

JACOBSEN LAKE LAKE MANAGEMENT PLAN



ADOPTED
FEBRUARY 2008

Matanuska-Susitna Borough
Department of Planning and Land Use

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1 Introduction

1.1 Purpose

This lake management plan presents goals and objectives to balance the physical and social demands of those that live or recreate on Jacobsen Lake with the need to maintain a healthy and productive lake ecosystem. The lake management plan process was established by the Matanuska-Susitna Borough to provide a means to reduce user conflicts, balance various environmental and recreational demands placed upon a lake, and protect the health, safety and welfare of its residents and lake users.

1.2 Scope

Lake management plans provide guidance for how the surface of the lake is used and makes recommendations concerning public access and education of lake users to meet the goals of the plan. Certain aspects of the plan can be implemented as enforceable regulations through MSB Title 17.59. The borough assembly adopted guidelines for appropriate regulations for different sizes of lakes as follows:

LAKES HAVING A SURFACE OF 75 ACRES OR LESS

May recommend the following guidelines:

- ✓ No wake zone - 100 feet from shoreline
- ✓ Quiet hours - 10 p.m. to 8 a.m.
- ✓ Personal watercraft restriction
- ✓ 10 horse power limit*
- ✓ No wake speed zone on lake*

* These options *may* be recommended on a daily time share basis.

LAKES MORE THAN 75 SURFACE ACRES TO 200 SURFACE ACRES

May recommend the following guidelines:

- ✓ No wake zone - 100 feet from shoreline
- ✓ Quiet hours - 10 p.m. to 8 a.m.
- ✓ Personal watercraft restriction
- ✓ 10 horse power limit**
- ✓ No wake speed zone on lake**

**These options *must* be on a daily time share basis.

LAKES MORE THAN 200 SURFACE ACRES

May recommend the following options:

- ✓ No wake zone - 150 feet from shoreline
- ✓ Quiet hours - 11 p.m. to 8 a.m.

FOR ALL LAKES

- ✓ Access recommendations will be consistent with traditional use and current level of access development.
- ✓ Quiet hours apply to repetitive recreational activities such as water skiing and racing or high speed activities NOT to moderate speed point to point transportation.
- ✓ No wake is defined as the slowest speed a boat or personal water craft can go and still maintain safe operation and maneuverability.
- ✓ Time share means restrictions do not apply on Thursday, Friday, Saturday, and all three day weekends mandated by federal holiday (Memorial Day, Fourth of July, and Labor Day).
- ✓ Ice house means a structure utilized for ice fishing and left on the frozen surface of a lake for more than 24 hours.
- ✓ Motor vehicles means automotive vehicles with rubber tires for use on highways.
- ✓ Motorized watercraft use means the operation of watercraft powered or propelled by a force other than human muscle power, gravity, or wind. This definition does not include airplanes as motorized watercraft when landing, taking off, or taxiing on a water body.
- ✓ Personal watercraft includes vehicles such as jet skis, wave runners, and similar acrobatic or stunt equipment.
- ✓ A wake is the track in the water left after the passage of watercraft or other vehicle.
- ✓ A special permit is a permit approved by the planning director for a special purpose and is limited to a specific time to conduct an event that would otherwise involve activities in violation of MSB 17.59.

These guidelines may be varied due to lake configuration, lake depth, or other considerations through the adoption of individual lake management plans.

Jacobsen Lake is about 58 surface acres in size, and therefore, falls within the guidelines for lakes less than 75 surface acres.

1.3 Process

Lake management plans are initiated by local residents or property owners. The initiators circulate a petition to get the required number of signatures on the petition required by code.

Once a valid petition has been filed with the department, a ballot is mailed to all property owners within 600 upland feet of the affected lake. This ballot serves as notice of the receipt of a valid petition and requests a vote to begin the lake

management process. The borough begins a lake management plan if the majority of property owners responding to the mailed ballot vote in favor of developing a lake management plan.

Borough planning staff gather background information on the lake and encourage adjacent property owners and users to participate in the planning process. Borough staff, lake users, lake residents, and property owners identify issues and concerns and establish goals and objectives that are incorporated into the draft plan.

The draft plan is reviewed by the public and community council and by the Matanuska-Susitna Borough Planning Commission. The planning commission considers all oral and written comments received in a public hearing and either recommends to the Matanuska-Susitna Borough Assembly adoption of the plan as is, or with modifications, or recommends assembly disapproval of the plan. The assembly either adopts the plan as is or with modifications, or votes down the plan.

1.4 Enforceable Code Restriction

The lake management plan meeting was held on January 18, 2007 with seven people signing the attendance sheet. Most of those lake property owners and residents in attendance expressed a preference for enforceable restrictions on:

- No wake zone – 100 feet from the shoreline
- Quiet hours - 10 p.m. to 8 a.m.
- 10 horsepower limitation
- Personal watercraft restriction

These restrictions will protect the quiet enjoyment of the properties and allow continued use of the lake by residents and visitors in keeping with traditional practices. The plan will also help future lake users to boat or recreate in a manner that protects neighborhood values.

2. Inventory of Existing Conditions

2.1 Location

Jacobsen Lake is located in both the City of Wasilla and the Meadow Lakes Community Council area. It lies about 3.5 miles west of Wasilla, south of the Parks Highway between mileposts 45 and 46, and between the Parks Highway and the Alaska Railroad (See Figure 1). The southeastern end of the lake (New Wasilla Airport) is within the City of Wasilla, while the remainder of the lake is within the Meadow Lakes Community Council. There is no developed public access.

Figure 1 Vicinity Map

2.2 Physical Characteristics of the Lake

The surrounding topography of Jacobsen Lake is relatively flat, with most properties having about 2-3 feet elevation from the lake surface. Much of the shore line is in its natural condition.

Jacobsen Lake is a peanut shaped lake about 3,900 feet long that runs from the northwest to the southeast. The larger lobe of the lake to the west has a maximum depth of 25 feet, although the average depth is around five feet. At its widest points, the northwestern lobe is about 1000 feet wide, the southeastern lobe is about 800 feet wide, and the narrow connecting portion is about 400 feet wide.

According to local residents, Jacobsen Lake is spring fed. There is no inlet, although water migrates into the lake through surrounding wetlands from the northwest. A small outlet at the southeast end drains into neighboring wetlands. These wetlands continue drainage to the southeast through the small pond southeast of the Church Road railroad crossing, then south into Lucille Creek.

North and southwest of the lake are primarily uplands including birch, spruce and alder forest with underlying mosses, berries, and other shrubs.

Jacobsen Lake is not currently stocked by the Alaska Department of Fish and Game (ADF&G). Water quality problems have not been reported.

Table 1: Jacobsen Lake Physical Characteristics

Surface Acres	57.5
Volume	Unknown
Maximum Depth	25 feet
Mean Depth	4-6 feet
Average width	750 feet
Approximate length	3,900 feet

Source: MSB GIS Information, and local knowledge

2.3 Land Ownership and Land Use

The first patented land and resident on the lake was the Coghland Homestead, U.S. Patent 1952. This included the W ½ of the NW ¼ of Section 7, stretching from the south shore to the north shore in the east middle of the lake.

The 1972 subdivision of the McCallister Homestead added four more residents to the northeast shore of Jacobsen Lake. The 1997 subdivision of a one acre lot from the Coghlan Homestead add the sixth and final resident currently on the lake. Recently, the Coghlan Estates, a subdivision of Tract 1 of the Jacobsen Lake Subdivision was approved by the Platting Board. This plat has not yet been recorded. This subdivision has a total of 15 lots and is located on the northern shore of Jacobsen Lake.

At the west end of the lake, two lots and one large tract were created by the Olympic Subdivision. This plat was recorded in May, 2006. The two smaller lots are adjacent to the Parks Highway, while the larger tract borders most of the southern shoreline.

The property around the lake is almost entirely in private ownership. However, the City of Wasilla - the Wasilla Airport owns the shore along the southeast and east end of Jacobsen Lake. In 2002, an Airport Expansion Plan considered a floatplane facility at Jacobsen Lake. Jacobsen Lake was found to be unsuitable for a municipal floatplane facility due to airspace conflicts and the high cost of procuring the private property.

Over the years, several development proposals for the southwest and west shorelines of the lake did not happen because of environmental concerns and the sensitive wetlands. In 2003, an extensive proposal for commercial development along the Parks Highway extending to a lakeside lodge and campground completed the public review process and was approved with State and U.S. Army Corps of Engineers stipulations for wetlands protection. Subsequently, the uplands off the northwest end of the lake have been filled and cleared out to the Parks Highway, and a road constructed along the railroad up from the southwest shore of the lake.

The uplands along the northwest shoreline of Jacobsen Lake include several parcels stretching from the Parks Highway down to the lake. Several of the lots have been cleared and filled. Other significant developments not actually on the lake, but nearby, include the Museum of Alaska Transportation and Industry, and the Wasilla Sports Complex.

Figure 2 Land Use & Ownership

2.4 Social/Demographic – Usage

The present human use of Jacobsen Lake may be characterized as being primarily quiet and residential. The lots are large, and the potential for increased residential density and lake usage is of concern to residents. The lake management plan was initiated by lake residents as a result of the desire to protect the quiet residential atmosphere of the lake, and ensure protection of water quality and nesting birds. The borough has no record of recorded covenants on any of the subdivisions around the lake. In order to effectively manage lake usage and protect water quality, future residential plans need to be identified.

If subdivision requests are made and finalized, this lake management plan could provide the guidance necessary to ensure the increased lake usage occurs in a manner that protects the lake and the quality of life that current residents enjoy. Two recent subdivision requests were finalized (Olympic Subdivision and Coghlan Estates), and approved. One subdivision, Olympic Estates has been recorded.

The lake is designated as a, “Private Seaplane Base” by the FAA. There are four small planes on the lake and two part-time commercial aircraft operation.

There is a primitive trail along the section line easement between sections 7 and 12. Residents and property owners did not feel that additional public access points were required.

The lake is not stocked by the Alaska Department of Fish and Game (ADF&G), and it is not anticipated that public interest to use the lake will increase, as there are other more readily accessible and larger lakes in the vicinity.

Lake residents and property owners enjoy the quiet, natural aspects of the lake and are interested in protecting the water quality.

2.5 Existing Plans and Lake Monitoring Programs

State

The state plan affecting the Jacobsen Lake area is the Willow Sub-Basin Area Plan. The Willow Sub-Basin Area Plan, adopted in October 1982, contains management intent for State and Borough lands within the Willow Sub-Basin, an area of approximately 970,000 acres. Jacobsen Lake is within the Wasilla Management Unit, which recommends the following uses on public lands:

- Settlement
- Small Farm Agriculture
- Commercial Agriculture
- Recreation
- Forestry
- Parks Highway Scenic Areas

Also, the management of public lands adjacent to the Parks Highway should be consistent with the recommendations of the 1978 Alaska Department of Natural Resources (DNR) report “Scenic Resources Along the Parks Highway.” According to the recommendations for the Wasilla Management Unit, the borough and state will encourage private land owners to follow recommendations in the report in order to protect the scenic values along the highway.

Matanuska-Susitna Borough

Matanuska-Susitna Borough plans that address Jacobsen Lake in some manner include the Borough-wide Comprehensive Plan updated in 2005, and the Coastal Management Plan.

The Borough Comprehensive Plan provides a broad set of goals and policies for natural resources, but the plan does not make an explicit reference to Jacobsen Lake. The 2005 Update recommends that borough land use policies should (Goal LU-4, page 10), “Protect and enhance the borough’s natural resources including watershed, groundwater supplies and air quality.” To accomplish this goal, a policy was established in the comprehensive plan which supports identifying, monitoring, protecting, and enhancing the quantity and quality of the borough’s watershed, groundwater aquifers, and clean air resources. While the waters of Jacobsen Lake are privately owned, they are of a transient nature, discharging to adjacent wetlands and groundwater.

Jacobsen Lake is within the boundaries of the Matanuska-Susitna Borough Coastal District (District), as defined within the Matanuska-Susitna Borough Coastal Management Plan. The coastal management plan seeks to direct the course of local, state or federal development within the District in a manner that protects the important land and water resources of the District. The adopted policies of the plan are used to evaluate development proposals vis-à-vis resource values in an effort to ensure that the proposals are consistent with the plan’s goals and objectives. Local development includes actions that trigger a borough subdivision, planning or zoning action. For examples, a variance application to build a habitable structure or garage closer than 75 feet from the ordinary high water mark of Jacobsen Lake would be reviewed to determine whether or not it is consistent with the Coastal Management Plan. Construction within waterbodies is also reviewed for consistency with the plan. Uncovered floating or pile supported docks which do not extend more than 40 feet beyond the ordinary high water line and do not exceed 400 square feet in size may obtain a general concurrence. Metal drums, however, may not be used as flotation devices.

Lake Monitoring Program

The borough coordinates a lake monitoring program to monitor water quality, identify problems that degrade water quality, monitor the biological and hydraulic functions of the lake, and establish baseline trends to assist planning. The program depends on local volunteers to gather information and take samples for further testing. In addition, lake monitors identify fish and wildlife habitat and report

environmental impacts. No lake monitoring is scheduled.

2.6 Existing Regulations

This section describes the principle regulations affecting use and development in the Jacobsen Lake area.

Federal

Any work which results in the dredging or placing of structures or fill in tidal (ocean) waters, streams, lakes or wetlands requires a 404 permit from the U.S. Army Corps of Engineers.

Migratory birds, which include loons and grebes, are protected by the Migratory Bird Treaty Act. The Act, among other things, prohibits the “taking” of migratory birds. Destruction of nest sites, eggs, or the birds themselves are a violation of the act.

Operation of aircraft, both private and commercial, is regulated by the Federal Aviation Administration.

State

The Alaska Department of Environmental Conservation (DEC) provides regulations for wastewater disposal. DEC wastewater/septic regulations [Title 18 Alaska Administrative Code 72.015(f)] state that no holding tank, septic tank, soil absorption system, seepage pit, privy, or other waste water collection, treatment, or disposal system may be within 100 feet, measured horizontally, of the mean annual high water level of a lake, stream, spring, slough, or the mean high water level of coastal waters.

In addition to the U.S. Army Corps of Engineers 404 permit requirements; any activity within streams and certain work within lakes require a Title 41 permit from the Alaska Department of Natural Resources (DNR), Office of Habitat Management and Permitting (OHMP). Since 1994, the Alaska Department of Fish & Game, Habitat and Restoration Division issued a general permit, renewed annually, allowing vehicle movement on frozen water surfaces in south-central Alaska. DNR, OHMP currently issues these permits (Appendix A). Finally, the general ADF&G fishing regulations apply to Jacobsen Lake.

A navigable or public waterbody includes water suitable for public use and utility including boating, landing and take-off of aircraft, hunting, fishing, and trapping, or other public recreational purposes. Jacobsen Lake meets the definition of public waterbody.

Land that has been or is currently owned by the State of Alaska, and is adjacent to a navigable or public waterbody has special access requirements. Alaska Statute (AS 38.05.127) requires access to and along the surface waters of navigable and public waterways. An "along" easement, is generally reserved as a 50-foot wide public use easement along the ordinary high-water mark. These easements are created when the

State conveys land to a borough or a private individual and the easement stays with the property in perpetuity unless vacated through a public review process. State lands conveyed prior to the passage of AS 38.05.127 may not be subject to the "to" and "along" easements. A review of the conveyance document and in some cases, court documents is required to determine the presence or absence of these easements. Lands patented by the federal government are not usually subject to "to and along" easements.

Because the land around Jacobsen Lake was patented to private ownership prior to Statehood, there are no "to" and "along" easements around Jacobsen Lake. However, there is a conservation servitude easement within the Olympic Subdivision of 150 feet from Jacobsen Lake. This easement extends through a portion of the subdivision, primarily at the western end of the lake.

Borough

Several borough-wide ordinances address the development and use of land adjacent to Jacobsen Lake. The regulations are contained within the borough's planning (Title 15), zoning (Title 17), real property management (Title 23), and subdivision (Title 27), ordinances.

Title 15. Title 15 establishes and describes the general functions of the planning commission (both planning and zoning functions) and the board of adjustment and appeals. Title 15 also describes the comprehensive plan and purposes. Once adopted, the Jacobsen Lake Management Plan will become an instrument of borough policy similar to the other plans adopted by the borough assembly.

Title 17. Zoning regulations (Title 17) that are of special note to development activities at Jacobsen Lake include setback requirements and a petition process to limit or eliminate motorized use of lakes and conditional use permits. Presently, all structures must be a minimum of twenty-five feet from the right-of-way and ten feet from side and rear lot lines. In addition, the voters of the borough approved, by initiative, a requirement that all habitable structures and garages must be located at least seventy-five feet from the ordinary high water mark of any waterbody or water course (Figure 3).

Also, all septic systems must be located 100 feet from the ordinary high water mark. The borough also requires that any development which seeks to establish or operate certain uses that may impact surrounding properties must first obtain a conditional use permit (MSB 17.60). However, MSB 17.55.010 Setbacks, does not apply to property within Wasilla. Also, MSB 17.55.020 Setbacks for Shorelands, does not apply to structures where construction was completed prior to November 16, 1982.

Title 27. Title 27 provides the subdivision development standards within the Borough and establishes the Platting Board. Some of Title 27's requirements that are of special note to the development at Jacobsen Lake include a minimum lot size of 40,000 square feet with at least 10,000 square feet of useable building area and

10,000 square feet of contiguous useable septic area. Lots having 20,000 square feet or less of the total useable building area and useable septic area shall have 10,000 square feet of contiguous useable septic area surrounded by a well exclusion area extending 100 feet from the perimeter.

Lots containing at least 20,000 square feet but less than 40,000 square feet must be serviced by an approved community water or septic system. A community wastewater disposal system shall include a common wastewater disposal site on separate lot(s) that serves the entire subdivision. Lots may be approved that have less than 20,000 square feet but at least 8,400 square feet if served by a community or municipal water system or municipal sewage disposal facilities. For those areas not served by municipal sewer and water, lots less than 20,000 square feet must be approved by a Planned Unit Development as authorized by MSB 17.36.

Lots adjacent to a watercourse or body of water shall have as minimum of 125 feet of frontage as measured directly between property corners at the waterline, or a minimum of 85 feet as measured directly between property corners at the waterline if community sewerage is provided to the lot (Figure 3).

City of Wasilla Zoning regulations (Title 16). The southeast portion of Jacobsen Lake (New Wasilla Airport – tax identification no. 3925-10000) is within the City of Wasilla boundaries, and is zoned industrial.

This property is subject to Wasilla Municipal Code (WMC) 16.24.030 Setbacks and Height for commercial, industrial, and public districts. In commercial, industrial, and public districts, the setback is ten feet or no side yard setbacks, as long as all requirements of the State of Alaska Fire and Life Safety Regulations (13 AAC 50-13 ACC 55) or other applicable regulations are met. Applicable regulations include residential structures of three dwelling units or less be in compliance with nationally recognized building code setback requirements and certified to meet those requirements by a certified combination dwelling inspector, building inspector, plans examiner, or licensed architect.

In addition, WMC 16.24.030 states that no building or footing may be located closer than 75 feet from the high-water mark of a water course or body of water; provided, docks, piers, marinas and boathouses may be located closer than 75 feet if they are located primarily over water, not used for habitation, and do not contain sanitary facilities. The city may require dedication of a maintenance easement of up to 15 feet from the high-water mark or bank of a body of water, whichever produces the greatest access.

This does not apply to structures where construction was completed prior to January 1, 1987, if the present owners of the property had no personal knowledge of any violation of the requirements of this section prior to substantial completion of the structures. Furthermore, WMC 16.24.030 does not apply if a land use permit was issued prior to October 28, 1997. Additional standards for setbacks are as follows:

Industrial uses or buildings must be set back a minimum 100 feet from any residential zoned lot line. Industrial or commercial accessory uses may be located within this setback; provided, that all other setback requirements are met.

Jacobsen Lake is located within both the City of Wasilla and Meadow Lakes Community Council boundaries. The New Wasilla Airport (tax identification no. 3925-10000) parcel is within the City of Wasilla and is subject to the recommendations of the City of Wasilla Comprehensive Plan, the City of Wasilla's Airport Master Plan, The City of Wasilla Airport Expansion Plan and applicable zoning regulations. Properties within the Meadow Lakes Community Council area are subject to the recommendations found in the Meadow Lakes Comprehensive Plan. Meadow Lakes is currently developing a special land use district, which would implement zoning regulations.

Private

Private regulations in the Jacobsen Lake area would be in the form of subdivision covenants. The borough files do not contain copies of any recorded covenants for parcels around Jacobsen Lake. For current information about covenants, the reader is referred to the State of Alaska Records Office.

**Figure 3 General Setback Requirements and Lot Size*
Requirements**

3. Issues and Concerns

The issues and concerns identified by residents include:

- Maintaining and preserving the water quality of the lake;
- Protection of wetlands, nesting waterfowl and wildlife habitat;
- Protection of quiet residential nature of the lake; and
- Increased commercial floatplane traffic.

A majority of those attending the meeting said that the quiet, residential character of the lake should be protected. The present state of the lake is characterized as a residential development having a quiet quality. The historical use of Jacobsen Lake has not included high powered motorized or personal watercraft. Two subdivisions, Olympic and Coghlan Estates will create an additional 21 lots.

Subdivision of undeveloped land and homebuilding on vacant lots may also result in greater impacts of noise and wakes degrading the shoreline and water quality, increasing the potential for damage to wildlife and/or waterfowl, and impacting the quiet residential quality of the lake. Concern was expressed over increased commercial floatplane usage and the possible expansion of the City of Wasilla's Airport property. Property owners and residents wanted to ensure that reasonable hours of operation were conducted by commercial floatplane operations on the lake and that a significant increase in these activities did not occur. Additional aircraft noise and potential disturbance to the local and migrating waterfowl, and conflicts between lake users and taxiing floatplanes was a concern to the property owners and residents.

The City of Wasilla's Airport Expansion Plan (2002) considered a floatplane facility at Jacobsen Lake. Jacobsen Lake was found to be unsuitable for a municipal floatplane facility due to airspace conflicts and access problems. Property owners and residents support the recommendations of this plan and prefer that no further floatplane development occur at the lake.

4.0 Goals

Goals describe the future expectations of residents, property owners, and users of a lake. The following goals reflect the aspirations of Jacobsen Lake residents, property owners, and users and address their principle concerns: quality of experience, recreational character of the area, wildlife and water quality. The goals are not shown in priority order as they are interdependent.

4.1 Water Quality and Wildlife Protection

Jacobsen Lake is a significant natural resource. It is the desire of property owners, residents, and users of Jacobsen Lake to maintain or improve the lake's water quality and to ensure that recreational uses of the lake are compatible with wildlife and habitat. Since the lake is spring fed, the property owners and residents want to ensure responsible use and good water quality.

4.2 Preservation of Quiet Recreational and Residential Character

It is the desire of property owners, residents, and users of Jacobsen Lake to preserve the quiet and peaceful residential character of the lake, while allowing some low impact recreational uses for residents.

4.3 Maintenance of Public Access

There is a public access point to the north shore of Jacobsen Lake, which is available along the north-south section line right-of-way between Sections 12 and 7. Residents and property owners do not feel that the current public access point needs to be improved or that additional public access points are required. If a public or private access is developed as a result of a future subdivision, it is recommended that it be designated as walk-in only.

4.4 Educate Residents and Visitors

It is the desire of property owners and residents of Jacobsen Lake to utilize public education as a means by which to accomplish many of the other goals of the lake management plan, and to encourage responsible development on properties surrounding the lake.

5.0 Recommendations

5.1 Maintain Water Quality and Protect Wildlife

Certain uses, such as high powered motorized watercraft and personal watercraft (a.k.a. jet skis), can create wakes that contribute to shoreline erosion and disturb nesting waterfowl. Wake action may cause loon and grebe mortality by swamping nests or by separating parents from chicks. Noise caused by large motors may also disturb waterfowl. Those in attendance at the meeting agreed that personal watercraft should be prohibited on Jacobsen Lake to minimize wake and manage noise. Most of those in attendance at the meeting were in agreement with the recommendation of a 10 horsepower limit at all times.

Maintaining a natural shoreline habitat is one of the best ways to protect water quality. Natural shoreline vegetation provides erosion control, filtering of surface runoff, and habitat for fish and wildlife. It is recommended that lakeshore property owners follow Matanuska-Susitna Borough “*Voluntary Best Management Practices for Development Around Waterbodies*” (Appendix B).

In order to determine baseline water quality conditions on Jacobsen Lake, volunteers are encouraged to participate in the borough’s Lake Monitoring Program.

5.2 Preserve Quiet Recreational and Residential Character

Residents and property owners of the area initiated the lake management planning process to protect the quiet recreational and residential use of the lake. The majority of those attending the meetings support limitations for watercraft motors as a means

of reducing noise and promoting safety. It is recommended that a 10 horsepower limitation be established on Jacobsen Lake.

The use of personal watercraft, a.k.a. jetskis, is not a traditional use of Jacobsen Lake. It is incompatible with the quiet residential uses of the lake. Furthermore, personal watercraft pose a safety hazard for swimmers and boaters. All property owners who attended the public meeting support a ban of personal watercraft. It is recommended that personal watercraft be prohibited on Jacobsen Lake.

The establishment of quiet hours, between 9 p.m. and 9 a.m., Sunday through Saturday, is recommended to maintain the existing quiet nature and residential quality of the lake during all seasons.

5.3 Maintain Current Access

There is currently a primitive trail that allows public access to the lake via the north-south section line between Sections 12 and 7. Those in attendance at the meetings recognize that a future subdivision could provide public or private access. It is recommended that if additional public or private access is identified, it be designated as walk-in only.

5.4 Educate Residents and Visitors

It is recommended that the following methods be used to educate residents and visitors to Jacobsen Lake about use restrictions and best management practices:

- Mail or deliver notices to inform property owners and residents about code restrictions, and enclose information about non-code recommendations.
- Post lake restrictions along with any “Property for Sale” signs to inform potential buyers that lake restrictions are in place.
- Inform residents about the process for reporting violations to the Matanuska-Susitna Borough Code Compliance Division.

6.0 **Implementation**

Lake management plans are implemented through a combination of regulations, public information, and best management practices. MSB 17.59 Lake Management Plan Implementation, implements adopted lake management plans, using the borough’s citation authority. Specific recommendations of the lake management plans that are implemented through MSB 17.59 are: quiet hours, no wake zones, motorized water craft use, special permits, winter motor vehicles, and ice house registration. When the Jacobsen Lake Management Plan is adopted, MSB 17.59 will be amended to include the recommendations of the plan. Those recommendations of the plan that are not included in MSB 17.59 will be implemented through public information and best management practices.

No Wake Zone – 100 feet from the Shoreline

To prevent shoreline erosion, reduce noise, and protect waterfowl, a no wake zone is established 100 feet from the shoreline.

Quiet Hours

To maintain the existing quiet nature, residential quality, and low impact use of the lake, quiet hours are established between the hours of 9 p.m. and 9 a.m. Sunday through Saturday. Quiet hours apply to repetitive recreational activities such as water skiing and racing or high speed activities (both in winter and summer) and NOT to moderate speed point to point transportation.

Personal Watercraft Ban

To preserve the quiet residential and recreational uses of the lake, prevent shoreline disturbance, and protect nesting waterfowl, personal watercraft are prohibited from Jacobsen Lake. Personal watercraft includes vehicles such as jet skis, wave runners, and similar acrobatic or stunt equipment.

10 Horsepower Limitation

Nesting loons and grebes and other migratory waterfowl are at an increased risk of disturbance from wake caused by watercraft with large horsepower engines. Large wake also contributes to shoreline erosion. The lake's shallow depth is not conducive to high horsepower activities. The historic use of Jacobsen Lake has been of a quiet, recreational nature, such as canoes and smaller watercraft. A ten horsepower limitation is established for Jacobsen Lake.

Maintain Current Limited Access

There is currently limited public access to Jacobsen Lake. Residents desire that no additional public access point be developed, however, if it is, it should be maintained as walk-in only.

Appendix A:
Vehicle Movement on Frozen Water Surfaces within South Central Alaska



FISH HABITAT PERMIT FH18-IV-0008-GP

ISSUED: January 1, 2018
EXPIRES: December 31, 2022

General Public:

Re: Vehicle Movement on Frozen Water Surfaces within the Matanuska-Susitna Borough

Pursuant to AS 16.05.871(b), the Department of Fish and Game, Division of Habitat has determined that both the public interest and the proper protection of fish and game would be served through the issuance of a general permit (GP) authorizing the use of motorized vehicles on frozen anadromous water bodies within the Matanuska-Susitna Borough.

Categories of motorized vehicles covered by the GP include any wheeled, tracked, or other ground affect motorized vehicle with a dry vehicle weight of up to 12,000 pounds. The dry weight of a vehicle is the weight of the vehicle without passengers and cargo, as specified by the manufacturer. The off-road use of any vehicle in excess of 12,000 pounds dry weight is not authorized under this General Permit. This GP does not authorize cross-country movement of equipment on state lands or other activities not allowed under 11 AAC 96.020 (Generally Allowed Uses on State Lands) or movement on frozen water surfaces within legislatively designated special areas.

Various water bodies within the Matanuska Susitna Borough are specified as important for spawning, rearing, and/or migration of anadromous fish pursuant to AS 16.05.871(a). These waterbodies also support a variety of resident fish species.

Pursuant to AS 16.05.871(d), access to, crossings of, and/or egress from any frozen specified anadromous fish bearing water body within the Matanuska-Susitna Borough is authorized provided such activities are conducted in strict accordance with the following stipulations:

- 1) **This permit must be in your possession during stream crossings.**
- 2) There shall be no vehicles or equipment operated in the open (un-frozen) waters of any specified water body.
- 3) The use of snow or ice bridges, access ramps, or cribbing to cross any specified water body is prohibited unless approved, in writing, by the Department of Fish and Game, Division of Habitat.
- 4) Access to or egress from frozen waters shall occur only at locations with gently or gradually sloping banks. There shall be no access to or egress from frozen waters at locations with sheer or cut banks.
- 5) The bed or banks of any specified water body shall not be altered or disturbed in any way to facilitate access to, use of, or egress from their frozen surfaces.
- 6) No fuel shall be stored, nor vehicles fueled or serviced while located on the frozen surface or below the ordinary high water line (vegetation line) of any specified water body.
- 7) No vehicles leaking fuels, oils, hydraulic or cooling fluids shall be operated on the frozen surface or below the ordinary high water line (vegetation line) of any specified water body.

You are responsible for the actions of contractors, agents, or other persons who participate in the approved activity. For any activity that deviates from this approval, the responsible party shall notify the Division of

Habitat and obtain written approval in the form of an individual permit before beginning the activity. Any action taken which increases the scope of the approved activity or that negates, alters, or minimizes the intent or effectiveness of any stipulation contained in this permit will be deemed a significant deviation from the approved activity. The final determination as to the significance of any deviation and the need for an individual permit is the responsibility of the Division of Habitat. Therefore, it is recommended that the Division of Habitat be consulted immediately when a deviation from the approved activity is being considered.

For the purpose of inspecting or monitoring compliance with any condition of this permit, you shall give an authorized representative of the State free and unobstructed access, at safe and reasonable times, to the permit site. You shall furnish whatever assistance and information as the authorized representative reasonably requires for monitoring and inspection purposes.

This letter constitutes a permit issued under the authority of AS 16.05.871. Please be advised that this authorization applies only to activities regulated by the Division of Habitat; other agencies also may have jurisdiction under their respective authorities. This approval does not relieve you of the responsibility for securing other State, Federal, or local permits. You are required to comply with all other applicable laws.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. The Division of Habitat reserves the right to require mitigation measures to correct disruptions to fish and game created by the project that were a direct result of the failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the Division of Habitat, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or the permittee's performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the Division of Habitat's negligence.

This permit decision may be appealed in accordance with the provisions of AS 44.62.330--44.62.630.

If you have any questions, please call the Palmer Division of Habitat at (907) 861-3200.

Sincerely,

Sam Cotten, Commissioner



By: Ron Benkert, Regional Manager
Division of Habitat
907-861-3200

-jmk

cc: D. Dahl, AWT S. Ivey, SF A. Ott, Habitat T. Hansen, SF
D. Massie, AWT Pagemaster, COE C. Larson, DMLW T. Long, SF

**Appendix B:
Voluntary Best Management Practices
For Development Around Waterbodies**



HOW CAN YOU HELP PROTECT WATER QUALITY?

Voluntary Best Management Practices For Development around Waterbodies

Best Management Practice	Rationale
<p>Maintain the natural shoreline or riparian habitat.</p> <ul style="list-style-type: none"> • Preserve a minimum 75 foot wide buffer of continuous, undisturbed native vegetation along at least 50% of the parcel's shoreline or stream bank. • Along remaining 50% of shoreline, limit vegetation removal to what is necessary to accommodate paths, docks, or other limited development. 	<p>Protects water quality by reducing nutrient loading in lakes and minimizing temperature changes to stream environments.</p> <p>Provides flood control and reduces erosion and sedimentation.</p> <p>Protects fish and wildlife habitat by providing cover, nest sites and spawning areas.</p>
<p>Minimize impervious surfaces on shoreline lots.</p> <ul style="list-style-type: none"> • Limit to maximum of 25% of lot area. • Minimize as much as possible within 75 feet of the water's edge. 	<p>Impervious surfaces such as pavement, roof tops, and compacted soil allow runoff to enter waterbodies more readily.</p> <p>Runoff in residential or commercial areas may contain phosphorus and other nutrients that lead to oxygen deficits and algal blooms.</p>
<p>Avoid adding sand beaches or adding fill material to lakeshore, stream banks or wetland areas.</p>	<p>Sand or fill reduces water clarity, is harmful to aquatic life and may contain phosphorus that enriches waterbodies.</p>
<p>Adhere to the state of Alaska's 100 foot waterbody separation for septic systems and outhouses, and keep septic systems in good working order.</p>	<p>Bacterial contamination from poorly maintained or leaking septic systems or outhouses is a human health concern.</p> <p>Nutrients from poorly functioning septic systems or outhouses are waterbody pollutants.</p>
<p>Use landscaping practices that will reduce degradation of waterbodies, including:</p> <ul style="list-style-type: none"> • Test soils to see if fertilizers are needed and use sparingly. • Design a smaller lawn to reduce fertilizer use. • Use native species that grow well without fertilizer. • Avoid fertilizer use completely within 50 feet of the water's edge. 	<p>Lawns are often over-fertilized, which leads to harmful levels of nutrients in the water.</p> <p>Lawns are not as effective as natural vegetation for pollution filtration.</p> <p>Lawns do not provide protective cover for fish and wildlife populations that are part of the waterbody system.</p>
<p>Maintain at least a 75 foot distance from the water's edge for:</p> <ul style="list-style-type: none"> • Additional permanent or accessory buildings. • Driveways, roads and other impervious surfaces. • Livestock or dog quarters or yards. • Manure or compost piles. • Long-term vehicle or equipment storage. <p>Exceptions may include boathouses, floatplane hangers, marinas, piers and docks that need to be closer than 75 feet to serve their purposes.</p>	<p>Protects human health and water quality by reducing contamination from animal waste, compost, fuels, sediment and other substances that pollute waterbodies.</p>

Mat-Su Borough Ordinance 05-023 established voluntary measures that property owners can use to protect the quality of our lakes, streams and wetlands. For more information, contact the Matanuska-Susitna Borough, Department of Planning and Land Use at 745-9851.