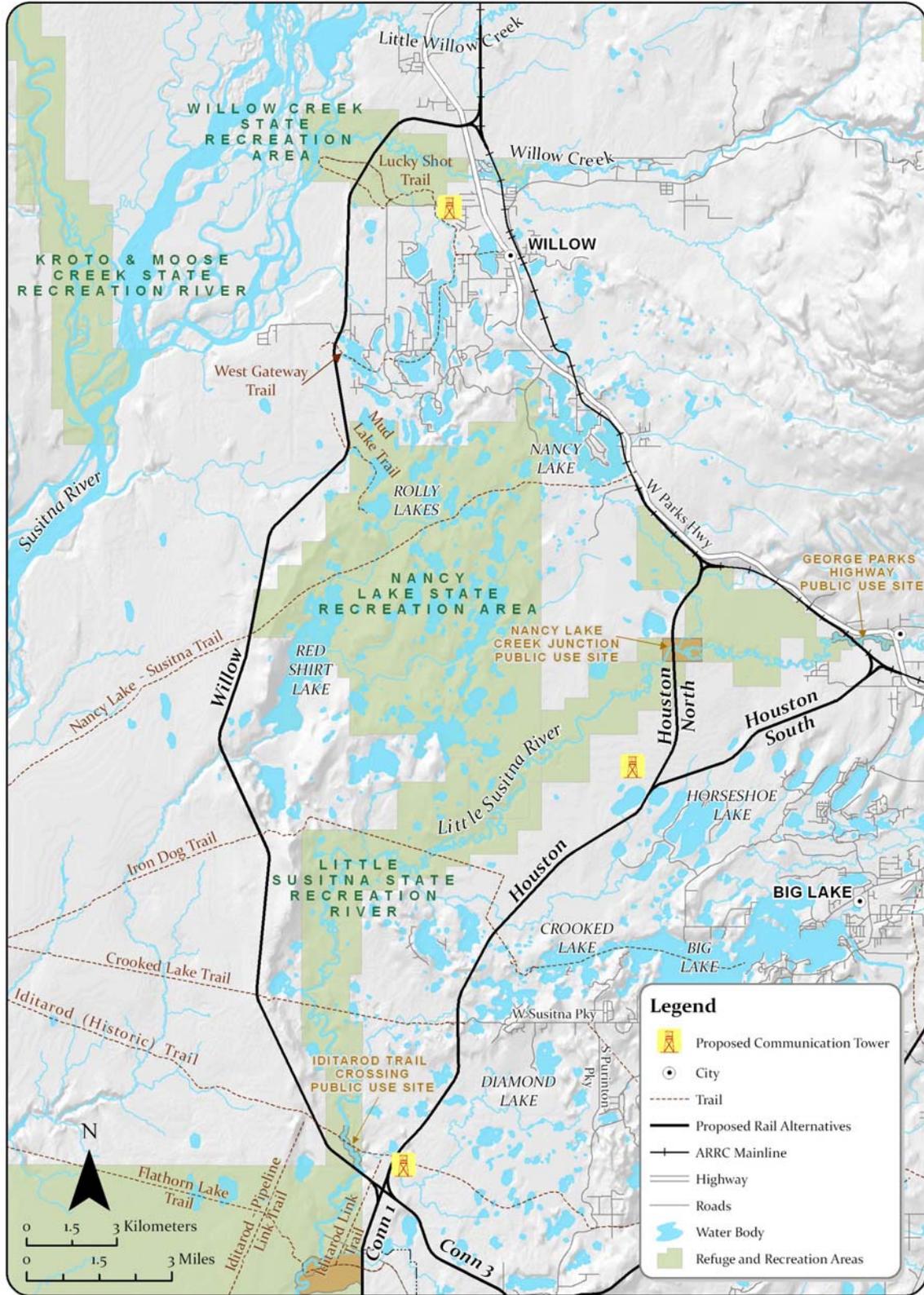


Figure M-1. Section 4(f) Resources along the Willow, Houston, Houston North, and Houston South Segments

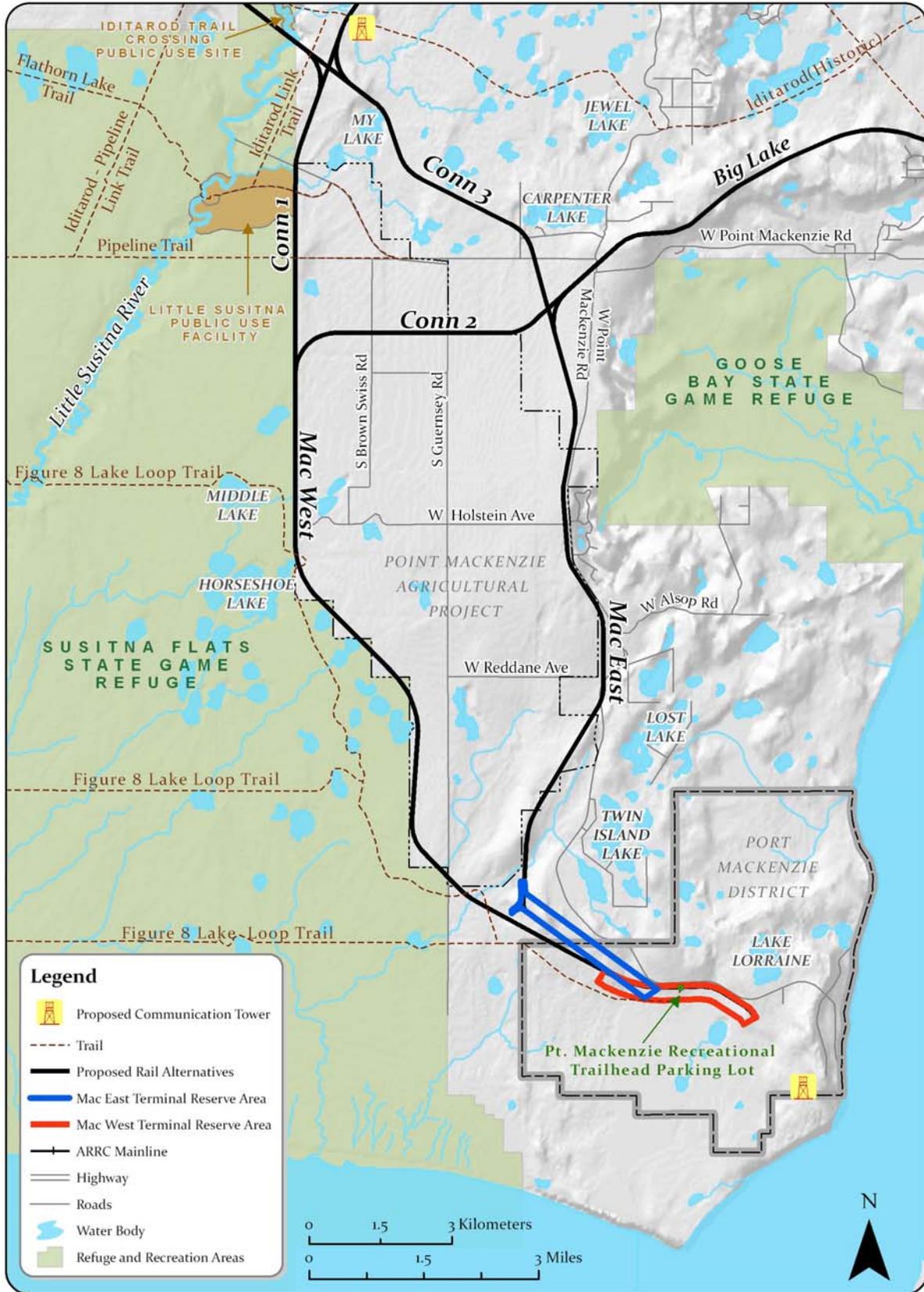


Figure M-2. Section 4(f) Resources along the Mac East, Mac West, and Connector Segments

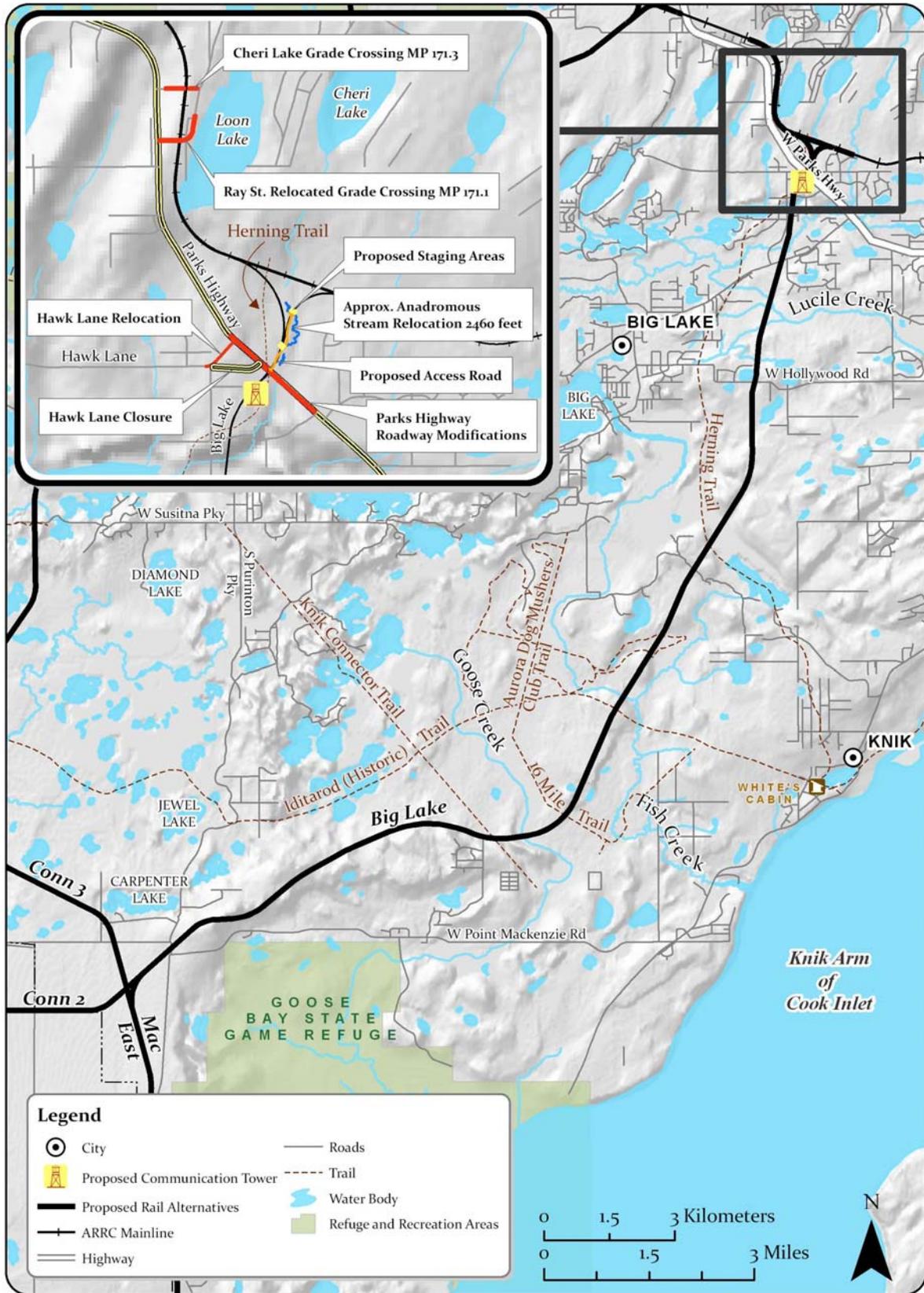


Figure M-3. Section 4(f) Resources along the Big Lake Segment

Little Susitna State Recreation River

Size and Location

The Little Susitna State Recreation River is located between the northeast corner of the Susitna Flats State Game Refuge and the City of Houston (see Figure M-1). The area includes the Little Susitna River and a corridor bordering the river (the corridor ranges from 0.5 mile to more than 2 miles wide in some sections). The area would be crossed by the Willow and Houston North segments.

Ownership⁵ and Type of Section 4(f) Property

The Little Susitna State Recreation River is publicly owned and managed by ADNR. The Little Susitna State Recreation River is a publicly-owned recreational area and therefore qualifies as a Section 4(f) resource. Crossing the Little Susitna State Recreation River would require land conversion and conveyance to ARRC, which would constitute a use of a Section 4(f) property.

Function of the Property and Available Activities

The Little Susitna State Recreation River functions as one of six designated “state recreation rivers” in the Susitna River Basin. The Little Susitna River offers public recreation opportunities, most notably boating, camping, fishing, hiking, and all-terrain vehicle use on trails along the banks of the river. The river is home to the second largest coho salmon harvest in Alaska (ADF&G 2004). The Little Susitna River is estimated to receive between 2,000 and 3,000 float trips per year, not counting motorized trips (ADNR 2007). The area is used for camping, with approximately 69 undeveloped campsites scattered throughout the corridor (ADNR 1991).

The river area also includes several “public use sites,” areas identified for public access, fishing, camping, or other recreation or public use. Three of these sites within the Little Susitna State Recreation River are of particular note due to proximity to potential rail crossings. The George Parks Highway Bridge Public Use Site is located downstream from the Parks Highway crossing of the Little Susitna River, and receives heavy use due to its easy accessibility. It is used for bank fishing, day use, and launching float boats. The Nancy Lake Creek Junction Public Use Site, another camping and fishing area, is located at the creek’s confluence with the Little Susitna River, approximately 4.5 miles west of the City of Houston. It would be potentially crossed by the Houston North Segment. The Iditarod Trail Crossing Public Use Site, located along the river immediately north of the point where the Willow Segment is proposed to cross, is a camping area.

Description of Existing and Planned Uses

The Little Susitna State Recreation River is managed to maintain multiple resources as described in the Susitna Basin Recreation Rivers Management Plan (ADNR 1991). However, the Recreation Rivers Act (Alaska Statute 41.23.500) states that the primary purpose for the

⁵ “Ownership” refers to the current owner of the property.

establishment of the six recreation rivers is the maintenance and enhancement of the land and water for recreation. The Susitna Basin Recreational Rivers Management Plan identifies a Special Management Area where the MSB has indicated interest in the extension of South Big Lake Road/West Susitna Parkway to cross the Little Susitna River and provide access to lands to the west. This is part of the West Mat-Su Access project to provide access to the Fish Creek Management Area. Three crossing locations are being studied by the MSB: the extension of the Susitna Parkway in the Big Lake area, a location approximately 0.8 mile north of where the Iditarod National Historic Trail crosses the river, and near the existing Little Susitna River access at the end of Ayrshire Road (MSB 2007). The South Big Lake Road/West Susitna Parkway currently extends to within approximately 1.4 miles of the Little Susitna River, at present, terminating south of West Papoose Lake, while Ayrshire Road presently terminates at its junction with the Little Susitna Public Use Facility access road, approximately 1.5 miles east of the Little Susitna River.

Access

Access is available from the river mouth on the Cook Inlet by way of boat, at the Little Susitna Public Use Facility just south of the recreation river area, from Nancy Lake State Recreation Area via a portage trail at the Skeetna Lake Portage Public Use Facility, from the Miller's Reach Road access and boat launch, and from the Parks Highway where it crosses the Little Susitna River.

Relationship to other Similarly Used Lands in the Vicinity

Nearby facilities offering similar activities include the Nancy Lake State Recreation Area, Willow Creek State Recreation Area, Susitna Flats State Game Refuge, Big Lake North and South State Recreation Sites, a City of Houston campground along the Little Susitna River north of the Parks Highway, and numerous lakes and rivers throughout the project area. Willow Creek, located within Willow Creek State Recreation Area, is another sport fishing river with a large annual salmon harvest. The other five state recreation rivers outlined in the Susitna Basin Recreation Rivers Management Plan are also within relative proximity, though none are as easily accessible as the Little Susitna River.

Applicable Clauses Affecting the Ownership

The ADNR is bound by state law to provide access to and along public and navigable water bodies (11 Alaska Administrative Code (AAC) 38.05.127 and 11 AAC 51.045, respectively) prior to granting a lease or conveying land. ADNR Regulation 11 AAC 51.025 establishes that ADNR will reserve a 50- to 100-foot⁶ public easement along section lines before selling, leasing, or otherwise disposing of the surveyed land estate, unless and until it is vacated under 11 AAC 51.065. Section line easements leading to public or navigable water are not to be vacated.

⁶ Width of the easement depends on whether the section line forms the boundary of the land being disposed (50 foot-wide easement) or whether it runs through the land being disposed (100 foot-wide easement).

Nancy Lake State Recreation Area

Size and Location

The Nancy Lake State Recreation Area is a 22,685-acre facility located west of the Parks Highway and the City of Houston and south of the community of Willow. As illustrated in Figure M-1 and Figure M-4, the Willow Segment would cross through a small corner of the western-most segment of the Recreation Area.

Ownership and Type of Section 4(f) Property

The Nancy Lake State Recreation Area is publicly owned and managed by ADNR. Because the Nancy Lake State Recreation Area is a publicly-owned recreational area, it qualifies as a Section 4(f) resource. Crossing the Recreation Area with the proposed rail line would constitute a use of a Section 4(f) property.

Function of the Property and Available Activities

The Recreation Area is characterized by interconnected lakes and rolling landscapes. Some of the recreation activities available include canoeing, picnicking, fishing, hiking, camping, dog sledding, skiing, snowshoeing, and snowmachining. Nancy Lake currently receives approximately 40,000 visitors per year, with the highest use in the summer (ADNR 2007).

Description of Existing and Planned Uses

The Nancy Lake State Recreation Area is a destination for outdoor recreation activities. The main objective identified within the Nancy Lake State Recreation Area Management Plan is “to provide a maximum level of outdoor recreation opportunities as long as the intensity of modification does not diminish the unit’s natural and cultural values” (ADNR 1983). ADNR has initiated a revision to the Management Plan, written in 1983 (ADNR 2008a). The intent of the revision is to address the higher volume of users the park accommodates today versus when the management plan was drafted.

Access

Access is available directly off the Parks Highway south of the community of Willow, via Nancy Lake Access Road. Access is also available from the Nancy Lake – Susitna Trailhead located at mile 67 of the Parks Highway. The Little Susitna State Recreation River is located adjacent to the southeast portion of Nancy Lake State Recreation Area, and canoeists can portage from the river to Nancy Lake to utilize the water trail system within the Recreation Area. The park is also accessible via numerous land and water trails.

Relationship to other Similarly Used Lands in the Vicinity

Nearby facilities offering similar activities include the Little Susitna State Recreation River, Willow Creek State Recreation Area, Susitna Flats State Game Refuge, Big Lake North and South State Recreation Sites, a City of Houston campground along the Little Susitna River north of the Parks Highway, and numerous lakes and rivers throughout the project area.

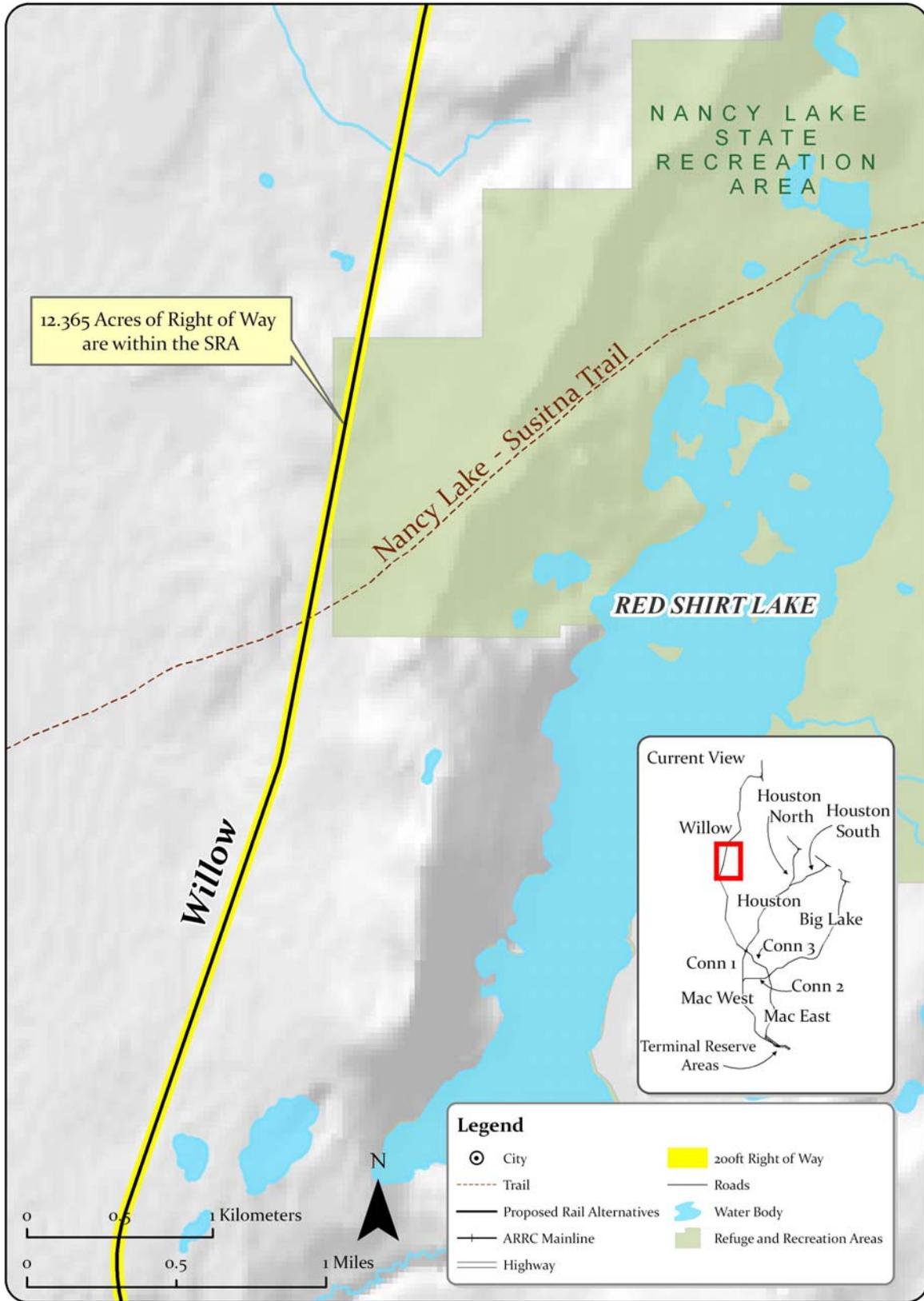


Figure M-4. Section 6(f) Resources

Applicable Clauses Affecting the Ownership

The ADNR is bound by state law to provide access to and along public and navigable water bodies (11 AAC 38.05.127 and 11 AAC 51.045, respectively) prior to granting a lease or conveying land. ADNR Regulation 11 AAC 51.025 establishes that ADNR will reserve a 50- to

100-foot public easement along section lines before selling, leasing, or otherwise disposing of the surveyed land estate, unless and until it is vacated under 11 AAC 51.065. Section line easements leading to public or navigable water are not to be vacated. The Nancy Lake State Recreation Area has received funding under the Land and Water Conservation Fund Act (Public Law 88-578). Areas that have received such funds may not be converted to non-recreational uses without a determination by the Secretary of the Interior that the conversion is in accordance with the statewide outdoor recreation plan, and that non-recreation land of at least equal fair market value, usefulness, and location has been substituted for the land to be converted (see M.2, for the Section 6(f) Evaluation).

Willow Creek State Recreation Area

Size and Location

The Willow Creek State Recreation Area is an approximately 3,000-acre facility located northwest of the community of Willow. The majority of the Recreation Area is located west of the Parks Highway though a small part of the area is located east of the highway (see Figure M-1). As shown in Figure M-1, the Willow Segment would cross through approximately the center of the recreation area.

Ownership and Type of Section 4(f) Property

The Willow Creek State Recreation Area is publicly owned and managed by ADNR. The Recreation Area is a publicly-owned recreational area and therefore qualifies as a Section 4(f) resource. Crossing the Recreation Area would require land conversion and conveyance to ARRC, which would constitute a use of a Section 4(f) property.

Function of the Property and Available Activities

The Recreation Area encompasses almost all of Willow Creek, from the Parks Highway to its confluence with the Susitna River. Willow Creek is a site for sport fishing activity, especially during the king salmon season. Recreational activities available in the area include fishing, camping, floating/boating, hiking along winter trails, wildlife viewing, and hunting. Willow Creek receives approximately 42,000 visitors per year, with the majority of visits occurring during non-winter months. Winter usage focuses primarily on trail use (ADNR 2007).

The Lucky Shot Trail, which is located within the Willow Creek State Recreation Area, would be crossed by the Willow Segment. This trail is part of the West Gateway Trail System and is characterized as a multi-use winter trail intended to provide high quality recreational facilities to the public. Where the Willow Segment would cross the trail, the land is state-owned and managed by ADNR. The trail supports mainly winter recreation activities including

snowmachining, dog sledding, skijoring, and skiing. The trail is one of the oldest in the West Gateway Trails System and was originally cleared for freighting from the Hatcher Pass mines to the Susitna River approximately 100 years ago.

Description of Existing and Planned Uses

The Willow Creek State Recreation Area is a destination for outdoor recreation activities. No other planned uses are known at this time.

Access

Access is available directly off the Parks Highway north of the community of Willow, via Willow Creek Parkway and Willow Fishhook Road. The Recreation Area is also accessible via numerous land trails including the West Gateway Trail System and the Lucky Shot Trail and by water via Willow Creek and the Little Susitna River.

Relationship to other Similarly Used Lands in the Vicinity

Nearby facilities offering similar activities include the Little Susitna State Recreation River, Nancy Lake State Recreation Area, Susitna Flats State Game Refuge, Big Lake North and South State Recreation Sites, a City of Houston campground along the Little Susitna River north of the Parks Highway, and numerous lakes and rivers throughout the project area. The Little Susitna River is another easily-accessible river that provides very high-quality salmon fishing, and five other state recreation rivers are in relatively close proximity.

Applicable Clauses Affecting the Ownership

The ADNR is bound by state law to provide access to and along public and navigable water bodies (11 AAC 38.05.127 and 11 AAC 51.045, respectively) prior to granting a lease or conveying land. ADNR Regulation 11 AAC 51.025 establishes that ADNR will reserve a 50- to 100-foot public easement along section lines before selling, leasing, or otherwise disposing of the surveyed land estate, unless and until it is vacated under 11 AAC 51.065. Section line easements leading to public or navigable water are not to be vacated.

West Gateway Trail

Size and Location

The West Gateway Trail⁷ is located west of the Parks Highway, between the Willow Creek and Nancy Lake State Recreation Areas. The 5.9-mile-long West Gateway Trail is part of a network of trails that collectively total tens of miles. As illustrated in Figure M-1, the trail would be crossed by the Willow Segment.

⁷ The West Gateway Trail is part of a larger grouping of trails known as the “West Gateway Trails System.” The West Gateway Trail System is outlined in the Willow Area Trail Plan (Willow Area Community Organization 2006).

Ownership and Type of Section 4(f) Property

The MSB maintains a trail right-of-way at the location where the Willow Segment would cross the West Gateway Trail. The trail is included in the MSB Recreational Trails Plan (MSB 2008, as amended) and the Willow Area Trail Plan (Willow Area Community Organization 2006). The trail is considered a Section 4(f) resource because its primary purpose is recreation and it provides access to other publicly-owned recreational areas. Crossing the trail would be considered a use of a Section 4(f) property where the trails are located on accessible public lands.

Function of the Property and Available Activities

The West Gateway Trail provides access from the Parks Highway across Willow Lake to the larger West Gateway Trails System further west. The trails are meant to provide recreational opportunities to the public. The trails support mainly winter recreation activities, including snowmachining, dog sledding, skiing, and skijoring. The trails are used for competitions including the Klondike 400 and Aurora 200 snowmachine races, the Junior Iditarod, the Don Bowers 200/300 sled dog race, Klondike 300 sled dog race, and the Earl Norris Open Sled Dog Race (Willow Area Community Organization 2006). In recent years, the Iditarod Trail Sled Dog Race has used the West Gateway Trail for its restart location.

Description of Existing and Planned Uses

The West Gateway Trail is a recreational resource within the community of Willow. The West Gateway Trail is an officially recognized trail with an easement reserved to the State of Alaska (ADL 229107-A) which was acquired by the MSB. The trail is located on frozen lakes, sloughs, swamps, and overland.

Access

Access is available from Willow Lake, just west of the Parks Highway and south of Willow Creek State Recreation Area.

Relationship to other Similarly Used Lands in the Vicinity

Numerous trails exist nearby, including other trails of the West Gateway Trails System. Nearby, the Willow and Nancy Lake State Recreation Areas have many miles of trails within their park boundaries, and many other trails crisscross the project area. South of Big Lake, the Aurora Dog Musher's Trails serve a similar purpose as the West Gateway System; both are maintained loop trails that are suitable for dog sledding, racing and training.

Applicable Clauses Affecting the Ownership

West Gateway Trail is officially recognized with an easement held by the MSB where it would be crossed by the proposed rail line.

Mud Lake Trail

Size and Location

The Mud Lake Trail is a 2.8-mile-long multi-use winter trail located near the northwest corner of the Nancy Lake State Recreation Area, and trending northwest to southeast. It is part of the West Gateway Trail System and, as depicted in Figure M-1, the trail would be crossed by the Willow Segment.

Ownership and Type of Section 4(f) Property

The Mud Lake Trail is publicly owned and has been identified in the MSB Recreational Trails Plan (MSB 2008, as amended). Where the Willow Segment would intersect the trail, the land is owned by the state of Alaska and managed by ADNR. The trail is considered a Section 4(f) resource since its primary purpose is for recreation and it provides access to other publicly-owned recreational areas. Crossing the trail would be considered a use of a Section 4(f) property.

Function of the Property and Available Activities

The Mud Lake Trail is a multi-use winter trail, and provides access between Nancy Lake State Recreation Area and the West Gateway Trail System. Available activities are the similar to those described for the Lucky Shot Trail.

Description of Existing and Planned Uses

Mud Lake Trail is part of a major recreational trail system within the community of Willow. The Mud Lake Trail is an officially recognized trail with an easement held by the State of Alaska (ADL 229107-D). No planned uses are known at this time.

Access

Access is available from the trails within the Nancy Lake State Recreation Area and via the West Gateway Trail System trailhead near the Parks Highway.

Relationship to other Similarly Used Lands in the Vicinity

Numerous trails exist nearby, including the West Gateway Trails System, Nancy Lake State Recreation Area Trails, and the Iron Dog and Crooked Lake Trails to the south.

Applicable Clauses Affecting the Ownership

Mud Lake Trail is an officially recognized trail with an easement held by the State of Alaska (ADL 229107-D) where it would be crossed by the proposed rail line.

Nancy Lake – Susitna Trail

Size and Location

The Nancy Lake – Susitna Trail is a 26-mile-long multi-use winter trail located in and southwest of the Nancy Lake State Recreation Area (see Figure M-1). It begins at the Nancy Lake – Susitna Trailhead at mile 67 of the Parks Highway. From there it trends west-southwest past the south shore of Nancy Lake to Susitna Landing.

Ownership and Type of Section 4(f) Property

The Nancy Lake – Susitna Trail is owned by the state of Alaska and managed by the ADNR at the location where it would be crossed by the Willow Segment. The trail is considered a Section 4(f) resource since its primary purpose is for recreation and it provides access to other publicly-owned recreational areas. Crossing the trail would be considered a use of a Section 4(f) property.

Function of the Property and Available Activities

The Nancy Lake – Susitna Trail is a multi-use winter trail, and provides access from the Parks Highway to Nancy Lake State Recreation Area and the Susitna River. Through connecting trails, the Nancy Lake – Susitna Trail can be used to access the Little Susitna State Recreation River.

Description of Existing and Planned Uses

The Nancy Lake – Susitna Trail is an officially recognized trail with an easement owned by the state of Alaska (RST 149). No planned uses are known at this time.

Access

Access to the Nancy Lake – Susitna Trail is available from the trailhead at mile 67 of the Parks Highway, from the Susitna River, and from the trails within the Nancy Lake State Recreation Area.

Relationship to other Similarly Used Lands in the Vicinity

Numerous trails exist nearby, including the trails found within the Nancy Lake State Recreation Area and the Little Susitna State Recreation River as well as the Iron Dog Trail and Iditarod National Historic Trail (INHT).

Applicable Clauses Affecting the Ownership

The Nancy Lake – Susitna Trail is an officially recognized trail with an easement held by the state of Alaska (RST 149) where it would be crossed by the proposed rail line.

Iron Dog Trail

Size and Location

The Iron Dog Trail is a 16.9-mile-long multi-use winter trail located south of the Nancy Lake State Recreation Area and trending generally east to west, connecting the Big Lake area with the Susitna River (see Figure M-1). The trail would be crossed by the Willow Segment south of Cow Lake.

Ownership and Type of Section 4(f) Property

The Iron Dog Trail is publicly owned and managed by the MSB at the location where the Willow Segment would cross the trail. It has also been identified in the MSB Recreational Trails Plan (MSB 2008, as amended). The trail is considered a Section 4(f) resource since its primary purpose is for recreation and it provides access to other publicly-owned recreational areas. Crossing the trail would be considered a use of a Section 4(f) property.

Function of the Property and Available Activities

The Iron Dog Trail is a multi-use winter trail, and provides access between the Big Lake area and the Susitna River. Available activities are similar to those described for the Lucky Shot Trail. In addition, this trail hosts the annual Iron Dog Snowmobile Race, the longest such race in the world.

Description of Existing and Planned Uses

The Iron Dog Trail is part of a recreational trail system that supports a variety of winter sports in the MSB. The Iron Dog Trail is an officially-recognized trail with easements held by the State of Alaska, Division of Parks and Outdoor Recreation (ADL 227832-B) and the MSB. No planned uses are known at this time.

Access

Access is available from Flat Lake just west of Big Lake, and from the Crooked Lake Trail, which is accessible via Crooked Lake and South Big Lake Road/Papoose Twins Road.

Relationship to other Similarly Used Lands in the Vicinity

Numerous trails exist nearby, including the Crooked Lake Trail, the Nancy Lake – Susitna Trail, other trails in the Nancy Lake State Recreation Area, and the INHT. Many unrecorded and/or unofficial trails also exist throughout this area.

Applicable Clauses Affecting the Ownership

The Iron Dog Trail is an officially recognized trail with an easement held by the MSB where it would be crossed by the proposed rail line.

Crooked Lake Trail

Size and Location

The Crooked Lake Trail is a multi-use winter trail located west of the Big Lake area, generally trending east-west. As illustrated in Figure M-1, the trail would be crossed by the Willow Segment southwest of Hock Lake and by the Houston Segment southwest of Crooked Lake.

Ownership and Type of Section 4(f) Property

The 10.2-mile-long Crooked Lake Trail has been identified in the MSB Recreational Trails Plan (MSB 2008, as amended) and is located on land owned by the MSB where the Willow Segment would cross the trail. Because its primary purpose is for recreation and it provides access to other publicly-owned recreational areas, the trail is considered a Section 4(f) resource and crossing the trail would be considered a use of a Section 4(f) property.

Function of the Property and Available Activities

The Crooked Lake Trail is a multi-use winter trail, and provides access between the Big Lake area and the Susitna River. Available activities are similar to those described for the Lucky Shot Trail.

Description of Existing and Planned Uses

The Crooked Lake Trail is part of a recreational trail system that supports a variety of winter sports in the MSB. Crooked Lake Trail is an officially recognized trail with an easement held by the MSB (ADL 227921). Land management for this area is governed by the Fish Creek Management Plan (ADNR 1984 as amended), which describes the MSB's intention to provide increased access and development opportunities for this area. A Draft Fish Creek Management Plan revision is currently under consideration by the MSB and ADNR.

Access

Access is available from roadside parking off of West Papoose Twins Road, west of the Big Lake area, and also from the Iron Dog Trail by way of the Flat Lake Connector Trail.

Relationship to other Similarly Used Lands in the Vicinity

Numerous trails exist nearby, including the Iron Dog Trail, Nancy Lake State Recreation Area Trails, INHT, Flathorn Lake Trail, and Pipeline Trail. Many unrecorded and/or unofficial trails also exist throughout this area.

Applicable Clauses Affecting the Ownership

Crooked Lake Trail is an officially recognized trail with an easement held by the MSB where it would be crossed by the proposed rail line.

Iditarod Link Trail

Size and Location

The Iditarod Link Trail is a 2.4-mile-long multi-use winter trail that follows a seismic line connecting the INHT and Flathorn Lake Trail, trending northeast-southwest (see Figure M-1). It is located north of Little Susitna Public Use Facility Access Road, just east of the Little Susitna River (see Figure M-2). The trail would be crossed by the Willow Segment or Connector 1 Segment near where the two segments join northwest of My Lake.

Ownership and Type of Section 4(f) Property

The Iditarod Link Trail is publicly owned and managed by the MSB where it would be crossed by the Willow Segment or Connector 1 Segment. It has been identified in the MSB Recreational Trails Plan (MSB 2008, as amended). The trail is considered a Section 4(f) resource since its primary purpose is for recreation and it provides access to other publicly-owned recreational areas. Crossing the trail would be considered a use of a Section 4(f) property.

Function of the Property and Available Activities

The Iditarod Link Trail is a multi-use winter trail, and provides access between the INHT and Flathorn Lake Trail. Available activities are the similar to those described for the Lucky Shot Trail.

Description of Existing and Planned Uses

The Iditarod Link Trail is part of a recreational trail system that supports a variety of winter sports in the MSB. Iditarod Link Trail is an officially recognized trail with an easements held by the MSB and the State of Alaska (ADL 229108-G). The MSB collects trail fees at a maintained trailhead north of Ayrshire Road, approximately 2 miles southwest of the point where the trail would be crossed by the Willow Segment or Connector 1 Segment.

Access

Access is available from a roadside parking area owned, operated, and maintained by the MSB, via Little Susitna Public Use Facility Access Road, and via the Iditarod and Flathorn Lake Trails (Flathorn Lake Trail co-locates with Public Use Facility Access Road).

Relationship to other Similarly Used Lands in the Vicinity

Numerous trails exist nearby, including the Iron Dog Trail, INHT, Flathorn Lake Trail, and Pipeline Trail. Many unofficial and/or unrecorded trails also exist throughout this area, including non-designated trails within the Little Susitna State Recreation River and Susitna Flats State Game Refuge.

Applicable Clauses Affecting the Ownership

Iditarod Link Trail is an officially recognized trail with an easement held by the MSB where it would be crossed by the proposed rail line.

Figure 8 Lake Loop Trail

Size and Location

The Figure 8 Lake Loop Trail is a 63.3-mile-long multi-use winter trail system originating near the Port MacKenzie area, and tracking to the west through the Susitna Flats State Game Refuge to the Susitna River (see Figure M-2). The trail would be crossed four times by the Mac West Segment. There would be two crossings at a bend of the trail where it passes by the northeast branch of Horseshoe Lake. The remaining two crossings would occur at another bend in the trail – one just east of and one just west of an unidentified stream at Mile Post 4.6 along the rail alignment. The ROW for the Mac East Segment would be located within 10 feet of the trail. The Mac East Terminal Reserve Area would be located within approximately 160 feet of the trail and the Mac West Terminal Reserve Area would cover 700 feet of the trail.

Ownership and Type of Section 4(f) Property

The Figure 8 Lake Loop Trail is owned by the MSB, private landowners, and unknown landowners where the Mac West Segment crossings would occur, and by the MSB where the Mac West Terminal Reserve Area would overlap with the trail. The trail has been identified in the MSB Recreational Trails Plan (MSB 2008, as amended). The trail is considered a Section 4(f) resource since its primary purpose is for recreation and it provides access to other publicly-owned recreational areas. Crossing the trail would be considered a use of a Section 4(f) property where the trails are located on accessible public lands.

Function of the Property and Available Activities

Figure 8 Lake Loop is a multi-use winter trail system. Available activities are similar to those described for the Lucky Shot Trail.

Description of Existing and Planned Uses

Figure 8 Lake Loop is part of a recreational trail system that supports a variety of winter sports in the MSB. The Figure 8 Lake Loop Trail does not have a recorded easement, but has been identified in the MSB Recreational Trails Plan (MSB 2008, as amended). In addition, the MSB owns and maintains a public parking area at the trailhead, just south of Point MacKenzie Road near the southern terminus of the proposed project.

Access

Parking is available at a trailhead parking lot owned and maintained by the MSB, located south of Point MacKenzie Road near the southern terminus of the proposed project. Access is also available from the Little Susitna River, various non-designated trails throughout the area, and many trails within the Susitna Flats State Game Refuge.

Relationship to other Similarly Used Lands in the Vicinity

Although many trails exist to the north, as described here, the Point MacKenzie area has no officially recognized or recorded designated trails south of the Pipeline Trail. The Point MacKenzie area has numerous non-designated trails that are easily discernable from aerial photographs.

Applicable Clauses Affecting the Ownership

The borough's Recreational Trails Plan (MSB 2008, as amended) recommends the survey and acquisition of a recreational trails easement for the Figure 8 Lake Loop Trail. Therefore, the Figure 8 Lake Loop Trail meets the definition of an officially recognized trail by MSB.

Point MacKenzie Recreational Trailhead Parking Area

Size and Location

The trailhead and associated parking area is south of Point MacKenzie Road, approximately 1 mile from the southern terminus of the proposed project (see Figure M-2). It is approximately 1 acre in size. The parking area would be crossed by and be within the terminal reserve area of the Mac West Segment.

Ownership and Type of Section 4(f) Property

The parking area is owned by the MSB at the crossing point. The trail has been identified and is associated with the Figure 8 Lake Loop Trail in the MSB Recreational Trails Plan (MSB 2008, as amended). Construction of the Mac West Segment would require the conveyance of parking area land to ARRC and the conversion of the land to a different use. This would be considered a use of a Section 4(f) property.

Function of the Property and Available Activities

The parking area is a main access point to the trailhead for individuals using the Figure 8 Lake Loop Trail, as well as numerous non-designated, unofficial, or unrecorded trails in the Point MacKenzie area.

Description of Existing and Planned Uses

The parking area is intended to provide recreational access to the public and is part of a major recreational trail system that supports a variety of winter sports in Matanuska-Susitna Borough. No planned uses are known at this time.

Access

The parking area is directly accessible via Point MacKenzie Road.

Relationship to other Similarly Used Lands in the Vicinity

The MSB owns and maintains another trailhead parking area north of Ayrshire Road. ADNR manages the Little Susitna Public Use Facility within the northeast region of Susitna Flats State Game Refuge, where parking is also available for trail users.

Applicable Clauses Affecting the Ownership

No applicable clauses are known at this time.

Flathorn Lake Trail

Size and Location

The Flathorn Lake Trail is a 20-mile-long multi-use winter trail that follows the Little Susitna Public Use Facility Access Road toward the Little Susitna River, before continuing west to Flathorn Lake (see Figure M-1 and Figure M-2). The trail would be crossed by Connector 1 Segment at the Susitna Flats State Game Refuge boundary, where the trail co-locates with the Public Use Facility Access Road.

Ownership and Type of Section 4(f) Property

The point where the Flathorn Lake Trail would be crossed by Connector 1 Segment is publicly owned and managed by the ADNR. The trail has been identified in the MSB Recreational Trails Plan (MSB 2008, as amended). Crossing the trail would be considered a use of a Section 4(f) property where the trail is located on public land that is accessible to the public.

Function of the Property and Available Activities

The Flathorn Lake Trail is a multi-use winter trail. Available activities are the similar to those described for the Lucky Shot Trail. This trail is also used for the annual Iron Dog Snowmobile Race.

Description of Existing and Planned Uses

The Flathorn Lake Trail is part of a recreational trail system that supports a variety of winter sports in the MSB. The trail has a recorded easement reserved to the State of Alaska and the MSB (ADL 229108-B).

Access

Access is available from Ayrshire Road/Little Susitna Public Use Facility Access Road, as well as the Iditarod-Pipeline Link Trail, the Iditarod Link Trail, Pipeline Trail, the Little Susitna River, the Susitna River, and numerous non-designated trails throughout the area.

Relationship to other Similarly Used Lands in the Vicinity

Numerous trails exist nearby, including the INHT, Iditarod Link Trail, Iditarod-Pipeline Link Trail, Pipeline Trail, and trails within Little Susitna State Recreation River. Many unofficial and/or unrecorded trails also exist throughout this area.

Applicable Clauses Affecting the Ownership

Flathorn Lake Trail is an officially recognized trail with an easement held by the State of Alaska (ADL 229108-B) where it would be crossed by the proposed rail line.

Pipeline Trail

Size and Location

The Pipeline Trail is a 16.1-mile-long multi-use winter trail that follows a large gas pipeline corridor toward the Susitna River from the Point MacKenzie area. As illustrated in Figure M-2, it leads directly west from Ayrshire Road and crosses into the Susitna Flats State Game Refuge. The trail would be potentially crossed by Connector 1 Segment at the Susitna Flats State Game Refuge boundary, approximately 2 miles west of Guernsey Road.

Ownership and Type of Section 4(f) Property

The Pipeline Trail is publicly owned and managed by the ADNR at the crossing point. The trail has been identified in the MSB Recreational Trails Plan (MSB 2008, as amended). Crossing the trail would be considered a use of a Section 4(f) property where the trails are located on accessible public lands.

Function of the Property and Available Activities

The Pipeline Trail is a multi-use winter trail, and provides access to the Point MacKenzie area and the Susitna River. It is one of the main access points into the Susitna Flats State Game Refuge. Available activities are the similar to those described for the Lucky Shot Trail.

Description of Existing and Planned Uses

The Pipeline Trail is part of a major recreational trail system that supports a variety of winter sports in the MSB.

Access

Access is available from Ayrshire Road, Flathorn Lake Trail, Iditarod-Pipeline Link Trail, the Little Susitna River, the Susitna River, and other non-designated trails throughout the area.

Relationship to other Similarly Used Lands in the Vicinity

Numerous trails exist nearby, including the INHT, Flathorn Lake Trail, Iditarod-Pipeline Link Trail, Iditarod Link Trail, and trails within the Little Susitna State Recreation River and the

Susitna Flats State Game Refuge areas. Many unofficial and/or unrecorded trails also exist throughout this area.

Applicable Clauses Affecting the Ownership

Pipeline Trail is an officially recognized trail with an easement held by the State of Alaska (ADL 229108-A) where it would be crossed by the proposed rail line.

Knik Connector Trail

Size and Location

The Knik Connector Trail (also known as Big Lake Trail #13) is a multi-use, winter trail that begins at a location on the W. Susitna Parkway approximately 0.1 mile west of the intersection with S. Purinton Parkway, and travels southeast for approximately 6.9 miles where it meets the Power Line and Tugs trails. As depicted in Figure M-2, the Knik Connector Trail would be crossed by the Big Lake Segment approximately 0.4 miles west of where the segment would cross Goose Creek.

Ownership and Type of Section 4(f) Property

The Knik Connector Trail does not have a dedicated easement and is located on MSB property where it would be crossed by the Big Lake Segment. The trail has been identified in the MSB Recreational Trails Plan (MSB 2008, as amended). Crossing the trail would be considered a use of a Section 4(f) property where the trail is located on accessible public lands.

Function of the Property and Available Activities

The Knik Connector Trail is a multi-use winter trail that, when considered with other trails in the area, provides access from Knik Township to the Susitna River. The trail mainly supports winter recreation activities.

Description of Existing and Planned Uses

The Knik Connector Trail is part of a series of trails in the Big Lake Area. No planned uses are known at this time.

Access

Access to the Knik Connector Trail is available from a trailhead on the W. Susitna Parkway located approximately 0.1 mile west of the intersection with S. Purinton Parkway. The trail can also be accessed from the Power Line and Tug trails.

Relationship to other Similarly Used Lands in the Vicinity

Other trails exist in the vicinity including the INHT, the Aurora Dog Musers Trail System, 16 Mile Trail, Flat Lake Connector Trail, and Crooked Lake Trail. Many unofficial and/or unrecorded trails also exist throughout this area.

Applicable Clauses Affecting the Ownership

Knik Connector Trail is an officially recognized trail included in the MSB Recreation Trails Plan as amended. The trail does not have a dedicated easement, though the MSB owns the property where the trail would be crossed by the Big Lake Segment.

16 Mile Trail

Size and Location

16 Mile Trail is a heavily used multi-purpose trail located approximately 2.3 miles southwest of Knik Township. As depicted in Figure M-2, the 16 Mile Trail would be crossed by the Big Lake Segment.

Ownership and Type of Section 4(f) Property

16 Mile Trail is on state-owned land in locations where it would be crossed by the Big Lake Segment. The trail is considered a Section 4(f) resource because it is used for recreation and it provides access to other publicly-owned recreational areas.

Function of the Property and Available Activities

16 Mile Trail is a multi-use trail that provides access from the Goose Creek Highway to the INHT and the Aurora Dog Musher's Trail System.

Description of Existing and Planned Uses

16 Mile Trail is one of many trails found in the Knik and Big Lake areas. No planned uses are known at this time.

Access

16 Mile Trail can be accessed from Goose Creek Highway, at a point approximately 2.3 miles southwest of Knik Township. It can also be accessed from the INHT and the Aurora Dog Musher's Trail System.

Relationship to other Similarly Used Lands in the Vicinity

Numerous trails exist nearby including INHT, Aurora Dog Musher's Trail System, and the Knik Connector Trail. Other unofficial and/or unrecorded trails also exist throughout this area.

Applicable Clauses Affecting the Ownership

16 Mile Trail is an officially recognized trail with a platted right-of-way. The state of Alaska owns the property where the trail would be crossed by the Big Lake Segment.

Aurora Dog Mushers Club Trail System

Size and Location

The Aurora Dog Mushers Club Trail System (Aurora) is a series of non-motorized winter trails southeast of Big Lake (see Figure M-3) totaling 20.3 miles in length.

Ownership and Type of Section 4(f) Property

Aurora is publicly owned by ADNR in locations where it would be crossed by the Big Lake Segment. The trails have been identified in the MSB Recreational Trails Plan (MSB 2008, as amended). The trail system is considered a Section 4(f) resource since its primary purpose is for recreation and it provides access to other publicly-owned recreational areas. Crossing the trails would be considered a use of a Section 4(f) property where the trails are located on public lands that are publicly available.

Function of the Property and Available Activities

Aurora is a non-motorized winter trail system, and provides training and racing opportunities for dog sledgers, in particular. Other non-motorized activities are the similar to those described for the Lucky Shot Trail.

Description of Existing and Planned Uses

Aurora is part of a recreational trail system that supports a variety of winter sports in the MSB. These trails also provide training and racing resources for dog sledding. The trail system has a recorded easement with the State of Alaska (ADL 228636); the MSB, the State of Alaska and Aurora Dog Mushers Club have entered into a cooperative management agreement (Paulsen pers. comm., 2008).

Access

Parking is available at the Aurora Dog Mushers clubhouse on Gonder Road, accessible via Echo Lake Drive S. from South Big Lake Road. Additional access is available off Lewis Loop Road, from Knik-Goose Bay Road along the Iditarod Trail, and via other non-designated trails throughout the area.

Relationship to other Similarly Used Lands in the Vicinity

Numerous trails exist nearby, including INHT, Threemile Lake Trail, and many unofficial and/or unrecorded trails located throughout this area. The only similar loop system that is heavily used in the project area is the West Gateway Trails near Willow. No other trails in the project area are designated as non-motorized.

Applicable Clauses Affecting the Ownership

Aurora Dog Mushers Club Trails have an established easement with the State of Alaska (ADL 228636), and a cooperative management agreement exists between the MSB, the State of Alaska

and the Aurora Dog Musers Club. In December 2008, the MSB adopted the “Knik Sled Dog and Recreational Special Land Use District” for the southeastern portion of Knik-Fairview Community Council Area, which seeks to preserve and protect the existing activities and lifestyle of the area by restricting land uses. A portion of the Aurora Dog Musers Club Trails passes through the new district.

Herning Trail

Size and Location

Herning Trail is a heavily used trail providing access from Knik Township to the Alaska Railroad. This trail is multi-use and is an important transportation corridor. As depicted in Figure M-2, Herning Trail would be crossed by the Big Lake Segment four times.

Ownership and Type of Section 4(f) Property

Herning Trail is a publicly owned RS2477 trail. The trail is considered a Section 4(f) resource because it is used for recreation and at the southernmost point where it would be crossed by the Big Lake Segment, the land is owned by the MSB. (In the other crossing locations, the land is owned by private owners.)

Function of the Property and Available Activities

Herning Trail provides transportation and recreation access between Knik Township and the Alaska Railroad. It is a heavily used, multi-purpose trail that is used for recreational snowmachining and dog sledding.

Description of Existing and Planned Uses

Herning Trail is a RS2477 trail with a recorded easement with the State of Alaska (RST 1467). No planned uses are known at this time.

Access

Access to the Herning Trail is available from Knik – Goose Bay Road in Knik Township as well as the Parks Highway near the area where it would be crossed by the Big Lake Segment. Access is also available via other non-designated trails throughout the area.

Relationship to other Similarly Used Lands in the Vicinity

Other trails exist nearby, including the INHT and Aurora Dog Musher’s Trail System and many unofficial and/or unrecorded trails located throughout this area.

Applicable Clauses Affecting the Ownership

Herning Trail has an established easement (RST 1467) and the property located where the trail would be crossed by the Big Lake Segment is owned by MSB.

M.1.c.2 Wildlife Refuges

One wildlife refuge is located within the project area.

Susitna Flats State Game Refuge

Size and Location

The Susitna Flats State Game Refuge (Refuge) is located west of the Port MacKenzie Agricultural Project and east of the Susitna River. The Refuge includes approximately 300,800 acres (see Figure M-2). It would be affected by the Connector 1 Segment, Connector 2 Segment, Mac West Segment, and Willow Segment.

Ownership and Type of Section 4(f) Property

The Refuge is publicly owned and managed by the Alaska Department of Fish and Game (ADFG). Section 4(f) affords protection to publicly-owned wildlife refuges; therefore, this Refuge is considered a Section 4(f) resource. Crossing the Refuge would constitute a use of a Section 4(f) property.

Function of the Property and Available Activities

The Refuge provides habitat to a large migratory bird population, moose and bear habitat, and quality salmon rivers. It also provides public recreation opportunities including fishing, hunting, boating, wildlife viewing, and multi-use winter trails. The Refuge attracts sport fishermen, hunters, and trappers. The Little Susitna River runs north to south through the Refuge and offers opportunities for salmon harvest. Recreational users that engage in float trips that originate further upstream within the Little Susitna State Recreation River could also use the river within the Game Refuge. ADFG estimates that approximately 10 percent of all Alaska waterfowl harvest takes place within the Refuge, and approximately 45,000 angling days⁸ are spent each year on the Little Susitna River (ADFG 1988).

The Susitna Flats State Game Refuge contains one public use facility that could be affected by the proposed rail line; a frequently used fishing, boating and camping site on the river called the Little Susitna Public Use Facility. This facility is located approximately 2 miles south of the point where the Willow Segment would cross the Little Susitna River. The Connector 1 Segment would run directly adjacent to its eastern boundary and the Little Susitna River is its western boundary. Public camping is available at the Little Susitna Public Use Facility, in the northeast area of the Refuge, as well as at several developed campsites along the banks of the Little Susitna River and at remote sites elsewhere within the Refuge.

Description of Existing and Planned Uses

The Susitna Flats State Game Refuge provides wildlife habitat and related recreation opportunities. No other known uses are planned at this time.

⁸ An angler-day is the time spent fishing by one person for any part of a day.

Access

The main access point to the Refuge is via the Little Susitna Public Use Facility from Ayrshire Road. Individuals also have access to the Refuge via the Little Susitna River from the north (boating south from the Little Susitna State Recreation River or the Parks Highway) or the south (from the Little Susitna River or Susitna River). A number of trails lead into the Refuge from the Point MacKenzie area. These include the Figure 8 Lake Loop Trail, Pipeline Trail, Flathorn Lake Trail, Iditarod Link Trail, and Iditarod-Pipeline Link Trail. It is possible that individuals could also access the refuge via section line easements, though it is unlikely due to the lack of public parking areas and the privately-owned agricultural parcels that would have to be crossed to enter the refuge via section line easements (Paulsen pers. comm., 2009a). Another public access point to the refuge is located at the western terminus of Holstein Avenue (Paulsen pers. comm., 2009b). Private aircraft could also fly into the Refuge, landing on its many lakes.

Relationship to other Similarly Used Lands in the Vicinity

There are two wildlife refuges in proximity. The Goose Bay State Game Refuge provides similar features several miles to the east, on the western shore of the Knik Arm. The Palmer Hay Flats State Game Refuge is located at the northeast end of the Knik Arm, north of Anchorage. Some of the recreation opportunities within the Susitna Flats State Game Refuge are available in adjacent public areas, including the Nancy Lake State Recreation Area, the Willow Creek State Recreation Area, and the Little Susitna State Recreation River.

Applicable Clauses Affecting the Ownership

Though not commonly used for that purpose, section lines may provide access into refuge from the east. AS 11 AAC 51.025 establishes that ADNR will reserve a 50- to 100-foot public easement along section lines before selling, leasing, or otherwise disposing of the surveyed land estate, unless and until it is vacated under 11 AAC 51.065. Section line easements leading to public or navigable water are not to be vacated.

M.1.c.3 Cultural Resource Areas

SEA considered the Area of Potential Effects (APE) for cultural resources potentially affected, directly or indirectly, by the proposed project. Examination of potential impacts on cultural resources included consideration of aspects of the area's landscape as a whole, including several cultural and historical components that could constitute cultural landscapes or Traditional Cultural Properties (TCPs). These include homesteads, dog sledding, agriculture, and recreation. Cultural landscapes were researched and evaluated based on their potential eligibility for inclusion on the National Register as either districts or sites.

Based on a literature review, analysis of the Alaska Heritage Resources Survey (AHRS) database (ADNR 2008b) and other databases and fieldwork, SEA identified known cultural resources and mapped their location relative to the proposed rail alternatives. APEs were defined to encompass the extent of potential direct, indirect, and cumulative effects of the proposed rail extension that could cause alterations in the character or use of cultural resources that may be eligible for the National Register. SEA initiated government-to-government consultation with 10 Federally Recognized Tribes, tribal groups, and Alaska Native Regional Corporations for identification of

any potential traditional cultural properties in the study area. Consultation letters and meetings asked interested parties to identify their concerns regarding cultural resources in the study area, as well as to identify any cultural resources in the study area not documented during the literature and Alaska Heritage Resources Survey review and SEA field surveys. A full description of cultural resources findings and the analysis process can be found in Chapter 6 of the Draft EIS.

The APE for direct effects, other than for visual effects, included the 200-foot-wide ROW as well as areas where noise levels could increase and the ground would be disturbed such as staging areas, cut and fill areas, material sources/gravel quarries, overburden disposal areas, associated buildings/structures (e.g., sidings, bridges), and associated infrastructure (e.g., communication towers, power lines). The APE considered for indirect effects as well as for direct visual effects included cultural resources within a mile on either side of the ROW centerline.

Research findings and surveys identified 56 known prehistoric sites and 22 historic cultural sites within 1 mile of the ROW. Of these, only one historic site was determined to be eligible for inclusion on the National Register in the preliminary analysis. One historic bridge (Iron Creek Bridge over Willow Creek) has been determined eligible for National Register inclusion, and one historic bridge has been replaced with a new structure and is not eligible. However, the Iron Creek Bridge (Alaska Railroad Mile Post 187.7) is located almost 0.8 mile south of the location where the Willow Segment would tie into the ARRC mainline; therefore, the Iron Creek Bridge would not be affected by the construction or operation of the proposed rail extension and is not considered a Section 4(f) resource that would be affected by the project. The National Register eligibility has not yet been determined for all prehistoric sites and all but one historic site Government-to-government or NHPA Section 106 consultation did not identify any traditional cultural properties in the study area.

All properties identified in the cultural resources analysis are presumed to be eligible for inclusion on the National Register unless otherwise specified or until a formal determination of eligibility is made. A number of the prehistoric and historic resources may be eligible for inclusion. Determination of eligibility for known and unknown sites will be handled through a Programmatic Agreement (PA) (see Appendix J of the Draft EIS for the draft PA).

Iditarod National Historic Trail

The Iditarod National Historic Trail (INHT) was established in 1978 when the National Trails Act of 1968 (Public Law 90-534) was amended to include National Historic Trails. The National Trails Act states that National Historic Trails including lands and sites located along a National Historic Trail are not eligible for review under Section 4(f) [16 U.S.C. 1246(g)]⁹.

...[N]o land or site located along a designated national historic trail... shall be subject to the provisions of section 4(f) of the Department of Transportation Act (49 U.S.C. 1653(f)) unless such land or site is deemed to be of historical significance under appropriate historical site criteria such as those for the National Register of Historic Places.

⁹ This provision is also found in 23 CFR 774.13(f)(2).

Historic sections of the trail and historic sites associated with the trail may be subject to Section 4(f) if deemed historically significant; however, the portion of the trail in question for this project (Knik to Susitna River) is considered ineligible for inclusion on the National Register as a historic trail segment according to the Iditarod National Historic Trail Comprehensive Management Plan (BLM, 1986) and is therefore not subject to the provisions of Section 4(f) under this condition¹⁰.

The cultural resources analysis conducted through the Section 106 process for the proposed rail extension identified dog sledding associated with the INHT including improvements made from 1967 through 1978 for the Iditarod Race as a cultural landscape potentially eligible for inclusion on the National Register. A full determination of eligibility would require fieldwork to evaluate the cultural landscape's integrity, which would be conducted according to the stipulations of the Programmatic Agreement being prepared for compliance with NHPA Section 106.

If during construction of the proposed rail line, potentially eligible sites along the INHT are identified as being potentially affected, evaluations of National Register eligibility and potential protection under Section 4(f) would be addressed as described in the Programmatic Agreement (See Appendix J of the Draft EIS).

M.1.d Impacts to Section 4(f) Resources

Potential impacts to Section 4(f) resources were evaluated for each proposed rail line segment. This section describes the potential impacts to recreation and refuge properties and cultural resources as a result of the proposed project.

M.1.d.1 Parks and Recreation Areas

Impacts Common to All Areas

Some project impacts would be common to all segments analyzed. Construction would result in a temporary suspension of recreational activities in the immediate vicinity of the railroad as individuals attempting to access recreation areas and resources via trails and waterways would be temporarily impeded. Areas of active construction work in proximity to recreation resource areas could also result in increased dust. Construction activities could result in temporary impacts to water quality, which could affect recreational fishing. Construction activities could result in the temporary alteration of local distribution of wildlife, which could affect the experience of users engaging in recreational hunting and wildlife viewing. Construction and operation would result in the clearing and maintenance of all or a portion of the proposed 200-foot-wide ROW. In forested areas, this would result in a visible line of deforestation along the ROW, and could reduce user enjoyment of recreation areas where cleared vegetation would be a discordant element of the landscape. Vegetation clearance could decrease the productivity of habitat for purposes of fishing, hunting, trapping, and wildlife viewing by removing or fragmenting habitat; however, there is sufficient habitat in the study area to absorb any displaced species. Operation of the railroad would introduce an additional source of intermittent noise.

¹⁰ In a letter dated December 31, 2009, the ADNR provided comments on SEA's Section 4(f) Evaluation and suggested that the Knik – Susitna Trail be considered under Section 4(f) provisions due to its recreational and historic value. Because of the provisions of Federal statutes and regulations, it is not considered a 4(f) resource.

The finished ROW could act as a physical barrier across public lands and could only be legally crossed at designated crossing points (for roads, trails, and navigable waters).

A summary of the potential impacts under various alternatives is provided in Section M.1.d.4. For a detailed discussion of impacts on the Section 4(f) resources, please see below.

Little Susitna State Recreation River

The Willow Segment would cross through the southwestern corner of the Little Susitna State Recreation River and would cross the Little Susitna River in the Susitna Flats State Game Refuge, just south of the Little Susitna State Recreation River. The Houston North Segment would also cross the Little Susitna River, though its crossing would be further upriver near the northern part of the Recreation River and the George Parks Highway. The Houston North and Willow segments would introduce new crossings of the Little Susitna River, which could present visual intrusions on the landscape. In addition, the Houston South Segment would cross the Little Susitna River on a new bridge to be constructed within the existing railroad mainline ROW, adjacent to the Little Susitna State Recreation River. Although the new bridge crossings would not interfere with navigation of the river, they could affect sportfishing resources and recreational access (via boat and upland), and user enjoyment of the natural environment. In addition, Houston North would cross the Nancy Lake Creek Junction Public Use Site, a popular camping and fishing location. Within the 200-foot-wide ROW this site would require the conversion of any public-use facility land to other use. SEA estimated the area within the Little Susitna State Recreation River where the potential noise impact would be considered “severe” based on FRA criteria¹¹ and compared the estimated affected area within this Section 4(f) property to the total area of the property. The acreage of potential noise impacts within the Little Susitna Recreation River would range from 450 acres (for alternatives that include the Willow Segment) to 769 acres (for alternatives that include the Houston North Segment) of the total area of the recreation river. These areas of impact correspond to 3 percent to 4 percent of the total area of the recreation river¹².

Direct Use

Permanent acquisition under various alternatives of the proposed project would result in the direct use of the Section 4(f) Resource, i.e. Little Susitna State Recreation River. Permanent acquisition would include 17 acres of the southern part of the Recreation River for the Willow Segment and 69 acres in the northeastern part of the Recreation River for Houston North.

Temporary Use

Where practicable, ARRC would site construction staging areas inside the 200-foot ROW. Any disturbance outside this ROW due to construction activities would be for a short duration and

¹¹ Based on FRA criteria, noise levels that would cause a “severe” impact depend on the ambient noise level and the type of land use. For this analysis, the Section 4(f) properties were considered to be in land use Category 3 (for primarily daytime and evening use) except for camping areas, which were considered to be a Category 1 (where quiet is an essential element in their intended purpose). The increase in noise that would constitute a “severe” impact for each land use depends on the ambient noise level and is defined in Table 3-1 of the FRA impact assessment document (FRA, 2005)

¹² See Section 9.2 of the Draft EIS for additional explanation of the methodology used to evaluate noise impacts on Section 4(f) properties.

would not result in change in ownership or require a permanent easement or property interest, and, therefore, would not amount to a use of the Section 4(f) resource.

Finding

The ROW for the Houston North Segment would impact 0.4 percent of the Little Susitna State Recreation River's total area (17,459 acres) and noise from rail operations would affect approximately 4 percent of the recreation river. The additional bridge crossing of the Little Susitna River required for the Houston North Segment within the Recreation River and the associated noise from train operations would detract from the qualities of float trips and other recreational uses of the Little Susitna River. Therefore, FRA and SEA anticipate that the Houston North Segment would result in adverse impacts to the Little Susitna State Recreation River. In contrast, with the recommended preliminary measures to minimize harm and mitigate impacts (as described in Section M.1.f), FRA and SEA have found that the Houston South Segment bridge over the Little Susitna River within the existing ARRC ROW would not adversely affect the Recreation River. The Willow Segment would not require a crossing of the Little Susitna River or any trails or know recreational facilities within the Little Susitna State Recreation River. The ROW for the Willow Segment would impact 0.1 percent of the recreation river and noise from rail operations would affect approximately 3 percent of the recreation river. In their letter dated December 31, 2009, ADNR indicated that the Willow Segment would result in adverse impacts to the Little Susitna State Recreation River and that the measures designed to mitigate these impacts would not support a *de minimis* impact finding for this resource.

Nancy Lake State Recreation Area

The Willow Segment would cross a 12-acre portion of this area west of Red Shirt Lake (approximately 0.05 percent of total parkland). No known trails, campsites, or other active recreation sites are known within the ROW where it would cross the Nancy Lake Recreation Area; however the rail line could affect enjoyment of the natural setting if users visit this area. SEA estimated the area within the Nancy Lake State Recreation Area where the potential noise impact resulting from the operation of the Willow Segment would be considered "severe" based on FRA criteria, would be approximately 219 acres. This area constitutes less than 1 percent of the total area. Approximately 20 acres within the Nancy Lake State Recreation Area (or 0.09 percent of total parkland) west of the railroad ROW would be separated from the rest of the park (see Figure M-4) unless rail crossings were provided. However, there are no facilities or specific resources within this area that would be adversely affected, according to park personnel (Biessel pers. comm., 2009).

Direct Use

Permanent acquisition of 12 acres under the Willow Segment would constitute a direct use of the Nancy Lake State Recreation Area, a Section 4(f) resource. This area would be located in a corner of the Recreation Area without known facilities or unique resources.

Temporary Use

Where practicable, ARRC would site construction staging areas inside the 200-foot ROW. Any disturbance outside this ROW due to construction activities would be for a short duration and

would not result in change in ownership or require a permanent easement or property interest, and, therefore, would not amount to use of the Section 4(f) resource.

Finding

The ROW for the Willow Segment would affect 0.14 percent of the Nancy Lake State Recreation Area and noise from train operations would affect approximately 1 percent of the SRA. No unique recreational opportunities would be lost. As indicated in their letter dated December 31, 2009, however, ADNR has indicated that the Willow Segment would have an adverse impact on the Nancy Lake State Recreation Area that would not be rendered *de minimis* by mitigation.

Willow Creek State Recreation Area

The ROW for the Willow Segment would bisect the Willow Creek State Recreation Area north to south, affecting approximately 43 acres, approximately 1.4 percent of the recreation area. The Willow Segment could affect recreational activities within the park, including hiking along various trails, sport fishing, snowmachining, dog sledding, and general user enjoyment. The segment would cross the Willow Valley and Willow Creek by a bridge requiring in-stream pilings, which could adversely affect sportfishing resources via loss of spawning habitat. Such a structure would alter the landscape of the Willow Valley. Train traffic noise would be audible to users within the Willow Creek State Recreation Area if they are in the vicinity of the rail line when a train passes by. The estimated acreage of potential noise impacts within the Willow Creek State Recreation Area where the potential noise impact would be considered “severe” based on FRA criteria is 334 acres – approximately 9 percent of the total acreage. Within the park, the railroad would cross approximately 792 feet of the Lucky Shot Trail, which is an officially recognized trail that would receive a grade-separated crossing as proposed by ARRC. This trail is frequented by professional athletes in training as well as recreational users and is an integral part of the Willow Creek State Recreation Area trails (Biessel pers. comm., 2009).

Direct Use

Permanent acquisition of 43 acres for the Willow Segment would result in a direct use of the Willow Creek State Recreation Area, a Section 4(f) resource.

Temporary Use

Where practicable, ARRC would site construction staging areas inside the 200-foot ROW. Any disturbance outside this ROW due to construction activities would be for a short duration and would not result in change in ownership or require a permanent easement or property interest. Therefore this would not amount to use of the Section 4(f) resource.

Finding

The ROW of the Willow Segment would affect 1.4 percent of the recreation area and would potentially alter sportfishing access and resources. Noise from train operations would affect approximately 9 percent of the recreation area. Measures could be implemented to minimize harm and mitigate impacts (as described in Section M.1.f). However, the presences of a rail line bisecting the Recreation Area would constitute a major feature that would change the attributes

and character of the resource. Therefore, FRA and SEA anticipate, consistent with ADNR's determination, that the potential impacts from the Willow Segment on the Willow Creek State Recreation Area not be *de minimis*.

Officially Recognized Trails

Where the proposed rail line would cross a trail whose status is officially recognized, ARRC proposes to provide continued public access by installing a grade-separated crossing where practicable, or the trail could be relocated to avoid crossing the rail line, providing continuity for these trails and minimizing the impact of the rail crossing. The design of the crossing would accommodate existing trail users at the time of construction or ROW conveyance (whichever occurs first). The Applicant would coordinate with the trail owner and consult with user groups as appropriate where the crossing location may have to be relocated to accommodate a grade-separation, or multiple crossings within one mile might be consolidated. ARRC does not propose to provide crossings for unofficial trails. Unofficial trails would be blocked, and ARRC's trespassing regulations would prohibit the public from crossing of the ROW without first obtaining approval from ARRC. Officially recognized Section 4(f) trails where crossings would occur, depending on the rail segment, at locations where the easement and/or land is publicly owned, include the West Gateway Trail, Lake Trail, Nancy Lake – Susitna Trail, Iron Dog Trail, Crooked Lake Trail, Iditarod Link Trail, Flathorn Lake Trail, Pipeline Trail, Knik Connector Trail, 16 Mile Trail, Aurora Dog Musher's Trails, Herning Trail, and the Figure 8 Lake Loop Trail. With grade-separated crossings of these trails, recreational access would be retained after project-related construction. However, by altering the natural setting of the trails, crossings could affect user enjoyment of the trails.

These trails would be closed temporarily during construction and crossings could be relocated or consolidated with other trails if they exist nearby to reduce the number of crossings of the rail line in proximity to one another. Trail closures, though temporary, could affect user enjoyment though ARRC would time construction activities during the most appropriate timeframe to limit impacts to trails. Table M-1 indicates which officially recognized trails identified at this time would be crossed by the proposed rail line segments. Impacts such as closure of trails during construction would be temporary and would not result in permanent impairment of the features of the resource that qualify it as a Section 4(f) resource.

Direct Use

The Willow Segment would cross approximately, 206 feet of the West Gateway Trail, 203 feet of the Mud Lake Trail, 260 feet of the Nancy Lake – Susitna Trail, 218 feet of the Iron Dog Trail, 212 feet of the Crooked Lake Trail, and 206 feet of the Iditarod Link Trail. Connector 1 Segment would cross approximately 211 feet of the Flathorn Lake Trail, 200 feet of the Pipeline Trail, and 211 feet of the Iditarod Link Trail. The Big Lake Segment would cross approximately 206 feet of 16 Mile Trail, 262 feet of the Knick Connector Trail, 663 feet of the Aurora Dog Musher's Trail System,¹³ and 1,277 feet of Herning Trail. The Mac West Segment (including the terminal reserve) would cross approximately 1,664 feet of the Figure 8 Lake Loop Trail. These crossings would result in a direct use of these Section 4(f) resources.

¹³ The Aurora Trails roughly co-locate with the Iditarod National Historic Trail at one point. The potentially affected trail length would be the same for both trail systems at this point.

**Table M-1
Officially Recognized Trails Identified as Section 4(f) Resources Crossed by Rail Line Segment Right-of-Ways**

Rail Line Segment	Trails
Mac West	Figure 8 Lake Loop
Mac East	None
Connector 1	Pipeline; Flathorn Lake; Iditarod Link
Connector 2	None
Connector 3	None
Willow	Iditarod Link; Crooked Lake; Iron Dog; Nancy Lake – Susitna; Mud Lake; West Gateway;
Houston	Crooked Lake
Houston North	None
Houston South	None
Big Lake	Knik Connector; 16 Mile; Aurora Dog Mushers Club; Herning

Temporary Use

During construction for the project and the grade-separated crossings, temporary closure of these trails or detours may be necessary. This would not result in change in ownership or require a permanent easement or property interest. Therefore, construction would not constitute a use of the trails that are Section 4(f) resources.

Finding

Based on the analysis of impacts, SEA and FRA anticipate that the project, including mitigation measures listed in M.1.f, would not have an adverse effect on the activities, features, and attributes of the trails, and therefore, these trails would experience *de minimis* impacts as a result of the proposed rail line.

Point MacKenzie Trailhead Parking Area

The parking area would be crossed by and located within the terminal reserve area of the Mac West Segment and, therefore, access to Figure 8 Lake Loop and other area trails would be adversely affected due to diminished public parking.

Direct Use

Under the Mac West Segment, the parking area for the Point MacKenzie Trailhead would be permanently acquired. This would constitute direct use of the Section 4(f) resource.

Temporary Use

During construction and relocation of the trailhead and parking area, a temporary closure of the existing trailhead and a temporary loss of public parking and access to the Figure 8 Lake Loop Trail could occur. This would only last for a short time and would not constitute a use of the Section 4(f) resource.

Finding

If the Mac West Segment was constructed and the recommended preliminary measures to minimize harm described in Section M.1.f.1 were implemented, the parking lot and trailhead would be relocated and continued access to the Figure 8 Lake Loop Trail would be ensured. With this mitigation, SEA and FRA anticipate, consistent with MSB's determination (see letter dated February 1, 2010), that the proposed Mac West Segment would result in a *de minimis* impact to the Point MacKenzie Trailhead and Parking Lot. These findings include recommended preliminary measures to minimize harm and mitigate impacts (as described in Section M.1.f) to ensure that the project does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).

M.1.d.2 Wildlife Refuges

Susitna Flats State Game Refuge

The common impacts listed above for recreation areas would also apply for the Susitna Flats State Game Refuge. The Mac West, Connector 1 Segment, Connector 2 Segment and Willow segments would each require use of some Refuge land. The Willow Segment would cross the Little Susitna River within the Refuge boundary and could potentially affect sport fishing and recreational access as well as user enjoyment of the river in this location. The northern and western boundaries of the state game refuge are undeveloped, while the eastern boundary of the refuge, which generally follows the Mac West Segment and Connector 1 Segment, includes several access points to the refuge. The Iditarod Link, Pipeline, Flathorn Lake, and Figure 8 Lake Loop trails would continue to provide access to the Refuge via grade-separated trail crossings, as proposed by the Applicant. Other trails providing access to the Refuge that do not have recorded easements – including the trail at the western end of Holstein Avenue – would be closed where they are crossed by a rail line ROW. These could include section line easements on the west side of the Point MacKenzie Agricultural Project. However, it is unlikely that section line easements would be used to access the Game Refuge due to the lack of public parking areas and the privately-owned agricultural parcels that would have to be crossed to enter the Refuge (Paulsen pers. comm., 2009a). Train traffic noise would be audible to users within the Susitna Flats State Game Refuge if they are in the vicinity of the rail line when a train passes by. The estimated acreage of potential noise impacts within the Susitna Flats State Game Refuge where the potential noise impact would be considered “severe” based on FRA criteria is less than 1 percent of the total acreage of the refuge, though total acreage potentially affected would range from 0 to 1,762 acres, depending on the alternative. In addition to the area of the refuge that the Mac West Segment would directly affect, it would also cut through and effectively separate 26 acres from four small corners of the refuge located southeast of Horseshoe Lake (see Figure M-

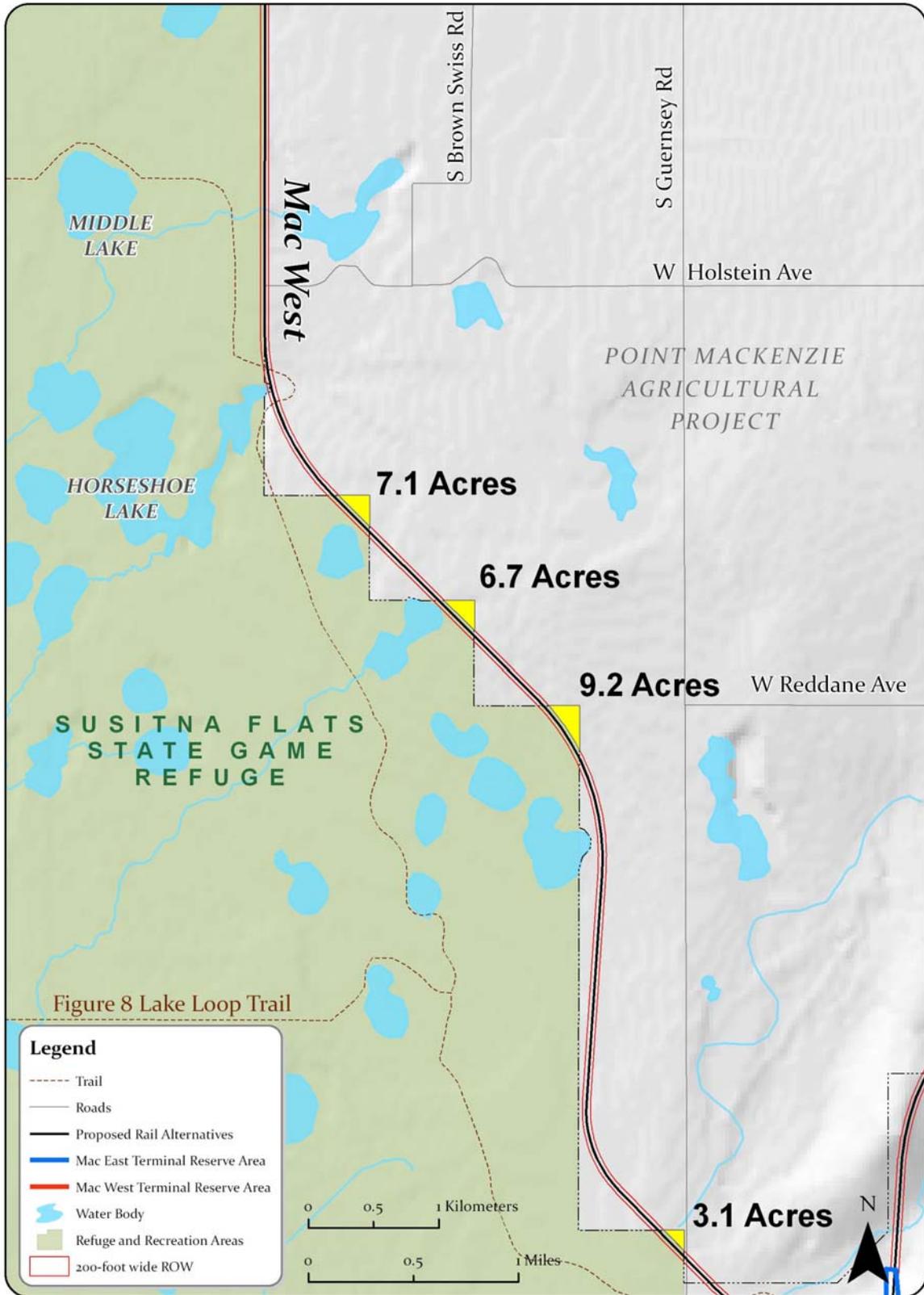


Figure M-5. Areas Dislocated from the Susitna Flats State Game Refuge by the Mac West Segment

5). This area constitutes 0.01 percent of the Refuge and is not known to contain official trails, campsites, or other active recreational facilities.

Direct Use

The potentially affected acreage of crossing areas is estimated as follows: Connector 1 Segment – 36 acres; Connector 2 Segment – 1 acre; Mac West – 54 acres; Willow – 7 acres. Although this reduction in habitat could affect user experience and recreational enjoyment, the affected acreage is a small fraction of the total 300,800-acre Refuge. In terms of possible alternatives affecting the Refuge, the Mac West-Connector 1-Willow Alternative would include 97 acres of Refuge land (0.03 percent of the total); the Mac West-Connector 2-Big Lake Alternative would include 56 acres (0.018 percent of the total); the Mac West-Connector 1-Houston-Houston North Alternative would include 91 acres (0.03 percent of the total); and the Mac West-Connector 1-Houston-Houston South would include 91 acres (0.03 percent of the total). Permanent conversion of lands within the Refuge could negatively affect user enjoyment of the natural setting and would result in a direct use of the Section 4(f) resource.

Temporary Use

Where practicable, ARRC would site construction staging areas inside the 200-foot ROW. Any disturbance outside this ROW due to construction activities would be for a short duration and though it could lead to negative, temporary impacts to user enjoyment of these areas, it would not result in a change in ownership or require a permanent easement or property interest and, therefore, would not amount to a use of the Section 4(f) resource.

Findings

The maximum area of the Susitna Flats State Game Refuge that could be affected by the rail line ROW would constitute 0.04 percent of the total area and major access points would be retained. The Mac West Segment, Willow Segment, and Connector 1 Segment would not result in loss of unique recreational opportunities. Noise from rail operations on the Willow Segment would affect approximately 273 acres, while the Connector 1 Segment would affect approximately 497 acres and the Mac West Segment would affect approximately 992 acres. FRA and SEA have recommended preliminary measures intended to minimize harm and mitigate potential impacts (as described in Section M.1.f). In its letter dated December 31, 2009, ADNR indicated that the Mac West Segment, Willow Segment, and Connector 1 Segment would result in adverse impacts to the Susitna Flats State Game Refuge due to the limiting of access to the only legally-constructed access road – Ayrshire Ave/Little-Su River Road – while other informal access routes would be restricted. ADNR also indicated that no conceivable assemblage of mitigation measures would decrease impacts from the Mac West, Connector 1, and Willow segments to a level that would be *de minimis*.

M.1.d.3 Cultural Resource Areas

The cultural resources analysis identified dog sledding associated with the INHT and Iditarod Race as a cultural landscape potentially eligible for inclusion on the National Register. A full determination of eligibility would require fieldwork to evaluate the cultural landscape's integrity,

which would be conducted according to the stipulations of the Programmatic Agreement being prepared for compliance with NHPA Section 106 (see Appendix J of this Draft EIS).

A preliminary boundary for the dog sledding landscape includes the trail network in the study area associated with the historic trail and race and the buildings and locations that contribute to the historical context of this landscape, including the Aurora Dog Musers Club, Knik Kennels, Knik Museum and Dog Musers Hall of Fame, and Iditarod Trail Sled Dog Race Headquarters. Other existing dog sledding landscape characteristics in the study area include dog sledding trails and kennels for which a full inventory has not been completed. Trails contributing to a potential dog sledding cultural landscape could be temporarily blocked during construction or permanently blocked by the rail line, which could result in trail abandonment or route changes. Changes to trails could cause the loss of access to or use of the trails and associated historic landscapes and properties. Adverse effects to the dog sledding cultural landscape could occur to varying degrees through loss of visual integrity, cultural privacy, potential loss of or changes to access, and changes to traditional or culturally significant use of and connection to the property.

Other known historic and prehistoric resources could be affected by construction of the project. The National Register eligibility of these resources has not been determined; they are not reviewed for Section 4(f) analysis based on the requirement that resources be on or eligible for the National Register. If, during construction of the proposed rail line, potentially eligible sites along the railroad ROW or associated with the INHT were identified as being potentially affected, evaluations of National Register eligibility and potential protection under Section 4(f) would be addressed based on the Programmatic Agreement and preliminary mitigation measures.

M.1.d.4 Summary of Impacts to Section 4(f) Resources

Table M-2 provides a comparison of impacts to Section 4(f) resources by alternative. Effects to trails were measured in linear feet of impact and the number of recreation access route intersections and impacts to recreation areas was measured by the number of acres affected.

Cultural resource areas are presented by the number of confirmed historic sites potentially affected by the project.

M.1.e Avoidance Alternatives

This section provides a discussion of avoidance alternatives considered early in the project development process and potential avoidance techniques applied to the alternatives considered in detail in the EIS.

All alternatives considered in this analysis are considered feasible because they can be designed and built. An alternative that is not prudent could be eliminated from consideration for the following reasons:

- It involves extraordinary operational or safety problems;
- There are unique problems or truly unusual factors present with it;

- It results in unacceptable and severe adverse social, economic or other environmental impacts;
- It would cause extraordinary community disruption;
- It has additional construction costs of an extraordinary magnitude; or
- There is an accumulation of factors that collectively, rather than individually, have adverse impacts that present unique problems or reach extraordinary magnitudes.

SEA and FRA anticipate, based on analysis of potential impacts and consultation with owning agencies, that the construction and operation of the proposed rail line – in conjunction with the implementation of the Applicant’s voluntary mitigation measures and SEA’s recommended preliminary mitigation measures – would result in *de minimis* impacts to: the West Gateway Trail; Iron Dog Trail; Herning Trail; Knik Connector Trail; 16 Mile Trail; Crooked Lake Trail; Iditarod Link Trail; Aurora Dog Musher Trails; Port MacKenzie Trailhead and Parking Lot; and Figure 8 Lake Loop Trail. Therefore, an analysis of alternatives that would avoid these particular 4(f) resources is not required in accordance with Section 009(a) of the SAFETEA-LU. One or more segments of the proposed rail line would adversely affect the Susitna Flats State Game Refuge, the Nancy Lake State Recreation Area, Willow Creek State Recreation Area and the Little Susitna State Recreation River. Avoidance of these 4(f) resources is described in M.1.e.2 below.

M.1.e.1 Alternatives Eliminated from Detailed Study

A number of alternatives were considered early in the National Environmental Policy Act (NEPA) process but were eliminated from further consideration. Chapter 2 of the Draft EIS discusses the process of narrowing the alternatives and Table 2-1 summarizes alternatives eliminated from consideration. None of those alternatives provide a clear advantage under the criteria of Section 4(f) for avoidance or minimization of Section 4(f) uses.

M.1.e.2 Avoidance Techniques

SEA and FRA anticipate, as a result of analyses and consultation with owning agencies that: the Mac West, Willow, and Connector 1 segments would result in *adverse* impacts to the Susitna Flats State Game Refuge; the Willow Segment also would result in *adverse* impacts to the Little Susitna Recreation River, the Nancy Lakes State Recreation Area, and the Willow Creek State Recreation Area; and the Houston North Segment would result in *adverse* impacts to the Little Susitna State Recreation River. Alternatives that exclude the Mac West, Connector 1, Willow, and Houston North segments would avoid other than *de minimis* impacts to these resources with the implementation of the measures to minimize harm described below.

**Table M-2
Comparison of Potential 4(f) Impacts by Alternative (page 1 of 3)**

Alternative	Section 4(f) Resources and Areas Potentially Impacted ^a	Number of Known 4(f) Recreational Trails Crossed ^b	Total Potentially Impacted		Total Potentially Impacted Recreational Trail Length (feet) ^d	Estimated Potential Noise Impact to Section 4(f) Properties (Acres)
			Potentially Impacted ROW Acreage - Recreation Areas ^c	Potentially Impacted ROW Acreage - Wildlife Refuge ^c		
Mac West – Connector 1 – Willow	<p>Parks & Recreation Areas: Willow Creek State Recreation Area (43.3 acres); Nancy Lake State Recreation Area (12.4 acres); Little Susitna State Recreation River (17.3 acres); Point MacKenzie Trailhead and Parking Lot (1.33 acres); West Gateway Trail (206 feet); Mud Lake Trail (203 feet); Nancy Lake – Susitna Trail (260 feet); Iron Dog Trail (218 feet); Crooked Lake Trail (212 feet); Iditarod Link Trail (221 feet); Flathorn Lake Trail (211 feet); Pipeline Trail (200 feet); Figure 8 Lake Loop Trail (1,664 feet); Wildlife Refuges: Susitna Flats State Game Refuge (97.1 acres)</p>	9	94	123	3,395	2,765
Mac West – Connector 1 – Houston-Houston North	<p>Parks & Recreation Areas: Little Susitna State Recreation River (69 acres); Point MacKenzie Trailhead and Parking Lot (1.33 acres); Crooked Lake Trail (204 feet); Flathorn Lake Trail (211 feet); Pipeline Trail (200 feet); Figure 8 Lake Loop Trail (1,664 feet); Iditarod Link Trail (221 feet); Wildlife Refuges: Susitna Flats State Game Refuge (90.6 acres)</p>	5	70	117	2,626	2,258
Mac West – Connector 1 – Houston-Houston South	<p>Parks & Recreation Areas: Point MacKenzie Trailhead and Parking Lot (1.33 acres); Crooked Lake Trail (204 feet); Flathorn Lake Trail (211 feet); Pipeline Trail (200 feet); Figure 8 Lake Loop Trail (1,664 feet); Iditarod Link Trail (211 feet); Wildlife Refuges: Susitna Flats State Game Refuge (90.6 acres)</p>	4	5	114	2,490	1,489

**Table M-2
Comparison of Potential 4(f) Impacts by Alternative (page 2 of 3)**

Alternative	Section 4(f) Resources and Areas Potentially Impacted ^a	Number of Recreational Trails Crossed ^b	Total Potentially Impacted		Total Potentially Impacted Recreational Trail Length (feet) ^d	Estimated Potential Noise Impact to Section 4(f) Properties (Acres)
			Potentially Impacted ROW Acreage - Recreation Areas ^c	Potentially Impacted ROW Acreage - Wildlife Refuge ^c		
Mac West – Connector 2 – Big Lake	Parks & Recreation Areas: Point MacKenzie Trailhead and Parking Lot (1.33 acres); Knik Connector Trail (262 feet); 16 Mile Trail (206 feet); Aurora Dog Musers Club Trails (663 feet); Herning Trail (1,277 feet); Figure 8 Lake Loop Trail (964 feet); Wildlife Refuges: Susitna Flats State Game Refuge (55.5 acres)	5	1	82	3,372	992
Mac East – Connector 3 – Willow	Parks & Recreation Areas: Willow Creek State Recreation Area (43.3 acres); Nancy Lake State Recreation Area (12.4 acres direct use, 19.5 acres constructive use); Little Susitna State Recreation River (17.3 acres); West Gateway Trail (206 feet); Mud Lake Trail (203 feet); Nancy Lake – Susitna Trail (260 feet); Iron Dog Trail (218 feet); Crooked Lake Trail 212 feet; Iditarod Link Trail (206 feet); Wildlife Refuges: Susitna Flats State Game Refuge (6.5 acres)	6	93	7	1,305	1,276
Mac East – Connector 3 – Houston–Houston North	Parks & Recreation Areas: Little Susitna State Recreation River (69 acres); Crooked Lake Trail (204 feet)	1	69	0	204	769

**Table M-2
Comparison of Potential 4(f) Impacts by Alternative (page 3 of 3)**

Alternative	Section 4(f) Resources and Areas Potentially Impacted ^a	Number of Known 4(f) Recreational Trails Crossed ^b	Total		Total Potentially Impacted ROW Acreage - Wildlife Refuge ^c	Total Potentially Impacted Recreational Trail Length (feet) ^d	Estimated Potential Noise Impact to Section 4(f) Properties (Acres)
			Potentially Impacted ROW Acreage - Recreation Areas ^c	Potentially Impacted ROW Acreage - Wildlife Refuge ^c			
Mac East – Connector 3 – Houston–Houston South	Parks & Recreation Areas: Crooked Lake Trail (204 feet)	1	0	0	0	204	0
Mac East – Big Lake	Parks & Recreation Areas: Knik Connector Trail (262 feet); 16 Mile Trail (206 feet); Aurora Dog Musers Club Trails (663 feet); Herning Trail (1,277 feet)	4	0	0	0	2,408	0

a At this time, no cultural resources that would be affected and would qualify for protection under Section 4(f) have been identified. Such resources identified in the future would be addressed as stipulated in the Programmatic Agreement.

b Some segments cross a trail or trail system multiple times. Multiple crossings of a trail by an alternative are counted only once in this table.

c Acreage in these columns denote the direct impacts to the Recreation Areas and Wildlife Refuge resulting from the railline and ROW.

d Trails are also associated with an easement width (generally ranging from 50 to 400 feet for the trails discussed here), so the affected area of a trail would include the acreage of the easement to either side of the trail centerline, in addition to the trail length.

M.1.f Measures to Minimize Harm

SEA has identified preliminary measures and the Applicant has volunteered certain measures to minimize harm to Section 4(f) resources (see Chapter 19, Mitigation). As described in M.1 above, transportation project use of a park, recreation area, or wildlife and waterfowl refuge that qualifies for Section 4(f) protection may be determined to be *de minimis* though the incorporation of mitigation measures. However, the applicant's voluntary mitigation and SEA's preliminary mitigation measures can not lead to a *de minimis* impact determination without written concurrence of officials with jurisdiction over the Section 4(f) properties.

Sections M.1.f.1 through M.1.f.3 describe measures to minimize impacts to Section 4(f) resources. While implementation of these measures would result in a decrease in potential impacts on the Section 4(f) properties, certain properties would experience impacts that would not be *de minimis* based on consultation with the owning agency.

M.1.f.1 Mitigation and Measures to Minimize Harm Common to All Parks, Recreation Areas, and Trails

During final design of the project, the Applicant shall conduct all siting, design, and development of the rail line and associated facilities according to the reasonable requirements within the jurisdiction of the Alaska Department of Natural Resources and the Alaska Department of Fish and Game. (SEA Preliminary Mitigation Measure 17)

To minimize fugitive dust emissions created during project-related construction activities, the Applicant shall implement appropriate fugitive dust suppression controls, such as spraying water or other established measures. The Applicant shall also operate water trucks on haul roads as necessary to reduce dust. (Voluntary Mitigation Measure 22)

In coordination with the U.S. Coast Guard, the Applicant shall provide adequate clearances for navigation of recreational boats on navigable rivers. (Voluntary Mitigation Measure 34)

In coordination with the Alaska Department of Natural Resources (ADNR), the Applicant shall ensure that project-related bridges and culverts placed on navigable or public waters, as determined by the ADNR, are designed and installed to accommodate:

- Navigation by recreational boat users in a manner that shall not impede existing uses, to the extent practicable, and
- Public access and use of the statutory easements as established by the reasonable requirements of Alaska Statute 38.05.127, Access to Navigable or Public Water. (SEA Preliminary Mitigation Measure 38)

Prior to project-related construction, the Applicant shall consult with Alaska Department of Natural Resources (ADNR) and other appropriate agencies and user groups to develop a plan to ensure construction activities occur during the most appropriate timeframe to limit potential impacts on recreation activities. The Applicant also shall comply with the following measures:

- The plan shall be developed prior to completion of final engineering plans and following consultation with the ADNR, the Alaska Department of Fish and Game, other appropriate government agencies, and user groups to determine the location of all officially recognized trails that would be crossed by the rail line.
- The plan shall designate temporary access points if main access routes must be obstructed during project-related construction and include an agreed-upon number and location of access points as determined during consultation with applicable agencies. (SEA Preliminary Mitigation Measure 39)

The Applicant shall consult with the appropriate management agencies, including the Alaska Department of Natural Resources and the Alaska Department of Fish and Game to ensure that project-related bridges and culverts are designed, constructed, and maintained to accommodate travel by winter modes of transportation (snow machine, dog sled, etc.) on streams and rivers used for recreational access, as determined under SEA Preliminary Mitigation Measure 38. (SEA Preliminary Mitigation Measure 40)

Willow Creek State Recreation Area, Nancy Lake State Recreation Area, and Little Susitna State Recreation River

If the Surface Transportation Board authorizes the Willow Segment, the Applicant shall consult with the Alaska Department of Fish and Game and the Alaska Department of Natural Resources to develop and implement measures, including consideration of replacing acreage used for rail right-of-way, to minimize impacts to the Nancy Lake State Recreation Area, Little Susitna State Recreation River, and Willow Creek State Recreation Area to the extent practicable. (SEA Preliminary Mitigation Measure 48)

If the Surface Transportation Board authorizes the Houston North Segment, the Applicant shall consult with the Alaska Department of Natural Resources (ADNR) to develop and implement measures to minimize impacts to the Little Susitna State Recreation River and the Nancy Lake Creek Junction public use site. The Applicant shall replace any camping or other facilities within the right-of-way, as determined through consultation with ADNR. (SEA Preliminary Mitigation Measure 49)

Point MacKenzie Trailhead Parking Area and Figure 8 Lake Loop Trail

If the Surface Transportation Board authorizes the Mac West Segment, the Applicant shall consult with Alaska Department of Natural Resources and Matanuska-Susitna Borough to determine an appropriate location of and relocate the Point MacKenzie Trailhead, Parking Lot, and the eastern end of the Figure 8 Lake Loop Trail to another site. (SEA Preliminary Mitigation Measure 47)

Officially Recognized Trails

The Applicant shall consult with resource management agencies including the Alaska Department of Natural Resources, the Alaska Department of Fish and Game, and appropriate trail user groups regarding provision, access, and design of crossings for trail easements that intersect with the rail line. Consultation shall include concerns related to general dispersed-use

access, informal public trails on state land, blazed section lines, and long stretches of rail line without designated public crossings. (SEA Preliminary Mitigation Measure 41)

M.1.f.2 Mitigation for Wildlife Refuges

Susitna Flats State Game Refuge

If the Surface Transportation Board authorizes the Mac West Segment, the Applicant shall consult with the Alaska Department of Fish and Game to develop and implement measures, including consideration of replacing refuge acreage used for rail right-of-way, to minimize impacts to the Susitna Flats Game Reserve to the extent practicable. (SEA Preliminary Mitigation Measure 46)

M.1.f.3 Mitigation for Cultural Resources

The Applicant shall develop protocols to inform and prepare project-related construction supervisors of the importance of protecting archaeological resources, graves, and other cultural resources and how to recognize and treat the resources. (Voluntary Mitigation Measure 20)

The Applicant shall comply with the Programmatic Agreement developed through the Section 106 process under the National Historic Preservation Act (Voluntary Mitigation Measure 21).

M.1.g Coordination

M.1.g.1 Parks and Recreation Areas

The location and status of recreational features was determined through a review of scoping comments from public agencies and land managers, analysis of land management plans and other publicly-available resources regarding public parks and recreation areas in the study area, and data requests to ADNR, MSB, Alaska Department of Transportation & Public Facilities (ADOT&PF), and BLM. During the scoping process, ADNR and ADF&G submitted comments that highlighted specific consideration of resource areas for analysis, that identified routing and design considerations, and that indicated their preferred rail line route. These agencies also provided information regarding many of the Section 4(f) resources identified in this evaluation, including the Susitna Flats State Game Refuge, the Nancy Lake State Recreation Area, the Little Susitna State Recreation River, and the Willow Creek State Recreation Area. ADF&G submitted comments during scoping of a similar nature. SEA has also coordinated with MSB, ADNR and Alaska State Mental Health Trust Authority. Discussions included characterization of recreational access and available activities and possible impacts that could result from the selection of various alternatives. Section 4(f) applicability, impact avoidance, and possible mitigation were also subjects of discussion.

Prior to publishing the Draft EIS, SEA presented a preliminary determination of Section 4(f) resources and requested that affected agencies provide their formal response to the significance of the resources. On December 31, 2009 ADNR responded in writing and on February 1, 2010 MSB responded in writing to SEA's preliminary determination of Section 4(f) resources. The Section 4(f) resources identified in their responses as well as their determination of impacts to those resources have been included in this Section 4(f) Evaluation.

M.1.g.2 Wildlife Refuges

SEA met with ADFG to discuss recreational and Section 4(f) impacts in October 2008, with subsequent communications regarding Susitna Flats State Game Refuge, recreational uses, and trail access.

Prior to publishing the Draft EIS, SEA presented a preliminary determination of Section 4(f) resources and requested that the affected agencies provide their formal response to the significance of the resources. ADNR indicated in their letter dated December 31, 2009, that the impacts to the Susitna Flats State Game Reserve would not be *de minimis* and could not be made *de minimis* through mitigation measures.

M.1.g.3 Cultural Resources

Following consultation with the Alaska SHPO, a cultural resources field survey was performed by SEA. This survey was limited to areas within the proposed 200-foot ROW (i.e., the area where direct effects to cultural resources would most likely occur) and where land entry was available (i.e., excluding private and Native land) to identify cultural historical resources and characterize the affected environment. By agreement with the SHPO, SEA focused on identification, and did not conduct systematic excavation to determine the extent of potential sites identified. Therefore, systematic survey and testing was shifted to a later phase of the project (i.e., pre-construction surveys).

As part of the Section 106 process, the STB will continue with the consultation process with appropriate regulatory agencies, tribal entities, affected private parties, and other interested parties. Future consultation is anticipated to result in finalization of the Programmatic Agreement (see Appendix J of this Draft EIS for a Draft Agreement). The Draft Agreement stipulates specific cultural resource considerations for administration, definitions of terms, tribal consultation, identification and evaluation of historic properties and assessment of adverse effects, treatment of historic properties and human remains, monitoring, curation, annual review and reports, training for ARRC employees, procedures for inadvertent discoveries, consultation, dispute resolution, amendment or termination of the Agreement, failure to carry out the Agreement, duration, and execution and implementation.

Execution and implementation of the Final Agreement would evidence that the STB has satisfied its responsibilities under Section 106 of the NHPA pursuant to 36 CFR 800, and that the state has satisfied responsibilities under the Alaska Historic Preservation Act pursuant to Alaska Statute 41.35. Coordination with the involved parties will be ongoing to determine the proper handling of identified Section 4(f) resources.

M.1.h Section 4(f) Conclusion

All potential alternatives of the Port MacKenzie Rail Extension would cross resources protected by Section 4(f) of the Department of Transportation Act as identified in M.1.c above. All of the proposed rail line segments evaluated in the Draft EIS and discussed in this Draft Section 4(f) Evaluation are technically feasible to build and any combination of the segments that would connect the existing main line to Port MacKenzie would satisfy the project's purpose and need.

However, there are only two combinations of segments that would result in *de minimis* impacts on Section 4(f) resources: the Mac East-Big Lake Alternative and the Mac East-Connector 3-Houston-Houston South Alternative. Of these two alternatives, the Mac East-Connector 3-Houston-Houston South Alternative would affect the fewest number (1) and length (204 feet) of Section 4(f) trails, while the Mac East-Big Lake Alternative would affect the greatest number (4) and length (2,408 feet) of Section 4(f) trails. Neither would affect the Susitna Flats State Game Refuge, the Little Susitna State Recreation River, the Nancy Lakes State Recreation Area, or the Willow Creek State Recreation Area.

Of the remaining alternatives that would have adverse impacts on Section 4(f) resources, the Mac West-Connector 1-Willow Alternative would potentially affect the greatest number of recreational trails (9), the longest length of recreational trails (3,395 feet), and the ROW from this alternative would affect the greatest acreage of parks and recreation areas and the wildlife refuge (217 acres). The operation of trains along this alternative would result in severe noise impacts, as defined by the FRA, to 2,765 acres of Section 4(f) properties. Of these remaining alternatives, the Mac East-Connector 3-Houston-Houston North would have the lowest impacts on number of trails (1), acreage of parks and recreational areas and the wildlife refuge affected by the ROW (69 acres), and length of trail crossed (204 feet).

Preliminary and voluntary measures for minimizing impacts to Section 4(f) resources include timing construction to minimize impacts on recreation, designing water crossings to accommodate recreational navigation and access to waterbodies, ensuring adequate trail crossings, minimizing impacts to recreation areas and refuges, relocation of the Port MacKenzie Trailhead and Parking Lot, and incorporating practices for management of fugitive dust during construction activities. Implementation of the recommended preliminary measures to minimize harm and consultations with the managing agencies for eligible Section 4(f) resources described in Section M.1.f would reduce overall impacts to certain Section 4(f) resources and properties including officially recognized trails and the Nancy Lake State Recreation Area to a level that is considered *de minimis*. The construction and operation of the proposed rail line could result in adverse impacts to the Willow Creek State Recreation Area and the Little Susitna State Recreation River depending on the alternative authorized, if any.

Because the effects on all potentially historic properties cannot be fully determined prior to construction phase of the proposed rail line, SEA has developed a draft Programmatic Agreement (PA) for the Port MacKenzie Rail Extension that will govern the completion of the Section 106 process. Significant cultural resources eligible for protection under Section 4(f) that could be encountered during construction would be addressed by the Programmatic Agreement for the Port MacKenzie Rail Extension, which provides for the completion of the Level 2 (Evaluation Phase) survey if the Board authorizes an alternative and the locations of associated facilities have been established (i.e., gathering sufficient data for a determination of eligibility to the National Register). Additionally, the Programmatic Agreement establishes responsibilities for the treatment of historic properties, the implementation of mitigation measures, and ongoing consultation efforts, thereby ensuring that harm would be minimized to historic properties.

M.2 Section 6(f) Evaluation

M.2.a Introduction

Section 6(f) of the Land and Water Conservation Fund Act (LWCF) (16 U.S.C. 4601-4 et seq) stipulates that:

No property acquired or developed with assistance under [the Land and Water Conservation Fund Act], without the approval of the Secretary [Interior], be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location (16 U.S.C. 4601-4 et seq).

The statute is applicable to a property as a whole that has received funding from LWCF, regardless of where the resources were spent within an area.

M.2.b Section 6(f) Requirements

Section 6(f) of the LWCF is intended to protect parks and other recreational resources from conversion to other uses. The Section 6(f) parkland conversion process applies only to those state, county, or local recreational resources which have received funding through LWCF. The ADNR Division of Parks and Outdoor Recreation serves as a liaison with the National Park Service (NPS) for purposes of administering the LWCF program, including distribution of funds and monitoring the state's compliance with LWCF requirements. The NPS makes the ultimate decision on whether to approve a conversion of land that has received LWCF funds.

The NPS will consider conversion of public outdoor recreation areas to another use, if the following prerequisites have been met:

- All practicable alternatives to the conversion have been evaluated and rejected on a sound basis;
- The property proposed for substitution is of at least fair market value as that of the property to be converted; and
- The property proposed for replacement is of reasonably equivalent usefulness and location for recreational purposes as that being converted.

The replacement property need not provide identical recreational activities or resources, but it must meet public outdoor recreation needs as indicated in the Statewide Comprehensive Outdoor Recreation Plan.

M.2.c Section 6(f) Resources Potentially Affected by the Proposed Project

The Nancy Lake State Recreation Area is the only potentially affected property that has received funding from the LWCF. It would be crossed by the Willow Segment, and would therefore be potentially affected by the Mac West-Connector 1-Willow and Mac East-Connector 3-Willow alternatives. The potentially impacted acreage would be 12 acres that would be directly impacted on the western side of the park (directly west of Red Shirt Lake) along with 20 acres that could be separated from the Recreation Area and indirectly impacted west of the rail line ROW. Figure M-4 illustrates the crossing area.

The Nancy Lake State Recreation Area is a popular and easily-accessible recreation area characterized by interconnected lakes and rolling landscapes. Some of the recreation activities available include canoeing, picnicking, fishing, hiking, camping, dog sledding, skiing, snowshoeing, and snowmachining. The Little Susitna State Recreation River passes through the southeast portion of Nancy Lake State Recreation Area and canoers can portage to Nancy Lake to utilize the ample water trail system within the park. Nancy Lake currently receives approximately 40,000 visitors per year, with the highest use in the summer (ADNR 2007).

M.2.d Description of Alternatives

In addition to the two alternatives that would potentially affect Nancy Lake State Recreation Area, this Draft EIS evaluates six other rail alternatives and a No-Action Alternative. They include:

- Mac West-Connector 1-Houston-Houston North
- Mac West-Connector 1-Houston-Houston South
- Mac East-Connector 3-Houston-Houston North
- Mac East-Connector 3-Houston-Houston South
- Mac West-Connector 2-Big Lake
- Mac East-Big Lake
- No Action

None of these alternatives including the No-Action Alternative would affect Section 6(f) properties.

M.2.e NPS/ADNR Determination

Conversations were held with ADNR DPOR on December 18, 2008 to determine which areas have received LWCF funding and would require a potential conversion of land. ADNR confirmed that the Nancy Lake State Recreation Area was the sole recipient of LWCF funds in the project area. This was verified with the NPS database of LWCF recipient properties for the MSB (NPS 2008).

ADNR indicated that, were ARRC to decide that one of the two alternatives affecting Nancy Lake State Recreation Area would be considered its preferred project alternative, the DPOR would need to be formally contacted. DPOR would first approve a conversion plan, relate the

conversion concept to NPS, and NPS would have to agree to the conversion before proceeding. SEA's preliminary mitigation measures regarding conversion would require that the railroad provide land of equal or greater value in substitution for all converted land as identified in consultation and agreement with DPOR. For 6(f) land conversions, DPOR typically informs the project proponent of the land it would like to acquire. Replacement land need not be on-site but would have to be in a use other than public recreation. Following approval of a conversion concept, NPS requires that a series of formal appraisals be conducted both for the land to be taken for the project, and of the replacement land (Gray pers. comm., 2008, 2009).

M.2.f Section 6(f) Conclusion

A portion of Nancy Lake State Recreation Area, which has received funding from LWCF, would be permanently converted from recreational to non-recreational uses in the event that either the Mac West-Connector 1-Willow Alternative or the Mac East-Connector 3-Willow Alternative is authorized by the Board. No properties protected by LWCF Section 6(f) would be affected by any other alternative.

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