

# LITEN LAKE LAKE MANAGEMENT PLAN



ADOPTED  
January 2006

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 Liten 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.

Liten Lake is approximately 57 surface acres in size, and therefore, falls within the guidelines for lakes having 75 surface acres or less.

### 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 collect 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 borough Planning Commission. The Commission considers all oral and written comments received in a public hearing and either recommends to the 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

All of the lake property owners and residents in attendance at the meetings expressed a preference for enforceable restrictions on:

- Quiet hours - 10 p.m. to 8 a.m.
- No motorized watercraft
- Personal watercraft restriction
- No wake zone lakewide

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**


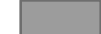
### 2.1 Location

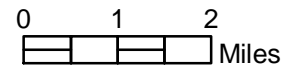
Liten Lake is located in the vicinity of Big Lake, Alaska and is within the Big Lake Community Council boundary. Liten Lake is contained within Township 16 North, Range 03 West, Section 09 (T16NR03W09) generally about 4 miles southeast of mile 5.5 of the Big Lake Road and approximately 3 miles northwest from Knik Lake which is near Mile 14 of the Knik Goose Bay Road. There is no identified public access to the lake from either of these roads. It is bordered by the Little Susitna River to the west, and Knik Road and Knik Arm to the east. (Figures 1 & 2).

Liten Lake is primarily accessed from a privately constructed and maintained road, Vadla Road, which serves one of the original homesteads. No public access to the lake is available from this road.

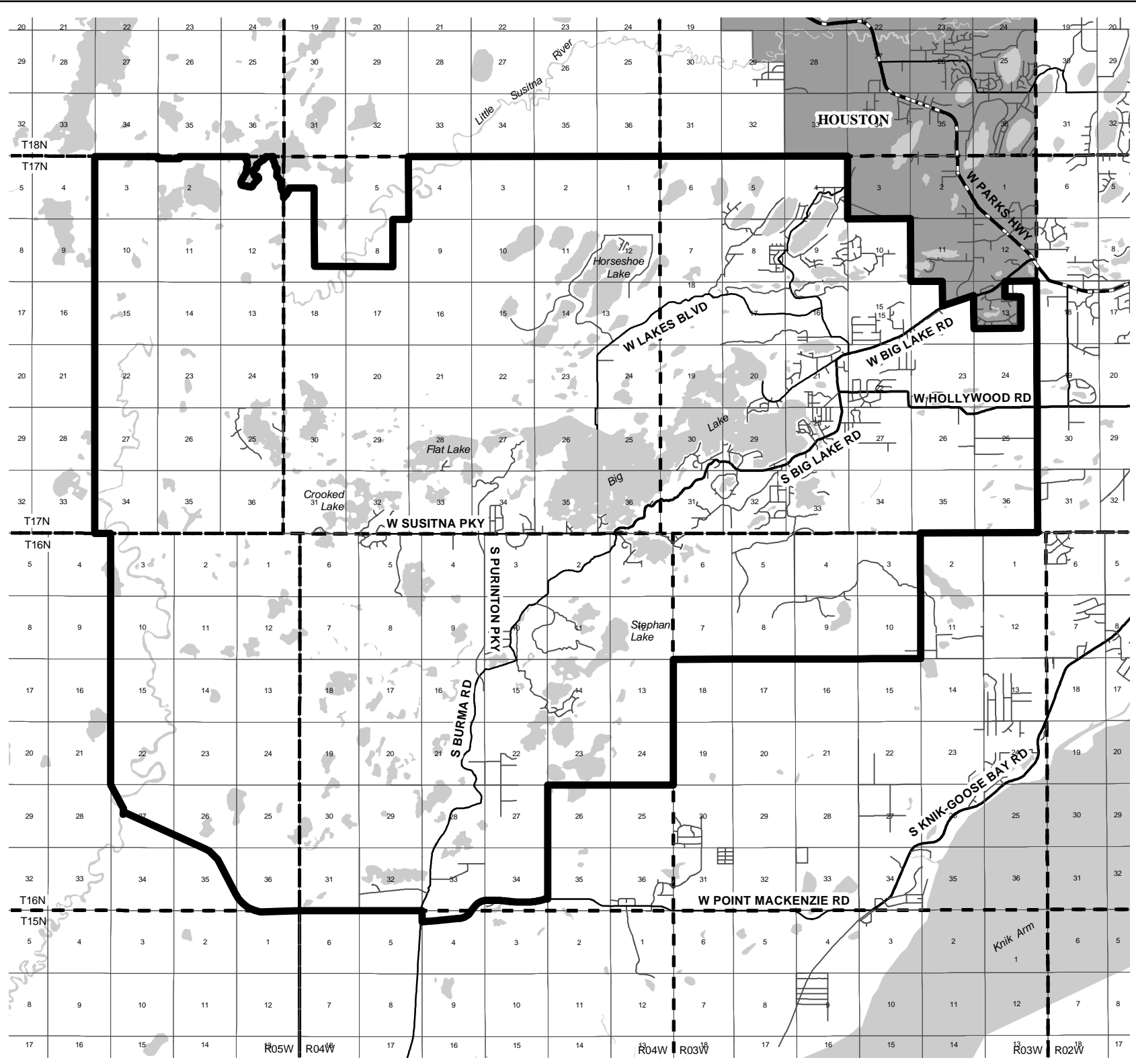
# BIG LAKE Community Council

## Legend

-  Community Council Boundary
-  City Boundary



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# Figure 2 LITEN LAKE MANAGEMENT PLAN

## Location Map

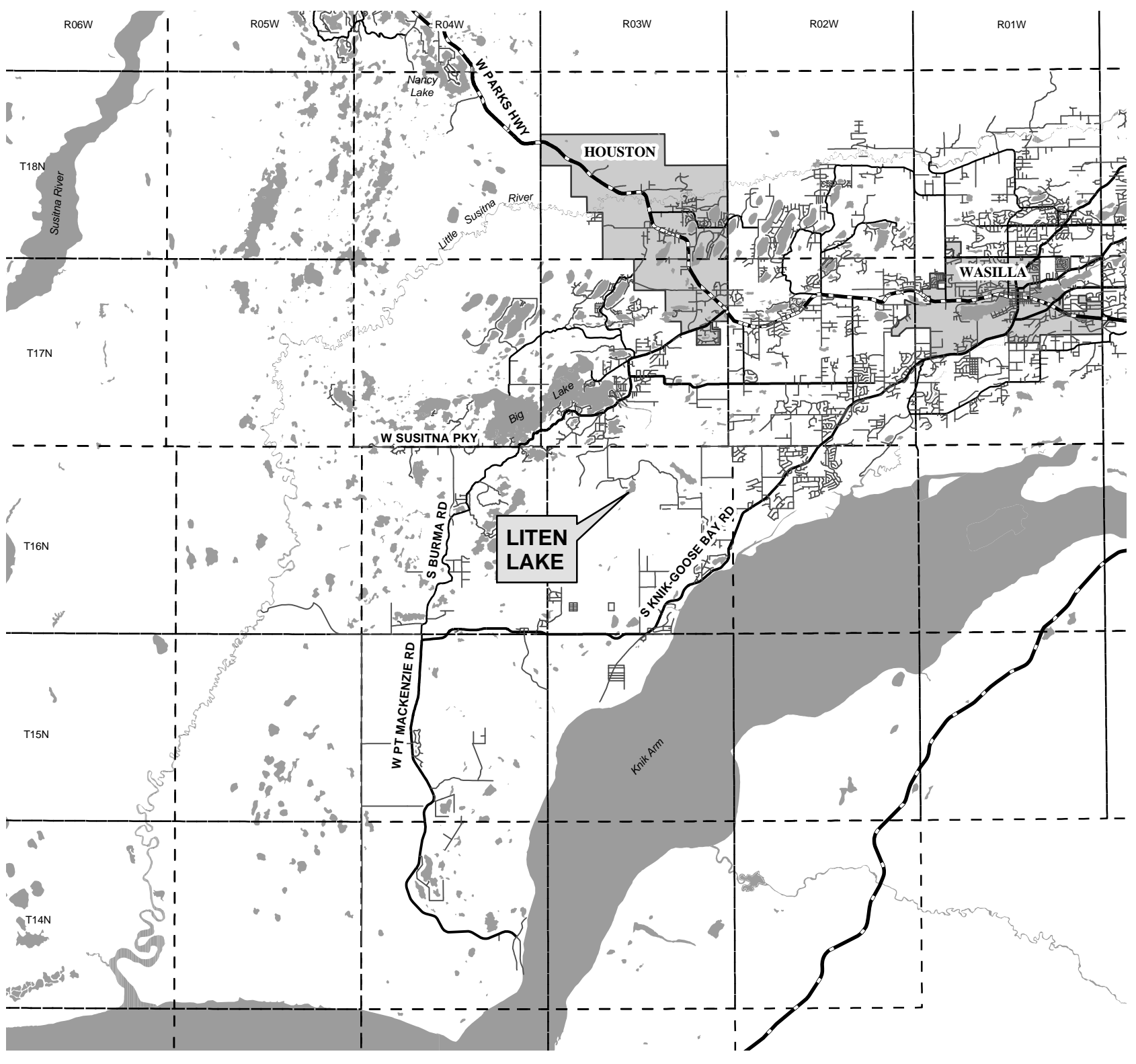
 City Boundary



0 2.5 5  
Miles



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2.2 Physical Characteristics of the Lake

Liten Lake is typical of glacial moraine formed lakes in the area. These lakes are situated in mixed gravels and sands with well defined shorelines in mixed spruce/birch forest habitats. The lake hydrology is dominated by subsurface flows of groundwater. The surrounding topography is relatively flat, with most properties having about 2-4 feet elevation from the lake surface.

Overall, the lake is relatively shallow (4 - 10+ feet). There is one small outlet serving Liten Lake, and wetlands are found near the northeastern corner.

The lake substrate is mixed cobble and gravels with fine sands and silts. Shorelines are mixed with established vegetation stabilizing undeveloped waterfronts. Aquatic vegetation is localized adjacent to wetlands. Much of the shoreline is in its natural condition.

Table 1: Liten Lake Physical Characteristics

Surface Acres	57
Mean Depth	4 - 6 feet
Maximum Depth	10+ feet

Source: Matanuska-Susitna Borough and Liten Lake residents

2.3 Land Use and Land Ownership

The property on the west, south, and nearly the entire east shore of Liten Lake was originally homesteaded in 1950s and remains in its original configuration and ownership. Property on the northeastern shore was selected by the borough from the state in the mid 1970's.

All the parcels with frontage on Liten Lake (Figure 3) are privately owned. The previously borough owned parcel located at the northeastern corner (16N03W09A003 and 004) was recently sold to a private individual. The parcels were sold as one with a condition of sale including a reservation of a 50-foot wide public access easement upland from and along the high water mark of Liten Lake. A deed restriction was imposed that prohibits selling the lots separately. While there is a 50' wide section line easement along the north and east property lines of the borough parcel, there is no apparent continuous section line access from existing roads to the parcel.

The northern shore provides the only developed access to the lake via a privately constructed and maintained gravel road, Vadla Road. The parcel recently sold by the borough is located near an existing road system but the borough does not own all the land between the parcel and the road system. It will be the responsibility of the new owner to determine, acquire, locate, construct, maintain, and defend the right to use any access route selected for use by the purchaser. It is possible that the purchaser may choose fly-in access only. The private parcels adjacent to the lake have been developed for single family residential use.

# Figure 3 LITEN LAKE MANAGEMENT PLAN

## Legend

### Land Use

 Residential Structure

### Ownership

 Borough

 Private

 Mental Health



0 250 500 1,000 Feet



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## 2.4 Social/Demographic – Usage

The present human use of Liten Lake is characterized as being quiet, non-motorized recreational and residential. The original homesteaders came to the area in 1950s and pioneered trails or primitive roads to the lake properties. In order to effectively manage lake usage and protect water quality, any future residential plans and public access easement requirements needs to be examined.

There is no current public access to the lake. A reservation of a 50-foot wide public access easement upland from and along the highwater mark of Liten Lake was recorded upon sale of the borough owned parcel. A deed restriction was imposed, prohibiting selling the lots separately.

Residents expressed the desire that this area should be kept primitive and unspoiled to protect nesting loons, migratory birds, and local fauna and flora. Lake residents and property owners enjoy the quiet, natural aspects of the lake and are interested in protecting the water quality.

The State of Alaska Department of Fish and Game does not currently stock the lake with fish and there is no known fish species that inhabit the lake.

There are no residents that currently have a float plane on Liten Lake. However, float planes do occasionally land and take off from the lake. It is possible that floatplane usage may increase since the borough parcel is now in private ownership, due to the lack of road access to the parcel.

## 2.5 Existing Plans and Lake Monitoring Programs

### State

The State plan affecting the Liten 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. The Willow Sub-Basin Area Plan contains 25 Management Units. Liten Lake is within the Knik Management Unit, which recommends the following land uses:

- Small Farms
- Settlement
- Recreation
- Fish and Wildlife
- Forestry

### Borough

Borough plans that address Liten Lake in some manner include the Borough-wide Comprehensive Plan, adopted in 1971, the Big Lake Comprehensive Plan, adopted in 1996, and the borough public facilities plan.

The Borough-wide comprehensive plan does not make specific recommendations for Liten Lake. Rather, the 1971 plan makes a series of general recommendations for the Big Lake area which do not reflect the current social, economic or development realities. However, the Big Lake Comprehensive Plan does provide overall goals and objectives for the area including:

- The Big Lake (area) is and should remain primarily a residential and recreational community.
- To protect the natural environment in land use development.
- Encourage the development of a monitoring program for water quality of the lakes within the planning area.
- Protect waterfowl habitat and shoreline using signage and establishing no-wake zones.

The Borough Public Facilities Plan makes recommendations on a regional basis for the provisions of public services including the development of public facilities necessary to the provision of those services. Services included in the plan are public safety (fire protection, emergency medical services, and emergency preparedness); library; historical preservation; governmental administration; education; parks, recreation and open space; trails; and utilities. All of these elements affect the Liten Lake area in some way.

#### 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 of natural or man-made origin. Residents expressed an interest in participating in the Lake Monitoring Program.

## 2.6 Existing Regulations

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

### Federal

Any work which results in the dredging or placing of structures or fills 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 [18 AAC 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 higher 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). Since 1994, the Habitat and Restoration Division of the Alaska Department of Fish & Game issued a one-year general permit, renewed annually, and currently DNR issues such permits allowing vehicle movement on frozen water surfaces in south-central Alaska without a special permit (Appendix A).

A navigable or public waterbody includes water suitable for commercial navigation, floating of logs, landing and take-off of aircraft, and public boating, trapping, hunting of waterfowl and aquatic animals, fishing, or other public recreational purposes. Liten 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 the surface waters of navigable and public waterways, typically through a "to" easement. Additionally, land adjacent to navigable or public waters may be subject to an "along" easement, which provides a 50-foot public use easement along the waterway adjacent to the ordinary high-water mark. These easements are created when the State or Borough obtains patents to their lands and stay with the property when the land is disposed of. State and Borough lands transferred prior to the adoption of AS 38.05.127 are not usually subject to the "to" and "along" easements. Also, lands patented by the federal government are not usually subject to the "to" and "along" easements.

There is one "to" and "along" access easement, which exists on the parcel recently sold by the borough.

### Borough

Several Borough-wide ordinances address the development and use of land adjacent to Liten Lake. The regulations are contained within the Borough's planning (Title 15), subdivision (Title 16), zoning (Title 17), and real property management (Title 23) ordinances.

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 Liten Lake, Lake Management Plan will become an instrument of Borough policy

similar to the other plans adopted by the Borough Assembly.

Title 16 provides the subdivision development standards within the Borough and establishes the Platting Board. Two of Title 16's requirements that are of special note to the development at Liten Lake include a minimum lot size of 40,000 square feet, and a minimum lot width when measured at the lake's water line of one hundred twenty-five feet (Figure 4). If community septic system is provided, then the minimum lot size is 20,000 square feet and minimum width may be eighty-five feet.

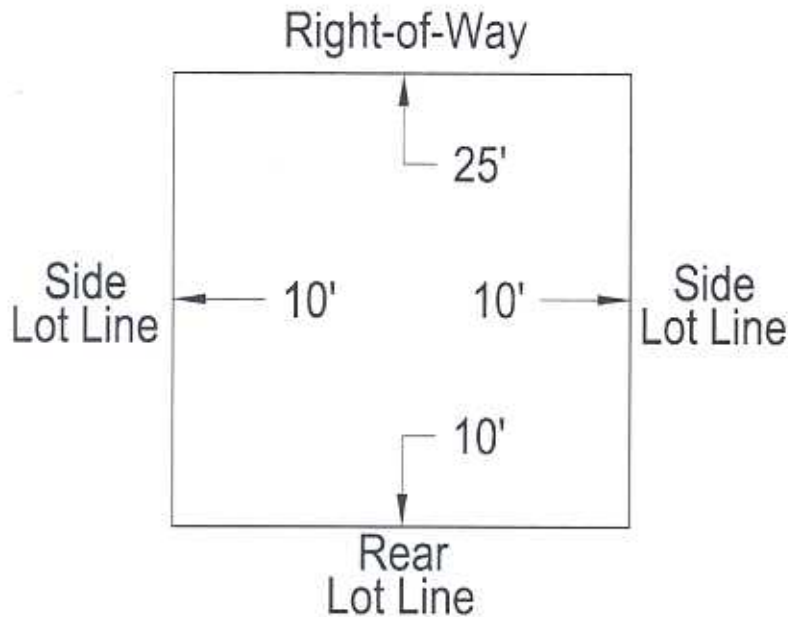
Zoning regulations (Title 17) that are of special note to development activities at Liten Lake include setback requirements and a petition process to limit or eliminate motorized use of lakes and conditional use permits. Presently, all structures must be a minimum of twenty-five feet from the right-of-way 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 waterbed or water course (Figure 4). The Borough also requires that any development which seeks to establish or operate a mobile home park, junkyard, refuse area or landfill, or dispense alcohol, must first obtain a conditional use permit.

#### Private

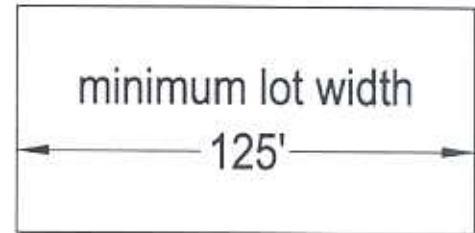
Private regulations that may exist in the Liten Lake area would be in the form of subdivision covenants. Borough files do not contain a copy of any recorded covenants for land adjacent to Liten Lake. However, this does not mean that they do not exist. For current information about covenants, the reader is referred to the State of Alaska Recorders Office.

Liten Lake is within the Big Lake Community Council (BLCC) area and is included in the Big Lake Comprehensive Plan prepared in 1996. In addition, borough code requires that the Liten Lake Draft Management Plan be submitted to BLCC for review and comment prior to consideration by the Planning Commission.

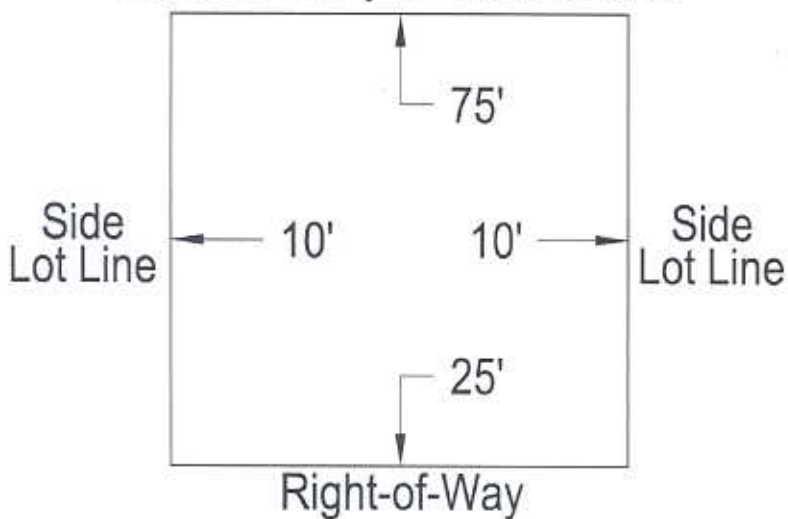
# General Setback Requirements and Lot Size\* Requirements



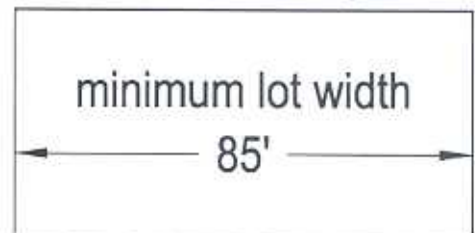
Ordinary High Water Line  
of Lake (no community septage)



Ordinary High Water Line  
of Water Body or Watercourse



Ordinary High Water Line of  
Lake (community septage available)



\*All lots must be a minimum of 40,000 sq. ft.



### 3.0 Issues and Concerns

The issues and concerns identified by residents include:

- ✓ Protection of the quiet residential/non-motorized recreational character of the lake.
- ✓ Protection of the water quality; drop of water levels.
- ✓ The potential for erosion and harm to waterfowl caused by wakes.
- ✓ Prohibition of personal watercraft (jet-skis).
- ✓ Prohibition of motorized boats.
- ✓ Protection of waterfowl habitat.
- ✓ Potential impacts from future development, such as the sale of the borough parcel, could provide easier access to the area.

All of those attending the meeting said that the quiet, residential character of the lake should be protected. Few homes surround the lake and as a result, the present state of the lake is characterized as a having a quiet quality. The historical use of Liten Lake has not included motorized boats or personal watercraft. Property owners are concerned that if public access to the lake is identified the lake could be used by watercraft with large motors and jetskis/wave runners.

### 4.0 Goals

Goals describe the future expectations of residents, property owners, and users of a lake. The following goals reflect the aspirations of Liten Lake residents, property owners, and users and address their principle concerns: quality of experience, non-motorized 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

Liten Lake is a significant natural resource. It is the desire of property owners, residents, and users of Liten 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. The small outlet on the lake increases the desire 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 Liten Lake to preserve the quiet and peaceful residential character of the lake, while allowing some non-motorized recreational uses for both residents and visitors.

#### 4.3 Public Access

It is the desire of property owners, residents, and users of Liten Lake to closely examine the potential development of public access to 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. In order to reduce wakes, protect waterfowl, and manage noise generation it is recommended that limitations be established on Liten Lake that prohibit motorized boats and personal watercraft. It is also recommended that a lake wide no wake zone be established.

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 Liten 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. All of those attending the meeting support prohibiting watercraft motors as a means of reducing noise and promoting safety.

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

The establishment of quiet hours, between 10 p.m. and 8 a.m., Sunday through Saturday, is recommended to maintain the existing quiet nature and residential quality of the lake during all seasons.

Float planes rarely use the lake. Local residents also note that due to its small size Liten Lake is not conducive to accommodating airplane traffic. It is recommended that commercial floatplane operations be discouraged at Liten Lake.

### 5.3 Public Access

There is currently no developed public access to the lake, nor a route identified to provide such access. All of those in attendance at the meeting prefer not to encourage public access that could create increased usage of the lake.

## **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 Liten Lake, 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.

### **Motorized Watercraft Ban**

To preserve the quiet residential and recreational uses of the lake, prevent shoreline disturbance, and protect nesting waterfowl, motorized watercraft are prohibited from Liten Lake. Motorized watercraft includes any mechanical engine used to propel boats, canoes, skiffs, etc. in the water.

### **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 Liten Lake. Personal watercraft includes vehicles such as jet skis, wave runners, and similar acrobatic or stunt equipment.

### **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 10 p.m. and 8 a.m. Sunday through Saturday.

### **No Wake Zone**

To prevent shoreline erosion, reduce noise, and protect waterfowl, a lake wide no wake zone is established.

### **Maintain existing access**

Discourage development of public access to the lake.

### **Commercial Aircraft Operations**

Local residents point out that Liten Lake occasionally sees float plane usage. However, the lake is not conducive to accommodating float plane traffic, due to its size and configuration. Therefore, it is recommended that commercial float plane operations be discouraged from operating at Liten Lake.



APPENDIX A  
Vehicle Movement on Frozen Water Surfaces  
within South Central Alaska



# STATE OF ALASKA

## DEPARTMENT OF NATURAL RESOURCES

*Office of Habitat Management and Permitting*

**FRANK H. MURKOWSKI, GOVERNOR**

1800 GLENN HIGHWAY, SUITE 12  
PALMER, ALASKA 99645-6736

PHONE: (907) 745-7363

FAX: (907) 745-7369

### FISH HABITAT PERMIT FH-04-IV-0007-GP Revised

**ISSUED:** February 6, 2004

**EXPIRES:** December 31, 2004

General Public:

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

Pursuant to AS 41.14.870(b), the Department of Natural Resources, Office of Habitat Management and Permitting (OHMP) 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 any motorized vehicles on frozen waters of various specified rivers, lakes, and streams within the Matanuska-Susitna Borough.

Categories of motorized vehicles covered by the GP include: any wheeled, tracked, or other ground effect motorized vehicles less than 12,000 pounds gross vehicle weight (GVW).

This GP does not authorize cross-country movement of equipment on state land or other activities not generally authorized by the Alaska Department of Natural Resources.

Various rivers, lakes, or streams within the described area have been specified as being important for the spawning, rearing, or migration of anadromous fish pursuant to AS 41.14.870(a). The rivers, lakes, and streams are utilized by salmon and other anadromous fish for spawning, rearing, or migration, and by resident fish species.

In accordance with AS 41.14.870(d), access to, use and crossings of, or egress from any specified waters, as described above, is hereby authorized provided the stipulations contained herein are adhered to:

1. The ice cover shall be of sufficient thickness to support the weight-bearing load of the authorized vehicles(s).
2. There shall be no vehicles or equipment operated in the open water of any specified lake, river, or stream under this GP.
3. The use of snow or ice bridges, access ramps, or cribbing to cross any specified river or stream is prohibited unless specifically approved, in writing, by the Department of Natural Resources, Office of Habitat Management and Permitting (OHMP) .

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 lake, river, or stream 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 on the frozen surface of below the ordinary high water line (vegetation line) of any specified lake, river, or stream. No vehicles leaking fuels, oils, hydraulic or cooling fluids shall be operated on the frozen surface or below the ordinary high water line of any specified lake, river, or stream.

The vehicle owner and the operator, or the legal guardian of minor dependents is 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 OHMP 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 OHMP. Therefore, it is recommended that OHMP be consulted immediately when a deviation from the approved activity is being considered.

This letter constitutes a permit issued under the authority of AS 41.14.870. Please be advised that this approval does not relieve you of the responsibility for securing other permits: state, federal, or local.

Pursuant to 6 AAC 80.010(b), the conditions of this general permit are consistent with the Alaska Coastal Management Program and the Matanuska-Susitna Borough.

The operation of wheeled or tracked equipment of frozen waters has been found consistent with the Alaska Coastal Management Program (ACMP) under the standard conditions contained in General Concurrence-5 (attached).

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 OHMP 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.

The recipient of this permit (the responsible party or permittee) shall indemnify, save harmless, and defend the OHMP, 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 OHMP's negligence.



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

Sincerely,

Dick LeFebvre, Deputy Commissioner

By: Jeffrey C. Davis, Habitat Biologist  
Office of Habitat Management and Permitting

Enclosure: General Concurrence GC-5

cc: M. Agnew, ABWE  
S. Duncan, EPA  
K. Hudson, MSB  
J. Jones, ATS  
S. Joy, USCOE  
K. Kruse, DNR/DML&W  
B. Lance, NMFS  
T. Oleck, ABWE  
A. Rappoport, USFWS  
T. Rumfelt, ADEC  
D. Rutz, ADF&G  
R. Thompson, DNR  
C. Yoder, ABWE  
C. Zuelow-Osborne, OPMP



APPENDIX B  
Matanuska-Susitna Borough  
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"> <li>• Preserve a minimum 75 foot wide buffer of continuous, undisturbed native vegetation along at least 50% of the parcel's shoreline or stream bank.</li> <li>• Along remaining 50% of shoreline, limit vegetation removal to what is necessary to accommodate paths, docks, or other limited development.</li> </ul>	<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"> <li>• Limit to maximum of 25% of lot area.</li> <li>• Minimize as much as possible within 75 feet of the water's edge.</li> </ul>	<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"> <li>• Test soils to see if fertilizers are needed and use sparingly.</li> <li>• Design a smaller lawn to reduce fertilizer use.</li> <li>• Use native species that grow well without fertilizer.</li> <li>• Avoid fertilizer use completely within 50 feet of the water's edge.</li> </ul>	<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"> <li>• Additional permanent or accessory buildings.</li> <li>• Driveways, roads and other impervious surfaces.</li> <li>• Livestock or dog quarters or yards.</li> <li>• Manure or compost piles.</li> <li>• Long-term vehicle or equipment storage.</li> </ul> <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.

