Kotzebue to Cape Blossom Road

POA-2012-272

Section 404 Permit Application

Supplemental Information

Prepared for

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Acronyms and Abbreviations

ADOT&PF	Alaska Department of Transportation and Public Facilities
ADEC	Alaska Department of Environmental Conservation
BMP	Best Management Practices
DPW	Department of Public Works
EA	Environmental Assessment
KIC	Kikiktagruk Inupiat Corporation
NAB	Northwest Arctic Borough
PRM	Permittee-Responsible Mitigation
ROW	Right of Way
SWPPP	Stormwater Pollution Prevention Plan
Trilateral Group	Kotzebue Trilateral Working Group
USACE	U.S. Army Corps of Engineers

Introduction

This supplemental information document is provided to augment information found in the attached Engineering Form 4335, a permit application by the Alaska Department of Transportation and Public Facilities (ADOT&PF) to build a road from the city of Kotzebue south to Cape Blossom on the Baldwin Peninsula.

Application Block 15: Location of Project

The project is located on the Baldwin Peninsula, in the Northwest Arctic Borough (NAB). Project location is shown on Figure 1. The upgrade route, noted by a green line, is the preferred alignment, with a reroute around the north of the windfarm.

Application Block 16: Other Location Descriptions, if Known

The decimal degree location of the northern end of the road is latitude 66.8582 and longitude -162.6180. The southern end of the road is latitude 66.7299 and longitude -162.4314.
The study area is located on the U.S. Geological Survey quadrangle maps (1:63,360):

Kotzebue D-1, D-2, C-1

The study area is in the Kateel Meridian and intersects 15 sections of the following townships and ranges:

Township 17N, Range 18 W, Section 21, 26 - 28, 35, 36

Township 16N, Range 18W, Section 2, 11-13

Township 16N, Range 17W, Section 18, 19, 30, 31

Township 15N, Range 17W, Section 6.

Figure 1 Cape Blossom Road, Alternative Routes (FHWA and ADOT&PF 2013)

Application Block 23: Description of Avoidance, Minimization and Compensation Activities, both Undertaken and Proposed.

23.1 Avoidance and Minimization during Design

During the preliminary and final design process, the ADOT&PF evaluated major and minor road route and material site alignments to identify the least environmentally damaging practicable alternative. During this process, the ADOT&PF made substantial efforts to reduce and avoid impacts to important wetland functions in the study area. These avoidance and minimization measures were incorporated in the preferred alternative (i.e. the design presented in this application). Alternatives considered but dismissed in favor of the route with the lowest impact design submitted are addressed in detail in the Environmental Assessment (EA) document (FHWA and ADOT&PF 2013) produced for this project. The alternatives are shown in Figure 1 and their projected wetland impacts summarized in Table 1.

23.1.1 Cape Blossom Access Road Alternatives and Revisions Considered

Wetlands and deepwater habitats in Alaska account for 50.7 percent of the surface area (Hall et. al. 1994). This project is located on the Baldwin Peninsula within the Selawik-Kobuk delta sub-region in western Alaska, where wetlands are estimated to be 75.7 percent of the surface area (Hall et al. 1994).

ABR Inc. produced a wetland map for 3,347.5 acres (ABR 2013) for the EA alternatives process (FHWA and ADOT&PF 2013). The study area included the Hillside, Upgrade, and the Lower and Upper Sadie Creek Routes. Only 15.7 acres of existing roadway and 5.2 acres of non-disturbed uplands were delineated, or 0.6 percent of the mapped area. An additional 1,255.6 acre study area map was completed by ABR in 2014 between the Upgrade and Hillside Route. Only 14.9 acres were considered uplands. Total avoidance of wetland impacts during any type of development in the current study areas is not practicable.

The Upgrade Route (includes the Lower Sadie Creek option) was selected as the preferred alternative during the EA process (FHWA and ADOT&PF 2013). It is the most direct route from Kotzebue to Cape Blossom and limits creek crossings to one. The Upgrade route has been modified to avoid the windfarm, but will follow and reconstruct 1.75 miles of existing road.

Table 1 provides an estimate of the project footprint and fill quantities for the preferred and dismissed routes.

Table 1. Access Road Alignments Considered

Alternative	Length (miles)	72-Foot Road Footprint[1] (acres)	Wetland/ Waters Impact	300-Foot Right-of-Way Footprint (acres)	Total Fill[1] Quantity (cubic yards)
	Preferred Alternative				
Upgrade Route, 2017	11.64	107.2	100.4	431.5	922,280
Upgrade Route, 2013	11.60	107.8	99.6	430	889,000
	Dismissed Alternatives*				
Eastern Route	21.3	191	191	775	1,666,000
Middle Route	13.0	118	118	473	1,046,000
Hillside Route	10.8	99	99	402	829,000
Upper Sadie Creek[2] Crossing Option	3.5	32	32	127	266,000
	Common to All Alternatives				
Staging Pad, 2017	-	-	7.1	7.1	75,000
Staging Pad, 2013	-	-	9	9	112,000
	[1] Maximum footprint acreage and fill quantity estimates are based on an 8-foot high, 24-foot wide road surface with 3:1 side slopes; these calculations assume a constant 72-foot wide road base. Turnouts are included in the road footprint and fill quantity. [2] Upper Sadie Creek option applies to the Hillside and Upgrade Routes. Note: Staging pad impacts are the same for all alternatives.				

*Modified from FHWA and ADOT&PF 2013.

During the final design process, the Kotzebue Electric Association provided new modeling data showing the potential ice throw radius of six existing wind turbines may pose a serious risk to the traveling public under certain conditions. To maintain the road alignment through the windfarm, the six turbines would need to be moved, as well as the Kotzebue radio tower array. The new pads and access roads would impact 4.1 acres of wetlands, and cost an additional $5.24 million. DOT&PF moved the route north and around the windfarm, minimizing disturbance to the Kotzebue energy source and avoiding the new impacts.

23.2 Minimization Activities Proposed During Construction

Following the preliminary and final wetlands avoidance and design reviews, the Applicant evaluated a suite of best management practices (BMPs) to further minimize anticipated impacts from the proposed project. The BMPs listed below will be included in all construction contract documents in an effort to minimize impacts to the aquatic environment.

23.2.1 Construction Methods

To reduce impacts to wetlands, ADOT&PF proposes to create side slopes at a 3:1 angle, as opposed to 4:1.

The Cape Blossom road alignment predominately overlies soft, thaw-unstable ground subject to thaw settlement, as well as high potential for snow drifting. The road will be engineered to an average height of eight feet (or less) to minimize potential road surface snow drifting and to

provide thermal protection for the underlying permafrost (FHWA and ADOT&PF 2013). This will create an average 72 foot wide base and footprint (or less).

Side slopes of 3:1 or shallower are also advantageous in northern regions of Alaska where soft, thaw-unstable ground is prevalent. Side slopes of 2:1 or steeper lead to excessive thaw settlement at the embankment toe and cause the roadway shoulders to slump downward and lose their structural stability.

Side slopes 3:1 or shallower have also been used successfully to mitigate snow drifting accumulation on top of the roadway, thereby reducing maintenance costs and improving visibility and safety for the traveling public.

Side slopes of 2:1 were therefore determined to be impracticable due to the high potential for excessive thaw settlement, and snow drift accumulate on top of the road.

Reduced wetland impacts through minimization methods are shown in Table 2. Impacts are calculated for the area of total road footprint. The 3:1 angle side slopes will reduce impacts by 22.1 acres over the alternative 4:1 side slope.

Table 2. Minimization of Wetland Impacts through Construction Methods

Road Dimensions Above Surrounding Ground*	Angle of Side Slopes	Width of Road*	Total acres	Acreage Difference
8 feet	3:1	72 feet	107.5	-
8 feet	4:1	88 feet	129.6	22.1

*average

Geotextiles will be placed directly on the tundra to minimize impacts to the organic mat and areas outside of the construction footprint. Excavation of the route will be avoided to minimize thermal degradation of the frozen soils. Dust palliatives will be used as needed to reduce dust from driving on the road surface.

Bridge

The preferred alternative, the Upgrade Route, includes one bridge spanning Sadie Creek. The placement of a bridge over Sadie Creek replaces the existing ATV trail and ford of the creek. Sadie Creek and the riparian vegetation will be protected by the bridge and the new access across the creek. The north and south sides of Sadie Creek will be accessible without fording and without further degrading the wetlands abutting the stream.

Material Sites

All materials for the project are to come from privately owned developed or undeveloped material sources. While no specific material sources will be designated sources for the project, the project design is engineered to readily accommodate local material quality and specifications.

Kikiktagruk Inupiat Corporation (KIC) is developing a material site at Iggy Hill and could feasibly provide suitable quality and quantity of material to construct the project. This material site has been previously permitted by the U.S. Army Corps of Engineers (USACE) [POA-2011-1077].

Construction of the Cape Blossom road would begin in the winter and material would be transported over ice roads from Iggy Hill or barged in from other developed material sources in the region. New material sites along the route will not be constructed, nor will additional roads to Iggy Hill be needed.

Erosion Control Measures

For the Construction General Permit AKR# 100000, ADOT&PF will file a Notice of Intent with the Alaska Department of Conservation, to comply with the Alaska Pollutant Discharge Elimination System. A Stormwater Pollution Prevention Plan (SWPPP) will be included.

BMPs for embankment stabilization, including contouring and seeding, will be required for the entire project to reduce embankment erosion and potential sediment runoff into wetland areas.

Any stockpiling of material, equipment staging and mobilization, and temporary construction access will avoid wetlands to the fullest extent practicable. When filling in wetlands, temporary straw wattles, silt fencing, or other BMPs will be employed at embankment toes during construction to reduce sediment runoff into temporary impact areas. Embankments will also be contoured and stabilized in accordance with BMPs to further prevent embankment erosion and sediment runoff.

Construction Timing and Sequencing

The construction of the road will begin in the winter. Geotextile fabric will be placed on the tundra and the organic mat will remain in place. Shrub removal may occur within the roadway footprint. Frozen material will be placed on the fabric in the winter and allowed to settle and compact over the course of the summer. The project will be built over a minimum 5 year construction period, with the bridge over Sadie Creek constructed after the roadway is constructed. Construction will occur over multiple winters, dependent on the ability to construct ice roads to the site.

Movement of materials and equipment during the winter will minimize incidental impacts to vegetation and soils in the Right-of-Way (ROW) that may not be in the road footprint. Frozen soils and snow cover will support construction equipment if needed.

The start of construction in the winter will follow Migratory Bird Treaty Act-based recommendations by U.S Fish and Wildlife Service regarding migratory bird nesting and rearing windows. Bird nesting occurs in the summer, typically from May through July, thus this project avoids impacts to nesting birds by placing fill prior to migration.

Fish and Wildlife Avoidance

ABR, Inc. conducted wildlife habitat assessments, aerial surveys for yellow-billed loons and cliff-nesting raptors, and an assessment of resident and anadromous fish relative to available habitat in Sadie Creek (ABR 2013).

The EA for the project (FHWA and ADOT&PF 2013) discusses fish and wildlife found in the project area. Kotzebue Sound is considered Essential Fish Habitat and is designated as polar bear feeding critical habitat. However, all actions for this project occur on the Baldwin Peninsula, and have no impact on the Sound.

Initial winter construction will avoid any impacts to breeding birds. All fish bearing lakes (potential yellow-billed loon habitat) are located more than 100 feet from the road corridor. A bridge over Sadie Creek will avoid impacts to wintering fish.

Invasive Species Control Measures

Construction activities requiring re-seeding of vegetative cover will utilize certified seed materials meeting requirements of the State of Alaska Seed Regulations (11 AAC 34 Articles 1 & 4) regarding purity, germination, and weed content.

23.2.2 Drainage Construction Minimization Measures

Sadie Creek is the largest stream crossed by the road route. A bridge is planned to cross the creek, avoiding the dredging associated with culvert installation in this fish-bearing stream. The National Hydrography Dataset shows two additional small streams south of Sadie Creek, although the wetland mapping and reports (ABR 2013, 2014) do not record any additional streams in the selected corridor. Appropriate sized culverts (36 inch) will be used at these or any other locations along the route to maintain hydrologic connectivity.

Road construction and culvert installation will start in winter. Streams other than Sadie Creek are expected to be shallow and frozen to the bottom. Winter installation will minimize impacts to the aquatic environment.

Erosion Sediment Control Plans and SWPPPs will be developed and implemented to prevent introduction of sediments and consequent turbidity into Sadie Creek during construction.

BMPs will be used project-wide to maintain in-stream water quality and stream bank stability.

23.3 Compensatory Mitigation

The Cape Blossom Road project is being built to improve transportation efficiency and reduce the cost of shipping freight (FHWA and ADOT&PF 2013) to the remote communities of the Northwest Arctic Borough (NAB). The study area and alternatives are composed of almost all wetlands; ADOT&PF reduced impacts of the project by using existing roads and a direct route to Cape Blossom. USACE may determine compensatory mitigation in this area is not required based on these avoidance and minimization efforts. Regardless of the USACE decision on the needs for compensatory mitigation, ADOT&PF and the City of Kotzebue propose to do permittee responsible mitigation (PRM) on the Baldwin Peninsula where the project is located.

ADOT&PF, the NAB, and the Kotzebue Trilateral Working Group (Trilateral Group), to include representatives from the City of Kotzebue, KIC, and the Native Village of Kotzebue, co-developed and approved the following PRM plan. Numerous PRM projects were reviewed by this group in 2016 and the proposed PRM plan was determined to have the highest priority based on location, threat to the resource, feasibility, and achievability. Eight PRM plans were reviewed and prioritized by the Trilateral Group and ADOT&PF.

These include the following:

- Creation of Municipal Water Supply Source Watershed Protection Plan
- Trail Hardening (ATV)
- Prevention of Landfill Expansion
- Completion of the Sisualik Cleanup Effort

- Repair of Culvert Failure (Ted Stevens Way)
- Study of Contamination in Groundwater
- Contamination Abatement Using Injected or Trenched Bio-Remediation Substrate
- Designation of High Value Subsistence Areas as Conservation Zones

Although each of the listed PRM plans are considered important to the Trilateral Group, the most important PRM plan and the highest priority for the community is to protect the local drinking water supply of Kotzebue (Creation of Municipal Water Supply Source Watershed Protection Plan). In addition, this PRM plan was the only one providing the best environmentally preferred mitigation opportunity to off-set unavoidable impacts due to the creation of the road.

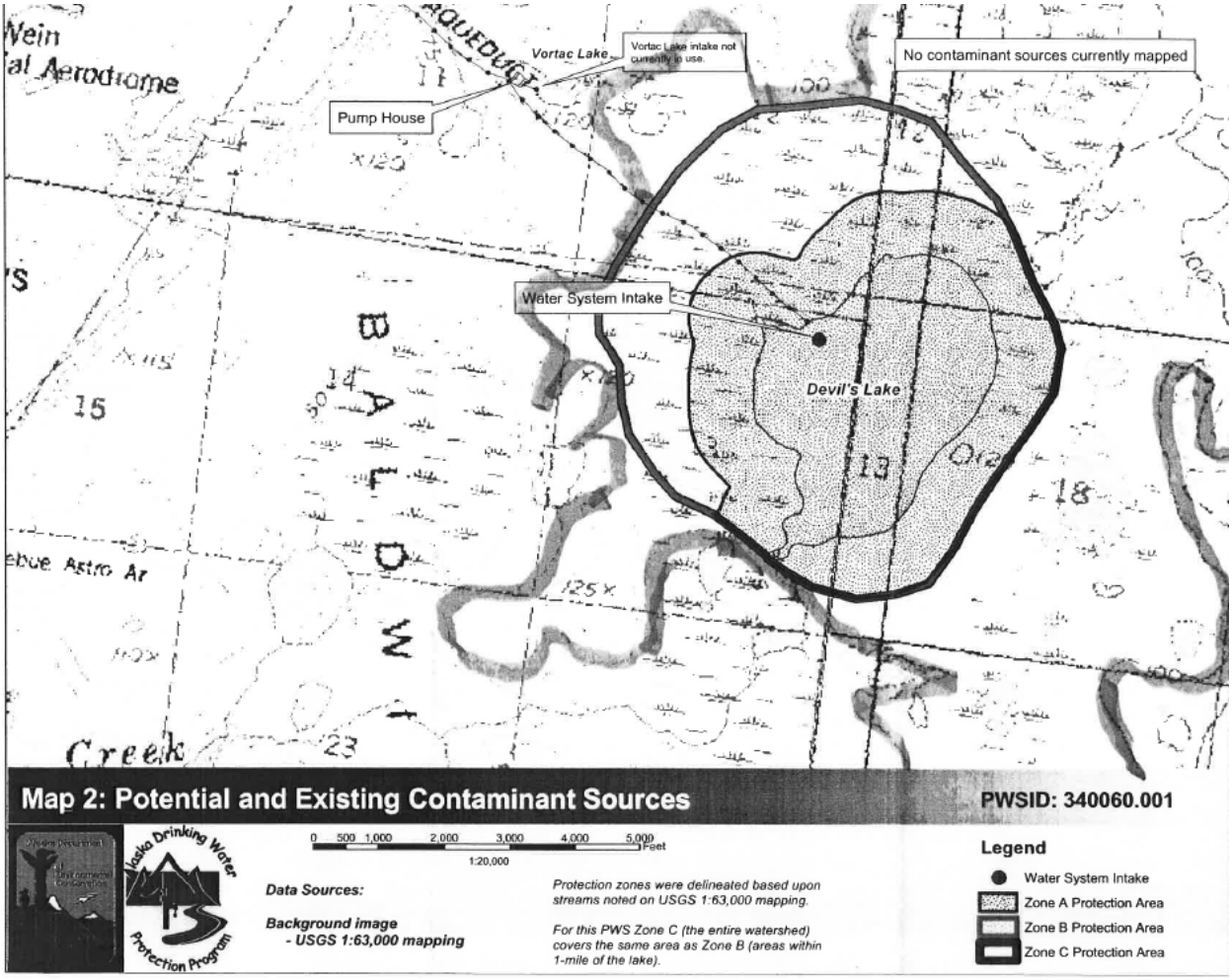
ADOT&PF, working with the above groups, proposes to help protect the Kotzebue drinking water supply at Devils Lake and/or Vortac Lake by placing wetlands and waters within the watershed in a protected status and re-route ORV trails away from the watershed.

ADOT&PF will work with the City of Kotzebue to create deed restrictions for up to 370 acres of contiguous wetlands within the Devils Lake or Vortac Lake watersheds. Wetlands within and adjacent to the ADEC Zone A Protection Area (http://dec.alaska.gov/eh/dw/dwp/protection_areas_map.html) will be targeted first (Figure 2).

The protection of the Devils Lake/Vortac Lake waters, to include the wetlands abutting and surrounding them, is vital to the continued delivery of safe, dependable drinking water to the Kotzebue community. The City of Kotzebue is on a peninsula, surrounded by salt water. Few freshwater lakes are near the city that can be used for drinking water. The City of Kotzebue Comprehensive Plan (Glenn Gray and Associates 2013) also cites the Devils and Vortac Lake watershed as an area that should be designated for protection. The comprehensive plan calls for the relocation of the existing ORV trail, and to create a watershed protection plan.

The population of Kotzebue has grown from 2,764 in 1990 to 3,201 in 2010 (WH Pacific 2013). The city water supply is distributed to 98 percent of the buildings in Kotzebue (WH Pacific 2013). Preservation of land around the lakes will protect the water supply from encroachment of development by a community continuing to expand.

Figure 2 ADEC Drinking Water Protection Program



The NAB Department of Public Services maintains winter trail tripods and signs on the trails to the various communities throughout the NAB. One trail passes through the Devils Lake watershed and over Devils Lake (Figure 3; FHWA and ADOT&PF 2013, Figure 4).

As part of the PRM plan, this trail - ANCSA 17(b) Kotzebue Easement 8 - would be re-routed. The trail has been used for years to transport goods to other communities in the region. Protection may include education, signage, and possibly fencing to move winter traffic to new trails avoiding the lakes. Gasoline, oils, and other hazardous materials carried by snowmachines or other off-road vehicles are a potential contamination source that can be prevented. 1 quart of oil or 1 gallon of gasoline can contaminate 750,000 to 1 million gallons of water. These contaminates are a major threat to the drinking water supply. Oils and gasoline float on the water surface, posing additional impacts to waterfowl in the summer after the ice has melted.

Figure 3 NAB Trail through Devils Lake

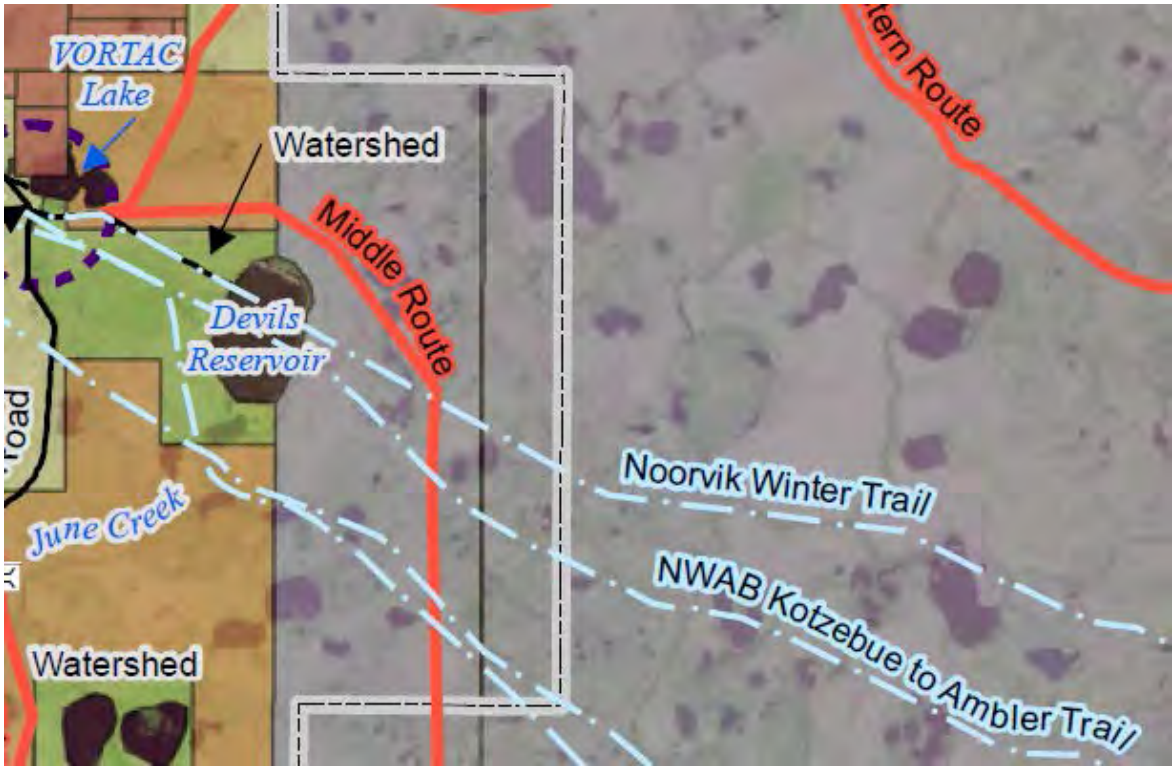


Figure 4 NAB Trail through Devils Lake

The City of Kotzebue's 2015 Water Quality Report states: "We ask all of our customers to help us protect our water sources at Devil's and Vortac Lakes by being aware of the importance of a

clean water source and the many modern conveniences that can pose a threat to it, such as the oil and gasoline that run our snowmachines. Please remember this when crossing Devil's Lake and plan ahead to avoid any circumstance that would allow your snowmachine to spill oil or gasoline onto the ice. Though there were no organic chemicals found in our water this year, trace amounts of toluene, xylene, and ethylbenzene have been detected in prior years, and all three of these organic chemicals are ingredients of gasoline, so it would be better if you went around the lake instead of over it. These lakes are the heart of our community, our way of life, and our children's future."

23.3.1 Compensatory Mitigation Plan

1. Objective

The objective of the compensatory mitigation proposed by this PRM plan is to compensate for direct unavoidable impacts to 107.5 acres of wetlands filled during construction of the proposed project. Wetlands totaling 107.5 acres will be permanently filled by the roadway embankment and culverts. The PRM will be completed on the Baldwin Peninsula, in the Kotzebue Sound watershed where the impacts from this project will occur. In addition to compensating for the direct wetland losses, ADOT&PF, based on the community input, wishes to provide a long term benefit by protecting the drinking water source for the residents of Baldwin Peninsula.

2. Site Selection Criteria

The Trilateral Group and the NAB, working with ADOT&PF, have determined the protection of the Devils Lake and Vortac Lake watersheds are the highest priority wetland project on the Baldwin Peninsula. Currently, a motorized trail traverses the Devils Lake watershed and crosses the lake. The potential threat from hydrocarbon spills, sediment contamination, and other direct impacts from ORV travel to the lake are high, and the community wants the lake and the surrounding watershed protected from deleterious impacts.

3. Site Protection

Wetlands and waters around Devils and/or Vortac Lake will be protected through deed restrictions. Motorized traffic will be re-routed by relocating the trail. Motorized traffic will be banned from the protected wetlands and lakes.

4. Baseline Information

ABR conducted wetland determinations and digital mapping of the wetlands in the study area (2013, 2014). All wetlands were mapped and coded based on the Cowardin Classification (Cowardin et al. 1979) used in the National Wetland Inventory. Wetlands were grouped into wetland functional classes by Cowardin code and vegetation type (ABR 2013, 2014) and listed as either Category II or Category III wetlands (USACE 2014). The wetlands within the study areas are common across the Baldwin Peninsula and were not considered rare or unique, nor were they considered as critical habitat (ABR 2013), therefore they did not rate classification as Category I wetlands. ABR used various functional assessment methods during the two studies noted above. The categorization of project wetlands were updated and are listed in Table 3. They are based on guidance from the 2014 USACE Ratios for Compensatory Mitigation table and category descriptions.

Table 3. Wetland Functional Classes

Wetland Functional Class	Cowardin Code	Wetland Category	Acres
Permanently Flooded Lake or Pond	PUBH	II	0.1
Lower Perennial River	R2UBH, R2USA	III	0.0
Littoral Aquatic Bed and Lacustrine Fringe	PEM1F	II	0.1
Permanently Flooded Sedge Marsh	PEM1H	II	0.2
Semi-Permanently Flooded Sedge-Shrub Meadow	PEM1/SS1F, PEM1F, PEM1H	II	9.2
Seasonally Flooded Saturated Sedge-Shrub Meadow	PEM1E, PEM1/SS1E	II	22.8
Saturated Emergent Sedge-Shrub Meadow	PSS1B, PSS3/EM1B, PSS1/EM1B, PEM1/SS1B	III	53.5
Saturated Dwarf Shrub Tundra	PSS4B, PSS1/3B	III	2.3
Saturated Birch-Ericaceous Scrub Tundra	PSS1B, PSS3B, PSS3/1B	III	4.1
Saturated Low and Tall Deciduous Shrub	PSS1B	III	15.2
		Total Wetlands Impacted	107.5

5. Determination of Credits

Table 4 lists the proposed mitigation for each type of impact from this project.

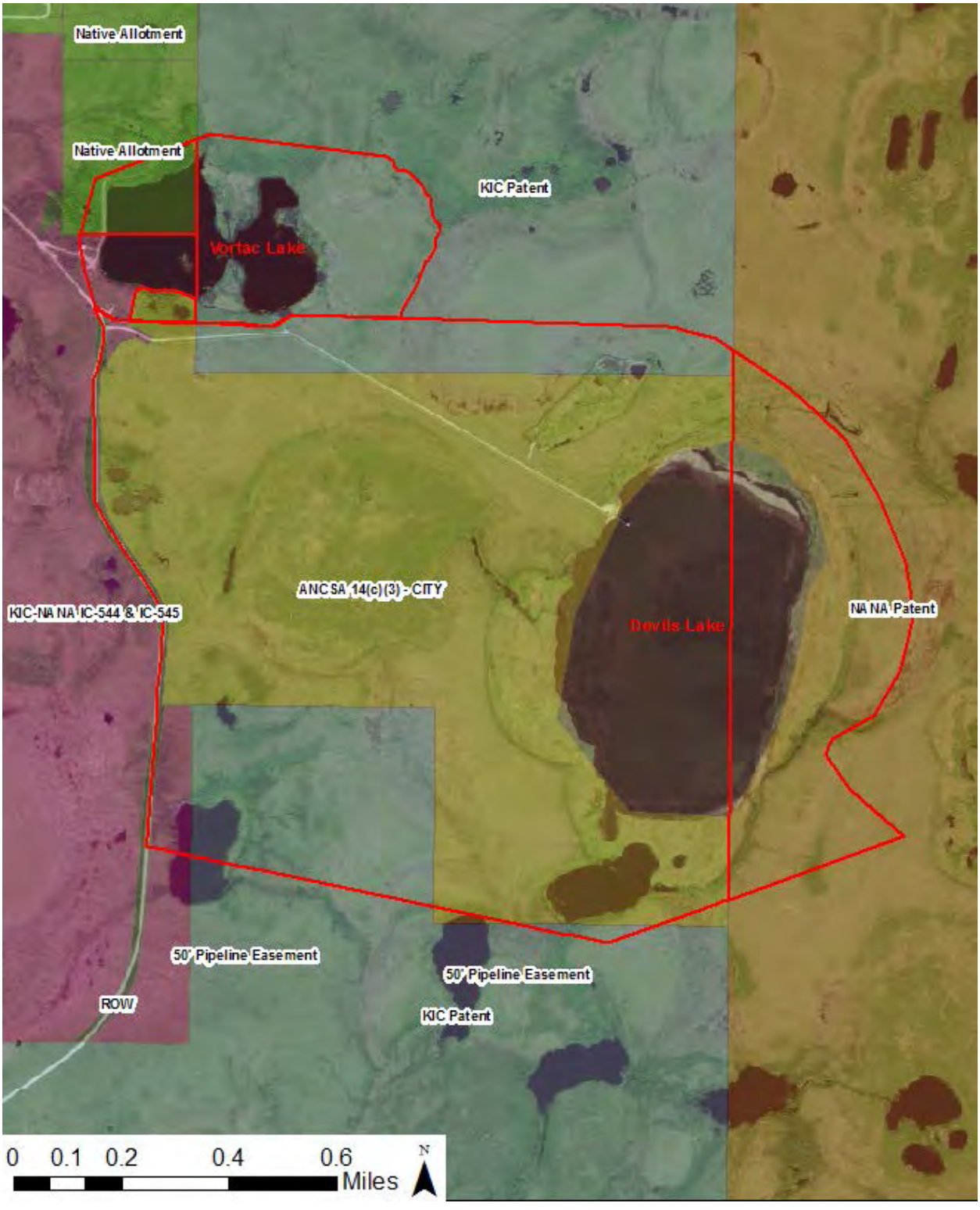
Table 4. Determination of Credits

Description of Impacts	Wetland Acres Impacted	Wetland Category	Mitigation Plan
Road Fill	32.4	II	Create protective deed restrictions on land to the west of Devils Lake and the lake itself. Up to 370 acres of wetlands and waters will be placed under a deed restriction.
Road Fill	75.1	III	
Totals	**107.5**		

6. Mitigation Work Plan

The City of Kotzebue and ADOT&PF will work together to implement this PRM plan. The City of Kotzebue currently owns and manages the lands to the west of Devils Lake and the majority of the lake. These entities will work together to identify the wetlands and waters to be protected and create a deed restriction to protect them. Up to 370 acres will be included, with the lake and the wetlands abutting it selected as the highest priority. This includes up to 253 acres of land and 117 acres of Devils Lake. An easement along the roadway leading to Devils Lake will be maintained for access to the lake to maintain drinking water facilities.

Figure 5 Wetland and Waters Targeted for Protective Zoning around Devils Lake



This PRM plan will be implemented upon acceptance by USACE.

7. Maintenance Plan

The Department of Public Works (DPW) will monitor activity within the Devils Lake and Vortac Lake watersheds. If fencing/gates are installed, DPW will maintain them. The Trilateral Group and NAB Department of Public Safety will work to move the current marked trails out of the watersheds.

8. Performance Standards

A legally binding deed restriction will be placed on up to 370 acres in the watershed. Identification of targeted lands will be initiated upon acceptance of this PRM plan by USACE. Land protection will follow target identification, and will occur based on the timelines of the legal instruments required.

9. Monitoring Requirements

DPW will monitor motorized use within the watersheds and maintain fencing if used.

10. Long Term Management Plan

The long term plan for the Devils Lake and Vortac Lake watersheds is to identify and acquire at risk and threatened properties, provide conservation protection to additional wetland acres around both lakes, to monitor and ban all motorized traffic over the lakes, and to educate the local community of the importance of the drinking water supply. The City of Kotzebue is encouraged to create a comprehensive watershed management plan that takes into account the items listed above.

11. Adaptive Management

Fencing may be required if motorized use is found within the Devils Lake or Vortac Lake watersheds. Education planning may be needed, to include visits to the local school, fliers around the city, public radio announcements, and other methods.

12. Financial Assurance

Financial assurance is not required. The protected lands will be owned and managed by the City of Kotzebue, in accordance with the 2013 City of Kotzebue Comprehensive Plan. The zoning process will begin immediately upon permit approval. The deed restrictions for the area will be in place before road construction is completed.

13. Additional Information

The PRM plan includes various components created and initiated by the Trilateral Group and the NAB. The City of Kotzebue Comprehensive Plan calls for the creation of a watershed protection plan, that may include further watershed protections, fencing, educational outreach, and land acquisition from KIC and NANA corporation.

Application Block 25: Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody.

Table 5. Adjoining Property Owners

Property Owners/ Lessees Etc.	Address
City of Kotzebue	PO Box 46 Kotzebue, AK 99752
ANCSA Regional Corporation; NANA Regional Corporation	Land and Regional Affairs 3150 C Street Anchorage, AK 99503
Kikiktagruk Inupiat Corporation	PO Box 1050 Kotzebue, AK 99752
Village of Kotzebue	PO Box 296 Kotzebue, AK 99752
United States Air Force	9480 Pease Ave, Suite 123 JBER, AK 99506-2101
Department of Transportation & Public Facilities	2301 Peger Road Fairbanks, AK 99701
Kotzebue Electric Association	PO Box 44 Kotzebue, AK 99752
State of Alaska, Department of Natural Resources	550 W. 7th Ave, Suite 1260, Anchorage, AK 99501
Northwest Arctic Borough	PO Box 1110 Kotzebue, AK 99752

Application Block 26: List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in this Application.

Table 6. Agency Coordination

Agency	Type Approval	ID Number	Date Applied	Date Approved
USACE	DOA Wetland Permit: Iggy Hill Material Site	POA-2011-1077	1/12/2012	6/12/2012
Northwest Arctic Borough	Title 9 Major Use Permit: Ice Road, Iggy Hill	108-03-14		3/25/2014
DOT&PF	Environmental Re-Evaluation Form	Z76884/NCPD-0002(204)		2/18/2015 05/25/2017
Alaska Office of History and Archaeology	No Historic Properties Affected	3130-IR FHWA	06/13/2013 04/05/2017	07/10/2013 04/12/2017
DOT&PF and	Environmental Assessment	Fed:NCPD-002(204)		10/2013

US Federal Highway Administration		State: 76884		
USFWS	Section 7	None	05/30,2012	11/07/2013
Alaska Dept. Fish and Game	Title 16 Fish Habitat	None	5/31/2012	Pending
See EA for Coordination Tables				

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