MATANUSKA-SUSITNA BOROUGH INFORMATION MEMORANDUM **IM No. 21-051**

SUBJECT: AN ORDINANCE OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY ADOPTING MSB 17.31 SUPPLEMENTAL WETLANDS MITIGATION PROVISIONS FOR PROJECTS REQUIRING UNITED STATES ARMY CORPS OF ENGINEERS INDIVIDUAL PERMITS UNDER SECTION 404 OF THE CLEAN WATER ACT THAT PERMANENTLY IMPACT 10 OR MORE ACRES OF WATERS OF THE UNITED STATES; AND AMENDING MSB 1.45.100 SCHEDULE OF FINES FOR INFRACTIONS.

AGENDA OF: May 18, 2021

ASSEMBLY ACTION:
Amended & defeated with Assemblymembers Hale, Nowers & Boeve in support 6-1-21

MANAGER RECOMMENDATION: Introduce and set for public hearing.

APPROVED BY MIKE BROWN, BOROUGH MANAGER: MB

Route To:	Department/Individual	Initials	Remarks
	Originator TED EISCHEID	TJE	
	Planning and Land Use Director A. Strawn		
	Finance Director	CY	
	Borough Attorney		
	Borough Clerk	5/11/21	KBJ

ATTACHMENT(S): Fiscal Note: YES ____ NO X
RS 19-074 (5 pp)
RS FWC 19-03 (3 pp)
RS FWC 21-01 (3 pp)
Wetland Fact Sheets (6 pp)
Wetland Science Summary (4 pp)
USACE AK-District Mitigation Brochure (2 pp)
Planning Commission Resolution PC 21-07 (4 pp)
Ordinance Serial No. 21-025 (10 pp)

SUMMARY STATEMENT
The intent of this ordinance is to ensure that large development projects that require an individual wetland development permit from the USACE, provide full compensatory mitigation to offset the impacts of the development.

ORDINANCE HISTORY

The Alaska District office of the United States Army Corps of Engineers, the regulatory body issuing wetland development permits under section 404 of the Clean Water Act, does not always require permittees to fully offset the impacts of their developments on wetlands despite requirements in the federal 2008 Final Rule on compensatory mitigation. This resulted in an Assembly workshop on wetland mitigation, a MSB Fish and Wildlife Commission resolution recommending exploration of supplemental wetland mitigation for large projects, and finally a resolution by the Assembly directing planning staff to prepare a draft ordinance requiring full mitigation for larger development projects impacting wetlands.

HOW IT WORKS

Projects that require a USACE individual development permit under section 404 of the Clean Water Act, and impact 10 or more acres of waters of the United States, will be required to submit to the MSB an application for a Compensatory Mitigation Certificate of Compliance (CMCC), along with all USACE permit paperwork and USACE decisional documents. The CMCC would be issued to the applicant when they provide documentation to the MSB showing the project's calculated impact on wetlands has been fully offset using a USACE approved mitigation option.

WETLAND VALUE

Wetlands and their associated buffers are important. They provide a variety of functions and services for free, most notably:

- Fish habitat
- Groundwater recharge
- Improved water quality
- Flood and stormwater storage

The economic value of these benefits is significant. This ordinance helps protect those benefits, and compliments the borough's investments in fish passage, habitat, and work to return more salmon to local waters.

Further loss of wetlands quality and quantity is contrary to the public health, safety and general welfare of Mat-Su residents. This ordinance provides predictability to both developers and the public, while maintaining wetland functions and the benefits they accrue to borough citizens.

COMPREHENSIVE PLAN CONNECTION

This ordinance is an integral component in implementing the 2012 MSB Wetland Management Plan and the Comprehensive Plan.

This ordinance will also implement aspects of the Borough-Wide

Comprehensive Plan. The Comprehensive Plan was developed and adopted after much public input, and offers goals and policy statements related to managing land use and growth in the Mat-Su. The draft supplemental wetland mitigation ordinance meets several of the goals in the MSB Comprehensive plan, including but not limited to:

Land Use Goal 4: Protect and enhance the borough's natural resources including watersheds, groundwater supplies and air quality.

Policy 1 - Identify, monitor, protect, and enhance the quantity and quality of the borough's watersheds, groundwater aquifers, and clean air resources.

Public Open Space Goal 2: Protect and preserve natural resource areas.

Policy 1 - Work cooperatively with numerous resource management agencies, community councils, and citizens to care for lakes, wetlands, streams, rivers, and wildlife habitat and corridors while providing public access for recreational opportunities that have minimal impacts to such areas.

Policy 3 - Identify, through analysis, potential natural resource areas throughout the borough that should be protected.

Community Quality Goal 1: Protect natural systems and features from the potentially negative impacts of human activities, including but not limited to land development.

Policy 1 - Use a system-wide approach to effectively manage environmental resources. Coordinate land use planning and management of natural systems with affected state and local agencies as well as affected Community Council efforts.

Policy 2 - Manage activities affecting air, vegetation, water, and the land to maintain or improve environmental quality, to preserve fish and wildlife habitat, to prevent degradation or loss of natural features and functions, and to minimize risks to life and property.

Community Quality Goal 2: Manage the natural and built environments to achieve minimal loss of the functions and values of all drainage basins; and, where possible, enhance and restore functions, values and features.

Retain lakes, ponds, wetlands, streams, and rivers and their corridors substantially in their natural condition.

Policy 1 - Using a watershed-based approach, apply best available science in formulating regulations, incentives, and programs to maintain and, to the degree possible, improve the quality of the borough's water resources.

RECOMMENDATION OF ADMINISTRATION:

Staff respectfully recommends approval of the attached ordinance.

Adopted: 08/06/19

MATANUSKA-SUSITNA BOROUGH
RESOLUTION SERIAL NO. 19-074

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY TO CONTINUE DEVELOPING PROVISIONS FOR SUPPLEMENTAL WETLAND MITIGATION FOR LARGE-SCALE DEVELOPMENT PROJECTS THAT IMPACT WETLANDS AND SALMON HABITAT IN THE BOROUGH.

WHEREAS, salmon fish populations in Borough rivers and streams have seriously declined over the past 30 years where 8 of the 16 salmon stocks of concern within the state of Alaska lie within the Borough; and

WHEREAS, the Borough was one of four originating organizations that established the Matanuska-Susitna Basin Salmon Habitat Partnership that has grown to over 60 organizations and individuals dedicated to restoring and sustaining our salmon runs; and

WHEREAS, the Borough Fish and Wildlife Commission was created in February 2007 to represent the interests of the Borough in the conservation and allocation of fish, wildlife, and habitat; and

WHEREAS, the Fish and Wildlife Commission has made positive strides in directing funds to local fisheries research and fish passage projects while encouraging stakeholder groups to prioritize fishery needs in Upper Cook Inlet and its critical watersheds; and

WHEREAS, the Matanuska-Susitna Borough Fish and Wildlife Commission has successfully worked with the Alaska State

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Department of Fish and Game and the Alaska State Board of Fisheries to improve salmon returns for the Borough; and

WHEREAS, the Commission and the Borough continue to support robust opportunities for sport, subsistence, and personal use fisheries in the Borough and recognize the importance of restoring historic health to threatened fisheries and the associated wetlands that remain critical for supporting salmon populations; and

WHEREAS, the Borough Fish and Wildlife Commission recognizes the need for new development that may sometimes impact wetlands while supporting the concept of avoiding, minimizing, and mitigating these impacts; and

WHEREAS, some major developments that require wetland protection or mitigation may not be fully addressed by other agencies and regulatory bodies; and

WHEREAS, the Assembly hosted a work session with the United States Army Corps of Engineers, United States Environmental Protection Agency, Borough Fish and Wildlife Commission, Alaska State Department of Fish and Game, and Ms. Gail Terzi, Wetland and Compensatory Mitigation Specialist, in March 2019 to explore critical issues for sustaining salmon and their habitat within the Borough; and

WHEREAS, it was clear at the close of the work session in March that all agencies were open to the Borough having a role in mitigation; and

WHEREAS, the Borough Fish and Wildlife Commission approved resolution FWC 19-03 in support of the Borough being able to provide supplemental wetland mitigation, in addition to agencies and regulatory bodies, as they do in many other cities and counties across the United States, in order to protect, enhance and restore salmon populations in the Borough as it continues to develop and grow; and

WHEREAS, the Borough hosted the Principal Deputy Director for the United States Fish and Wildlife Service, along with other members of the Matanuska-Susitna Salmon Habitat Partnership, to review the activities that are now in progress to keep our salmon populations sustainable; and

WHEREAS, it is important that the Borough devote particular attention to the supplemental mitigation issue in preparation for the upcoming 3-year Upper Cook Inlet Board of Fish Meeting in February of 2020; and

WHEREAS, the proposed Borough certification process is intended to align seamlessly with the existing federal wetland permitting process, by reviewing only large development projects and related proposal documents required by the United States Army

Corps of Engineers, without adding to staff or project length review times; and

WHEREAS, the necessity for the Borough to become part of the supplemental mitigation process, like other municipalities across the United States, is being explored because all authorized impacts are not currently being offset or adequately considered for the importance of sustaining wetlands habitats that support restoration of critical salmon runs.

NOW, THEREFORE, BE IT RESOLVED, that the Assembly supports exploring supplemental wetland mitigation for projects with input from state and federal agencies that currently review and comment on large projects that require United States Army Corps of Engineers approval. (Matanuska-Susitna Borough Fish & Wildlife Commission Resolution Serial No. FWC19-03 attached to the accompanying Informational Memorandum).

ADOPTED by the Matanuska-Susitna Borough Assembly this 6 day of August, 2019.

VERN HALTER, Borough Mayor

ATTEST:

LONNIE R. McKECHNIE, CMC, Borough Clerk

(SEAL)

YES: Sykes, Beck, Mayfield, and Boeve

NO: Sumner, Leonard, and McKee

Resolution Serial No. 19-074
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MATANUSKA-SUSITNA BOROUGH
FISH & WILDLIFE COMMISSION RESOLUTION SERIAL NO. FWC19-03

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH FISH AND WILDLIFE COMMISSION IN SUPPORT OF THE CONCEPT THAT THE MATANUSKA-SUSITNA BOROUGH PROVIDE FOR SUPPLEMENTAL WETLAND MITIGATION FOR LARGE DEVELOPMENT PROJECTS THAT IMPACT WETLANDS AND DEGRADE SALMON HABITAT IN THE BOROUGH.

WHEREAS, the Matanuska-Susitna Fish and Wildlife Commission was created in February 2007 to represent the interests of the borough in the conservation and allocation of fish, wildlife, and habitat; and

WHEREAS, salmonid fish populations using Matanuska-Susitna Borough rivers and streams have seriously declined over the past 30 years; and

WHEREAS, the Matanuska-Susitna Borough contains 8 of the 16 salmon stocks of concern as of April 2019 for the state of Alaska; and

WHEREAS, the Matanuska-Susitna Borough Fish and Wildlife Commission has made positive strides in directing funds to local fisheries research and fish passage projects while encouraging stakeholder groups to prioritize fishery needs in Upper Cook Inlet and its critical watersheds; and

WHEREAS, the Fish and Wildlife Commission has successfully worked with the Alaska Department of Fish and Game and the Alaska Board of Fisheries to improve salmon returns for the Matanuska-Susitna Borough; and

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WHEREAS, the Commission continues to support robust opportunities for sport, subsistence, and personal use fisheries in the Matanuska-Susitna Borough and recognizes the importance of restoring historic health to threatened fisheries and the associated wetlands that remain critical for supporting salmon populations; and

WHEREAS, the Fish and Wildlife Commission recognizes the need for new development that may sometimes impact wetlands while supporting the concept of avoiding, minimizing, and mitigating these impacts; and

WHEREAS, some major developments that require wetland protection or mitigation may not be fully addressed by other agencies and regulatory bodies.

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NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Fish and Wildlife Commission supports the concept that the Matanuska-Susitna Borough provide for supplemental wetland mitigation in addition to what other agencies and regulatory bodies may require in order to both protect and enhance the salmonid populations as the Matanuska-Susitna Borough continues to grow.

ADOPTED by the Matanuska-Susitna Fish and Wildlife Commission this 16th day of May, 2019.

MIKE WOOD, Chair

ATTEST:

Ted J. Eischeid

TED EISCHEID, Staff

(SEAL)

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MATANUSKA-SUSITNA BOROUGH
FISH & WILDLIFE COMMISSION RESOLUTION SERIAL NO. FWC 21-01

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH FISH AND WILDLIFE COMMISSION RECOMMENDING ASSEMBLY ADOPTION OF ORDINANCE 21-025 THAT PROVIDES FOR SUPPLEMENTAL WETLAND MITIGATION FOR LARGE DEVELOPMENT PROJECTS THAT IMPACT WETLANDS AND DEGRADE SALMON AND OTHER FISH AND WILDLIFE HABITAT IN THE BOROUGH.

WHEREAS, the Matanuska-Susitna Fish and Wildlife Commission (Commission) was created in February 2007 to represent the interests of the Matanuska-Susitna Borough (Borough) in the conservation and allocation of fish, wildlife, and habitat; and

WHEREAS, Borough salmonid fish have seriously declined over the past 30 years; and

WHEREAS, the Cook Inlet contains 5 of the 13 salmon stocks of concern as of March 2021 for the state of Alaska; and

WHEREAS, the Borough has been the fastest-growing region of Alaska for years, and survey research indicates that Borough residents highly value salmon and other fish and wildlife and the economic benefits they create; and

WHEREAS, the economic impact from sport fishing in the Borough has historically been significant, with direct spending in 2017 of over $57 million; and

WHEREAS, the Matanuska-Susitna Borough Fish and Wildlife Commission has made positive strides in directing funds to local fisheries research and fish passage projects while encouraging

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stakeholder groups to prioritize fishery needs in Upper Cook Inlet and its critical watersheds; and

WHEREAS, since 2001, the Borough's fish passage program has constructed over 100 fish passage culverts that have opened up 66 miles of stream and 6,224 lake acres of fish habitat representing a conservative investment of over 20 million dollars; and

WHEREAS, the Commission has successfully worked with the Alaska Department of Fish and Game and the Alaska Board of Fisheries to improve salmon returns and other fish and wildlife populations for the Borough; and

WHEREAS, the Commission continues to support robust opportunities for sport, subsistence, commercial, and personal use fisheries in the Borough and recognizes the importance of restoring historic health to threatened fisheries and the associated wetlands that remain critical for supporting salmon and other fish and wildlife populations; and

WHEREAS, in May of 2019, the Commission passed resolution FWC 19-03 supporting the concept of requiring supplemental wetland mitigation for large development projects impacting wetlands; and

WHEREAS, the Commission recognizes the need for new development that may sometimes impact wetlands while supporting the concept of avoiding, minimizing, and mitigating these impacts; and

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WHEREAS, significant developments that require wetland protection or mitigation may not be fully addressed by other agencies and regulatory bodies resulting in lost ecological functions and a corresponding negative impact on local fisheries.

NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Borough Fish and Wildlife Commission recommends Assembly adoption of Ordinance 21-025 providing for supplemental wetland mitigation in addition to what other agencies and regulatory bodies may require to fully offset unavoidable wetland impacts to both protect and enhance the salmonid and other fish and wildlife populations as the Matanuska-Susitna Borough continues to grow.

ADOPTED by the Matanuska-Susitna Fish and Wildlife Commission this 18th day of March, 2021.

Howard Lee Sr
MIKE WOOD, Chair

ATTEST:

Ted J. Eischeid
TED EISCHEID, Staff

(SEAL)

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Wetlands Fact Sheet #1

What is a wetland and how can I identify it?

What is a wetland?

The term "wetlands," by federal definition, means:

> "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

Principle Wetland Components

The primary components of wetlands are:

- **Hydrology:** soil must be saturated to the surface for at least 5% of the growing season (typically 2 weeks).
- **Soils:** must contain unique characteristics indicating the presence of water, such as a thick, dark organic layer, or discolorations in the soil indicating prolonged saturation.
- **Vegetation:** must be dominated by wetland species that are specifically adapted to prolonged saturation in wet soils.

Riparian ecosystem wetlands lie in valley bottoms adjacent to streams. The large wetland area along the Little Susitna River is the largest single wetland polygon mapped.

Identifying Wetlands on Your Property

Wetland Delineations

If your property:

- Has low-lying areas where water collects in the spring or after heavy rain;
- Has an abundance of plants like alder, black spruce, or sedges; or
- Is located near a lake or stream;

Then you may have wetlands on your property!

There are several resources that you can use to determine if and where there may be wetlands on your property.

- USGS Topographic Maps
- National Wetland Inventory Maps
- Plat Maps
- Mat-Su Wetland Mapping Project at http://www.matsugov.us/wetlands/wetlands-map-viewer.html.

Once you have reviewed the available information, the only way to determine exact wetland boundaries is to have a scientist perform a wetland delineation during the growing season.

Wetland delineations must be approved by the U.S. Army Corps of Engineers (Corps). To find out if there are wetlands on your property, contact the Corps for a listing of qualified wetland delineators at (907) 753-2712 or Toll Free at (800) 478-2712.

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What is a wetland and how can I identify it?

Types of Wetlands in the Mat-Su

There are several different types of wetlands found within the Mat-Su. Plants that are commonly found in these wetlands include many species of sedges and grasses, black spruce, leatherleaf, sphagnum moss, and iris.

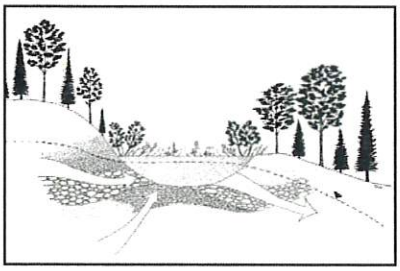
Not all wetlands are wet all the time. In the summer, vegetation is a good indicator of wetlands.

- **Glacial Lakebed Peatlands** develop over the deposits of former glacial lakes.
- **Discharge Slopes** occur over hydric mineral soils where shallow groundwater discharges at or near the surface. They often support only seasonally high water tables, and can be difficult to identify.
- **Kettles** are peatlands occupying depressions created when pockets of underlying ice melted at the end of the last glacial advance. They have a wetland or stream connection to Cook Inlet.
- **Depressions** are surrounded by uplands. They are common as peatlands on the glacial outwash deposits around Palmer and moraines south of Big Lake.
- **Spring Fens** are small peatlands surrounded by uplands. They occur between Butte and Houston below 1,000 feet elevation, in a region of moisture deficit, where evapotranspiration generally exceeds precipitation.
- **Headwater Fens** are small peatlands occupying headwater basins of first-order streams. There are few headwater fens in the area mapped.

Well-developed bogs in the Mat-Su are often forested by black spruce.

A glacial lakebed peatland, which develops over the deposits of a former glacial lake.

- **Relict Glacial Drainageways** are peatlands occupying old, sometimes abandoned, drainageway features. These are linear features which once drained more extensive glaciers.
- **Ripple Trough Peatlands** are uniquely arranged hills and valleys that are currently mapped as Rogen moraines, which are formed by deformation of till beneath a glacier. They have been reinterpreted as ripple features created by gigantic waves formed during catastrophic drainage of glacial Lake Atna down the Matanuska Valley.
- **Riverine Wetlands** lie in valley bottoms adjacent to streams. They are maintained by stream overflow, discharge through stream sediments, and groundwater discharge at the toe of valley walls.
- **Tidal Wetlands** are flooded by saltwater at least once per month; the frequency and duration of inundation creates distinct zones. Each zone supports a small number of characteristic salt-tolerant plants.
- **Drainageway-Tidal Wetlands** occur along the shores of Knik Arm. These wetlands are influenced by an extreme tidal range mixing large amounts of freshwater discharging from glacial sediments into already diluted saltwater.



This diagram depicts shallow groundwater flowing through relatively permeable sediments into and out of a wetland.

For more information, please visit our website at: http://www.matsugov.us/

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Wetlands Fact Sheet #2

The Functional and Economic Values of Wetlands

Wetland Functions and Values

Wetlands provide important ecologic and economic benefits to the human, biological, and physical environment. These benefits are known as functions and values. Common wetland functions include:

- Fish and wildlife habitat
- Water quality protection
- Groundwater recharge and discharge
- Erosion protection and shoreline stabilization
- Recreation, education, cultural resources, and open space
- Flood control

Though wetlands perform a variety of functions, not all wetlands function equally and not all wetlands perform all functions. Factors affecting wetland function include location, size, vegetation diversity, hydrology, and disturbance level. Even though an individual wetland may not perform all wetland functions, the cumulative value of all wetlands in an entire watershed makes each important. Wetland values are the benefits to humans that are derived from a wetland's features, processes, or setting.

Fish and Wildlife Habitat

Wetlands are among the most biologically productive habitats in the world, providing substantial biodiversity. Many fish and wildlife species rely on wetland habitat for a variety of reasons, including breeding, nesting, foraging, travel, and refuge. Wetlands are important transition areas between terrestrial and aquatic habitats and can support a great diversity of species. Moose and other wildlife feed and migrate through wetlands. Fish species rely on wetlands for food and protection from predators. Wetlands also provide summer staging and breeding grounds for resident and migratory birds, including a variety of waterfowl and shorebird species.

Wetlands are critical for a healthy salmon population.

Water Quality

Wetlands help maintain water quality through filtration, purification, retention of sediment and toxic substances, and nutrient removal. Wetlands retain excess nutrients and filter sediments and other pollutants that might otherwise enter waterways. Examples of pollutants include fuel, oil, heavy metals, pesticides, and septic tank effluent. Peatlands, a common type of Mat-Su wetland, have a huge capacity to absorb sediments and pollutants. As water flows through wetlands, a large amount of suspended solids can be removed from the water.

Wetland vegetation also helps trap and filter suspended sediments. In urban and developing urban areas, trapping and retaining excess sediments, nutrients, and other pollutants is important, especially when a wetland is connected to groundwater or surface waterbodies important for fish habitat, drinking water, fishing, recreation, or other activities.

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The Functional and Economic Values of Wetlands

Groundwater Recharge and Discharge

Wetlands can function as both recharge and discharge areas for groundwater. Wetlands absorb and hold surface water and allow it to slowly move into the groundwater. The replenishing of groundwater is particularly important in the Mat-Su because most residents and cities depend on groundwater for drinking water—especially the case in the Mat-Su Core Area, where wetlands help maintain the water quality and flow of shallow, unconfined aquifers. Wetlands are generally not isolated pockets, but rather are outcroppings of the water table: the same water used for drinking, washing, and cooking.

Many wetlands are created by groundwater discharge. Wetlands serve as the transition point between groundwater and surface water. The water exchange between groundwater aquifers and surface water provides a major pathway for the transfer of essential nutrients to plants. Discharged groundwater can serve as the primary source of water for wetlands, streams, lakes, and ponds. For example, wetlands can contribute to stream flow by allowing the groundwater to slowly be released into streams. This is an important function during dry periods of the year where the water levels of streams and water bodies may be low.

Erosion Protection and Shoreline Stabilization

Wetlands located along lakes, ponds, rivers, and streams help protect and stabilize the shoreline soils from erosion. Wetland plants can reduce wave action and provide shoreline stability by binding the soil in place with their root systems. Wetland vegetation controls shoreline soil erosion adjacent to Mat-Su lakes, rivers, and streams, and can collect soil that has eroded from upland areas, preventing its entry into a waterbody.

Recreation, Education, Cultural Resources, and Open Space

Wetlands and areas adjacent to wetlands support a wide range of recreational activities including fishing, dog mushing, snow machining, hunting, hiking, canoeing and boating, skiing, and wildlife viewing. These activities support our local economy and lifestyles. According to the MSB, Alaska residents visit the Mat-Su an estimated 3 million times each year for recreational purposes.

The sport fish industry is one of the key economic drivers in the Mat-Su. In addition to fishing, many residents and visitors hunt waterfowl and game species associated with wetlands, further adding to the local economy. The quality of these experiences depends in large measure on the health of the wetlands in the Mat-Su. In addition to these recreation opportunities, wetlands provide open space as well as educational and cultural resources opportunities.

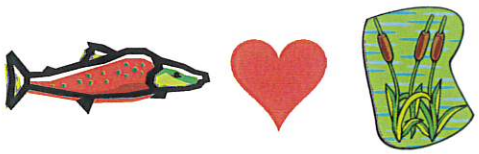
Flood Control

Wetlands help to regulate the flow of water. Although wetlands cannot prevent major flood events, they can serve to reduce damage and regulate stream flow during smaller, more common floods. Wetlands often function like sponges by slowing water or retaining it in underlying soils. Without wetlands, water would move much more quickly across the land and increase flooding and erosion of valuable soil, stream banks, homes, and fish habitat. By reducing the speed and amount of water entering rivers or streams, wetlands lessen the destructiveness of flooding. Repair of flood damages is expensive, whereas wetland protection can be a relatively low-cost preventative measure.

Wetlands absorb stormwater, which slows runoff and reduces flooding. This function is particularly important in urban areas where there are large areas of impervious surface, such as parking lots, which can lead to more rapid runoff and high peak flows.

All wetlands are not created equal.

While wetlands provide many ecologically important functions and benefits, not all wetlands perform all functions. When wetlands lose a function such as fish or wildlife habitat, it may not be replaceable. The consequences to wetlands values can have negative effects on local recreation, tourism, hunting, and fishing industries. Avoiding negative effects to wetlands through careful planning and management is vital to maintaining their functions and values.



SALMON LOVE WETLANDS

For more information, please visit our website at: http://www.matsugov.us/

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Wetlands Fact Sheet #3

Permitting and Mitigation of Wetland Impacts

Permitting

Development in wetlands is often challenging and expensive. Knowing wetland locations, functions, and values allows individuals to make informed decisions when planning for development.

Some wetland types are so difficult to work in that they are typically avoided, such as peatlands. Others are not as easy to identify, and are sometimes only discovered after a project has begun, yet developing them still presents challenges. Some challenges affect the immediate building site, while others affect neighbors and more distant resources.

A project on lands where wetlands may be present begins with determining where wetlands are located and identifying the functions and values of those wetlands to you and the environment. If there are wetlands on your property, have the U.S. Army Corps of Engineers (Corps) or a qualified wetland delineator define the boundary of your wetlands and avoid those areas if possible. If wetlands are to be impacted, you are required to gain authorization from the Corps prior to starting work.

By Federal Law (Clean Water Act and associated policy), wetlands are protected and carefully managed with the goal of pursuing no-net-loss of wetland functions and values. Specific Mat-Su land use and zoning regulations do not currently exist as a means to manage wetland resources in the Mat-Su area. Therefore, wetland management in the Mat-Su requires a community effort, beginning with awareness and education on management measures every landowner can implement.

Do I need a permit?

The Corps requires permits for discharges and construction into most wetlands and "navigable waters." Navigable waters must be semi-permanent and have defined bed and banks.

Have a qualified delineator define the boundaries of your wetlands.

All tidal waters are considered navigable and are regulated by federal law. Wetlands that are physically, chemically, or biologically connected to regulated navigable waters, including those that eventually drain into them through tributaries, are regulated by Section 404 of the Clean Water Act.

Activities that require a permit

- Placing fill in wetlands
- Work in navigable waters
- Clearing or removing existing vegetation

Activities that may not require a permit

- Normal agricultural practices (except filling, clear cutting trees, or constructing non-agricultural structures)
- Harvesting natural products or recreational activities
- Routine maintenance of existing functional structures
- Selective cutting of trees and harvesting fuel wood

Prior to placing fill or doing work in any waters of the US, it is recommended you contact the Corps regarding whether the activity is regulated or not.

Please keep in mind that vegetation clearing conducted at certain times of the year could impact nesting migratory birds. Impacts to migratory birds are protected under the Migratory Bird Treaty Act.

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Permitting and Mitigation of Wetland Impacts

What kind of permit do I need?

The Corps is responsible for issuing all Section 404 permits in Alaska. For individual permits, after public review is complete, the Corps weighs the benefits of the project against the detriments. A permit is granted unless the proposal is found to be contrary to the public interest. Processing time usually takes about 60 to 120 days, or more, unless a public hearing is required or an environmental impact statement must be prepared.

The Corps issues two types of Section 404 permits: **Individual and General Permits.** General Permit applications are either nationwide or regional, and may not require additional public review. For Individual Permit applications, a public notice is issued and there is an opportunity for a public hearing to review the proposed activity.

Planning your project to meet appropriate permit requirements can save you considerable time and money. It is always a good idea to contact the Corps to verify whether notification or additional requirements are necessary. **It is much more costly to undo unauthorized environmental damage than to secure the necessary approvals before starting.**

Avoiding and Minimizing Wetland Impacts

Federal Clean Water Act rules require "sequencing," which means that you must first consider all possible ways to avoid wetland impacts. If there is no practicable way to complete your project without affecting a wetland, then you must consider all possible ways you can minimize impacts.

Avoiding wetlands is the most effective way to prevent direct impacts to the ecological and hydrological functions of a wetland, and avoid having to secure a costly and possibly time consuming permit. Consider the purpose of your project and whether or not the location, size, or configuration can be changed to avoid wetland impacts completely. There may also be low impact construction techniques such as porous pavement, directional drilling, and linear construction to avoid or further minimize secondary impacts of your project on adjacent and nearby wetlands and water resources.

Check with the Mat-Su Borough Planning Department or Corps office to determine if there are other ways to accomplish your project goals without permanent wetland impact:

U.S. Army Corps of Engineers
Anchorage Area Office: (907) 753-2712
Toll Free: (800) 478-2712
Fax: (907) 753-5567

Mat-Su Borough Planning Department: (907) 745-9833

Mitigation

After all appropriate efforts have been made to avoid and minimize wetland impacts, the Corps will generally require compensatory mitigation for remaining environmental impacts. Compensatory wetland mitigation options include:

Mitigation Bank Credit Purchase: Mitigation banks are established by private or public third party entities who restore, enhance, or otherwise permanently preserve wetlands in perpetuity and generate credits which may be purchased by permittees to offset unavoidable wetland impacts. In the Mat-Su, there are two resources from which mitigation credits may be purchased:

Su-Knik Bank
Contact Information: Jerome Ryan
Email: Jerome@envmp.com
Phone: 707-874-2780 (w), 415-990-0525(c)
Post Office Box 2281, Sebastopol, CA 95473
http://www.su-knikmitigationbank.com

Pioneer Reserve
Contact Information: Calli Donn or Scott Walther
Email: pioneerreserve@hotmail.com
Phone: (907) 841-5250 or (907) 947-7042
3602 N. Montrose Ct., Wasilla, AK 99654
https://www.edgertonreserve.com

In-Lieu Fee Payment: This type of mitigation involves makes a payment to an In-Lieu Fee Payment Program Sponsor who then uses those funds, possibly pooled with other financial resources to acquire or complete a wetland mitigation project. In the Mat-Su Area, there are two In-Lieu Fee Payment-sponsored programs:

The Conservation Fund
Contact Information: Brad Meiklejohn
Email: BradMeiklejohn@aol.com
Phone: (907) 694-9060 Fax: (907) 694-9070
2727 Hiland Road, Eagle River, AK 99577
http://www.conservationfund.org/mitigation

Great Land Trust
Mat-Su Office
Email: info@greatlandtrust.org
Phone: (907) 746-64006
Koslosky Center, Suite 202
Palmer, AK 99645
http://www.greatlandtrust.org/whatwedo/wetlandmitigation.html

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Wetlands Help Salmon & Communities Thrive

Healthy, functioning wetlands benefit everyone

Individuals rely on wetlands for fishing and recreation opportunities, and wetlands provide natural erosion and flood control that benefits landowners

Businesses and **local economies** benefit from flood control and rely on fisheries, hunting, tourism, and outdoor recreation opportunities that wetlands provide

The **Matanuska-Susitna Borough** benefits and saves money from wetlands that provide natural stormwater management, flood control, and filtration of pollutants to our watersheds and water supply

What are wetlands?

Wetlands are areas of land that are covered by or saturated with water, such as marshes or bogs. Surface water may be present seasonally or permanently. Wetlands are an important part of a watershed, connecting surface and subsurface waters of rivers, streams, lakes, and oceans.

Approximately 25% of the Matanuska-Susitna Borough's 25,258 square mile land mass is wetlands.[1] This vast amount of wetlands is one reason why the Mat-Su has such abundant salmon resources, as wetlands provide habitat for juvenile salmon rearing.

Thriving salmon and healthy habitats make vibrant communities in the Mat-Su

The Mat-Su is a special place where vibrant communities and resilient wild salmon are closely linked. Generally, salmon numbers remain strong here; however, human use and development may be impacting habitat quality and causing localized declines in salmon numbers.

Other parts of the world have already seen the decline or extinction of salmon populations. We have a unique opportunity in the Mat-Su to safely develop our economy while ensuring the survival of wild salmon, an important natural and cultural resource that supports our communities and economies.

Mat-Su salmon PARTNERSHIP

The Matanuska-Susitna Basin Salmon Habitat Partnership believes that thriving fish, healthy habitats, and vibrant communities can co-exist in the Mat-Su Basin. Because wild salmon are central to life in Alaska, the partnership works to ensure quality salmon habitat is safeguarded and restored. This approach relies on collaboration and cooperation of diverse stakeholders to get results.

www.matsusalmon.org
MatSuSalmon@tu.org

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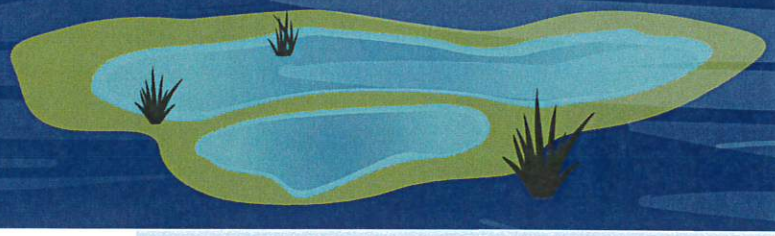
What Services Do Wetlands Provide?



Wetlands provide important economic, ecological and cultural services to the Mat-Su. Key services wetlands provide include:

Fish and wildlife habitat

- Provide important feeding and sheltered rearing habitat for salmon and other fish species
- Provide safe and healthy waterways important to spawning salmon
- Provide an ideal environment for the development of organisms that attract and feed many species, including salmon
- Support salmon-bearing waters by storing and releasing cooler water that helps regulate water temperature, stream flows and lake levels
- Support biodiversity by providing food, water and shelter for mammals and birds

Erosion and flood control

- Stabilize shorelines and reduce erosion by distributing the flow of stream or river currents and holding soil together with plant roots
- Reduce flood water levels and flood-related damages to homes and businesses by acting like giant sponges
  - » Wetlands absorb, store and slowly release surface water, rain, snowmelt, and flood waters over time
  - » Vegetation slows the movement of water over floodplains, helping reduce erosion on adjacent lands

Water quality improvement and management

- Protect and improve water quality by acting as giant environmental filters
  - » Wetlands slowly filter fertilizer, sediments, heavy metals, and pollutants before water seeps into rivers, streams, and underground aquifers
- Provide wellhead protection by replenishing and purifying groundwater/ drinking water
- Manage stormwater and increased amounts of surface water runoff due to paved surfaces, which helps reduce the impacts of runoff, such as increased sedimentation and water pollution that disrupt water flow and affect fish habitat and egg development

$ Economic benefits

All of these services provide economic benefits. For example, when wetlands purify groundwater and manage stormwater, our communities avoid the costs associated with the construction and continuous management of water and stormwater treatment facilities, saving millions of dollars.[2]

For example, in Minnesota, "the cost of replacing the natural flood control function of 5,000 acres of drained wetlands was found to be $1.5 million annually."[3]

National and local protections for wetlands

"The lack of state regulations combined with the broad scope of federal regulations make the need for local conservation and protection efforts all the more important."
-Matanuska-Susitna Borough *Wetlands Management Plan*

Clean Water Act Section 404

Federal law requires a permit be obtained from the U.S. Army Corps of Engineers (USACE) before a wetland can be developed, filled or dredged. The USACE only has jurisdiction over wetlands if they are connected to navigable waters.

- Other agencies involved in or overseeing the permit review process: the Environmental Protection Agency (EPA), the National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), Alaska Department of Environmental Conservation (ADEC), Alaska Department of Fish & Game's Division of Habitat, and the Matanuska-Susitna Borough (MSB)
- USACE has decreased required mitigation plans for developments in recent years, reducing protections for wetlands

State of Alaska:*

- No regulations that apply to the Mat-Su

Mat-Su Borough:

- An ordinance regulating development along waterbodies and in floodplains requires a 75-foot setback for built structures from shorelines
- An ordinance regulating floodplain development requires all structures to conform to the minimum standards of development and obtain Flood Hazard Insurance
- The Su-Knik Wetlands Mitigation Bank is comprised of undeveloped, borough-owned wetlands. Landowners and developers can mitigate development of private wetlands by paying to protect banked wetlands.
- MSB Wetlands Management Plan provides guidance for developers and landowners[1]

Local governments:*

- No direct control over wetlands through regulation, mitigation, or enforcement

* = *gap in regulation*

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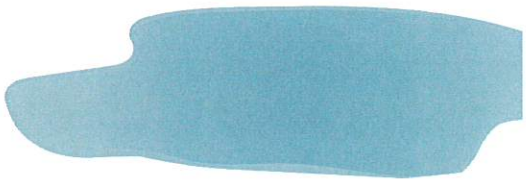
What Challenges Do Wetlands Face?

"As development continues, the demands for groundwater and surface water will increase. Undisturbed wetlands are critical to maintaining water supplies, balances, and quality."
-Matanuska-Susitna Borough *Wetlands Management Plan*

Human activities and climate change cause the majority of challenges that wetlands face. Predominant stressors to wetlands include biological, chemical, and physical alterations to habitat. In the Mat-Su Basin, loss of wetlands is most often caused by urban development, jeopardizing these natural assets that support the Mat-Su way of life. In particular, the loss and filling of wetlands can have a range of detrimental impacts on salmon populations.



Human Activities *and* Resulting Impacts *affect* Benefits of Wetlands

Human Activities

- **Placing fill in wetlands**
  - Road crossings, airstrips, house pads, parking areas
- **Draining wetlands**
- **Trapping and removing beavers**
  - Many small wetland areas are created by beavers. Trapping and removing them from the system results in a loss of wetlands over time
- **Discharging harmful chemicals or pollutants**
- **Altering water flows**
  - e.g. with undersized or damaged culverts
- **Building dams or levees**
- **Altering or removing native vegetation**

Resulting Impacts

- **Loss of wetland area and fish and wildlife habitat**
  - Elimination and degradation of critical salmon habitat
  - Increased water pollution due to less wetland area acting as an environmental filter
  - Reduced drinking water quantity due to less wetland area acting as water storage
- **Water pollution and impaired water quality**
  - Untreated stormwater runoff increases sediment and deteriorates water quality
  - Decreased water quality negatively impacts fish spawning and rearing
- **Increased erosion and flood damage**
  - Reduced or altered vegetation destabilizes shorelines
  - Increased paved surface area and decreased vegetation results in faster moving water during flood events
- **Fisheries decline**

Benefits of Wetlands

- **Food**
  - Fish such as salmon and berries
- **Clean drinking water supply**
- **Recreation opportunities**
  - Fishing, hunting, birdwatching, snow machining, boating, hiking, photography, and more
- **Economic activities**
  - Fishing, hunting, tourism, and outdoor recreation activities provide significant economic benefits to Mat-Su residents and businesses
- **Protection from flood damage and erosion**

$ Economic benefits of healthy salmon populations in the Mat-Su

Commercial and sportfishing support thousands of jobs and millions of dollars in earned wages in the Mat-Su.

Commercial: $0.6-$2.1 million annual earnings between 2004-2012 for Mat-Su resident permit holders only *(does not include supporting industries)*[4]

Sportfish: $31-$64 million annual earnings for Mat-Su residents *(includes supporting industries)*[4]

Residents also benefit economically from fishing by saving money at the grocery store.

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Best Practices

The best approach is conservation!

"Avoiding negative impacts to wetlands through careful planning and management is vital to maintaining their functions and values," and "maintaining current wetland functions will be less expensive than fixing a degraded system."

- Matanuska-Susitna Borough *Wetlands Management Plan*

In many places in the Mat-Su Basin, salmon and their habitats are healthy so protective measures, like reservations of water, sustainable land management, voluntary land protection, and individual behaviors can prevent degradation. In other places, restoration is necessary to re-establish functioning wetlands and productive habitat.

"Today, the survival of Pacific salmon depends upon our ability to manage harvests and protect, maintain, and improve salmon ecosystems in harmony with human development."

- ADF&G *Alaska's Wild Salmon*

GOAL: Conserve wetlands

Public and private land recommendations

- Develop/follow protection mechanisms
  - » Tax incentives to protect wetland habitat
  - » Development setbacks or buffers
  - » Land swaps
  - » Set minimum flow rates and stream and lake levels to maintain viable aquatic systems
  - » Floodplain development
- Encourage voluntary conservation easements and/or purchase wetlands from sellers
- Enhance degraded wetlands
- Mitigation options
  - » On-site mitigation
  - » Mitigation banks: These banks "restore, enhance, or otherwise permanently preserve wetlands in perpetuity and generate credits which may be used to offset unavoidable wetland impacts"[5] in another location
  - » In-lieu fee programs: compensatory mitigation for impacts or unavoidable losses to wetlands due to development or other projects
- Due to potential declines in water quality from already-filled wetlands, consider limited to no additional filling of wetlands, or provide compensatory mitigation, in the following heavily impacted watersheds:[6]
  - » Wasilla Creek Watershed
  - » Cottonwood Creek Watershed
  - » Lucile Creek Watershed
  - » Meadow Creek Watershed
- Avoid discharging warmed roadside ditch water directly into a stream; re-infiltrate ditch water on the downhill side of a road running parallel to a stream to reduce the risk of elevating stream temperatures[7]

Are all wetland types created equal?

A variety of wetland types exist, and they all have different characteristics and functions depending on their location in the landscape. Individual wetlands contribute to the overall functioning of an entire watershed. Wetland development should be evaluated on both an individual basis and considering the collective health of a watershed.

How much filling of wetlands is too much?

"Substantial declines in water quality may be expected after more than five percent of wetlands in a boreal watershed have been filled,"[1] though additional research is needed to confirm this. In some Mat-Su watersheds, around 10% of wetlands have already been filled. Many of these waterbodies have been designated as having "impaired" water quality.

Are some wetlands more critical for salmon populations than others?

Some wetlands directly support salmon populations while others do not; however, some wetlands may indirectly support salmon by contributing to the overall health of a watershed. In Alaska, individual wetlands and their ecological roles regarding salmon need to be continually identified and assessed.

References:

1. *Wetlands Management Plan.* Matanuska-Susitna Borough. 2012. https://www.matsugov.us/environment/wetlands
2. matsu2050.org
3. *Wetland Functions and Values.* U.S. Environmental Protection Agency. http://www.epa.gov/watertrain
4. *The Economic Geography Of Salmon.* Cultural Research North. http://www.matsusalmon.org/dev/wp-content/uploads/2015/12/David_Holen-Mat-Su-Salmon-Symposium-2015.pdf
5. *A Comprehensive Inventory of Impaired Anadromous Fish Habitats in the Matanuska-Susitna Basin, with Recommendations for Restoration, 2013.* Alaska Department of Fish & Game. http://www.adfg.alaska.gov/static/regulations/regprocess/fisheriesboard/pdfs/2013-2014/uci/anadromous_fish.pdf
6. Gracz, Mike. *Wetland Loss Assessment by Wetland Type and Watershed in an Expanded Core Area of the Matanuska-Susitna Borough.* http://matsusalmon.org/wp-content/uploads/2018/08/MatSuWetlandLoss2018-7.pdf
7. Haserodt, Megan. *Effects of Roads on Groundwater Flow Patterns in Peatlands and Implications for Nearby Salmon Streams on the Kenai Peninsula, AK.*

Additional information:

- http://greatlandtrust.org/priorities/habitat-conservation/
- *Appendix 5.3 Wetland Habitats: Featured Species-associated Wetland Habitats: Freshwater Grass Wetland, Freshwater Sedge Wetland, Bog, and Salt Marsh (Estuarine).* https://www.adfg.alaska.gov/static/species/wildlife_action_plan/appendix5_wetland_habitats.pdf
- *Conserving Salmon Habitat in the Mat-Su Basin: The Strategic Action Plan of the Mat-Su Basin Salmon Habitat Partnership.* 2013. http://matsusalmon.org/wp-content/uploads/2012/10/2013-Strategic-Action-Plan.pdf
- https://www.fisheries.noaa.gov/national/habitat-conservation/coastal-wetlands-too-valuable-lose
- *Alaska's Wild Salmon.* Alaska Department of Fish & Game. https://www.adfg.alaska.gov/static/home/library/pdfs/ak_wild_salmon.pdf

July 2020

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Fax (907) 753-5567

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Fax (907) 790-4499

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(907) 350-5102

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U.S. Army Corps of Engineers
Regulatory Division
Alaska District

Mitigation in Alaska for Regulatory Permitted Activities

Summary of New Mitigation Rule

On April 10, 2008, the United States Army Corps of Engineers (Corps) and the Environmental Protection Agency (EPA) published a new rule, entitled "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule". The rule became effective on June 9, 2008. The rule emphasizes the sequence to be followed for mitigating impacts to aquatic resources that result from work authorized by permit under the Corps Regulatory Program. All practicable steps to avoid and/or minimize impacts to aquatic resources must be taken before proposing compensatory mitigation to offset project impacts. The rule establishes standards and criteria for all types of compensatory mitigation, including mitigation banks, in-lieu fee (ILF) mitigation, and permittee-responsible mitigation, to offset authorized unavoidable impacts to waters of the United States (U.S.), including wetlands.

Mitigation Sequence

Avoid—Describe how, in your project planning process, you will avoid impacts to waters of the U.S. to the maximum extent practicable. Examples of avoidance measures include, but are not limited to, site selection, use of alternate routes, and modification of design configurations.

Minimize—Describe how your project design will incorporate measures that minimize unavoidable impacts to waters of the U.S. by limiting discharges of fill to the minimum amount/size necessary to achieve the project purpose.

Compensatory Mitigation—Once all efforts to avoid and minimize impacts have occurred, remaining impacts may be offset by compensatory mitigation. Describe how your proposed compensatory mitigation would offset unavoidable impacts to waters of the U.S., or, alternatively, why compensatory mitigation is not appropriate or practicable for your project.

Mitigation Sequence (Continued)

Compensatory mitigation involves actions taken to offset authorized unavoidable adverse impacts to waters of the U.S., including wetlands, streams and other aquatic resources (aquatic sites) authorized. Compensatory mitigation may involve the restoration, enhancement, establishment (creation), and/or the preservation of aquatic resources.

What you are responsible for as an applicant

Pre-application meetings (recommended)

Nationwide Permit (NWP) Pre-Construction Notifications: Provide information as required by General Condition 20 of the NWPs with your pre-construction notification.

Standard Department of the Army (DA) Permit Application: Submit a mitigation statement with your application that describes how you will avoid and minimize impacts to waters of the U.S. **AND** include a compensatory mitigation plan.

Provide rationale that describes how your choice of compensatory mitigation will compensate for the impacts to the aquatic resource as a result of your project **OR** rationale as to why compensatory mitigation is not necessary.

If you are proposing compensatory mitigation by purchasing credits from a mitigation bank or paying an ILF, it is your responsibility to contact the bank or ILF sponsor for estimates.

In-kind/Out-of-kind, On-site/Off-site

While considering the type and the amount of mitigation to propose, consideration is given to the location of the mitigation in comparison to the location of the impacts and the type of waters of the U.S. to be improved in comparison to the type of waters of the U.S. to be impacted. The amount of mitigation proposed must be appropriate for the types of impacts and size of impacts that will be authorized.

Types of Compensatory Mitigation

Compensatory mitigation can be accomplished through one type of mitigation or a combination of types.

The following are the types of compensatory mitigation available:

- MITIGATION BANKS
- IN-LIEU FEE MITIGATION
- PERMITTEE-RESPONSIBLE MITIGATION

Mitigation Banks

Defined as a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for impacts authorized by DA permits.

All mitigation banks must have an approved banking instrument signed by the sponsor and the district engineer prior to being used to provide compensatory mitigation for DA permits. Development of a mitigation bank requires site identification in advance, project-specific planning, and significant investment of financial resources.

When permitted impacts are located within the service area of an approved mitigation bank, and the bank has the appropriate number and resource type of credits available, the permittee's compensatory mitigation requirements may be met by securing those credits from the sponsor.

For information on the currently approved mitigation banks in your project area, please contact your local Corps office.

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Types of Compensatory Mitigation (Continued)

In-Lieu Fee Mitigation

Defined as a program involving the restoration, establishment, enhancement, and/or preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation requirements for DA permits.

All ILF programs must have an approved instrument signed by the sponsor and the district engineer prior to being used to provide compensatory mitigation for DA permits.

Similar to a mitigation bank, when permitted impacts are located within the service area of an approved ILF program, and the ILF has the appropriate number and resource type of credits available, the permittee's compensatory mitigation requirements may be met by securing those credits from the sponsor.

For information on the current in-lieu fee programs in your project area, please contact your local Corps office.

Permittee-Responsible Mitigation

This is an aquatic resource restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or preservation activity undertaken by the permittee (or an authorized agent or contractor) to provide compensatory mitigation for which the permittee retains full responsibility.

The four types of permittee-responsible mitigation include:

Restoration means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions (e.g. flood retention, etc.) to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Types of Compensatory Mitigation (Continued)

Establishment means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and functions.

Enhancement means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Preservation means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

A mitigation plan for permittee-responsible mitigation should include:

- Objectives
- Site Selection Criteria
- Site Protection Instrument
- Baseline Information
- Determination of Credits
- Mitigation Work Plan
- Maintenance Plan
- Performance Standards
- Monitoring Requirements
- Long-term Management Plan
- Adaptive Management Plan
- Financial Assurances
- Other relevant information

Resources

Corps Alaska District Webpage:
http://www.poa.usace.army.mil/reg/

Corps Compensatory Mitigation Webpage:
http://www.usace.army.mil/CECW/Documents/cecwo/reg/news/final_mitig_rule.pdf

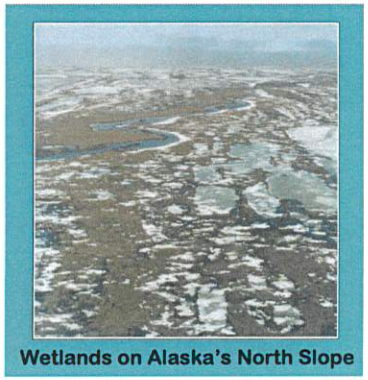
EPA Compensatory Mitigation Webpage:
http://www.epa.gov/wetlandsmitigation/

Questions and Answers about Compensatory Mitigation Rule:
http://www.usace.army.mil/CECW/Documents/cecwo/reg/news/comp_mitig_finalrule_qa.pdf

Wetlands Compensatory Mitigation Rule Fact Sheet:
http://www.epa.gov/owow/wetlands/pdf/MitigationRule.pdf

Mitigation Banking Fact Sheet:
http://www.epa.gov/owow/wetlands/facts/fact16.html

Guidelines for Specification of Disposal Sites for Dredged or Fill Material (404(b)(1) Guidelines):
http://www.epa.gov/owow/wetlands/pdf/40cfrPart230.pdf



Wetlands on Alaska's North Slope

Introduced: April 19, 2021
Public Hearing: May 3, 2021
Action:

MATANUSKA-SUSITNA BOROUGH
PLANNING COMMISSION RESOLUTION NO. PC 21-07

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION RECOMMENDING ASSEMBLY ADOPTION OF ORDINANCE 21.025 ADOPTING MSB 17.31 SUPPLEMENTAL WETLANDS MITIGATION PROVISIONS FOR LARGE-SCALE PROJECTS REQUIRING UNITED STATES ARMY CORPS OF ENGINEERS INDIVIDUAL PERMITS UNDER SECTION 404 OF THE CLEAN WATER ACT; AND AMENDING MSB 1.45.100 SCHEDULE OF FINES FOR INFRACTIONS.

WHEREAS, in 2012 the Borough adopted the Wetlands Management Plan which documented the beneficial ecological services wetlands provide to Borough citizens along with best practices regarding wetland management that included consideration of a local wetland management ordinance; and

WHEREAS, beneficial and valuable ecological services wetlands provide include fish and wildlife habitat, flood control, groundwater recharge, erosion control, stormwater management, and improving water quality; and

WHEREAS, in 2017 over $57 million in direct spending on sport fishing was generated that was supported by the prevalence of wetlands in the Borough; and

WHEREAS, since 2001, the Borough's fish passage program has invested over 20 million dollars to construct over 100 fish passage

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culverts, opening up 66 miles of stream and 6,224 lake acres of fish habitat; and

WHEREAS, the Borough continues to be the fastest growing region in Alaska and has lost significant portions of its wetlands in particular watersheds to development; and

WHEREAS, water quality within the Borough has declined as evidenced by four water bodes being listed on the state's impaired waters list; and

WHEREAS, in March 2019 a special Assembly wetlands workshop presentation from agency stakeholders further explored wetland mitigation; and

WHEREAS, in May of 2019 the Borough's Fish and Wildlife Commission passed FWC19-03 supporting supplemental wetland mitigation on large development projects; and

WHEREAS, in August 2019 the Assembly adopted Resolution 19-074 directing planning staff to research a supplemental wetlands mitigation ordinance; and

WHEREAS, the supplemental wetland mitigation ordinance meets several goals in the Borough's Comprehensive Plan including Land Use Goal 4, Public Open Space Goal 2, Community Quality Goal 1, and Community Quality Goal 2; and

WHEREAS, this supplemental wetland mitigation ordinance supports adopted code on the Borough mitigation bank and flood damage prevention; and

WHEREAS, further loss of wetlands from large development projects without requiring full mitigation is contrary to the public health, safety, and general welfare.

NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Borough Planning Commission hereby recommends assembly adoption of ordinance 21-025 adopting MSB 17.31 Supplemental Wetlands Mitigation Provisions for large-scale projects requiring United States Army Corps of Engineers individual permits under section 404 of the Clean Water Act; and amending MSB 1.45.100 Schedule of Fines for Infractions.

Be it further resolved, the Planning Commission recommends removing the following language from MSB 17.31.060(A)(1): ", but the requirements of this chapter only apply to the additional acres resulting from the expansion."

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ADOPTED by the Matanuska-Susitna Borough Planning Commission this 3rd day of May, 2021.

COLLEEN VAGUE, Chair

ATTEST

KAROL RIESE, Planning Clerk

(SEAL)

YES:

NO:

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