

**PLANNING DEPARTMENT
DESIGN VARIANCE
STAFF ANALYSIS**

DATE: February 9, 2022

CASE NO: 2022-0012

APPLICANT: Julie Makela, MOA Project Management and Engineering

REPRESENTATIVE: Laurie Cummings, HDR, Inc.

REQUEST: Variance from AMC 21.05.060E.8.b., to allow a snow disposal site to encroach into wetlands and discharge water to adjacent property

LOCATION: PTN, NW4NW4, Sec. 1, R4W, T12N, S.M.

SITE ADDRESS: Not applicable

COMMUNITY COUNCIL: Sand Lake

TAX NUMBER: 012-571-01

GRID NUMBERS: SW2028

ATTACHMENTS

1. Application
2. Departmental and Public Comments
3. Affidavit of Posting and Historical Information

SITE

Acres: 32 acres

Zoning: PLI SL, public lands and institutions district with special limitations

Topography: Flat

Existing Use: Vacant

Utilities: None

COMPREHENSIVE PLAN

Classification:

- "Community Facility" in the 2017 *Anchorage 2040 Land Use Plan*

SURROUNDING AREA

	NORTH	EAST	SOUTH	WEST
Zoning:	PLI	TR	PLI	PLI-p and TR
Land Use:	Sports Fields	Industrial	Vacant	Parkland

REQUEST

The Municipality's Project Management and Engineering Division is applying for a variance from two provisions required by AMC 21.05.060E.8.b., *Snow Disposal Site – Use-Specific Standards*, which state:

- i. Location
Snow disposal sites shall be located at least 25 feet from a class A or class B wetland, and at least 100 feet from a stream or water body.
- v. Drainage and Water Quality Facilities
The on-site and off-site drainage network shall handle water runoff and snow melt without impacting adjacent properties. Drainage and meltwater disposal shall comply with the municipal Design Criteria Manual sections regarding snow disposal site and drainage.

Neither of these two code provisions existed under the Old Zoning Code, which was in effect until 2016. It is noteworthy that the most recently constructed Municipal snow disposal sites (i.e. the Spruce Street Snow Dump at the intersection of Elmore Road and Dowling Road and the 100th Avenue Snow Dump) discharge treated water into Class A wetlands.

BACKGROUND

After conducting the West Anchorage Snow Disposal Site Selection Study (February 2021), which recommends this site, the Anchorage Assembly approved a comprehensive plan amendment to change the *Anchorage 2040* land use classification of this property from "Park or Natural Area" to "Community Facility". The Assembly then approved the rezone of this tract from TR (transition district) to PLI (public lands and institutions) on November 1, 2021.

If the variance is approved, then the Project Management and Engineering Division will make application to the Planning and Zoning Commission for a public hearing conditional use permit for snow disposal. The conditional use application would include a site plan and need to address water quality and drainage issues.

REVIEWING AGENCY COMMENTS

None of the reviewing agencies objected to the variance.

PUBLIC COMMENTS

251 public hearing notices were mailed on January 14, 2021. No public comments were received. The Sand Lake Community Council adopted a resolution of support.

FINDINGS

21.03.240G. Approval Criteria.

The application must state with particularity the relief sought and must specify the facts or circumstances that are alleged to show that the application substantially meets the following standards:

- a. **The proposed alternative achieves the intent of the subject design standard to the same or better degree than the subject standard.**

The standard is met.

The intent of these two code provisions is to protect the water quality of high value wetlands and to prohibit runoff crossing property lines. First, the zoning code requirements are duplicative of other permitting which require clean water discharge and prohibit water contamination. Therefore, water quality is addressed through federal, state, and municipal wetland permitting. Second, all of the surrounding land is owned by the Municipality of Anchorage and zoned PLI (public lands and institutions) or TR (Transition). The code requirement to keep water on-site prevents privately owned lots from draining onto neighboring lots, but that is not a concern at this site. This 32-acre tract is publicly owned and adjoins another large publicly owned tract.

This variance does not grant approval for the new disposal site. It will only allow the Project Management and Engineering Division to apply for a public hearing conditional use permit for snow disposal with the Planning and Zoning Commission. That application process will require the petitioner to show that water quality will be protected by federal, state, and municipal regulation. The Planning and Zoning Commission must find that the nine approval criteria for a conditional use are met. The approval criteria are:

- 1) The proposed use is consistent with the comprehensive plan and all applicable provisions of this title and applicable state and federal regulations.
- 2) The proposed use is consistent with the purpose and intent of the zoning district in which it is located, including any district-specific standards set forth in chapter 21.04.
- 3) The proposed use is consistent with any applicable use-specific standards set forth in chapter 21.05.
- 4) The site size, dimensions, shape, location, and topography are adequate for the needs of the proposed use and any mitigation needed to address potential impacts.
- 5) The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs, or prevents the use of surrounding properties for the permitted uses listed in the underlying zoning district.

- 6) The proposed use is compatible with uses allowed on adjacent properties, in terms of its scale, site design, operating characteristics (hours of operation, traffic generation, lighting, noise, odor, dust, and other external impacts).
 - 7) Any significant adverse impacts anticipated to result from the use will be mitigated or offset to the maximum extent feasible.
 - 8) The proposed use is appropriately located with respect to the transportation system, including but not limited to existing and/or planned street designations and improvements, street capacity, access to collectors or arterials, connectivity, off-site parking impacts, transit availability, impacts on pedestrian, bicycle, and transit circulation, and safety for all modes.
 - 9) The proposed use is appropriately located with respect to existing and/or planned water supply, fire and police protection, wastewater disposal, storm water disposal, and similar facilities and services.
- b. **The proposed alternative achieves the goals and policies of the comprehensive plan to the same or better degree than the subject standard.**

The standard is met.

The granting of the variance provides more flexibility for the siting of the new Municipal West Anchorage Snow Disposal Site. The Planning and Zoning Commission will still need to approve a public hearing conditional use permit for there to be a snow disposal site. Federal, state, and municipal wetland permitting will still be required.

The variance is supported by the comprehensive plan as follows:

Anchorage 2040

- *Policy 5.5: Ensure that adequate public facilities such as schools and fire stations are available when and where they are needed, in an efficient and equitable distribution of services, based on long-term projections for population, student enrollment, and the location for future growth.*

The Plan recognizes the need for public facilities, like snow disposal sites, for the immediate and future needs of residents. The West Anchorage Snow Disposal Site Selection Study (February 2021) recommends this site for the replacement snow disposal site. A snow disposal site in West Anchorage is essential to managing snow hauling costs in that subarea of the city and is also needed to provide adequate snow storage capacity as existing snow disposal sites are near or at capacity. Roadways and sidewalks must be cleared and snow clearing needs are anticipated to increase as the city

grows in accordance with *Anchorage 2040* and the *Metropolitan Transportation Plan 2040* plans. Sidewalk and pathway clearing will increase in importance as changes in demographics and other trends lead to more walking and bicycling.

- *Policy 6.2: Provide new or upgraded pedestrian and local/collector street connections in Centers and Commercial Corridors to improve access to and from surrounding neighborhoods.*

Additional streets and pedestrian connections are needed to provide a transportation network capable of accommodate forecast employment and housing needs. This network will depend at least in part on snow disposal capacity being adequate in the Anchorage Bowl.

Anchorage 2020

- *General Land Use Policy 5: Rezones and variances shall be compatible in scale with adjacent uses and consistent with the goals and policies of Anchorage 2020.*

The proposed variance is compatible with the adjacent zoning and uses. The property abuts PLI zoning on three sides and TR zoning to the east and west. The existing uses include a snow disposal site, street maintenance facility, active recreation, industrial, and passive recreation.

- *Policy 7: Avoid incompatible uses adjoining one another.*

This is MOA-owned property and is not dedicated parkland. These 32 acres are surrounded by the TSAIA Snow Disposal Site, a Municipal street maintenance facility, sports fields, a freeway, open space, and parkland. The surrounding uses will not be impacted by the night-time operations of a snow disposal sites. The underly transportation level of service goals cannot be achieved without snow removal from streets and sidewalks.

- *Policy 49: Healthy, mature trees and forested areas shall be retained as much as possible.*
- *Policy 67: Critical fish and wildlife habitats, high-value wetlands, and riparian corridors shall be protected as natural open spaces, whenever possible.*
- *Policy 69: The Municipality shall preserve the functions and values of important wetlands...as delineated in the Anchorage Wetlands Management Plan.*
- *Policy 71: Utilize wetlands to manage drainage and improve water quality, where appropriate.*
- *Policy 79: The ecological and drainage functions of Anchorage's aquatic resources shall be protected, and where appropriate, restored.*

Response to Policies 49, 67, 69, 71, and 79: The MOA Project Management and Engineering Department will need to demonstrate with a forthcoming conditional use application the effect of a snow disposal site on the natural environment. The site plan will be used to evaluate how a proposed snow dump retains natural vegetation and protects wetlands. Water quality and runoff will need to be addressed with the conditional use. It is premature to analyze the conditional use approval criteria now.

- *Policy 30: Transportation and land use policies and programs shall include: a) Multi-modal and intermodal access, including commuter rail and transit service; b) Pedestrian-to-transit linkages; c) Efficient safe freight movement; d) Congestion management and roadway improvements; d) Optimal use of parking; f) Minimization of individual and cumulative air quality impacts; g) Minimizing impacts on neighborhoods; and h) Adequate snow storage.*
- *Policy 81: Prioritize snow removal to maximize pedestrian movement and safety.*

Response to Policies 30 and 81: Pedestrian transportation goals cannot be achieved without snow removal from the growing network of sidewalks and multi-use pathways.

West Anchorage District Plan

- *Transportation Objective #5: Ensure that roads and walkway are properly repaired and regularly maintained, including efficient seasonal snow removal and street cleaning.*

This site is collocated with the TSAIA Snow Disposal Site and a MOA Street Maintenance Facility. Timely snow removal from roads and sidewalks is a necessity for winter cities, like Anchorage.

- *Parks Objective #4: Maintain, protect, and enhance municipal parks, greenbelts, and natural open spaces areas (including riparian and wildlife corridors) that support fish and wildlife habitats and wetland functions.*

The future conditional use application for a snow disposal site will need to address buffering for Connor's Bog Park, trails, wetlands issues, and wildlife preservation.

- *Utilities Objective #1: Plan for and provide functional public infrastructure that addresses current and future needs.*

Public services like snow removal are an important component to the transportation needs of the community. West Anchorage needs a new 24-hour snow disposal site to continue the same level of service for snow removal, and this is the preferred site in the site selection study.

- *Utilities Objective #3: Construct utilities for maximum operational efficiency and consolidate facilities where practical.*

Public facilities, like Municipal snow disposal sites, need to be located to provide maximum benefit to the community. The site selection study recommended this site for many reasons, including the proximity to the Kloep Street Maintenance Facility.

- *Utilities Objective #3: Provide sustainable options to meet increasing energy demands.*

Other potential site for a snow disposal site may increase driving time for snow removal equipment, which would produce more greenhouse gasses and negatively affect the environment.

- c. **The proposed alternative results in benefits to the community that are equivalent to or better than compliance with the subject standard.**

The standard is met.

This use-specific standard only applies to snow disposal sites. It does not apply for land reclamation, natural resource extraction, or any other industrial uses. This zoning requirement eliminates the possibility of a snow disposal site within 25 feet of a Class A or B wetland and any wetland that spans two parcels of land, without variance approval.

- d. **The variance, if granted, will not adversely affect the use of adjacent property as permitted under this code.**

The standard is met.

This standard assumes the violation will not be injurious to the neighborhood or detrimental to the public welfare if a variance is granted.

The granting of the variance will not adversely affect the use of adjacent property. The forthcoming conditional use application will need to convince the Planning and Zoning Commission that all the approval criteria are met, including addressing any potential impacts on wetlands.

- e. **The variance, if granted, does not change the character of the zoning district where the property is located, is in keeping with the intent of the code, and does not permit a use not otherwise permitted in the district in which the property lies.**

This standard is met.

The granting of the variance does not entitle the petitioner to build a snow disposal site. It would only allow the Project Management and Engineering to

apply for a conditional use, which has its own requirements and public hearing process. Snow disposal sites are the only use that has these use-specific standards in all of AMC Title 21, and this has only been a requirement since 2016.

- f. **Persons with disabilities are provided with access as required by the Americans with Disabilities Act (ADA) and reasonable accommodation.**

The standard is met.

The variance is not related to ADA accessibility or reasonable accommodation.

- g. **The variance, if granted, does not adversely affect the health, safety, and welfare of the people of the municipality.**

The standard is met.

There are no health or safety issues that will be caused by approval of this variance. The owner is seeking the ability to apply for a conditional use for a snow disposal site.

- h. **In evaluating the request for a variance from the maximum sign height, the urban design commission may consider whether there are special topographic circumstances that would result in a material impairment of visibility of the sign from the adjacent roadway which significantly diminishes the owner's or user's ability to continue to communicate adequately and effectively with the public through the use of the sign.**

The standard is met.

This standard is not applicable because it is not related to signs.

DEPARTMENT RECOMMENDATION

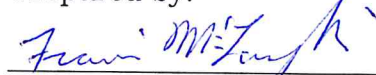
The Department recommends APPROVAL of the variance from AMC 21.050.060E.8., to allow a snow disposal site to encroach into wetlands and discharge water to adjacent property, subject to:

1. Prior to this variance becoming effective, a notice of zoning action shall be filed with the State of Alaska District Recorder's Office, including a map and a copy of the resolution of approval.

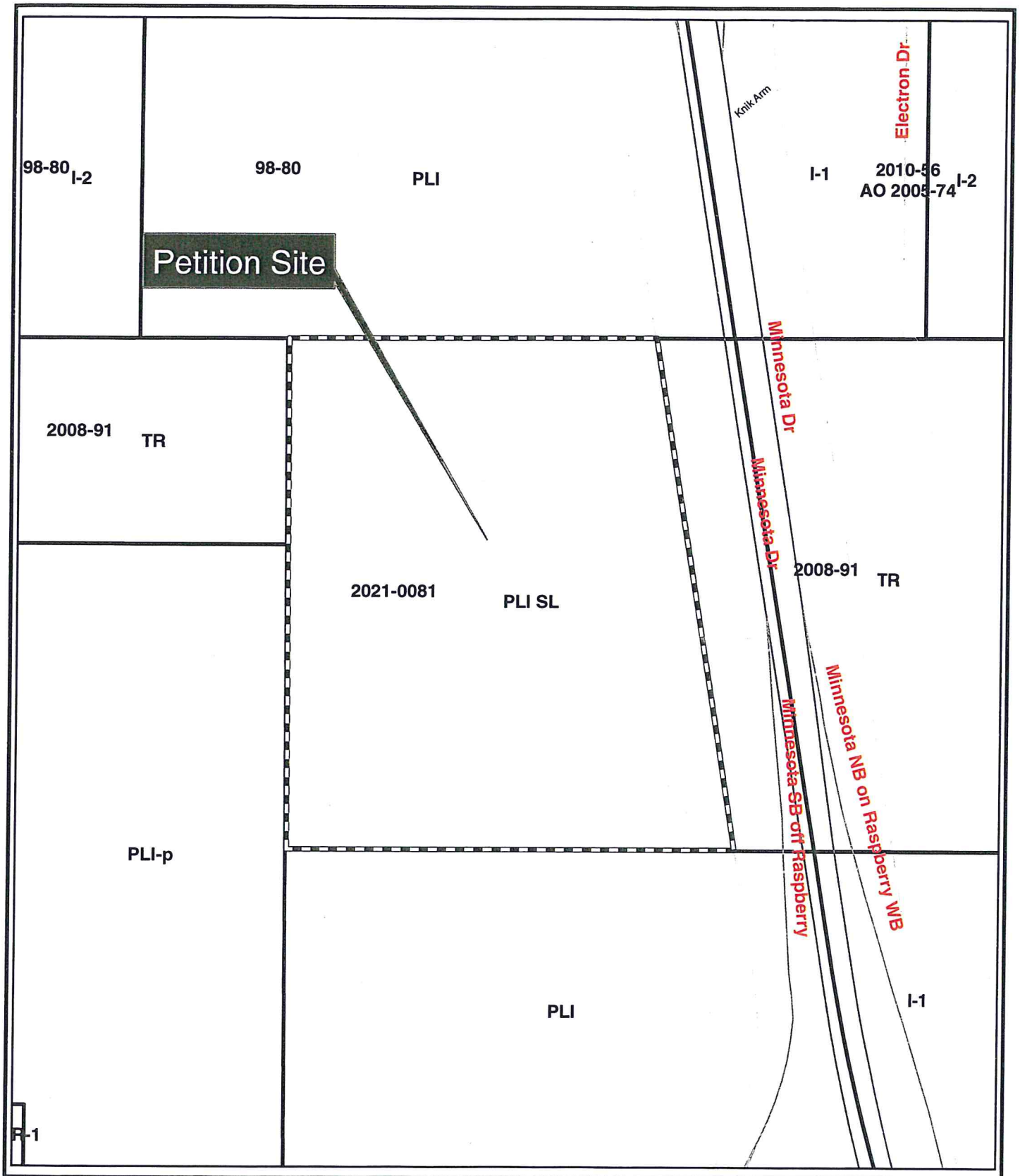
Reviewed by:


Craig H. Lyon
Director

Prepared by:


Francis McLaughlin
Senior Planner

(Case 2021-0012; Tax ID Number 012-571-01)



Application

Application for Design Variance

Municipality of Anchorage
Planning Department
PO Box 196650
Anchorage, AK 99519-6650

PETITIONER*		PETITIONER REPRESENTATIVE (if any)	
Name (last name first)	Makela, Julie	Name (last name first)	Cummings, Laurie
Mailing Address	4700 Elmore Road	Mailing Address	2525 C Street, Suite 500
Anchorage, AK 99508		Anchorage, AK 99508	
Contact Phone – Day	907-343-7598	Contact Phone – Day	907-644-2065
Evening		Evening	
E-mail	julie.makela@anchorageak.gov	E-mail	laurie.cummings@hdrinc.com

*Report additional petitioners or disclose other co-owners on supplemental form. Failure to divulge other beneficial interest owners may delay processing of this application.

PROPERTY INFORMATION

Property Tax # (000-000-00-000): 012-571-01		
Site Street Address: N/A		
Current legal description: (use additional sheet if necessary) PTN.NW4NW4, SEC. 1, R4W, T12N, S.M.		
Zoning: PLI-SL	Acreage: 32	Grid #: SW2028

PETITIONING FOR

Variance from the 25 foot setback from Class A wetland requirements and variance from the requirement that on-site and off-site drainage network shall handle water runoff and snow melt without impacting adjacent properties.

CODE CITATIONS

AMC 21. 05.060E.8.b.i

AMC 21. 05.060E.8.b.v.

I hereby certify that (I am)/(I have been authorized to act for) owner of the property described above and that I am petitioning for variance in conformance with Title 21 of the Anchorage Municipal Code of Ordinances. I understand that payment of the application fee is nonrefundable and is to cover the costs associated with processing this application, and that it does not assure approval of the variance. I understand that the burden of evidence to show compliance with the variance standards rests with me, the applicant. I also understand that assigned hearing dates are tentative and may have to be postponed by Planning Department staff or the Urban Design Commission for administrative reasons.

Signature



Owner



Representative

(Representatives must provide written proof of authorization)

Date

12/9/2021

Laurie Cummings

Print Name

Accepted by:

Poster & Affidavit:

Fee:

Case Number:

Meeting Date:

UDC

2022-004

02/09/2022

RECENT REGULATORY INFORMATION (Events that have occurred in last 5 years for all or portion of site)

- ☒ Rezoning - Case Number: 2021-0058
- ☐ Preliminary Plat ☐ Final Plat - Case Number(s):
- ☐ Conditional Use - Case Number(s):
- ☐ Zoning variance - Case Number(s):
- ☐ Land Use Enforcement Action for
- ☐ Building or Land Use Permit for
- ☐ Wetland permit: ☐ Army Corps of Engineers ☐ Municipality of Anchorage

APPLICATION REQUIREMENTS

(One of each applicable item is required for initial submittal, additional copies are required after initial submittal)

- 1 copy required: ☒ Signed application (original)
- 16 copies required: ☐ Signed application (copies)
- ☐ Variance narrative, addressing:
- ☐ The need for the variance
 - ☐ The effect of granting the variance
 - ☐ An analysis of how the proposal meets the variance standards below
 - ☐ As-built survey showing existing conditions, to scale (no more than 2 years old)
 - ☐ Proposed plot plan, site plan, or building elevations, to scale (new construction)
 - ☐ Photographs or renderings

(Additional information may be required.)

VARIANCE STANDARDS

The Urban Design Commission may only grant a variance if the Commission finds that **all** of the following 8 standards are substantially met. Each standard must have a response in as much detail as it takes to explain how your property's condition satisfies the standard. The burden of proof rests with you.

- a. The proposed alternative achieves the intent of the subject design standard to the same or better degree than the subject standard;
- b. The proposed alternative achieves the goals and policies of the comprehensive plan to the same or better degree than the subject standard;
- c. The proposed alternative results in benefits to the community that are equivalent to or better than compliance with the subject standard;
- d. The variance, if granted, will not adversely affect the use of adjacent property as permitted under this code;
- e. The variance, if granted, does not change the character of the zoning district where the property is located, is in keeping with the intent of the code, and does not permit a use not otherwise permitted in the district in which the property lies;
- f. Persons with disabilities are provided with access as required by the Americans with Disabilities Act (ADA) and reasonable accommodation; and
- g. The variance, if granted, does not adversely affect the health, safety, and welfare of the people of the municipality.
- h. In evaluating the request for a variance from the maximum sign height, the urban design commission may consider whether there are special topographic circumstances that would result in a material impairment of visibility of the sign from the adjacent roadway which significantly diminishes the owner's or user's ability to continue to communicate adequately and effectively with the public through the use of the sign.



**Municipality of Anchorage
Project Management and Engineering**



MEMORANDUM

DATE: February 4, 2021

TO: Dave Whitfield, Current Planning Manager
Economic & Community Development Department
MOA Planning Division

FROM: Melinda Tsu, P.E., Project Manager

SUBJECT: Agency Authorization
West Anchorage Snow Disposal Site
PM&E Project No. 19-01

The Project Management & Engineering Department (PM&E) hereby authorizes HDR to act as PM&E's representative with regards to the West Anchorage Snow Disposal Site Project. If you have any questions or concerns please contact me at 343-8196 or melinda.tsu@anchorageak.gov.

cc: Julie Makela, P.E., Project Administrator
Bill Spencer, P.E., HDR Project Manager
File 19-01 AM

Variance Application for a New West Anchorage Snow Disposal Site



December 2021

PROJECT MANAGEMENT
PME
ENGINEERING

Appendices

Appendix A: Site Selection Study

Appendix B: Draft Design Study Report

Acronyms and Abbreviations

2040 LUP	2040 Land Use Plan
ADA	Americans with Disabilities Act
Anchorage 2020	<i>Anchorage 2020 Land Use Plan</i>
ARDSA	Anchorage Roads and Drainage Service Area
AWWU	Anchorage Water and Wastewater Utility
FAA	Federal Aviation Administration
MOA	Municipality of Anchorage
PLI	Public Land and Institutions
PM&E	Project Management and Engineering
SNAP	Scenarios Network for Alaska + Arctic Planning
TCC	Turnagain Community Council
TR	Transitional
TSAIA	Ted Stevens Anchorage International Airport
USACE	U.S. Army Corps of Engineers

INTRODUCTION

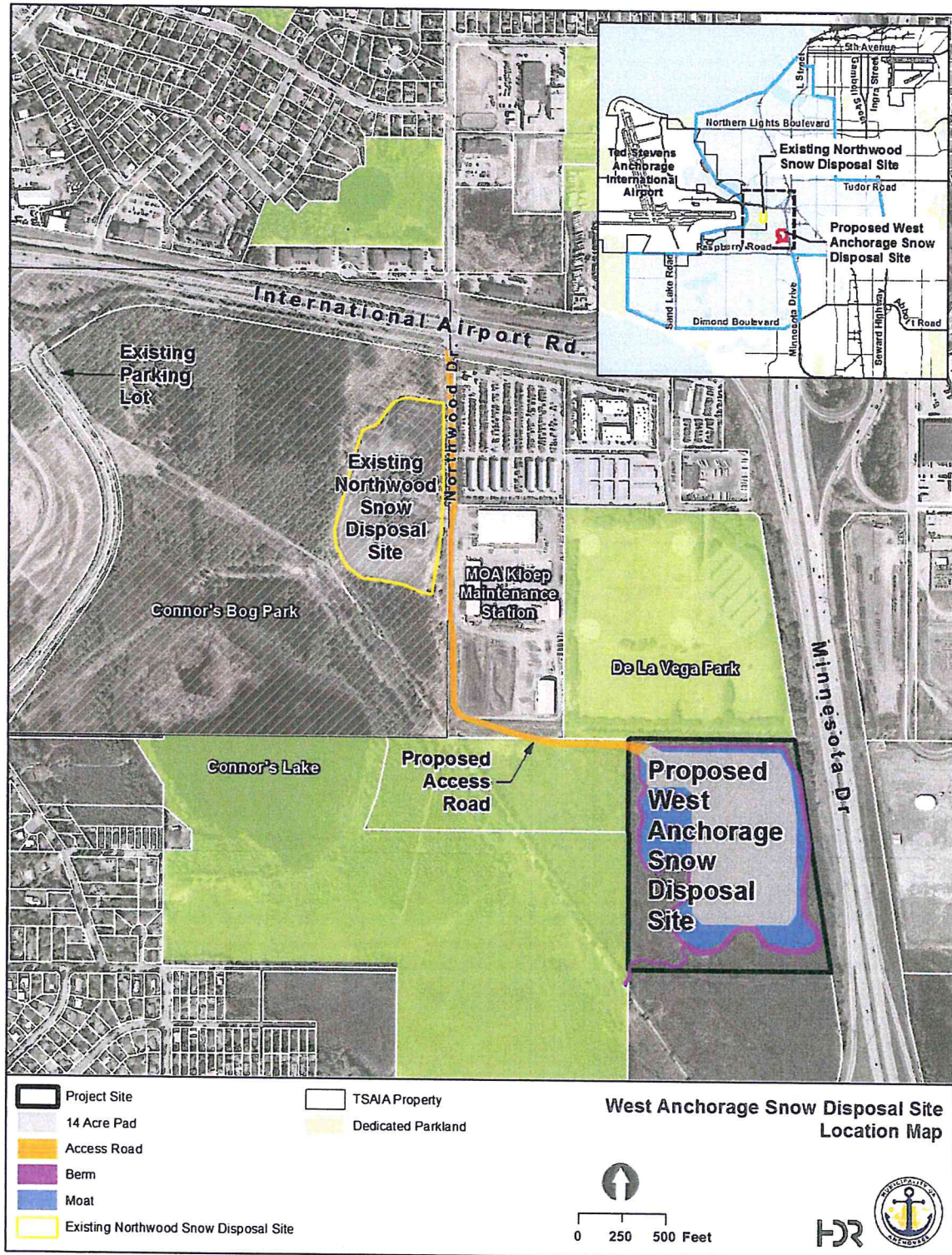
The Municipality of Anchorage (MOA), Project Management and Engineering (PM&E) Department has identified the need to develop a new snow disposal site in West Anchorage to meet MOA's long-term snow removal needs in a cost-effective manner. The MOA leases the currently used Northwood Snow Disposal Site from Ted Stevens Anchorage International Airport (TSAIA) on a year-to-year basis. Due to Federal Aviation Administration (FAA) restrictions on this property, a lease agreement term longer than 5 years is only available for aviation uses. Because of increasingly stringent State of Alaska water quality regulations, a number of improvements to the Northwood Site are necessary for its long-term operation. In order for MOA to make capital improvements to the snow disposal site, it must own or have long-term site control of the property; however, the lands containing the Northwood Site are not available to the MOA for long-term use.

PM&E conducted a *Site Selection Study* (February 2021) to identify a suitable location for a new snow disposal site (see Appendix A). The study concluded that the parcel¹ in the northeastern corner of Connor's Bog near the southwestern corner of the International Airport Road and Minnesota Drive intersection (south of Javier De La Vega Park; see Figure 1) was the most suitable site that allowed for cost-effective snow removal operations and would not result in unacceptable negative impacts on residential areas.

The biggest drawback to the proposed West Anchorage Snow Disposal Site parcel is that it contains Class A wetlands. While not desirable, the use of undeveloped wetlands is the inevitable result as West Anchorage reaches full build-out of larger upland parcels for the siting of public facilities. The only remaining parcels in the area suitable for use as a snow disposal site are undeveloped wetlands parcels.

¹ This parcel is legally described as Township 12 North, Range 4 West, Section 1, NW4NW4 PTN (parcel ID 012-571-01-000).

Figure 1: Location Map



PROJECT NEED

Anchorage is a winter city, making snow removal an essential service to Anchorage residents. It is critical to have a long-term snow disposal location in West Anchorage. Anchorage residents have indicated they want a community that is bike and pedestrian friendly. Features such as bike lanes and on-street parking, while being an asset to the community, reduce the space available for roadside snow storage. To achieve the vision of having a multi-modal transportation system, the MOA needs a cost-effective, long-term snow removal operation.

During the winter season (October through May), MOA Street Maintenance works shifts within a 24-hour/7-day per week range to provide snow plowing, snow removal, and other services on MOA-maintained streets and sidewalks. Without a new West Anchorage Snow Disposal Site, several critical issues emerge:

- **Increased cost of trucking snow:** The cost of clearing snow from West Anchorage roads and sidewalks will almost double due to increased trucking needs without the proposed site. Without a site in West Anchorage, this snow would need to be hauled farther to another MOA snow disposal site. Due to the increased distance, each trip to the snow disposal site would take longer and reduce the number of trips that can be made every hour. Consequently, clearing the same volume of snow from West Anchorage would cost more and take longer than it does currently. The estimated annual cost increase of hauling to another site is between \$1 to \$2M and the additional hauling costs would likely exceed the cost of a new snow storage facility in 10 years. In the long term, it is more cost-effective to develop a new snow disposal area within the West Anchorage Snow Disposal Site than to pay for increased trucking costs to a site farther away.
- **Lack of capacity at other snow disposal sites:** The existing snow disposal sites already operate at or near capacity. As these sites reach capacity, additional equipment and labor is needed to stack the snow to greater heights, and snow hauling activities must slow down or stop.

In order to accommodate snow from West Anchorage, Street Maintenance staff must spend significant time at each site making room to accommodate that snow. This takes staff away from snow hauling activities, which, in turn, increases labor and equipment² costs. Additional costs associated with managing the snow disposal sites reduces the available funding for snow hauling. During normal snowfall years, it is likely that the alternative sites will reach capacity, snow removal in West Anchorage would no longer be possible, and snow would be left on the streets until it melts in spring. During heavy snowfall years, this situation would be exacerbated. Without a permanent site, this situation is likely to become a bigger concern in the future as

² To handle the additional snow management needs, Street Maintenance may need to rent additional bulldozers, depending on availability. This increases the cost of snow removal.

precipitation during the winter months is expected to increase and potentially create even more demand for snow removal and disposal³.

- **Snow left at roadside longer:** Prior to being hauled away, snow collects in medians; on adjacent bike lanes and sidewalks, in cul-de-sacs, and along the sides of the roadways. These areas are typically used for parking, sidewalks, bike paths, and other features that are unusable until they are cleared of snow. In extreme cases, the snow berms encroach into the traveled ways, hindering traffic flow, and may contribute to an increased number of traffic accidents. In recent years, the demand for on-street bike lanes has grown dramatically due to the popularity of fat-tire bike use during winter. The need to maintain existing and future bike lanes and similar amenities puts increasing pressure on Street Maintenance to haul snow in a timely manner. Roads and sidewalks are not designed to store snow for long periods. Snow that is not removed can cause issues such as pavement cracks and additional meltwater entering the stormwater system. These issues eventually lead to increases in road maintenance costs.

Having an adequately sized, permanent snow disposal site in West Anchorage is not only essential to meet existing snow removal needs but will be of greater importance in the future. As aging streets are rebuilt, the designs increasingly call for more bike and pedestrian facilities, which reduces the area for snow storage within existing rights-of-way. These rebuilt corridors, such as Spenard Road, have little or no snow storage space and require snow to be hauled away after every, or every other, snowfall. The increased frequency of snow removal not only directly increases the cost of snow removal but increases the volume of snow that goes into a snow disposal site. This results in snow disposal sites reaching capacity much quicker.

A West Anchorage snow disposal site is not just a West Anchorage issue; it impacts most Anchorage residents. As the snow disposal sites reach capacity, it slows down snow removal from all parts of the Anchorage Roads and Drainage Service Area⁴ (ARDSA). The existing snow disposal site services parts of Midtown and Downtown, two of the city's major employment areas. A reduction in snow removal would affect everyone who works, shops, or commutes through those areas. Street Maintenance is also responsible for clearing snow from Anchorage School District facilities, including schools. Without a new snow disposal site in West Anchorage, it will result in delays in clearing these parking lots, making critical transportation more challenging.

The existing Northwood Snow Disposal Site is located on property owned by the State of Alaska and managed by TSAIA. FAA regulations prevent the MOA from obtaining a long-term lease for the site. As the current site is leased on a year-by-year basis, long-term site control is needed to use public funding to install the improvements needed. The lack of a long-term lease has prevented the MOA from improving the site to meet current design standards. Once the new West Anchorage Snow Disposal Site

³ Based on the Scenarios Network for Alaska + Arctic Planning (SNAP) Community Climate Charts tool available at <https://snap.uaf.edu/tools/community-charts> (accessed March 9, 2021).

⁴ The ARDSA area includes most of the Anchorage Bowl, except the Hillside area. A map of the ARDSA is available at https://www.muni.org/departments/operations/streets/documents/ardsa_map.pdf.

is operational, the MOA does not intend to continue leasing this property. The funds currently used for lease payments will be used for street maintenance operations.

STAKEHOLDER OUTREACH

The project team used a variety of outreach methods to engage and inform the public regarding the West Anchorage Snow Disposal Project and to obtain feedback on the site selection process. Several opportunities for the public to provide input and feedback were provided as part of the selection process. Over the life of the project, multiple online open houses, with an opportunity to chat live with the project team, were held to solicit and identify potential public concerns. Postcards were mailed to residents in the West Anchorage area, notifying them of the opportunity to participate in the process. Two listening posts were held at the Connor's Bog parking lot off Jewel Lake. The public submitted comments by phone, by email, during Community Council meetings, through the online open house, and during the virtual public meeting. Comments received to date have focused on zoning guidelines and the site's aesthetic and environmental/hydrological impacts.

Sand Lake Community Council Meeting – March 8, 2021

In anticipation of requesting a comprehensive plan map amendment, rezoning, conditional use permits, and design variances, the project team participated in a Sand Lake Community Council meeting on March 8, 2021. The project team gave an overview of the project, which covered:

- The current snow disposal site location,
- The new site location and selection process,
- The benefits and considerations of the new site,
- The permitting steps, and
- The schedule moving forward.

Meeting participants had an opportunity to ask questions and provide comments. Those included:

- Where does the snow come from?
- What will happen to the wetlands on the existing site?
- Will water monitoring occur?
- Will the bog pond flood as a result?
- What would happen to the site during an earthquake?
- What is the appropriate mitigation for the loss of these wetlands?

The project team received a letter from the Turnagain Community Council (TCC) stating the concerns about identification of Class A wetlands for the site location and the current zoning designations. The project team has engaged the community council president and the TCC Land Use Committee to discuss these concerns.

Other concerns, such as snowmelt discharge impacts on surrounding wetland, will be addressed through the design and Conditional Use Permit process.

Comments from public involvement efforts indicate that the Connor's Bog location is generally preferred to the next reasonable option (Strawberry Bog).

NEED FOR VARIANCE

HDR, on behalf of the MOA PM&E Department, is seeking a design variance from two use-specific standards (AMC 21.05.060E.8.b.i and AMC 21.05.060E.8.b.v) for a Snow Disposal Facility.

AMC 21.05.060E.8.b.i

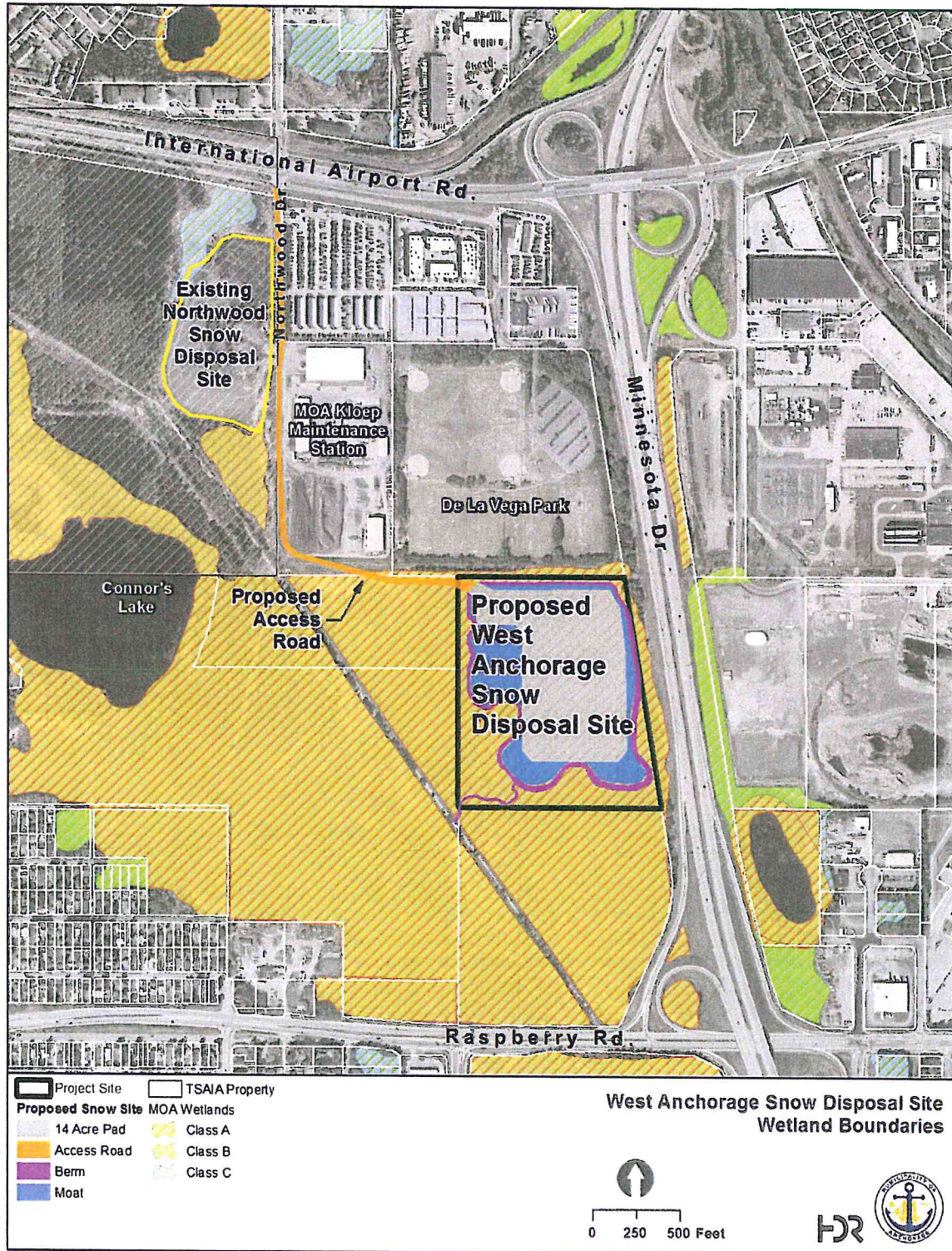
AMC 21.05.060E.8.b.i states that snow disposal sites must be located at least 25 feet from a Class A or Class B wetland, and at least 100 feet from a stream or water body. PM&E is requesting a variance to this requirement that will allow development of a new snow disposal site within 25 feet of the Class A wetland. Figure 2 shows the location of the proposed facility and its proximity to wetlands.

This requirement was not included in the code used before 2015. The applicant, based on conversations with MOA staff, has been unable to definitively determine why this setback requirement exists and its intent. It is believed that it was a well-intentioned requirement to protect wetlands from negative impacts of development. Past conversations with MOA Real Estate and Planning department staff have indicated that if an applicant was able to obtain a permit for placement of fill in wetlands from the U.S. Army Corps of Engineers (USACE), then a setback requirement would be moot. Therefore, in the case of the West Anchorage Snow Disposal Site, the inclusion of the setback requirement in municipal code was not appropriate, especially considering the importance of snowmelt water to the hydrology of the Connor's Bog wetlands. Originally, snow disposal sites were developed on uplands, and the meltwater was treated in upland settlement and detention ponds before being discharged to a receiving water. In recent years, the approach to snowmelt has changed, and now wetlands are perceived to be a valuable part of the snowmelt treatment process. In some cases, such as with the 100th Avenue Snow Disposal Site, wetlands were constructed to treat snowmelt.

Another potential reason for this setback requirement was to address concerns that runoff from snow disposal sites may result in salt buildup in the receiving waters, which has a negative impact on vegetation. Many communities in the United States rely on road salt to keep the roads ice free. Anchorage has taken a different approach and uses a salt/sand mixture on its road system. Without the salt, the sand would freeze while in storage, making it unusable. Since the late 1990s, the MOA has used much less salt due to the construction of covered sand storage units. The current practice is to mix the sand with only a minimal amount of magnesium chloride to keep it from freezing in the trucks before it is applied to the roadways⁵.

⁵ Other entities such as private snow removal contractors still use salt products for snow removal. However, they do not haul snow to the existing Northwood Snow Disposal Site, nor would they haul snow to the new West Anchorage Snow Disposal Site.

Figure 2: Wetlands



Magnesium chloride is a form of salt that is less corrosive than sodium chloride and is capable of melting ice at temperatures near 0 degrees Fahrenheit. This new mix also stays on the roads longer, allowing the MOA to reduce the quantity used. Magnesium chloride is used at key intersections on an emergency basis during freezing rain events. These typically only occur two to three times per year. Magnesium chloride may be applied to dirt alleys during dry spring or fall weather as a dust control measure.

Contrary to existing Municipal code, having snow disposal sites in close proximity to wetlands may be beneficial. Snow disposal sites generate substantial amounts of snowmelt runoff that needs to be treated and discharged. A snow disposal site needs to be located somewhere that can accommodate the volume of receiving water without raising the water table, causing flooding, or impacting existing infrastructure.

Wetlands have long been recognized for their ability to control flooding and improve water quality in urban settings. Wetlands with highly organic soils, such as peat bogs, have an incredible storage capacity for runoff, which would otherwise be directed to the stormwater system during a time when that system is under its greatest demand, and reduce the chance of flooding developed land. Additionally, the biogeochemical processes that take place in wetlands are effective in the retention of sediment as well as the absorption and detention of dissolved metals and other toxins.

AMC 21.05.060E.8.b.v

AMC 21.05.060E.8.b.v states that the on- and off-site drainage network will handle water runoff and snowmelt without impacting adjacent properties⁶. PM&E is requesting a variance to this requirement that will allow snowmelt to flow onto adjacent properties. The new West Anchorage Snow Disposal Site will discharge water runoff and snowmelt into adjacent properties that are part of the Connor's Bog wetland complex. Snowmelt is an important water source for Connor's Bog. A variance is needed to maintain this water source and support the Connor's Bog wetlands. Most of the surrounding property is owned by the MOA and is used as parkland or open space (see Figure 3 and Figure 4). Development of these parcels as a different use is unlikely. The snowmelt water will not be discharged onto privately owned properties.

As mentioned above, a snow disposal site needs to have adequate receiving waters. The USACE has determined that Connor's Bog is an isolated wetland. Its primary water sources are precipitation and snowmelt water from the existing Northwood Snow Disposal Site. By discharging treated snowmelt water into the Connor's Bog wetland complex, the water will help rehydrate the remaining wetland habitats and maintain water levels in Connor's Lake. Development of a snow disposal site at a different location may not be able to accommodate the water or sustain lake levels.

⁶ Drainage and meltwater disposal will comply with the Municipal DCM sections regarding snow disposal sites and drainage. The project team is in the process of getting a DCM variance from the Municipal Engineer.

Figure 3: Land Use

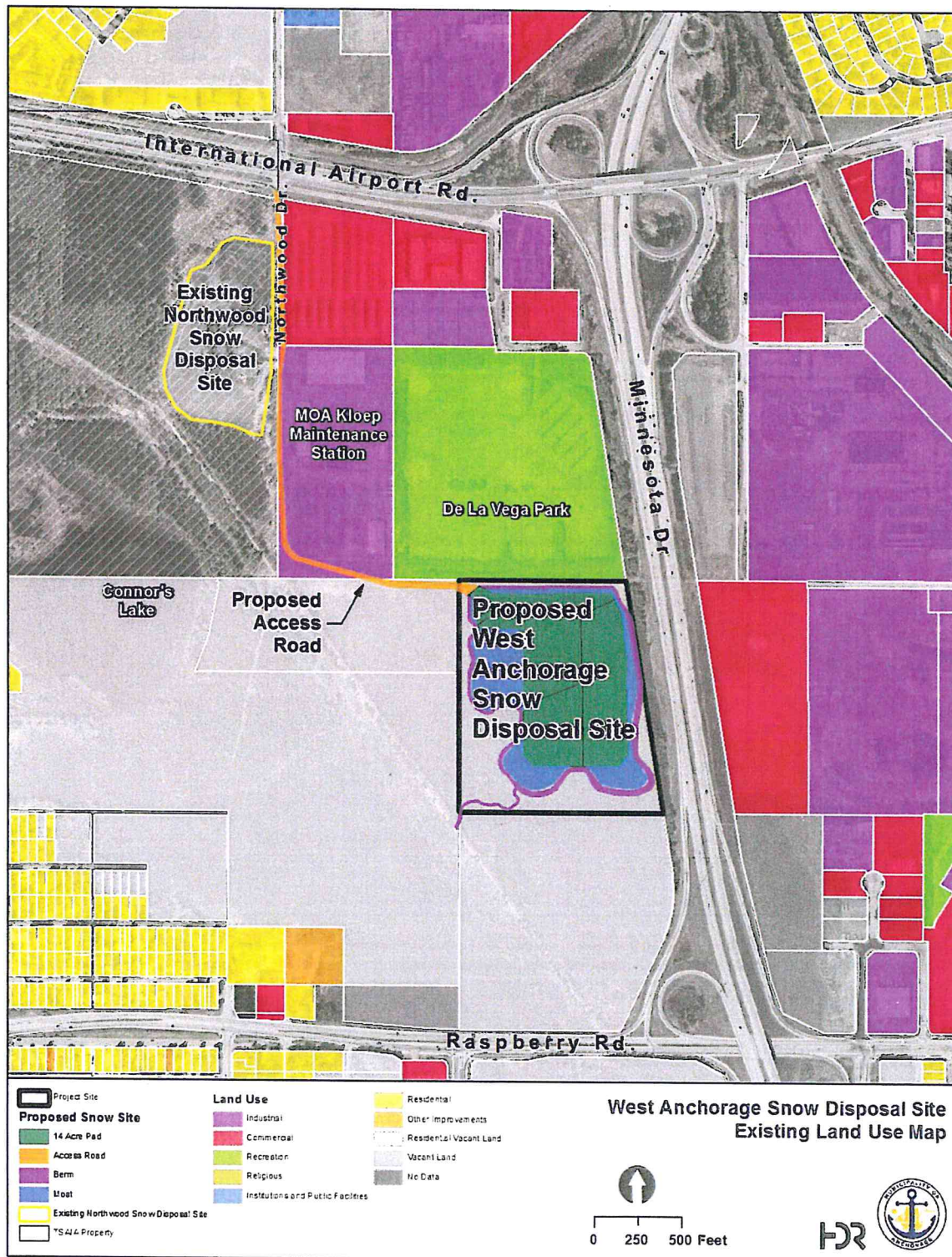
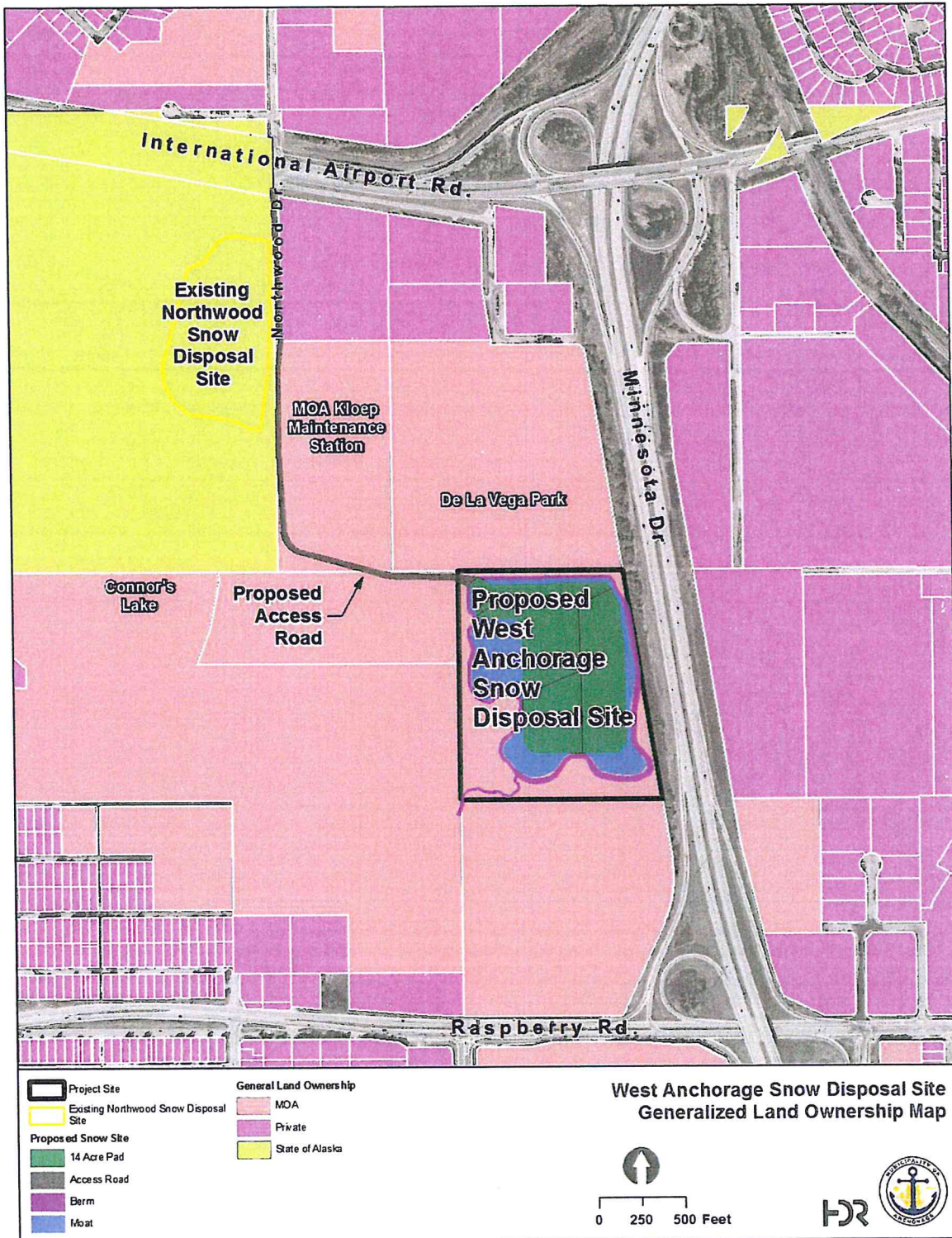


Figure 4: Generalized Land Ownership



If the snow disposal site is moved to a different location outside of the current basin, the water balance of Connor's Bog may be negatively impacted. Development of surface infrastructure like roads in West Anchorage have cut off Connor's Bog from the seasonal surface flows it previously received from adjacent areas to the north and east. This has resulted in the drying of Connor's Bog and lower surface water levels in Connor's Lake. Currently, the primary hydrologic contributors into Connor's Bog are from precipitation and meltwater from the Northwood Snow Disposal Site. The removal of a major source of hydrologic input into this closed basin could cause Connor's Bog to become even drier, thereby changing the vegetation community. Areas of extended surface ponding in spring and early summer that currently support flood-tolerant sedges would likely be gradually colonized by dwarf shrub species over time. Changes in the vegetation community would likely have secondary effects on wildlife, such as migratory shorebirds and songbirds that forage and nest in and near these habitats.

The West Anchorage Snow Disposal Site is the first snow disposal site to be permitted under the current zoning code. The applicant believes that this waiver should be granted as there is limited basis for the setback requirement. In addition, the MOA has other measures, including the Conditional Use Permit process, that are better suited to address the nuances of water quality issues. In addition, because the Connor's Bog wetland complex is located on multiple parcels, the applicant believes a waiver should be granted to allow snowmelt water to flow onto adjacent properties. As the adjacent properties are mostly wetlands (see Figure 2), the meltwater flows may cause impacts; however, these impacts are more likely to be positive than negative.

EFFECT OF GRANTING THE VARIANCE

The variance of sections AMC 21.05.060E.8.b.i and AMC 21.05.060E.8.b.v will allow MOA PM&E to apply for a Conditional Use Permit to construct a snow disposal site. The snow disposal site will allow the MOA to maintain existing snow removal level of service in West Anchorage in an efficient, cost-effective manner.

Variance Standards

- a. The proposed alternative achieves the intent of the subject design standard to the same or better degree than the subject standard

The proposed project achieves the intent of the standard to protect wetlands from negative impacts through a combination of water treatment and water supply.

According to the USACE, Connor's Bog is a non-jurisdictional wetland. One of the primary water sources for Connor's Bog is the existing snow disposal site. Development of the new snow disposal site would allow snowmelt to continue to flow into the Connor's Bog wetland complex. Meltwater from this facility has helped maintain wetland and aquatic habitat function in this area for several decades. Meltwater from the proposed site would continue to provide this much-needed hydration to maintain the wetland functions of the remaining areas of Connor's Bog and maintain water levels in Connor's Lake. If the proposed snow disposal site is not developed at this location, the snowmelt would no longer enter the Connor's Bog wetlands complex, which would have an adverse impact on the wetlands and the wildlife it supports.

The proposed project meets increasingly stringent State of Alaska water quality regulations. The improvements address chloride bursts in early summer and reduce turbidity. When the snow at a snow disposal site starts to melt, it is typically higher in chlorides, which can stunt vegetation and kill upland trees. The improvements reduce potential negative impacts on vegetation. The improvements also reduce meltwater turbidity, an indicator of excess sediment, which is harmful to vegetation and aquatic life forms.

AMC 21.05.060E.8.b.i states that snow disposal sites must be located at least 25 feet from a Class A or Class B wetland, and at least 100 feet from a stream or water body. This requirement was not included in the code used before 2015. The applicant, based on conversations with MOA staff, has been unable to determine why this setback requirements exists and its intent. Historically, there had been a concern that runoff from snow disposal sites could lead to elevated chloride levels in receiving waters. As previously discussed, changes in snow removal practices have removed much of the road salts from snowmelt waters. Additionally, the snowmelt will be treated prior to discharge to reduce the potential for particulates and other substances being discharged into the adjacent wetlands. As a result, PM&E believes the project design will achieve the standard to protect wetlands from elevated chloride levels in snowmelt.

AMC 21.05.060E.8.b.v states that the on- and off-site drainage network will handle water runoff and snowmelt without impacting adjacent properties. The Connor's Bog wetlands complex is located on multiple parcels. The impact to the adjacent properties is more likely to be positive rather than negative because there is a mutually beneficial relationship between the new snow disposal site and the adjacent wetlands. This is a unique condition that should be considered for a variance from AMC 21.05.060E.8.b.i and AMC 21.05.060E.8.b.v.

- b. The proposed alternative achieves the goals and policies of the comprehensive plan to the same or better degree than the subject standard

An application to change the *Anchorage 2040 LUP* classification of the parcel to "Community Facility or Institution" was approved by the Anchorage Assembly on November 1, 2021 (AO 2021-57). PM&E intends to develop this site as a snow disposal site, which is consistent with this land use designation.

The new West Anchorage Snow Disposal Site is located approximately 1,800 feet southeast of the existing facility. A new snow disposal site is allowed by a Conditional Use Permit in a Public Land and Institutions (PLI) zoning district. The proposed location for the new West Anchorage Snow Disposal Site meets the policies outlined in the *Anchorage 2040 Land Use Plan* (2040 LUP).

This project is compliant with the following goals, objectives, and policies of the *Anchorage 2040 LUP*:

Policy 5.5 *Ensure that adequate public facilities such as schools and fire stations are available when and where they are needed, in an efficient and equitable distribution of services, based on long-term projections for population, student enrollment, and the location of future growth.” The 2040 LUP recognizes the need for additional public facilities, such as snow disposal sites.*

The *Site Selection Study* identified the site at Connor’s Bog as the most suitable location for a snow disposal site in West Anchorage (Appendix A). This site will allow snow from West Anchorage to be hauled there in an efficient, cost-effective manner. The site is also large enough to accommodate existing and future needs. Snow removal needs are anticipated to increase in the future. New roads may be built, or existing roads may be expanded to address future transportation needs in accordance with land use and transportation plans. As aging streets are rebuilt, the designs increasingly call for more bike and pedestrian facilities, which reduce the areas for snow storage within existing rights-of-way. These rebuilt corridors, such as Spenard Road, have little or no snow storage space and require snow to be hauled away after every, or every other, snowfall. Removing this snow in a timely manner is essential as changes in travel preferences and other trends lead to more demand for walking and biking trips.

Policy 6.2 *Provide new or upgraded pedestrian and local/collector street connections in Centers and Commercial Corridors to improve access to and from surrounding neighborhoods.*

These road and pedestrian connections are needed to support future housing and employment options. Adequate snow removal is needed for these new connections to be functional during the winter months.

The project also supports the following goals, objectives, and policies from Anchorage 2020:

Goal *Mobility and Access: A transportation system, based on land use, that moves people and goods safely, conveniently and economically, with minimal adverse impact on the community.*

Traffic accessing the new snow disposal site would follow the same pattern as used to access the existing site. This will avoid creating adverse impacts on other parts of the community.

Goal *Transportation Choices: An efficient transportation system that offers affordable, viable choices among various modes of travel that serve all parts of the community.*

Having timely snow removal on roads, sidewalks, and multi-use pathways is essential to provide Anchorage residents with transportation choices. The new West Anchorage Snow Disposal Site will allow Street Maintenance to maintain its current snow removal level of service and provide Anchorage residents with travel choices during the winter months. The goals for an efficient transportation system cannot be accomplished without timely snow removal operations.

Goal *Transportation Design and Maintenance: A safe, energy-efficient transportation system that is designed and maintained for year-round use and that respects the integrity of Anchorage's natural and built northern environment.*

Having a snow disposal site that can efficiently accommodate snow hauled from Anchorage's roads, sidewalks, and trails is an important element to support a year-round transportation system.

Policy 7 *Avoid incompatible uses adjoining one another.*

The site is an MOA-owned property and is not dedicated parkland. Adjacent properties include a Municipal street maintenance facility, Javier De La Vega Park, open space, and a freeway (Minnesota Drive). These facilities will not be negatively impacted by the 24/7 operations of a snow disposal site.

Policy 37 *Design, construct, and maintain roadways or rights-of-way to accommodate pedestrians, bicyclists, transit users, the disabled, automobiles and trucks where appropriate.*

Most roads are not designed to store snow for long periods. Timely snow removal is required to allow roads, sidewalks, and multi-use trails to be used by a variety of users. Additionally, if snow is not removed from these facilities in a timely manner, they can develop issues such as cracks in the pavement. These issues can eventually lead to increases in road maintenance costs.

Policy 44 *Design and build public improvements for long-term use.*

The new snow disposal site is approximately twice the size of the existing site. This site is being designed to meet the community's long-term snow removal needs.

Policy 49 *Healthy, mature trees and forested areas shall be retained as much as possible.*

Trees and forested areas will be retained as much as possible to provide visual and noise screening. The conceptual design for the new snow disposal site was changed to preserve an existing strand of spruce trees near the southeastern corner of the snow disposal pad.

Policy 71 *Utilize wetlands to manage drainage and improve water quality, where appropriate.*

The primary water source for the Connor's Bog wetlands is the existing snow disposal site. By keeping the proposed snow disposal site in the same drainage, water to the wetlands will be maintained and help preserve wetland functions.

Policy 74 *Level of service standards for transportation and snow removal along roads and sidewalks within designated Transit-Supportive Development Corridors shall be given high priority.*

The Spenard Road and Arctic Boulevard Transit-Supportive Development Corridors are within the West Anchorage Snow Service Area (also known as the Northwood Drive Snow Service Area).

Policy 79 *The ecological and drainage functions of Anchorage's aquatic resources shall be protected, and where appropriate, restored.*

The primary water source for the Connor's Bog wetlands is the existing snow disposal site. By keeping the proposed snow disposal site in the same drainage, water to the wetlands will be maintained and help preserve wetland functions.

Policy 81 *Prioritize snow removal to maximize pedestrian movement and safety.*

A new snow disposal site in West Anchorage will allow Street Maintenance to maintain its existing snow removal level of service. If snow has to be hauled to a different disposal site, it is likely that it will take longer to remove snow from sidewalks, which will hinder pedestrian movement and safety during the winter months due to the increased travel time.

- c. The proposed alternative results in benefits to the community that are equivalent to or better than compliance with the subject standard

The *Site Selection Study* evaluated several potential alternative locations (see Appendix A). Each potential site was evaluated based on a variety of factors, including size, zoning, access, permitting requirements, wetland impacts, parkland impacts, and capacity to receive snowmelt runoff. The screening process did not identify any potential sites that complied with the 25-foot setback requirement in West Anchorage. In order to comply with this standard, the MOA would have to develop a site outside West Anchorage which would result in an increase in snow removal costs and decrease the snow removal level of service.

The process did result in two sites (Connor's Bog and Strawberry Bog) being considered for further examination. Both sites met many of the criteria (adequately sized, available for use, and adequate receiving water for snowmelt runoff). Both sites were also located in Class A wetlands and would not meet the existing setback requirement. The most substantial difference is that the Strawberry Bog site is located in close proximity to an existing and growing residential area. At this location, snowmelt water would likely impact adjacent properties but is more likely to impact privately-owned residential land. This residential area would be negatively impacted by operations at the snow disposal site and trucks accessing the site. As impacts on residential properties would be avoided at Connor's Bog, it was identified as the preferred site.

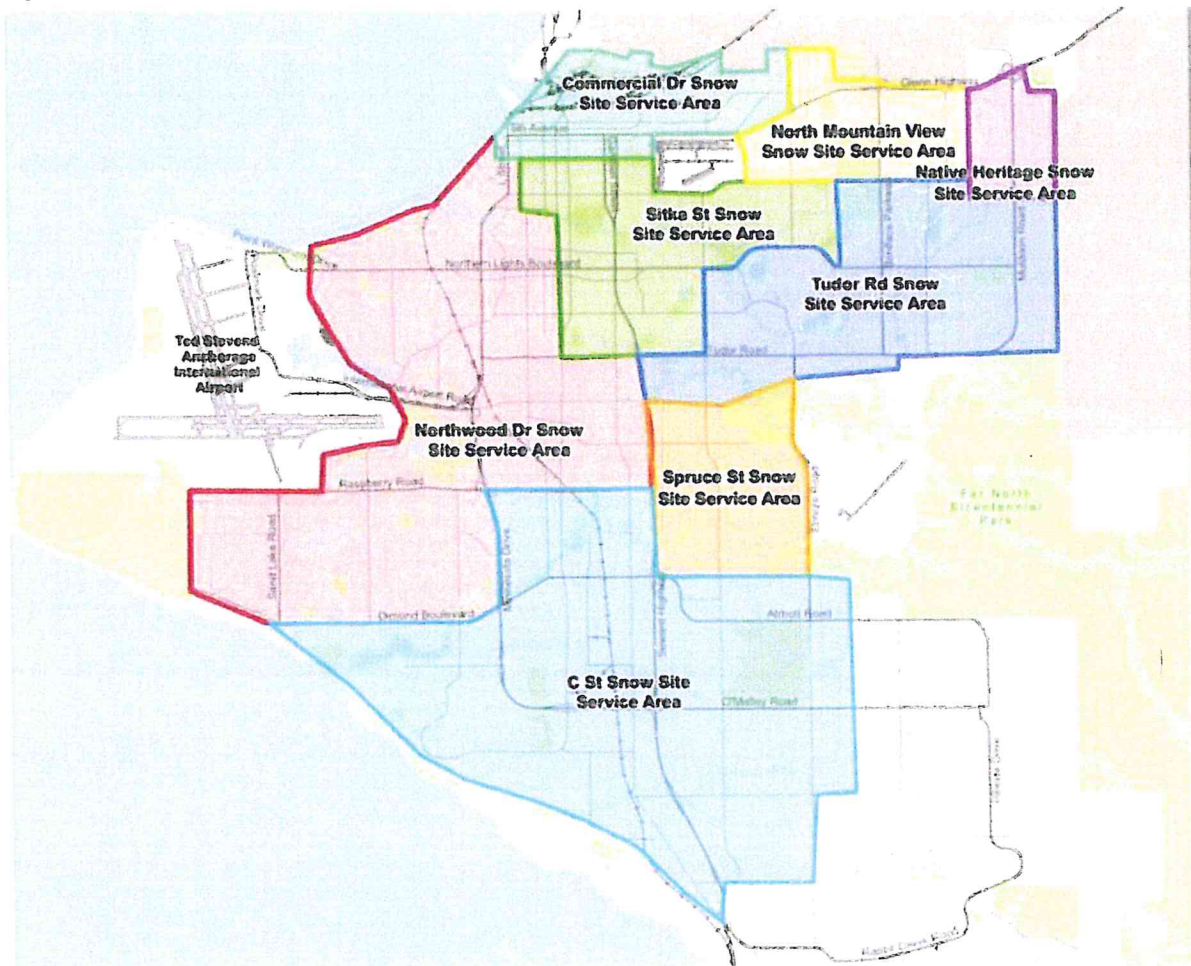
Having an adequately sized, permanent snow disposal site in West Anchorage is not only essential to meet existing snow removal needs but will be of increasing importance in the future. As aging streets are rebuilt, the designs increasingly call for more bike and pedestrian facilities, which reduce the areas for snow storage within existing rights-of-way. These rebuilt corridors, such as Spenard Road, have little or no snow storage space and require snow to be hauled away after every, or every other, snowfall. The increased frequency of snow removal not only directly increases the cost of snow removal but increases the volume of snow that goes into a snow disposal site. This results in snow disposal sites reaching capacity much quicker.

A West Anchorage snow disposal site is not just a West Anchorage issue; it impacts most Anchorage residents. As the snow disposal sites reach capacity, it slows down snow removal from all parts of the ARDSA. The existing Northwood Snow Disposal Site also services parts of Midtown and Downtown, two of the city's major employment areas. A reduction in snow removal would affect everyone who works, shops, or commutes through those areas. Street Maintenance is also responsible for clearing snow from Anchorage School District facilities, including schools. Without a new snow disposal site in West Anchorage, it will result in delays in clearing these parking lots making critical transportation more challenging.

Snow removal needs are anticipated to increase in the future. As discussed above, new roads may be built, or existing roads may be expanded to meet future transportation needs in accordance with land use and transportation plans. As aging streets are rebuilt, the designs increasingly call for more bike and pedestrian facilities, which reduce the areas for snow storage within existing rights-of-way. These rebuilt corridors, such as Spenard Road, have little or no snow storage space and require snow to be hauled away after every, or every other, snowfall. Removing this snow in a timely manner is essential as changes in travel preferences and other trends lead to more demand for walking and biking trips. Being able to haul snow from the Northwood Drive Snow Service area (also known as the West Anchorage Snow Service Area; see Figure 5) to a site within West Anchorage will allow Street Maintenance to avoid hauling snow to other snow disposal sites, leaving them to accommodate snow from other areas.

The site is also large enough to accommodate existing and future needs. The size of the existing snow disposal site varies year by year, depending on the lease terms, but is typically between 6 and 12 acres. In order to accommodate site size and disposal needs, the hauled snow often needs to be stacked higher. The new West Anchorage Snow Disposal Site will have a pad that is approximately 14 acres, which is sufficient to meet anticipated future needs.

Figure 5: Snow Site Service Areas



Water Quality

The design of the West Anchorage Snow Disposal Site is based on a green infrastructure approach. Green infrastructure uses natural features such as wetlands as part of the treatment process and is a cost-effective alternative to traditional water management systems. The *Anchorage Stormwater Manual* and Municipal Separate Storm Sewer System permit encourage the use of green infrastructure.

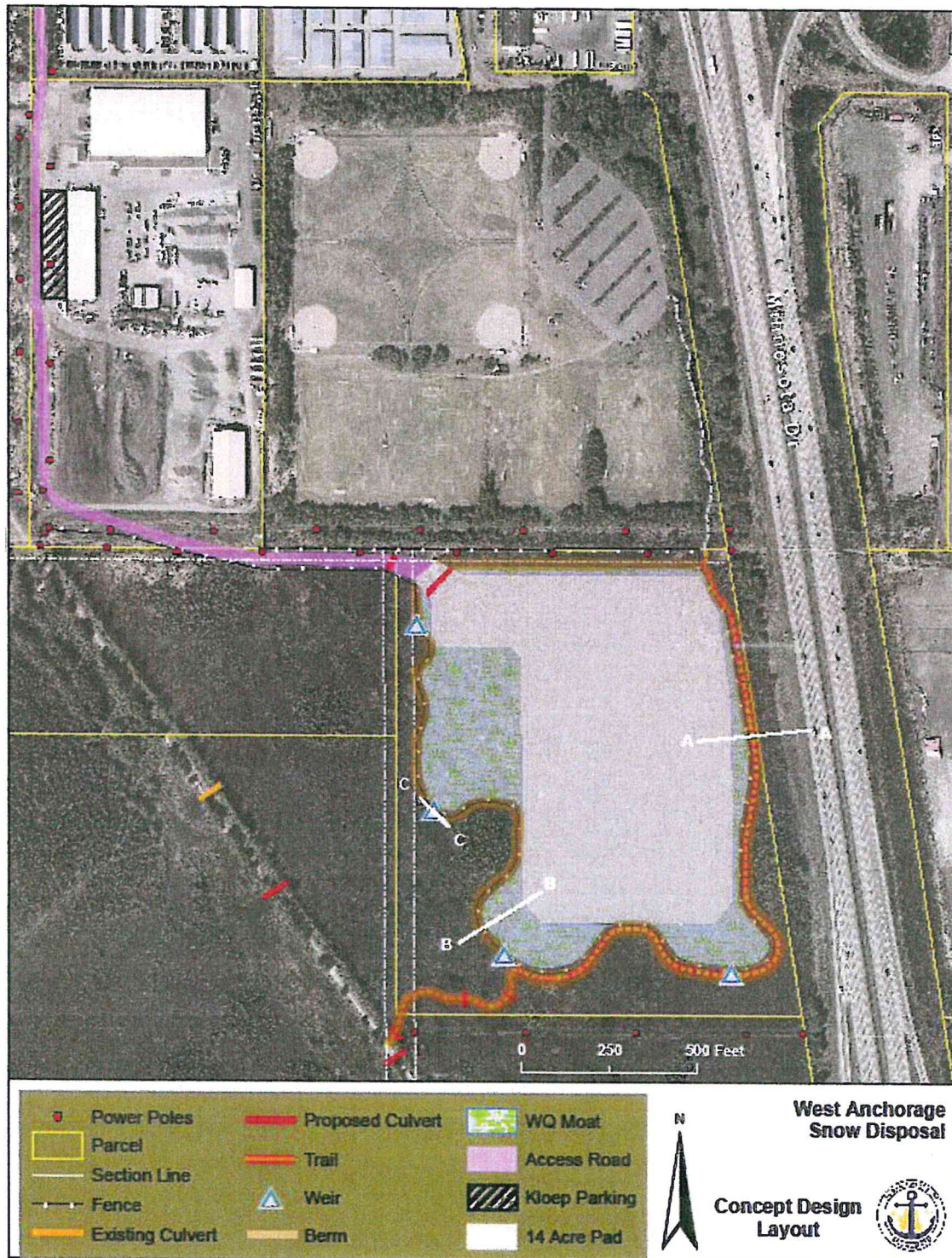
The new West Anchorage Snow Disposal Site will use a deposition pad with gentle slopes (on the order of 0.5 percent) and slightly crowned pad center to drain in all directions. The gentler slopes and less concentrated flows will allow better settlement of sediments on the pad surface even without the northern orientation. Due to the shallow slope of the pad, fill depths and costs will be significantly reduced. After surcharge compression of the underlying peat, the pad surface will be graded down to match the elevation of the surrounding wetlands. There will be no steep, high-velocity flow channels off the pad surface, and no armoring will be required. No excavation will be required to create a treatment pond.

The surrounding berm, offset 50 feet or more from the depositional pad, will act as the treatment containment area. The containment area will capture finer suspended sediments and result in cleaner discharged water. Discharge from the site will be controlled by four weirs to increase dispersion and infiltration into the surrounding wetlands. The weirs will be fitted with stop logs to control water elevations and discharge. They will allow an even distribution of water into a broad area of the bog to provide even hydration of the bog and avoid flooding. The stop logs will be removed after the snowmelt season, and the ponded area will be allowed to completely drain for vegetation growth, maintenance of the pad, and removal of trash and litter. Geotechnical investigations indicate that the water table drops below the wetland surface after the spring breakup. Access routes will be provided to the weirs so the stop logs can be removed after the melt season and installed again before the following spring melt cycle.

During the snowmelt period, the water inside the berm will slightly inundate the perimeter of the pad. At the edge of the pad, the moving meltwater from the snow piles will encounter the quiescent water of the settlement area while still inside the pad perimeter. Most of the sediment deposition will occur at the pad's edge, where it can be regraded or removed without having to access the unstable peat areas of the water quality moat. Outside the berms, a narrow, rock-lined ditch will bracket each weir for a short distance to prevent erosion and disperse treated water into the surrounding wetland. These ditches will be slightly below the surface of the surrounding wetlands and only extensive enough to prevent erosion of the natural vegetation and substrate.

A conceptual design for the snow disposal pad is shown in Figure 6. For additional information about water quality treatment and for section views, please see the draft Design Study Report in Appendix B.

Figure 6. Snow Disposal Pad Conceptual Design Layout

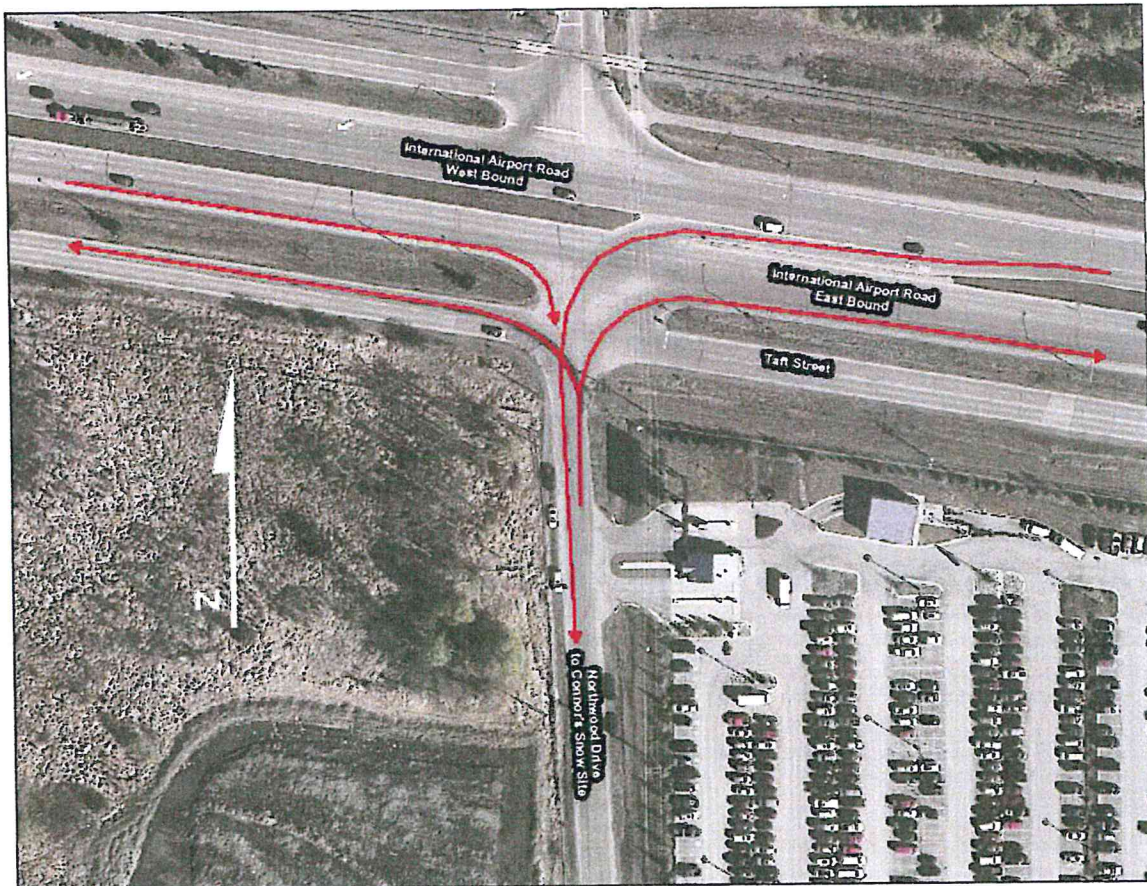


Traffic

Traffic volumes and patterns at the site are not expected to change. Primary access to and from the site is from International Airport Road (see Figure 7). Truck traffic arriving on International Airport Road from the east has a designated left-turn lane; traffic from the west must make a right turn directly onto Northwood Drive; and both must cross the frontage road, Taft Street, which has stop signs on both the eastern and western sides. Trucks exiting Northwood Drive turn east into a merge lane on International Airport Road after first crossing Taft Street. There is no west access to International Airport Road; traffic must turn west on Taft Street and access Jewel Lake Road to the west. There is no direct traffic access either north or south to Northwood Drive, north of International Airport Road, which precludes snow haul truck traffic in the residential and school neighborhoods north of International Airport Road.

The only change from the existing condition would be that a new access road will be constructed from the existing snow service site to the entrance of the new snow disposal site (see Figure 1).

Figure 7: Access



Noise and Visual Buffering

It is not anticipated that the new snow disposal site will generate noise beyond what is currently experienced at the Northwood Snow Disposal Site. The new snow disposal facility will be adjacent to Minnesota Drive, but Level 4 landscaping will be planted to act as a visual buffer, as required by code.

The new site is farther from residential areas than the existing Northwood Snow Disposal Site, which should further reduce any noise impact from the new site. The closest residential area to the existing site is approximately 1,200 feet to the northwest, while the closest residential area to the proposed site is approximately 1,800 feet to the southwest.

- d. The variance, if granted, will not adversely affect the use of adjacent property as permitted under this code

If this variance is granted, it will not make the property incompatible with the comprehensive plan. An amendment to Anchorage 2040 Land Use Plan, approved by the Anchorage Assembly on November 1, 2021, changed the land use designation from "Park or Natural Area" to "Community Facility or Institution." This change allows the development of a snow disposal site on this parcel.

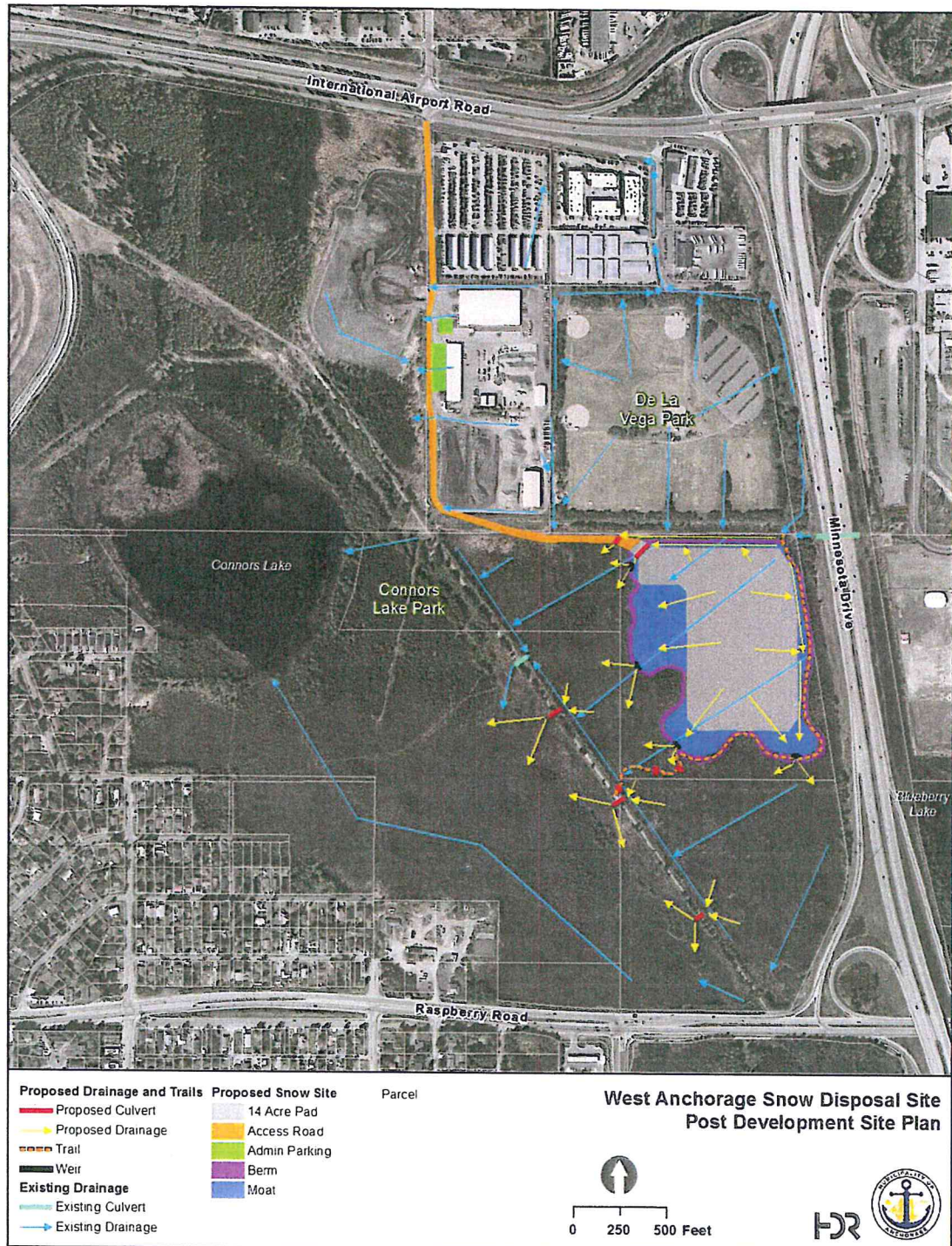
This variance is not expected to adversely impact the area. The parcel to the north is dedicated parkland (Javier de la Vega Park), and the property to the east is Minnesota Drive. The snow disposal project is not expected to have an adverse impact on either property. The project will impact MOA-owned properties to the south and east, but this impact is not anticipated to be adverse. Drainage from the snow disposal site will discharge onto these properties through four flow control weirs (see Figure 8).

These weirs will discharge into dispersion areas of coarse rock along the outside of the berms. From there, the meltwaters will infiltrate into the surrounding bog and dissipate over a variable distance, depending on flow rates. Total peak discharge divided among the three or four weir points is estimated at 1 cubic foot per second (approximately equivalent to the water output of a 6-inch hose). Additional culverts will be placed through the Anchorage Water and Wastewater Utility (AWWU) waterline trail in Connor's Bog to allow surface water present during spring to move across the trail into the western portion of Connor's Bog and ultimately to the lake. The bog is essentially flat until the slight depression that contains Connor's Lake. Increased ground and surface waters will migrate slowly to the depression and help maintain the levels of Connor's Lake. Connor's Lake has no surface water connection to any receiving waters but likely has a groundwater connection to aquifers trending north and west of the bog, judging from surface water levels in the surrounding waterbodies.

This additional water is expected to have a positive impact on the Connor's Bog wetland complex. The primary water source for this area is snowmelt from the existing Northwood Snow Disposal Site. Should the new snow disposal site be developed in a different location, the Connor's Bog wetlands would lose its primary water source. This could adversely impact the wetlands and associated wildlife and wildlife habitat. The snowmelt runoff will not reach the residential properties beyond Connor's Bog.

For additional information about stormwater management, please see Appendix B.

Figure 8. Drainage



- e. The variance, if granted, is in keeping with the intent of this code, will not change the character of the zoning district in which the property is located, and will not permit a use that is otherwise not permitted in the district in which the property is located

Approval of variances to AMC 21.05.060E.8.b.i and AMC 21.05.060E.8.b.v, if granted, does not change the character of the zoning district where the property is located, is in keeping with the intent of the code, and does not permit a use not otherwise permitted in the zoning district in which the property lies.

A request to rezone this parcel to PLI from Transitional (TR) was approved by the Anchorage Assembly (AO 2021-0058) on November 1, 2021, to facilitate the development of a snow disposal site. A snow disposal site is allowed as a conditional use on PLI-zoned land. PM&E will be applying for a Conditional Use Permit to develop the proposed snow disposal site in early 2022.

Approval of the variances (AMC 21.05.060E.8.b.i and AMC 21.05.060E.8.b.v) would allow the snow disposal site to be relocated approximately 1,800 feet east of its current location. Traffic patterns would remain the same. The new snow disposal site is anticipated to have fewer visual impacts than the existing site. The snow pile at the existing site can be as high as 60 feet, but the height of the snow pile at the new snow disposal site would not exceed 35 feet. Landscaping will be installed between the snow disposal site and Minnesota Drive to further reduce the visual impact. The existing snow disposal site is also much closer to trails that are regularly used. The new location is in an area that experiences less visitation in winter. The new snow disposal site concept design shows a trail connecting Javier de la Vega Park to the AWWU trail, which will reduce impacts on trail users in the area.

- f. Persons with disabilities are provided with access as required by the Americans with Disabilities Act (ADA) and reasonable accommodation

The proposed West Anchorage Snow Disposal Site does not have public access, so this standard does not apply. PM&E is currently working with the MOA Parks and Recreation Department to determine the appropriate measures to offset the loss of social trails in the area. One potential offsetting measure is the development of a recreational trail along the berm. PM&E will work with the Parks and Recreation Department to determine the ADA requirements for this trail, if developed.

- g. The variance, if granted, does not adversely affect the health, safety, and welfare of the people of the Municipality of Anchorage

These variances (AMC 21.05.060E.8.b.i and AMC 21.05.060E.8.b.v), if granted, will not adversely affect the health, safety, and welfare of the people of Anchorage. This variance does not alter Police or Fire Department safety standards, alter traffic clear vision areas, alter air and water quality standards, or create unacceptable noise levels.

This variance would allow development of a new snow disposal site. Not having a snow disposal site in West Anchorage may have a negative impact on public safety and air quality. Without a snow disposal site at this location, Street Maintenance will have to haul snow to other snow disposal sites across the Anchorage Bowl. This will increase the hauling distance (and time spent on the roads), which may

increase the potential for crashes and generate more air pollution. It will also increase the amount of time it takes to clear the roads. Increased vehicle travel would result in increased vehicle emissions, which reduces air quality. Having snow on the roads longer may also increase the potential for vehicle crashes and negatively impact pedestrian/bicyclist safety. These impacts may be avoided by developing the West Anchorage Snow Disposal Site. The snow disposal site would be fenced to improve site safety and security by preventing unauthorized access.

The West Anchorage Snow Disposal Site will also improve operational efficiency and safety. At the proposed site, the pad area will be larger than at the Northwood Snow Disposal Site, giving employees more room to safely operate. In addition, at the Northwood Snow Disposal Site, the snow piles can exceed 60 feet in height. At the proposed site, the height of the snow pile would be limited to 35 feet, improving employee safety.

The variance would also improve environmental health. The current Northwood Snow Disposal Site does not have designed treatment systems for its snowmelt runoff. This variance would allow the MOA to improve the water quality of snowmelt entering Connor's Bog as the new facility includes water treatment measures that improve water quality of the snowmelt. This snowmelt will help rehydrate the Connor's Bog Wetlands and maintain Connor's Lake water levels.

- h. In evaluating the request for a variance from the maximum sign height, the urban design commission may consider whether there are special topographic circumstances that would result in a material impairment of visibility of the sign from the adjacent roadway, which significantly diminishes the owner's or user's ability to continue to communicate adequately and effectively with the public through the use of the sign

This application does not request a variance to the maximum sign height; therefore, this standard does not apply.

APPENDIX A: SITE SELECTION STUDY



West Anchorage Snow Disposal

Site Selection Study



February 2021

PROJECT MANAGEMENT
PM&E
ENGINEERING



Executive Summary

The Municipality of Anchorage (MOA) has identified the need for a long-term, reliable solution to snow disposal for West Anchorage. This site selection study summarizes the process to identify a new snow disposal site, public involvement, site options, site screening criteria, and the reasoning behind the proposed site selection.

The snow disposal site that currently serves West Anchorage is located on land owned by the State of Alaska and managed by the Ted Stevens Anchorage International Airport (TSAIA). Snow storage needs often surpass site storage capabilities. Options to increase capacity at the existing site are limited and site improvements are necessary to meet current water quality standards. In order to make these improvements, MOA and PM&E need a long-term solution for snow storage in this area and a cost-effective alternative to the current ad hoc lease arrangement. This studies goal is to find a site that the Municipality can own, and where development and investment in state-of-the-art water treatment will pay off in perpetuity.

Three initial criteria were set for selection of a new snow disposal site based on research of existing MOA snow disposal sites, published regulatory legislation, guidance documents, and conversations with managers and operators at the Maintenance and Operations (M&O) and Project Management and Engineering (PM&E) Departments. The initial criteria were:

- A minimum of 10 acres of unused land, and ideally at least 15 acres;
- Located within the West Anchorage Snow Disposal Service Area; and
- Located on undeveloped, vacant land.

Nineteen sites within the West Anchorage Snow Disposal Area were found to meet these three basic criteria. Once these sites were identified, the following criteria were used to narrow the possible sites to those feasible for snow disposal:

- Located to allow 24-hours-a-day, 7-days-a-week (24/7) operation;
- Zoned in an area that will allow snow disposal;
- Provides site access along larger collector or arterial roads; and
- Available for long-term lease, purchase, or otherwise available for permanent use.

In addition to the initial site selection criteria, the following additional factors were considered in the final site selection evaluation:

- Receiving water capacity for snow melt runoff;
- Impacts on neighborhoods and surrounding residential areas;
- Impacts on wetlands;
- Impacts on park lands; and
- Permitting requirements.



After the secondary site evaluation, two primary sites were identified for further examination: Site 5 (Connor's Bog Site), and Site 9 (Strawberry Bog Site).

MOA conducted public outreach to engage, inform, and gather comments from the public about the Connor's Bog and Strawberry Bog sites as well as the site selection process. Comments from the public centered on adhering to zoning to minimize impacts to residential areas, as well as the visual and hydrological impacts of snow disposal.

After analysis of all factors, Site 5: Connor's Bog Site was determined to most closely meet the snow disposal site criteria for the future West Anchorage Snow Disposal location. Analysis findings included:

- The Connor's Bog Site would have minimal impacts on residents and neighbors, while allowing for 24/7 operation. This criterion is the most important aspect required for efficient snow disposal in West Anchorage.
- The estimated additional cost of day-restricted operations is \$240,000 per year over the cost of unrestricted 24/7 operations.
- Both sites meet many of the criteria for selection: adequately sized, available for use, and adequate receiving water for snow melt runoff.
- Both sites are located within Class A wetlands, so an extensive permitting effort is expected.
- In contrast, the Strawberry Bog Site would be located near an existing and growing residential area. Truck routes to the Strawberry Bog Site may have to be routed through residential areas. The proximity to neighborhoods and access routes could require operational restrictions on the Strawberry Bog Site, making it less desirable for snow disposal use.

In conclusion, after detailed site analysis and public feedback, Connor's Bog has been identified as the more ideal snow disposal site.

The Connor's Bog site features minimal impacts to residential areas, operational advantages, suitability for storing snow and handling melt water, and fitness based on other factors. The site will be subject to a stringent permitting process and regulation driven design standards.



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Acronyms and Abbreviations

24/7	24-hours-a-day, 7-days-a-week
AMC	Anchorage Municipal Code
AWWU	Anchorage Water and Wastewater Utility
CWA	Clean Water Act
DOT&PF	Alaska Department of Transportation and Public Facilities
JD	Jurisdictional Determination
M&O	Maintenance and Operations
MOA	Municipality of Anchorage
PLI	Public Lands and Institutional (zoning)
PM&E	Project Management and Engineering
TR	Transition (zoning)
TSAIA	Ted Stevens Anchorage International Airport

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1. Introduction

The Municipality of Anchorage (MOA) Maintenance and Operations (M&O) Department maintains the majority of the streets in the Anchorage Bowl. A major winter maintenance activity is the removal and disposal of snow from these streets. Snow removed from streets is deposited in one of eight snow disposal sites scattered throughout the city, each serving its adjacent area. The MOA has identified a need to replace the Northwood Snow Disposal Site (Northwood Site) that currently serves the West Anchorage snow service area. The MOA Project Management and Engineering (PM&E) Department is administering the West Anchorage Snow Disposal Project and has contracted with HDR to select a location for, permit, and design a replacement for the Northwood Site. This site selection study identifies and makes recommendations of potential sites that meet M&O's needs for snow disposal.

The Northwood Site is located on State of Alaska-owned land controlled by Ted Stevens Anchorage International Airport (TSAIA) adjacent to the M&O Kloop Station maintenance facility south of International Airport Road on Northwood Drive. The Northwood Site serves most of the western portion of the Anchorage Bowl. Figure 1 shows the boundaries of the West Anchorage Snow Service Area (Service Area) as provided by M&O. M&O is responsible for snow collection on most neighborhood and collector streets within the area shown in red. Larger arterial roads such as Dimond Boulevard, Minnesota Drive, Jewel Lake Road, and International Airport Road are maintained by the State of Alaska Department of Transportation and Public Facilities (DOT&PF). In some years when there is a significant snowfall, Anchorage School District schools may also use the Northwood location for depositing snow.

The MOA currently rents the Northwood Site from TSAIA on a year-to-year basis. Because of increasingly stringent State of Alaska water quality regulations, PM&E has identified a number of improvements to the Northwood Site that are necessary for the long-term operation of the site. In order to make these improvements, the MOA must purchase or negotiate a long-term lease for the property. Unfortunately, the lands containing the Northwood Site are not available to the MOA for permanent use. As of June 2020, MOA PM&E and M&O began the process to identify the best alternative location for snow disposal in West Anchorage. This study is the culmination of that process.

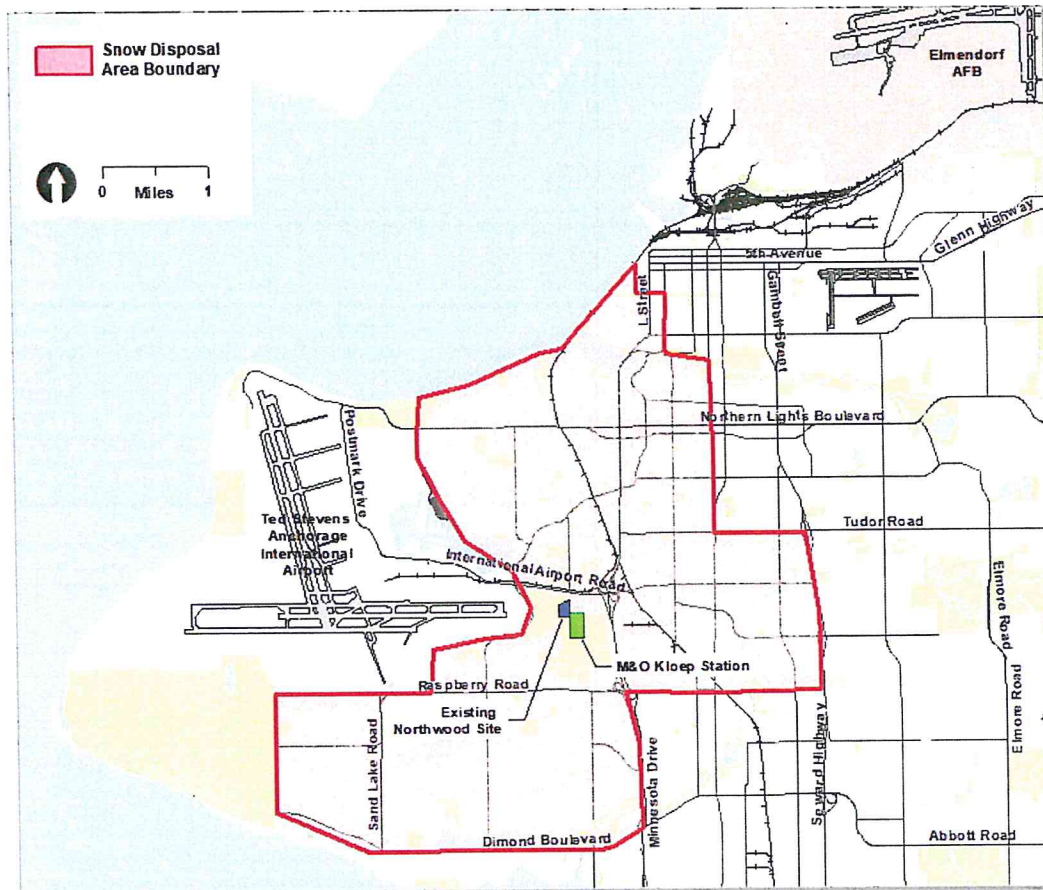


Figure 1. West Side Snow Disposal Service Area



2. Background

To guide the site selection, background information was gathered on the status of existing snow disposal sites in Anchorage, recent snow hauling data from all sites, detailed haul data from the Northwood Site, snowfall records, regulatory and guidance documents, and interviews with M&O and PM&E staff. This information was used to determine the priority site characteristics for a snow disposal site and develop criteria for the conceptual replacement design.

2.1 Snow Haul to the Existing Northwood Snow Disposal Site

The existing Northwood Site contains 9 to 12.5 usable acres depending on TSAIA's annual alternative needs for the site and the negotiated lease agreement. The West Anchorage service area is 14.4 square miles (Figure 1) and currently accepts approximately 20 percent of the snow gathered from MOA-maintained streets in the Anchorage Bowl. Conversations with M&O staff have indicated that in large snow years 12.5 acres is insufficient for the collection area, and 9 acres is inadequate even in low snow years. During the 2019–2020 snowfall season, with a 9-acre lease and 115 percent of normal snow fall, M&O was forced to truck West Anchorage snow to other sites. This resulted in additional trucking costs and decreased levels of service, which included snow hauling delays and additional snow left on the sides streets and in the middle of cul-de-sacs.

In an average snow year, approximately 10,500 truckloads of snow are brought to the Northwood Site. At the extreme, (2011–2012 had 175 percent of the average snowfall), approximately 18,500 truckloads went to the Northwood Site. The resultant snow pile was 40 feet high, 10 feet higher than the design height limitation dictated by water quality parameters. The result is shown in Figure 2. See Appendix A for snowfall records from 2004 to 2020 and the calculations for snow truckloads delivered to the Northwood Site.



Figure 2. Northwood Site in 2011–2012



2.2 Neighboring Snow Disposal Sites

The Northwood Site service area is bounded on the south and east by five other snow service areas, shown in Figure 3: Commercial Drive, Sitka Street, Tudor Road, Spruce Street, and C Street Site. All of these adjacent sites are already at or near capacity. This means that a loss or reduction in snow disposal capacity in West Anchorage cannot be adsorbed by the adjacent sites. A replacement site for West Anchorage needs to have capacity similar to or greater than the Northwood Site in order to effectively meet West Anchorage's snow disposal needs.

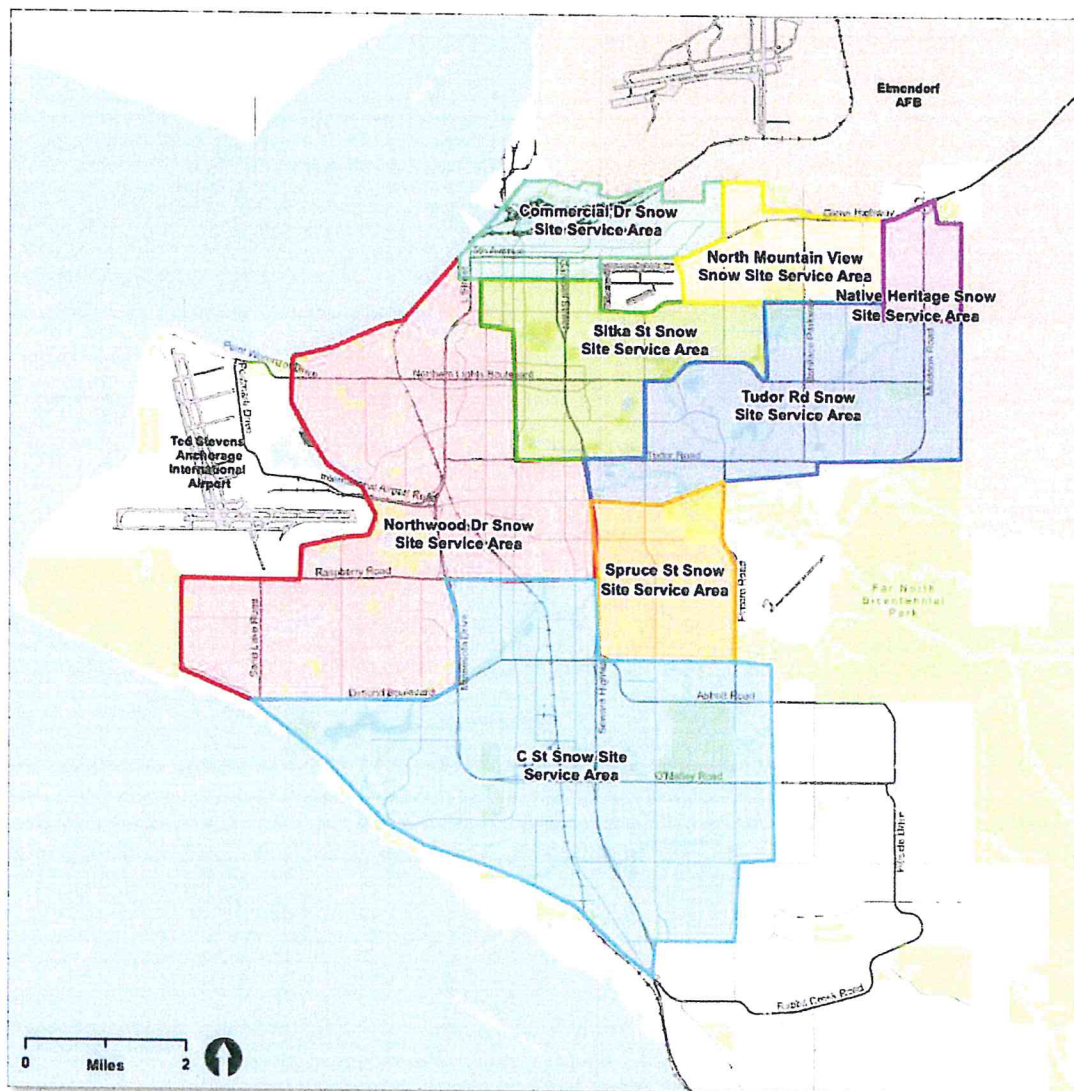


Figure 3. Anchorage Snow Disposal Service Areas



2.3 Site Design and Selection Guidance Documents

Anchorage Municipal Code (AMC) Title 21, Land Use Planning, sets criteria for public facility site selection in general and for snow disposal sites in specific. Section 21.03.140 governs public facility site selection, and snow disposal sites are identified as public facilities in Section 21.03.140B.1.f. Snow disposal site standards are found in Section 21.05.060E.8. New snow disposal sites must conform to these regulations or seek waivers.

In addition to Title 21, snow disposal requirements are governed by the *2017 Anchorage Stormwater Manual* published by the Watershed Management Services. Additional documentation for management of snow disposal can be found in the *Anchorage Street Deicer and Snow Disposal: 2003 Best Management Practices Guidance*, the *2013 Evaluation of Anchorage Snow Disposal Sites*, the *Anchorage Storm Water Treatment in Wetlands: 2001 Progress Report*, and other related publications from the MOA, State of Alaska, and research institutions. These documents guide both the site selection process and the design of snow sites. A list of documents used for reference and guidance in the site selection, design, and conceptual layout, with brief notes on the information provided, is included in Appendix B.

2.4 Site Characteristics and Site Requirements

Important characteristics and site requirements are determined based on population growth expectations, M&O operational needs, public input, regulatory legislation, and guidance documents. The primary guiding characteristics for site selection are location, operational flexibility, size, zoning/comprehensive planning, access, and availability.

2.4.1 Site Location

Based on conversations with PM&E and M&O, and the analysis of adjacent snow disposal sites discussed above, the site should be located within the Service Area. Snow haul to sites outside the service area has a significant impact on efficiency, costs, and level of service.

2.4.2 Operational Flexibility

M&O and PM&E emphasized the importance of 24-hours-a-day, 7-days-a-week (24/7) operations, especially in the West Anchorage Snow Disposal Service Area. Municipal sites with operational restrictions are difficult to use during periods of high snowfall, when night operations are limited because of noise impacts on adjacent neighborhoods. A lack of operational flexibility will hinder M&O's ability to move snow efficiently and is considered a major flaw of any potential new site. Night operations are preferable for hauling snow off main roads, as there is less traffic on the roads. This allows plows, rotaries, and trucks to operate with additional safety and efficiency. Night operations are more efficient for two reasons. The primary reason is the difficulty of closing off traffic to allow the use of rotary and haul equipment in the roadway. The other reason is that heavy day time traffic results in slower haul speeds and longer truck cycle times. Night operations are approximately 50 percent more efficient than daytime operations and many major streets can only be hauled at night. As part of the cost analysis that accompanied the selection process, it was



estimated that a site with day only operations restriction would require the rerouting of 55-60% of haul loads to a location with unrestricted operations. An equivalent number of loads would have to be rerouted from an adjacent snow site during day operations to balance snow storage capacity. The estimated cost of this redistribution of hauled loads is approximately \$240,000 per year. This additional annual cost will have a serious impact on the Municipality's ability to clear snow and maintain transportation function.

2.4.3 Site Size

Based on the analysis of other Anchorage snow disposal sites, a full area replacement for the Northwood Site is desirable. Parcels of at least 15 acres are most desirable. Parcels smaller than 15 acres were considered, if adjacent parcels could be combined to reach a total of 15 acres. The 15-acre size leaves adequate area for access roads, berms, water quality structures, screening, and property line setbacks.

2.4.4 Site Zoning and Comprehensive Plan

The site must have appropriate zoning for a snow disposal site per Title 21. Many zoning districts allow snow disposal use with conditional use permitting or rezoning. Sites zoned for industrial, commercial, and public lands and institutional (PLI) use and transition zoning (TR) are preferred over residentially zoned areas. The Transitional zoning designation was originally applied to undeveloped parcels with unknown planned usage. It carries some flexibility and allow for rezoning once the use is determined. Sites with TR zoning will require rezoning to move to PLI designation and the current Title 21 conditional use approval process. This process must also look at the current West Anchorage Comprehensive Plan and meet or amend the plan as appropriate.

2.4.5 Site Access

Snow disposal generates a large volume of heavy truck traffic. Close access to collector roadways or higher classification is necessary for operation of the site. Lengthy access routes through residential or sound-sensitive areas need to be avoided for public safety and to minimize neighborhood impacts.

2.4.6 Site Availability and Acquisition

Any proposed site must be available for use by the MOA. MOA-owned properties are generally preferable over privately owned sites, as there is no direct site acquisition cost. While MOA-owned sites may also have value for alternative uses, some have lower suitability for other uses that include buildings or other facilities requiring foundations. Sites reserved for future use or with anticipated acquisition issues should be avoided.



3. Site Selection Process

The site selection process used the desired characteristics discussed above to identify possible snow disposal sites in West Anchorage. The first step in the process was to identify large vacant land parcels within the West Anchorage service area. Once an inventory was developed for initial site identification, each was evaluated based on desired characteristics to define the most suitable sites for further analysis. These were then evaluated at a deeper level, and a recommendation was made based on the relative merits and risks of each parcel.

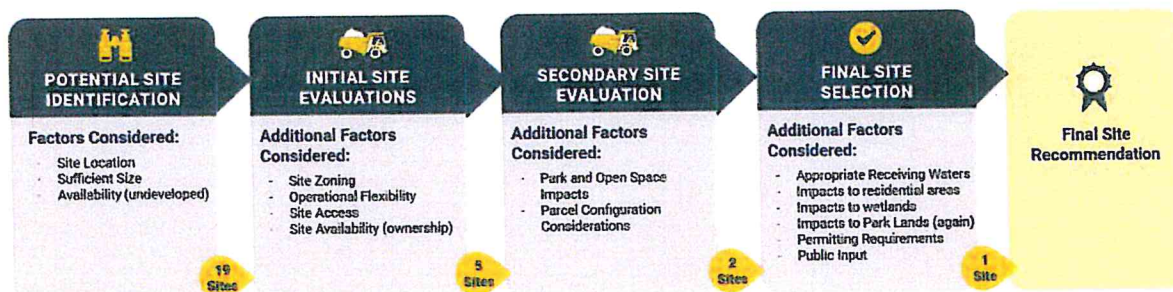


Figure 4. Site Selection Process

3.1 Public Outreach Efforts

The project team used a variety of outreach methods to engage and inform the public regarding the West Anchorage Snow Disposal Project and to obtain feedback on the site selection process. Several opportunities for the public to provide input and feedback were provided as part of the selection process. An online open house with an opportunity to chat live with the project team was held to solicit and identify potential public concerns. Postcards were mailed to residents in the West Anchorage area notifying them of the opportunity to participate in the process. The public submitted comments by phone, email, during Community Council meetings, through the online open house, and during the virtual public meeting. Comments received focused on zoning guidelines and the site's aesthetic and environmental/hydrological impacts.

The Public Outreach Summary (Appendix C) includes a description of public outreach tools, implemented outreach strategies, outreach results, and comments received. This public input was taken into consideration during the development of site selection criteria and evaluation.

3.2 Potential Site Identification

Possible snow disposal sites were selected using the MOA Geographic Information System database by comparing available, undeveloped parcels within the snow disposal collection area with the site size and location requirements discussed in Section 2.4. A first round of 19 sites met the initial screening criteria. Figure 5 shows the locations and site numbers of these 19 initial sites. A full list of these sites is included in Appendix D.

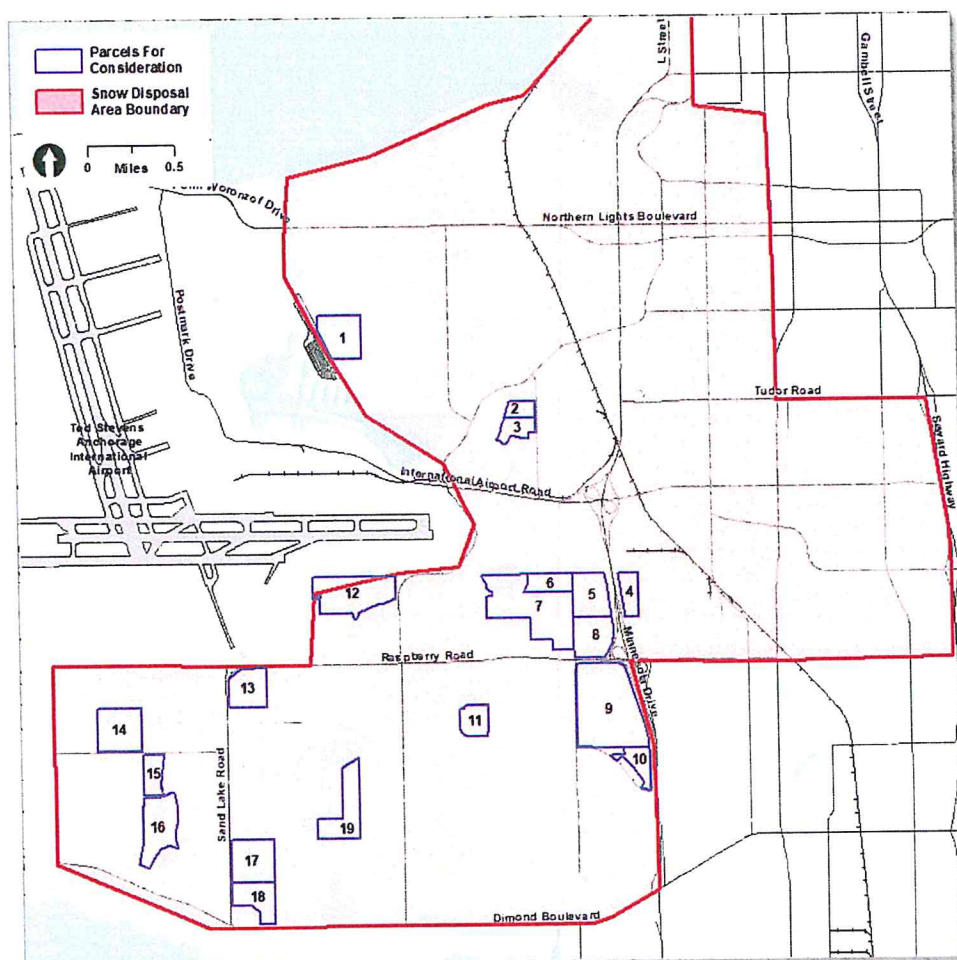


Figure 5. Initial Parcels Identified for Consideration

3.3 Initial Site Evaluation

After the initial identification, the 19 sites were further evaluated against four desired characteristics. Each site was given a rating of 1 through 3 for each characteristic:

- 1 = site was unacceptable for this characteristic
- 2 = site was neutral for this characteristic
- 3 = site was preferable for this characteristic

Sites with a rating of 1 for any of the four characteristics described below were eliminated from consideration.

- **Site Zoning:** Appropriate zoning for the subject lot and surrounding lots. Residentially zoned lots received a rating of 1. Sites that would likely require a conditional use permit received a



rating of 2. Lots with no restrictions were given a rating of 3. None of the initial sites were rated as 3.

- **Operational Flexibility:** Ability to operate 24 hours a day. Sites that were certain to have operational restrictions were rated as 1. Sites that had some risk of operational restrictions being put in place were rated as 2. Sites that would likely have zero operational restrictions were rated as 3. This parameter was guided to some extent by the results of public outreach feedback.
- **Site Access:** Access to collector or arterial roads. Sites with access routes that travel extensively through residential neighborhoods received a rating of 1. Sites with some access to collector or arterial roads were rated as 2. Sites that had good access to collector or arterial roads were given a rating of 3.
- **Site Availability:** Site owned by the Municipality or suitable for purchase or lease with no stated future plans for the parcel. Undeveloped parcels that appear to have current uses such as gravel pits or storage yards or had similar contractual concerns as the existing Northwood site received a rating of 1. Sites with some existing usage or that may have difficulty obtaining a lease or purchase were rated as 2. Sites with limited to no existing usage received a rating of 3.

Table 1 displays the results of the initial evaluation of the 19 parcels.



Table 1. Initial Site Evaluation Matrix

Site	Owner	Site Size (acres)	Zoning	Site Zoning	Operational Flexibility	Site Access	Site Availability	Reason For Elimination
1	State of Alaska - TSAIA	35.7	TR	2	3	1	1	Restricted Access
2	Universal Financing Corp	10.0	R-3 SL	1	1	2	2	Zoning Restrictions
3	MOA	15.1	R-1	1	1	2	2	Zoning Restrictions
4	Chugach Electric	15.4	TR	2	3	3	1	Site Unavailable
5	MOA MOA 5501	32.0	TR	2	3	3	3	
6	MOA MOA 5501	17.3	TR	2	3	2	3	
7	MOA Heritage Land Bank	86.8	PLI	2	3	2	2	
8	MOA Heritage Land Bank	31.8	PLI	2	3	2	3	
9	MOA Heritage Land Bank	108.9	PLI	2	2	3	3	
10	MOA Heritage Land Bank	15.4	R-4	1	1	2	2	Zoning Restrictions
11	MOA MOA 5501	18.1	PLI	2	1	1	1	Operational Issues
12	State of Alaska - TSAIA	57.2	PLI	2	2	2	1	Site Unavailable
13	State of Alaska - TSAIA	29.3	PLI	2	2	2	1	Site Unavailable
14	Opal Investments	38.5	R-1	1	1	2	2	Zoning Restrictions
15	MOA - Parks & Rec	16.5	R-2A SL	1	1	1	2	Zoning Restrictions
16	MOA School District	41.8	R-2A SL	1	1	1	1	Zoning Restrictions
17	Anchorage Sand & Gravel	39.0	R-1A	1	2	3	2	Zoning Restrictions
18	Anchorage Sand & Gravel	26.9	R-1A	1	2	3	2	Zoning Restrictions
19	MOA Heritage Land Bank	38.8	R-1	1	1	1	1	Zoning Restrictions
Legend:		Unacceptable Characteristics		Neutral Characteristics		Preferable Characteristics		

Note: PLI = public lands and institutional; R = residential; TR = transition

3.4 Secondary Site Evaluation

After the initial site evaluation, five sites (Sites 5, 6, 7, 8, and 9) were identified for secondary evaluation. These five sites are all located west of Minnesota Drive on either side of Raspberry Road. Sites 5 through 8 are parcels within the Connor's Bog area and Site 9 is located in the Strawberry Bog area (Figure 6). All considered sites are shown in the West Anchorage District Plan, Anchorage 2020 Comprehensive Plan and the Anchorage 2040 Land Use plan as park and natural open space/resource land use. The secondary evaluation process narrowed the 5 remaining sites to 2 candidates based on impacts to current and planned park and open space uses as discerned from comprehensive planning, public input, and use patterns. Also considered are usable space and configuration considerations

- **Park and Open Space Impacts:** Sites 6 and 7 were eliminated from consideration due to the large number of official and social trails branching off of the Anchorage Water and Wastewater Utility (AWWU) sewer easement trail used as the main thoroughfare through Connor's Bog Park. Much of the recreational use of Connor's Bog Park is on the easement



trail and to the south and west of the trail. Development of either of these two sites would have a large impact on both the recreational users of Connors Bog and the wildlife in Connor's Lake. Both sites are on designated park lands. Sites 5 and 9 both have less recreational use and are not on designated park lands.

- **Parcel Configuration Considerations:** The sewer easement bisects Site 8, and the geometry of the lot and location of the easement within the lot would make access to a snow disposal area and security of the site difficult. Of the sites located within the Connors Bog area, a snow disposal site located at Site 5 is clearly the preferred option. Site 5 has little recreational traffic, offers straightforward site access through the M&O Kloop Station complex, and could be easily secured from unauthorized entry. Site 9 in Strawberry bog also has few configuration constraints and was also retained for final evaluation.

The elimination of Sites 6, 7, and 8 left two sites for analysis and evaluation:

- Site 5: NE Connor's Bog Site
- Site 9: NE Strawberry Bog Site



West Anchorage Snow Disposal Project

PROJECT MANAGEMENT
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ENGINEERING

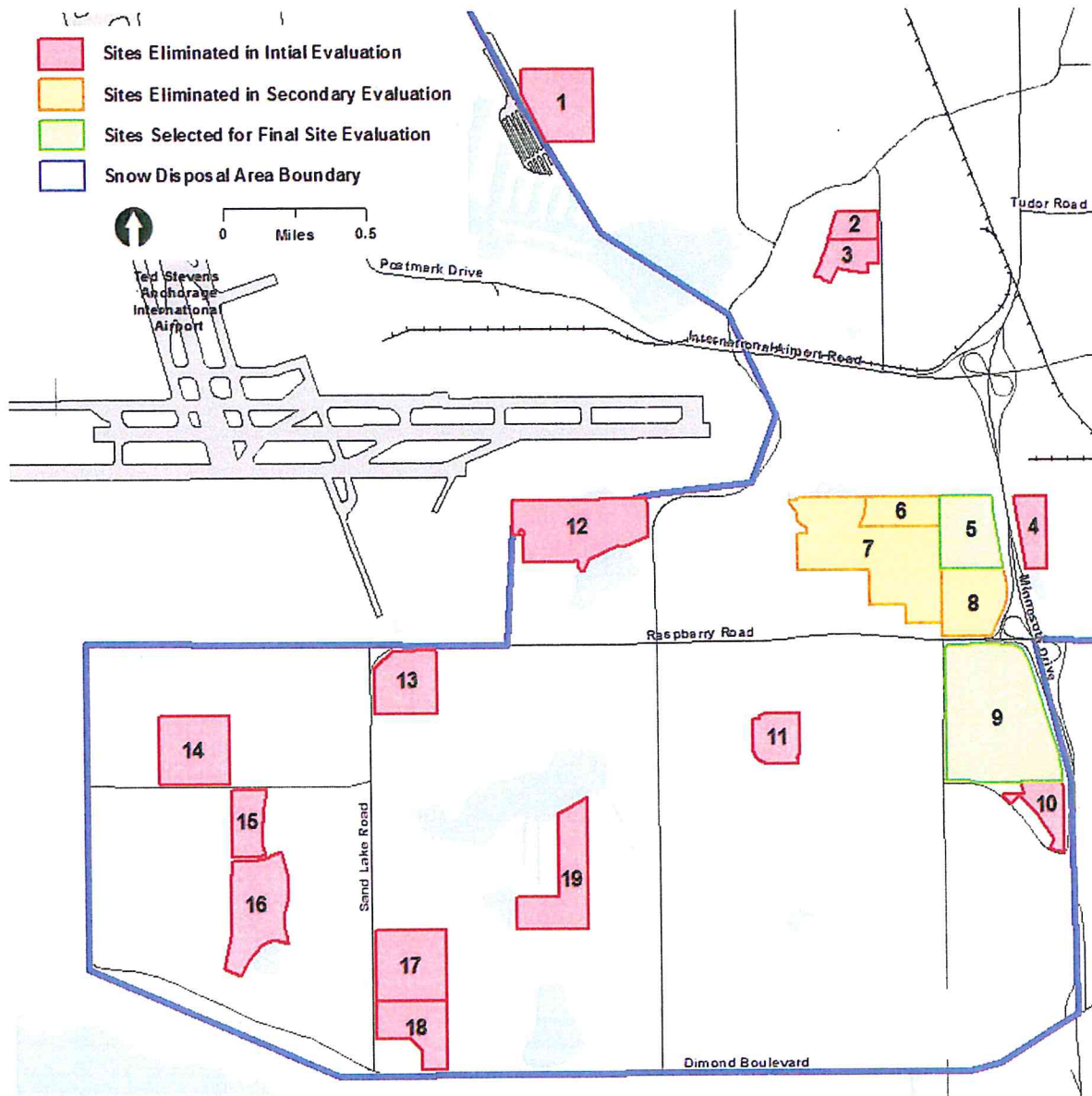


Figure 6. Final Site Evaluation Results



3.5 Final Site Evaluation

In order to make a final site selection recommendation, a thorough evaluation of the two remaining sites was performed that covered in more detail the factors considered in the initial evaluation: site zoning, operational flexibility, site access, and site availability (see Section 3.3); and secondary evaluation (see Section 3.4).

In addition to these four factors, five others were added to the final evaluation based on the public outreach feedback described in Section 3.1. The additional factors are described below.

- **Access to Appropriate Receiving Waters.** Snow disposal sites generate significant snow melt runoff that needs to be processed and disposed of into an appropriate receiving water. Any site selected for consideration should be able to receive a large amount of snow melt discharge. Sites should be avoided where snow melt runoff could raise water tables, impact existing infrastructure, or be deposited in areas that containing closed lakes or wetland systems unable to retain large amounts of water.
- **Potential Impacts to Neighborhoods and Residential Areas.** Snow disposal sites can have potential impacts to residents that include noise from snow dump trucks and machinery, nighttime glare from site lighting, air quality from dust, and visual impacts of the actual snow mounds and displaced trash. Some of these impacts can be mitigated with natural or constructed landscape buffers. Sites with numerous residents in proximity or trucking routes that pass through residential neighborhoods should be avoided to the maximum extent possible.
- **Potential Impacts to Wetlands.** Both potential sites are within mapped wetlands in the *Anchorage Wetlands Management Plan*. Both sites contain significant areas of Class "A" wetlands. Class A wetlands perform at least two significant wetland functions. The *Wetlands Management Plan* states that "'A' wetlands are considered most valuable in an undisturbed state, as most uses or activities, especially those requiring fill, negatively impact known wetland functions." Class A wetlands are not to be altered or otherwise disturbed in any manner, except for projects that are in the public interest. The site selection process must show that snow disposal is in the public's best interest and other large undeveloped upland parcels meeting the site facility requirements are not available.
- **Impacts to Park Land Use and Park Designations.** Sites located in designated park land would require approval from the Parks and Recreation Commission, Planning and Zoning and the Municipal Assembly prior to construction. Construction that limits current common park usage should be avoided.
- **Permitting Requirements.** Development of a snow disposal site requires extensive permitting from local, state, and, likely, national entities. Sites should have a clear path forward through permitting to be viable.



The following sections include an evaluation of the two remaining sites based on the above criteria. Conceptual layouts of snow disposal facilities on each site are also presented. Results and a summary of the comparison are provided in Section 4.

Conceptual designs were based on research of guidance documents and desired site characteristics. These conceptual layouts ensured that the sites have sufficient area and orientation for effective snow disposal. The layouts were developed using site area footprints for snow storage, water quality structures, access routes, required screening, and operations areas. They depict potential siting within the bounds of the individual parcels and are shown as concepts for planning purposes only. All are subject to further refinement based on delineation of wetlands, utility conflicts, traffic flow analysis, visual screening, and public input.

The Connor's Bog Site and the Strawberry Bog Site would both require the construction of a new snow disposal site of similar size with similar wetlands impacts. The total construction costs for both sites would be roughly similar. As both sites are on MOA-owned parcels, there would be no site acquisition costs. Since the total project costs for both sites would be similar, development, and operational costs, although considered, were not included in the evaluation below.

3.5.1 Site 5 – Connor's Bog Site

This site is located south of Javier De La Vega Park and west of Minnesota Drive. The land is owned by the MOA and currently managed by the Parks and Recreation Department. The total parcel size is 32 acres located in Class A wetlands. The snow disposal pad would be best located at the north end of the parcel where the elevation is slightly higher than at the south end, and access is feasible utilizing existing easements from the M&O Kloep Station facilities. Development would involve construction of a fill pad, improvements to the access road to separate snow haul truck traffic from the existing operations areas, extension of an access road along the section line easement, a perimeter berm, fencing, and water quality structures. Melt water would be discharged into the wetlands of Connor's Bog and Connor's Lake. Figure 7 shows a conceptual layout for Site 5. Details of the selection parameters are described here:

Site Access

Access to the site would be off International Airport Road, a designated expressway, and through the existing M&O Kloep Station facility. This is identical to the access route for the existing Northwood Site. Access to Site 5 would require an extension of the access road beyond the Kloep Station facility and would require to separation of snow hauling traffic from the Kloep Station employee parking areas. Small incursions into designated park land south of the Kloep parcel are anticipated to accommodate existing CEA power poles in the section line easement. The development of Site 5 will result in no change to the existing traffic flow on public streets.

Zoning

This site is zoned within the TR district. This designation was initially developed in the 1960s as the unrestricted zoning district for parcels that were not expected to be developed in the near future.



Development of Anchorage has filled in areas previously thought to be undevelopable and many of these lands have been rezoned over time. Parcels zoned TR as of January 1, 2014, are subject to the land use regulations in effect prior to the 2014 Title 21 rewrite until they become rezoned. As part of Connor's Bog, this site, although zoned as TR, is managed by the Parks and Recreation Department. The development of a snow disposal site in a TR-zoned parcel is allowed as a permitted use (AMC 21.40.240 of the old code). Should a rezone of this area occur, this land would likely be zoned within a PLI district, similar to the parcels to the south (Site 8), west (Site 7), and north (De La Vega Park). The development of a snow disposal site on a PLI-zoned land is allowed as a conditional use (AMC 21.05.010). Snow disposal sites, regardless of zoning district, must undergo a public facility site selection review (AMC 21.03.140).

In TR zoning districts, there is no height restriction for snow disposal. For PLI-zoned parcels, the maximum height is 45 feet (AMC 21.06.020.C). Conditional use standards for snow disposal sites set the maximum height of snow piles at 35 feet when within 500 feet of a residential district (AMC 21.05.060.E.8.b.II.B). As there are no residential areas within 500 feet of the proposed site location, this additional restriction does not apply. Based on past records of snowfall and snow disposal in West Anchorage, it is unlikely that a properly sized snow disposal site would exceed 35 feet of height in most snow years.

The parcel is large enough compared to the necessary site layout that most setback requirements (AMC 21.05.060.E.8.b.II.C) should not be an issue.

Operational Flexibility

Access to Site 5 is the same as access to the existing Northwood Site. As the new site is farther from residential areas or other noise-sensitive areas, it is unlikely that additional operational restrictions would be put in place on the site. This would allow for 24-hour operations, as are currently allowed at the Northwood Site.

Site Availability

This site is on land owned by the Municipality with relatively low public use. The land is not dedicated park land but is currently managed by the Parks and Recreation Department, which has been receptive to its utilization as a snow disposal site.

Access to Appropriate Receiving Waters

Snow melt from a snow disposal site at Site 5 would be retained within the watershed of Connor's Lake. Melt water would travel through several culverts under the AWWU sewer main easement and into Connor's Lake. Connor's Lake currently receives the melt water from the existing site and is sufficiently sized to receive melt water from a new site.

Potential Impacts to Neighborhoods and Residential Areas

Access to Site 5 would be similar to access to the existing Northwood Site, with some additional routing through the Kloop Station facility. The additional route would be on service roads with no



public traffic. Fencing would be necessary to limit pedestrian access to the disposal site both from Connor's Bog off-leash dog area and Javier De La Vega Park, and exposure of the public to noise or other nuisances would be similar to the present condition. There would be no change in existing traffic patterns during snow disposal, and there would be limited increased exposure of the public to noise or other nuisance.

Potential Impacts to Wetlands

Site 5 is located in mapped Class A wetlands and will impact those wetlands. The pad development, access road, perimeter berm, and water quality structures may require approximately 17.3 acres of fill in Class A wetlands. Class A wetlands are the highest value wetlands within the MOA (see Section 3.5).

The primary wetland functions and values that would be impacted at this site include storm water retention, nutrient retention and transport, wildlife and fish habitat, and recreation. Connor's Bog provides a significant source of storm water storage and water quality filtering in West Anchorage. This freshwater wetland and lake complex also provide an important habitat oasis in an otherwise urban landscape. The diversity of plant life at the site provides habitat for small mammals, moose, and many species of migratory birds. At least 83 species of birds have been recorded in the area, including nesting Pacific loons.

On the plus side these hydraulically disconnected wetlands and the included Connor's Lake accrue significant benefit from the existing Northwood snow site. Melt water from this facility have helped to maintain wetland and aquatic habitat function in this area for several decades. Melt waters from the proposed site will continue to provide this much needed hydration to maintain the wetland functions of the remaining areas of Connor's bog. This is not intended to downplay the impact of the new fill site, but many other wetland areas of the municipality are slowly reverting to upland vegetation and function as they become disconnected from historic water sources.

Impacts to Park Land Use and Park Designations

While Site 5 would be located on land managed by the Parks and Recreation Department, the site is not designated park land. However, a very small portion of the access road to Site 5 needs to be located on designated parkland and would require approval from the Parks and Recreation Commission, Planning and Zoning Commission, and the Municipal Assembly prior to construction.

Adjacent to Site 5 is Javier De La Vega Park, which hosts soccer and baseball games during summer, along with other park uses. Visual impacts to users of Javier De La Vega Park and drivers along Minnesota Drive would be partially mitigated by existing and project-installed buffers of trees to block the sightlines of the remnant melting snow. Javier De La Vega Park sees lower use in winter, so dumping and hauling activities would have less impacts on park users during that season.

Site visits after winter snowfall events suggest that the northeast corner of Connor's Bog has lighter use compared to the areas west of the AWWU corridor. Summer use is minimal due to the lack of trails and spongy wetland footing. In summary, the impacts to users of Connor's Bog, and Javier De La Vega Park while not insignificant is expected to be limited and efforts for mitigated will be



integrated into design features and other impact alleviations. The existing Northwood site is closely adjacent to the main corridor into Connor's Park. This intrusion will be removed or lessened by moving the snow site further from the more intense dog park use areas and providing vegetation buffers.

Permitting Requirements

The Connor's Bog Site is not located on designated park land and would not require Parks and Recreation Department approval. The municipal Planning and Zoning Department is recommending that the parcel if used be rezoned from TR to PLI and the Anchorage Comprehensive Plan be amended to allow the use of this parcel as a snow site. Development of this site will require a Municipal Conditional Use and Land Reclamation Permit, including waivers from several snow disposal site Design Criteria. This site would also require a Jurisdictional Determination (JD) from the U.S. Army Corps of Engineers under the Clean Water Act (CWA) Section 404 (outcome of JD would determine if wetlands permitting and mitigation would be required under the CWA), a Stormwater Discharge Permit from Alaska Department of Environmental Conservation, a sign-off from PM&E Watershed Management, fill and grade permits, and utility agreements. These permits will require significant effort, but all should be obtainable.

Site Summary

Site 5: Connor's Bog Site is a very desirable snow disposal site. It meets most of the criteria for a snow disposal site and has few drawbacks. The site would have low to no impact on residents and neighbors, is sufficiently sized and available for use, will have no operational restrictions, and has adequate receiving waters. The concerns pertaining to the Connor's Bog Site are the required changes to the Comprehensive Plan, rezoning requirements, park user impacts, wetlands fill and its location on Class A wetlands. Figure 7 shows a conceptual design drawing of the Connor's Bog Site.



Figure 7. Site 5: Connor's Bog Site Conceptual Design



3.5.2 Site 9 – Strawberry Bog Site

This site is located south of Raspberry Road and between Northwood Street and Minnesota Drive. It is owned by the MOA and managed by Heritage Land Bank. The total parcel size is 109 acres and consists mostly of Class A wetlands. Like Site 5, this site would involve the construction of a fill pad, perimeter berm, fencing, water quality structures, and a new access road. Figure 8 shows a conceptual layout for the site.

Site Access

Access would be from Northwood Drive south of Raspberry Road. All routes to the snow disposal site from the north could be made on collector and arterial routes. Traffic flow to the site may necessitate access from Strawberry Road exit off Minnesota Drive. Strawberry Road is a designated collector route and would require improvement prior to use as access to a snow disposal site. Development of this site will result in a significant change in the amount and flow of traffic in the neighborhood. The entrance to the site would be controlled with fencing and gates to restrict public access.

Zoning

Site 9 is zoned PLI, which allows snow disposal sites as a conditional use (AMC 21.05.010). Similar to Site 5, this site would require conditional use approval and public facility site selection plan approval (AMC 21.03.140). The site is bordered on the west by Northwood Street, which has areas of residential and business-zoned properties to the west. Land use is a mix of business, large apartment complexes, and single family and duplex homes. The placement of the snow disposal site would be outside of the 500-foot separation from residential districts. This would allow for no height restrictions from conditional use zoning regulations for snow disposal sites (AMC 21.05.060.E.8.b.II.B), but the site would be subject to the 45-foot limitation of PLI zoned parcels (AMC 21.06.020.C). As with Site 5, it is unlikely that the height of the snow pile would reach 35 feet.

As mentioned earlier the parcel is shown as park and natural open space in the Comprehensive Plan and change of land use will require an amendment to the Comprehensive Plan. As with Site 5, this parcel is large enough compared to the necessary site layout that most setback requirements (AMC 21.05.060.E.8.b.II.C) should not be an issue.

Operational Flexibility

Due to the proximity to both the residential development on the west side of Northwood Drive and potential trucking routes through a noise-sensitive residential area, as discussed below, operational restrictions may be placed on a snow disposal site at Site 9. The site could be restricted to daytime operations only, which is common at other municipal snow sites in residential settings. This would necessitate trucking night-hauled snow from larger arterial streets to the C Street Site and a similar volume of day-removed snow back to the Strawberry Bog Site. This process would increase the trucking cost and restrict the operational flexibility needed for efficient snow management by M&O.



Site Availability

Site 9 is located on Municipality-owned land outside of any designated park. There is low utilization of the Strawberry Bog area due to lack of trails and presence of wetlands. The site is available to use for a snow disposal site with the correct conditional use permits.

Access to Appropriate Receiving Waters

Snow melt from a snow disposal site at Site 9 would be retained within the watershed of Strawberry Lake. Comparison of historical satellite imagery from the 1950s to the present show that Strawberry Lake has decreased in size over time. Melt water from a snow disposal site at Site 9 could replenish the lake levels. Strawberry Lake eventually discharges into the Campbell Creek drainage. Site 9 has sufficient receiving waters for a snow disposal site.

Potential Impact to Neighborhoods and Residential Areas

The development of Site 9 would result in a major change to the traffic flow and volume in the area. Traffic flow to the site would have the highest impact on the high-density residential lots on the north end of Northwood Drive. More lots along Northwood Drive are slated for development in the future. Should traffic need to be routed through the Strawberry Road exit, trucks would travel through an established residential neighborhood and would have direct impacts on a large segment of residential properties fronting this route on the west. Large volumes of truck traffic and the noise from snow disposal operations would impact these residential neighborhoods no matter the direction of access. Installation of berms and landscaping trees may partially reduce noise and visual impacts on these neighborhoods, but public feedback indicates that this is a major concern.

Potential Impact to Wetlands

As with Site 5, Site 9 is also located in mapped Class A wetlands and would require wetland mitigation. The conceptual layout is similar to the Site 5 layout, but a more conventional V-Swale design is shown. The pad development, access road, perimeter berm, and water quality structures require a total of 17.4 acres of fill in Class A wetlands. Class A wetlands are the highest value wetlands within the MOA (see Section 3.5).

Strawberry Bog and Connor's Bog are part of the same original bog system now cut by Raspberry Road. Many of the potential impacts on wetland functions and values at the Site 9 would be similar to those at Site 5. The primary wetland functions and services that would be impacted at this site include flood water retention, nutrient retention and transport, wildlife and fish habitat, and recreation. The Strawberry Bog freshwater wetland and lake complex also provides important wildlife habitat in an otherwise urban landscape. The diversity of plant life at the site provides habitat for small mammals, moose, and many species of migratory birds.

Impacts to Park Land Use and Park Designations

This undesignated open land in Strawberry Bog has low use compared to Connor's Bog and other, more developed parks. The southern part of the parcel around Strawberry Lake has an ad hoc



network of boggy routes used by the local residents. These would be largely unaffected by the snow site. Development of Site 9 would have little to no impact on park land use or park designations.

Permitting Requirements

The Strawberry Bog area is not designated park land and would not require approval from the Parks and Recreation Commission. Development of this parcel would require a Municipal Conditional Use and Land Reclamation Permit to include waivers from several snow disposal site design criteria. This site would also require a JD from the U.S. Army Corps of Engineers under the Clean Water Act (CWA) Section 404 (outcome of JD would determine if wetlands permitting and mitigation would be required under the CWA), a Stormwater Discharge Permit from the Alaska Department of Environmental Conservation, a sign off from PM&E Watershed Management, fill and grade permits, and utility agreements. These permits would require significant effort, but all should be obtainable.

Site Summary

Site 9: Strawberry Bog Site is a moderately desirable snow disposal site. It meets some of the site selection criteria for a snow disposal site. The Strawberry Bog Site would be located on land that is sufficiently sized and available for use, it does not impact existing park use, and it has adequate receiving waters. However, there are several major concerns with respect to access and neighborhood impacts of the site. The site would be located near existing and growing residential areas, and access may have to be through a residential neighborhood. Operational restrictions, such as a restriction on nighttime operation, could be put in place due to this proximity. Any restrictions that do not allow for 24/7 operation would make this an undesirable snow disposal site. The site is also located on Class A wetlands, which would require additional fill and mitigation requirements. Figure 8 shows a conceptual design drawing of the Strawberry Bog Site.



Figure 8. Site 9: Strawberry Bog Site Conceptual Design



4. Site Selection Recommendations

Due to its limited overall impact on the community, Site 5 (Connor's Bog Site) is recommended. Both Site 5 and Site 9 are located in Class A wetlands and would require significant permitting efforts. Both will require a change to the Comprehensive Plans. Site 5 will require rezoning to PLI. Comments from public involvement efforts indicate that Site 5 is generally the preferred site, compared to Site 9.

Development of a snow disposal site on Site 9 (Strawberry Bog Site) would have significant community impacts on residential neighborhoods from traffic and noise associated with normal snow disposal operations. Development of Site 5 would not change the existing traffic flow for neighbors.

Operational flexibility also weighs heavily in favor of Site 5. The specter of operational restrictions due to residential impacts of night operations introduce an unacceptable risk for the development of Site 9. Second only to public impacts, operational efficiency is the most important driver for site selection. Environmental impacts also weigh in heavily but appear approximate equal for both sites.

Hearings with the MOA Planning and Zoning Commission would be required for approval of the site selection and for site plan review and conditional use permitting. A CWA Section 404 Permit from the U.S. Army Corps of Engineers may be required for the placement of fill in wetlands.

Table 2 provides a comparison summary of the two sites for each evaluation factor, with green symbolizing desirable, yellow symbolizing neutral, and red symbolizing undesirable characteristics.



West Anchorage Snow Disposal Project



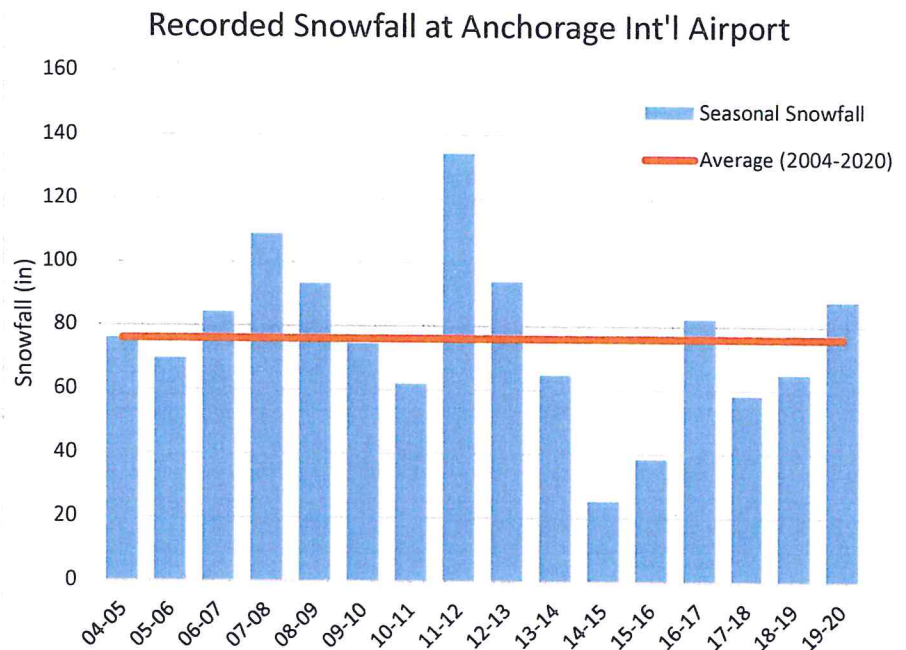
Table 2. Final Site Selection Recommendations Comparison Table

Evaluation Factor	Site 5: Connor's Bog Site	Site 9: Strawberry Bog Site
Site Size	32.0 acres	108.96 acres
Site Access	International Airport Road (Expressway) through MOA Kloop Station	Off Northwood Drive (Arterial Road)
Zoning	TR – Transition will be rezoned to PLI	PLI – Public Lands and Institutions
Owner	MOA Parks & Recreation	MOA Heritage Land Bank
Acquisition Cost	None	None
Operational Flexibility	Likely no restrictions on operation	Likely restrictions on nighttime operations
Receiving Waters	Connor's Bog and Lake	Strawberry Bog and Lake
Neighborhood Impacts	None or reduced from existing	High impact on adjacent residential areas to the west and south
Wetlands Impacts	Extensive Class A wetlands	Extensive Class A wetlands
Park Land Impacts	Parcel Managed by Parks and Recreation, low utilization; Comprehensive Plan listed as park and natural open space. Access road would impact small area of designated parkland	No Designated park land impacts, Comprehensive Plan listed as park and open space.
Permitting Requirements	Extensive permitting: • Comp Plan Amendment • Rezoning • Conditional Use and Land Reclamation Permits • Title 21 snow site design waivers • ADEC Stormwater Discharge Permit • Misc. MOA Building Safety permits, PM&E Watershed Management sign off, and utility agreements	Extensive permitting: • Comp Plan Amendment required. • Conditional Use and Land Reclamation Permits, • Title 21 snow site design waivers • ADEC Stormwater Discharge Permit • Misc. MOA Building Safety permits, PM&E Watershed Management sign off, and utility agreements
Legend	Undesirable Characteristics	Neutral Characteristics Desirable Characteristics

Appendix A:

Historical Anchorage Snowfall and Normalized Snow Truckload Calculations

Season	Snowfall (inches)
19-20	87.9
18-19	65.0
17-18	58.3
16-17	82.4
15-16	38.3
14-15	25.1
13-14	64.7
12-13	94.0
11-12	134.5
10-11	61.9
09-10	74.6
08-09	93.4
07-08	109.1
06-07	84.3
05-06	69.8
04-05	76.1
Average	76.2



Normalization of Snow Truckloads Calculations	
Average Snowfall (inches)	76.2
2018-19 Snowfall (inches)	65.0
2018-19 % of Average	85%
2018-19 Snow Truckloads delivered to Northwood	8,879
Snow Truckloads Normalized to Average Year	10,411

Appendix B:

Selection of Snow Disposal Site Guidance Documents and General Relevant Contents

Document: Section 21 Title 21
<i>Author/Source: Municipality of Anchorage</i>
Outline of public facility site selection process Snow disposal site regulations Waiver process outline
Document: 2017 Anchorage Stormwater Manual
<i>Author/Source: Municipality of Anchorage PM&E</i>
Melt water discharge profile Site selection criteria
Document: Anchorage Street Deicer and Snow Disposal 2003 Best Management Practices Guidance
<i>Author/Source: Watershed Management Program - WMP CPg02001</i>
Documentation of management of snow disposal sites
Document: 2013 Evaluation of Anchorage Snow Disposal Sites
<i>Author/Source: Watershed Management Program - WMP APr14002</i>
V-Swale design guidance General site design guidance
Document: Anchorage Storm Water Treatment in Wetlands: 2001 Progress Report
<i>Author/Source: Watershed Management Program - WMP APr01002</i>
Wetlands status in Anchorage Potential benefits of snow melt water into wetlands
Document: Urban and Highway Snowmelt: Minimizing the Impact on Receiving Water
<i>Author/Source: Water Environment Research Foundation: Project 94-IRM-2</i>
Estimation of metals and salts in melt water discharge Evaluation of toxic effects of these contaminant
Document: Effects of Snow Dump Meltwater on Adjacent Black Spruce Bog Vegetation
<i>Author/Source: Alaska Pacific University - Kristen Hansen</i>
Effect of melt water from snow disposal sites on adjacent vegetation
Document: Proposed Eagle River Snow Disposal Site: Preliminary Review
<i>Author/Source: Watershed Management Program</i>
Snow disposal site characteristics and impacts Contaminant characterization of snow disposal melt water General melt water discharge volumes and impacts
Document: Synthesis of Best Management Practices for Snow Storage Areas
<i>Author/Source: Alaska DOT&PF Research & Technology Transfer</i>
General best practices around the state for snow disposal
Document: The Anchorage Debit-Credit Method
<i>Author/Source: Heather Dean, April 2011 – USACOE, EPA, US Fish & Wildlife, MOA</i>
Procedure for determining development debits and compensatory mitigation credits

Appendix C: Public Outreach Summary



West Anchorage Snow Disposal Project

Project Management and Engineering No. 19-01

Phase One Public Outreach Summary

Municipality of Anchorage
Anchorage, Alaska
March 24, 2020 – April 24, 2020



West Anchorage Snow Disposal Project Phase One Public Outreach Summary

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Summary of Comments	3

Attachments

- Attachment A: Postcard
- Attachment B: Advertisements in the *Anchorage Daily News*
- Attachment C: Press Release
- Attachment D: Project Flyer
- Attachment E: Phase One Comment Log



West Anchorage Snow Disposal Project Phase One Public Outreach Summary

Introduction

This public outreach summary is used for tracking and documenting public involvement activities for Phase One of the West Anchorage Snow Disposal Project (Snow Disposal Project). It outlines the Phase One public involvement strategies for the period of March 24 through April 24, 2020, and the methods used to engage and inform the public on the Snow Disposal Project. The summary includes a description of the online open house and virtual meeting, the tools used for implementation, and the results of the public outreach during Phase One.

Overview of Phase One Public Involvement Activities

The project team conducted a variety of public outreach tactics to engage and inform the public on the Snow Disposal Project. The tactics used in Phase One are described below.

Online Open House and Virtual Meeting

On Tuesday, March 24, 2020, the Snow Disposal Project team hosted an online, interactive, self-guided public open house on the project website that was available through Friday, April 24, 2020. The online open house consisted of a total of eight sections that outlined project information and one section that included ways to comment on the project. The purpose of the online open house was to inform the public of the Municipality of Anchorage's (MOA's) West Anchorage Snow Disposal Project and receive feedback on site selection criteria and potential locations to be considered.

Virtual Meeting – Project Team Live Chat

In addition to the online open house site, the project team hosted a virtual meeting on Tuesday, March 24, 2020, from 4:30pm to 6:30pm at which members of the public could interact with the project team through the online open house site via a live chat feature.

Attendance

A total of 35 visitors attended the online open house on Tuesday, March 24, 2020, from 4:30pm to 6:30pm, 8 of whom also participated in the virtual meeting live online chat. The live online open house was viewed 137 times from March 24, 2020, to April 24, 2020.

Advertising

The online public open house was advertised in the following ways:

- Meeting information on the project website: www.westanchoragesnow.com
- Postcard mailer to residents near the project area (total of 4,139; Attachment A)
- An advertisement in the *Anchorage Daily News* (Attachment B)
- Presentations at the Turnagain Community Council and Sand Lake Community Council meetings
- A press release sent out by PM&E (Attachment C)
- Postings to nextdoor.com
- Flyers posted around the project area (Attachment D)



West Anchorage Snow Disposal Project Phase One Public Outreach Summary

Summary of Comments

The comments received during the online open house and the virtual public meeting (Attachment E) focused primarily on the snow disposal site selection process, the need for a new site location, the possible need for wetland permitting and mitigation, and communication with other agencies and organizations such as Anchorage Water and Wastewater Utility.



West Anchorage Snow Disposal Project
Phase One Public Outreach Summary

Attachment A

Postcard



West Anchorage Snow Disposal Project



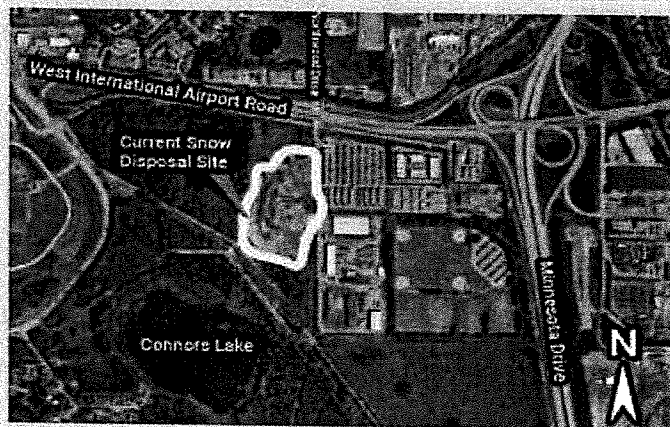
West Anchorage
Snow Disposal Project
2525 C Street, Suite 500
Anchorage, Alaska 99503

Online Open House & Virtual Public Meeting

Online Open House
March 24 - April 24, 2020

Virtual Public Meeting
Tuesday, March 24, 2020
from 4:30-6:30 pm

www.westanchoragesnow.com





West Anchorage Snow Disposal Project



**Online Open House
March 24 - April 24, 2020**

**Virtual Public Meeting
Tuesday, March 24, 2020
from 4:30-6:30 pm**

Visit westanchoragesnow.com

The Municipality of Anchorage is collecting information on potential locations for the placement of snow removed from West Anchorage streets during winter. Snow disposal location criteria and public feedback will be considered as part of a site selection process.

You are invited to attend an Online Open House to learn about the project and provide your feedback on site selection criteria and potential locations to be considered.

If you have any questions, please contact the project public involvement lead, Josie Wilson, at (907) 644-2030 or Josie.wilson@hdrinc.com.

Stay in-the-know



Sign up to receive email updates on our
website at www.westanchoragesnow.com

Project Management and Engineering No. 19-01



West Anchorage Snow Disposal Project
Phase One Public Outreach Summary

Attachment B

Advertisement in the
Anchorage Daily news



West Anchorage Snow Disposal Project



**ONLINE
MEETING
DETAILS**

Online Open House

Tuesday, March 24, 2020 | 4:30 pm – 6:30 pm

www.westanchoragesnow.com

The Municipality of Anchorage is collecting information on potential locations for the placement of snow removed from West Anchorage streets during winter. Snow disposal location criteria and public feedback will be considered as part of a site selection process.

You are invited to attend a Public Open House to learn about the project and provide your feedback on site selection criteria and potential locations to be considered.

Visit westanchoragesnow.com for project information or to submit comments. **Comment period from March 24 to April 24, 2020.**

If you have any questions, you may contact
Josie Wilson at 907 644-2030.

Project Management and Engineering No. 19-01



West Anchorage Snow Disposal Project
Phase One Public Outreach Summary

Attachment C

Press Release



Municipality of Anchorage

Ethan Berkowitz, Mayor

Project Management & Engineering Department

FOR IMMEDIATE RELEASE

March 24, 2020

Municipality of Anchorage Goes “Virtual” for Project Management and Engineering Public Meeting for the West Anchorage Snow Disposal Project

The Municipality of Anchorage Project Management & Engineering Office is hosting an online open house and virtual public meeting for the West Anchorage Snow Disposal Site project. The public is invited to attend and participate in the virtual meeting on Tuesday, March 24 from 4:30-6:30 p.m. by visiting the project website: www.westanchoragesnow.com.

ANCHORAGE – In response to the “[Hunker Down](#)” order ([EO-03](#)) and guidance to avoid social gatherings, the Municipality of Anchorage shifted a previously planned in-person public meeting for the West Anchorage Snow Disposal Site Project to an online open house format with a live-chat virtual meeting.

The project team is offering a virtual meeting through a live-chat feature on the website on **Tuesday, March 24, 2020 from 4:30-6:30pm**. The Online Open House will be available **March 24 through April 24, 2020** for participants to learn about the project and to leave comments. Members of the public can visit the project website at www.westanchoragesnow.com and then chat online with project team members during the virtual meeting, similar to a traditional public meeting.

The Municipality of Anchorage is collecting information on potential locations for the placement of snow removed from West Anchorage streets during winter. The project is in the information-gathering phase and the public is invited to learn about the project and to provide feedback on the site selection requirements for a future potential site as part of the site selection study.

Please join the project team at 4:30pm on Tuesday, March 24 online at www.westanchoragesnow.com to interact with the project team, to learn about the project, and to provide feedback on site selection criteria for potential locations for the West Anchorage Snow Disposal Site Project.

All public comments received during the live chat and through the website will be considered by the project team. The public can also submit comments via email or mail by April 24, 2020 to info@westanchoragesnow.com or by visiting the project website at www.westanchoragesnow.com. People may also sign up for the project distribution list to have project updates sent right to their inbox.

###

Media contact: Chelsea Ward-Waller, 907.575.8583, chelsea.ww@anchorageak.gov

About Municipality of Anchorage (MOA) Project Management & Engineering Department (PM&E)

PM&E designs and builds public works projects that provide a safe, convenient, and efficient transportation network throughout Anchorage. Voter-approved bonds fund the majority of these projects, which include sidewalks, transit facilities, roads, trails, drainage, and other public facilities that support Municipal Maintenance and Operations.



West Anchorage Snow Disposal Project
Phase One Public Outreach Summary

Attachment D

Project Flyer



West Anchorage Snow Disposal Project

Project Management and Engineering No. 19-01

Please Join Us!



Online Open House
Tuesday
March 24, 2020 from
4:30 to 6:30

visit:
westanchoragesnow.com



The Municipality of Anchorage is collecting information on potential locations for the placement of snow removed from West Anchorage streets during winter. Snow disposal location criteria and public feedback will be considered as part of a site selection process.

You are invited to attend a Public Open House to learn about the project and provide your feedback on site selection criteria and potential locations to be considered.

Visit www.westanchoragesnow.com for project information or to submit comments.

Comment period from March 24 to April 24, 2020.

If you have any questions, contact Josie Wilson at (907) 644-2030.



West Anchorage Snow Disposal Project
Phase One Public Outreach Summary

Attachment E

Comment Log

West Anchorage Snow Disposal Project Phase One Comment Log						
Comment Number	Date	Comment Type	Commenter	Organization	Comment	Response
1	3/6/2020	In Person - Turnagain Community Council	John Johansen	AIA - Manager of engineering, environmental, and planning	Options on "why" this project is happening - meeting minutes reflect when he was speaking and his questions. Sincerely will provide minutes.	
					Hello Josie I am quite interested in this project as I have been lobbying for years to get the Northwood Snow dump leased at a more reasonable rate. I realize that keeping that site is a dead end. It would be nice if the public got a little more background on this rather than the "does not meet contracting requirements" description on the website. I understand that literally an act of congress would be required to lease the Northwood Site at a reasonable rate. Very unfortunate because the MOA taxpayers actually own the airport through the State. I understand that Northwood and Raspberry is the likely site and it is unfortunate that a HLB property listed as a future neighborhood town center will now be a snow dump. What a scenic welcome site for visitors traveling down Minnesota Drive on their way to Kenai. Similar to the snow dumps lining the Seward Highway. This site also has potential for development as affordable R2-M Housing. A developer across the street just got approval for the R2-M height variance. Looking at a snow dump instead of the Chugach Mountains will not help his development. I hate to say this but the AS&G fill site would be an option if the trucking costs are not too high and the airspace was cleared with FAA and the Airport. The fill site is 300 feet down at the end of my block on Seaduff. I really don't want to look at a snow dump for 6 months out of the year, but this may be a better community option than Northwood and Raspberry. I will be asking Sara and Mia if they can contact Senator's Murkowski and Sullivan to see if a more reasonable lease can be provided at the current Northwood site. Thanks in advance for considering my comments. Frank Rast	Hi Frank, Thank you for your comment. The project team is taking it into consideration as part of the site selection study. In this process the city is considering the long term lease of the existing site but development costs are high even to retrofit it for current water quality standards. These development costs would be lost at the end of the lease unless a more permanent land agreement can be reached. We are sensitive to the impacts on current and potential residents. It is understood that the Raspberry site will potentially have more of these impacts and that will be factored into the selection process. The project team has looked into the AS&G site and found that financially, it is not a viable option. Due to the distance, trucking costs would greatly increase and since MDA does not own the land there would be purchasing costs to overcome. We appreciate your involvement on the project and will keep you posted with the progress. Sincerely,
2	3/17/2020	Email	Frank Rast	Public	Hello - I live in SW Anchorage - 1 block over from Diamond HS track. We r a swamp in this area. Our house has 2 sump pumps. When Arlene Street was recently redone, a semi truck got stuck in the muck. In the easement behind our homes the electric box has been tipped over for years. Each spring our phone service is not usable for a few days due to high water. The returning fowl swim in these flooded areas. PLEASE do NOT even consider this area for snow dumping - should there be any room. Thank you for reading this request. Sincerely, Judy See	
3	3/23/2020	Phone and Email	Judy See	Public	Hello. Are the two potential sites shown on the webpage the only potential sites under consideration that meet the criteria?	Judy called the PI team before sending her email. Email does not need to be responded to. She just wanted her comment for the record.
4a	3/24/2020	Virtual Meeting Online Chat	Name not given	Public	Also, one of the several reasons the existing site no longer is viable is because it would need improvements to meet water quality standards. What improvements would need to be made to a new site to make either of them compliant with WQ standards?	Hi This is Julie Makela, Project Administrator. Those are the two potential sites at this point that we believe meet the criteria. We are open to considering other sites suggested by the public.
4b					I am most interested in keeping snow dumps away from residential neighborhoods. As someone who has lived near the current snow dump, I would like to say that the sounds from the trucks can be very loud and not just where they dump the snow. They also sometimes illegally use their air brakes on international. There's a reason it's illegal to use them in the city, but still, they do. I do know there is a need for the snow dump as my husband was the chair of the Spennard Community Council and I know this has been an issue for the Muni for years because the land is State owned.	Both of the potential sites would have to be fully upgraded to current snow disposal regulatory standards. The potential sites are large enough to have the WQ features necessary to meet water quality standards. One of the features would be settling ponds and periodic water quality monitoring.
5a	3/24/2020	Virtual Meeting Online Chat	Margaret Auth	Spennard Community Roadhouse - Member of the Executive Committee	I also have a question: Because this will hopefully be a better planned snow dump than that currently used, will the Muni line the area to minimize contamination? I feel I have made all the comments I need to make at this time. I thank you for taking the time to do this presentation. I would appreciate more information on the design when you can get that information to me.	Thank you for your comment. This is Josie, the public involvement lead. I am sorry to hear that. I appreciate you taking the time to provide your comments and feedback. We will add this comment to our public feedback. Thanks Margaret! Would it be okay if we got back to you on your question about the design of the potential site and minimization of contamination?
5b					Just reread Connor's Bog "Advantages" list; not sure additional access to that area is necessarily a good thing. Connor Lake supports nesting loons as well as other bird and wildlife habitat. Current access seems to be adequate for those who enjoy this area. Improvements to the parking area off Jewel Lake would be interesting to see if those amenities would be viewed by users of the area as an acceptable trade off for loss of some of the parkland.	We have several project team members online. Your questions are wonderful. We will answer as many as we can. We are also tracking all of these comments as part of the public involvement outreach. So, if we need to get back to you on a few of the questions, we will.
6a					This is Cathy Gleason, Turnagain CC President. I have several questions: 1) What zoning district/s would allow this proposed snow disposal facility?	1) I will have to check on the specific zoning requirements for snow disposal sites, it is my understanding that these two parcels meet the required zoning criteria.
6b					2) Is the Municipality open to a rezoning process, if needed, to choose the best location?	2) The Muni is open to rezoning if that is needed to use the best location
6c						

6d					3) What kind of Muni and Federal permitting would be required for a snow disposal facility? 4) Is the Connor Bog site dedicated parkland? If not, how close is the site to dedicated parkland and the portion of the park located on Airport property? 5) Has the Strawberry Bog site been used as wetland mitigation for previous wetland fill projects elsewhere in Anchorage? 6) Is there any Conservation Easement designation on the Strawberry or Connor Bog sites? 7) Has the Heritage Land Bank identified either of the sites to be used as part of a Muni wetland mitigation bank?	3/24/2020	Bill Spencer	3) I believe the project will need a conditional use permit for the site, if we choose the site in Connor we will need approval from the Parks and Rec commission. Also needed will be a wetlands fill permit from the Army Corp of Engineers. 4) Yes I believe the north east corner of the bog is dedicated park land, currently lightly used
6e						3/24/2020	Bill Spencer	5,6,7) HLB has indicated that the answer to all of these is no.
6f	Virtual Meeting Online Chat	Cathy Gleason	Turnagain Community Council - President		8) Based on the locations along Minnesota Dr. of both identified sites, visual mitigation would be needed at either site, so they would not be seen from the road. Any other land use proposed for dedicated park land would require a vote of the people to dedicate it.	3/24/2020	Bill Spencer	8) We will maintain as much of the existing treeline as possible and then augment with berms and landscaping. Hi Cathy! It's Julie Makela, Project Administrator. You are correct there are municipal codes regarding dedicated parkland. I don't have the exact code in front of me but the code does allow for other municipal use of dedicated parkland. If the Connor Bog is our preferred alternative, we will need to get Parks and Rec commission approval, Planning and Zoning commission approval and Assembly approval. We can follow up later with the exact code that allows for other municipal use of dedicated parkland.
6g					Either of the two sites identified include wetlands, hydrology impacts to adjacent remaining, undisturbed wetlands as well as surrounding upland areas would need to be looked at as well. Just increased Connor's Bog "Advantages" list: not sure additional access to that area is necessarily a good thing. Connor's Lake supports nesting loons as well as other bird and wildlife habitat. Current access seems to be adequate for those who enjoy this area. Improvements to the parking area off Jewel Lake would be interesting to see if those amenities would be viewed by users of the area as an acceptable trade off for less of some of the parkland. Many thanks to all of you for making the best of the situation we find our city in right now! I really appreciate your prompt responses and look forward to participating as the project moves forward. Signing off - It's dinner time!	3/24/2020	Bill Spencer and Julie Makela	AVC 23.10.080.C is the code that lays out the steps for other municipal use of dedicated park land
6h						4/7/2020	Joie Wilson	Joie Wilson: Hi Cathy, you have a very good point. Some of the -/ were from an operational point of view and not an impact point of view. You bring up a good point. I'll take that down as a note and look into it. Thank you for your suggestion. Bill Spencer: We will be looking closely at environmental impacts as we move forward. Many of the water quality parameters can be overcome with design of appropriate treatment. Hydrology impacts can be both negative and positive and we will look at those impacts as well.
7	Virtual Meeting Online Chat	Chris Conlon	Public		How about a cement pad with waste heat from the power plant across the highway piped underground just melted as the mountain grows. Then put a greenhouse on it and grow food during the rest of the year. Would you return current site back to recreation space? Ball fields, dog agility park etc?	3/24/2020	Joie Wilson and Bill Spencer	Now that is a creative idea, not sure my scope includes looking at that option but now you have my imagination going. We would have to see how the the BTUs pencilled out and of course the melt water would just run off the pad and freeze creating a massive glacier. The heated greenhouse also has promise, we had hot house tomatoes in Kenai from the old diesel plant in the 60s. The current snow disposal site is owned by the airport. We currently rent the property on a short term basis. We're unsure of the airport's long term use plans are. The airport and muni were unable to reach an agreement on the land swap. All of the land around the airport is valuable to all parties. We will be taking all of the public comments from the virtual meeting today and creating a follow up communication and including the comments as part of the public record. We have two potential sites identified at this stage. We call these two sites: Strawberry Bog and Connor's Bog. Hello Al! Size of 34 acres or more of vacant land Centrally located to the current West Anchorage snow removal operations area to minimize haul times Allowance for 24/7 operations Allowance for operational lighting and sounds Minimized impacts to residents Economically viable development and operations cost Access from a collector roadway or higher roadway classification Able to be permitted for intended use (zoned appropriately). Yes, both sites are owned by the Municipality. The Connor's Bog site is Parks use and the Strawberry Bog site does not have any departmental use currently defined. Based on our concept look at the Strawberry site, there are restrictions for making an access off of Raspberry. The access would come off of Northwood Street south of Raspberry
8	Virtual Meeting Online Chat	Al	Public		What site locations meet your stated needs? Are both sites on city property? Are you desiring an Awwu access for the Strawberry site? How do you desire to access the Strawberry site? Your map is useless, because of the chat page overlap. Perhaps you will consider a actual meeting with readable maps.	3/24/2020	Joie Wilson, Bill Spencer, and Julie Makela	This is Melinda Tso, Project Manager. We will add your feedback to all of our collected comments. Do you use the Connor's Bog area recreationally? We've looked at a concept access route to the Connor's Bog site and it would be off of the current access from International and Northwood St. For the Strawberry Bog site access would come off of Northwood south of Raspberry Road. In fact, there are restrictions to allow access off of Raspberry so the access would come off of Northwood, which would be a new impact. Your comments are noted and we appreciate this type of feedback on potential impacts to the public.
9	Virtual Meeting Online Chat	Jacki Armstrong			In my opinion the proposed Connor's Bog site appears to have fewer, and lesser, downsides in particular the traffic impact. I do not however ride my bike by the current snow dump several times a week and the traffic issue is r. Connor's Bog vs. Strawberry is significant. Access from International is, in my opinion, safer and less disruptive than would be Raspberry.	3/24/2020	Melinda Tso	
10	Virtual Meeting Online Chat	Joe Sanks	AWWU		Hello all, AWWU here. Simple question. Both proposed site locations are near AWWU sewers. Access to the sewer mains will not be compromised? No encroachment into the sewer easement?	3/24/2020	Julie Makela, Joie Wilson,	Hi Joe! It's Julie Makela. We haven't looked too in detail to site details for either of the potential sites. As always we will work with AWWU on protecting facilities.



West Anchorage Snow Disposal Project

Project Management and Engineering No. 19-01

Phase Two Public Outreach Summary

Municipality of Anchorage
Anchorage, Alaska
October 16, 2020 – November 20, 2020



West Anchorage Snow Disposal Project Phase Two Public Outreach Summary

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Attachments

- Attachment A: Postcard
- Attachment B: Advertisements in the *Anchorage Daily News*
- Attachment C: E-Blast
- Attachment D: Project Flyer
- Attachment E: Comment Log



Introduction

This public outreach summary is used for tracking and documenting the public involvement activities conducted for Phase Two of the West Anchorage Snow Disposal Project (Snow Disposal Project). It outlines the Phase Two public involvement strategies for the period of September 1 through December 1, 2020, and the methods used to engage and inform the public on the Snow Disposal Project. The summary includes a description of the October 2020 online open house and virtual meeting live chat and the other public involvement conducted to inform the public about the availability of the Draft Site Selection Study Report and the public comment period for the report.

Overview of Phase Two Public Involvement Activities

The project team conducted a variety of public outreach tactics to engage and inform the public on the Snow Disposal Project and the availability of the Draft Site Selection Study Report. The tactics used in Phase Two are described below.

Online Open House and Virtual Meeting

On Tuesday, October 16, 2020, the Snow Disposal Project team kicked off an online, interactive, self-guided public open house on the project website that was available through Friday, November 20, 2020. The online open house consisted of a total of 10 sections that outlined project information and one section that included ways to comment on the project. The purpose of the online open house was to inform the public about the progress of the project and provide feedback on the site selection study results that identify the proposed new snow disposal site location: the Connor's Bog site.

In conjunction with the online open house, the project team hosted a virtual meeting on Thursday, October 29, 2020, from 4:00pm to 6:00pm at which members of the public could interact with the project team through the online open house site via a live chat feature.

Attendance

A total of 23 visitors attended the online open house on Thursday, October 29, 2020, from 4:00pm to 6:00pm, 11 of whom also participated in the virtual meeting live online chat. During the duration of the comment period (October 16–November 20), the site was viewed 137 times.

Advertising

The online open house was advertised in the following ways:

- Meeting information on the project website: www.westanchoragesnow.com
- Postcard mailer to residents near the project area (total of 4,139; Attachment A)
- Two advertisements in the *Anchorage Daily News* (Attachment B)
- Presentation at the Turnagain Community Council Meeting
- E-Blast sent to the Project's distribution list (total of 29; Attachment C)
- Flyers posted around the project area by the Turnagain, Spenard, and Sand Lake Community Councils (Attachment D)
- At the Anchorage Transportation Fair on November 18, 2020



West Anchorage Snow Disposal Project Phase Two Public Outreach Summary

- Social media posts of the online open house flyer to the Sand Lake Neighborhood Watch, Turnagain Neighbors, Spenard Complete Streets Coalition, and Girl Scouts of Alaska Facebook pages

Summary of Comments

The comments received during the online open house and the virtual public meeting (see Attachment E) focused primarily on the details of the site selection process and how other agencies are included, the proposed location's land designation classification and size requirements, submission of the public's preference for specific locations, requests to be added to the E-Blast distribution list, and environmental impacts and mitigation.

Other Public Involvement and Outreach Activities

Anchorage Transportation Fair

On Wednesday, November 18, 2020, the Snow Disposal Project team hosted an online and interactive booth at the Anchorage Transportation Fair. The booth consisted of three posters that outlined project information and the Draft Site Selection Study process and results. Three interactive questions were also available for booth visitors to answer and submit in real time. One section of the booth included an invitation to the Fall 2020 Online Open House, information on ways to comment on the project, and an opportunity to sign up for periodic project updates via email.

Community Council Engagement

The engagement and feedback from the Spenard, Sand Lake, and Turnagain Community Councils have been instrumental to this project's success. On Thursday, November 5, 2020, Bill Spencer, HDR Project Manager was able to attend the Turnagain Community Council Meeting to deliver a short project update and answer questions from Community Council Board members and the public. To help advertise for the public meeting, the Turnagain, Spenard, and Sand Lake Community Councils posted flyers around the project area.

Summary

The feedback received through the Phase One and Phase Two public involvement activities helped the project team make an informed decision on the preferred location for the snow disposal site. The project team will utilize the information received from the public in the next stages of the site selection process and final site selection.



Attachment A

Postcard



West Anchorage Snow Disposal Project Virtual Public Meeting



West Anchorage
Snow Disposal Project
2525 C Street, Suite 500
Anchorage, Alaska 99503

Online Open House
October 16 –
November 20, 2020

Virtual Public Meeting
Thursday, October 29 2020
4:00 pm – 6:00 pm

www.westanchoragesnow.com





West Anchorage Snow Disposal Project Virtual Public Meeting



Online Open House

October 16 – November 20, 2020

Join Us!

Virtual Public Meeting

Thursday, October 29 2020

4:00 pm – 6:00 pm

The Municipality of Anchorage has collected information on potential locations for the placement of snow removed from West Anchorage streets. The Draft Site Selection Study is now available and a preferred location has been identified. Public feedback is important and will be considered during the final site selection process.

You are invited to attend a Public Open House to provide your feedback regarding the Site Selection Study results and the preferred site location for the West Anchorage Snow Disposal Project.

Visit westanchoragesnow.com for project information, to sign up for project updates, and to submit comments. You can also contact the project team at info@westanchoragesnow.com.



Online open house available from **October 16 to November 20, 2020**.

If you have any questions, please contact the project public involvement lead, Josie Wilson, at (907) 644-2030 or Josie.Wilson@hdrinc.com.

Project Management and Engineering No. 19-01



West Anchorage Snow Disposal Project
Phase Two Public Outreach Summary

Attachment B

Advertisement in the
Anchorage Daily news

CRIME AND COURTS

2 charged with evidence tampering in Anchorage hotel killing

Tessa Williams
Anchorage Daily News

Two people were arrested Tuesday in relation to a fatal shooting at the Chelsea Inn Hotel in Spenard, although neither is suspected of being the shooter, charges say.

Soo Seo, the owner of the Chelsea Inn Hotel, described a fight

that broke out in the lobby of the hotel late on Oct. 21. During the altercation, a semi-automatic pistol dropped to the floor and was picked up by Sean Smith, 48, who was staying at the hotel, according to an affidavit filed by Detective Jeffrey Ebbie. Smith grabbed the weapon and placed it in a room adjoining his, the charges

said. Seo said the man who started the fight left and later returned with another person. Shots were fired through the hotel window and fatally struck 48-year-old hotel employee Duane Field. Shannelle MacPherson, 34, told detectives she heard screams and saw Fields dead

in the lobby. According to the charges, she grabbed two knives, two guns and a cellphone from the scene and brought them to Smith's room, which adjoined her own. MacPherson was charged Monday with five charges of tampering with physical evidence, police wrote in an alert. Smith is

facing charges of misconduct involving a weapon and tampering with evidence. Police had not identified any suspects in Field's death as of Wednesday afternoon, but said the investigation is ongoing and more arrests may be forthcoming.

ALASKA LEGISLATURE

Attendance becomes the top campaign issue in a key state House district

James Brooks
Anchorage Daily News

The state House race in Anchorage's Sand Lake neighborhood is one of a few that could decide who controls the Alaska House of Representatives for the next two years. But if you look at campaign ads in the district, the biggest issue in the race isn't the Permanent Fund dividend, school funding or the state budget. It's about the attendance of Rep. Sara Rasmussen, the Republican incumbent.

Rasmussen missed 168 of 481 votes in the 31st Alaska Legislature, the second-highest total of any lawmaker. More than 100 of the missed votes, including passage of the state budget, took place in March this year.

Rasmussen's independent challenger, Stephen Trimble, has criticized Rasmussen for those missed votes. So have third-party groups supporting Trimble's campaign.

"This is the only issue. They're sending out mailers and pushing video into my district right now," Rasmussen said.

Rasmussen calls their approach a smear campaign that misses important context: She was prevented from returning to the Capitol because of quarantine rules added after she left Juneau to attend her great-grandfather's 100th birthday.

"The short answer on that is no," said House Rules Committee Chairman Chuck Kopp, R-Anchorage.

"I don't think anybody could have seen it coming," said early on in March, said House Majority Leader Steve Thompson, R-Fairbanks.

Kopp said that while no one in the Capitol foresaw a quarantine, "it was understood by every legislator and every staff member was that the situation was evolving dramatically."

Rasmussen said on Friday that the problem she faced is one that other lawmakers will deal with in 2021.

"The pandemic isn't over. We need to find ways that we can use technology to still be able to conduct policy for our state," she said.

With the benefit of hindsight, would she have still gone on the trip? "I think that everything is always different when we can see outcomes that weren't expected," she said. "I didn't expect a shutdown at the levels we saw. We learned a lot about the virus in a short period of time, and information was changing sometimes hourly. I would never want to miss the ability to vote for two weeks. It's a commitment I take very seriously."

Attendance has been a key issue in at least one other race. Rep. Mark Neuman, R-Big Lake, was defeated in the Republican primary after local party officials endorsed his challenger. They said Neuman's absences, caused by health problems, had become a liability.

'Not in a normal world'

It's common for legislators to leave the Capitol during the legislative session to visit their districts, take care of family, or deal with medical issues. When Rasmussen left Juneau on March 11, she had already missed about 60 votes, more than three-quarters of the House's 40 members.

On the day she left for a six-day family trip, Gov. Mike Dunleavy declared a statewide public health disaster. Two days later, members of the House and Senate agreed to limit access to the state Capitol as a public health precaution. Lawmakers who traveled outside were asked to quarantine themselves away from the Capitol for one week after returning.

While some lawmakers had left Juneau for week-end trips to their home

districts, Rasmussen was the only lawmaker outside of the state at that time. Rep. Sharon Jackson, R-Eagle River, had returned to the state before the quarantine rules became effective.

On the day that Rasmussen posted a picture of herself in St. George, Utah, the Legislature extended the quarantine to two weeks.

"We're not in a normal world. It's turned upside-down," Speaker of the House Bryce Edgmon, R-Dillingham, said at the time.

After the Legislature's action, Rasmussen asked for a legal opinion. Legislative attorney Marie Marx said it wasn't clear whether Rasmussen could be forced to stay away.

In the end, she decided to quarantine for two weeks at home after returning to Anchorage on March 17.

"I appreciate that she's going to observe that, and she's really torn up," House Minority Leader Lance Pruitt, R-Anchorage, said at the time.

Rasmussen didn't exit quarantine until April 1. By then, the Legislature had passed the state budget, authorized a statewide COVID-19 emergency, and quit Juneau until May, setting a speed record for budget passage.

At the time Rasmussen left, did anyone know the quarantine rule was coming?

"The short answer on that is no," said House Rules Committee Chairman Chuck Kopp, R-Anchorage.

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While some lawmakers had left Juneau for week-end trips to their home

CRIME AND COURTS

2 Alaskans charged in violent crimes connected to white supremacist prison gang

Tessa Williams
Anchorage Daily News

Two people were charged in connection with violent crimes tied to a prison-based white supremacist gang, the U.S. Attorney's Office for the District of Alaska said Wednesday.

The gang is known as the 1488s and members have been indicted on kidnapping, murder and assault charges during the last few years.

Justin Eaton, 45, of Anchorage and Felicia King, 55, of Wasilla joined several others in an indictment for what prosecutors say was a wide-ranging racketeering enterprise born out of an allegiance to the 1488s gang.

King was charged with accessory after the fact in connection with the beating, kidnapping and killing of 32-year-old gang member Michael Slaton in August 2017, according to federal prosecutors.

Eaton, also known as "Skulls," was charged with racketeering influenced and corrupt organizations, or RICO, conspiracy, kidnapping and assault for his alleged role in the April 2017 beating of a former member.

Several defendants in the original indictment — including Filthy Fuhrer, who legally changed his name from Timothy Lobdell; Roy Naughton, known as "Thumper," 40; Glen Baldwin, known as "Glen Dog," 37; Craig King, referred to as "Oake," 53; Colter O'Dell, 26; and Beau Cook, 32 — faced multiple racketeering-related charges, including murder, kidnapping and assault, tied to the killing of Slaton.

Of the original defendants, all but Cook were charged in a RICO conspiracy. Naughton and Fuhrer additionally were charged with kidnapping and assault in aid of racketeering, in connection with incidents that happened in April 2017 and July 2017.

A joint investigation began in late 2017 and has resulted in 14 additional federal indictments related to the gang, according to Wednesday's statement from Alaska U.S. Attorney Bryan Schroder.

Fuhrer was a founding member of the group, which operated mainly out of the maximum-security Cook Creek Correctional Center, according to the indictment. The gang now operates in and out of prisons elsewhere in the country, investigators said.

Potential members are recruited and then required to serve a prison sentence before they can join the gang, according to the indictment. Members gain rank by committing crimes, the indictment said.

The group operates according to a widely distributed set of written rules that outline the structural order and

The most serious crimes — murder in aid of racketeering and kidnapping resulting in death, in aid of racketeering — are punishable by mandatory life sentences.

rank of members, prosecutors said. Members identify through Nazi symbols and must commit violence on behalf of the gang before they're able to get a tattoo, or "patch," indicating that they're a high-ranking member.

Around 2016, Fuhrer became concerned that other members would disobey the rules while he was incarcerated, the indictment said. In order to enforce discipline within the gang, he allowed members to impose violent punishment on those who had disobeyed, the indictment said.

In 2017, Naughton had become upset with Slaton, who also went by the name "Steak Knife," and asked Fuhrer for permission to "violently discipline Slaton, because he had stolen from the Hells Angels and Naughton himself," the indictment said. Fuhrer agreed and gang members took him to an abandoned Wasilla home, where he was beaten and later shoved into the trunk of a car and taken to Craig and Felicia King's home, the indictment said.

Gang members had prepared an empty room with painting plastic in anticipation of beating Slaton, according to the indictment. He was later wrapped in plastic and carpet, thrown in the trunk of a vehicle and taken to the woods, where O'Dell and Baldwin fatally shot him and buried his body, the indictment said.

Two other 1488 members, Nicholas M. Kozora, 29, known as "Beast," and Dustin J. Clowers, 34, previously pleaded guilty to murder in aid of racketeering. Cook also pleaded guilty to kidnapping for his role in Slaton's death.

The most serious crimes — murder in aid of racketeering and kidnapping resulting in death, in aid of racketeering — are punishable by mandatory life sentences, prosecutors said.

"Violent, race-motivated gangs don't belong in Alaska's communities, and those who engage in such violence will be aggressively pursued and held accountable," said Robert Britt, Special Agent in Charge of the FBI Anchorage Field Office. "Today's additional charges exemplify the FBI's commitment in using a task force approach to disrupt and dismantle criminal organizations wherever they may surface."

ANCHORAGE

Assembly to consider special election for mayor at Nov. 4 meeting

Aubrey Weber
Anchorage Daily News

The Anchorage Assembly plans to vote Nov. 4 on whether to hold a special election for mayor this winter.

A resolution sponsored by Assembly members Crystal Kennedy, Jamie Allard and Kamaron Perez-Verdia would create a special election on Jan. 26.

The resolution was originally on this week's agenda, but the meeting ended before the body took it up.

Also on the Wednesday agenda is a public hearing for an ordinance from Assemblyman John Weddleton, which would have the winner of the April mayoral election take office upon certification of the results, rather than wait until July.

Acting Mayor Austin Quinn-Davidson was sworn into office Friday evening, after former Mayor Ethan Berkowitz resigned after acknowledging an "inappropriate messaging relationship" with a reporter.

After Berkowitz announced his resignation, the Assembly voted to reorganize the body, as the chair becomes acting mayor or until a new one is elected. Quinn-Davidson was selected.

The next regularly scheduled mayoral election is in April, and the winner would normally take office in July. However, some felt that's too long to have an unelected mayor leading the city.

Any candidate eligible for the April election would be eligible for a special election, but like the regular election, the winner needs to get at least 45% of the vote.

More than 10 candidates have filed letters of intent with the state for that position, making a runoff for a special and general election likely.

City clerk Barbara Jones said the city estimated a special election to cost about \$350,000 and a runoff could cost around another \$220,000.

That candidate would have to win again in the April election to remain mayor.

The resolution to hold a special election needs six votes to pass, which is more difficult than usual since Quinn-Davidson, as acting mayor, will not vote. Neither will Forrest Dunbar, who is running for mayor. That would mean two-thirds of the voting members would need to support the resolution.

INTERIOR

Collision near Fairbanks leaves truck driver dead

Anchorage Daily News

A collision early Tuesday involving a water tanker and a volunteer fire department pickup along the snowy Parks Highway near Fairbanks left one man dead, Alaska State Troopers said.

An Ester Volunteer Fire Department pickup driven by 32-year-old Emma Leon of Fairbanks was northbound on the highway near Mile 354 around 8:30 a.m. when she started to pass a

slower-moving vehicle in the other northbound lane, troopers said in a news statement. The pickup went out of control and crossed into oncoming traffic lanes, where it struck a Pioneer Wells water-hauling tanker. Troopers said Leon tried to help the other driver, 36-year-old Dewey Frost of North Pole, after the crash. Frost was trapped inside the truck and died of his injuries, troopers said.

The highway remained dangerous Wednesday morning, and the state Department of Transportation said travel would be difficult in the area because of ice, packed snow and fresh snow on the roadway. Troopers said the crash is under investigation.

West Anchorage Snow Disposal Project
Project Management and Engineering No. 19-01

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October 16, 2020 - November 20, 2020

Virtual Public Meeting
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from 4:00 pm to 6:00 pm

Visit westanchagesnow.com

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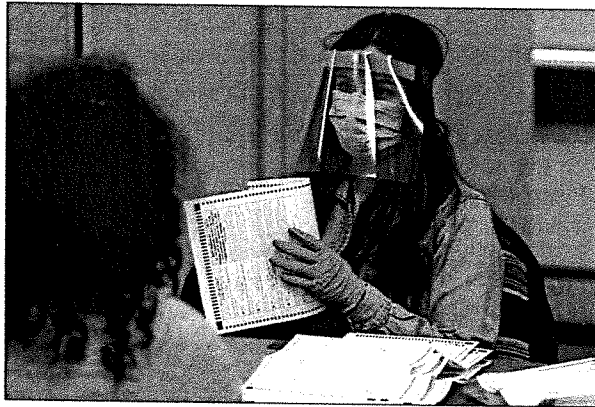
Visit www.westanchagesnow.com for project information or to submit comments. You can also contact the project team at info@westanchagesnow.com.

Get your
Downtown Dining To-Go!

FREE curbside pickup provided by EasyPark and a full list of participating restaurants from the Anchorage Downtown Partnership

Get started at:
AnchorageDowntown.org

EasyPark



Election official Elaine Leibert prepares absentee ballots to be scanned and tabulated at the Division of Elections Region II office in Anchorage on Tuesday.

FROM PAGE A1 COUNT

Independent challenger Alyse Galvin by 18 points, down from 26 on Election Day. U.S. Sen. Dan Sullivan led Democratic-endorsed independent Al Gross by 30 points on Election Day and now leads by 22 — 58% to 36%.

At the top of the ticket, President Donald Trump leads Democratic candidate Joe Biden by almost 20 points, or 58% to 38%, down from 29 points on Election Day.

Entering Tuesday, Gross, Galvin and Biden needed to win about 70% of all remaining votes in order to overcome Republican leads on Election Day. Instead, they won between 53% and 57%. That means they must win a much greater percentage of the remaining 100,000 or so uncounted ballots to win.

Following Tuesday's batch of results, the Gross campaign sent out a statement saying the race remains too close to call. When asked if he is confident that future batches will more heavily favor Democrats, Gross campaign manager David Keith said "absolutely."

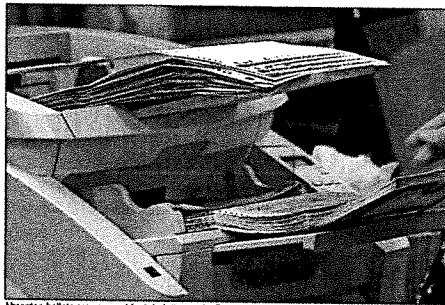
Gross would have to win more than three-fourths of the remaining ballots to win the election. Matt Shuckorow, Sullivan's campaign manager, said the numbers reflect what the campaign anticipated, and Sullivan continues to hold a strong lead. He said he doesn't want to be critical of the Gross campaign's optimism, but eventually the numbers are undeniable. "I think ultimately our opponent is going to begin being far more realistic at what is happening," Shuckorow said.

The most recent, and so far most aggravating aspect of this is that his parents were supposed to stay at our cottage over a long weekend. Instead of relaxing and enjoying themselves as they promised, they secretly went just to do a deep clean, started little projects around the house, and fixed up minor things, which we were preparing to do ourselves.

I feel guilty for the work they did, in addition to feeling like our place wasn't sufficiently clean for them. This may seem like a dream to others, but to me, it is just another way which I feel my partner (who is the youngest of three), has shirked his responsibilities and failed to grow up.

I am the oldest of three, and I've always fixed things on my own. Currently, we have a leaking faucet. Our own plumber said that we could do this on our own pretty easily.

I would like us to work



Absentee ballots are scanned for tabulation at the Division of Elections Region II office.

The Galvin campaign declined to immediately comment on the new batch of results. All judges on the ballot are leading and on pace to be retained by voters.

Ballot Measure 1, the proposed oil tax increase, continues to trail by a wide margin. Down by over 29 percentage points on Election Day, it still trails by a 22-point margin.

The story is different for Ballot Measure 2, the three-part election-reform measure. Behind by 13 percentage points on Election Day, it now trails by fewer than 7 points. If the state's remaining uncounted ballots follow the same pattern as Tuesday's result, the measure would win by about 4,000 votes.

Few state legislative races received definitive results. In Fairbanks, House District 1 was a notable exception. Two years after winning by a single vote, Republican Rep. Bart LeBon has a 73-vote lead over Democratic challenger Christopher Quist. Estimates indicate about 500 votes remain to be counted there.

In Anchorage, several Democratic incumbents who trailed on Election Day now lead by significant margins. Rep. Ivy Spohnholz trailed Republican Paul Bauer on Election Day, but she now leads by 13 percentage points. About 1,100 votes are uncounted in that race, but the remaining votes are expected to lean Democratic.

Democratic Sen. Bill Wielechowski, whose Anchorage district covers Spohnholz's House district, trailed on Election Day but now leads Republican opponent Madeline Gaiser by 16 percentage points and appears on track for the largest victory in his political career. About 11,000 votes have been tallied, and about 2,100 remain.

Rep. Chris Tuck leads Republican Kathy Henslee by about 5 percentage points with 6,401 votes tallied. About 1,000 votes remain to be counted. Tuck trailed Henslee by 19 percentage points on Election Day.

Two Democratic incumbents in Fairbanks — Rep. Adam Wool and Rep. Grier

Hopkins — also lead after trailing on Election Day.

Few votes were counted in the Anchorage House race between Republican incumbent Rep. Lance Pruitt and Democratic challenger Liz Snyder, or in the race between Anchorage Assemblywoman Suzanne LeFrance and Republican James Kaufman. The winner of the latter election will decide who replaces Rep. Jennifer Johnston.

Anchorage Republicans Mel Gillis and David Nelson saw their Election Day leads dwindle significantly. Nelson leads Democratic candidate Lyn Franks by only 126 votes with more than 1,000 to be counted. Both are seeking to replace Rep. Gabrielle LeDoux.

Gillis, an incumbent appointed by Gov. Mike Dunleavy, leads Democratic-endorsed independent Calvin Schrage by 166 votes with almost 1,900 still to be counted.

Statewide turnout is on pace to break the all-time record, with about 350,000 votes expected. The old record, set in 2008, saw 327,241 votes cast.

FROM PAGE A1 SLOW PACE

the part of election workers. Alaska waits a week after Election Day to start counting absentee and some early voting ballots. With high absentee voting due to the COVID-19 pandemic, the number of unprocessed ballots has been placed under a microscope. On Tuesday, several people questioned the Division of Elections on social media, asking officials to explain how the unique weeklong delay improves integrity.

"We can ask the appropriate people for that information and try to give you an explanation," the elections division responded on Twitter.

"More than anything, it's an inconvenience for folks who are trying to figure out if they're elected or not elected. But the real danger with a slow count is if the public feels there's something wrong with the process. And in my view, they're right. We do need to clarify this in the upcoming Legislature," Kawasaki said.

Alaska is the only state in the nation that delays the counting of absentee ballots until at least after Election Day. Gail Fenucci, director of the Alaska Division of Elections, has previously said that delay is needed because the state compares signature books at Election Day polling stations with absentee ballots submitted by voters.

Until the books return from the state's 400-plus polling stations to regional counting facilities, absentee ballots can't be fully processed.

But in 2016 and 2018, Alaska used a different procedure common in other states. If someone requested an absentee ballot, their local poll book contained a warning label indicating that they had done so.

If they wanted to vote in person instead of through the mail, they either had to vote a questioned ballot — which would be subject to additional post-election review — or bring their blank absentee ballot to the polls as proof that they hadn't voted twice. Poll workers were instructed to tear up the absentee ballot in this election, but we're patient.

That procedure allowed some absentee ballots to be counted on Election Day because officials could guarantee their validity ahead of time.

Alaska law also restricts the amount of pre-processing that can be done before Election Day. Some states allow election workers to examine absentee ballots three weeks before Election Day, according to analysis by the National Conference of State Legislatures. Alaska's absentee ballot review board isn't convened until a

week before Election Day. Pennsylvania, which similarly restricts absentee ballot review, hired multiple shifts of election workers to process ballots faster. Alaska did hire additional workers this year to deal with a record absentee turnout, but it does not appear to have done so to the extent that Pennsylvania did.

Lt. Gov. Kevin Meyer, the elected official in charge of the state's elections, has declined multiple interview requests from the Daily News, including one on Tuesday afternoon when his spokesperson said he was unavailable.

Meyer did give an interview on the election process on a conservative talk radio show Tuesday morning, saying his goal is to keep elections normal despite an abnormal year.

The Daily News sent a list of questions to Meyer and his staff, including whether Alaska's system provides more security than other states and whether Meyer is happy with how the election has been run. He did not respond.

While some have been quick to publicly voice frustration, Alaska's congressional campaigns have shown patience. Challengers Al Gross and Alyse Galvin are fighting the large leads that U.S. Sen. Dan Sullivan and U.S. Rep. Don Young secured on election night and the following day. Both the Gross and Galvin campaigns have said they believe early and absentee voting could favor them enough to come back and win.

Matt Shuckorow, Sullivan's campaign manager, said the campaign will look back at the process after the election, and said he expects the state and Legislature will do the same. But he has confidence in the integrity of the system.

"In a perfect world, we would have loved to have our results sooner, to have the absentee ballot in this election, but we're patient."

David Keith, campaign manager for Al Gross, also said he is not frustrated with the delayed results. He characterized it as "enhanced anticipation."

Despite the state's slow start, Alaska law demands that the state finish counting no more than 15 days after Election Day, and the election is scheduled to be certified by Nov. 25. If it does so, the state will finish ahead of at least 19 others, which have later deadlines or none at all.

Cottage deep clean uncovers a relationship mess

Q. Dear Amy: I have been with my partner for six years. We are both 30. We live together and own a small cottage together outside of the city.

His parents are very kind people, but they don't seem to want to allow my partner to grow up and be independent.

The most recent, and so far most aggravating aspect of this is that his parents were supposed to stay at our cottage over a long weekend. Instead of relaxing and enjoying themselves as they promised, they secretly went just to do a deep clean, started little projects around the house, and fixed up minor things, which we were preparing to do ourselves.

I feel guilty for the work they did, in addition to feeling like our place wasn't sufficiently clean for them. This may seem like a dream to others, but to me, it is just another way which I feel my partner (who is the youngest of three), has shirked his responsibilities and failed to grow up.

I am the oldest of three, and I've always fixed things on my own. Currently, we have a leaking faucet. Our own plumber said that we could do this on our own pretty easily.

I would like us to work

together to fix it, but he just wants to call up his parents to have them come and take care of it.

How can I approach this situation (and future projects), without sounding selfish and ungrateful for their kind efforts to help?

I've grown up faster than my partner has.

— Independent

A. Dear Independent: For many people, doing little jobs around a cottage is as restful and relaxing as they can handle.

However, while some people might interpret family members' "deep cleaning" their home as a welcome gift, you don't like it (I would, either).

You seem to see this as an indictment of your partner and his parents; I see this as a boundary issue which you, as an independent person and homeowner, can address.

You could say to them, "Wow, you really did a deep clean when you stayed at the house. I honestly wish you hadn't. Also, I know it might be frustrating for you to see these little things around the house that need to be fixed, but we want to fix them on our own."

If you believe that fixing a leaky faucet on your own is a sign of adulthood, then

fix that. There are plenty of YouTube videos available to demonstrate basic home repair (or you could ask your guy's mom to show you). It is a one-person job, so get started.

In many families, "acts of service" are how family members express their love. Letting these people be useful at things they are obviously good at might be a kindness to them. But you get to set the boundaries.

Q. Dear Amy: I'm sure you are getting a lot of mail about attending weddings in the time of COVID.

Here's my dilemma: My niece is getting married in May 2021 in another state. My husband and I are not sure that it will be safe for us to travel across the country to attend her wedding. My sister-in-law keeps talking about it as if it is a given that we'll be there. What should we tell her?

— Worried About Wedding

A. Dear Worried: You should tell your sister-in-law that you are crossing your fingers that you will be able to travel safely to this wedding, but that so far, you just don't know.

Ask her to be frank with you about the deadline for making your decision, and promise to let her know

before that date.

The pandemic has forced most families to recalibrate their plans. One thing I hope we have all learned is that each person needs to be responsible for their own safety, comfort, and health, regardless of the pressure they may feel to override their own judgment for the sake of appearances.

Q. Dear Amy: "Heartbroken" relayed his pain

when his long-time partner

stayed with him through his battle with cancer, and then left after he recovered.

For years, I ran a support network for brain tumor patients at a medical center in Cleveland and was amazed at how many couples broke up when one was diagnosed.

Your answer was correct, compassionate and wise. Heartbroken will do better with someone else, but will not understand

that until later.

— Supportive

A. Dear Supportive: True understanding most often appears in the rearview mirror.

Contact Amy Dickinson at askamy@amydickinson.com or Ask Amy, P.O. Box 1594, Freeville, NY 13068. You can also follow her on Twitter @AskAmy or "like" her on Facebook.



that until later.

— Supportive

A. Dear Supportive: True understanding most often appears in the rearview mirror.

Contact Amy Dickinson at askamy@amydickinson.com or Ask Amy, P.O. Box 1594, Freeville, NY 13068. You can also follow her on Twitter @AskAmy or "like" her on Facebook.

West Anchorage Snow Disposal Project
Project Management and Engineering No. 19-01

Please Join Us at the Anchorage Transportation Fair!
Date: Wednesday, November 18, 2020
Time: 4:00 PM – 7:00 PM
Location: <https://publicinput.com/N7313>

The Municipality of Anchorage has collected information on potential locations for the placement of snow removed from West Anchorage streets. The Draft Site Selection Study is now available, and Connor's Bog has been identified as the preferred location. Public feedback is important and will be considered during the final site selection process.

Please join us at the project's online Anchorage Transportation Fair Booth to provide your feedback regarding the Draft Site Selection Study and the preferred location for the West Anchorage Snow Disposal Project.

The comment period ends November 20, 2020. Visit www.westanchagesnow.com for project information and to submit comments. You can also contact the project team at info@westanchagesnow.com



West Anchorage Snow Disposal Project
Phase Two Public Outreach Summary

Attachment C

E-Blast



West Anchorage Snow Disposal Project



Please Join Us! West Anchorage Snow Disposal Project

Virtual Public Meeting

Thursday, October 29, 2020

4:00 pm – 6:00 pm

www.westanchoragesnow.com

The Municipality of Anchorage has collected information on potential locations for the placement of snow removed from West Anchorage streets. The Draft Site Selection Study is now available and a preferred location has been identified. Public feedback is important and will be considered during the final site selection process.

You are invited to attend an Online Open House to provide your feedback regarding the Site Selection Study results and the preferred site location for the West Anchorage Snow Disposal Project.

Visit www.westanchoragesnow.com for project information or to submit comments. You can also contact the project team at info@westanchoragesnow.com

Project Management and Engineering No. 19-01





West Anchorage Snow Disposal Project
Phase Two Public Outreach Summary

Attachment D

Project Flyer



West Anchorage Snow Disposal Project

Project Management and Engineering No. 19-01

Please Join Us!



Virtual Public Meeting
Thursday, October 29, 2020
4:00 pm – 6:00 pm

westanchoragesnow.com

Online open house will be
available **October 16, 2020 to**
November 20, 2020.



The Municipality of Anchorage has collected information on potential locations for the placement of snow removed from West Anchorage streets. The Draft Site Selection Study is now available and a preferred location has been identified. Public feedback is important and will be considered during the final site selection process.

You are invited to attend an Online Open House and Virtual Public Meeting to provide your feedback regarding the Site Selection Study results and the preferred site location for the West Anchorage Snow Disposal Project.

Visit www.westanchoragesnow.com for project information or to submit comments. You can also contact the project team at info@westanchoragesnow.com.



Attachment E

Comment Log

West Anchorage Snow Disposal Project Phase Two Comment Log									
Comment Number	Date	Comment Type	Commenter	Contact Information	Organization	Comment	Report Date	Responded By	Response
1	10/28/2020	Email to Melinda Tsu	Cathy Gibson	cathy.gibson@ci.wa.gov	Public	Voice mail left for Melinda Tsu requesting a copy of the draft site selection study	10/28/2020	Melinda Tsu	Hello Cathy, I received your voice mail requesting a copy of the draft site selection study. If you can join our meeting tomorrow evening, that would be great. And if you are not able to join the meeting, please feel free to provide comments either through the project website comment or to PM&E by November 20th. Best regards, Melinda Tsu
2a								Jodie Wilson	Cathy – hope you can join us! All – the Site Selection Study is also available online at: https://www.westanchagesnow.com/ Looking forward, -Jodie
2b	10/29/2020	Virtual Meeting	Chad Wilson	chadwilson@ci.wa.gov	Public	How was the site decided?		Bill Spencer	Chad, greeting this is Bill Spencer. Project lead at HDR. We went through a study and site selection process that produced Connor's as the preferred alternative. We are of course still collecting information and this meeting is part of that process. I could walk you through the reasoning, do you have any particular area of interest.
2c						Thanks. Cool. Yes, what goes into the process? I'm supportive, just curious.		Bill Spencer	If you have the time you can go to the site and have a look at the site selection study. It lists all the parameters we looked at and the winnowing down of possible sites to the preferred alternative. It is a gripping read, bring a cup of strong coffee.
2d						Hebi!!! will I was hoping to not have to read it and just ask. My wife, Jodie, is on the project and I like to ask her questions. @		Bill Spencer	That would explain why she suggested that I answer you inquiry ;), my wife would have probably done the same. The crux of it comes down to finding a site in the snow removal area to be serviced, that the city owned (low cost), with relatively low impacts to neighbors and ability to be operated at night when most of the snow removal operation take place.
3a						That's funny. :) thanks. That's all I really wanted to know. Have a good night. Tell Jodie not to work too hard.		Bill Spencer	We'll try to get her freed up in time for dinner
3b						Will there be any kind of presentation or just Q&A chatting?		Jodie Wilson	Hi Cathy! Thanks for joining us. This is Jodie. We have the entire project team on this virtual chat available. No formal presentation. :)
3c						I haven't had a chance to read the site selection study, but looks like the recommended site is in Connors Bog just south of the ballfield area along Minnesota – correct?		Melinda Tsu	Hello Cathy! This is Melinda Tsu. Thanks for joining us tonight! To answer your question, yes the preferred site is the Connor's Bog site south of Dale Vega field. -- Melinda
3d						Even though this parcel is not technically dedicated parkland (and thus reduces Parks and Recreation Department approval, has the Parks Dept. been included in the site selection process to-date and aware of the recommended site?		Melinda Tsu	True that the site is not dedicated parkland as you noted. PM&E and the project team has involved Parks and Rec in the site selection process. We also provided an information item about the preferred site, Connor's Bog, to the Parks Commission and the Parks provided a staff report confirming their support of the identified site.
3e						When did this go before the Parks Commission? Did the Commission (or just staff) provide support of the site for snow disposal use?		Melinda Tsu	It was on the September 10, 2020 Parks Commission meeting. There was no formal action item, but the Commission did not express any objection and just asked to be kept informed.
3f						With public had been notified about that meeting to provide input to the Commission. The West Anchorage District Plan does designate this area as "Parks and Natural Resource," so surprised the Parks Dept. supports this Class A Wetland being used for the snow dump.		Melinda Tsu	The Parks Commission does not have a formal role in this project and therefore this item was not advertised to the public. However, when PM&E attended the meeting, we did specify that PM&E has a public involvement process and we will be collecting input and feedback that we receive about the site selection process and the preferred site identified.
3g						That's unfortunate. Does the Site Selection Study make reference to the WADP and its land use designation? (Sorry, again, that I have not looked through it, yet). If not, that's a big omission in the study; if so, how does it justify an incompatible use, i.e., the snow disposal site, based on the "Parks and Natural Areas" land use designation?		Jodie Wilson	Hi Cathy! This is Jodie. I wanted to also let you know that the meeting today is being recorded as part of the public record. We will make sure your comments and questions are represented as the project goes through the process. :) So, thank you! We appreciate you participating.
3h						Is the WADP land use designation of this parcel addressed in the study?		Julie Makela	Hello! This is Julie Makela. I'm the project administrator. We recognize this is a valuable park and natural area. We explored to the maximum extent possible site location that meet Street Maintenance criteria for a cost effective operation. We know there are pros and cons to the preferred site.
3i						Thank you – I was heavily involved as one of two Turnagain Community Council representatives in the development of the WADP, so when something is proposed to counter this Plan (which took 2.3 years for completion!), it definitely gets my attention. Is mitigation for filled 32 acres of Class A wetlands been addressed, yet? I would think the most appropriate path to for the Corps fill permit would be to create permanent protection for the remaining MDA-owned wetlands contiguous to this parcel.		Julie Makela	I don't believe we mentioned it in the draft but this is a great point. We will include this in our analysis and final version.
3j						Definitely would like to see the public involved in that discussion, to ensure the remaining wetlands in this area will not be subject to future "industrial" development.		Julie Makela	After finalizing the Site Selection Study, our next step is to go to the USACE to get a jurisdictional determination and lay out a path for permitting (if required).

3k	10/29/2020	Virtual Meeting	Cathy Gleason	cathy.gleason@turnagain.com	Turnagain Community Council	10/29/2020	Bill Spencer Cathy, this is Bill Spencer, water resource engineering lead for HDR. Unlike the current site this new site will be designed with treatment structures. The primary pollutants that come out of millwater are chloride and sediment (turbidity). We have Scott Wheaton (MOA's retired watershed scientist) on our team and will take a close look at the ADEC requirements for discharge and how to meet them. Settlement and detention ponds will be part of the mix as will structures to disperse the millwater into the wetlands to help with continued hydration or the remaining wetlands. The current site also discharges into these wetlands but without extensive treatment. Most of that water flows directly downlope to the lake and has limited positive impact on the wetlands. While we definitely will have a negative impact on the wetlands where the snow is deposited we are hoping to have a positive effect on the remaining wetlands.	Bill Spencer This is Melinda Tsu again. Very relevant question Cathy. PM&E is aware that the Real Estate Department is pursuing a short term lease for use of the Airport property for the municipality to continue to use that site for snow disposal use. This is necessary for the interim until a permanent site that is owned by the MOA. This project still has many steps to work through beyond confirming the final site selection, including agency permitting and design. Therefore this short term lease is needed until the permanent site is constructed and ready for operation, which is not anticipated until 2021 or 2022 depending on the development process and method of construction.
3l						11/2/2020	Bill Spencer Hi Cathy, this is Josie again. I was honestly unaware about the other public comment period on the other snow project. Thanks for letting me know. I really appreciate it. I think it could be confusing so any advice is appreciated on how to make it more clear. I know the team wanted to release the draft site selection study as soon as possible. Hopefully, with the Online Open House being available for a while, that will help. If you have any thoughts to clarify or help communication for this project, I welcome your advice. :)	Melinda Tsu Cathy, Bill again, the actual disposal area is proposed to be 10-15 acres, there will be a small additional footprint for access roads, berms and water quality structures. The site selection study chose about half of the parcel as shown on the site selection graphic. Creating the fill pad for the snow disposal area will be the major cost of creating the site and will be kept to the minimum needed by street maintenance. We will need to clarify that point in the document. Thanks for pointing out that inconsistency.
3m						11/2/2020	Josie Wilson Hi Cathy, this is Josie. From the project team, we all want to thank you. Your questions and comments have been helpful and insightful. We do intend to post the comment spreadsheet. And based on your suggestion, the team is going to post something online. So, thank you! :)	Josie Wilson Hi Cathy, this is Josie. From the project team, we all want to thank you. Your questions and comments have been helpful and insightful. We do intend to post the comment spreadsheet. And based on your suggestion, the team is going to post something online. So, thank you! :)
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4b	11/5/2020					Thank you Josie. Yes, if you could add me to the email updates, that would be awesome. Thanks. Shaun T. Debenham Debenham Properties President 2960 C Street, Suite 202 Anchorage, AK 99503 P: (907) 562-9330 E: shaun@debenhamproperties.com				No response required	Greetings Jana, Thank you for taking the time to notify the Project Management and Engineering Department (PM&E) about your concerns. We are so sorry to hear about the snow plowing issues. At PM&E, we take every public comment and feedback as valuable. We will share your concerns and frustrations with the Operations and Maintenance team to see if there is anything that can be done. We also wanted you to be aware of the Municipality of Anchorage's Street Maintenance Dispatch Center at 343-8277. We encourage you to call them when snow plowing is needed on your street during winter. If you have any questions on the West Anchorage Snow Disposal Site Selection Project, please let us know. We would be happy to add your email to the project list for receiving email updates on this project. If you desire to be kept informed. All emails are kept confidential and used for this project only. Updates will also be posted to the project website at www.westanchagesnow.com . Again, thank you for your involvement and input. We appreciate it. Thank you, Josie Wilson
5						Hi, I would just like to comment on the snow "removal". I live in a cul de sac on Bedford Circle in West Anchorage. The snow is rarely, if ever removed from the cul de sac. We are treated as second class citizens. The snow mountains in the middle of our cul de sac makes it difficult to back out of our driveways and can possibly impede any fire trucks or ambulances that might have to come through here. Neighbors add to the giant parked outside of their driveways. There are five homes with elderly people here. Neighbors add to the giant mountain of snow when shoveling and one set of kids drive their four wheelers over it and play on it. It is maddening to have these giant mountains of snow and one of the reasons that I would love to leave here. Can you please consider adding the cul de sacs to the list of removal to the snow dumps? Very few people will see the ad for this project in the newspaper as it is small and people don't pay attention. Thank you, Jana Barlow	11/6/2020	Josie Wilson			Greetings Karen, Thank you for taking the time to provide a comment on the Draft Site Selection Study. Your comment really means a lot to us and we are glad that the preferred site location identified could be a potential blessing for vulnerable bird species. We certainly hope this to be the case! Public comment is an important part of the process and your comment will be included in our documentation. If you are interested in being added to the project list and receive email updates, please let us know. Updates will also be posted to the project website at https://www.westanchagesnow.com/ . We also welcome any information you can share on how this project could benefit sensitive bird populations. Again, thank you for your involvement and input. We appreciate it. Thank you, Josie Wilson
6						I am completely supportive of snow removal placement at Connor bog. For 5+ years I have been part of a nationwide project to track existence and numbers of vulnerable bird species in wetlands. This past year I was shocked at the low level of the water and talked with a knowledgeable person in the muni about it. The bog apparently is not stream fed but derives it's water from rainfall and snow removal piles. Two years of low rainfall and snow took a toll on a very special much loved lake that supports an amazing variety of wildlife including vulnerable bird species. The snow removal piles may very well make a huge difference in the survival of Connor bog. I so thank you for selecting it. Not to dramatize but this is an answer to one of my prayers. My gratitude to you Karen Cody 602-3111 6521 Bridget circle 99502	11/17/2020	Josie Wilson			Hi Karen, We added you to the project email list. Again, please do not hesitate to reach out with any future comments or questions. We appreciate you. Thank you for your kind words. All the best, Project Team
7	11/11/2020	Email			Karen Cody	theaverv12@gmail.com	Public			Yes I would be so grateful to be added to your update list and thank you for your considerate and sensitive response to my email Karen Cody	No response required
8	11/17/2020	Email			Karen Cody	theaverv12@gmail.com	Public			And I am so grateful to you for using Connor bog. Now the special and vulnerable birds who have thrived there including red necked gable couples will have a chance in a bleak year you have been a huge beam of sunlight Hello, Attached is a copy of our comment letter for this proposed project. Thank you, Cherie	No response required
9	11/20/2020	Email			Cherie Northon	cherie@anchoragecouncil.org	Anchorage Waterways Council			Letter: To whom it may concern, ANCWC is committed to the protection of the waterways and wetlands within the West Anchorage Snow Disposal - Draft Site Selection Study. We have strong concerns about the proposed "preferred alternative" known as Site 5 in the West Anchorage Snow Disposal - Draft Site Selection Study. It is agreed by AWC and the West Anchorage Snow Disposal Site team that this site, specifically, and Connor Bog, in general, are the highest value Class A wetlands. Accordingly, there is the utmost need for them to be protected and carefully considered for impacts. 1. AWC believes that it would first be prudent to continue negotiations with the Ted Stevens International Airport in regard to a longer-term lease with the MDA for the existing "Northwood Site". 2. Although we disagree with the path forward, if the preferred site were to be developed, we would like to ensure that proper permitting and mitigation are completed pursuant to Section 404 of the Clean Water Act through the U.S. Army Corps of Engineers. West Anchorage Snow Disposal Project Team ANCWC Board President	All the best, West Anchorage Snow Disposal Project Team

10a	West Anchorage Snow Disposal Site Project Team. Please accept the attached comments from Turnagain Community Council. Thank you, Jodie, for allowing me to submit them beyond the stated deadline of last Friday. We hope to receive serious consideration of our letter, as the importance of Connor's Bog Class A wetlands to the West Anchorage community is significant. Don't hesitate to contact me, if you have any questions or need clarification on our input. Jodie L. Jorgensen Turnagain Community Council President 248-0442					
10b	RE: West Anchorage Snow Disposal DRAFT Site Selection Study Dear West Anchorage Snow Disposal Site Project Team: Thank you for the opportunity to provide input on the West Anchorage Snow Disposal Draft Site Selection Study (Draft Study) prepared for the Municipality of Anchorage (MOA) Project Management and Engineering Department (PM&E). Turnagain Community Council (TCC) has reviewed this document and is respectfully requesting consideration of the following comments.					
10c	Review/Compliance of Municipal Planning Documents Lacking in Draft Study After initially considering 19 potential sites for a MOA snow disposal site in West Anchorage, the Site Selection Process outlined on page 7 of the Draft Study states, "Once an inventory was developed for initial site identification, each site was evaluated based on defined site characteristics to define the most suitable for further analysis." The Draft Study ultimately recommends Site #5: Connor's Bog for a West Anchorage snow disposal facility (pages 1 & 22). However, this process did not include a very important step: with the exception of selective reference to the Anchorage Wetlands Management Plan, the process did not include assessment of the sites for compliance/conflicts with adopted Municipal land use/planning documents. Specifically, when evaluating Site #5: Connor's Bog for a West Anchorage snow disposal facility, the Draft Study did not determine whether this site is compatible with multiple adopted Municipal land use planning and policy documents that generally fall under the umbrella of the 2020 Anchorage Bowl Comprehensive Plan. While acknowledging that this site is located in Class A wetlands, the Draft Study comes to the conclusion that "5: Connor's Bog Site is a very desirable snow disposal site... and has few drawbacks." (page 13). TCC strongly disagrees with this conclusion, based on important Municipal plans that clearly identify Connor's Bog as a high value natural open space that provides important values and functions for the west area of our community — and that these Class A wetlands should be preserved in their current, undeveloped state. These documents include: 2020 Anchorage Bowl Comprehensive Plan (adopted 2001) o Connor's Bog is identified as an "Important Wetland" and "Important Wildlife Habitat" (identified by local wildlife experts and scientific reports) (page 63) Anchorage Park, Natural Resource & Recreation Facility Plan (adopted 2006) o Map 6: Natural Resource Use Areas designates area of Site #5: Connor's Bog area as "Municipal Park Land" and "Appendix B (pages 10-11): Class A wetlands are included in the category of "Natural Resource Preservation Land," and are defined as "Those areas that perform important environmental functions and have high ecological values" and "...should be permanently dedicated as NR Preservation Lands that can only be altered by a 60 percent vote of the community."					
10d	West Anchorage District Plan (WADP) (adopted 2012) o Exhibit 2-13: Parks and Open Space map designates Site #5: Connor's Bog area as "Parks" o Exhibit 2-14: Wetlands Classifications and Coastal Zone Boundary map designates Site #5: Connor's Bog area as "Class A (High Value)" o 2.5 Park, Recreation, and Open Space section states, "The Southwest Parks District... has a large concentration of Natural Resource Use areas (areas designated for preservation rather than public use)." This includes the Site #5 Connor's Bog area (page 46) o Exhibit 4-1b: Sand Lake Land Use Detail designates area of Site #5: Connor's Bog area as "Class A (High Value)" o New "Parks Objective #8: Manage, protect and enhance municipal parks, greenbelts and natural open spaces as included in the Comprehensive Plan, and consider historic and wildlife habitats and wetland resources." This section states, "The WADP designates that high-value wetlands and riparian areas be acquired for permanent protection. Wetlands owned by the Municipality (which includes Site #5: Connor's Bog), should be preserved with a conservation easement or transferred to an appropriate public agency for long-term preservation and management."					
10e	Anchorage Wetlands Management Plan (adopted 2014) o Table 4.1: Anchorage Bowl Wetland Designations, Enforceable and Administrative Policies, and Management Strategies states as an Enforceable Policy for Site #54: CONNOR'S-STRAWBERRY BOG: "Municipal lands within Connor's-Strawberry bog shall be managed for open space, wildlife habitat and wetland functions." It also scores this wetland high in Hydrology (11-4); Habitat (13-8); Species (18-); Social Function (8-), and describes the area as "Significant waterbird migratory and nesting habitat complex." (page 52)					

10a					Mitigation Requests If Site #5: Connor's Bog is Developed If TCC request and recommendations are not acted upon, and the MCA moves forward with selecting Site #5 Connor's Bog for development of a snow storage site — despite nonconformance with multiple Municipal land use documents — TCC is concerned about potential water quality, hydrology, wildlife habitat, aesthetic, and other impacts to the Connor's Bog complex. The below (and potentially other) measures would be far more appropriate for mitigating the snow disposal facility on Municipal lands than improving the Connor's Bog Dog Park parking area, which is referenced as mitigation on page 22. While it is something to consider, this alone would be completely inadequate to compensate for impacts that would be sustained on Class A wetlands, if the snow disposal site is developed at Site #5: Connor's Bog.
10b					If Site #5: Connor's Bog is developed, TCC recommends comprehensive mitigation be required, including the following: • Reduce overall acreage footprint of facility, as the Draft Study does not provide justification for use of 32 acres of Connor's Bog wetlands when it states, "The 15-acre site leaves adequate area for access roads, berms, water quality structures, screening, and property line setbacks." • Limit fencing and other restrictions that inhibit wildlife movement • Provide for visual buffering from Minnesota Dr. that does not impede appropriate hydrology • Require measures that would maintain natural drainage patterns and all other enforceable policies in the Anchorage Wetlands Management Plan • Permanently preserve as a condition of developing Site #5: Connor's Bog all remaining Municipally-owned Class A wetlands tracts within the Connor's Bog wetlands through dedicated parkland status or other appropriate measures, such as conservation easements, that would restrict future development — and concurrently rezone this land to PA District 6 This would specifically conform to Municipal planning management strategies for remaining MCA-owned Connor's Bog Class A wetlands referenced above in our comments • Conduct ongoing monitoring of remainder of the Connor's Bog wetland complex as part of the conditional use permit, to ensure operations of the snow disposal facility are not adversely affecting bird nesting, wildlife movement, hydrology/water quality of wetlands, etc. in the remainder wetlands complex. • Provide an opportunity to address the Parks and Recreation Advisory Commission regarding this project proposal, as West Anchorage community councils were not notified of this item on their September 10, 2020, agenda. TCC feels it was premature for the Commission to support use of Site #5: Connor's Bog for a snow disposal facility without public input/testimony on this significant proposal in Municipally-owned Class A wetlands.
10c					Turnagain Community Council sincerely appreciates the work done to-date on the West Anchorage Snow Disposal and Storage Study — and the generous timeline provided to submit our comments. We hope you will consider the above comments, recommendations and request before finalizing the document. Please let us know if you have any questions or need clarification about our comments. Best Regards, Cathy Gleason Turnagain Community Council President

Appendix D:

Parcels Considered For Site Selection

Site Number	Parcel ID	Legal Description	Owner	Square Footage	Acres	Zoning
1	N/A	N/A East of Lake Hood Runway 14/32	State of Alaska - TSAIA	1,553,010	35.7	TR
2	010-244-28	Boettcher TR 3	Universal Financing Corp	434,009	10.0	R-3 SL
3	010-244-02	T13N R4W SEC 35 Parcel 10	MOA	656,483	15.1	R-1
4	012-571-02	T12N R4W SEC 1 W2NE4NW4	Chugach Electric Association	670,824	15.4	TR
5	012-571-01	T12N R4W SEC 1 NW4NW4 PTN	MOA MOA 5501	1,393,484	32.0	TR
6	012-041-07	Connors Lake TR B	MOA MOA 5501	751,410	17.3	TR
7	012-041-06	Connors Lake TR A1	MOA Heritage Land Bank	3,781,879	86.8	PLI
8	012-581-13	Raspberry Road Muni Land Sel LT 1 ASLS 97-10	MOA Heritage Land Bank	1,386,950	31.8	PLI
9	012-591-07	Raspberry Road Muni Land Sel LT 2 ASLS 97-10	MOA Heritage Land Bank	4,745,426	108.9	PLI
10	012-553-03	Strawberry Meadows TR G-1D	MOA Heritage Land Bank	671,875	15.4	R-4
11	012-151-59	Gladys Wood Park Tr 1	MOA MOA 5501	787,656	18.1	PLI
12	011-011-45	N/A - Area North of Delong Lake	State of Alaska - TSAIA	2,491,634	57.2	PLI
13	011-061-02	Sand Lake School Site TR A	State of Alaska - TSAIA	1,277,615	29.3	PLI
14	011-052-03	T12N R4W SEC 4 LT 8	Opal Investments	1,676,400	38.5	R-1
15	011-313-02	Westpark School Addition TR 7A	MOA - Parks & Rec	719,782	16.5	R-2A SL
16	011-321-73	Southwest Anchorage School Site TR 1	MOA School District	1,822,527	41.8	R-2A SL
17	011-162-42	Lancaster TR A	Anchorage Sand & Gravel Co	1,699,711	39.0	R-1A
18	011-201-92	Polen Park TR 1	Anchorage Sand & Gravel Co	1,170,181	26.9	R-1A
19	011-142-45	Mike Beirne Tr C	MOA Heritage Land Bank	1,689,431	38.8	R-1

APPENDIX B: DRAFT DESIGN STUDY REPORT

West Anchorage Snow Disposal Site

Draft Design Study Report



October 2021

PROJECT MANAGEMENT
PME
ENGINEERING

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Executive Summary

Introduction

The Municipality of Anchorage (MOA) Maintenance and Operations Department (M&O) maintains the majority of the streets in the Anchorage Bowl. A major winter maintenance activity is the removal and disposal of snow from these streets. This removed snow is deposited in one of eight snow disposal sites strategically located throughout the city, each serving its adjacent area. The MOA has identified a need to replace the Northwood Snow Disposal Site (Northwood Site) that currently serves the West Anchorage snow service area. The MOA Project Management and Engineering (PM&E) Department is administering the West Anchorage Snow Disposal Project (Project) and has contracted with HDR to select a location for, permit, and design a replacement for the Northwood Site.

The Northwood Site is located on State of Alaska-owned land controlled by Ted Stevens Anchorage International Airport, adjacent to the M&O Kloop Station maintenance facility south of International Airport Road on Northwood Drive. Figure 1 shows the boundaries of the West Anchorage snow service area; M&O is responsible for snow collection on most neighborhood and collector streets within the area shown. The Anchorage School District also uses the Northwood Site for snow storage.

M&O leases the Northwood Site from Ted Stevens Anchorage International Airport (TSAIA) on a year-to-year basis. Because of increasingly stringent State of Alaska water quality regulations, a number of improvements to the Northwood Site are necessary for its long-term operation. To make these improvements, MOA must purchase or negotiate a long-term lease for the property; however, the lands containing the Northwood Site are not available to the MOA for long-term use.

This project will provide MOA with a permanent snow disposal site in West Anchorage sized to accommodate the expected snow storage needs for the next 50 years. The site will be designed to meet State of Alaska water quality standards for discharge.

Alternatives and Site Selection

Anchorage Municipal Code Title 21 sets criteria for both snow disposal sites and the public facility site selection processes. A site selection study in compliance with these criteria has been completed for the project, and a 32-acre parcel in the Northeast corner of Connor's Bog was selected as the preferred site alternative. The Final Site Selection Study is contained in Appendix A.

Connor's Bog Facility Permitting and Approvals

A robust permitting process will be followed for the proposed West Anchorage Snow Disposal Site in Connor's Bog. The first steps in the permitting process will deal with land management issues pertaining to the access road from Kloop Station, the land use designation provided in the Anchorage 2020 Comprehensive Plan within the project's selected parcel, and a change in zoning that is appropriate for siting a snow disposal site within the selected parcel. Once the site is approved by the Planning and Zoning Commission and the Assembly, there are a number of Title 21 and Design Criteria Manual variances that will be applied for through the Urban Design Commission. Finally, PM&E will apply for Conditional Use Permits for a new snow disposal site and for land reclamation activities, as required by Title 21. The approval of Conditional Use Permits for the snow disposal site will be contingent on the adherence of the project's design to requirements laid out in Municipal code and the Municipal Design Criteria Manual. The design must seek variances from the portions of these guidelines that cannot be

met due to site-specific conditions at the selected site. These conditions, most notably, are the presence of Class A wetlands, and the fact that the site is located within a self-contained drainage basin with no surface outflows.

Design Alternatives

The first alternative the design team considered was the standard V-Swale Design that the MOA uses for its snow disposal sites. These designs are a result of extensive study and work on existing upland snow sites and are the basis of the design parameters laid out in the Design Criteria Manual. They call for a gently sloping upland pad that drains south to north into gently sloping swales. These swales empty into a treatment and detention storage area that then discharges to a receiving water. Because of the wetland environment of the Connor's Bog site and operational considerations that will make the v-swale design impractical, strict adherence to the V-swale design was not recommended.

An alternative design that the team has selected as the proposed design takes advantage of the infiltration and treatment properties of the surrounding wetlands of Connor's Bog. Rather than excavating treatment and retention basins and creating constructed wetlands to process the water, the meltwater will be retained on the existing wetlands by a surrounding berm. The meltwaters can then be released into the larger wetland complex through three to four controllable weir structures.

Cost Estimates

HDR has prepared a preliminary estimate of probable construction costs. The construction cost estimate is meant to be a working document that will be updated as the design process progresses. Using conservative estimates of costs and quantities, the probable construction cost is approximately \$8 million.

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Appendices

Appendix A: Final Site Selection Study

Appendix B: Geotechnical Report and Historic Soils Data

Appendix C: Stormwater Management Report

Appendix D: Cost Estimate

Appendix E: Design Guidance Documents

Acronyms

AMC	Anchorage Municipal Code
AWWU	Anchorage Water and Wastewater Utility
DCM	Design Criteria Manual
DOT&PF	Alaska Department of Transportation and Public Facilities
LUP	Land Use Plan
mg/L	milligrams per liter
M&O	Maintenance and Operations Department
MOA	Municipality of Anchorage
PLI	Public Lands and Institutions
PM&E	Project Management and Engineering
ROW	right-of-way
TR	Transitional
TSAIA	Ted Stevens Anchorage International Airport

1 Introduction

1.1 Purpose and Goal

The Municipality of Anchorage (MOA) Maintenance and Operations Department (M&O) maintains the majority of the streets in the Anchorage Bowl. A major winter maintenance activity is the removal and disposal of snow from these streets. Snow removed from MOA-maintained streets is deposited in one of eight snow disposal sites strategically located throughout the city, each serving its adjacent area. Snow removed from roads and other infrastructure managed by the State of Alaska are not currently nor planned to be deposited in the Northwood snow disposal site managed by the MOA. ADOT maintains its own snow disposal site on and for the Ted Stevens Anchorage International Airport and surrounding areas. The MOA has identified a need to replace the Northwood Snow Disposal Site (Northwood Site) that serves the West Anchorage snow service area, which includes most of the western portion of the Anchorage Bowl. The MOA Project Management and Engineering (PM&E) Department is administering the West Anchorage Snow Disposal Project and has contracted with HDR to select a location for, permit, and design a replacement for the Northwood Site.

The existing Northwood Site is located on State of Alaska-owned land controlled by Ted Stevens Anchorage International Airport (TSAIA). It is situated adjacent to the M&O Kloop Station maintenance facility south of International Airport Road on Northwood Drive. Figure 1 shows the boundaries of the West Anchorage snow service area; M&O is responsible for snow collection on most neighborhood and collector streets within the area shown. Larger arterial roads such as Dimond Boulevard, Minnesota Drive, Jewel Lake Road, and International Airport Road are maintained by the State of Alaska Department of Transportation and Public Facilities (DOT&PF). In years when there is significant snowfall, the Anchorage School District also use the Northwood Site for snow storage. DOT&PF and private contractors do not use the site.

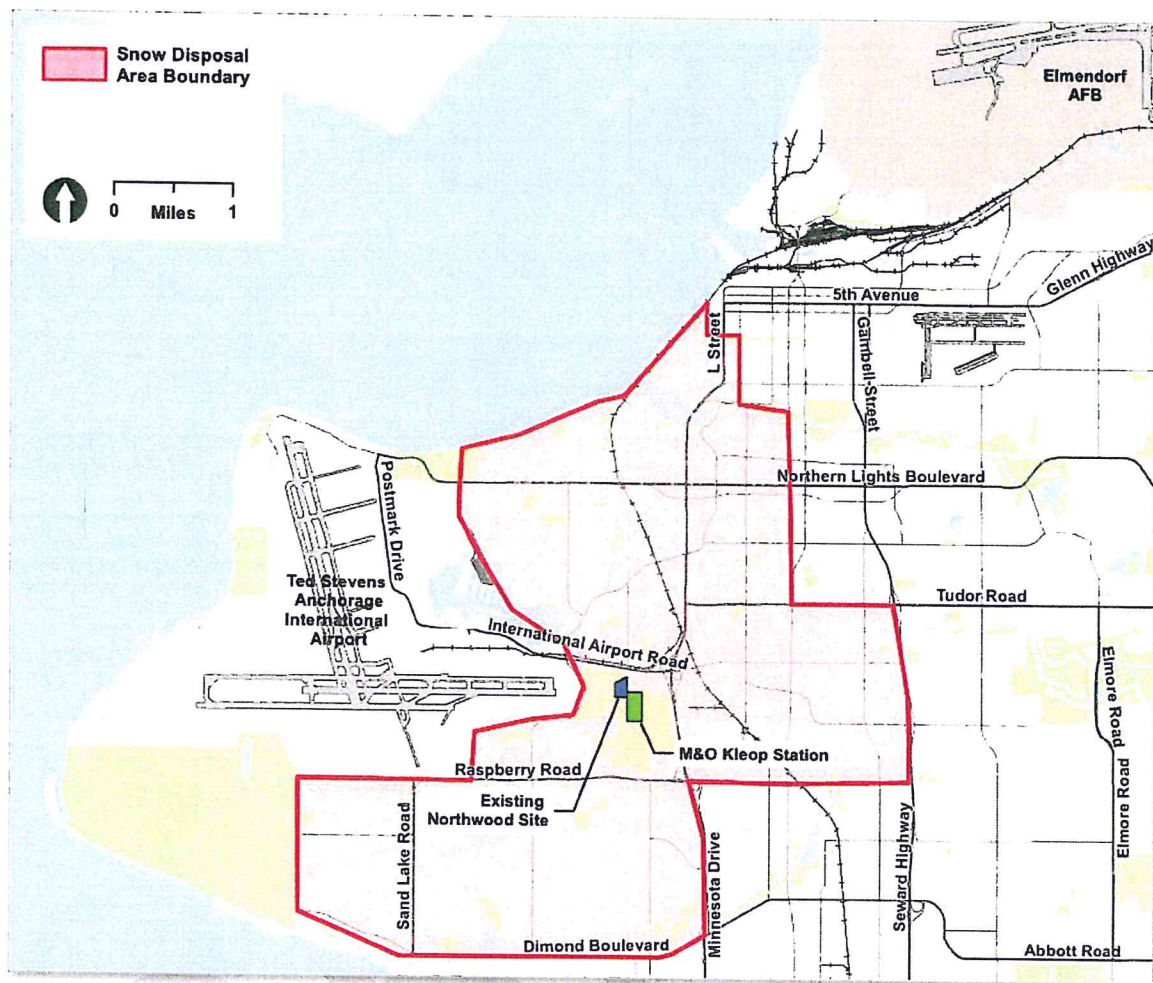


Figure 1. West Anchorage Snow Service Area

M&O leases the Northwood Site from TSAIA on a year-to-year basis. Because of increasingly stringent State of Alaska water quality regulations, PM&E has identified a number of improvements to the Northwood Site that are necessary for the long-term operation of the site. In order to make these improvements, the MOA must purchase or negotiate a long-term lease for the property. Unfortunately, because of TSAIA long-term needs, the lands containing the Northwood Site are not available to the MOA for long-term use.

This project will provide MOA with a permanent snow disposal site in West Anchorage sized to accommodate the expected snow storage needs for the next 50 years. The site will be designed to meet State of Alaska water quality standards for discharge.

1.2 Current Snow Disposal Site at Northwood

The Northwood Site contains 7 to 12.5 usable acres for snow storage, depending on TSAIA's alternative needs and the negotiated lease agreement. The West Anchorage service area is 14.4 square miles (Figure 1) and accepts 20 percent of the snow gathered from MOA-maintained streets in the Anchorage Bowl. The average annual snowfall in Anchorage is 74 inches.¹ In heavy snow years, 12.5 acres of storage is insufficient for the collection area, and 7 acres is inadequate even in light snow years. The target for the new facility is 14 acres of snow deposition area, as requested by M&O.



Figure 2. Northwood Site in 2011–2012

In an average year, 10,500 truck truckloads of snow are brought to the Northwood Site. In extreme years, it can be substantially more. In 2011–2012, Anchorage received 175 percent of the average snowfall, and approximately 18,500 truckloads went to the Northwood Site. The result is shown in Figure 2.

2 Public Involvement

PM&E and their consultant, HDR, have carried out a robust public involvement process to gain public input on the selection of a preferred site, site design, and integration of the new site with the adjacent park lands. MOA will continue to provide opportunities for public involvement and input throughout the permitting and design phases as laid out in Title 21 of the Anchorage Municipal Code (AMC). The following is a list of the opportunities provided for public input in each project phase.

Phase One – Initial Project Outreach

- Community Council Presentations – March 5 and 16, 2020
- Email to all West Anchorage Community Councils – March 16, 2020
- Newspaper advertisements – March 16, 2020
- Postcards to residents – March 20, 2020

¹ <https://www.usclimatedata.com/climate/anchorage/alaska/united-states/usak0012>

- Facebook Posts and Nextdoor app messages – March 23, 2020
- Press Release to major new outlets – March 24, 2020
- Virtual Public Meeting/Live Chat – March 24, 2020
- Online Open House – March 24 through April 24, 2020

Phase Two – Site Selection Study

- Parks and Recreation Meeting – September 14, 2020
- Community Council Meetings – October 7, October 26, and November 5, 2020
- Flyers posted in project area and postcards mailed to residents – October 27, 2020
- Phone calls to Community Council Presidents – October 26, 2020
- Newspaper advertisements – October 29 and November 11, 2020
- Virtual Public Meeting/Live Chat – October 29, 2020
- Online Open House – October 29 through November 20, 2020
- Anchorage Transportation Fair – November 18, 2020

Phase Three – Rezone, Comp Plan, Conditional Use Permitting, Use of Dedicated Park Land Design Criteria and Related Variances

- The rezoning of the parcel to Public Lands and Institutions (PLI), modifications to the Comprehensive 2040 Land Use Map, Conditional Use Permits, and design are all parts of mandated public processes. The boards and commissions that oversee each authorization provide for public input and comments throughout these processes.

3 Site Selection Study

AMC Title 21 sets criteria for both snow disposal sites and public facility site selection processes. Section 21.03.140 of Title 21 governs public facility site selection, and Section B.1.f is specific to public snow disposal sites.

A site selection study in compliance with these requirements has been completed for the project, and a 32-acre parcel in the Northeast corner of Connor's Bog was selected as the preferred site alternative (see Figure 3). The Final Site Selection Study is contained in Appendix A.



Figure 3. Selected Parcel in Connor's Bog

4 Existing Conditions

4.1 Parcel Identification and Land Use

The selected Connor's Bog parcel is identified as the unsubdivided NW ¼ of the NW ¼ of Section 1, T12N, R4W, Municipal Parcel ID 012-571-01-000. The parcel is predominantly flat, slopes very slightly from northeast to southwest and contains Class A wetlands with low muskeg vegetation and several small areas of larger trees. There is currently no development of any kind on the parcel. It is bounded on the north by Javier de la Vega Park, on the east by Minnesota Drive, and on the south and west by undeveloped parkland wetland. Existing land use is park land and open space. It is shown on the 2040 Comprehensive Plan Land Use Plan map (LUP) and the West Anchorage District Plan as Park or Natural Area. An amendment will be required of the LUP to change use to Community Facility or Institution.

4.2 Zoning

Zoning for the Connor's Bog parcel is Transitional (TR). The parcel will be rezoned to Public Lands and Institutions (PLI) and the Anchorage Municipal Code AMC 21.05.060.E.4&6 Conditional Use permitting process will be followed for both Land Reclamation and Snow Storage Sites.

4.3 Recreation Use Status

The selected Connor's Bog parcel is managed by the Municipal Parks and Recreation Department as part of Connor's Bog Park but is not designated parkland. The adjacent parcels to the north (Javier de la Vega Park, softball and soccer fields) and west (Connor's Bog Park, open space recreation and off-leash dog area) are designated parkland. Park planning document shows proposed trails on the parcel, but there are currently no developed trails other than faint social trails through the wetland vegetation. The heavily used areas of the Connor's Bog off-leash dog area are to the west of the parcel along the Anchorage Water and Wastewater Utility (AWWU) corridor, on lands leased from TSAIA north of the lake and around Connor's Lake itself. Skijoring use of the area has left no established trails, and the local club confirmed that they are no longer maintaining winter trails in the area. There is a remnant low chain-link fence between the parcel and Javier de la Vega Park with openings near the east and west corners of the park parcel; these fence breaks tend to concentrate foot traffic in those areas.

4.4 Roadway Access

The site is bounded on the east by the DOT&PF right-of-way (ROW) for Minnesota Drive, but direct access from Minnesota Drive is not allowed per plat restrictions. Truck access is predominantly from the divided arterial of International Airport Road (see Figure 4). Truck traffic arriving on International Airport Road from the east have a designated left-turn lane, traffic from the west must make a right turn directly onto Northwood Drive, and both must cross the frontage road, Taft Street, which has stop signs on both the east and west sides. Trucks exiting Northwood Drive turn east into a merge lane on International Airport Road after first crossing Taft Street. There is no west access to International Airport Road; traffic must turn west on Taft Street and access Jewel Lake Road to the west. There is no direct

traffic access either north or south to Northwood Drive north of International Airport Road, which precludes snow haul truck traffic in the residential and school neighborhoods north of International.



Figure 4. Truck Access to S. Northwood Drive

Access to the parcel will be via the 33-foot section line easements along the north side of the adjacent Connor's Bog park parcel from the Kloop Station operations area to the northwest. The Project will seek an additional 0.2-acre easement along the Connor's Bog Park parcel to accommodate the full 44-foot width of the access road.

4.5 Right-of-Way/Easements

The snow site parcel and the Connor's Bog Park parcel to the west contain a 33-foot section line easement along their north boundary. A 50-foot section line and natural gas easement runs north-south between these two parcels. Adjacent parcels to the north contain a 15-foot vegetation buffer within a 50-foot electrical transmission line ROW, parcels to the south contain a 110-foot telephone and electrical easement, and parcels to the west contain a 33-foot section line easement. The 50-foot section line easement to the north has been vacated in favor of the electrical transmission line ROW.

4.6 Soils

A synopsis of applicable Historic Bore Logs in Connor's Bog is attached as Appendix B. This geotechnical data indicates that the peat layer around the perimeter of the bog and along the AWWU corridor varies from 5 to 12 feet. This peat layer is underlain by a layer of medium dense sand and fine gravel. A detailed subsurface investigation along the access road alignment and on the interior of the parcel was done during spring 2021. The complete geotechnical report is contained in Appendix B. This report shows 5-7 feet of peat over most of the parcel.

4.7 Existing Drainage Patterns

On the north side of the proposed site is the raised area of the Kloep Maintenance Station on the west, and Javier de la Vega park on the east. The Kloep Station operations areas drain generally west, with some piping systems to the wetland on the west side. The Javier de la Vega ball fields drain by surface sheet flow from the high point in the center to ditches, and swales that encompass the fields. Half of this drainage trends north to the ditches along International Airport Road. It appears that this flow dead-ends in the wetland area north of the current Northwood Site.

The other half drains south along both sides of the property and through several swales off the south side. A single culvert under Minnesota Drive drains a small basin east of the separated roadway and discharges into the north east corner of the proposed site. All of these flows will end up in the area north of the new snow site. Once in the wetlands, the drainage trend is very slightly downhill toward the AWWU sewer line trail where there is a single culvert that moves water across to the west side. The entire area both east and west of the AWWU trail is very flat with little topography until farther west where the ground slopes gradually down to the shore of Connor's Lake. Other than the few area storm drains in the Kloep Station yards and some driveway culvert on properties north of Javier de la Vega Park, there is limited storm drain piping in the area.

Appendix C contains the Stormwater Management Report for the site as stipulated in the MOA's Development Services permitting requirements. A graphic of the existing drainage patterns can be found in this report.

4.8 Wetlands

The Connor's Bog site and surrounding park land to the south and west are dominated by Class A wetlands of the patterned bog type that were once abundant in the Anchorage lowlands. As with many of the historic Anchorage wetlands, these have been cut off from their historic water sources and are slowly drying out as the underlying water tables are lowered. This lowering of the water table also shows up in the local manifestation of the water table, Connor's Lake. Comparisons of the current to historic (1950s) outlines of Connor's Lake show a gradual shrinkage of water surface area. The existing Northwood Site drains to Connor's Lake and helps maintain the lake levels but has only a small effect on the intervening wetlands. The new site has the potential to increase water tables and rehydrate a larger portion of the remaining wetland as well as to help maintain the water surface elevation in Connor's Lake.

The low shrub wetland areas of the bog are interspersed with several stands of black spruce. The peat layer under these treed areas is shallower as seen in the soils report. If feasible, maintaining the existing shrubs and trees into the design will support visual screening and wildlife habitat diversity.

4.9 Utilities

There are several utility easements and ROWs that impact the new snow site. AWWU has a large sewer trunk that bisects the bog. There is a raised travel surface that serves for maintenance traffic and as a well-used trail corridor for the Connor's Bog off-leash dog park. The raised surface may not be directly over the trunk line and may be partially constructed of the spoils left after trenching for the line. Along much of the route it is offset northeast of the actual pipe. The sewer trunk is buried at a depth such that it should not be a factor if at-grade culverts are placed for wetlands connectivity under the raised surface. Chugach Electric Association has two high-voltage lines along the northern edge of the property: one within the 33-foot section line easement on the property and the other in a dedicated electrical ROW that replaced the 50-foot section line easement north of the property line. A lower-voltage electrical line and telephone lines also cross the bog in an easement south of the property. Clearance under and avoidance of the utility poles for the power transmission lines to the north will figure in the design of the access road. Wetland connectivity through the AWWU corridor will figure in drainage design for the snow site's meltwater. The southern power transmission line should not be a factor, as snow site development will be north of the line.

4.10 Proximity to Residential Properties

The closest residential properties are more than 2,000 feet from the proposed snow site perimeter in the south west corner of Connor's Bog. This puts the proposed site more than twice as far from residential properties as the current Northwood Site. The Northwood Site is 700–800 feet from the apartment buildings and hotel north of International Airport Road. The new site was chosen in part for its low impact on neighbors.

4.11 Airspace Height Restrictions

This parcel and adjacent parcels are directly under the approach path to TSAIA's East-West Runways and, as such, carry height airspace intrusion restrictions. Current utility poles along the north side of the parcel, also in the flight path of TSAIA, exceed 70 feet. The height of the warm-sand storage building on the Kloep Station is more directly under the approach path, located atop the raised fill area of Kloep Station, it extends to a height exceeding any expected snow mass fill height. Additionally, the existing snow facility is also directly under the flight approach path, is closer to the runway threshold, but has not experienced any conflicts with airport operation in over 40 years of use. Snow-haul trucks with their beds extended (20 feet) on top of accumulated snow stacking heights (30 feet) are not expected to exceed the height of the poles or the existing building. As such, height restrictions due to airspace incursion are not expected to be a factor in design or storage capacity of the new facility.

5 Connor's Bog Facility Permitting

5.1 Rezone

The parcel will need to be rezoned from TR to PLI. This process is underway following AMC 21.03.160. The process requires a preapplication meeting with the involved municipal departments, notification to nearby residents and meetings with the affected community council(s), as well as approval by the Planning and Zoning Commission and Anchorage Assembly. The preapplication and community council meetings (see Section 2) have taken place, the Planning and Zoning Commission application for rezoning has been submitted, and a hearing was held on July 19, 2021. The rezone was approved by the Planning and Zoning Commission and the process will move to MOA Assembly for approval.

5.2 Comprehensive Plan Land Use Map Amendment

For the parcel to be rezoned, the rezone must be compatible with the existing 2040 Land Use Planning Mapping in the Comprehensive Plan documents. This process is regulated by AMC 21.03.070. The change to the mapping will be from the current Park or Natural Area to Community Facility or Institution. The hearing for the application to amend the 2040 Land Use Plan Map was also held on July 19, 2021. The application was approved by the Planning and Zoning Commission and the process will move to MOA Assembly for approval.

5.3 Other Governmental Use of Dedicated Parklands

Access to the site from the operations area of the Kloop Station and east to the new site will require a small incursion outside the existing 33-foot section line easement into dedicated parklands on Tract B of the Connor's Lake Subdivision. This is necessary to avoid conflict with the power transmission poles in the north half of the easement. The incursion requires approximately 0.2 acre and will require an application for Other Governmental Use of Dedicated Parkland. The width of this proposed incursion was estimated based on a road prism width of 40 feet from the base of the power poles. Nineteen feet of this footprint is within the section line easement and 21 feet will impinge on the dedicated park parcel.

The process for authorizing Municipal use of dedicated park land is governed by AMC 25.10.080C and requires approvals from the Parks and Recreation Commission, the Planning and Zoning Commission, and the MOA Assembly. The use of 464 feet by 21 feet of dedicated park land in Connor's Bog was authorized by the MOA Assembly on September 14, 2021 (AO No. 2021-77).

5.4 Conditional Use Permits

Two Conditional Use Permits will be required for the development of the snow site. The first is specific to the location and construction of Snow Disposal Sites and the second is for Land Reclamation, which is required for the importation of fill required to create the snow disposal pad. These permit applications are currently in preparation.

5.4.1 Snow Disposal Site

AMC 21.05.060E.8 requires a Conditional Use Permit for new snow storage areas within PLI zoned parcels.

5.4.2 Land Reclamation

The fill to create a solid depositional surface will include both placement and partial removal of surcharge fills in excess of 50,000 cubic yards. Fills of this volume require a Conditional Use Permit for Land Reclamation. This Conditional Use Permit will be sought concurrently with the Snow Site Conditional Use Permit and must be pursued through the Planning and Zoning Commission and the Assembly.

AMC 21.05.060E.5 outlines the definition of and use-specific standards for Conditional Use Permitting for Land Reclamation. These requirements apply to fill operations at a scale involving more than 5,000 cubic yards of fill. If the land reclamation will take place over a period of less than 2 years and is in an industrial zoning district, a site plan review only is required. Fill on PLI zoned lands will require a Conditional Use Permit. A Land Use Permit (AMC 21.03.100 and 21.15.050) is required as part of the Land Reclamation Conditional Use Permit.

5.4.3 MOA Development Services Permitting

Development of a snow disposal site will require a range of permits administered by the Municipal Development Services Department. The need for these permits, plans, and reviews will be driven by the stipulations from the Planning and Zoning Commission and the MOA Assembly generated during the Conditional Use Permitting process for both the Snow Site and Land Reclamation Conditional Use Permits. Because this development does not involve a subdivision plan or any structures, the primary vehicle for this process is a Grading Permit as outlined in AMC 23.105. Due to the size of the fill pad, the grading designation will be Engineered Grading. The submittal requirements as listed below are outlined in AMC 23.105.105.2.

1. **Site Plan 23.105.105.2.1**
2. **Soils engineering report 23.105.105.2.2**
3. **Drainage and erosion control 23.105.112**

Drainage Plan AMC 21.07.040 and the Design Criteria Manual (DCM) Chapter 3.2. The project classification will be a "large project." A summary of Stormwater Standards and Requirements is given in DCM Table 3.2.1. To meet the requirements for the Drainage Plan the DCM stipulates 8 requirements of which the Stormwater Management Report is the most extensive. The requirements for the Stormwater Management Report are given in the DCM Section 3.4.2 and includes 11 Parts.

5.4.4 Alaska Department of Environmental Conservation (ADEC) Stormwater Review

Per the MOA's Alaska Pollutant Discharge Elimination System permit, MOA is the sole entity responsible for stormwater plan review of both Municipal projects and privately owned projects within the MOA.

Stormwater plan review include review of project plans to ensure consistency with the requirements of this section prior to commencement of construction activities. Project plans shall not be submitted to ADEC for stormwater review.

6 Design Criteria Standards and Title 21 Requirements for Snow Sites

AMC Title 21 governs snow disposal site standards in Section 21.05.060E.8. Any new snow disposal site and its design must either conform to these regulations or apply for waivers of the specific regulations.

Approval of Conditional Use Permits for the snow disposal site will be contingent on the design's adherence to the requirements laid out in Municipal code and Municipal Design Criteria. The design must seek variances from the portions of these guidelines that cannot be met due to site-specific conditions at the selected site. The following is a list of criteria from which the design will or may seek variances; documents will be prepared to request waivers of requirements in these DCM and AMC Title 21 sections.

Municipal Design Criteria Manual Requirements:

The following list outlines the requirements of the DCM and summarizes how each will be addressed. The DCM Chapter 2, Vol. 1, Section 8, outlines requirements for snow melt runoff calculations, site selection, design, and operational practices. Paraphrased provisions of the DCM Snow Storage Requirements from which the new site may require variances are as follows:

- **Section 8.2.2 Site Selection, paragraph E.** Avoid areas with high potential for contaminating closed lake or wetland systems. Meltwater from snow disposal sites shall not be discharged to closed basin surface water features that have few or no surface water outlets.
 - Connor's Bog is a closed system with no surface water outlets. All drainage ultimately ends up in Connor's Lake. This wetland and lake system has been the receiving waters for the Northwood snow site for 40 years, and historic aerial photos also appear to show the south half of the Kloop facility in use for snow storage in 1988. Visually, lake vegetation and aquatic life appear to be unaffected by the current input, and the lake levels have remained stable at least in part from this meltwater input. Some areas of larger spruce and birch trees north and south of the existing Northwood Site show signs of die off. Aerial image analysis and an assessment by MOA landscape specialist indicate that these die offs are from two causes: A large stand of spruce that lies northwest of the Northwood site was killed by a brush fire in 2005-2006 and low-lying trees north and south of the site were inundated and killed by a combination of blocked drainage pathways and the large meltwater event following the record snow year of 2011-2012. High chloride concentrations in meltwater are not likely a factor as the MOA no longer uses chloride-based deicers in their winter operations except under extreme and very limited instances. Most of the magnesium chloride use, is applied during dry fall and spring weather as a dust suppressant tool and is not picked up in snow hauling operations.
 - The need for a variance is possible, pending Water Shed Management review.

- **Section 8.2.2 Site Selection, paragraph H, Avoid Sanitary Landfills.**
 - The proposed site is adjacent to the International Airport Landfill (IAL). IAL is no longer in use and is managed by Solid Waste Services (SWS). This should not require a variance. Historic aerials show that the land fill mass encompasses the entirety of the Kloop Station property, the Diamond Parking facility directly north of Kloop Station, and Javier de la Vega Park, the 1990 land fill map contained in a USKH report and based on earlier work by Montgomery Watson shows the landfill extending west of Northwood into the area of the current Northwood snow site, appearing to indicate that the existing site is at least partially atop the old land fill. At the new site snow will not be deposited on any part of the IAL. The access road will transition across the southern face of the landfill but will not penetrate into the land fill mass. SWS has been contacted to ensure that the access road will not have any impact on their current management of the land fill.
 - Requirement for a variance is slight.
- **Section 8.2.2 Site Selection, paragraph M, Select sites that offer optimum opportunity for slope and aspect orientation.** Sites shall be selected that are generally suitable for constructing storage pads that are sloped down from south to north.
 - The new bog site slopes northeast to southwest. Fill can be graded to force a gradient to the north, but because of the large area proposed for this site, a significant fill depth on the south end of the pad (7–9 feet) would be required to accommodate even a 0.5 percent sustained slope from south to north.
 - This is a recommendation and not a specific requirement; the new facility is being designed to meet water quality requirements through use of the surrounding wetland areas and vegetation.
 - No variance requirement is anticipated.
- **Section 8.2.4 Specific Design Criteria**
 - Snow Storage Pads**
 - Paragraphs A and B address pad orientation and V-Swale design parameters. These requirements will be met with alternative design methods. See Section 8.2 (of this DSR) for a discussion.
 - Paragraphs C and D address berms and vegetation; these requirements will be met.
 - Paragraph E addresses armoring of flow surfaces. With no V-Swales and lower velocity flows, armoring will be kept to a minimum both to save cost and to reduce maintenance.
 - Meltwater Detention and Discharge**
 - Paragraphs A and B give requirements for detention ponds and outlet structures.
 - Design will address these requirements and no variances should be required.
- **Section 8.2.5 General Design Criteria**

- Subsections address Traffic Access, Lighting, Landscaping, and Noise per AMC 15.70.080 (Property line noise emission standards).
- The proposed design will follow all these requirements. No variances are anticipated.

Municipal Code Title 21 Requirements:**AMC 21.05.060E.8b**

- i. Location, minimum 25 feet from class A or B wetlands. With the deposition pad surrounded by Class A wetlands, this will be a required waiver.
- ii.
 - A. Minimum Lot Size shall be 36,000 square feet; the proposed new site is 32 acres, approximately 1.4 million square feet. This criterion is easily met.
 - B. Maximum Height of Snow Piles is 35 feet. This is an operational consideration, and given the proposed area of the new site, it should be reasonable to meet this requirement during all but the most extreme winters.
 - C. Minimum Setback Requirement. Snow pile setback must be 25 feet if adjacent to a public right-of-way, and 50 feet if adjacent to a non-industrial zoning district. The former will apply along the east side adjacent to Minnesota Drive and possibly along the north edge where the snow site will abut the 33-foot section line easement. The 50-foot setback will be required along the southern and western borders. Both will be met in design. A 25- to 50-foot detention and treatment area, in addition to the 25-foot landscaped berm, will meet both requirements.
- iii. Snow storage area will be well defined to prevent storage of snow on adjacent properties or landscaped areas. Snow poles to define the extent of the snow piles will be included in the design to prevent snow deposition on the detention/treatment pond or landscaped containment berms.
- iv. Screening Fence or Berm. An earthen berm or a screening structure, either at least 6 feet high, shall be constructed within every setback adjacent to a public right-of-way or to a non-industrial zoning district. Site enhancement landscaping, or another ground cover acceptable to the Planning and Zoning Commission, shall be planted on the berm and within the area between the berm and the lot line for the site. The Planning and Zoning Commission may require construction of a berm or fence within other setback areas in order to restrict casual access, to confine the operations within the site, to reduce noise and glare, and to ensure compatibility of the operation with adjacent uses. A 6-foot-tall earthen berm is called for along Minnesota Drive and along the southern boundary, with fencing as required to limit access. A 6-foot-tall fence adjacent to a 3-foot-tall berm is specified along the west and north quadrants. These design features will meet the requirements of this section.
- v. Drainage and Water Quality Facilities. The on-site and off-site drainage network shall handle water runoff and snow melt without impacting adjacent properties. Drainage and meltwater disposal shall comply with the municipal DCM sections regarding snow disposal sites and drainage. By design, the snow site will discharge

meltwater for absorption and dissipation onto wetlands that are contained on adjacent municipal park-controlled parcels. Discharge points from the bermed site will be located to prevent discharge to the north on the Javier de la Vega park parcel or east along Minnesota Drive. Wetland bogs on the adjacent properties to the south and west will be used for infiltration and transmission of meltwater. Additional culverts (one already exists) under the AWWU transmission line will allow meltwater to flow west into the areas around and into Connor's Lake. Impacts to the wetland and lake should be generally positive, although some low-lying social trails may be impacted.

vi. Noise, Dust, and Litter

- A. Noise. If the level of noise from the activity at the snow disposal site measured at the property line of any residential or noise-sensitive use such as a public building, academic school, or other place of public assembly within one-half mile of the snow disposal site shall exceed the standards stated in AMC 15.70.080A, then the site plan shall identify mitigation measures.

The closest residential housing unit is 0.38 mile from the perimeter of the site, so AMC 15.70.080A will apply. AMC 15.70.080A specifies the nighttime allowable limit for noise at the property line, emitted by an Industrial property and received by residential properties as 65 (dB (A) L_{max}). The nighttime limit for a commercial property emitter and residential receiver is 55 dBA, which is approximately equivalent to the noise emitted by a household refrigerator.

No noise abatement study has been done for the new snow site; analysis is based on a thorough study done for permitting of the Spruce Street snow disposal site in November 2010. For the Spruce Street study, snow site noise was measured at the 100th Avenue and Sitka Street snow sites during normal operations with a quantified peak value of 79 dBA. The study used FHWA's Traffic Noise modeling software to estimate noise levels at adjacent residential properties. Their analysis concluded that the noise levels at a point 0.17 mile from the source was reduced to 63 dBA. From these values and using inverse square law noise attenuation calculations, the expected noise level at the nearest residential property to the Connor's Bog site is estimated at 56 dBA. This calculation is in an unobstructed open-air path and does not account for berms, landscaping trees, or natural vegetation. Given this value and because the site will have a landscape berm, it is concluded that the noise level emitted from the site will comply with AMC 15.70.080A, and no further noise attenuation will be needed.

- B. Dust and Litter Control. A dust control and litter plan shall be established and implemented. Trash collection/removal shall be done in a manner so that there are no dust or litter impacts to adjacent properties or public rights-of-way.

Dust and Litter Control will be/is specified in the municipal M&O Storm Water Pollution Prevention Plan (SWPPP) operational guidelines for each snow disposal site. The current site has had limited complaints of dust and litter even though the Connor's Bog off leash dog area is immediately downwind.

AMC 21.07.080 Landscaping, Screening, and Fencing

Table 21.07-2 specifies minimum site perimeter landscaping requirements.

- A. For PLI zoned parcels abutting other PLI parcels, there are no landscaping requirements.

The three sides of the property not abutting Minnesota Drive are adjacent to other PLI and therefore do not have Title 21 stipulated planting requirements. One parcel to the west is zoned TR, which is not specified in Table 21.07-2, so it assumed to not have landscaping requirements more stringent than those for the PLI parcels.

- B. For PLI parcels abutting freeways (e.g., Minnesota Drive), Level 4 landscaping is required. Level 4 landscaping requires a 30-foot planting bed with three trees and 10 scrubs per 20 linear feet of property line, of which half shall be coniferous. Areas of existing trees and shrubs of sufficient size are counted three times the equivalent of new trees. Design will attempt to retain existing trees as screening along Minnesota Drive and supplement with additional landscaping to accommodate Level 4 landscaping requirements.

7 Snow Disposal Site and Water Quality Design Guidance

In addition to Title 21 and DCM requirements listed above, snow disposal site requirements are governed by the *2017 Anchorage Stormwater Manual* published by the Watershed Management Services. Additional documentation for management of snow disposal can be found in the *Anchorage Street Deicer and Snow Disposal: 2003 Best Management Practices Guidance* document published by Watershed Management Services, the *2013 Evaluation of Anchorage Snow Disposal Sites* prepared by Scott Wheaton and the Watershed Management Section, the *Anchorage Storm Water Treatment in Wetlands: 2001 Progress Report*, and other related publications from the MOA, State of Alaska, and research institutions. These documents guide both the site selection process and the design once a snow disposal site is selected. A list of documents used for reference or guidance in the site design, and conceptual layout process, including brief notes on the information provided in each document, is included in Appendix E.

7.1 Meltwater Discharge and Water Quality Targets

Water quality goals guide detention pond sizing. Ponds must be sized such that the initial meltwater with higher chloride concentrations are diluted by additional meltwater with lower chloride

concentrations before the water is discharged. The meltwater discharge profile used for design of water quality structures is the 5-year occurrence March 23, 1974, 40-hour Snow Melt Hyetograph available in Appendix D of the MOA *Drainage Design Criteria Manual*. Detention ponds should be sized such that the following water quality targets are met:

- The minimum latent storage volume of the pond at the beginning of the melt season will equal the volume of the total discharge from the site during the 40-hour melt cycle defined by the hyetograph.
- There should be a 7-day average concentration of 3,000 parts per million chloride in 1 cubic foot per second of meltwater.
- There should be a 30-day average concentration of 1,000 parts per million in 0.5 cubic foot per second of meltwater
- Control of sediment should be a secondary factor in detention pond sizing. Measured at the point of pond discharge, detention ponds should remove 95 percent of all particles greater than 100 micrometers in diameter.

8 Alternatives Discussion

8.1 Standard V-Swale Design

Many of the design parameters laid out in the MOA DCM are based on extensive studies of upland snow sites. At upland snow disposal sites, meltwaters from the snow masses are directed across a graded surface to one or several outfall points that are controlled by a weir structure. An excavated treatment pond is positioned before or after the weir to retain high chloride early meltwater for dilution by subsequent lower concentration meltwaters. The ponds also serve as a settlement area for suspended sediments. Ultimately, the treated meltwater is discharged to a receiving water in the form of a storm drain, lake, creek, or wetland. The pad is designed to slope north so that drainage from the southern melt face passes through the snow mass to the outfall. This allows the snow mass to act as a filter to capture and hold coarser sediments so that they do not enter the downstream settlement pond or receiving water.

There are several characteristics of the proposed Connor's Bog site that complicate adherence to these design parameters:

- Because the site is slightly higher in the northeast corner and the pad will be significantly larger than pads at all existing sites, the fill section needed to slope south to north at 1 percent gets quite deep and would be expensive to fill.
- The concentration of meltwater in the narrow V-swales over the required distances and gradients will result in higher velocity flows and require additional armoring to minimize scour of the pad.
- A north-sloping orientation will mean that outfalls from the V-swales will be on the north end against the electrical transmission easements, and Javier de la Vega Park. This would require all flows to be routed back to the west and south ends of the site for dissipation into the surrounding wetlands.

- Conversations with M&O personnel have exposed some weaknesses in the V-swale design. The deposition of snow grit sediments tends to fill in the armored channels, and they are difficult to maintain over time. Maintenance adds significantly to the cost of this design.

8.2 Proposed Modified Treatment Design

An alternative design would utilize a deposition pad with more gentle slopes (on the order of 0.5 percent) and slightly crowned pad center to drain in all directions. The gentler slopes and less concentrated flows will allow better settlement of sediments on the pad surface even without the northern orientation. Due to the shallow slope of the pad, fill depths and costs will be significantly reduced. After surcharge compression of the underlying peat, the pad surface will be graded down to match the elevation of the surrounding wetlands. There will be no steep, high-velocity flow channels off the pad surface, and no armoring will be required. No excavation will be required to create a treatment pond.

The surrounding berm, offset 50 feet or more from the depositional pad, will act as the treatment containment area. The much larger surface area of the containment area (compared to conventional settlement ponds) will capture finer suspended sediments and result in cleaner discharged water. Discharge from the site will be controlled by weirs at several points to increase dispersion and infiltration into the surrounding wetlands. The weirs will be fitted with stop logs to control water discharge. The stop logs will be removed after the snow melt season, and the ponded area will be allowed to completely drain for maintenance of the pad and removal of trash and litter. Geotechnical investigations indicate that the water table drops below the wetland surface after the spring breakup. Access routes will be provided to the weirs so the stop logs can be removed after the melt season and installed again before the following spring melt cycle.

During the snow melt period, the water inside the berm will slightly inundate the perimeter of the pad. At the edge of the pad the moving meltwater from the snow piles will encounter the quiescent water of the settlement area while still inside the perimeter of the pad. Most of the sediment deposition will occur at the edge of the pad where it can be regraded or removed without having to access the unstable peat areas of the water quality moat. Outside the berms, a narrow, rock-lined ditch will bracket each weir for a short distance to prevent erosion and disperse treated water into the surrounding wetland. These ditches will be slightly below the surface of the surrounding wetlands and only extensive enough to prevent erosion of the natural vegetation and substrate.

The modified treatment design is the proposed design for the West Anchorage Snow Disposal Site. Preliminary design drawings are in production. Figures 5-8 show the current concept design for the snow disposal site pad, the surrounding water quality treatment berms and control weirs.



Figure 5. Snow Disposal Pad Concept Design, Layout

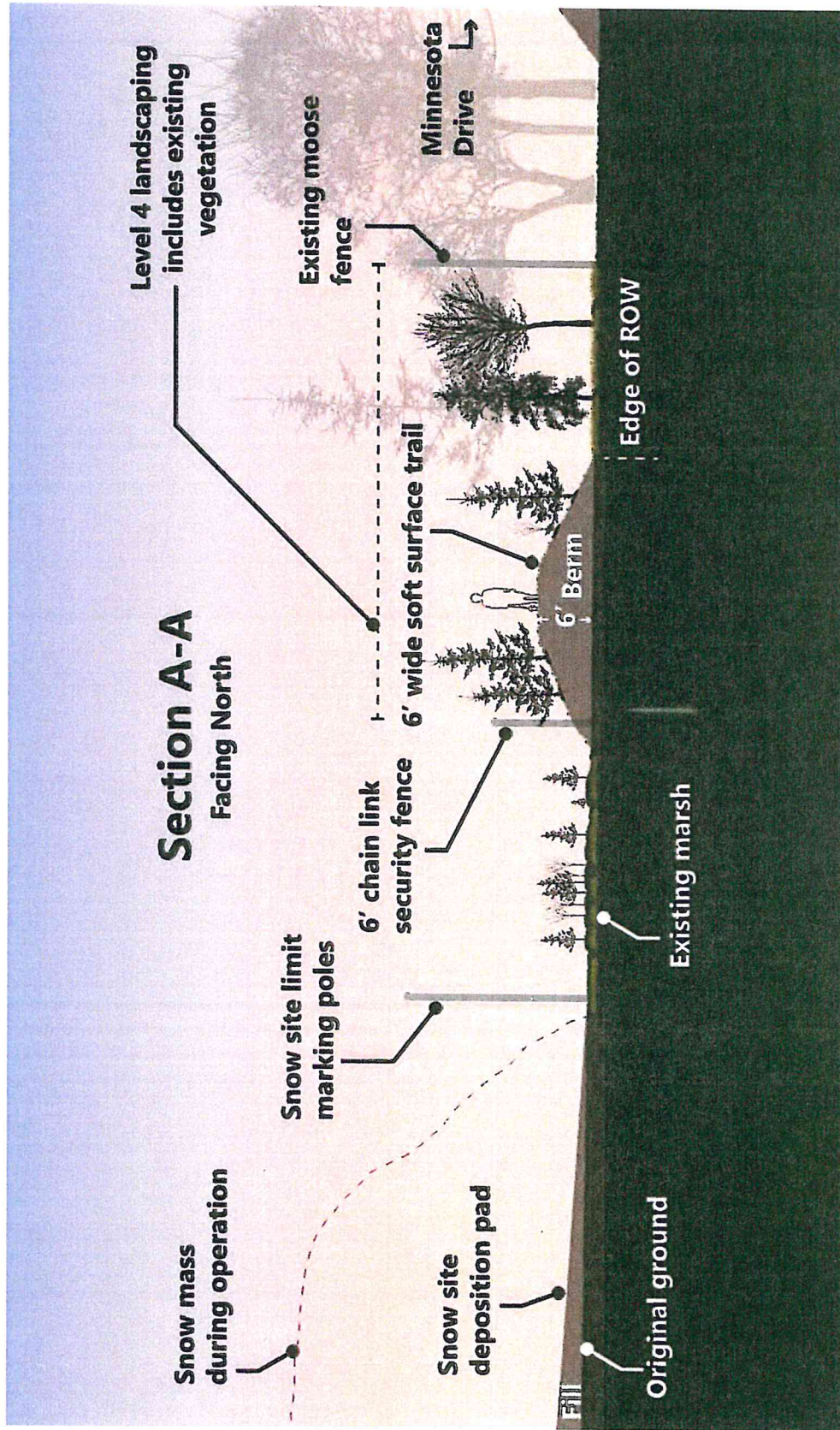


Figure 6. Snow Disposal Concept Design, Section A-A, 6-foot Landscaped Berm

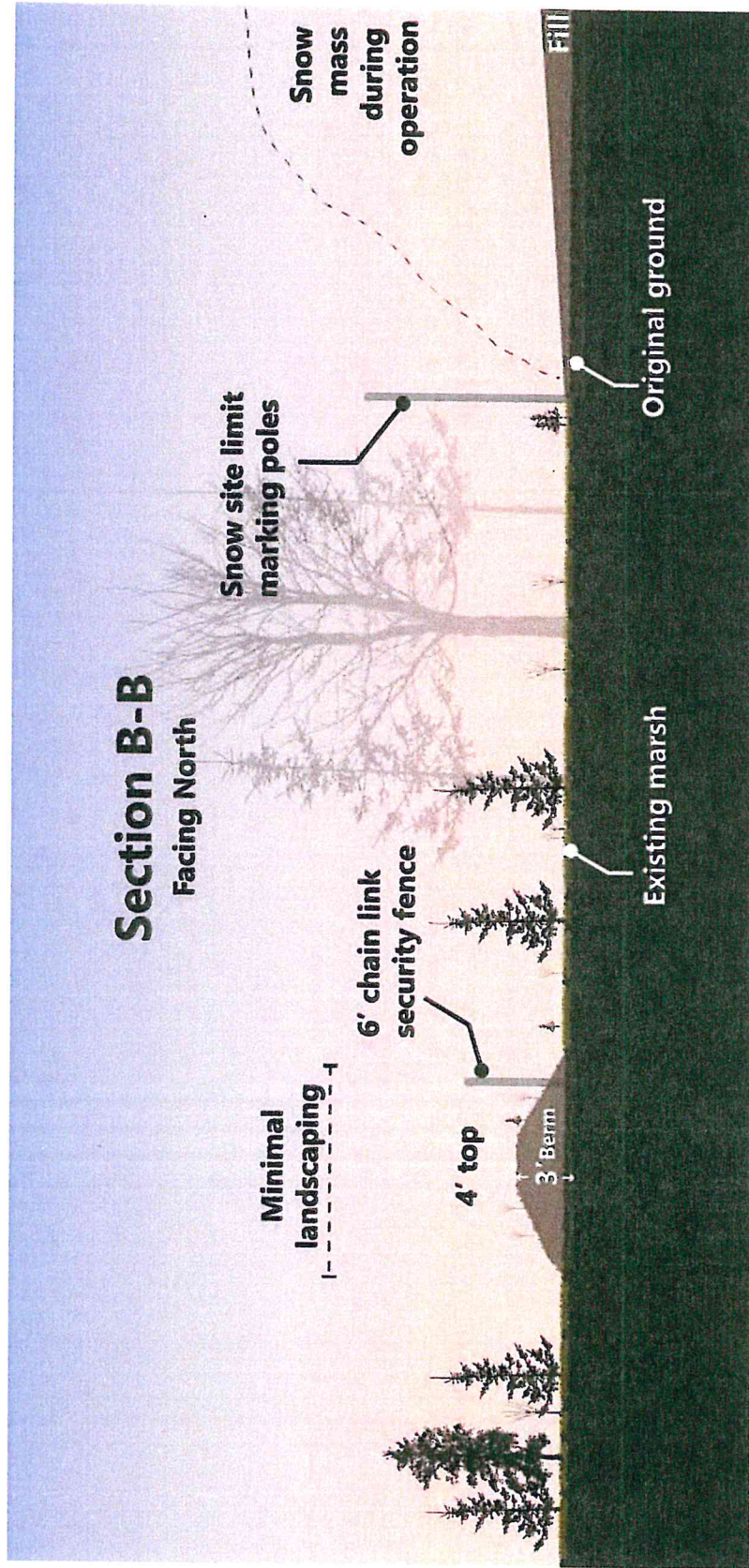


Figure 7. Snow Disposal Concept Design, Section B-B, 3 foot Berm

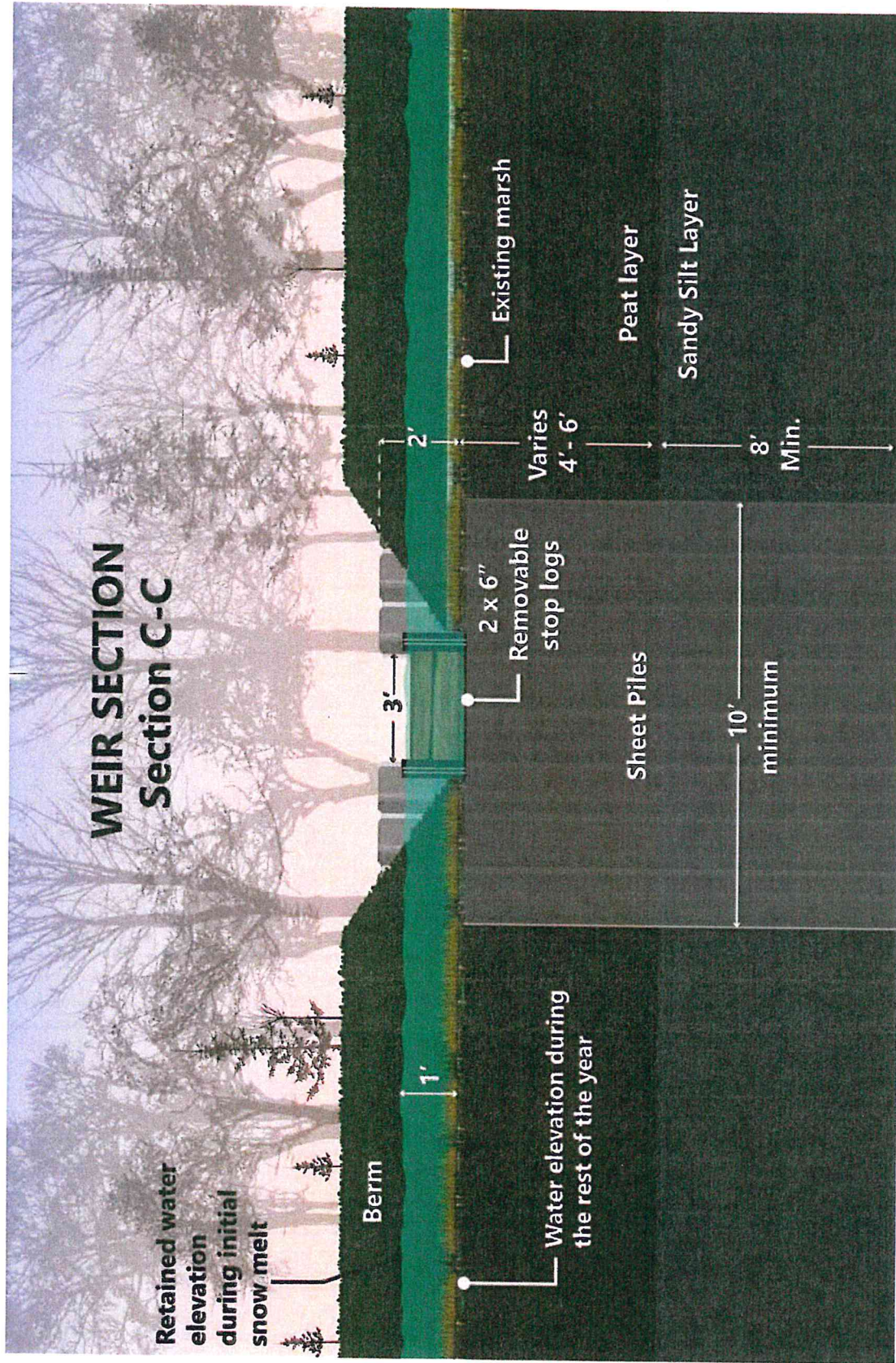


Figure 8. Snow Disposal Concept Design, Section C-C, Weirs, looking out of the site.

8.2.1 Traffic Access

Once on Northwood Drive, commercial truck access to the Connor's Bog Site is similar to access to the Northwood Snow Disposal Site, with some additional driving through the Kloep Station area. The existing security gate will continue to be used for both Kloep Station and the new snow site facilities as it is for the existing Northwood Snow Site. The additional routing will be on service roads with no public traffic. M&O has administrative offices, active operations, equipment storage and maintenance, sand and deicer storage, a grit facility, and other activities at their Kloep Station site. The new snow disposal site will be beyond the operations areas, and heavy trucks will have to be routed through or around the current facilities. At the entrance to the facility along Northwood Drive, truck traffic will be routed west of the administrative parking area, which will be moved slightly east, closer to the building. Additional fill along the parking area will provide for a separate 24-foot-wide truck route outside the parking area.

Beyond the water fill and storage tanks, truck traffic will continue on the existing gravel roadway alignment, passing under the Chugach Electric Association power lines to the southwest corner of the facility. At this point, trucks will turn east, split from the road to the warm sand storage building, descend the fill mass face, pass under the Chugach lines a second time, and travel east using the section line easement and a small incursion into park lands onto the northwest corner of the new snow site. In order to ensure that snow hauling trucks will have no possibility of impacting the Chugach Electric Association power lines, a structure will be placed at the Kloep Station entrance and at the exit from the snow disposal pad. The structure's height will not allow for trucks to pass under with their beds in the raised position.

The access road prism will be cut into the slope of the fill mass to the extent possible with 2:1 back and side slopes. Geotechnical borings show ample cover material over the landfill face to allow partial benching and avoidance of the overhead power lines. Further south the portions of the access road through the bog will be surcharged during construction. After settlement of the access road a single culvert west of the snow site pad will allow for cross-drainage in this area.

8.2.2 Fencing

Title 21 fencing requirements are more advisory than prescriptive. Perimeter fencing should be provided as needed to control access, catch windblown litter, and provide for safe operations. Most of the existing MOA snow disposal sites have some amount of fencing to prevent public access, but most do not have a continuous perimeter fence. Since the bermed area of the site will contain a large area of natural habitats, it may be appropriate to only partially fence the perimeter of the snow site to allow wildlife access to these habitat areas. At a minimum, fencing along the access road and north side of the snow site should block pedestrian access between Connor's Bog off-leash dog area and Javier de la Vega Park. An existing fence along this side could be reused for at least part of this requirement but may not be tall enough to block motivated trespassers. The preliminary designs show a complete fence enclosure along the inside of the berm and on both sides of the access road.

Recreational access between the parks will be provided by a trail connection along Minnesota Drive, east of the snow site. Therefore, it will be appropriate to provide a fence between this proposed trail and the snow site. Fencing of the south and west sides of the site should be open for discussion with M&O and Parks and Recreation Department input. These areas could contain discontinuous fencing with overlapping ends to allow wildlife access while still catching litter. Preliminary design shows the fencing

on the inside base of the 6-foot berm to reduce its visibility from the outside. The fencing should be a short distance from the toe of the berm slope to allow maintenance personnel to walk along the inside and remove litter.

8.2.3 Pad

The snow depositional pad will be constructed to provide a stable work area for winter and summer operations. At a minimum, the pad section will contain a geotextile layer for separation of the fill from the underlying peat; this will be followed by a minimum of 2 feet of structural fill. Surcharging of the pad is recommended over a 6-month period with 3 additional feet of fill. This surcharge material would be removed and used for other parts of the project or hauled off as excess. See the geotechnical report in Appendix B

The pad will slope slightly from a central high point to shed melt and precipitation waters into the surrounding wetland on all sides. Slopes will be slight, and it is assumed that some residual ponding is acceptable. Slopes will be regraded as required to maintain positive drainage.

The area of the pad is initially targeted at 14 acres and will be shaped to take advantage of existing sloped topography and to allow a consistent visual setback from the heavily used AWWU corridor.

The final pad will be seeded with an inundation and salt-tolerant seed mix as specified in the DCM. Snow deposition delineation poles will mark the perimeter of the pad to prevent snow deposition in the areas reserved for water treatment.

8.2.4 Water Quality Process Moat

The depositional pad will be surrounded by a variable-width area of undisturbed wetlands that will serve the meltwater processing functions for the site. This moat area will detain initial meltwaters with higher chloride concentrations for dilution by later, lower-concentration meltwaters, as described in Section 8.2. Water levels will be maintained in this area through the snow melt season to also capture suspended sediments in the meltwaters. Because the area will require only minimal development infrastructure, it can be enlarged beyond the minimum area specified in the DCM with small additional cost. This will serve the dual purpose of allowing a higher level of treatment with the capture of finer suspended sediments and serving as an overflow storage area in extreme snow years.

Due to the natural topography of the wetlands at the snow disposal site, meltwater will tend to flow south and west, pooling against the south and west berm areas. At these points in the berm, weirs will disperse it into the wetland. The width of the moat will vary depending on whether it is serving a primarily transmission function along the north and east faces of the pad or a primarily treatment function along the south and west sides. Any additional area for snow storage overflow will occur along the southern areas of the site.

Design peak snow melt flows are specified in the DCM as adhering to the 5-year snow melt hyetograph. Peak melt of this hyetograph is 0.29 inch per 4-hour period and 0.63 inch for a 24-hour period. For a 14-acre site, these flows equate to 1 cubic foot per second for the 4-hour peak and 0.37 cubic foot per second for the 24-hour period. The total 40-hour volume of this meltwater is 1.05 acre-feet.

Minimum detention pond design parameters, per the DCM, are as follows:

- Minimum detention storage of the pond at the beginning of the snow melt period should be equal to snow melt discharge volume of the 40-hour, 5-year meltwater hyetograph. The 40-hour melt is equal to 0.9 inch; applied over 14 acres, this equates to 45,738 cubic feet or 1.05 acre-feet of storage. Assuming a detention depth behind the weirs of 1 foot, approximately 1 acre of detention will be required. The moat along the south and west sides of the pad will easily meet this storage requirement.
 - Design values are given as follows for chloride concentrations
 - A. 7-day average concentration of 3,000 parts per million (ppm) (milligrams per liter [mg/L]) chloride in 1 cubic foot per second of meltwater.
 - B. 30-day average concentration of 1,000 ppm in 0.5 cubic foot per second of meltwater.
 - These projected numbers are compared against the DCM's Table 8.2-1 below. Neither value exceeds the allowable exposure limits for fish and invertebrates, and it is assumed that, other than the initial detention volume, chloride will not be a factor in design.

Table 1. Design Criteria Manual Recommended Thresholds for Chloride Exposure

Exposure Duration	Fish and Invertebrates	Vegetation
Acute (less than 1 week)	3,600 mg/L	6,400 mg/L
Acute (up to 30 days)	1,200 mg/L	3,200 mg/L
Chronic (continuous)	300 mg/L	640 mg/L

- The second parameter requires settlement of 95 percent of the 100-micrometer particles from the meltwater. Assuming that the maximum throughput of the detention facility will be driven by the 4-hour peak of the 5-year snow melt hyetograph, the surface area of the detention area will be sized to meet this requirement. This is a relatively low target requiring a settling pond area of less than 1000 square feet with a Factor of Safety of 2.
- Given the proposed shallow depth and large surface area of the detention pond, it appears that the volume parameter for detention storage will govern the settlement/detention pond design.

Vegetation in the moat area will be left natural and can be expected to change over time as less inundation and possibly chloride-tolerant plants are replaced with more adaptive varieties.

8.2.5 Surrounding Berm, Weirs, and Recreation Trail

The surrounding berm will be variable in design and serve multiple functions. It will be the base for foot access to the weirs in order to control water levels in the moat. It will also serve a landscape and screening function and as the planting base for larger upland tree species, and finally it will serve as a containment dike for the water quality impoundment. Three to four weirs will be fitted along the dike as discharge areas into the greater bog.

The berm surrounding the snow disposal pad will have different functions and design parameters depending on location. Along the north side, a low, non-landscaped berm is needed to separate and direct existing drainage from the north and from Minnesota Drive, to a culvert that passes under the snow disposal site access road. Drainage from the de la Vega fields and stormwater from the Minnesota Drive right-of-way should be separated from meltwater from the snow disposal site due to concerns with water quality and quantity from these sources. The edge of the raised fill area of Javier de la Vega

Park is nearby and will serve to contain drainage to the north. It is unlikely that a berm and landscaping along the north side will attain sufficient height to provide any screening when viewed through the existing vegetation from the Javier de la Vega ball fields at the top of the slope. No landscaping other than grass is provided in the cost estimate.

Along the east side, the berm will serve as the basis for Level 4 landscaping as specified in Title 21 as well as the foundation of a walking trail to connect Javier de la Vega field with the rest of Connor's Bog Park. This trail would likely run along the top of the berm and support foot traffic. There will be no weirs along this side, and vehicular access is not anticipated. As a park trail and the primary visual feature seen from Minnesota Drive, landscape features will be robust while taking advantage of the existing large tree stands at the north and south ends. As the berm wraps around the south side of the site, it will maintain its trail and landscape functions. Access to the single weir in the south east corner will be provided from the inside by placing the fence around the weir and displacing the trail around the weir with a short drainage culvert. The recreation trail will transition across the wetlands from the southwest corner to join the AWWU corridor to the west. This trail will remain entirely within the parcel and adjacent section line easements. This southwestern section of the trail will be only slightly elevated above the wetlands and may contain culverts for cross-drainage purposes.

Along the west-facing side, the berm's primary function will be retention of meltwater, screening and access to the weir sites. No vehicular access will be provided. Existing copes of trees will be incorporated into the screening where possible. Although not primary, this berm could be used as a recreation trail with a possible connection to the AWWU corridor from the north end. The design of the recreational trails will be discussed with the Parks and Recreation Department. Proximity to dense trees and brush can have a negative impact on users' actual and perceived safety. An alternative would involve creating a trail alignment separated from landscaping to provide better sight distance and safety to park users.

8.2.6 Weirs

Three to four weirs will be provided for dispersion of meltwaters. These weirs need to be vertically stable and located at the same elevation to allow even distribution of water into a broad area of the bog. Preliminary design concepts show a short section of sheet piles driven through the peat layer and anchored in the underlying soil strata. The low nappe of all weirs will be set to match, allowing equal dispersion of flows from all weirs simultaneously. The nappe of the weirs will be fitted with adjustable stop logs that can be added or removed to allow complete drainage of the impoundment, to adjust for gradual sediment accumulation, and/or for adjustment of flow rates.

8.2.7 Surcharge Design

The surcharge of the pad will be based on recommendations of the final geotechnical report. Preliminary data recommends 3 feet of surcharge on the pad over a 6-month period to attain up to 40 percent compaction of the underlying peat layer. This compaction is estimated at 1.6 to 3 feet. These numbers are consistent with the design of a pad that will contain a minimum of 2 feet of fill at the edges, flush with the existing bog along the perimeter, and grade to drain from the center. The access road will also be surcharged where it crosses the wetlands. No surcharging of the berm areas is recommended because these structures will be slightly over-built and landscaped. Settlement will be allowed and should not affect the containment properties or aesthetics of the features.

8.2.8 Slope/Aspect

The pad will be sloped slightly to each of the four quadrants to drain slowly, with some ponding allowed. The aspect with respect to southern sun exposure against the melt face will not be considered. The sedimentation targets addressed by this requirement will be achieved through the detention/settlement area in the moat (see Section 8.3.4).

8.2.9 Meltwater Routing

Once the meltwaters have settled in the moat area, the waters will be dispersed into the surrounding wetlands through the outfall weirs. The naturally terraced bog formation will further disperse flows as the waters make their way south and west to the AWWU corridor. There is currently a single culvert to pass water through the AWWU corridor. Snow site construction will provide three additional culverts to provide even dispersion into the western part of Connor's Bog. Any waters not already infiltrated into the wetlands will route along natural drainage pathways downslope to Connor's Lake. Connor's Lake has no overland drainage connection, but its surface elevation is significantly above other ponds and lakes to the west and north, most notably Lake Spenard. It is likely that the gradient drives groundwater flows from Connor's Lake in the direction of Lake Spenard, which in turn has surface connections with both Fish and Hood Creeks both controlled by outlet weirs at the east and west ends of the lake respective.

9 Property ROW Requirements

The project requires only minimal incursions and construction easements on adjacent properties. The most significant of these will be a permanent easement for the access road across the north end of the dedicated park parcel to the west. The use of this small sliver of land is necessary because of the placement of the Chugach Electric power poles within the existing section line easement. These power poles force the proposed access road south onto park property. A permit for Other Governmental Use of Dedicated Park Lands is required as part of the permitting process. This permitted use has been approved by the Anchorage Assembly at the time of this report.

The other easements required will be along the AWWU trail that bisects Connor's Bog. The trail is constructed of imported and side cast material from the sewer trunk construction and is slightly offset from the actual trunk line, which lies to the west. The snow site project proposes to put additional at-grade culverts through the trail corridor to allow unimpeded cross-drainage of the meltwater. This will require temporary construction access along the trail from the north and south ends as well as permanent drainage easements at each of the culvert crossings.

10 Geotechnical Report

The geotechnical investigation has been completed and the resulting report is included in Appendix B. Details of the soils investigation and recommendations for various components of the earthwork and surcharging design are included in the Geotechnical Report.

11 Maintenance and Operations Considerations

Maintenance of the new site is not anticipated to be significantly different than maintenance at existing snow sites across Anchorage. As with all snow sites, there is a gradual deposition of road grit that is left after the snow melts in late summer. The pad will occasionally need to be regraded to maintain the designed slopes for drainage. Differential settlement of the pad due to the weight of the large snow mass will have to be regraded. Dust, litter control, maintenance of the access road, and other infrastructure will be similar to existing facilities.

The single significant difference in operations will be active management of the meltwater processing facilities. The proposed design will take advantage of the water processing functions of the existing wetland by enclosing a portion within a berm to serve as a detention, settlement, and infiltration area. During much of the year, from May through the following March, the stop logs at the weirs will be lowered to the base level of the wetland. This will allow the natural processes and ground water elevations of the wetland to be maintained in equilibrium with the surrounding marsh. Weir stop log elevations will be left low throughout the winter months to allow any significant rainfall or melt events to drain out of the bermed area. The stop logs will be installed in early March prior to the first spring snow melt to an elevation that will retain the first flush of meltwater. After this initial flush, the stop logs will be removed in May and the water levels allowed to return to basal levels during the growing season to prevent inundation and die off of the marsh vegetation. The stop logs will be stored for reinsertion the following spring. Wooden stop logs will be used because they are simple and lightweight for ease of handling. They will be secured in place to prevent possible floatation and leakage. This will need to be a scheduled maintenance item on M&O's calendar to ensure long term function. Foot access to each weir will be maintained from the interior of the fenced enclosure.

12 Cost Estimate

A cost estimate for the preliminary design is attached in Appendix D. This is a preliminary estimate of probable construction costs based on conservative bid tab pricing and estimated values where bid tabs are not available, quantities are approximate. It is noted that recent supply chain limitations are resulting in large fluctuations in bidding prices, the largest fluctuations are being seen in material pricing of fuel, lumber, metals and plastics. Several items are intentionally left conservative and there is potential for cost savings. The following is a partial list of potential variances:

- Initial schematic design of the parking area and truck bypass west of the Kloep Station shop and administrative building suggests that the required width is within the property boundary, but this will be confirmed during final design. The cost estimate contains a line item to create a 36-inch retaining wall along the property line should that be needed. \$276K item.
- It is assumed that the rebuilt parking area will extend into the area of the existing water-truck fill and that the tanks will need to be replaced. \$165K item.
- Connor's Bog Dog Park improvements have been included as a place holder for possible kiosk or park benches. \$50K item.

- Lighting for the required parking area upgrades at Kloep Station and the entire length of the access road is included, 10 poles and luminaire. The cost may be reduced based on requirements of the conditional use permitting process. \$100K item.
- Unclassified Fill substituted for the Classified fill on pad construction. If off-spec material is available from another source or concurrent job this item could be reduced by as much as half. Potential \$1.6M reduction.
- There is a significant amount of street sweeping material stored in berms around the west and south sides of the Kloep property. These materials could be used for the initial lower levels of the pad fill and are available directly adjacent to the new fill pad. Estimated quantity is 4,000 cubic yards. \$60K item.
- Per conversations with geotechnical engineers, there is potential savings if the initial fill layers can be placed while the ground is still frozen in late spring. Filling over frozen ground would reduce construction costs; the potential savings are unknown.
- The landscaping requirements from the conditional use permitting process are unknown at this time. The existing cost estimate does not include berm plantings, except along a short section of Minnesota Drive, where Level 4 landscaping is required by code. This cost could be increased significantly by P&Z Commission or Assembly mandate in their approval of the Conditional Use Permit.

13 Project Schedule

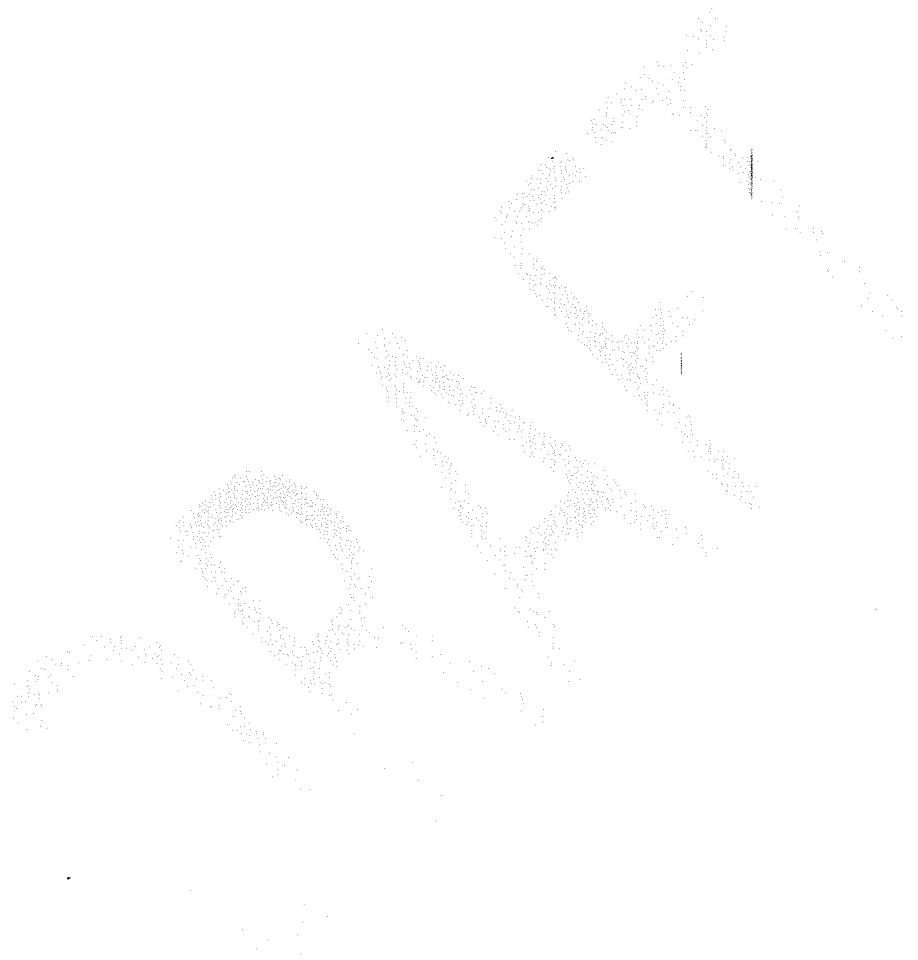
The following is the general project schedule. Future dates are estimates only, based on expected review and permit approval timelines.

- **Site Selection Study**
 - Draft Site Selection Study (6/23/20 to 8/21/20)
 - Finalize Site Selection Study (2/12/21)
- **Design Study Report**
 - Draft Design Study Report (5/21 to 10/21)
 - Final Design Study Report (11/21)
- **Permitting**
 - U.S. Army Corps of Engineers
 - Approved Jurisdictional Determination Received (12/28/2020)²
 - Municipal Use of Dedicated Park Land
 - Parks and Recreation Commission Meeting (3/11/21)

² The Approved Jurisdictional Determination is good for five years from the date of issuance. Wetlands present within Connor's Bog were determined to be non-jurisdictional under the Navigable Waters Protection Rule, which was vacated on September 8, 2021.

- Planning and Zoning Commission Hearing (6/7/21)
 - Assembly Hearing (9/14/21)
 - Assembly Approval (9/14/21)
 - Parcel Rezoning and Land Use Map Amendment
 - Pre-Application Conference (1/29/21)
 - Sand Lake Community Council Meeting (3/8/21)
 - Rezone and Land Use Map Amendment Application Submitted (3/17/21)
 - MOA Planning Prepares Public Notice (3/8/21 to 3/19/21)
 - Planning and Zoning Commission Hearing (7/19/21)
 - Assembly Hearings (10/21)
 - Design Variance Application
 - Prepare application form (Fall 2021)
 - Landscape Review by Urban Design Commission (Fall-Winter 2021)
 - Conditional Use Permit
 - Prepare Conditional Use Permit Package (Fall 2021)
 - Planning and Zoning Commission Hearing (Winter-Spring 2021-22)
 - Conditional Use Permit Approval (Winter 2021)
 - Land Clearing and Fill and Grade Permit (Winter 21-22)
 - Stormwater Management Report (Fall 2021)
- **Design**
 - Site Survey (12/28/20 to 10/1/21)
 - Geotechnical Report (10/21)
 - 35% Design and PM&E Review (Fall 2021)
 - 65% Design and PM&E Review (Winter 2021-22)
 - 95% Design and PM&E Review (Spring 2022)
 - Final Design Contract Documents (Summer 2022)
- **Construction**
 - Project Advertising (Fall-Winter 2022-23)
 - Bidding, (Spring-Summer 2023)
 - Construction Notice to Proceed (Spring-Summer 2023)
 - Construction (Spring-Fall 2023)

Appendix A: Final Site Selection Study





West Anchorage Snow Disposal

Site Selection Study



February 2021





Executive Summary

The Municipality of Anchorage (MOA) has identified the need for a long-term, reliable solution to snow disposal for West Anchorage. This site selection study summarizes the process to identify a new snow disposal site, public involvement, site options, site screening criteria, and the reasoning behind the proposed site selection.

The snow disposal site that currently serves West Anchorage is located on land owned by the State of Alaska and managed by the Ted Stevens Anchorage International Airport (TSAIA). Snow storage needs often surpass site storage capabilities. Options to increase capacity at the existing site are limited and site improvements are necessary to meet current water quality standards. In order to make these improvements, MOA and PM&E need a long-term solution for snow storage in this area and a cost-effective alternative to the current ad hoc lease arrangement. This study's goal is to find a site that the Municipality can own, and where development and investment in state-of-the-art water treatment will pay off in perpetuity.

Three initial criteria were set for selection of a new snow disposal site based on research of existing MOA snow disposal sites, published regulatory legislation, guidance documents, and conversations with managers and operators at the Maintenance and Operations (M&O) and Project Management and Engineering (PM&E) Departments. The initial criteria were:

- A minimum of 10 acres of unused land, and ideally at least 15 acres;
- Located within the West Anchorage Snow Disposal Service Area; and
- Located on undeveloped, vacant land.

Nineteen sites within the West Anchorage Snow Disposal Area were found to meet these three basic criteria. Once these sites were identified, the following criteria were used to narrow the possible sites to those feasible for snow disposal:

- Located to allow 24-hours-a-day, 7-days-a-week (24/7) operation;
- Zoned in an area that will allow snow disposal;
- Provides site access along larger collector or arterial roads; and
- Available for long-term lease, purchase, or otherwise available for permanent use.

In addition to the initial site selection criteria, the following additional factors were considered in the final site selection evaluation:

- Receiving water capacity for snow melt runoff;
- Impacts on neighborhoods and surrounding residential areas;
- Impacts on wetlands;
- Impacts on park lands; and
- Permitting requirements.



After the secondary site evaluation, two primary sites were identified for further examination: Site 5 (Connor's Bog Site), and Site 9 (Strawberry Bog Site).

MOA conducted public outreach to engage, inform, and gather comments from the public about the Connor's Bog and Strawberry Bog sites as well as the site selection process. Comments from the public centered on adhering to zoning to minimize impacts to residential areas, as well as the visual and hydrological impacts of snow disposal.

After analysis of all factors, Site 5: Connor's Bog Site was determined to most closely meet the snow disposal site criteria for the future West Anchorage Snow Disposal location. Analysis findings included:

- The Connor's Bog Site would have minimal impacts on residents and neighbors, while allowing for 24/7 operation. This criterion is the most important aspect required for efficient snow disposal in West Anchorage.
- The estimated additional cost of day-restricted operations is \$240,000 per year over the cost of unrestricted 24/7 operations.
- Both sites meet many of the criteria for selection: adequately sized, available for use, and adequate receiving water for snow melt runoff.
- Both sites are located within Class A wetlands, so an extensive permitting effort is expected.
- In contrast, the Strawberry Bog Site would be located near an existing and growing residential area. Truck routes to the Strawberry Bog Site may have to be routed through residential areas. The proximity to neighborhoods and access routes could require operational restrictions on the Strawberry Bog Site, making it less desirable for snow disposal use.

In conclusion, after detailed site analysis and public feedback, Connor's Bog has been identified as the more ideal snow disposal site.

The Connor's Bog site features minimal impacts to residential areas, operational advantages, suitability for storing snow and handling melt water, and fitness based on other factors. The site will be subject to a stringent permitting process and regulation driven design standards.



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Acronyms and Abbreviations

24/7	24-hours-a-day, 7-days-a-week
AMC	Anchorage Municipal Code
AWWU	Anchorage Water and Wastewater Utility
CWA	Clean Water Act
DOT&PF	Alaska Department of Transportation and Public Facilities
JD	Jurisdictional Determination
M&O	Maintenance and Operations
MOA	Municipality of Anchorage
PLI	Public Lands and Institutional (zoning)
PM&E	Project Management and Engineering
TR	Transition (zoning)
TSAIA	Ted Stevens Anchorage International Airport

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1. Introduction

The Municipality of Anchorage (MOA) Maintenance and Operations (M&O) Department maintains the majority of the streets in the Anchorage Bowl. A major winter maintenance activity is the removal and disposal of snow from these streets. Snow removed from streets is deposited in one of eight snow disposal sites scattered throughout the city, each serving its adjacent area. The MOA has identified a need to replace the Northwood Snow Disposal Site (Northwood Site) that currently serves the West Anchorage snow service area. The MOA Project Management and Engineering (PM&E) Department is administering the West Anchorage Snow Disposal Project and has contracted with HDR to select a location for, permit, and design a replacement for the Northwood Site. This site selection study identifies and makes recommendations of potential sites that meet M&O's needs for snow disposal.

The Northwood Site is located on State of Alaska-owned land controlled by Ted Stevens Anchorage International Airport (TSAIA) adjacent to the M&O Kloop Station maintenance facility south of International Airport Road on Northwood Drive. The Northwood Site serves most of the western portion of the Anchorage Bowl. Figure 1 shows the boundaries of the West Anchorage Snow Service Area (Service Area) as provided by M&O. M&O is responsible for snow collection on most neighborhood and collector streets within the area shown in red. Larger arterial roads such as Dimond Boulevard, Minnesota Drive, Jewel Lake Road, and International Airport Road are maintained by the State of Alaska Department of Transportation and Public Facilities (DOT&PF). In some years when there is a significant snowfall, Anchorage School District schools may also use the Northwood location for depositing snow.

The MOA currently rents the Northwood Site from TSAIA on a year-to-year basis. Because of increasingly stringent State of Alaska water quality regulations, PM&E has identified a number of improvements to the Northwood Site that are necessary for the long-term operation of the site. In order to make these improvements, the MOA must purchase or negotiate a long-term lease for the property. Unfortunately, the lands containing the Northwood Site are not available to the MOA for permanent use. As of June 2020, MOA PM&E and M&O began the process to identify the best alternative location for snow disposal in West Anchorage. This study is the culmination of that process.

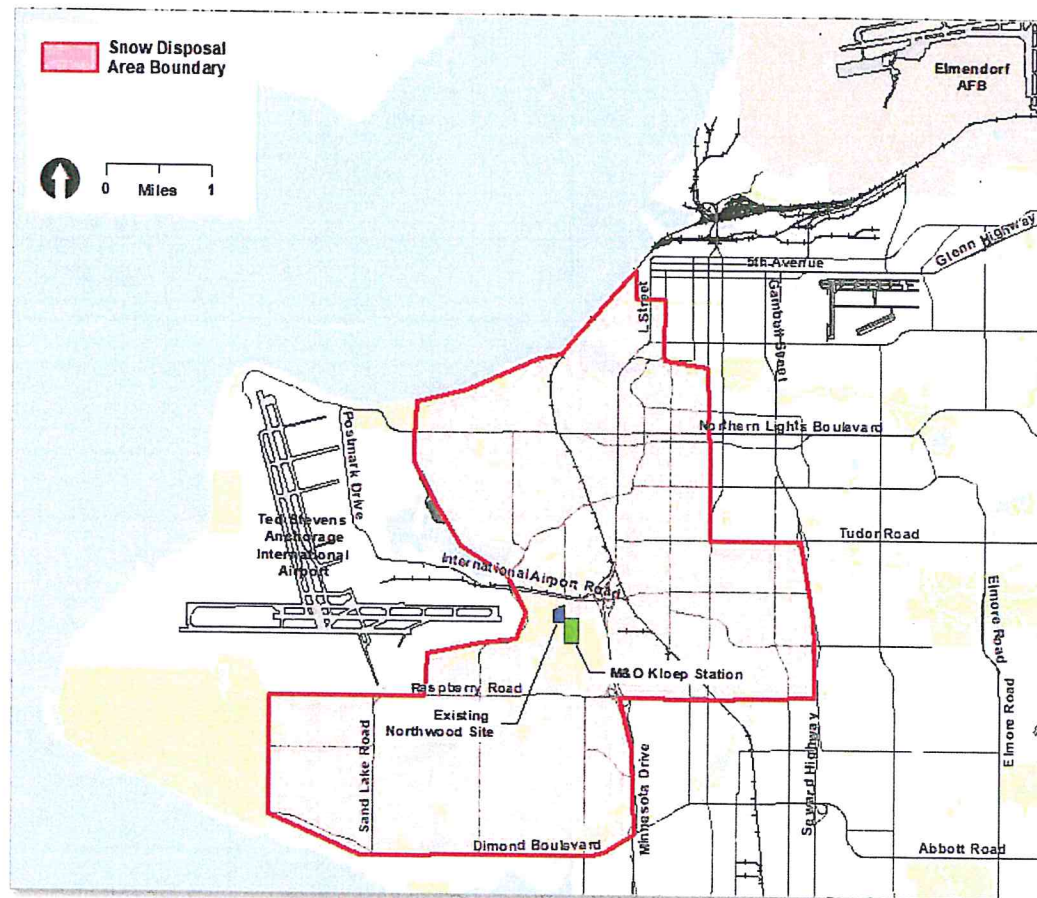


Figure 1. West Side Snow Disposal Service Area



2. Background

To guide the site selection, background information was gathered on the status of existing snow disposal sites in Anchorage, recent snow hauling data from all sites, detailed haul data from the Northwood Site, snowfall records, regulatory and guidance documents, and interviews with M&O and PM&E staff. This information was used to determine the priority site characteristics for a snow disposal site and develop criteria for the conceptual replacement design.

2.1 Snow Haul to the Existing Northwood Snow Disposal Site

The existing Northwood Site contains 9 to 12.5 usable acres depending on TSAIA's annual alternative needs for the site and the negotiated lease agreement. The West Anchorage service area is 14.4 square miles (Figure 1) and currently accepts approximately 20 percent of the snow gathered from MOA-maintained streets in the Anchorage Bowl. Conversations with M&O staff have indicated that in large snow years 12.5 acres is insufficient for the collection area, and 9 acres is inadequate even in low snow years. During the 2019–2020 snowfall season, with a 9-acre lease and 115 percent of normal snow fall, M&O was forced to truck West Anchorage snow to other sites. This resulted in additional trucking costs and decreased levels of service, which included snow hauling delays and additional snow left on the sides streets and in the middle of cul-de-sacs.

In an average snow year, approximately 10,500 truckloads of snow are brought to the Northwood Site. At the extreme, (2011–2012 had 175 percent of the average snowfall), approximately 18,500 truckloads went to the Northwood Site. The resultant snow pile was 40 feet high, 10 feet higher than the design height limitation dictated by water quality parameters. The result is shown in Figure 2. See Appendix A for snowfall records from 2004 to 2020 and the calculations for snow truckloads delivered to the Northwood Site.



Figure 2. Northwood Site in 2011–2012



2.2 Neighboring Snow Disposal Sites

The Northwood Site service area is bounded on the south and east by five other snow service areas, shown in Figure 3: Commercial Drive, Sitka Street, Tudor Road, Spruce Street, and C Street Site. All of these adjacent sites are already at or near capacity. This means that a loss or reduction in snow disposal capacity in West Anchorage cannot be adsorbed by the adjacent sites. A replacement site for West Anchorage needs to have capacity similar to or greater than the Northwood Site in order to effectively meet West Anchorage's snow disposal needs.

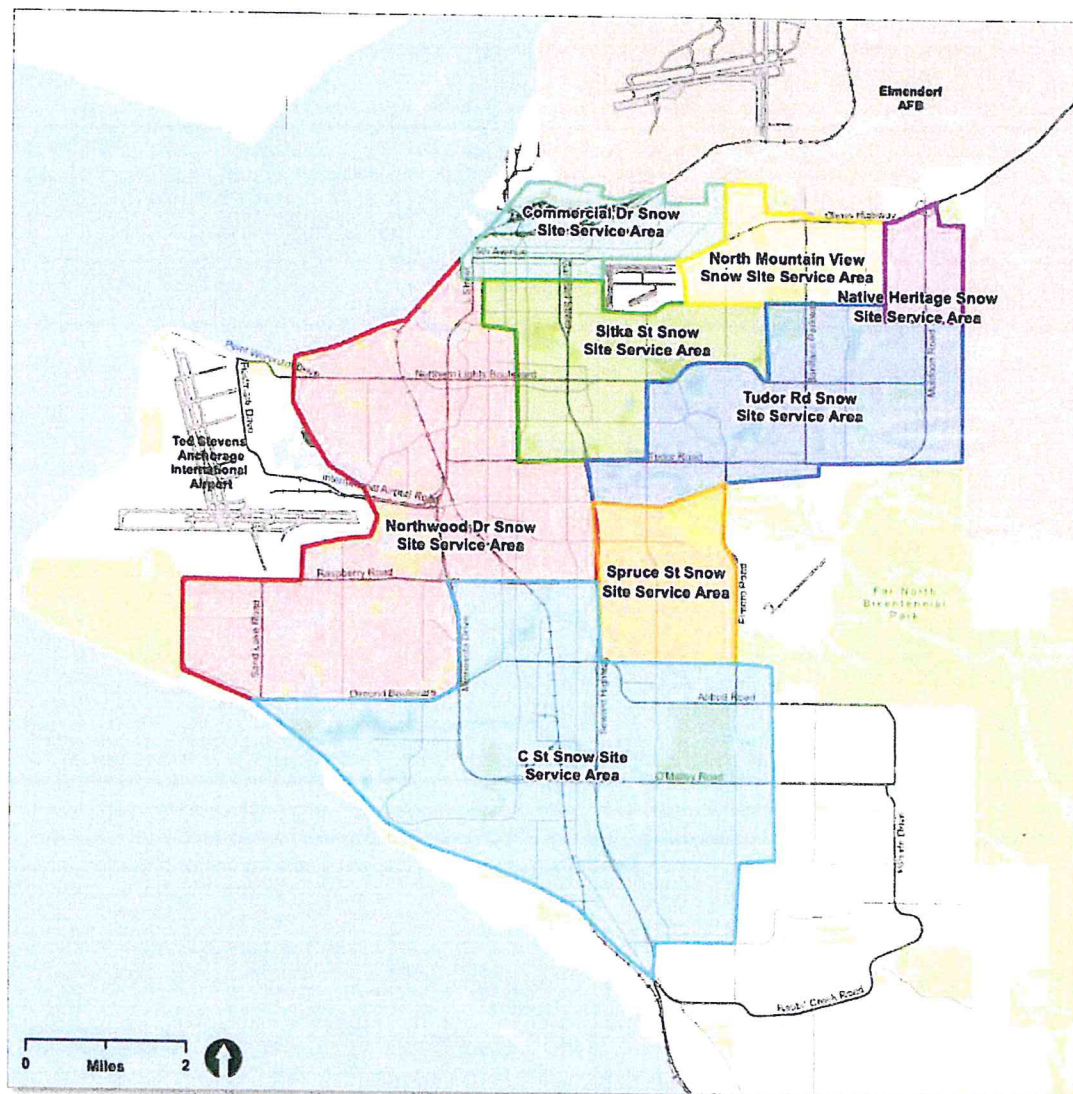


Figure 3. Anchorage Snow Disposal Service Areas



2.3 Site Design and Selection Guidance Documents

Anchorage Municipal Code (AMC) Title 21, Land Use Planning, sets criteria for public facility site selection in general and for snow disposal sites in specific. Section 21.03.140 governs public facility site selection, and snow disposal sites are identified as public facilities in Section 21.03.140B.1.f. Snow disposal site standards are found in Section 21.05.060E.8. New snow disposal sites must conform to these regulations or seek waivers.

In addition to Title 21, snow disposal requirements are governed by the *2017 Anchorage Stormwater Manual* published by the Watershed Management Services. Additional documentation for management of snow disposal can be found in the *Anchorage Street Deicer and Snow Disposal: 2003 Best Management Practices Guidance*, the *2013 Evaluation of Anchorage Snow Disposal Sites*, the *Anchorage Storm Water Treatment in Wetlands: 2001 Progress Report*, and other related publications from the MOA, State of Alaska, and research institutions. These documents guide both the site selection process and the design of snow sites. A list of documents used for reference and guidance in the site selection, design, and conceptual layout, with brief notes on the information provided, is included in Appendix B.

2.4 Site Characteristics and Site Requirements

Important characteristics and site requirements are determined based on population growth expectations, M&O operational needs, public input, regulatory legislation, and guidance documents. The primary guiding characteristics for site selection are location, operational flexibility, size, zoning/comprehensive planning, access, and availability.

2.4.1 Site Location

Based on conversations with PM&E and M&O, and the analysis of adjacent snow disposal sites discussed above, the site should be located within the Service Area. Snow haul to sites outside the service area has a significant impact on efficiency, costs, and level of service.

2.4.2 Operational Flexibility

M&O and PM&E emphasized the importance of 24-hours-a-day, 7-days-a-week (24/7) operations, especially in the West Anchorage Snow Disposal Service Area. Municipal sites with operational restrictions are difficult to use during periods of high snowfall, when night operations are limited because of noise impacts on adjacent neighborhoods. A lack of operational flexibility will hinder M&O's ability to move snow efficiently and is considered a major flaw of any potential new site. Night operations are preferable for hauling snow off main roads, as there is less traffic on the roads. This allows plows, rotaries, and trucks to operate with additional safety and efficiency. Night operations are more efficient for two reasons. The primary reason is the difficulty of closing off traffic to allow the use of rotary and haul equipment in the roadway. The other reason is that heavy day time traffic results in slower haul speeds and longer truck cycle times. Night operations are approximately 50 percent more efficient than daytime operations and many major streets can only be hauled at night. As part of the cost analysis that accompanied the selection process, it was



estimated that a site with day only operations restriction would require the rerouting of 55-60% of haul loads to a location with unrestricted operations. An equivalent number of loads would have to be rerouted from an adjacent snow site during day operations to balance snow storage capacity. The estimated cost of this redistribution of hauled loads is approximately \$240,000 per year. This additional annual cost will have a serious impact on the Municipality's ability to clear snow and maintain transportation function.

2.4.3 Site Size

Based on the analysis of other Anchorage snow disposal sites, a full area replacement for the Northwood Site is desirable. Parcels of at least 15 acres are most desirable. Parcels smaller than 15 acres were considered, if adjacent parcels could be combined to reach a total of 15 acres. The 15-acre size leaves adequate area for access roads, berms, water quality structures, screening, and property line setbacks.

2.4.4 Site Zoning and Comprehensive Plan

The site must have appropriate zoning for a snow disposal site per Title 21. Many zoning districts allow snow disposal use with conditional use permitting or rezoning. Sites zoned for industrial, commercial, and public lands and institutional (PLI) use and transition zoning (TR) are preferred over residentially zoned areas. The Transitional zoning designation was originally applied to undeveloped parcels with unknown planned usage. It carries some flexibility and allow for rezoning once the use is determined. Sites with TR zoning will require rezoning to move to PLI designation and the current Title 21 conditional use approval process. This process must also look at the current West Anchorage Comprehensive Plan and meet or amend the plan as appropriate.

2.4.5 Site Access

Snow disposal generates a large volume of heavy truck traffic. Close access to collector roadways or higher classification is necessary for operation of the site. Lengthy access routes through residential or sound-sensitive areas need to be avoided for public safety and to minimize neighborhood impacts.

2.4.6 Site Availability and Acquisition

Any proposed site must be available for use by the MOA. MOA-owned properties are generally preferable over privately owned sites, as there is no direct site acquisition cost. While MOA-owned sites may also have value for alternative uses, some have lower suitability for other uses that include buildings or other facilities requiring foundations. Sites reserved for future use or with anticipated acquisition issues should be avoided.



3. Site Selection Process

The site selection process used the desired characteristics discussed above to identify possible snow disposal sites in West Anchorage. The first step in the process was to identify large vacant land parcels within the West Anchorage service area. Once an inventory was developed for initial site identification, each was evaluated based on desired characteristics to define the most suitable sites for further analysis. These were then evaluated at a deeper level, and a recommendation was made based on the relative merits and risks of each parcel.

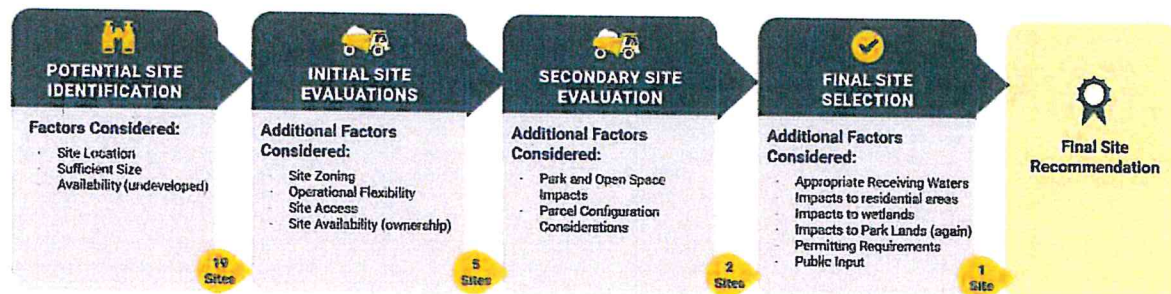


Figure 4. Site Selection Process

3.1 Public Outreach Efforts

The project team used a variety of outreach methods to engage and inform the public regarding the West Anchorage Snow Disposal Project and to obtain feedback on the site selection process. Several opportunities for the public to provide input and feedback were provided as part of the selection process. An online open house with an opportunity to chat live with the project team was held to solicit and identify potential public concerns. Postcards were mailed to residents in the West Anchorage area notifying them of the opportunity to participate in the process. The public submitted comments by phone, email, during Community Council meetings, through the online open house, and during the virtual public meeting. Comments received focused on zoning guidelines and the site's aesthetic and environmental/hydrological impacts.

The Public Outreach Summary (Appendix C) includes a description of public outreach tools, implemented outreach strategies, outreach results, and comments received. This public input was taken into consideration during the development of site selection criteria and evaluation.

3.2 Potential Site Identification

Possible snow disposal sites were selected using the MOA Geographic Information System database by comparing available, undeveloped parcels within the snow disposal collection area with the site size and location requirements discussed in Section 2.4. A first round of 19 sites met the initial screening criteria. Figure 5 shows the locations and site numbers of these 19 initial sites. A full list of these sites is included in Appendix D.

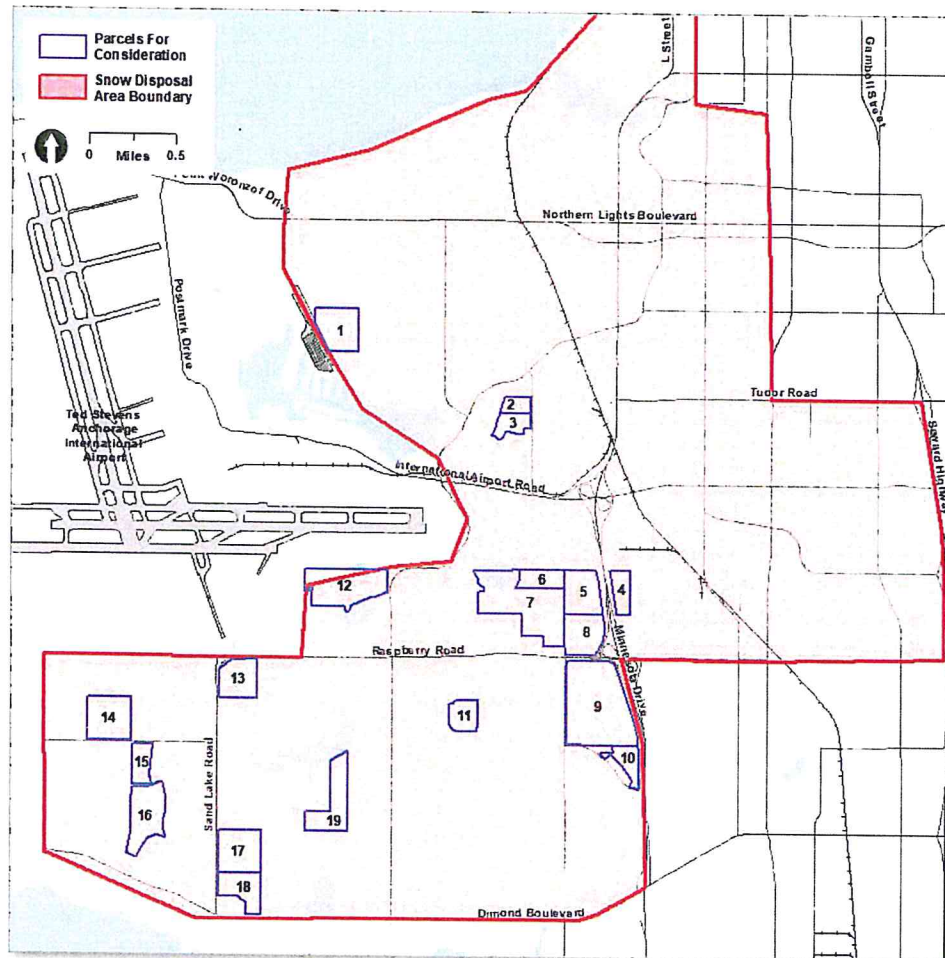


Figure 5. Initial Parcels Identified for Consideration

3.3 Initial Site Evaluation

After the initial identification, the 19 sites were further evaluated against four desired characteristics. Each site was given a rating of 1 through 3 for each characteristic:

- 1 = site was unacceptable for this characteristic
- 2 = site was neutral for this characteristic
- 3 = site was preferable for this characteristic

Sites with a rating of 1 for any of the four characteristics described below were eliminated from consideration.

- **Site Zoning:** Appropriate zoning for the subject lot and surrounding lots. Residentially zoned lots received a rating of 1. Sites that would likely require a conditional use permit received a



- rating of 2. Lots with no restrictions were given a rating of 3. None of the initial sites were rated as 3.
- **Operational Flexibility:** Ability to operate 24 hours a day. Sites that were certain to have operational restrictions were rated as 1. Sites that had some risk of operational restrictions being put in place were rated as 2. Sites that would likely have zero operational restrictions were rated as 3. This parameter was guided to some extent by the results of public outreach feedback.
 - **Site Access:** Access to collector or arterial roads. Sites with access routes that travel extensively through residential neighborhoods received a rating of 1. Sites with some access to collector or arterial roads were rated as 2. Sites that had good access to collector or arterial roads were given a rating of 3.
 - **Site Availability:** Site owned by the Municipality or suitable for purchase or lease with no stated future plans for the parcel. Undeveloped parcels that appear to have current uses such as gravel pits or storage yards or had similar contractual concerns as the existing Northwood site received a rating of 1. Sites with some existing usage or that may have difficulty obtaining a lease or purchase were rated as 2. Sites with limited to no existing usage received a rating of 3.

Table 1 displays the results of the initial evaluation of the 19 parcels.



Table 1. Initial Site Evaluation Matrix

Site	Owner	Site Size (acres)	Zoning	Site Zoning	Operational Flexibility	Site Access	Site Availability	Reason For Elimination
1	State of Alaska - TSAIA	35.7	TR	2	3	1	1	Restricted Access
2	Universal Financing Corp	10.0	R-3 SL	1	1	2	2	Zoning Restrictions
3	MOA	15.1	R-1	1	1	2	2	Zoning Restrictions
4	Chugach Electric	15.4	TR	2	3	3	1	Site Unavailable
5	MOA MOA 5501	32.0	TR	2	3	3	3	
6	MOA MOA 5501	17.3	TR	2	3	2	3	
7	MOA Heritage Land Bank	86.8	PLI	2	3	2	2	
8	MOA Heritage Land Bank	31.8	PLI	2	3	2	3	
9	MOA Heritage Land Bank	108.9	PLI	2	2	3	3	
10	MOA Heritage Land Bank	15.4	R-4	1	1	2	2	Zoning Restrictions
11	MOA MOA 5501	18.1	PLI	2	1	1	1	Operational Issues
12	State of Alaska - TSAIA	57.2	PLI	2	2	2	1	Site Unavailable
13	State of Alaska - TSAIA	29.3	PLI	2	2	2	1	Site Unavailable
14	Opal Investments	38.5	R-1	1	1	2	2	Zoning Restrictions
15	MOA - Parks & Rec	16.5	R-2A SL	1	1	1	2	Zoning Restrictions
16	MOA School District	41.8	R-2A SL	1	1	1	1	Zoning Restrictions
17	Anchorage Sand & Gravel	39.0	R-1A	1	2	3	2	Zoning Restrictions
18	Anchorage Sand & Gravel	26.9	R-1A	1	2	3	2	Zoning Restrictions
19	MOA Heritage Land Bank	38.8	R-1	1	1	1	1	Zoning Restrictions
Legend:		Unacceptable Characteristics		Neutral Characteristics		Preferable Characteristics		

Note: PLI = public lands and institutional; R = residential; TR = transition

3.4 Secondary Site Evaluation

After the initial site evaluation, five sites (Sites 5, 6, 7, 8, and 9) were identified for secondary evaluation. These five sites are all located west of Minnesota Drive on either side of Raspberry Road. Sites 5 through 8 are parcels within the Connor's Bog area and Site 9 is located in the Strawberry Bog area (Figure 6). All considered sites are shown in the West Anchorage District Plan, Anchorage 2020 Comprehensive Plan and the Anchorage 2040 Land Use plan as park and natural open space/resource land use. The secondary evaluation process narrowed the 5 remaining sites to 2 candidates based on impacts to current and planned park and open space uses as discerned from comprehensive planning, public input, and use patterns. Also considered are usable space and configuration considerations

- **Park and Open Space Impacts:** Sites 6 and 7 were eliminated from consideration due to the large number of official and social trails branching off of the Anchorage Water and Wastewater Utility (AWWU) sewer easement trail used as the main thoroughfare through Connor's Bog Park. Much of the recreational use of Connor's Bog Park is on the easement



trail and to the south and west of the trail. Development of either of these two sites would have a large impact on both the recreational users of Connors Bog and the wildlife in Connor's Lake. Both sites are on designated park lands. Sites 5 and 9 both have less recreational use and are not on designated park lands.

- **Parcel Configuration Considerations:** The sewer easement bisects Site 8, and the geometry of the lot and location of the easement within the lot would make access to a snow disposal area and security of the site difficult. Of the sites located within the Connors Bog area, a snow disposal site located at Site 5 is clearly the preferred option. Site 5 has little recreational traffic, offers straightforward site access through the M&O Kloop Station complex, and could be easily secured from unauthorized entry. Site 9 in Strawberry bog also has few configuration constraints and was also retained for final evaluation.

The elimination of Sites 6, 7, and 8 left two sites for analysis and evaluation:

- Site 5: NE Connor's Bog Site
- Site 9: NE Strawberry Bog Site

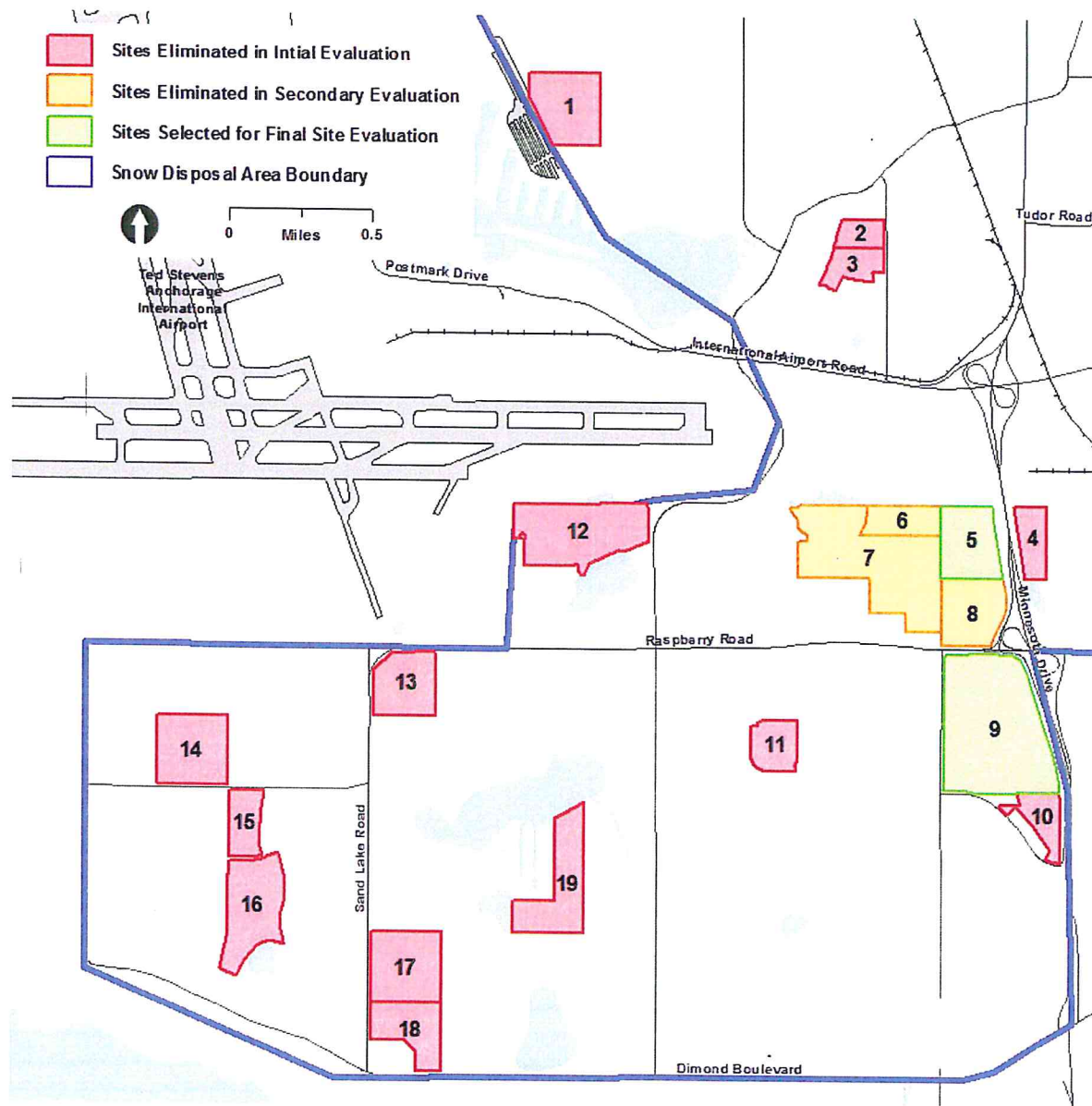


Figure 6. Final Site Evaluation Results



3.5 Final Site Evaluation

In order to make a final site selection recommendation, a thorough evaluation of the two remaining sites was performed that covered in more detail the factors considered in the initial evaluation: site zoning, operational flexibility, site access, and site availability (see Section 3.3); and secondary evaluation (see Section 3.4).

In addition to these four factors, five others were added to the final evaluation based on the public outreach feedback described in Section 3.1. The additional factors are described below.

- **Access to Appropriate Receiving Waters.** Snow disposal sites generate significant snow melt runoff that needs to be processed and disposed of into an appropriate receiving water. Any site selected for consideration should be able to receive a large amount of snow melt discharge. Sites should be avoided where snow melt runoff could raise water tables, impact existing infrastructure, or be deposited in areas that containing closed lakes or wetland systems unable to retain large amounts of water.
- **Potential Impacts to Neighborhoods and Residential Areas.** Snow disposal sites can have potential impacts to residents that include noise from snow dump trucks and machinery, nighttime glare from site lighting, air quality from dust, and visual impacts of the actual snow mounds and displaced trash. Some of these impacts can be mitigated with natural or constructed landscape buffers. Sites with numerous residents in proximity or trucking routes that pass through residential neighborhoods should be avoided to the maximum extent possible.
- **Potential Impacts to Wetlands.** Both potential sites are within mapped wetlands in the *Anchorage Wetlands Management Plan*. Both sites contain significant areas of Class "A" wetlands. Class A wetlands perform at least two significant wetland functions. The *Wetlands Management Plan* states that "'A' wetlands are considered most valuable in an undisturbed state, as most uses or activities, especially those requiring fill, negatively impact known wetland functions." Class A wetlands are not to be altered or otherwise disturbed in any manner, except for projects that are in the public interest. The site selection process must show that snow disposal is in the public's best interest and other large undeveloped upland parcels meeting the site facility requirements are not available.
- **Impacts to Park Land Use and Park Designations.** Sites located in designated park land would require approval from the Parks and Recreation Commission, Planning and Zoning and the Municipal Assembly prior to construction. Construction that limits current common park usage should be avoided.
- **Permitting Requirements.** Development of a snow disposal site requires extensive permitting from local, state, and, likely, national entities. Sites should have a clear path forward through permitting to be viable.



The following sections include an evaluation of the two remaining sites based on the above criteria. Conceptual layouts of snow disposal facilities on each site are also presented. Results and a summary of the comparison are provided in Section 4.

Conceptual designs were based on research of guidance documents and desired site characteristics. These conceptual layouts ensured that the sites have sufficient area and orientation for effective snow disposal. The layouts were developed using site area footprints for snow storage, water quality structures, access routes, required screening, and operations areas. They depict potential siting within the bounds of the individual parcels and are shown as concepts for planning purposes only. All are subject to further refinement based on delineation of wetlands, utility conflicts, traffic flow analysis, visual screening, and public input.

The Connor's Bog Site and the Strawberry Bog Site would both require the construction of a new snow disposal site of similar size with similar wetlands impacts. The total construction costs for both sites would be roughly similar. As both sites are on MOA-owned parcels, there would be no site acquisition costs. Since the total project costs for both sites would be similar, development, and operational costs, although considered, were not included in the evaluation below.

3.5.1 Site 5 – Connor's Bog Site

This site is located south of Javier De La Vega Park and west of Minnesota Drive. The land is owned by the MOA and currently managed by the Parks and Recreation Department. The total parcel size is 32 acres located in Class A wetlands. The snow disposal pad would be best located at the north end of the parcel where the elevation is slightly higher than at the south end, and access is feasible utilizing existing easements from the M&O Kloop Station facilities. Development would involve construction of a fill pad, improvements to the access road to separate snow haul truck traffic from the existing operations areas, extension of an access road along the section line easement, a perimeter berm, fencing, and water quality structures. Melt water would be discharged into the wetlands of Connor's Bog and Connor's Lake. Figure 7 shows a conceptual layout for Site 5. Details of the selection parameters are described here:

Site Access

Access to the site would be off International Airport Road, a designated expressway, and through the existing M&O Kloop Station facility. This is identical to the access route for the existing Northwood Site. Access to Site 5 would require an extension of the access road beyond the Kloop Station facility and would require to separation of snow hauling traffic from the Kloop Station employee parking areas. Small incursions into designated park land south of the Kloop parcel are anticipated to accommodate existing CEA power poles in the section line easement. The development of Site 5 will result in no change to the existing traffic flow on public streets.

Zoning

This site is zoned within the TR district. This designation was initially developed in the 1960s as the unrestricted zoning district for parcels that were not expected to be developed in the near future.



Development of Anchorage has filled in areas previously thought to be undevelopable and many of these lands have been rezoned over time. Parcels zoned TR as of January 1, 2014, are subject to the land use regulations in effect prior to the 2014 Title 21 rewrite until they become rezoned. As part of Connor's Bog, this site, although zoned as TR, is managed by the Parks and Recreation Department. The development of a snow disposal site in a TR-zoned parcel is allowed as a permitted use (AMC 21.40.240 of the old code). Should a rezone of this area occur, this land would likely be zoned within a PLI district, similar to the parcels to the south (Site 8), west (Site 7), and north (De La Vega Park). The development of a snow disposal site on a PLI-zoned land is allowed as a conditional use (AMC 21.05.010). Snow disposal sites, regardless of zoning district, must undergo a public facility site selection review (AMC 21.03.140).

In TR zoning districts, there is no height restriction for snow disposal. For PLI-zoned parcels, the maximum height is 45 feet (AMC 21.06.020.C). Conditional use standards for snow disposal sites set the maximum height of snow piles at 35 feet when within 500 feet of a residential district (AMC 21.05.060.E.8.b.II.B). As there are no residential areas within 500 feet of the proposed site location, this additional restriction does not apply. Based on past records of snowfall and snow disposal in West Anchorage, it is unlikely that a properly sized snow disposal site would exceed 35 feet of height in most snow years.

The parcel is large enough compared to the necessary site layout that most setback requirements (AMC 21.05.060.E.8.b.II.C) should not be an issue.

Operational Flexibility

Access to Site 5 is the same as access to the existing Northwood Site. As the new site is farther from residential areas or other noise-sensitive areas, it is unlikely that additional operational restrictions would be put in place on the site. This would allow for 24-hour operations, as are currently allowed at the Northwood Site.

Site Availability

This site is on land owned by the Municipality with relatively low public use. The land is not dedicated park land but is currently managed by the Parks and Recreation Department, which has been receptive to its utilization as a snow disposal site.

Access to Appropriate Receiving Waters

Snow melt from a snow disposal site at Site 5 would be retained within the watershed of Connor's Lake. Melt water would travel through several culverts under the AWWU sewer main easement and into Connor's Lake. Connor's Lake currently receives the melt water from the existing site and is sufficiently sized to receive melt water from a new site.

Potential Impacts to Neighborhoods and Residential Areas

Access to Site 5 would be similar to access to the existing Northwood Site, with some additional routing through the Kloep Station facility. The additional route would be on service roads with no



public traffic. Fencing would be necessary to limit pedestrian access to the disposal site both from Connor's Bog off-leash dog area and Javier De La Vega Park, and exposure of the public to noise or other nuisances would be similar to the present condition. There would be no change in existing traffic patterns during snow disposal, and there would be limited increased exposure of the public to noise or other nuisance.

Potential Impacts to Wetlands

Site 5 is located in mapped Class A wetlands and will impact those wetlands. The pad development, access road, perimeter berm, and water quality structures may require approximately 17.3 acres of fill in Class A wetlands. Class A wetlands are the highest value wetlands within the MOA (see Section 3.5).

The primary wetland functions and values that would be impacted at this site include storm water retention, nutrient retention and transport, wildlife and fish habitat, and recreation. Connor's Bog provides a significant source of storm water storage and water quality filtering in West Anchorage. This freshwater wetland and lake complex also provide an important habitat oasis in an otherwise urban landscape. The diversity of plant life at the site provides habitat for small mammals, moose, and many species of migratory birds. At least 83 species of birds have been recorded in the area, including nesting Pacific loons.

On the plus side these hydraulically disconnected wetlands and the included Connor's Lake accrue significant benefit from the existing Northwood snow site. Melt water from this facility have helped to maintain wetland and aquatic habitat function in this area for several decades. Melt waters from the proposed site will continue to provide this much needed hydration to maintain the wetland functions of the remaining areas of Connor's bog. This is not intended to downplay the impact of the new fill site, but many other wetland areas of the municipality are slowly reverting to upland vegetation and function as they become disconnected from historic water sources.

Impacts to Park Land Use and Park Designations

While Site 5 would be located on land managed by the Parks and Recreation Department, the site is not designated park land. However, a very small portion of the access road to Site 5 needs to be located on designated parkland and would require approval from the Parks and Recreation Commission, Planning and Zoning Commission, and the Municipal Assembly prior to construction.

Adjacent to Site 5 is Javier De La Vega Park, which hosts soccer and baseball games during summer, along with other park uses. Visual impacts to users of Javier De La Vega Park and drivers along Minnesota Drive would be partially mitigated by existing and project-installed buffers of trees to block the sightlines of the remnant melting snow. Javier De La Vega Park sees lower use in winter, so dumping and hauling activities would have less impacts on park users during that season.

Site visits after winter snowfall events suggest that the northeast corner of Connor's Bog has lighter use compared to the areas west of the AWWU corridor. Summer use is minimal due to the lack of trails and spongy wetland footing. In summary, the impacts to users of Connor's Bog, and Javier De La Vega Park while not insignificant is expected to be limited and efforts for mitigated will be



integrated into design features and other impact alleviations. The existing Northwood site is closely adjacent to the main corridor into Connor's Park. This intrusion will be removed or lessened by moving the snow site further from the more intense dog park use areas and providing vegetation buffers.

Permitting Requirements

The Connor's Bog Site is not located on designated park land and would not require Parks and Recreation Department approval. The municipal Planning and Zoning Department is recommending that the parcel if used be rezoned from TR to PLI and the Anchorage Comprehensive Plan be amended to allow the use of this parcel as a snow site. Development of this site will require a Municipal Conditional Use and Land Reclamation Permit, including waivers from several snow disposal site Design Criteria. This site would also require a Jurisdictional Determination (JD) from the U.S. Army Corps of Engineers under the Clean Water Act (CWA) Section 404 (outcome of JD would determine if wetlands permitting and mitigation would be required under the CWA), a Stormwater Discharge Permit from Alaska Department of Environmental Conservation, a sign-off from PM&E Watershed Management, fill and grade permits, and utility agreements. These permits will require significant effort, but all should be obtainable.

Site Summary

Site 5: Connor's Bog Site is a very desirable snow disposal site. It meets most of the criteria for a snow disposal site and has few drawbacks. The site would have low to no impact on residents and neighbors, is sufficiently sized and available for use, will have no operational restrictions, and has adequate receiving waters. The concerns pertaining to the Connor's Bog Site are the required changes to the Comprehensive Plan, rezoning requirements, park user impacts, wetlands fill and its location on Class A wetlands. Figure 7 shows a conceptual design drawing of the Connor's Bog Site.



Figure 7. Site 5: Connor's Bog Site Conceptual Design



3.5.2 Site 9 – Strawberry Bog Site

This site is located south of Raspberry Road and between Northwood Street and Minnesota Drive. It is owned by the MOA and managed by Heritage Land Bank. The total parcel size is 109 acres and consists mostly of Class A wetlands. Like Site 5, this site would involve the construction of a fill pad, perimeter berm, fencing, water quality structures, and a new access road. Figure 8 shows a conceptual layout for the site.

Site Access

Access would be from Northwood Drive south of Raspberry Road. All routes to the snow disposal site from the north could be made on collector and arterial routes. Traffic flow to the site may necessitate access from Strawberry Road exit off Minnesota Drive. Strawberry Road is a designated collector route and would require improvement prior to use as access to a snow disposal site. Development of this site will result in a significant change in the amount and flow of traffic in the neighborhood. The entrance to the site would be controlled with fencing and gates to restrict public access.

Zoning

Site 9 is zoned PLI, which allows snow disposal sites as a conditional use (AMC 21.05.010). Similar to Site 5, this site would require conditional use approval and public facility site selection plan approval (AMC 21.03.140). The site is bordered on the west by Northwood Street, which has areas of residential and business-zoned properties to the west. Land use is a mix of business, large apartment complexes, and single family and duplex homes. The placement of the snow disposal site would be outside of the 500-foot separation from residential districts. This would allow for no height restrictions from conditional use zoning regulations for snow disposal sites (AMC 21.05.060.E.8.b.II.B), but the site would be subject to the 45-foot limitation of PLI zoned parcels (AMC 21.06.020.C). As with Site 5, it is unlikely that the height of the snow pile would reach 35 feet.

As mentioned earlier the parcel is shown as park and natural open space in the Comprehensive Plan and change of land use will require an amendment to the Comprehensive Plan. As with Site 5, this parcel is large enough compared to the necessary site layout that most setback requirements (AMC 21.05.060.E.8.b.II.C) should not be an issue.

Operational Flexibility

Due to the proximity to both the residential development on the west side of Northwood Drive and potential trucking routes through a noise-sensitive residential area, as discussed below, operational restrictions may be placed on a snow disposal site at Site 9. The site could be restricted to daytime operations only, which is common at other municipal snow sites in residential settings. This would necessitate trucking night-hauled snow from larger arterial streets to the C Street Site and a similar volume of day-removed snow back to the Strawberry Bog Site. This process would increase the trucking cost and restrict the operational flexibility needed for efficient snow management by M&O.



Site Availability

Site 9 is located on Municipality-owned land outside of any designated park. There is low utilization of the Strawberry Bog area due to lack of trails and presence of wetlands. The site is available to use for a snow disposal site with the correct conditional use permits.

Access to Appropriate Receiving Waters

Snow melt from a snow disposal site at Site 9 would be retained within the watershed of Strawberry Lake. Comparison of historical satellite imagery from the 1950s to the present show that Strawberry Lake has decreased in size over time. Melt water from a snow disposal site at Site 9 could replenish the lake levels. Strawberry Lake eventually discharges into the Campbell Creek drainage. Site 9 has sufficient receiving waters for a snow disposal site.

Potential Impact to Neighborhoods and Residential Areas

The development of Site 9 would result in a major change to the traffic flow and volume in the area. Traffic flow to the site would have the highest impact on the high-density residential lots on the north end of Northwood Drive. More lots along Northwood Drive are slated for development in the future. Should traffic need to be routed through the Strawberry Road exit, trucks would travel through an established residential neighborhood and would have direct impacts on a large segment of residential properties fronting this route on the west. Large volumes of truck traffic and the noise from snow disposal operations would impact these residential neighborhoods no matter the direction of access. Installation of berms and landscaping trees may partially reduce noise and visual impacts on these neighborhoods, but public feedback indicates that this is a major concern.

Potential Impact to Wetlands

As with Site 5, Site 9 is also located in mapped Class A wetlands and would require wetland mitigation. The conceptual layout is similar to the Site 5 layout, but a more conventional V-Swale design is shown. The pad development, access road, perimeter berm, and water quality structures require a total of 17.4 acres of fill in Class A wetlands. Class A wetlands are the highest value wetlands within the MOA (see Section 3.5).

Strawberry Bog and Connor's Bog are part of the same original bog system now cut by Raspberry Road. Many of the potential impacts on wetland functions and values at the Site 9 would be similar to those at Site 5. The primary wetland functions and services that would be impacted at this site include flood water retention, nutrient retention and transport, wildlife and fish habitat, and recreation. The Strawberry Bog freshwater wetland and lake complex also provides important wildlife habitat in an otherwise urban landscape. The diversity of plant life at the site provides habitat for small mammals, moose, and many species of migratory birds.

Impacts to Park Land Use and Park Designations

This undesignated open land in Strawberry Bog has low use compared to Connor's Bog and other, more developed parks. The southern part of the parcel around Strawberry Lake has an ad hoc



network of boggy routes used by the local residents. These would be largely unaffected by the snow site. Development of Site 9 would have little to no impact on park land use or park designations.

Permitting Requirements

The Strawberry Bog area is not designated park land and would not require approval from the Parks and Recreation Commission. Development of this parcel would require a Municipal Conditional Use and Land Reclamation Permit to include waivers from several snow disposal site design criteria. This site would also require a JD from the U.S. Army Corps of Engineers under the Clean Water Act (CWA) Section 404 (outcome of JD would determine if wetlands permitting and mitigation would be required under the CWA), a Stormwater Discharge Permit from the Alaska Department of Environmental Conservation, a sign off from PM&E Watershed Management, fill and grade permits, and utility agreements. These permits would require significant effort, but all should be obtainable.

Site Summary

Site 9: Strawberry Bog Site is a moderately desirable snow disposal site. It meets some of the site selection criteria for a snow disposal site. The Strawberry Bog Site would be located on land that is sufficiently sized and available for use, it does not impact existing park use, and it has adequate receiving waters. However, there are several major concerns with respect to access and neighborhood impacts of the site. The site would be located near existing and growing residential areas, and access may have to be through a residential neighborhood. Operational restrictions, such as a restriction on nighttime operation, could be put in place due to this proximity. Any restrictions that do not allow for 24/7 operation would make this an undesirable snow disposal site. The site is also located on Class A wetlands, which would require additional fill and mitigation requirements. Figure 8 shows a conceptual design drawing of the Strawberry Bog Site.



Figure 8. Site 9: Strawberry Bog Site Conceptual Design



4. Site Selection Recommendations

Due to its limited overall impact on the community, Site 5 (Connor's Bog Site) is recommended. Both Site 5 and Site 9 are located in Class A wetlands and would require significant permitting efforts. Both will require a change to the Comprehensive Plans. Site 5 will require rezoning to PLI. Comments from public involvement efforts indicate that Site 5 is generally the preferred site, compared to Site 9.

Development of a snow disposal site on Site 9 (Strawberry Bog Site) would have significant community impacts on residential neighborhoods from traffic and noise associated with normal snow disposal operations. Development of Site 5 would not change the existing traffic flow for neighbors.

Operational flexibility also weighs heavily in favor of Site 5. The specter of operational restrictions due to residential impacts of night operations introduce an unacceptable risk for the development of Site 9. Second only to public impacts, operational efficiency is the most important driver for site selection. Environmental impacts also weigh in heavily but appear approximate equal for both sites.

Hearings with the MOA Planning and Zoning Commission would be required for approval of the site selection and for site plan review and conditional use permitting. A CWA Section 404 Permit from the U.S. Army Corps of Engineers may be required for the placement of fill in wetlands.

Table 2 provides a comparison summary of the two sites for each evaluation factor, with green symbolizing desirable, yellow symbolizing neutral, and red symbolizing undesirable characteristics.



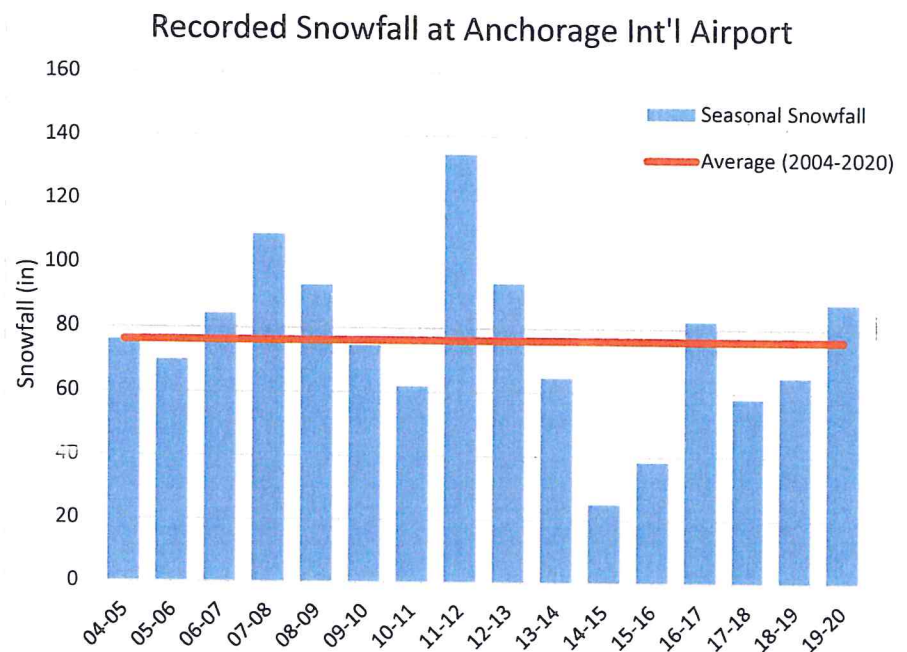
Table 2. Final Site Selection Recommendations Comparison Table

Evaluation Factor	Site 5: Connor's Bog Site	Site 9: Strawberry Bog Site
Site Size	32.0 acres	108.96 acres
Site Access	International Airport Road (Expressway) through MOA Kloop Station	Off Northwood Drive (Arterial Road)
Zoning	TR – Transition will be rezoned to PLI	PLI – Public Lands and Institutions
Owner	MOA Parks & Recreation	MOA Heritage Land Bank
Acquisition Cost	None	None
Operational Flexibility	Likely no restrictions on operation	Likely restrictions on nighttime operations
Receiving Waters	Connor's Bog and Lake	Strawberry Bog and Lake
Neighborhood Impacts	None or reduced from existing	High impact on adjacent residential areas to the west and south
Wetlands Impacts	Extensive Class A wetlands	Extensive Class A wetlands
Park Land Impacts	Parcel Managed by Parks and Recreation, low utilization; Comprehensive Plan listed as park and natural open space. Access road would impact small area of designated parkland	No Designated park land impacts, Comprehensive Plan listed as park and open space.
Permitting Requirements	Extensive permitting: • Comp Plan Amendment • Rezoning • Conditional Use and Land Reclamation Permits • Title 21 snow site design waivers • ADEC Stormwater Discharge Permit • Misc. MOA Building Safety permits, PM&E Watershed Management sign off, and utility agreements	Extensive permitting: • Comp Plan Amendment required. • Conditional Use and Land Reclamation Permits, • Title 21 snow site design waivers • ADEC Stormwater Discharge Permit • Misc. MOA Building Safety permits, PM&E Watershed Management sign off, and utility agreements
Legend	Undesirable Characteristics	Neutral Characteristics Desirable Characteristics

Appendix A:

Historical Anchorage Snowfall and Normalized Snow Truckload Calculations

Season	Snowfall (inches)
19-20	87.9
18-19	65.0
17-18	58.3
16-17	82.4
15-16	38.3
14-15	25.1
13-14	64.7
12-13	94.0
11-12	134.5
10-11	61.9
09-10	74.6
08-09	93.4
07-08	109.1
06-07	84.3
05-06	69.8
04-05	76.1
Average	76.2



Normalization of Snow Truckloads Calculations	
Average Snowfall (inches)	76.2
2018-19 Snowfall (inches)	65.0
2018-19 % of Average	85%
2018-19 Snow Truckloads delivered to Northwood	8,879
Snow Truckloads Normalized to Average Year	10,411

Appendix B:

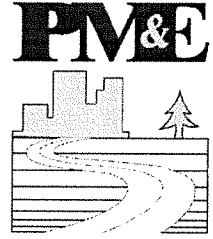
Selection of Snow Disposal Site Guidance Documents and General Relevant Contents

Document: Section 21 Title 21
<i>Author/Source: Municipality of Anchorage</i>
Outline of public facility site selection process Snow disposal site regulations Waiver process outline
Document: 2017 Anchorage Stormwater Manual
<i>Author/Source: Municipality of Anchorage PM&E</i>
Melt water discharge profile Site selection criteria
Document: Anchorage Street Deicer and Snow Disposal 2003 Best Management Practices Guidance
<i>Author/Source: Watershed Management Program - WMP CPg02001</i>
Documentation of management of snow disposal sites
Document: 2013 Evaluation of Anchorage Snow Disposal Sites
<i>Author/Source: Watershed Management Program - WMP APr14002</i>
V-Swale design guidance General site design guidance
Document: Anchorage Storm Water Treatment in Wetlands: 2001 Progress Report
<i>Author/Source: Watershed Management Program - WMP APr01002</i>
Wetlands status in Anchorage Potential benefits of snow melt water into wetlands
Document: Urban and Highway Snowmelt: Minimizing the Impact on Receiving Water
<i>Author/Source: Water Environment Research Foundation: Project 94-IRM-2</i>
Estimation of metals and salts in melt water discharge Evaluation of toxic effects of these contaminant
Document: Effects of Snow Dump Meltwater on Adjacent Black Spruce Bog Vegetation
<i>Author/Source: Alaska Pacific University - Kristen Hansen</i>
Effect of melt water from snow disposal sites on adjacent vegetation
Document: Proposed Eagle River Snow Disposal Site: Preliminary Review
<i>Author/Source: Watershed Management Program</i>
Snow disposal site characteristics and impacts Contaminant characterization of snow disposal melt water General melt water discharge volumes and impacts
Document: Synthesis of Best Management Practices for Snow Storage Areas
<i>Author/Source: Alaska DOT&PF Research & Technology Transfer</i>
General best practices around the state for snow disposal
Document: The Anchorage Debit-Credit Method
<i>Author/Source: Heather Dean, April 2011 – USACOE, EPA, US Fish & Wildlife, MOA</i>
Procedure for determining development debits and compensatory mitigation credits

Departmental and Public Comments



Municipality of Anchorage
Project Management and Engineering
MEMORANDUM



DATE: January 21, 2022

To: Dave Whitfield

FROM: Kyle Cunningham

SUBJECT: Case 2022-0012: Comments from Watershed Management Services.

Watershed Management Services (WMS) has the following comments for the February 9, 2022 Urban Design Committee hearing:

- 2022-0012 – Township 12 North, Range 4 West, Section 1 NW4NW4 PTN, Seward Meridian;
 - WMS has no comments on or objections to this case.



**Anchorage
Health
Department**

Anchorage Health Department
825 L Street
Anchorage, AK 99501

RECEIVED

JAN 12 2022

Conditional Use Permit (CUP)
and
Special Land Use Permit (SLUP)
Routing/Review Form

Comments due by: January 12th, 2022

Case number: 2022-0012

Name of Business: Request for Design Variance from AMC 21.05.060E.8b.i. and
AMC 21.05.060E.8.b.v.

Division/Section	Reviewer	No Comment	Comment Pending	Name (print)
EHS – Food Safety/Air Quality/Noise	Janine Nesheim	X		Janine Nesheim
CCL – Child Care Licensing	Kathy Lynch	X		Kathy Lynch



THE STATE
of **ALASKA**
GOVERNOR MICHAEL J. DUNLEAVY

Department of Transportation and Public Facilities

Program Development and Statewide Planning
Anchorage Field Office

4111 Aviation Avenue
P.O. Box 196900
Anchorage, AK 99519-6900
Main number: 907-269-0520
Fax number: 907-269-0521
Website: dot.state.ak.us

RECEIVED

January 6, 2022

JAN 06 2022

David Whitfield, Current Planning Manager
MOA, Community Development Department
Planning Division
P.O. Box 196650
Anchorage, Alaska 99519-6650

Re: MOA Zoning Review

Dear Mr. Whitfield:

The Alaska Department of Transportation and Public Facilities (DOT&PF) has reviewed the following zoning cases and has no comments:

- **2022-0013; 21144 Eagle River Road & 9610 Greenhouse Street**

The Alaska Department of Transportation and Public Facilities (DOT&PF) has reviewed the following zoning cases and has the following comments:

- **2022-0012; Request for Design Variance from AMC 21.05.060E.8.b.i.; and from AMC 21.05.060E.8.b.v**
 - No direct access will be granted to Minnesota Drive from the property.
 - Any significant increase in traffic on Northwood Drive may require a circulation study.
 - We defer to the Anchorage International Airport (AIA) for any further comments concerning this zoning request.

All properties accessing DOT&PF roads must apply to Right-of-Way for a driveway permit, subject to provisions listed in 17 AAC 10.020. Any previously issued driveway permits become invalid once the property undergoes a platting action and must be reissued.

We recommend the petitioner verify all section line easements and DOT&PF road rights-of-way adjacent to their property. For assistance, the petitioner may contact the Engineering group within the Right of Way section in DOT&PF at (907) 269-0700. The petitioner is liable to remove any improvements within the easements and rights-of-way that impede the operation and maintenance of those facilities even if they are not shown on the plat, so it is in the petitioner's best interest to identify the exact locations and widths of any such easements or rights-of-way before they improve the property.

If any section line easements or road rights-of-way exist within the bounds of their plat, we recommend the petitioner dedicate them. If there is an existing right-of-way or easement, the petitioner is unable to

"Keep Alaska Moving through service and infrastructure."

develop that portion of the property yet continues to pay property taxes on it; dedicating will remove that cost to the petitioner.

If there are any questions regarding these comments please feel free to contact me at (907) 269-0509 or melanie.nichols@alaska.gov.

Sincerely,



Melanie Nichols
Anchorage Area Planner

cc: Scott Thomas, P.E., Regional Traffic Engineer, Traffic Safety and Utilities, DOT&PF
Jim Amundsen, P.E., Highway Design Group Chief, DOT&PF
Paul Janke, P.E., Regional Hydrologist, Hydrology DOT&PF
James Starzec, AMATS Transportation Planner, DOT&PF
Danika Simpson, Property Management Supervisor, Right of Way

Kimmel, Corliss A.

RECEIVED

From: Stewart, Gloria I.
Sent: Tuesday, December 21, 2021 12:51 PM
To: Kimmel, Corliss A.; Blake, Lori A.
Cc: McGee, Lynn M.
Subject: FW: 2022-0012 Request for Reviewing Agency Comments

DEC 21 2021



Planning Department
MUNICIPALITY OF ANCHORAGE

Gloria I. Stewart
Senior Planning Technician •
Planning Department
Current Planning Division - Zoning & Platting
Email: gloria.stewart@anchorageak.gov
Phone: (907) 343-7934
4700 Elmore Road, Anchorage, AK 99507
www.muni.org/planning

From: McGee, Lynn M. <lynn.mcgee@anchorageak.gov>
Sent: Tuesday, December 21, 2021 12:36 PM
To: Stewart, Gloria I. <gloria.stewart@anchorageak.gov>
Subject: 2022-0012 Request for Reviewing Agency Comments

All:

ROW has the following comments by case number:

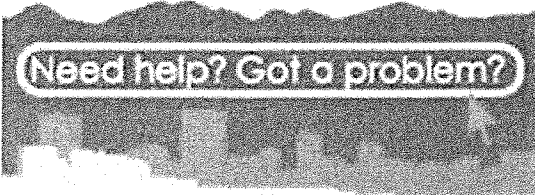
2022-0012 ROW has no comment or objections on the proposed action.

Regards,

Lynn McGee
Senior Plan Reviewer
Right of Way Section
lynn.mcgee@anchorageak.gov
Office: 343-8226
Fax: 249-7340

#ANCWORKS!

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RESOLUTION 2021-01

Subject: A Resolution Pertaining to the Rezone, Comprehensive Plan Amendment and Conditional Use Permits for the Property Described Parcel ID 012-571-01-000 (referred to as West Anchorage Snow Disposal Site).

WHEREAS; the Anchorage Municipal Charter Art. VIII, Sec 8.01 establishes Community Councils as representatives for neighborhoods in planning and development; and

WHEREAS; Community Councils are intended to reflect actual neighborhoods and provide guidance advice on management of lands within their boundaries; and

WHEREAS; the West Anchorage Snow Disposal Site is zoned Transition (TR) District and is a single parcel approximately 32 acres in size; and

WHEREAS; the requested rezone, comprehensive plan map amendment, and conditional use permits will allow for the development of a proposed West Anchorage Snow Disposal Site, and

WHEREAS; the requested rezone, comprehensive plan map amendment, and conditional use permits (snow disposal site land reclamation) will support the Municipality's goal of meeting the city's long-term snow removal needs in a cost-effective manner. It would also support the city's vision of having a year-round multi-modal transportation system.

NOW THEREFORE; the Sand Lake Community Council hereby resolves to support the rezone of said property from TR District to PLI District, the 2040 LUP amendment of said property from "Park or Natural Area" to "Community Facility or Institution", and the approval of Conditional Use Permits.

Adopted, this 10th day of May, 2021 by the Sand Lake Community Council.

Parker Haymans

Parker Haymans

SLCC President

17 votes in favor

0 votes against & several abstaining

05/10/2021

Affidavit of Posting and Historical Information



AFFIDAVIT OF POSTING

CASE NUMBER: 2022-0012

I, Bill Spencer hereby certify that I have posted a Notice as prescribed by Anchorage Municipal Code 21.03.020H.5. on the property that I have petitioned for Variance. The notice was posted on Jan. 7th 2022 which is at least 21 days prior to the public hearing on this petition. I acknowledge this Notice(s) must be posted in plain sight and displayed until all public hearings have been completed.

Affirmed and signed this 7th day of January, 20 22.

Bill Spencer
Signature

LEGAL DESCRIPTION

Tract or Lot: _____

Block: _____

Subdivision: PTN NW4NW4 R3W T12N S.M.

Municipal Clerk's Office
Approved
Date: November 1, 2021

Submitted by: Chair of the Assembly at the
Request of the Mayor
Prepared by: Planning Department
For Reading: August 24, 2021

ANCHORAGE, ALASKA

AO No. 2021-81

1 AN ORDINANCE AMENDING THE ZONING MAP AND APPROVING THE
2 REZONING OF APPROXIMATELY 32 ACRES FROM TR (TRANSITION)
3 DISTRICT TO PLI SL (PUBLIC LANDS AND INSTITUTIONS) DISTRICT WITH
4 SPECIAL LIMITATIONS FOR T12N R4W SECTION 1 NW ¼ NW ¼ PTN;
5 GENERALLY LOCATED SOUTH OF WEST INTERNATIONAL AIRPORT
6 ROAD, WEST OF MINNESOTA DRIVE, NORTH OF RASPBERRY ROAD, AND
7 EAST OF THE NORTHWOOD DRIVE RIGHT-OF-WAY ALIGNMENT, IN
8 ANCHORAGE.

9
10 (Sand Lake Community Council) (Planning and Zoning Commission Case 2021-0058)

11
12 **THE ANCHORAGE ASSEMBLY ORDAINS:**

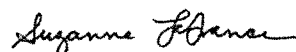
13
14 **Section 1.** The zoning map shall be amended by designating T12N R4W
15 Section 1 NW ¼ NW ¼ PTN, as PLI SL, public lands and institutions, district with
16 special limitations.

17
18 The property described above is shown on Exhibit "A," attached.

19
20 **Section 2.** The zoning map amendment is subject to the following special
21 limitation: "The use shall either be snow disposal, or park or open area."

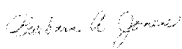
22
23 **Section 3.** This ordinance shall become effective 10 days after the Director of
24 the Planning Department has received the written consent of at least 51 percent
25 of the owners of the property within the area described in Section 1 above to any
26 special limitations contained herein. The rezone approval contained herein shall
27 automatically expire, and be null and void, if the written consent is not received
28 within 120 days after the date on which this ordinance is passed and approved.
29 In the event no special limitations are contained herein, this ordinance is effective
30 immediately upon passage and approval. The Director of the Planning
31 Department shall change the zoning map accordingly.

32
33 PASSED AND APPROVED by the Anchorage Assembly this 1st day of
34 November, 2021.

35
36 

37
38 Chair

39 ATTEST:

40
41 

42
43 Municipal Clerk

MUNICIPALITY OF ANCHORAGE

ASSEMBLY MEMORANDUM

No. AM 550-2021

Meeting Date: August 24, 2021

1 **FROM: MAYOR**

2
3 **SUBJECT: AN ORDINANCE AMENDING THE ZONING MAP AND APPROVING**
4 **THE REZONING OF APPROXIMATELY 32 ACRES FROM TR**
5 **(TRANSITION) DISTRICT TO PLI SL (PUBLIC LANDS AND**
6 **INSTITUTIONS) DISTRICT WITH SPECIAL LIMITATIONS FOR**
7 **T12N R4W SECTION 1 NW ¼ NW ¼ PTN; GENERALLY LOCATED**
8 **SOUTH OF WEST INTERNATIONAL AIRPORT ROAD, WEST OF**
9 **MINNESOTA DRIVE, NORTH OF RASPBERRY ROAD, AND EAST**
10 **OF THE NORTHWOOD DRIVE RIGHT-OF-WAY ALIGNMENT, IN**
11 **ANCHORAGE.**

12
13 This is a rezone of a 32-acre parcel of land from transition (TR) district to public
14 lands and institutions (PLI SL) district with special limitations. The TR district is an
15 antiquated zoning district that was not carried forward in the current zoning code,
16 Anchorage Municipal Code, Title 21. Remaining TR districts are intended to be
17 rezoned to more restrictive zoning classifications.

18
19 On July 19, 2021, the Planning and Zoning Commission recommended approval of
20 the rezone with a special limitation stating: "The use shall either be for a snow
21 storage facility, or for a park or open area." The Sand Lake Community Council
22 adopted a resolution recommending approval of the rezone on May 10, 2021.

23
24 The application complies with the approval criteria for rezoning in AMC 21.03.160E.,
25 *Approval Criteria*. This rezone implements the *Anchorage 2040 Land Use Plan* with
26 the comprehensive plan amendment that is being processed concurrent with this
27 rezone in a separate case (PZC Case 2021-0057).

28
29 The 2021 West Anchorage Snow Disposal Site Selection determined that this is the
30 best site to replace the existing snow dump in West Anchorage. The Federal
31 Aviation Administration prioritizes Ted Steven's Anchorage International Airport
32 property for commercial aviation use and the Municipality's use of the property is
33 only temporary. Snow disposal sites require conditional use approval in the PLI
34 district.

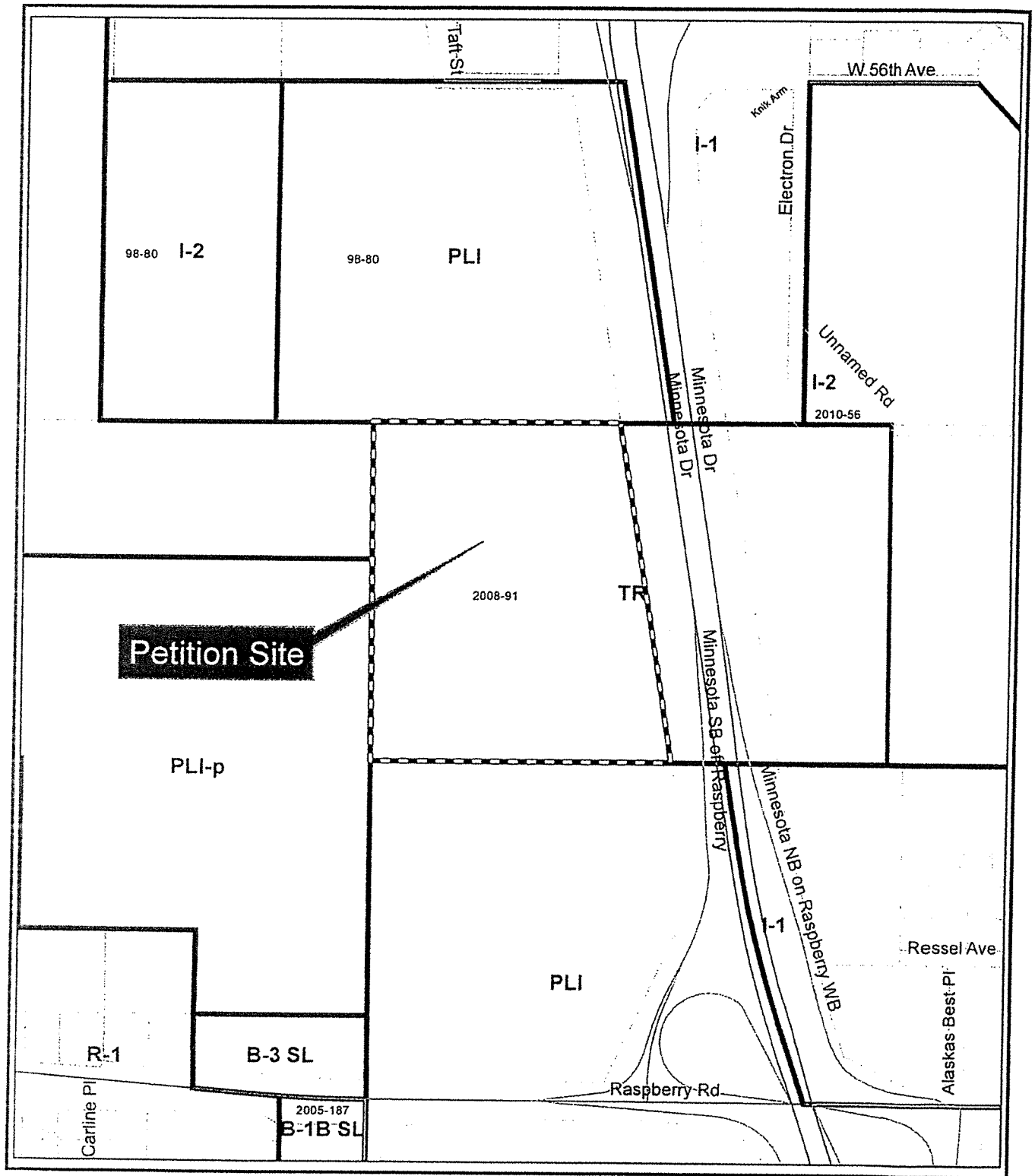
35
36 This ordinance has no private sector economic effects and local government
37 effects are less than \$30,000. Pursuant to AMC 2.30.053B.1., a summary of
38 economic effects is not required.

39
40 **THE ADMINISTRATION RECOMMENDS APPROVAL.**

41
42 Prepared by: Francis McLaughlin, Senior Planner
43 Planning Department

1 Approved by: Michelle J. McNulty, Planning Director
2 Concur: Adam Trombley, Community Development Director
3 Concur: Karol (Karl) Raszkievicz, OMB Director
4 Concur: Patrick Bergt, Municipal Attorney
5 Concur: Amy Demboski, Municipal Manager
6 Respectfully submitted: Dave Bronson, Mayor
7
8 Attachment: Exhibit A
9 Planning Department Analysis Packet
10
11 (Planning and Zoning Commission Case No. 2021-0058)

2021-0058 EXHIBIT A



Municipality of Anchorage
Planning Department

Date: June 21, 2021



MUNICIPALITY OF ANCHORAGE
PLANNING AND ZONING COMMISSION RESOLUTION NO. 2021-020

A RESOLUTION RECOMMENDING APPROVAL OF THE REZONING OF APPROXIMATELY 32 ACRES FROM TR (TRANSITION) DISTRICT TO PLI SL (PUBLIC LANDS AND INSTITUTIONS) DISTRICT WITH SPECIAL LIMITATIONS FOR T12N R4W SECTION 1 NW ¼ NW ¼ PTN; GENERALLY LOCATED SOUTH OF WEST INTERNATIONAL AIRPORT ROAD, WEST OF MINNESOTA DRIVE, NORTH OF RASPBERRY ROAD, AND EAST OF THE NORTHWOOD DRIVE RIGHT-OF-WAY ALIGNMENT, IN ANCHORAGE.

(Case 2021-0058)

WHEREAS, a request has been received from the Municipality of Anchorage Project Management and Engineering Department to rezone approximately 32 acres from TR (Transition) district to PLI (public lands and institutions) district for T12N R4W Section 1 NW ¼ NW ¼ PTN; generally located south of West International Airport Road, west of Minnesota Drive, north of Raspberry Road, and east of the Northwood Drive right-of-way alignment, in Anchorage; and

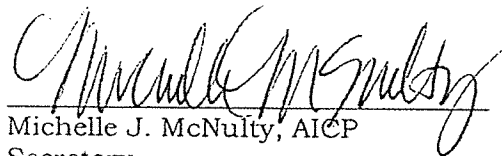
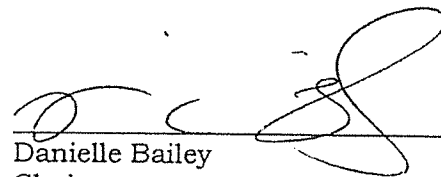
WHEREAS, notices were published, posted, and mailed, and a public hearing was held on July 19, 2021.

NOW, THEREFORE, BE IT RESOLVED, by the Municipal Planning and Zoning Commission that:

- A. The Commission makes the following findings of fact:
1. Cases 2021-0058 (Rezone) and 2021-0057 (Comprehensive Plan Amendment) are very different. The TR district is outdated and this parcel needs to be rezoned to a more restrictive zoning district. The PLI district is appropriate given the surrounding uses.
 2. If the site is not developed with a snow dump, then it should be considered for rezoning to the Parks and Recreation (PR) district. The other TR zoning in the Conner's Bog area should also be considered for PR zoning.
 3. Public testimony was heard regarding some requested limitations that would relate to the use and availability of the portion of land that is not used for the snow storage facility. Those types of limitations can be more fully reviewed, understood, and addressed in the Conditional Use Permit process.
- B. The Commission recommends approval of the rezone to PLI SL district, with the following special limitation: "The use shall be either a snow disposal site or park and open area."

PASSED AND APPROVED by the Municipal Planning and Zoning Commission
on the 19th day of July, 2021.

ADOPTED by the Anchorage Municipal Planning and Zoning Commission this
2nd day of August, 2021.


Michelle J. McNulty, AICP
Secretary
Danielle Bailey
Chair

(Case 2021-0058)

fm

Municipal Clerk's Office
Approved
Date: November 1, 2021

Submitted by: Chair of the Assembly at
the Request of the Mayor
Prepared by: Planning Department
For reading: August 24, 2021

**ANCHORAGE, ALASKA
AO No. 2021-80**

1 **AN ORDINANCE OF THE MUNICIPALITY OF ANCHORAGE AMENDING THE**
2 **ANCHORAGE 2040 LAND USE PLAN MAP TO CHANGE THE LAND USE**
3 **DESIGNATION OF ONE PARCEL FROM "PARK OR NATURAL AREA" TO**
4 **"COMMUNITY FACILITY OR INSTITUTION" FOR T12N R4W SEC 1 NW 1/4 NW**
5 **1/4 PTN, GENERALLY LOCATED SOUTH OF WEST INTERNATIONAL**
6 **AIRPORT ROAD, WEST OF MINNESOTA DRIVE, NORTH OF RASPBERRY**
7 **ROAD, AND EAST OF THE NORTHWOOD DRIVE RIGHT-OF-WAY**
8 **ALIGNMENT, IN ANCHORAGE.**

9
10 (Sand Lake Community Council) (Planning and Zoning Commission Case 2021-0057)
11

12 **THE ANCHORAGE ASSEMBLY ORDAINS:**

13
14 **Section 1.** That the *Anchorage 2040 Land Use Plan Map* is hereby amended to
15 change the land use designation of one lot, as shown in Exhibits A and B, from
16 "Park or Natural Area" to "Community Facility or Institution".
17

18 **Section 2.** Anchorage Municipal Code section 21.01.080 is amended as follows
19 (*the remainder of the subsection is not affected and therefore not set out*):
20

21 **21.01.080 COMPREHENSIVE PLAN**

22
23 **A. Purpose**

24
25 The purpose of the comprehensive plan is to set for the goals,
26 objectives, strategies, and policies governing land use development
27 of the municipality. As adopted, this section and the documents
28 incorporated in this section constitute the comprehensive plan of the
29 municipality.
30

31 **B. Elements**

32
33 **1. Adopted Elements**

34
35 The comprehensive plan consists of the adopted elements
36 identified in the following table, and which are incorporated in
37 this chapter by reference. Plans or other elements that are not
38 listed below are not official elements of the comprehensive
39 plan, though they may be valid planning tools.
40

41 *** **

TABLE 21.01-1: COMPREHENSIVE PLAN ELEMENTS

Area/Topic	Plan	Adoption Date ¹	Amendments
Anchorage Bowl	Anchorage 2020, Anchorage Bowl Comprehensive Plan	AO 2000-119(S); 2-20-2001	AO 2002-119; 9-10-2002
	Anchorage 2040 Land Use Plan	AO 2017-116, as amended; 9-26-2017	AO 2019-142, as amended; 12-17-2019; <u>AO 2021-_____</u> ; <i>(insert effective date of this ordinance)</i>
	Spennard Commercial District Development Strategy	AR 1986-121; 6-17-1986 AO 1987-145; 12-15-1987	
	Tudor Road Public Lands and Institutions Plan	AR 1986-162; 9-9-1986	
	3500 Tudor Road Master Plan	AO 2007-118; 11-13-2007	
	Anchorage Downtown Comprehensive Plan	AO 2007-113; 12-11-2007	
	Hillside District Plan	AO 2010-22; 4-13-2010	AO 2014-134; 11-18-14 AO 2015-17; 3-3-15
	Utility Corridor Plan	AO 1990-13(S); 2-27-1990	AO 2003-78; 8-19-2003 AO 2005-121(S); 10-25-2005 AO 2007-97; 7-17-2007
	Section 36 Land Use Study (recommending Alternative 2)	AO 1992-125; 11-10-1992	
	The Ship Creek/Waterfront Land Use Plan (May 1991), including the Transportation Element, as supplemented by the Ship Creek Framework Plan, 7-22-14	AO 1991-88; 6-3-1991	AIM 1991-178 AO 2014-79; 7-22-14
	Potter Valley Land Use Analysis	AO 1999-144; 12-7-1999	
	UMED District Plan	AO 2015-140; 3-22-2016	
	West Anchorage District Plan	AO 2012-47; 7-10-2012	AO 2016-32; 4-12-16
	Government Hill Neighborhood Plan	AO 2013-11; 2-12-2013	AO 2015-18; 3-3-15
	Fairview Neighborhood Plan	AO 2014-108; 9-9-14	

*** *** ***

(AO 2012-124(S), 2-26-13; AO 2013-117, 12-3-13; AO No. 2013-151, § 3, 1-14-14; AO No. 2014-63, § 3, 6-24-14; AO No. 2013-132(S), § 3, 7-8-14; AO No. 2014-79, § 3, 7-22-14; AO No. 2014-108, § 3, 9-9-14; AO No. 2014-134, § 3, 11-18-14; AO No. 2014-139(S), § 3, 12-2-14; AO No. 2015-17, § 3, 3-3-15; AO No. 2015-18, § 5, 3-3-15; AO No. 2015-46, § 3, 5-14-15; AO No. 2015-140, § 2, 3-8-16; AO No. 2016-101, § 2, 9-13-16; AO No. 2017-67, 5-9-2017; AO No. 2017-116, § 6, 9-26-17; AO No. 2018-23, § 3, 3-20-18; AO No. 2019-142, § 3, 12-17-19; AO No. 2020-74, § 2, 9-15-20)

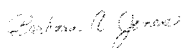
Section 3. This ordinance shall become effective immediately upon passage and approval by the Anchorage Assembly.

PASSED AND APPROVED by the Anchorage Assembly this 1st day of November, 2021.



Chair

ATTEST:



Municipal Clerk

(Planning and Zoning Commission Case 2021-0057)

MUNICIPALITY OF ANCHORAGE

ASSEMBLY MEMORANDUM

No. AM 549-2021

Meeting Date: August 24, 2021

FROM: MAYOR

SUBJECT: AN ORDINANCE OF THE MUNICIPALITY OF ANCHORAGE AMENDING THE ANCHORAGE 2040 LAND USE PLAN MAP TO CHANGE THE LAND USE DESIGNATION OF ONE PARCEL FROM "PARK OR NATURAL AREA" TO "COMMUNITY FACILITY OR INSTITUTION" FOR T12N R4W SEC 1 NW 1/4 NW 1/4 PTN, GENERALLY LOCATED SOUTH OF WEST INTERNATIONAL AIRPORT ROAD, WEST OF MINNESOTA DRIVE, NORTH OF RASPBERRY ROAD, AND EAST OF THE NORTHWOOD DRIVE RIGHT-OF-WAY ALIGNMENT, IN ANCHORAGE.

This is an amendment to the *Anchorage 2040 Land Use Plan* to change the designation of a 32-acre parcel from "Park or Natural Area" to "Community Facility or Institution." The Sand Lake Community Council adopted a resolution in support of the amendment on May 10, 2021. The Planning and Zoning Commission recommended approval of the amendment on July 19, 2021.

The implementing zoning district of the "Community Facility or Institution" designation is Public Lands and Institutions (PLI) district. The current zoning of the site is Transition (T) district.

A companion case is being processed to amend the zoning map and rezone this area as well. The purpose of the rezone, and this update to the Land Use Plan Map, is to reflect the intended use of the property, which is the West Anchorage Snow Disposal Site. A public hearing conditional use permit with the Planning and Zoning Commission is also required prior to the development of the snow disposal site.

This ordinance has no private sector economic effects and local government effects are less than \$30,000. Pursuant to AMC 2.30.053B.1., a summary of economic effects is not required.

THE ADMINISTRATION RECOMMENDS APPROVAL.

Prepared by:	Francis McLaughlin, Senior Planner, Planning Department
Approved by:	Michelle J. McNulty, Planning Director
Concur:	Adam Trombley, Community Development Director
Concur:	Karol (Karl) Raszkievicz, OMB Director
Concur:	Patrick Bergt, Municipal Attorney
Concur:	Amy Demboski, Municipal Manager
Respectfully submitted:	Dave Bronson, Mayor

Attachments: Exhibits A and B
Planning Department Analysis Packet

(Planning and Zoning Commission Case No. 2021-0057)

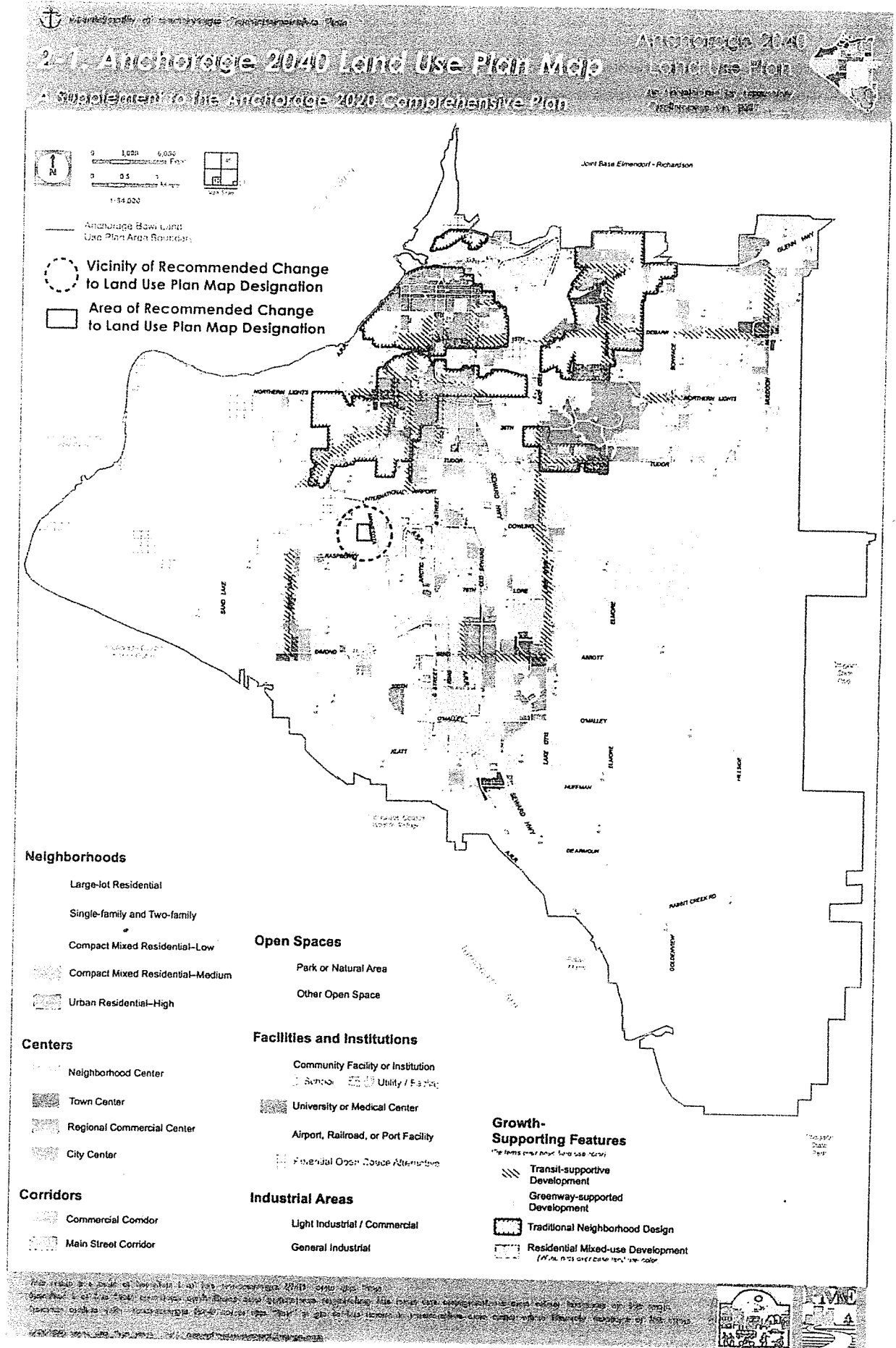
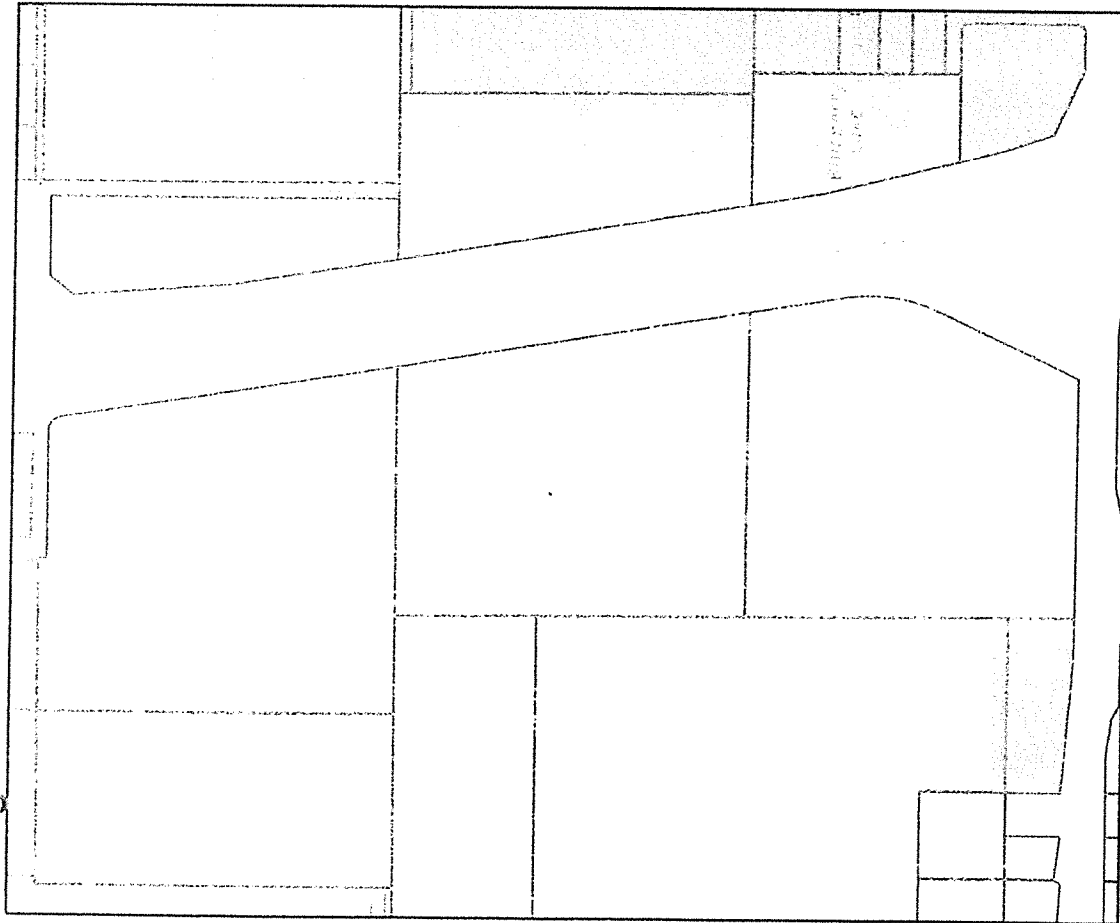


Exhibit B - Existing and Proposed Land Use Designation (PZC Case No. 2021-0057)

Existing

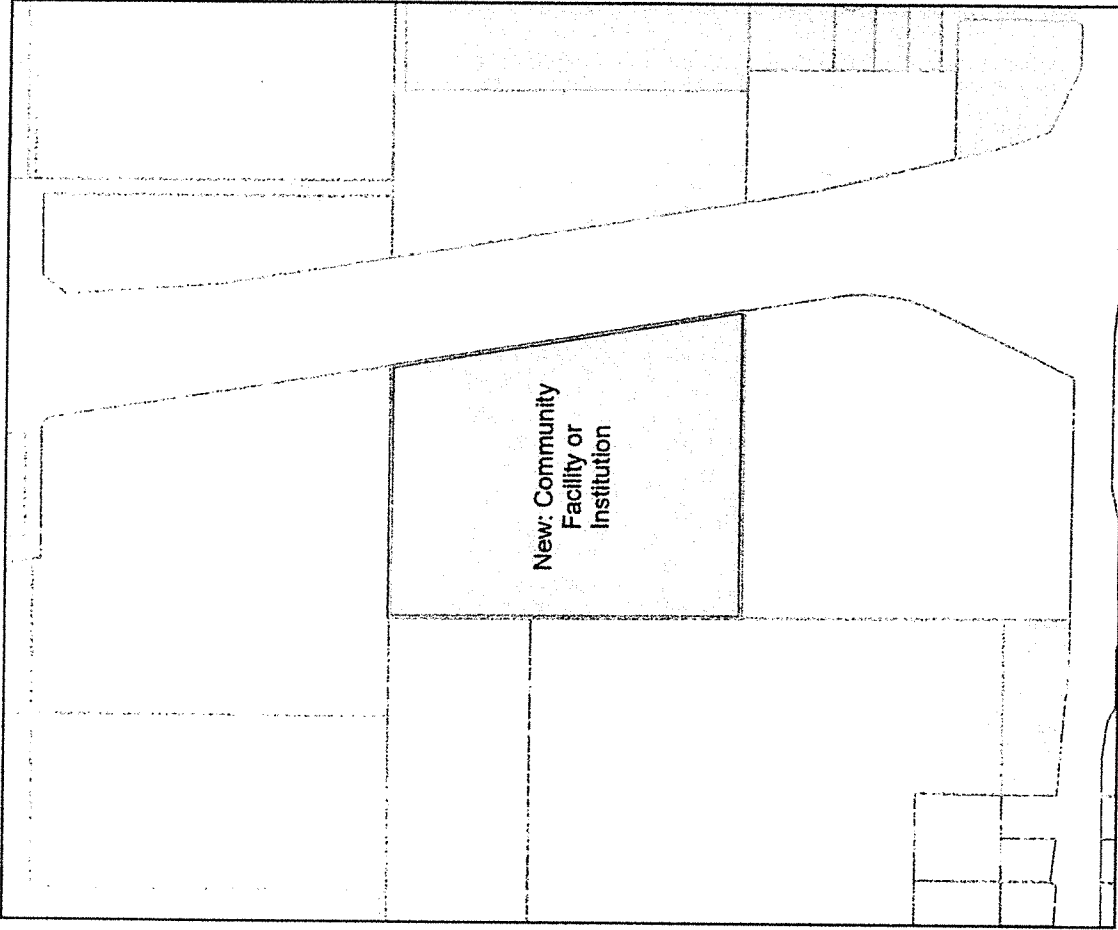


Anchorage 2040 Land Use Designations:

- Single-Family and Two-Family
- Neighborhood Center
- Park or Natural Area
- Community Facility or Institution
- Airport, Railroad, or Port Facility
- Potential Open Space
- General Industrial
- Water Feature
- ROW (White)

Date Exported: 6/24/2021

Proposed



West Anchorage Snow Dump Comp Plan Amendment

☐ Area of Recommended Change to Land Use Designation

MUNICIPALITY OF ANCHORAGE
PLANNING AND ZONING COMMISSION RESOLUTION NO. 2021-019

A RESOLUTION RECOMMENDING APPROVAL OF AN AMENDMENT TO THE *ANCHORAGE 2040 LAND USE PLAN* TO CHANGE THE LAND USE MAP DESIGNATION OF ONE PARCEL CONTAINING APPROXIMATELY 32 ACRES OF LAND FROM "PARK OR NATURAL AREA" TO "COMMUNITY FACILITY OR INSTITUTION".

(Case 2021-0057)

WHEREAS, requests have been received from the Municipality of Anchorage (MOA) Project Management and Engineering Department to amend the *Anchorage 2040 Land Use Plan* to change the land use map designation of approximately 32 acres of land from "Park or Natural Area" to "Community Facility or Institution"; and

WHEREAS, notices were published, posted, and mailed, and a public hearing was held on July 19, 2021.

NOW, THEREFORE, BE IT RESOLVED, by the Municipal Planning and Zoning Commission that:

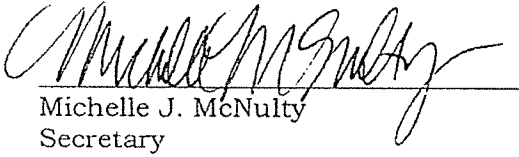
A. The Commission makes the following findings of fact:

1. The five approval criteria for a comprehensive plan amendment are met. The amendment is necessary to address a new issue that is significant for the Municipality, which is the need to have a designated snow storage site in West Anchorage.
2. The Municipality's long-term use of the current snow disposal site is precluded because of restrictions from Federal Aviation Administration grant requirements. The comprehensive plan amendment is in the public's interest given the need.
3. The comprehensive plan amendment still supports the Parks and Recreation (PR) zoning designation, should that be desired if the snow disposal site is not built.
4. The Sand Lake Community Council supports the amendment. The MOA Watershed Management Services Division has no objection.
5. This site will reduce lease costs and the location is ideal for MOA Street Maintenance.
6. The site is not formally dedicated parkland.

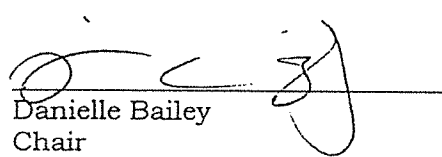
7. This is the best site for the new snow dump with regard to location and monetarily for the MOA. The amendment meets all the standards, goals, and policies of the applicable plans, as written in the staff report.
 8. Future permitting will address screening of the snow dump and water quality treatment for conveyance to Conner's Bog, which are all requirements of permitting and conditional uses.
 9. If the site is not developed as a snow disposal site, then it should be used as a park or natural area and considered for formal park dedication. Anchorage is under extraordinary circumstances and this site is needed for snow storage. This is something that was not currently the state of affairs when some of the West District plans were made. The integrity of the plans still stand, but there are other conditions.
 10. A dissenting commissioner stated:
 - a. Standard D: The current zoning is Transition (TR), which is not carried forward in the current zoning code. When thinking about how the land has been managed despite its zoning, it has been managed as a natural park or open area. With respect to that, he would find that a PR zoning designation would be equal or more supportive in that regard.
 - b. Standard E: This standard is not met with respect to physical constraints of the parcel in question. He understood that a zoning action does not result in fill to wetlands, but the zoning action is based on the intended use of the parcel.
 - c. He appreciated the commentary around Conner's Bog and the functional value it has and the U.S. Corps of Engineers (COE) determination that it is not jurisdictional. Had it gone before the COE a few years ago, there may have been a different outcome. This is a bit of a technicality, in terms of regulatory interpretation, but the finding by the COE does not devalue those wetlands in terms of their function and value to the broader complex.
- B. The Commission recommends approval of an amendment to the *Anchorage 2040 Land Use Plan* to change the land use map designation of approximately 32 acres of land from "Park or Natural Area" to "Community Facility or Institution".

PASSED AND APPROVED by the Municipal Planning and Zoning Commission
on the 19th day of July, 2021.

ADOPTED by the Anchorage Municipal Planning and Zoning Commission this
2nd day of August, 2021.



Michelle J. McNulty
Secretary



Danielle Bailey
Chair

(Case 2021-0057)

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