

MATANUSKA-SUSITNA BOROUGH WATER & WASTEWATER ADVISORY BOARD

Bob Walden, P.E. Chair
Terry Gorlick
Dan Tucker

Danny Noland, Vice Chair
Gina Jorgensen

Amanda Fleming
Matthew Midgett

AGENDA

REGULAR MEETING

MSB Assembly Chambers
350 E. Dahlia Ave
Palmer, AK 99645

June 18, 2025

2:30 p.m.

-
- I. CALL TO ORDER
 - II. ROLL CALL AND DETERMINATION OF A QUORUM
 - III. APPROVAL OF AGENDA
 - IV. PLEDGE OF ALLEGIANCE
 - V. APPROVAL OF MINUTES OF PRECEDING MEETING
 - A. March 19, 2025 (regular meeting)
 - VI. AGENCY AND STAFF REPORTS
 - VII. PRESENTATION
 - A. Presenter: HDL
Topic: Palmer-Wasilla Water Interconnect progress (mapping)
 - VIII. AUDIENCE PARTICIPATION (*Three minutes per person*)
 - IX. UNFINISHED BUSINESS
 - X. NEW BUSINESS
 - A. Discussion and possible adoption of: A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH WATER AND WASTEWATER ADVISORY BOARD MAKING RECOMMENDATIONS TO THE ASSEMBLY REGARDING ASSEMBLY ORDINANCE SERIAL NO. 25-073
 - XI. COMMENTS FROM THE BOARD
 - XII. NEXT MEETING
 - A. September 17, 2025
 - XIII. ADJOURNMENT

MATANUSKA-SUSITNA BOROUGH WATER & WASTEWATER ADVISORY BOARD

Bob Walden, P.E. Chair
Terry Gorlick
Dan Tucker

Danny Noland, Vice Chair
Gina Jorgensen

Amanda Fleming
Matthew Midgett

MINUTES

REGULAR MEETING

MSB Assembly Chambers
350 E. Dahlia Ave
Palmer, AK 99645

March 19, 2025

2:30 p.m.

I. CALL TO ORDER

This regular meeting of the Matanuska-Susitna Borough (MSB) Water and Wastewater Advisory Board was held on Wednesday, March 19, 2025 at the DSJ Building at 350 East Dahlia Avenue in Palmer, Alaska. The meeting was called to order at 2:45 p.m. by Mr. Bob Walden, P.E.

II. ROLL CALL AND DETERMINATION OF A QUORUM

Water and Wastewater Advisory Board members present and establishing a quorum were:

Mr. Bob Walden, P.E. - present

Mr. Danny Noland - present

Ms. Amanda Fleming - present

Mr. Terry Gorlick - present

Ms. Gina Jorgensen - present

Mr. Matthew Midgett - present

Mr. Dan Tucker - present

III. APPROVAL OF AGENDA

The agenda for this meeting was approved with a correction to the title of agenda item XII. The title got changed from June 18, 2025, 2:30 p.m., Have HDL give an update on Water Inner connect to June 18, 2025, 2:30 p.m., Have HDL give an update on Water Interconnect.

Motion to adopt the revised agenda by Mr. Dan Tucker.

VOTE: No objections. The agenda was approved with the correction noted.

IV. PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was led by Mr. Bob Walden, P.E.

VI. APPROVAL OF MINUTES OF PRECEDING MEETING

A. December 11, 2024 (regular meeting)

Minutes for the December 11, 2024, regular meeting were reviewed by the Board.

Motion to approve the minutes as presented by Mr. Terry Gorlick.

VOTE: The minutes were approved without objection.

VII. AGENCY AND STAFF REPORTS

A. City of Wasilla – Mr. Bob Walden, P.E., Public Works Deputy Director

The City of Wasilla (COW) informed the Board about the recent installation and commissioning of three microturbines at the Spruce Water Tower, aimed at increasing independence from MEA and going off-grid. The COW expects it will take seven years to recover the cost of the project, which totaled just over 1 million USD. Mr. Walden provided an update to the Board on the positive progress of the water connection project. The COW is still working with the Corps of Engineers to obtain a permit for discharging into the wetlands and upgrading the facility. Stantec is serving as the engineering contractor for the project.

B. City of Palmer – Mr. Matthew Midgett

The City of Palmer (COP) is continuing work on the booster station to ensure water is flowing to Colony High School by May. However, Colony may not be connected to the system by that time, as this depends on the School District's timeline. The COP has received funding from the State Revolving Fund (SRF) to begin upgrading several plants.

C. City of Houston – Gina Jorgensen

The City of Houston had nothing to report.

D. Matanuska-Susitna Borough – Ms. Amanda Fleming

Ms. Fleming mentioned that a Request for Proposal (RFP) has been prepared for a water system upgrade, including a storage tank for Talkeetna Sewer and Water. However, the RFP is currently on hold until the final Right-of-Way acquisitions from the Alaska Railroad Company are confirmed. This summer, Steph Engineering will conduct a water condition assessment. The Talkeetna facility is currently down to two operators, but a new operator will begin this coming Monday.

Additionally, the MSB Assembly approved and adopted rate changes and updated Service Area rules last December. These changes include a requirement for commercial customers to install grease traps within a one-year grace period. Additional fees will be imposed for improper discharge, particularly from restaurants or hangars, which are the two main sources of concern.

VIII. PRESENTATION

There was no presentation.

IX. AUDIENCE PARTICIPATION (*Three minutes per person*)

None.

X. UNFINISHED BUSINESS

A. Review minutes of the March 11, 2025, Assembly Meeting concerning the Water Setback Advisory Board's proposed changes

The Board reviewed the PowerPoint presentation and draft ordinance from the March 11, 2025, Joint Assembly and Planning Commission Meeting regarding the waterbody setback issue. The proposed legislation includes changes to the water setback distances, increasing them from 45 feet to 75 feet, with several stipulations attached.

XI. NEW BUSINESS

A. Updates on next steps on water quality monitoring

XII. INFORMATIONAL HANDOUTS AND COMMUNICATIONS

None.

XIII. COMMENTS FROM THE BOARD

Mr. Terry Gorlick: Wished everyone a pleasant spring and reminded everyone to be mindful of fire season.

Ms. Amanda Fleming: Mentioned that she has been on the board for a year and recalled that at her first meeting, many members expressed a desire to continue addressing the sewage issue. She now wants to revisit this topic more frequently. She is still facing challenges with her facility's ability to transport waste for further treatment in Anchorage, which is costly. She concludes there is still a significant need to address the waste disposal issue.

Mr. Matthew Midgett: Agreed with Ms. Amanda Fleming, and he noted that this issue will likely fall under the responsibility of the COW or COP, as the MSB is not taking action on septage.

Mr. Dan Tucker: Thanked Ms. Amanda Fleming for reminding the Board of its primary purpose and responsibility.

Ms. Gina Jorgensen: No comment.

Mr. Danny Noland: Agreed with Ms. Amanda Fleming and expressed that he continues to face the same issues: slicks, traffic, and excessive fees. His company pays over \$200,000 in disposal fees to Anchorage. He emphasized the need to return to the Board's original purpose—finding a solution for the Valley's septic problems. While he is aware of the Board's name change, he encouraged members to focus on the original mission, or else he feels his role as a Board member might become obsolete.

Mr. Bob Walden, P.E.: Highlighted the importance of addressing both waste and water, reminding the Board that both issues need to be discussed. He also agreed that the responsibility for this issue seems to fall on the COW and COP since the MSB is not stepping in to address land or other opportunities. Mr. Walden suggested that MSB staff should attend the Board's meetings as audience members, and he and Ms. Fleming could reach out to MSB staff who should be involved. He also recognized the differing needs between piped and trucked wastewater systems.

XIV. NEXT MEETING

A. June 18, 2025, 2:30 p.m., MSB Assembly Chambers

XV. ADJOURNMENT

Motion to adjourn the meeting by Mr. Terry Gorlick

The meeting was adjourned at 3:18 p.m.

Mr. Bob Walden, P.E. Chair

ATTESTED:

Christina Sands, Board Administrative Support



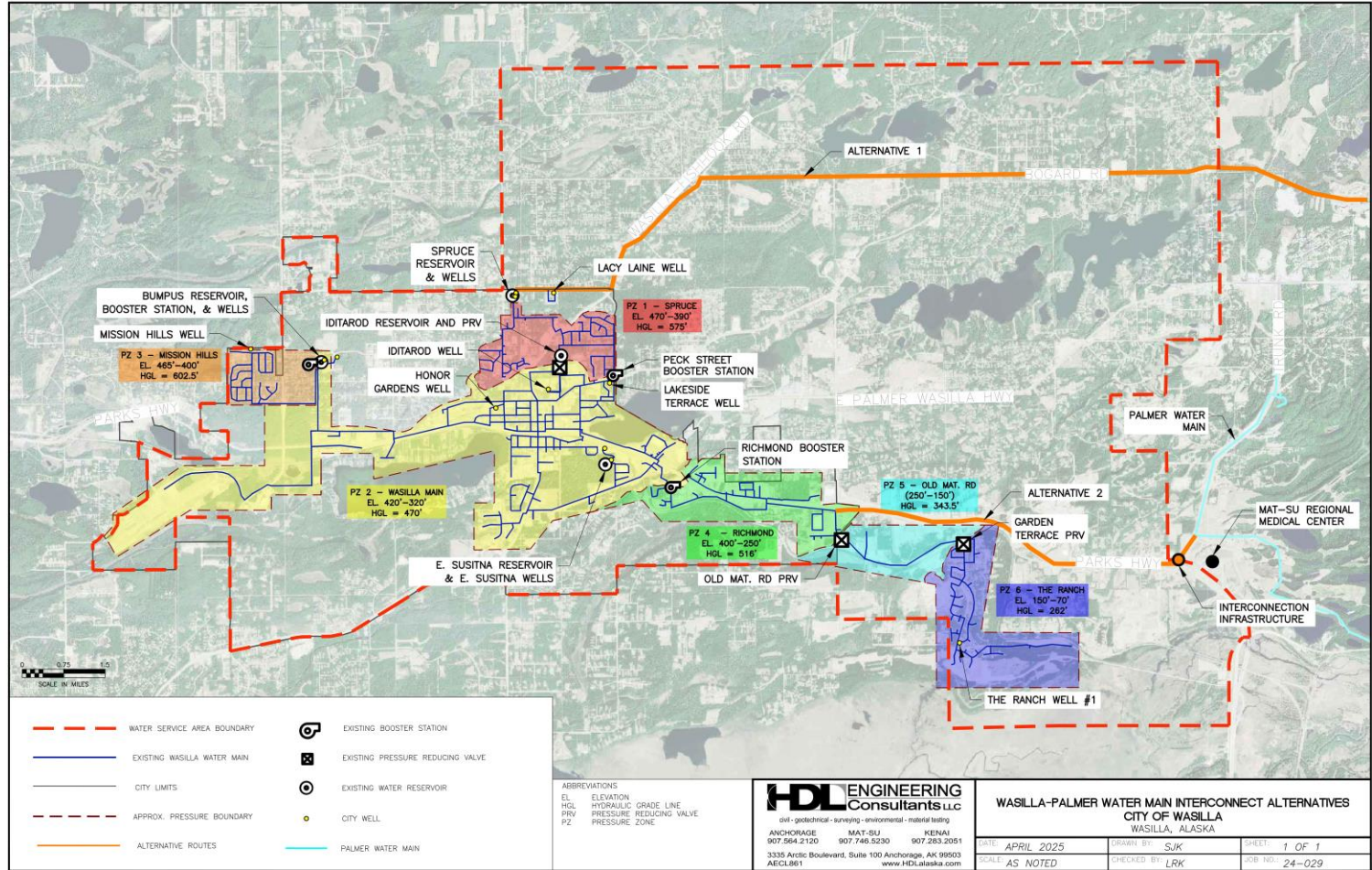
Wasilla-Palmer Water Main Interconnect

Project Status Update
6/18/2025

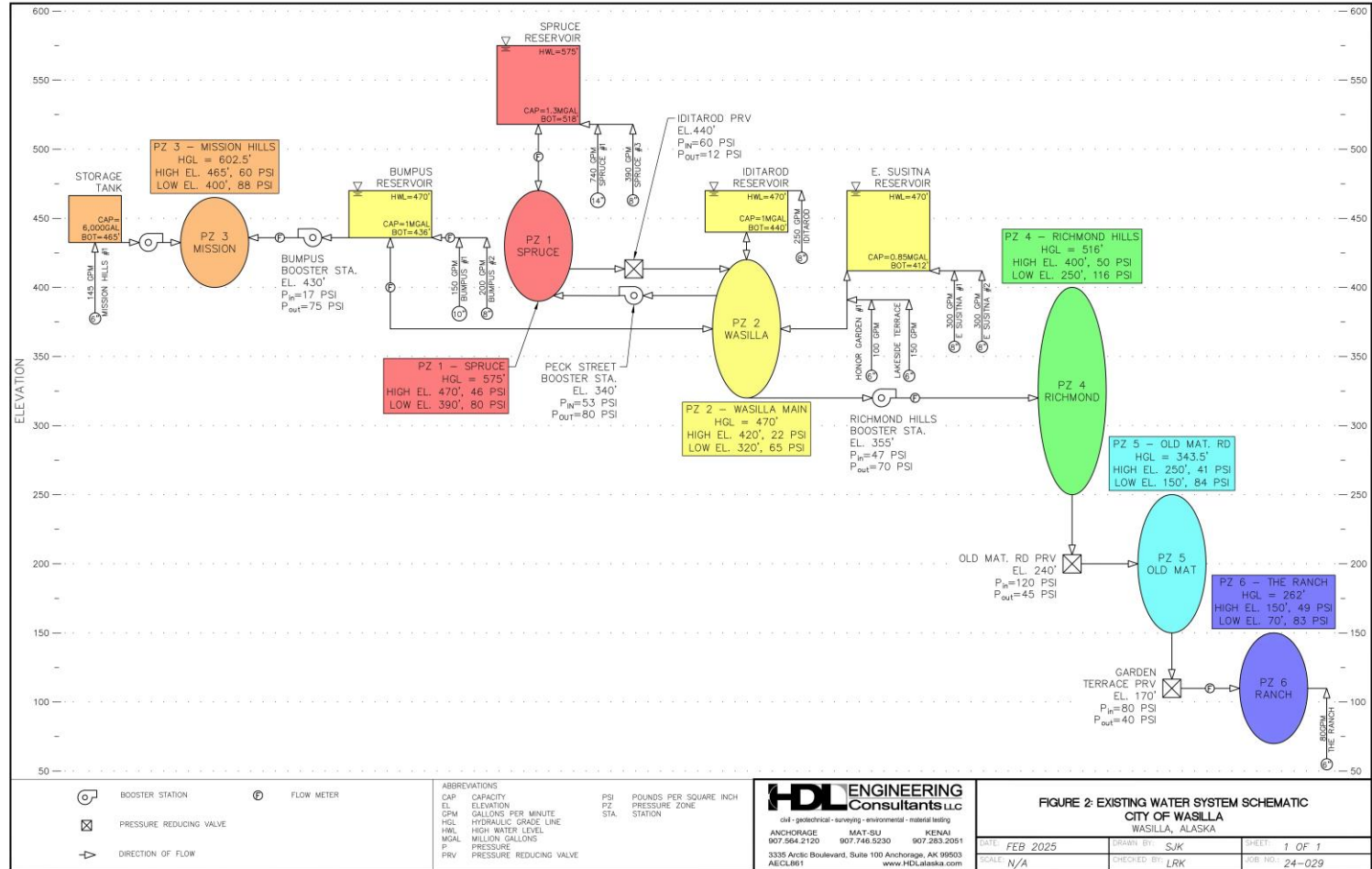


ENGINEERING CONSULTANTS LLC

Project Background



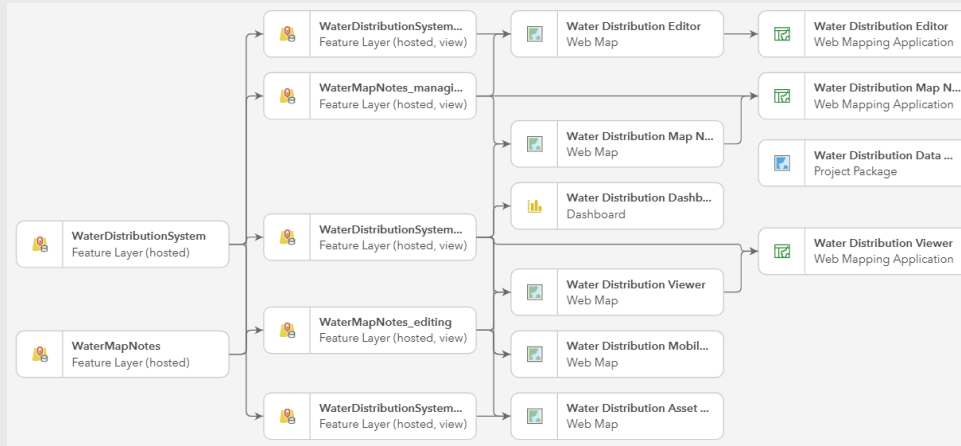
Functional Narrative



ArcGIS Solutions

Water Distribution Data Management Solution

	Instant App (1)
	Dashboard (1)
	Style (1)
	Desktop Style (1)
	Web Map (3)
	Feature Layer (hosted, view) (1)
	Feature Layer (hosted) (1)
	Group (3)



Included Layers:

- Service Connections
- Service Meter
- System Meter
- Fire Hydrants
- System Valve
- Service Valve
- Flow Valve
- Pressure Valve
- Backflow
- Fitting
- Pump
- Storage
- Supply
- Service Line
- Water Main

Related Tables:

- Hydrant Maintenance Inspection
- System Valve Inspection
- Backflow Inspection

Desktop Survey

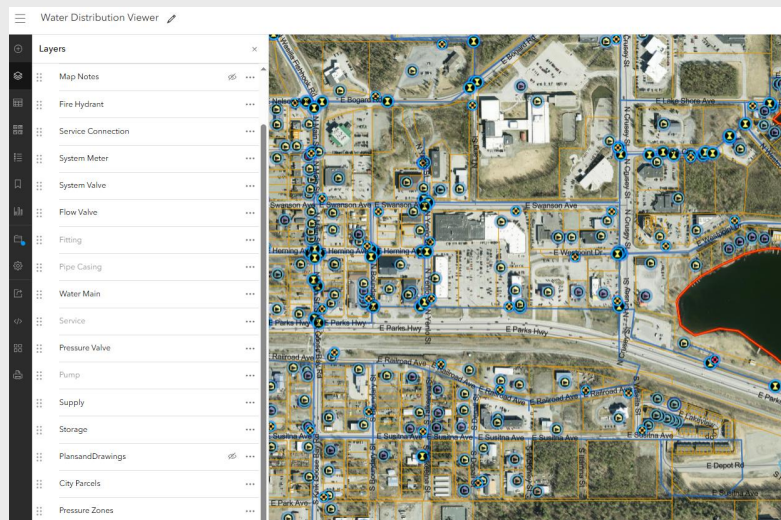
MSB
Hydrant
Layer
(.shp)

COW
Water Main
(.shp)

COW
Service
Connections
(.xlsx)

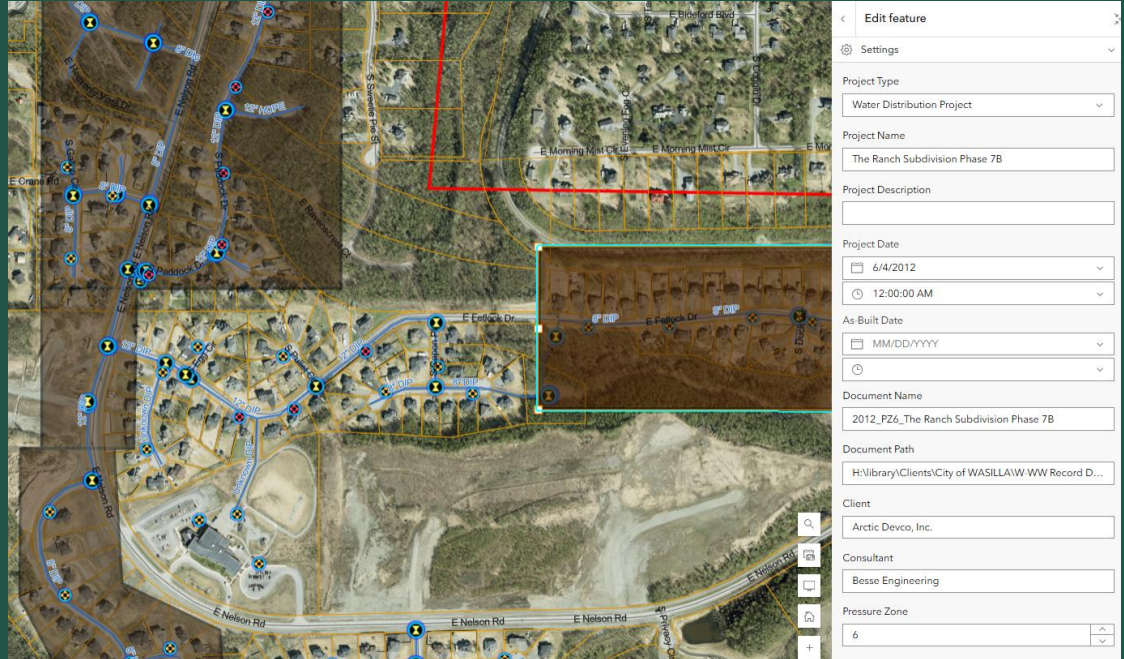
COW
Record
Drawings
(.pdf)

HDL
Pressure
Zones
(.dwg)



Record Drawing Layer

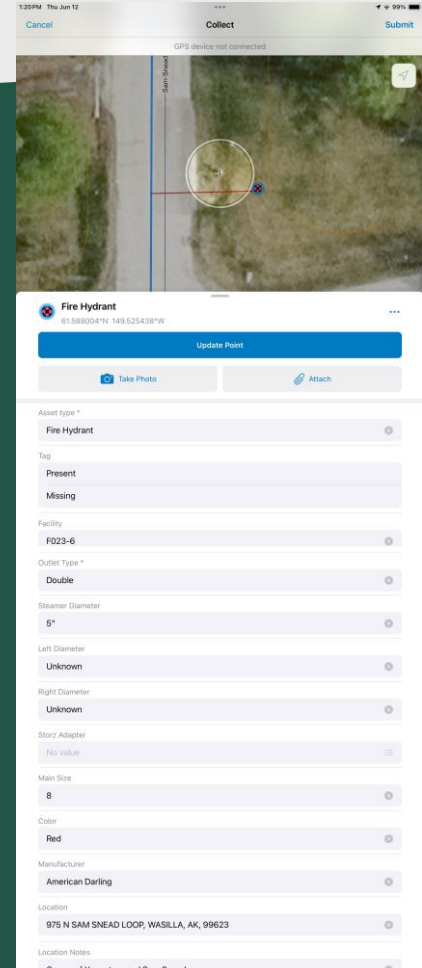
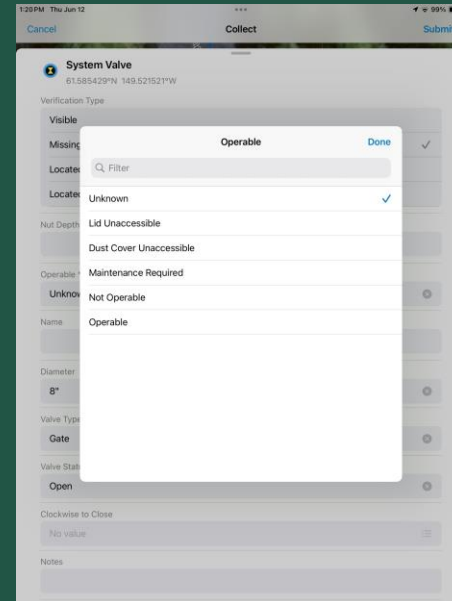
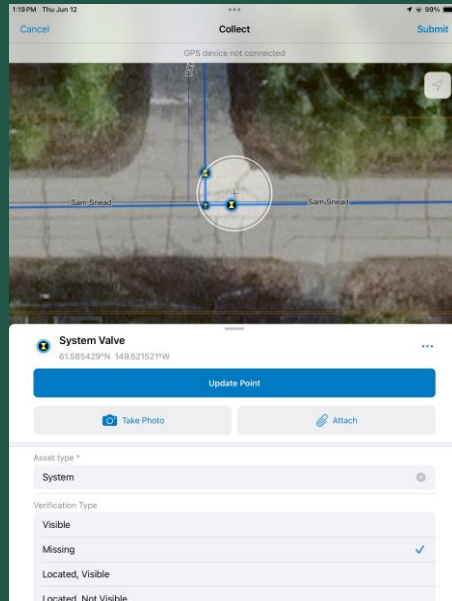
- Plans and Drawings Solution
- Easily view gaps in available record data
- Each node/line within area also has associated record drawing data in attribute table
- Document path can be cloud/internet based for broad user access (field, office and/or public)
- Area boundary created manually or by georeferencing pdf using control points



Field Maps



- Accessible through IOS & Android app stores
- Maps and editing accessible offline (no cellular service)
- Configure and customize form/view using AGOL



Field Survey

Equipment

- Field Maps (mobile app)
- EOS Arrow 100 GNSS (submeter accuracy)
- Tablet
- Survey Pole
- Schonstedt Locator

Ground Truthing

- Service Connection Valves
- System Valves
- Hydrants
- Hydrant Valves



ArcGIS Online Map

Water Distribution Viewer

Layers

- Map Notes
- Fire Hydrant
- Service Connection
- System Meter
- System Valve
- Flow Valve
- Fitting
- Pipe Casing
- Water Main
- Service
- Pressure Valve
- Pump
- Supply
- Storage
- Plans and Drawings
- City Parcels
- Pressure Zones

Water Main:

Asset type	Distribution Main
Diameter	12"
Material	Ductile Iron - DIP
Notes	
Lifecycle Status	In Service
Install Date	12/20/1981
Record Drawing	1981 - Wasilla Municipal Water System

Last edited by ghoden_hdlalaska on 4/2/2025, 3:14 PM.

Fire Hydrant: F081-44

Asset type	Fire Hydrant
Asset ID	447085
Outlet Type	Single
Steamer Diameter	5"
Left Diameter	2 1/2"
Right Diameter	2 1/2"
Storz Adapter	
Main Size	8
Color	
Manufacturer	Mueller Company
Location	301 N KNIK ST, WASILLA, AK, 99654
Location Notes	
Notes	
Lifecycle Status	In Service
Facility	F081-44
Inspected By	Rescue Engine 61
Inspection Date	8/11/2023, 4:00 PM
Static Pressure	46
Residual Pressure	

ArcGIS Hub



- Community Engagement Platform
- Share GIS maps and dashboard statistics
- Data stays live by referencing hosted feature layers

Customize Layout

- Row
- Application
- Image
- Spacer
- Text
- Survey
- Category
- Contact Info
- Map
- Chart
- Iframe
- Summary Statistic
- Gallery
- People

Wasilla Palmer Water Interconnect Unpublished draft

Wasilla Palmer Water Interconnect

EVALUATING POTENTIAL CONNECTIVITY OF MUNICIPAL PIPED WATER IN THE CORE AREA OF THE MAT-SU

Project Partners:

- City of Wasilla
- City of Palmer
- Matanuska-Susitna Borough

Project Introduction

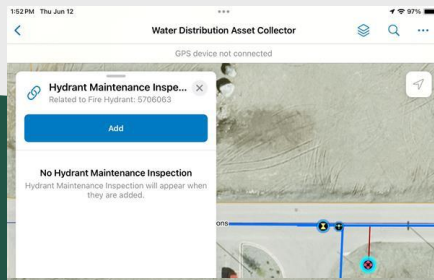
The City of Wasilla has received grant funding from the Matanuska-Susitna Borough and other sources for their water distribution system. With this funding the City of Wasilla has contracted HDL Engineering Consultants, LLC (HDL) to evaluate proposed connectivity between Wasilla and Palmer's existing water distribution service areas. Connecting the existing water distribution service areas would provide resiliency to both communities' systems and would enhance potential development along the selected route with the installation of a new water main.

Northern Route

Potential for Land Development

Route Length	Vacant Land Adjacent Development Potential	Average Vacant Land (Both Routes) Potential Developable Land Per Mile
8.3 Miles	384 Acres	46.2 acres per mile

Page 15



6/12/2025, 1:52 PM:

Take Photo Attach

Maintenance Status: Completed

Inspector:

Inspection Date: 6/12/2025, 1:52 PM

Are chains missing? No

Drains correctly? Yes

Notes:

Pressure:

Flow Rate:

Flow Duration:

Is the hydrant leaking? No

Is the hydrant operable? Yes

Inspection Group: Fire Department

Fire Station: Station 1

Total Water Used:

Other Applications

Inspection Forms

- Hydrant Maintenance
- Hydrant Testing
- System Valve
- Backflow
- Sewer Manhole

System Valve Inspection:

Take Photo Attach

Paved over? No Value

Ground Surface: No Value

Final Torque:

Depth To Nut:

of Turns:

Name of Operator:

Stem OK? No Value

Packing OK? No Value

Gears OK? No Value

Needs lubrication? No Value

Survey As-Built Data

- During construction, perform as-built surveys by contractor
- Keep GIS map up-to-date without requiring desktop entries

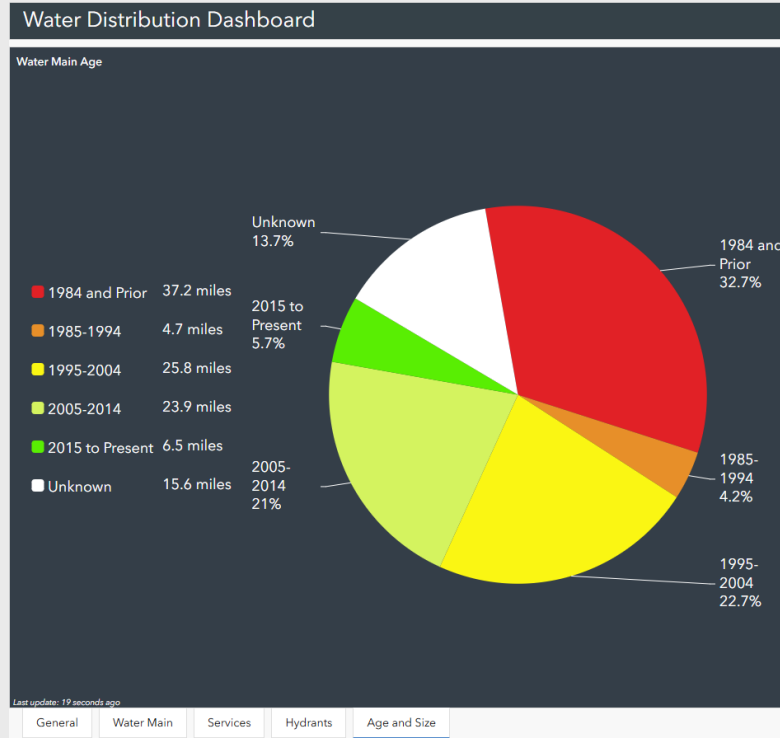
EOS Skadi Smart Handle “Invisible Range Pole”

- Calculates Z values without pole
- Shoot surrounding assets such as pipes in trench without being in trench



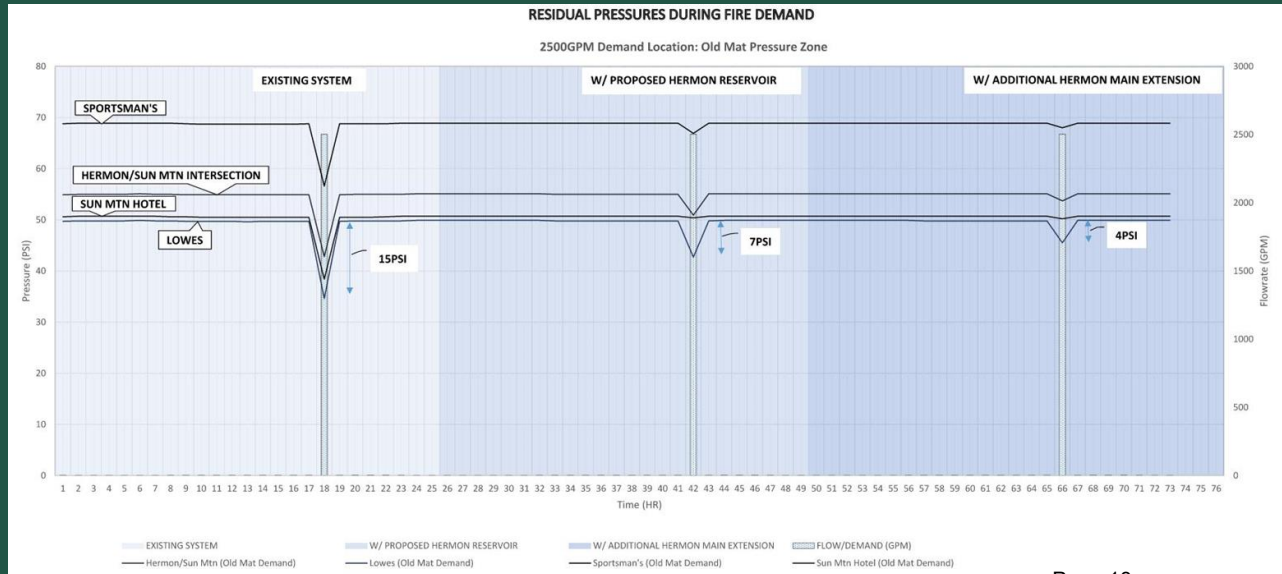
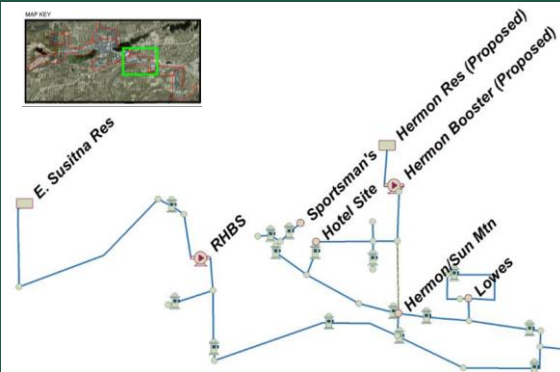
Pipe Age Analysis

Using the Dashboard online feature and Data Engineering tools to provide visual statics

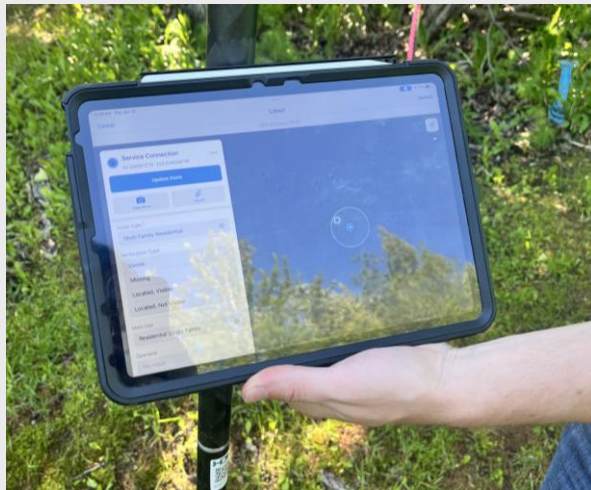


KYPipe Modeling

Directly import GIS node, line, and contour data into modeling software to create most accurate model



Questions



Contact
Stephanie Klaysmat
sklaysmat@hdlalaska.com
Desk:907.746.5204



JOINT ASSEMBLY PLANNING COMMISSION

March 11, 2025

PLANS/PROJECTS

Moving Forward



Sub-Area Solution Studies (SASS)



Fuller Lake Management Plan



Transit



Historic Preservation Plan Update



Community Cleanup



Enterprise Software Update (Tyler)



Official Streets & Highway Plan (OSHP)



MSB Fish & Wildlife Commission



Alaska Clean Water Actions Grant (ACWA)



South Knik River CC (SpUD)



Borough-Wide/Community Comp Plans



Capital Improvement Program (CIP)



Corridor Access Management Plan (CAMP)



Community Council Boundary Updates

PLANNING OVERVIEW

Assembly Directed Code Changes



CODE	DESCRIPTION	SPONSOR	ASSEMBLY PUBLIC HEARING
17.60	Homeless Shelter CUP	Sumner	July 2025
17.55	Setback Amendments	Assembly	TBD
17.XX	Large Lot Single Family Residential District	Hale	August 2025
17.60	Mobile Home Park CUP	Nowers/McKee	August 2025
15.25	SpUD/Comp Plan Process	Hale/Gamble	September 2025
17.05	Essential Services Utilities Standards	Gamble/Hale	TBD
17.73	Overhaul of Multi-Family Code	Sumner	TBD
17.59	Standardize Definitions for Lake Management Regulations	Hale	TBD
Title 43	Identification of Sink Holes in Platting Process	Nowers	September 2025
17.73	Multi-Family Platting Link	Nowers	TBD
17.23	Port Development Permit Repeal	Gamble	September 2025

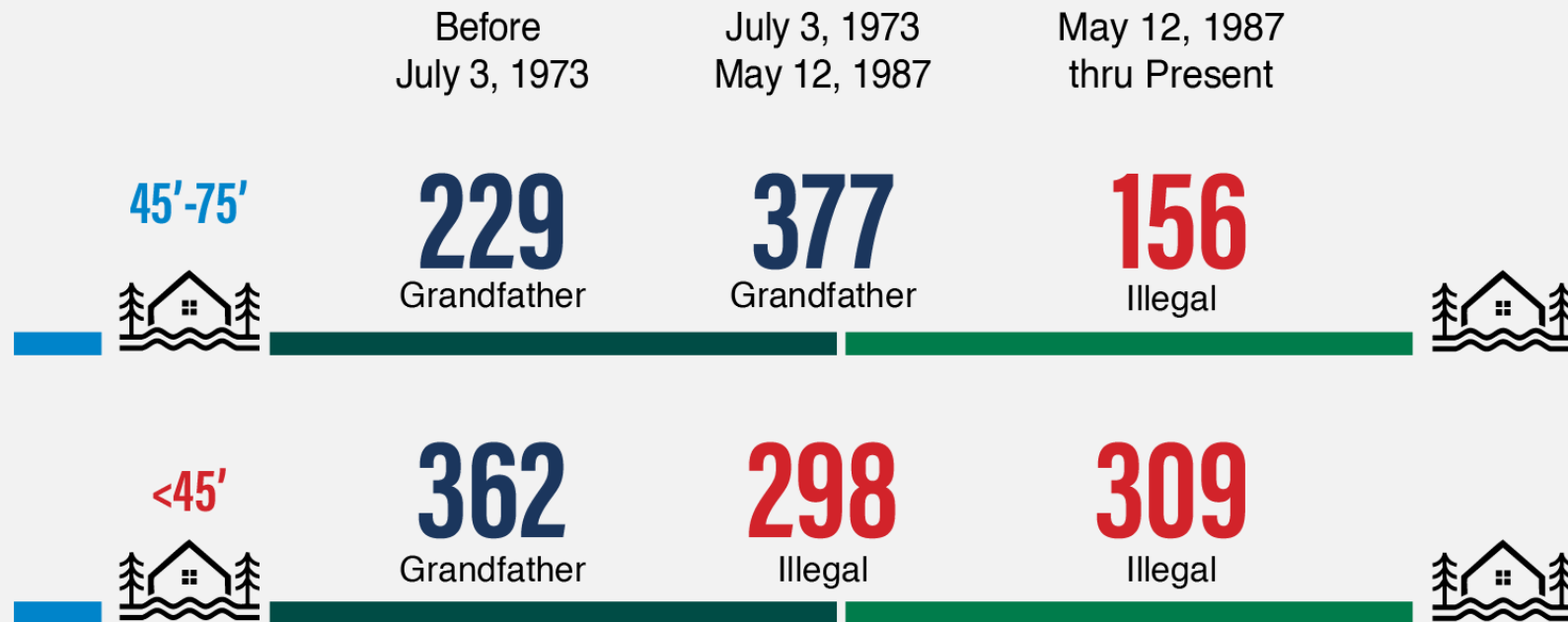


WATERBODY SETBACKS



CURRENT STATE

Setback Violations on Lakes



STRUCTURES BUILT WITHIN 75'

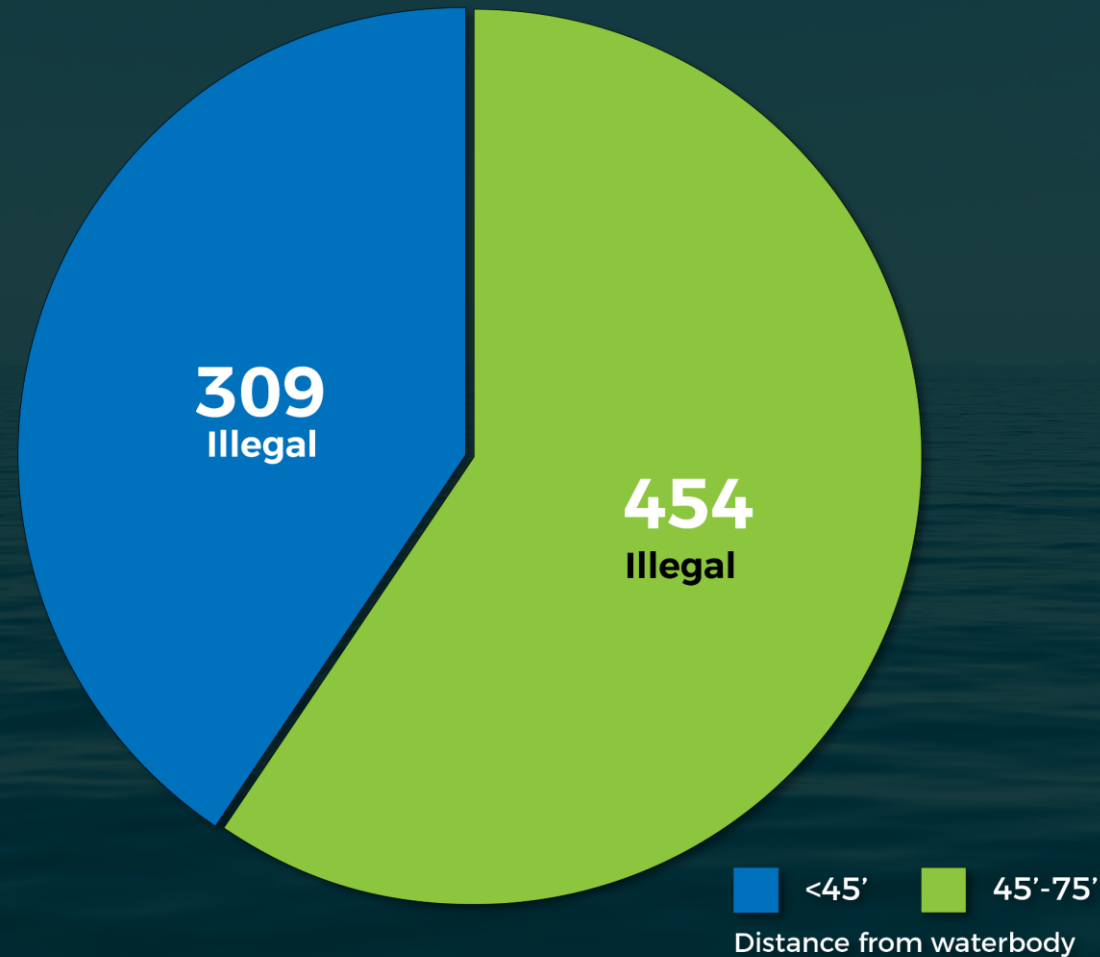
1987- Present

Lakes Only

763

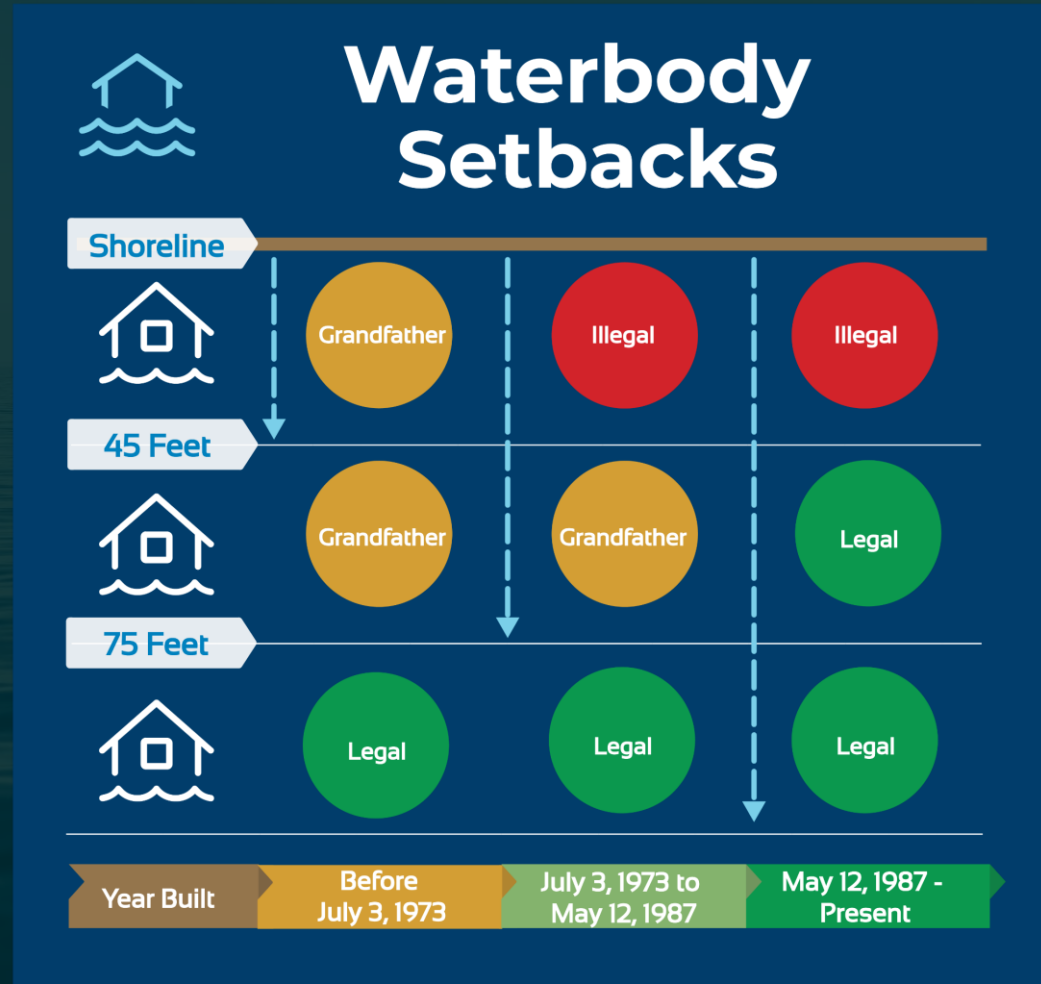
22%

On Big Lake



MSB HISTORY

Setback Regulations



TIMELINE



01

MARCH 2023

Planning Commission recommends failure of ordinance eliminating waterbody setback

02

MAY 2023

Assembly directs staff to work with Planning Commission on amendments to waterbody setback

03

JUNE 2023

Planning Commission opposes the ordinance allowing structures to go within 75 feet so long as certain engineering standards to protect water quality are applied.

04

JULY 2023

Assembly unanimously defeats ordinance allowing structures to go within 75 feet so long as certain engineering standards to protect water quality are applied.

05

AUGUST 2023

Waterbody Setback Advisory Board is established (OR 23-079)

06

SEPTEMBER 2024

Waterbody Setback Advisory Board extended to March 18, 2025

ADVISORY BOARD



Board Membership:

- Design, Constructing Stormwater Abatement (2)
- Home Builder, Lending, Real Estate
- Mat-Su Salmon Habitat Partnership
- MSB Fish & Wildlife Commission
- MSB Planning Commission
- At-Large (3)

ADVISORY BOARD



Topics of Discussion:

- Code compliance overview
- Mandatory land use Permit overview
- Analysis of existing setback violations
- Financing and sale of illegal structures
- 1998 Setback Analysis
- Review of riparian buffer ordinance
- Non-point source pollution, riparian buffers, fish habitat, and water quality
- In-depth review: MSB 17.65 - Variances
- In-depth review: MSB 17.55 - Setbacks & Screening Easements
- In-depth review: MSB 17.80 - Nonconforming Structures
- Recommended changes to MSB 17.55 and MSB 17.80



TIMES MET
22

48
TOTAL
HOURS

WSAB RECOMMENDATIONS

Clarification & Cleanup

- Deleted unnecessary/outdated language
- Clarifies intent
- Clarifies which homes qualify for pre-existing legal nonconforming status



WSAB RECOMMENDATIONS



New general standards near a waterbody

- Kennels, stables, and animal yards no closer than 100 feet
- Stormwater controls for commercial or industrial parking areas within 75 feet
- Storage of liquid hazardous substances within 75 feet requires secondary containment
 - Existing facilities have 5 years to remove or retrofit
- Prohibited within 25 feet
 - Removal of riparian buffer (50%)*
 - Storage of solid waste including debris and animal yard waste
 - Stockpiling of snow
 - Application of fertilizer or herbicides
 - Paved parking areas

WSAB RECOMMENDATIONS



Land Use Permit

- Required for all “ground-disturbing activities” within 75 feet of water
- Ensures compliance with general standards
- Impervious surface cap of 20%*

WSAB RECOMMENDATIONS



Homes allowed between 45' - 75' of standing water with the following restrictions

- Land Use Permit prepared by “qualified professional”
- Identification of current and proposed drainage patterns
- Runoff pollution mitigation measures
- Maintain the pre-development function of wetlands
- Landowner responsible for maintenance of mitigation measures

WSAB RECOMMENDATIONS



WSAB RECOMMENDATIONS



Variance

- No longer allowed within 45 feet of a water body
- Results in de facto prohibition of variances near lakes

WSAB RECOMMENDATIONS



Enhanced Enforcement

- Additional staff to patrol waterbodies
- Early detection of water body development

WSAB RECOMMENDATIONS



Habitat Protection Tax Incentive

- Recommend exploration of tax incentive for development near water bodies
- Encourages activities that protect and restore shoreline habitat
- This type of tax credit is allowed by State law and is being used within the Kenai Peninsula Borough

THANK YOU



Alex Strawn

Planning Dept Director



alex.strawn@matsugov.us



(907) 861-7850



By: Alex Strawn
Action:

MATANUSKA-SUSITNA BOROUGH
WATER AND WASTEWATER ADVISORY BOARD RESOLUTION NO. 25-01

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION RECOMMENDING APPROVAL OF AN ORDINANCE AMENDING MSB 17.02 - MANDATORY LAND USE PERMITS, MSB 17.55 - SETBACK AND SCREENING EASEMENTS, MSB 17.65 - VARIANCES, AND MSB 17.125 - DEFINITIONS.

WHEREAS, the 75-foot waterbody setback was originally established in 1973 by assembly ordinance; and

WHEREAS, the setback was temporarily reduced to 45 feet in 1986 but reinstated to 75 feet by voter initiative in 1987; and

WHEREAS, over time, enforcement of the 75-foot setback has been limited, resulting in widespread noncompliance, environmental impacts, and real estate complications; and

WHEREAS, between 1987 and present, over 700 shoreline structures have been built in violation of the 75-foot setback ordinance, many of which went undetected due to limited permitting requirements and enforcement options; and

WHEREAS, Ordinance 25-073 offers a pragmatic solution by allowing structures to be built within 75 feet of a waterbody, provided they are designed and built in accordance with plans developed by a qualified professional that ensure water quality is protected; and

WHEREAS, the Matanuska-Susitna Borough (MSB) continues to experience sustained residential, commercial, and recreational development near its lakes, rivers, and wetlands, increasing the need for clear land use regulations to manage growth while protecting environmental resources; and

WHEREAS, waterbodies in the MSB provide significant public benefits, including clean drinking water, fisheries, recreation, scenic values, and ecological services that can be negatively impacted by unmanaged development, impervious surfaces along waterbodies, and pollutant discharges; and

WHEREAS, Ordinance 25-073 requires land use review and permitting procedures for mechanized development within 75 feet of a waterbody, providing the MSB the opportunity to evaluate drainage and infiltration in order to protect water quality; and

WHEREAS, the ordinance develops several new general standards for development within 75-feet of a waterbody to ensure pollution is minimized.

NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Borough Planning Commission hereby recommends Assembly adoption of Ordinance 25-073.

ADOPTED by the Matanuska-Susitna Borough Planning Commission this -- day of --, 2025.

Bob Walden, CHAIR

ATTEST

Christina Sands, Staff Support

(SEAL)

YES:

NO:

Action:

**MATANUSKA-SUSITNA BOROUGH
WATER AND WASTEWATER ADVISORY BOARD
RESOLUTION SERIAL NO. 25-01**

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH WATER AND WASTEWATER ADVISORY BOARD MAKING RECOMMENDATIONS TO THE ASSEMBLY REGARDING ASSEMBLY ORDINANCE SERIAL NO. 25-073.

WHEREAS, on September 13, 2023, the Water and Wastewater Advisory Board (WWAB) passed Resolution No. 23-01 adopting its goals and objectives, including to assess the current wastewater and septage handling situation and conditions and identify and propose potential alternatives, should the current options be compromised or terminated, and advising the Assembly regarding wastewater issues in the Borough; and

WHEREAS, the Assembly requested the WWAB to review and comment on Assembly Ordinance Serial No. 25-073 which, is intended to modernize and strengthen Borough regulations related to development activities near waterbodies; and

WHEREAS, the WWAB met on June 18, 2025, and invited the widest public participation possible; and

WHEREAS, there was /no public comments in support/opposition, as it is considered ...; and

NOW, THEREFORE, BE IT RESOLVED, that the WWAB hereby makes the following recommendations to the Assembly (IF THERE ARE ANY...)

1. Section MSB xx.xx:

2. Section MSB xx.xx:

3. Section MSB xx.xx:

4. Section MSB

5. Section MSB

BE IT FURTHER RESOLVED, that the WWAB hereby recommends Assembly approval/defeat of Assembly Ordinance No. 25-073 (with the above mentioned recommendations - if needed).

ADOPTED by the Matanuska-Susitna Borough Water and Wastewater Advisory Board this ____ day of _____, 2025.

ROBERT WALDEN, Chairperson

ATTEST:

CHRISTINA SANDS, Staff Support

Sponsored by: Hale
Introduced:
Public Hearing:
Action:

**MATANUSKA-SUSITNA BOROUGH
ORDINANCE SERIAL NO. 25-073**

AN ORDINANCE OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY AMENDING MSB 17.02 MANDATORY LAND USE PERMIT, MSB 17.55 - SETBACK AND SCREENING EASEMENTS, MSB 17.65 VARIANCES, MSB 17.80 NONCONFORMING STRUCTURES AND MSB 17.125 DEFINITIONS.

BE IT ENACTED:

WHEREAS, the intent and rationale of this ordinance are found in the accompanying Information Memorandum No. 25-126.

Section 1. Classification. This ordinance is of a general and permanent nature and shall become a part of the Borough Code.

Section 2. Amendment of chapter. The title and table of contents within MSB 17.55 is hereby amended to read as follows:

CHAPTER 17.55: SETBACKS [AND SCREENING EASEMENTS]

Section

17.55.004	DEFINITIONS
17.55.005	[GENERAL] <u>PURPOSE AND INTENT</u>
17.55.010	SETBACKS <u>FROM RIGHTS-OF-WAY AND LOT LINES</u>
17.55.015	SHORELANDS; DEFINITION [REPEALED]
<u>17.55.016</u>	<u>WATER BODY SETBACKS FOR POLLUTION SOURCES</u>
17.55.020	<u>WATER BODY</u> SETBACKS FOR [SHORELANDS] <u>STRUCTURES</u>
17.55.040	VIOLATIONS, ENFORCEMENT, AND PENALTIES

Section 3. Amendment of Subsection. MSB 17.55.004(A) is hereby amended as follows:

17.55.004 DEFINITIONS.

(A) For the purpose of this chapter, the following

definitions shall apply unless the context clearly indicates or requires a different meaning.

- "Animal waste facility" means any area or structure used to store, compost, or dispose of animal manure, animal byproducts, an animal carcass, or fish waste. The term does not include a dumpster or other closed container provided by a waste service provider.

- "Hazardous substance" means (A) an element or compound that, when it enters into or on the surface or subsurface land or water of the state, presents a danger to the public health or welfare, or to fish, animals, vegetation, or any part of the natural habitat in which fish, animals, or wildlife may be found; or (B) a substance defined as a hazardous substance under 42 U.S.C. §§ 9601 – 9657 (Comprehensive Environmental Response, Compensation, and Liability Act of 1980).

- "Ordinary high water mark" means the mark made by the action of water under natural conditions on the shore or bank of a water body [BODY OF WATER] which action has been so common and usual that it has created a difference between the character of the vegetation or soil on one side of the mark and character of the vegetation and soil on the other side of the mark.

- "Private pond" means a natural or constructed

water body less than five acres in size that lacks a surface connection to other waterbodies and is located entirely on property with the same ownership.

• "Pump activated fuel delivery systems" means those fuel tanks, such as for home heating oil or aviation fuel, where the tank outlet is located above the fluid level of a full tank.

• "Secondary containment" means an impermeable diked area or portable impermeable container capable of providing storage capacity for materials which may leak due to the failure, overfilling or improper draining of the primary storage container. Double-walled tanks qualify as secondary containment only where the flow piping includes leak detection coupled to an automatic shutoff valve at the tank outlet.

• "Water-dependent accessory structure" means a structure necessary to support access to or use of the water (e.g., a shed used to store boating accessories) or waterfront (e.g., a gazebo).

Section 4. Amendment of Section. MSB 17.55.005 is hereby amended as follows:

17.55.005 [GENERAL] PURPOSE AND INTENT.

(A) [THIS] The purpose of this chapter is to establish[ES] minimum structural setbacks from lot

lines, [WATER COURSES AND] water bodies, and rights-of-way [, AND SPECIFIC SCREENING EASEMENTS FOR CERTAIN LANDS WITHIN SUBDIVISIONS] in the Matanuska-Susitna Borough except where otherwise specified in special land use district regulations within this title.

(1) Setbacks provide for light and air, fire protection, traffic safety, preservation of privacy, stormwater management, space for utility lines, and uphold neighborhood aesthetics; and

(2) Setbacks along flowing waters minimize risks to structures from lateral channel migration and flooding.

(B) The primary purpose of 17.55.016 to 17.55.020 is to protect human health, aquatic and riparian habitat, the ecologic function of water bodies, the local economy and property values, recreation, viewshed, and quality of life.

(1) These sections establish requirements related to the development and management of lands adjoining waterbodies.

(2) Standards will reduce and minimize the discharge of pollutants to waterbodies via surface runoff and subsurface leaching.

Section 5. Amendment of Section. MSB 17.55.010 is hereby

amended as follows:

17.55.010 SETBACKS **FROM RIGHTS-OF-WAY AND LOT LINES.**

(A) No structure or building line shall be placed within 25 feet from the right-of-way line of any public right-of-way, except no furthestmost protruding portion of any structure shall be placed within ten feet from the right-of-way line of any public right-of-way when the pre-existing lot:

(1) measures 60 feet or less in frontage on a public right-of-way, and is not located on a cul-de-sac bulb; or

(2) comprises a nonconforming structure erected prior to July 3, 1973. This setback shall be known as the structure or building line setback.

(B) Except where specifically provided other[-]wise by ordinance, no furthestmost protruding portion of any structure or building line shall be located nearer than ten feet from any side or rear lot line.

(C) Except as otherwise specified by code, eaves may project a maximum of three feet into required setback areas.

(D) The setback requirements of this section do not apply to property within the cities of **Houston,** Palmer, and Wasilla.

(E) If a condemnation by a governmental agency reduces the building line setback of a structure below 25 feet, but there remains at least ten feet setback, and the setback reduced by the condemnation met the requirements of this section prior to the condemnation, the resulting setback shall be the setback requirements for the lot.

(F) For purposes of this chapter, commercial or industrial buildings on separate but [ADJACENT] adjoining parcels, which otherwise meet the setback requirements, may have connecting pedestrian walkways, enclosed or not. Pedestrian walkways:

(1) shall not contribute to the building area or the number of stories or height of connected buildings; and

(2) must comply with the current adopted edition of the International Building Code, except that the outside width of the walkway shall not exceed 30 feet in width, exclusive of eaves.

(G) No furthestmost protruding portion of any structure or building line shall be located nearer than ten feet from railroad rights-of-way, except that utilities and rail dependent structures may extend up to railroad rights-of-way.

Section 6. Adoption of Section. MSB 17.55.016 is hereby adopted as follows:

17.55.016 WATER BODY SETBACKS FOR POLLUTION SOURCES

(A) No part of a subsurface sewage disposal system shall be closer than 100 feet from the ordinary high water mark of any water body.

(B) Kennels, stables, animal yards and animal waste facilities shall not be located closer than 100 feet from the ordinary high water mark of any water body. Drainage from kennels, stables, animal yards and animal waste facilities shall not be concentrated and directed (e.g., such as by a ditch) towards a water body. This requirement does not apply to private ponds.

(C) Paved vehicle parking areas shall not be located closer than 25 feet from the ordinary high water mark of any water body.

(1) for commercial or industrial facilities, paved vehicle parking areas within 75 feet of a water body shall demonstrate that the development standards identified in MSB 17.02.035(B) regarding stormwater runoff are met.

(D) Except as provided in subparagraph (1), all liquid hazardous substances, including petroleum fuels, oils, and lubricants, located or stored closer than 75

feet from the ordinary high water mark of any water body shall include secondary containment of at least 110 percent of the storage volume to minimize the risk of spills. All piping and valves carrying liquid hazardous substances shall have secondary containment.

(1) Pump-activated fuel-delivery systems with leak detection and auto shutoff may have a drip collection system instead of secondary containment.

(2) Refined oil fuels such as gasoline, diesel fuel, small engine fuels, etc., with an aggregate total volume of 10 gallons or less do not require secondary containment.

(3) The owners of pre-existing fixed storage facilities for petroleum fuels and other liquid hazardous substances (e.g., home heating oil tanks) shall be allowed five years from the effective date of this section to fully comply with the secondary containment requirement.

(E) The following activities are prohibited within 25 feet of the ordinary high water mark of any water body:

(1) Removing riparian buffer from more than 50 percent of the surface area except as provided in MSB 17.02.035(A) (1) (a) .

(a) Dead, diseased, or fallen trees may be removed from the riparian buffer area, and pruning for vegetation health is allowed.

(2) Ground disturbing activities of more than 50 percent of the surface area.

(3) Storing or discharging solid waste, including debris, and animal and yard wastes.

(4) Stockpiling snow imported from an offsite location.

(5) The application of fertilizers or herbicides.

Section 7. Amendment of Section. MSB 17.55.020 is hereby amended as follows:

17.55.020 WATER BODY SETBACKS FOR [SHORELANDS]
STRUCTURES.

(A) Except as provided in subsections s (B) and (F) of this section, no structure or footing shall be located closer than 75 feet from the ordinary high water mark of a water body [BODY OF WATER]. [EXCEPT AS PROVIDED OTHERWISE, E] Eaves may project three feet into the required setback area.

(1) Compliance with setbacks for structures adjoining waterbodies shall be based upon the location of the structure in relation to the ordinary high water

mark at the time it was constructed. Subsequent movement of the ordinary high water mark that reduces the setback distance does not create a violation under this chapter.

(B) Docks, piers, marinas, aircraft hangars, boathouses and water-dependent accessory structures may be located closer than 75 feet of a water body and over the water body, provided they [ARE NOT USED FOR HABITATION AND DO NOT CONTAIN SANITARY OR PETROLEUM FUEL STORAGE FACILITIES. STRUCTURES PERMITTED OVER WATER UNDER THIS SUBSECTION SHALL CONFORM TO ALL APPLICABLE STATE AND FEDERAL STATUTES AND REGULATIONS] meet all borough regulatory standards and receive a land use permit prior to construction in accordance with MSB 17.02.

(1) Boathouses or aircraft hangars which are exempt from a minimum shoreline setback for structures shall:

(a) be built over, in, or [IMMEDIATELY ADJACENT TO] adjoining a water_body and used solely for storing boats and boating accessories;

(b) be designed, constructed and oriented for primary access by boats or aircraft directly to a water_body;

(c) not have more than incidental

accessory access to a street or driveway; and

(d) not be usable as a garage or habitable structure without significant alteration.

[(C) IN THE CITY OF WASILLA, THIS SECTION DOES NOT APPLY TO STRUCTURES WHERE CONSTRUCTION WAS COMPLETED PRIOR TO NOVEMBER 16, 1982. ELSEWHERE IN THE BOROUGH, THIS SECTION DOES NOT APPLY TO STRUCTURES WHERE CONSTRUCTION WAS COMPLETED PRIOR TO JANUARY 1, 1987, IF THE PRESENT OWNER OR OWNERS OF THE PROPERTY HAD NO PERSONAL KNOWLEDGE OF ANY VIOLATION OF THE REQUIREMENTS OF THIS SECTION PRIOR TO SUBSTANTIAL COMPLETION OF THE STRUCTURES. THE DIRECTOR OF THE PLANNING DEPARTMENT SHALL, UPON APPLICATION BY A PROPERTY OWNER, DETERMINE WHETHER A PROPERTY QUALIFIES FOR AN EXCEPTION UNDER THIS SUBSECTION.

(1) AN APPLICATION FOR A SHORELINE SETBACK EXCEPTION SHALL INCLUDE A FILING FEE AS ESTABLISHED BY RESOLUTION OF THE ASSEMBLY.

(D) IN THIS SECTION, A "STRUCTURE" IS ANY DWELLING OR HABITABLE BUILDING OR GARAGE.

(E) NO PART OF A SUBSURFACE SEWAGE DISPOSAL SYSTEM SHALL BE CLOSER THAN 100 FEET FROM THE ORDINARY HIGH WATER MARK OF ANY BODY OF WATER. THE PLANNING COMMISSION SHALL REQUIRE THIS DISTANCE BE INCREASED WHERE NECESSARY

TO PROTECT WATERS WITHIN THE BOROUGH.]

(F) A permit in accordance with MSB 17.02 is required prior to construction or placement of any structure, or any ground-disturbing activity within 75 feet of the ordinary high water mark of any water body.

(1) New structures may be located between 45 and 75 feet from the ordinary high water mark of a lake, pond, or wetland provided a land use permit in accordance with MSB 17.02 is obtained prior to commencement of construction.

(2) Existing habitable buildings and garages built between May 12, 1987, and the effective date of this paragraph that are between 45 and 75 feet of the ordinary high water mark of a lake, pond, or wetland may obtain a land use permit in accordance with MSB 17.02 to comply with this chapter.

Section 8. Amendment of Subsection. MSB 17.02.010(A) is hereby amended as follows:

(A) It is the intent of this chapter to improve the level of compliance with existing borough code by establishing a mandatory land use review process for activities within 75 feet of a water body and directly providing regulatory information to persons proposing [DEVELOPMENT] certain activities within the borough

outside of the cities of Houston, Palmer, and Wasilla.

Section 9. Amendment of Section. MSB 17.02.020 is hereby amended as follows:

17.02.020 LAND USE PERMIT **FOR ACTIVITIES WITHIN 75 FEET OF A WATER BODY.**

(A) The land owner or authorized agent shall obtain a land use permit from the Matanuska-Susitna Borough Planning Department prior to the commencement of:

(6) construction or placement of any [BUILDING] **structure** within 75 feet of **the ordinary high water mark of** any [WATERCOURSE OR] water body; **or**

(7) ground disturbing activities within 75 feet of the ordinary high water mark of any water body.

(B) A landowner or authorized agent may voluntarily request a land use permit for any structure or use not required to obtain a permit under this chapter.

(C) A permit is not required under this chapter when the proposed use is subject to another permit within this title.

Section 10. Amendment of Subsection. MSB 17.02.030 (B) (2) (a) is hereby amended as follows:

(a) site plans are not required to be certified but shall clearly identify the following:

(i) north arrow;

- (ii) boundaries of parcel;
- (iii) size, location, and setback dimensions of proposed structures;
- (iv) names and location of [ADJACENT] adjoining roadways;
- (v) location of rights-of-way and public easements within and [ADJACENT TO] adjoining the parcel;
- (vi) location and name of [ADJACENT] adjoining water bodies;
- (vii) location of subsurface sewage disposal systems; [AND]
- (viii) intended use of proposed structures;[.]
- (ix) existing cleared areas, structures, and impervious surfaces; and
- (x) any areas of proposed ground disturbing activities.

Section 11. Adoption of Section. MSB 17.02.035 REQUIRED STANDARDS is adopted as follows:

17.02.035 REQUIRED STANDARDS

(A) The director may issue a land use permit pursuant to MSB 17.02.020 only upon finding that the development meets the following standards:

(1) the site plan demonstrates compliance with the provisions of MSB 17.55.016;

(a) notwithstanding the requirements of 17.55.016(E) (1), a land use permit may be issued where no riparian buffer exists if the requirements of MSB 17.02.050 are met.

(2) any proposed buildings or structures shall comply with MSB 17.55.020(B), as applicable; and

(3) the total area of impervious surfaces within 75 feet of a water body shall not exceed 20% of the area within 75 feet of the water body.

Section 12. Adoption of Section. MSB 17.02.050 ADDITIONAL REQUIRED STANDARDS FOR SPECIFIC CIRCUMSTANCES is adopted as follows:

17.02.050 ADDITIONAL REQUIRED STANDARDS FOR SPECIFIC CIRCUMSTANCES

(A) In addition to the site plan requirements identified in MSB 17.02.030, structures built between 45 and 75 feet as required by MSB 17.55.020(F) (1)-(2), or a land use permit application in accordance with MSB 17.02.035(A) (1) (a) or 17.02.035(A) (3), must submit the following additional information to obtain a land use permit:

(1) existing and proposed drainage patterns to and from the parcel, known drainage problems such as flooding or erosion, and potential pollutant sources

from current or proposed land use that may add pollutants to stormwater runoff;

(2) current runoff pollution mitigation measures or plans and specifications for proposed runoff pollution mitigation measures, including necessary maintenance, with sufficient detail to support an engineering review;

(3) current infiltrative methods or plans and specifications for infiltrative methods shall identify soil type and depth to the seasonal high water table providing:

(a) a minimum of 2 feet from the bottom of any basin or swale to the seasonal high water table;
or

(b) maintenance of existing undisturbed vegetated surface as the bottom of the basin or swale and no standing water during high-water periods of the year from April 1 - September 30; and

(4) site-specific analyses conducted by a qualified professional identifying the current or proposed runoff pollution mitigation measures.

(B) A land use permit may only be issued upon a finding that the applicant's runoff mitigation measures are sufficient as evidenced by:

(1) review and certification of existing runoff pollution mitigation measures by a qualified professional; or

(2) design and installation of proposed runoff pollution mitigation under the oversight of a qualified professional.

(C) Runoff mitigation measures shall meet the following criteria:

(1) Treat the initial 0.25 inch of post-development runoff for each storm event;

(2) Provide a minimum of 12 hours of detention for the post-development runoff in excess of pre-development runoff volumes for the 1-year, 24-hour storm;

(3) Maintain the post-development runoff peak flow from the 10-year, 24-hour storm to less than 1.10 times the pre-development runoff peak flow at all project discharge points;

(4) Storm water conveyance and drainage ditches shall be sized to pass the 10-year, 24-hour storm event. Control flows in conveyance channels so that transport of particles will not occur for the post-development 10-year, 24-hour storm; and

(5) In areas where wetlands are disturbed,

drainage must be designed to preserve the pre-development function of the remaining wetlands.

(D) Upon completion of the project, an as-built survey shall be submitted showing the location of all pertinent structures and features associated with the development.

(E) A revised stormwater runoff analysis is required if future development could reasonably result in increased stormwater runoff.

(F) Landowners are responsible for maintenance of approved runoff pollution mitigation measures specified in their land use permit under this chapter.

Section 13. Adoption of Subsection. MSB 17.65.020 (B) is hereby adopted as follows:

(B) A variance from the water body setback requirement in MSB 17.55.020 (A) may not be granted if the location of the proposed structure is:

(1) closer than 45 feet from the ordinary high water mark of a water body.

(2) in an area of known erosion hazard adjacent to a river, stream, or other flowing waters.

Section 14. Amendment of Section. MSB 17.80.020 is hereby amended as follows:

17.80.020 LEGAL NONCONFORMING STRUCTURES

(A) The following structures qualify as legal nonconforming structures without an administrative determination, however, an administrative determination may be issued if requested by the property owner:

(1) structures built lawfully and made nonconforming by adoption of subsequent ordinances;

(a) all structures within 75 feet of a water body that were constructed prior to adoption of the setback requirement on July 3, 1973, and have not subsequently been enlarged or altered.

(b) Non-habitable structures within 75 feet of a water body that were constructed between September 16, 1988 and the effective date of this subparagraph.

(2) structures built in violation of the ordinance existing at the time of construction, then made legal by adoption of subsequent ordinance, and later made nonconforming by adoption of subsequent ordinances;

(a) habitable buildings and garages that were completed between July 3, 1973, and May 12, 1987, and have not subsequently been enlarged or altered, that are located between 45 and 75 feet from the ordinary high water mark of a water body.

(3) permanent structures which were constructed lawfully after the date of adoption of the Acknowledgement of Existing Regulations, Chapter 17.01, but which were made unlawful after the date of start of construction due to adoption of subsequent regulations.

(B) The following structures require an administrative determination in order to be granted legal nonconforming status;

(1) structures granted a variance in accordance with Chapter 17.65;

[(2) STRUCTURES BUILT IN VIOLATION OF SHORELINE SETBACK ORDINANCES EXISTING AT THE TIME OF CONSTRUCTION, AND SUBSEQUENTLY GRANTED AN EXEMPTION FROM SHORELINE SETBACKS IN ACCORDANCE WITH MSB 17.55.020(C);]

(3) permanent structures built in violation of ordinances existing at the time of construction, and subsequently granted legal nonconforming status in accordance with MSB 17.80.070.

Section 15. Amendment of Section. MSB 17.125.010 is hereby amended as follows:

• "Cleared area" means an area where existing vegetative cover and surficial soil layers, including organic matter or duff, is removed or altered by ground-disturbing activities.

• "Ground disturbing activity" means an activity that includes the use of heavy equipment, such as a backhoe or bulldozer, that disturbs the soil layers, uproots woody vegetation, or alters preexisting land contours. Examples of such activities include mechanized land clearing, grading, contouring, or placing of fill. "Ground disturbing activity" does not include the cutting or removal of vegetation above the ground (i.e. use of hydro-axe, mowing, rotary cutting, and chain sawing) without disturbing the soil or root systems.

• "Kennel, stable, and animal yards" means any premises used for breeding, buying, selling, keeping, or boarding five or more dogs over the age of six months, whether for profit or not; any facility housing or holding more than three pigs, goats, or animals of similar size; and all facilities housing or holding large animals (e.g., horses, cattle, llamas).

• "Lake" means a standing body of open water that occurs in a natural depression fed by one or more streams from which a stream may flow, that occurs due to the widening or natural blockage or cutoff of a river or stream, or that occurs in an isolated natural depression that is not a part of a surface river or stream. The

term also includes artificial waterbodies created by excavation, as well as artificial blocking or restriction of the flow of a river, stream, or tidal area (e.g. by a dam).

- "Qualified professional" means a professional [HYDROLOGIST, GEOLOGIST, OR REGISTERED ENGINEER THAT HAS SPECIFIC EDUCATION AND EXPERIENCE WITH GROUNDWATER HYDROLOGY] civil engineer or other professional registered with the State of Alaska under Alaska Statute 08.48 qualified to practice the type of work required by this title.

- "Riparian buffer" means native vegetation adjoining a water body that helps to protect the water body from the impact of activities conducted on adjoining land.

- "Runoff pollution mitigation measure" means any combination features designed and intended to treat and retain stormwater runoff associated with a development, such as bioswales, rain gardens, riparian buffers, or filter strips.

- "Stormwater runoff" means any surface flow consisting entirely of water from precipitation including from the melting of ice and snow. Runoff occurs when the water volume or surface gradient overcome the

infiltrative capacity of the surface.

• "Treat and retain" means to manage stormwater on the parcel through any combination of detention, retention, infiltration, evapotranspiration, or other treatment methods to mitigate a discharge of stormwater runoff to a water body or adjoining parcel.

Section 16. Effective date. This ordinance shall take effect upon adoption.

ADOPTED by the Matanuska-Susitna Borough Assembly this - day of -, 2025.

EDNA DeVRIES, Borough Mayor

ATTEST:

LONNIE R. McKECHNIE, CMC, Borough Clerk


(SEAL)

SUBJECT: AN ORDINANCE OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY AMENDING MSB 17.02 MANDATORY LAND USE PERMIT, MSB 17.55 – SETBACK AND SCREENING EASEMENTS, MSB 17.65 VARIANCES, MSB 17.80 NONCONFORMING STRUCTURES AND MSB 17.125 DEFINITIONS.

AGENDA OF: May 20, 2025

ASSEMBLY ACTION:

AGENDA ACTION REQUESTED: Refer to Planning Commission for 120 days.

Route To	Signatures
Originator	<div>5/8/2025</div> <div>X A l e x S t r a w n</div> <div>Signed by: Alex Strawn</div>
Department Director	<div>5/8/2025</div> <div>X A l e x S t r a w n</div> <div>Signed by: Alex Strawn</div>
Finance Director	<div> Recoverable Signature</div> <div>X C h e y e n n e H e i n d e l</div> <div>Signed by: Cheyenne Heindel</div>
Borough Attorney	<div>5/9/2025</div> <div>X N i c h o l a s S p i r o p o u l o s</div> <div>Signed by: Nicholas Spiropoulos</div>
Borough Manager	<div>5/9/2025</div> <div>X M i c h a e l B r o w n</div> <div>Signed by: Mike Brown</div>
Borough Clerk	<div> Recoverable Signature</div> <div>X L o n n i e M c K e c h n i e</div> <div>Signed by: Lonnie McKechnie</div>

ATTACHMENT (S) : Ordinance Serial No. 25-073 (23 pp)
 Waterbody Setback Advisory Board Reso 24-01 (5pp)
 1998 Shoreline Setback Analysis (23 pp)
 MSB 17.02 (4 pp)
 MSB 17.55 (5 pp)
 MSB 17.65 (4 pp)
 MSB 17.80 (7 pp)
 MSB 17.125 (17 pp)

SUMMARY STATEMENT:

This ordinance is at the request of Assemblymember Hale.

The purpose of this ordinance is to modernize and strengthen borough regulations related to development activities near

waterbodies. The ordinance revises setback requirements, mandates land use permits for mechanized land clearing within 75 feet of waterbodies and establishes environmental protection standards. These changes aim to improve code compliance, reduce pollution from runoff, and protect fish habitat, water quality, and property values.

BACKGROUND :

The Matanuska-Susitna Borough first established a minimum 75-foot waterbody setback in 1973. In 1986, the Assembly temporarily reduced the setback to 45 feet; however, six months later, a voter initiative reinstated the 75-foot setback. Over the decades, limited enforcement of the setback requirements has resulted in the construction of hundreds of structures in violation of the 75-foot standard. A 1998 review documented widespread non-compliance, and since then, violations have continued. These issues complicate real estate transactions, affect public trust, and threaten sensitive aquatic ecosystems.

In response, the Assembly created the Waterbody Setback Advisory Board (WSAB), which included members representing home building, lending, real estate, salmon habitat, the Fish & Wildlife Commission, the Planning Commission, and at-large residents. The WSAB conducted an in-depth review of borough code and presented comprehensive recommendations to address the identified challenge. This ordinance incorporates the specific code amendments recommended by the Waterbody Setback Advisory Board.

COMPREHENSIVE PLAN:

This ordinance implements several goals and policies of the Borough-wide Comprehensive Plan.

Goal (LU-4): Protect and enhance the Borough's natural resources including watersheds, groundwater supplies and air quality.

Policy LU4-1: Identify, monitor, protect, and enhance the quantity and quality of the Borough's watersheds, groundwater aquifers, and clean air resources.

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

Policy CQ1-1: 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 CQ1-2: 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.

Goal (CQ-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 CQ2-1: 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.

Policy CQ2-2: Comprehensively manage activities that may adversely impact surface and ground water quality or quantity.

Policy CQ2-3: When appropriate, utilize Borough adopted "Best Management Practices" when managing watershed impacts.

RECOMMENDATION OF ADMINISTRATION: Refer to the Planning Commission for 120 days.

Action: Approved

**MATANUSKA-SUSITNA BOROUGH
WATERBODY SETBACK ADVISORY BOARD
RESOLUTION SERIAL NO. 24-01**

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH WATERBODY SETBACK ADVISORY BOARD RECOMMENDING CHANGES TO MSB 17.55 - SETBACK AND SCREENING EASEMENTS, MSB 17.02 - MANDATORY LAND USE PERMIT, MSB 17.80 NONCONFORMING STRUCTURES, AND MSB 17.65 - VARIANCES.

WHEREAS, the Matanuska-Susitna Borough Assembly established the Waterbody Setback Advisory Board through IM No. 23-175 and Ordinance No. 23-175 on 8/15/2023 to review and recommend any changes to the Borough code relating to waterbody setbacks and related issues. These related issues should include variances/non-conformities, how to deal with structures built in violation of the 1973 and 1987 ordinances, possible remedies for structures in violation, and any other issues the Board believes are pertinent. To the extent possible, the Advisory Board is required to identify possible solutions, identify ways to enforce and implement those solutions and identify resources needed to implement and enforce those solutions; and

WHEREAS, the preservation and protection of our natural water bodies are recognized as essential for the sustainability of ecological balance, ensuring public safety, enhancing the beauty of our community, the conservation of viewsheds, enriching the quality of life, safeguarding community characteristics, and

upholding property values. These water bodies serve as critical habitats for diverse flora and fauna, including salmon and other fish, contribute to local biodiversity, support recreational activities, and play a crucial role in the broader ecosystem services that benefit both residents and wildlife alike; and

WHEREAS, the activities conducted adjacent to waterbodies, such as construction, grading, clearing, filling, or contouring, are known to have a profound impact on water quality, the preservation of natural habitats, and the overall health and sustainability of aquatic ecosystems. These activities can lead to sedimentation, alteration of hydrological patterns, habitat fragmentation, and the introduction of pollutants, all of which threaten the quality of life and community for residents, the ecological balance, and biodiversity crucial to the well-being of these environments; and

WHEREAS, there has been a recognition of the necessity for increased regulation and oversight to prevent adverse effects on waterbodies resulting from unregulated or improperly managed land-use activities.

NOW, THEREFORE, BE IT RESOLVED, that the Waterbody Setback Advisory Board hereby makes the following recommendations to the Assembly:

1. Path to Compliance for Homeowners: The Assembly is advised

to establish a path to compliance for homes built within the 75-foot setback area of lakes in violation of MSB 17.55. This compliance pathway should require the design and construction of mitigation measures to be developed and overseen by a qualified professional registered in the State of Alaska, and should maintain a minimum setback of 45 feet.

2. Setback Maintenance and Expansion: The Waterbody Setback Advisory Board recommends retaining the current 75-foot setback requirement for buildings adjacent to flowing water.

3. Commercial and industrial development: Recommend waterbody setback be applied to include commercial and industrial projects.

4. Land Use Permit Requirement: It is recommended that MSB 17.02 be amended to mandate a land use permit for any grading, clearing, filling, contouring, or construction activities within 75 feet of waterbodies. This measure seeks to ensure thorough review and management of all such activities to minimize adverse impacts on waterbody ecosystems.

5. Shoreline standards: Adopt standards for clearing and grading within 75 feet of waterbodies to include provisions for managing runoff associated with the development, and maintaining a vegetative buffer along the shoreline.

6. Animal Waste Management: Adopt a setback requirement of 100 feet from the ordinary high-water mark of waterbodies for

outdoor kennels, stables, animal yards, and animal waste facilities to enhance environmental protection.

7. Prevention of Liquid Petroleum Fuel Contamination: Adopt measures to mitigate the risk of liquid fuel contamination near waterbodies by requiring secondary containment or drip collection for all fuel installations within 75 feet of waterbodies, including both existing and new installations.

8. Enhanced Enforcement: Recognizing the importance of enforcing setback regulations effectively, it is recommended that additional staff be hired to patrol water bodies. Their presence will deter violations, ensure adherence to established laws, and offer an immediate response to any observed infractions.

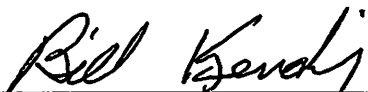
9. Structures within 45 feet: It is recommended that a minimum 45-foot water body setback be maintained with no path to compliance for structures illegally built within 45 feet of a water body.

10. Limitation of Variances: It is recommended that MSB 17.65 be amended to eliminate the ability to obtain a variance within 45 feet of a waterbody.

11. New habitat protection tax incentive: The Assembly is encouraged to consider the establishment of a habitat protection tax incentive, similar to the program in the Kenai Peninsula Borough, and advocate for state legislation that extends coverage to all types of waterbodies, not limited to rivers.

BE IT FURTHER RESOLVED, the Waterbody Setback Advisory Board has attached a draft ordinance reflecting its recommendations for the Assembly to consider.

ADOPTED by the Matanuska-Susitna Borough Waterbody Setback Advisory Board this 5th day of March, 2025.



Bill Kendig, Board Chair

ATTEST:



Lacie Olivieri, Board Clerk

Matanuska-Susitna Borough Shoreland Setbacks

Analysis and Recommendation



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CHAPTER 17.02: MANDATORY LAND USE PERMIT

Section

[17.02.010 Intent and applicability](#)[17.02.020 Land use permit](#)[17.02.030 Procedure](#)[17.02.040 Action on applications](#)**17.02.010 INTENT AND APPLICABILITY.**

(A) It is the intent of this chapter to improve the level of compliance with existing borough code by establishing a mandatory land use review process and directly providing regulatory information to persons proposing development within the borough outside of the cities of Houston, Palmer, and Wasilla.

(B) This chapter is applicable within all areas of the Matanuska-Susitna Borough outside of the cities of Houston, Palmer, and Wasilla and the Port District, as established in MSB 18.02.020, Boundaries.

(C) There are federal, state, and local requirements governing land use. It is the responsibility of the individual land owners to obtain a determination whether such requirements apply to the development of their land. Any land within the boundaries of the Matanuska-Susitna Borough is subject to land use and development regulations. It is not the intent of this chapter to replace or supersede regulations of other chapters within this title. Additional information and permits, such as flood damage prevention, mobile home park ordinance, conditional uses, and regulation of alcoholic beverages may be required in accordance with the borough code. This title will be amended and updated as necessary when new MSB Title 17 regulations are adopted.

(D) A land use permit is not required where commencement of construction or placement, as defined in MSB 17.125, occurred before the effective date of the ordinance codified in this chapter.

(Ord. 10-108, § 2, 2010; Ord. 07-121, § 2, 2007; Ord. 06-192(AM), § 3 (part), 2007)

17.02.020 LAND USE PERMIT.

(A) The land owner or authorized agent shall obtain a land use permit from the Matanuska-Susitna Borough Planning Department prior to the commencement of:

(1) *[Repealed by Ord. 11-073, § 2, 2011]*

(2) *[Repealed by Ord. 11-073, § 2, 2011]*

(3) *[Repealed by Ord. 11-073, § 2, 2011]*

(4) *[Repealed by Ord. 11-073, § 2, 2011]*

(5) *[Repealed by Ord. 13-025, § 2, 2013]*

(6) construction or placement of any building within 75 feet of any watercourse or water body;

(B) A landowner or authorized agent may voluntarily request a land use permit for any structure or use not required to obtain a permit under this chapter.

(C) A permit is not required under this chapter when the proposed use is subject to another permit within this title.

(Ord. 22-104, § 2, 2022; Ord. 13-025, § 2, 2013; Ord. 11-073, § 2, 2011; Ord. 06-192(AM), § 3 (part), 2007)

17.02.030 PROCEDURE.

(A) A complete land use permit application shall be submitted to the planning and land use director on a form provided by the planning and land use department.

(B) A complete land use permit application will contain the following attachments:

(1) *[Repealed by Ord. 22-104, § 3, 2022], 2011]*

(2) site plan;

(a) site plans are not required to be certified but shall clearly identify the following:

(i) north arrow;

(ii) boundaries of parcel;

(iii) size, location, and setback dimensions of proposed structures;

(iv) names and location of adjacent roadways;

(v) location of rights-of-way and public easements within and adjacent to the parcel;

(vi) location and name of adjacent water bodies;

(vii) location of subsurface sewage disposal systems; and

(viii) intended use of proposed structures.

(3) *[Repealed by Ord. 11-073, § 3 (part), 2011]*

(4) *[Repealed by Ord. 11-073, § 3 (part), 2011]*

(C) *[Repealed by Ord. 11-073, § 3 (part), 2011]*

(D) *[Repealed by Ord. 11-073, § 3 (part), 2011]*

(E) An application fee as established by the assembly, payable to the Matanuska-Susitna Borough, shall be submitted with the application. If more than one land use permit fee is required under this chapter, the applicant shall pay only one fee, whichever is the highest.

(F) A copy of the application shall be retained in the planning and land use department files.

(Ord. 22-104, § 3, 2022; Ord. 11-073, § 3 (part), 2011; Ord. 06-192(AM), § 3 (part), 2007)

17.02.040 ACTION ON APPLICATIONS.

(A) The planning and land use director or designated staff shall determine whether an application for a land use permit is complete. For incomplete applications, a written explanation of application deficiencies shall be provided within seven working days of the date the application is received in the planning and land use department.

(B) *[Repealed by Ord. 22-104, § 4, 2022], 2011]*

(C) In reviewing a land use permit application, the planning and land use director shall make specific findings explaining how the proposal does or does not conform to the requirements of this title. The planning and land use director also may provide options as to how the proposal may conform to these requirements.

(D) The planning and land use director shall render a decision within ten working days from the date the application is determined complete.

(1) Permits under this chapter shall be reviewed and approved based on compliance with borough code, including but not limited to the following:

- (a) setbacks;
- (b) special land use districts;
- (c) flood hazard areas;
- (d) driveway permits;

(e) conditional uses; and

(f) multifamily development permits.

(E) If a decision is not rendered within the allotted review time, the applicant shall be entitled to a complete refund of fees.

(F) *[Repealed by Ord. 22-104, § 4, 2022], 2011]*

(G) *[Repealed by Ord. 22-104, § 4, 2022], 2011]*

(H) *[Repealed by Ord. 22-104, § 4, 2022], 2011]*

(I) Appeals from a decision granting or denying a land use permit under this chapter shall be filed and conducted in accordance with MSB 15.39.

(Ord. 22-104, § 4, 2022; Ord. 11-073, § 3 (part), 2011; Ord. 06-192(AM), § 3 (part), 2007)

Introduction

Since 1973, the Matanuska Susitna Borough has been struggling with the designation and implementation of an appropriate waterbody setback distance from area lakes, streams, and wetlands to protect water quality and fish and wildlife habitat. From 1973 to the present, structural setbacks from waterbodies have ranged from 45 to 75 feet and have allowed accessory uses such as piers, marinas, boathouses and docks over the water. The setbacks to date have only regulated structure placement and have not regulated uses or activities within the setback zone. For example, there are currently no requirements to maintain natural vegetation or limit the amount of impervious surfaces.

The inherent challenge of the project is that people have varying goals and values relative to the use of water resources and lands. Over the years, arguments have been presented to maintain, increase, and decrease the setback distance. Arguments in favor of a lesser setback generally cite private property rights, undue hardships on developing land, increased views and access to waterbodies. Those in favor of greater setbacks cite improved water quality, enhanced fish and wildlife habitat, noise reduction, and improved aesthetic values.

In 1998, a Shorelands Steering Committee was formed to recommend goals and strategies to analyze and improve the management of shorelands and develop a Shorelands Management Plan. The results of their work can be found in Appendix A. In summary, the long-term goal of the Matanuska-Susitna Borough Shorelands Management Plan is to determine how inland lake basins, streams and wetlands function as ecosystems within the watershed and **how** to manage the many resources and values present in these systems in a sustainable manner. While this is an admirable goal, this long-term goal can be reached only through a comprehensive watershed study and the long-term investment of dollars, expertise and collaborative effort by government, universities and the private sector.

This report is intended to meet the more immediate need of resolving the shoreland setback issue and to establish effective performance standards for uses within the setback zone to minimize future requirements for mitigation or restoration of disturbed areas and degraded water quality. As the Mat-Su Borough continues to grow in population and becomes one of the most popular recreational destinations in Alaska, the threat of degradation to its waterbodies increases. An altered water system is not only difficult to restore, it is expensive and may never fully recover. This can mean declining property values, **loss** of recreational activities, **loss** of water-dependent businesses, and a decline in fish and wildlife populations. Simply put, no one wants to live, recreate or conduct business on a polluted waterbody.

This purpose of this report is to review and incorporate by reference the work done to date on the Shoreland Management Plan and recommend a setback distance that will protect water quality in the Mat-Su Borough. This interim report also seeks to:

- Understand the intent and history of structural setback regulations in the Mat-Su Borough
- Define and understand the function of the relatively narrow strip of land (the riparian zone) surrounding a waterbody
- Review the role of setbacks as a management tool to enhance and protect water quality from residential, commercial and industrial development based on the literature review conducted by the Mat-Su Borough and supplemented by work done as part of the Big Lake, Lake Management Plan.
- Recommend a structural setback and performance standards

Finally, to help provide information of similar efforts in other jurisdictions, a literature review done by the Mat-Su Borough as part of the Shoreland Management Plan is provided in Appendix A. It briefly describes available literature on how other jurisdictions establish setbacks and manage shorelands, the use of buffer zones, the role of riparian vegetation, and the balancing of private property rights, public access and safety, and environmental issues. It should be noted that this review only provided a brief summary of the literature and did not analyze or document the different setbacks studied. For this reason, an analysis of setbacks done as part of the Big Lake, Lake Management Plan is being used for this report.

Setback History

An important aspect of evaluating regulations is to clearly understand their intent and historical context to determine if the existing regulation has been effective. Presented below is a brief synopsis of the Matanuska-Susitna Borough (MSB) setback ordinances and the Mat-Su Borough Coastal Management Program policy regarding setbacks to date.

- 1973. Borough adopts a 75-foot Setback (MSB ordinance 73-6). "Structures shall not be closer than 75 feet from the normal high water mark of a water course or body of water in a shoreland. The Commission may require a greater setback if it finds that a specific body of water possesses unique characteristics such as outstanding fish and aquatic life, shore cover, natural beauty or other ecological attribute. Boat houses may be located over the water provided they are not used for habitation and do not contain sanitary facilities." In subsequent years the ordinance was amended to legalize docks, piers and marinas over the water and require that they conform to state and federal regulations.

- **1984.** The Mat-Su Borough Coastal Management Program (MSBCMP) goes into effect which, as outlined in Coastal Habitats Policy 2, upholds the 75 foot setback but eliminates all provisions to allow the Platting Board to reduce setback distances if certain conditions are met. Approved by the Coastal Policy Council (CPC) in **1983**, this policy raised issues of compliance with MSB ordinances and eliminated flexibility in the existing regulations.
- **1986.** Borough adopts a 45-foot setback (MSB ordinance **86-101**). "No structure or footing shall be located closer than **45** feet from the high water mark of a watercourse or body of water, except docks, piers, marinas, and boathouses may be located closer than **45** feet and over the water provided they are not used for habitation and do not contain sanitary facilities." "Exception: Does not apply to structures where construction was completed prior to January **1, 1987** if the present owner or owners of the property had no personal knowledge of any violation of the setback requirements prior to substantial completion of the structure."
- **1987.** The MSB submits revisions to the MSBCMP Coastal Habitats Policy 2 in order to create a more flexible policy. The Division of Governmental Coordination (DGC), staff to the CPC, determines that the proposed policy lacks enforceable language, and in cooperation with the **MSB** and the state, develops alternative policy language consistent with the Alaska Coastal Management Program. The revised policy is adopted by the CPC in March of **1988**, with provisions that the proposed uses and activities within **75** feet of the high water line "must be reviewed to ensure protection of water quality and fish and wildlife habitat." Additionally, water-dependent structures (including docks, piers, marinas, boathouses and floatplane hangars) are allowable within **75** feet provided "they are constructed and used in a way that minimizes adverse impacts to water quality and fish and wildlife habitat." Finally, the policy states that other uses and activities within **75** feet are also allowable if the proposed development "will have no significant adverse impacts on water quality and fish and wildlife habitat, and complies with other applicable federal, state, and local requirements."
- **1987.** Borough reinstates a 75-foot setback (MSB ordinance **87-59**). The setback is changed to **75** feet with the provision that water dependent structures such as docks, piers and marinas are allowable within **75** feet if they conform to all applicable state and federal statutes and regulations, and so long as they "are not used for habitation and do not contain sanitary or petroleum fuel storage facilities."
- **1988.** Clarification and amendments (MSB ordinance **88-190**). The term "Shorelands" is defined, and the setback remains at 75 feet with the provision that "the Director of the Planning Department or the designee of the director shall upon application **by** a property owner, determine whether a property qualifies for an exception." There is also a subsection allowing the Planning Commission **to** increase the distance of a subsurface sewage disposal system from any body of water beyond the 100-foot zone "where necessary to protect waters within the Borough."

Based on a review of above history, the two critical flaws in the current setback have been identified:

- (1) The intended purpose of the waterbody setback appears to be to protect water quality and in turn fish and aquatic habitat; however, it is not clearly defined. It is recommended that the intent of the waterbody setback be clearly stated up front in future ordinances to facilitate enforcement and compliance. A property owner is more willing to comply with a regulation if they clearly understand its purpose and believe that the regulation is effective at achieving its purpose. To evaluate the effectiveness of a setback, it is critical to understand what is trying to be accomplished with the regulation. An example purpose statement might read as follows:

"The intent of the waterbody setback is to preserve the integrity of the Borough's lakes, streams, rivers, and wetlands by maintaining and improving water quality, shore cover, fish and wildlife habitat, and aesthetic values."

- (2) The setback only addresses the placement of structures. It does not address what can and cannot be done within the 75-foot setback area. The flaw with this approach is that locating buildings back from the waterbody may or may not meet the intent of the regulation. One of the greatest threats to water quality is Non Point Source (NPS) pollution. NPS pollution is defined as pollutants carried in runoff originating from various sources; precipitation moves over and through the ground and picks up pollutants from these sources and carries them into rivers, lakes, and groundwater. Some of the major sources and causes of NPS pollution adjacent to waterbodies are erosion and sedimentation (from cleared lots), septic systems, and runoff (carrying oils, chemicals, fertilizers and pesticides). A structure that is placed 75 feet back with vegetation cleared to the edge of the shoreline may increase the threat to water quality and in turn harm fish and wildlife habitat and the aesthetic qualities of the site by increasing the amount of NPS running into the waterbody. Whereas a structure setback of only 45 feet with vegetation retained between the structure and the shoreline may do more to protect water quality. The vegetation can slow runoff, trap sediment, and act as a natural filter to remove pollutants.

Another challenge with the history of setbacks in the Borough is the fluctuating distances and general lack of compliance by property owners. The low compliance is at least partially symptomatic of the lack of understanding of the ordinance's purpose. This has resulted in inconsistent development around waterbodies and in turn has made enforcement very difficult.

Function of Buffer Zones (Setbacks)

Literature associated with the protection of water quality defines buffer zones or setbacks as corridors of undisturbed natural vegetation or, where this is not present, grass or other erosion resistant vegetation, between a waterbody or wetland and an area of more intensive land use such as residential development. The use of natural buffer zones to protect water resources from pollution is attracting considerable attention within the United States and globally. Early research in this area stemmed from adverse impacts associated with timber and agriculture industries and has since evolved to consider the impacts of urban development including residential, commercial and industrial uses.

To understand the impacts from development, it is important to understand the watershed concept. A watershed includes the entire land form drained by streams and rivers and is the ultimate water source for a lake. The visible area of a watershed is the surface on which rain and snow fall. The larger, invisible portion of the watershed lies beneath the surface where water seeps into the ground. A raindrop travels from a mountain top to a lake in three ways: (1) some is absorbed by the soil; (2) some collects on the ground in depressions; and (3) some flows overland. It is the overland flow or runoff that poses the greatest threat to water quality. With the overland flow, the raindrop forms rivulets, which in turn join to form streams, and the streams join to form rivers, and so on. Whatever that raindrop picks up from the land along its journey ends up in the water. The greater the amount and speed of runoff the greater the potential impacts. The primary benefits of a waterbody setback are:

- **Maintain and Protect Water Quality** – Improve the quality of water passing through the buffer zone by trapping suspended sediments and removal of toxic substances, nutrients and pathogens carried in the surface water runoff.
- **Anchor Shoreline and Stream Banks and Control Erosion** – The shallow water table in the riparian zone makes water available during the growing season, creating a healthy terrestrial plant habitat for both soil and woody-debris-rooted plants. These in turn reduce erosion by anchoring the soil and trapping suspended sediments.
- **Provide Flood Control** – During periods of high runoff riparian and upland wetlands store and convey flood water. This storage function has the dual effect of moderating peak flows during high runoff events and augmenting ground and surface water flows during low runoff periods.
- **Protect Fish and Wildlife Habitat** - Riparian zones typically support greater numbers and diversity of fish and wildlife. Many terrestrial and aquatic animals use this area for foraging and feeding, breeding and rearing their young, and taking protective cover during 1 or more life stage.
- **Promote Scenic, Recreational, and Quality of Life Values** – The setback serves as a physical buffer between human activities on land and on the water. Scenic, recreation and wildlife assets are enhanced by buffer zones and can increase property values. Setbacks around busy recreational lakes and rivers can also help to reduce noise impacts on surrounding land uses.

While most people can agree on the function of a buffer zone, research reveals that the width of setbacks varies greatly. It is generally accepted that the use of buffers is most effective when the setback criteria reflect:

- Site-specific characteristics of the development area (slope, topography, vegetation, vulnerability to soil erosion, surface and groundwater hydrology)
- Type of proposed disturbance or land use
- Existing land uses around streams and lakes within the watershed

- Function of the buffer zone (sediment filtering, shading, shoreline stabilization by vegetation root systems, food and cover for fish and other wildlife)
- Resource aspects of greatest sensitivity and vulnerability to disturbance
- Flexibility in implementation

Unfortunately, this site-specific approach to defining setback distances requires significant resources to inventory all lands, develop a fair implementation process to avoid arbitrary and capricious decisions, and to enforce. For this reason, most governing bodies designate a set distance from a waterbody for structures and include minimum performance standards regulating the use of the buffer zone.

A number of studies have been conducted to understand the relationship of buffer strips of various distances to fish populations and aquatic habitat productivity in affected streams and the effects of development activities on lake water quality. Studies have also examined the effects of development activities which occur adjacent to or in proximity to lakes and streams to determine the actual effects of the disturbance and demonstrable reductions in impact with varying levels of separations (setbacks) between the development and the waterbody. Environmental parameters studied have included changes to:

- Stream flows
- Light intensity
- Water temperature
- Concentrations of suspended and settled sediments
- Presence of large woody debris
- Nutrient loads in surface runoff and groundwater
- Water-transported contaminants such as pesticides, herbicides, and fungicides

Below is a summary of some of the studies reviewed and the buffer widths that are recommended for the resource protection and the protection of fish and aquatic populations:

- **Stream Temperature:** For development or resource extraction activities which entail the removal of overstory vegetation along streams, buffer strips are one of the most effective means for maintaining water temperature in a range and seasonal pattern most beneficial to fish. Buffers greater than **100 feet** have been found to provide as much shade as old growth undisturbed forest. Undisturbed buffer strips from **50 to 100 feet** in width were found to maintain water temperatures with a normal range under some circumstances, partially dependent on stream course orientation and the buffer placement.

- **Erosion and Sedimentation:** In the Pacific Northwest, buffer strips **50 to 100** feet wide reduced stream sedimentation from adjacent patch-timber harvest activities; however, the sediment levels in the stream using the 50 to **100** foot buffer were **still** 50 percent greater than an undisturbed portion of the watershed. A more sensitive indicator of the effects of introduced sediments on streams is the measurement of changes to the permeability of streambed gravels. Streambed permeability has a more direct bearing on the success of survival for developing eggs and egg sac fry present in the gravels of the stream. Logging activities conducted with an adequate stream setback buffer have shown minimal changes to stream gravel permeability. Logging activities that did not incorporate setback buffers were found to decrease stream gravel permeability more than **50** percent for at least **6** years following logging.
- **Large Woody Debris:** Removal of nearly all riparian trees along streams can eliminate the source of large woody debris in second growth forests and old growth forests for a period of **40 to 100** years after disturbance. Associated effects on fish habitat can include changes to riffle and pool frequency and loss of overhanging and undercut banks important to juvenile fish and changes in availability of critical overwintering habitat. For logging activities and similar clearing disturbances, studies have shown that buffer strips of **50 to 425** feet (British Columbia) and **15 to 130** feet (Southeast Alaska) produced more juvenile salmon in the summer and sheltered more juvenile salmon during the winter than areas without buffers.
- **Water Quality:** Buffer strips have been shown to improve or avoid declines in dissolved oxygen concentrations in streams primarily by keeping clearing debris and sediments out of streams and providing shade conditions that maintain natural water temperatures (cooler water contains higher levels of dissolved oxygen). Buffers of **20 to 130** feet have been shown to be effective in preventing logging slash from entering streams in the Pacific Northwest.

Cities and Boroughs throughout the United States and Canada use also setback criteria to protect development structures from the potential effects of flooding, stream bank migration, winter icing and to protect water quality and fish and wildlife habitat. Typically the setbacks are included as part of a more extensive zoning ordinance or Shoreland Protection Ordinance and detailed minimum development standards are used in conjunction with structural setbacks. Development standards typically regulate the type of uses, amount of impervious surfaces, and restrict tree cutting and the clearing of vegetation within the setback zones. Presented below is a summary of representative setbacks/buffer strips used by local governments including the key conditions that must be met as part of the setback.

<i>Location</i>	<i>Setback (from ordinary high water mark)</i>
Municipality of Anchorage Title 21- Stream Protection	<ul style="list-style-type: none"> • A minimum of 25 feet wide on either side of the stream • No vegetation may be cleared or disturbed, no grading or excavation may be done, and no structures, fill or paving may occur within 15 feet of the stream. • Within the stream protection setback, located between 15 and 25 feet from the stream, landscaping is permitted.
Anchorage Wetlands Management Plan 1995 Setbacks from Wetlands	<ul style="list-style-type: none"> • Minimum setback is 25 feet. • 100 feet from anadromous fish streams • 85 feet from certain headwaters and tributaries • 65 feet from all other water bodies. • Allows for customized setback as part of the permitting process • Requires undisturbed buffers between 15 and 25 feet depending on wetland types and interactions • Setbacks and buffers shall remain undisturbed to the maximum extent
Willow Sub-Basin Area Plan Logging Buffer (Undisturbed Vegetation) Strips	<ul style="list-style-type: none"> • Minimum 50-foot buffer, larger setbacks to be determined on a site-specific basis
Susitna Area Plan - Logging Buffer (Undisturbed Vegetation) Strips	<ul style="list-style-type: none"> • Minimum 100 feet from anadromous fish streams or other acceptable measures • 100 feet to ¼ mile (greater than 300 feet for visual quality, recreation, and wildlife habitats) • 100 foot buffer for wetlands greater than 100 acres with a locatable stream outlet • 60 foot buffer for wetlands 40 to 100 acres with no locatable stream outlet
Hatcher Pass Management Plan - Logging Buffer (Undisturbed Vegetation) strips	<ul style="list-style-type: none"> • 200 foot buffers on specific streams • 100 feet on all other perennial streams to include all riparian vegetation (but not less than 50 feet)
Alaska Department of Fish and Game - Timber Harvest Activity Buffer (Undisturbed Vegetation) Strips	<ul style="list-style-type: none"> • 100 foot setback buffer from stream or lake shoreline, the upland edge of all stream/lake contiguous wetlands, all fish streams, and all lakes connected by surface drainage to fish streams
Pacific Northwest - Logging Buffer (Undisturbed Vegetation) Strips	<ul style="list-style-type: none"> • Recommended 50 to 100 feet
Southeast Alaska - Logging Buffer (Undisturbed Vegetation) Strips	<ul style="list-style-type: none"> • Recommended 15 to 130 feet
Department of Environmental Programs, Metropolitan Washington Council of Governments	<ul style="list-style-type: none"> • A minimum setback buffer of 20 feet is recommended • 100 to 300 feet for adequate removal of the smaller sized sediment particles found in urban runoff
Bellevue, Washington Shoreline Overlay District	<ul style="list-style-type: none"> • No clearing, grading, excavating, or fill within 25 feet • No commercial parking facilities within 25 feet, • 25 foot setback for structures except docks, piers, and boathouses • Requires plan indicating methods for preserving shoreline vegetation and control of erosion

Location	Setback (from ordinary high water mark)
York, Virginia Watershed Overlay District	<ul style="list-style-type: none"> 200 foot buffer strip from tributary streams and public water supply reservoirs, maintained in natural state or planted with erosion resistant vegetation
Lake Tahoe Shorezone Tolerance Districts	<p>Explicit development standards are based on physical characteristics for 8 shorezone districts. Three districts are summarized:</p> <ul style="list-style-type: none"> Backshore (defined as the area of wave run-up or instability plus 10 feet – whichever is greater) - Allowable base land coverage in this zone is 1%. Naturally occurring vegetation shall not be removed or damaged unless otherwise authorized under a permit. District 1 (generally the beach area that separates lakes from marshes and wetlands) – Access to the shoreline shall be restricted to planned footpaths which minimize the impact to the backshore. Vegetation shall not be manipulated or otherwise disturbed except when permitted. Districts 2 and 3 – Permitted development may be conditioned upon installation and maintenance of vegetation to stabilize backshore areas and protect eroding areas from further destruction.
Douglas County, Wisconsin Shoreland Protection	<ul style="list-style-type: none"> 75 feet for all buildings except piers, marinas, boathouses Boathouses must be set back 2 feet. Tree cutting – No more than 30 percent of the length shall be clear cut to the depth of the strip. Cutting of the strip shall not create a clear cut opening in the strip greater than 30 feet wide for every 100 feet of shoreline. In the remaining 70% length of the strip, cutting shall leave sufficient cover to screen cars, dwellings, accessory structures (except boathouses) from the water.
Douglas County, Wisconsin	<ul style="list-style-type: none"> Minimum protection zone - 75 feet Moderate protection zone - 100 feet Maximum protection zone - 125 feet
Minnesota Department of Natural Resources	<ul style="list-style-type: none"> Recommends shoreline vegetative buffers of a minimum of 15 to 25 feet 30 feet setbacks will accommodate the needs of most shoreline wildlife
Statewide Standards for Management of Shoreland Areas - Minnesota	<ul style="list-style-type: none"> Setbacks based on density and lot size. Setbacks range from 75 to 265 feet. 40,000 square foot lot with single family home requires 150 foot setback At least 10 feet for accessory structures. Limited clearing of trees and shrubs and cutting and pruning, and trimming of trees to accommodate the placement of stairways and landings, picnic areas, access paths, beach and watercraft access areas, and permitted water-oriented accessory structures as well as providing a view to the water from the principal dwelling site in shore and bluff impact zones is allowed provided that: <ul style="list-style-type: none"> The screening of structures, vehicles, or other facilities as viewed from the water, assuming summer leaf on conditions, is not substantially reduced. Along rivers, existing shading of water surfaces is preserved. Impervious surface coverage of lots must not exceed 25 % of the lot area.
Landscape Planning Environmental Applications William Marsh, 1991.	<p>Buffers widths generally greater than 50 to 100 feet in urban areas have been shown to be extremely efficient in sediment removal (up to 90 percent or more) if they meet the following design criteria:</p> <ul style="list-style-type: none"> Continuous grass/turf cover Gentle gradients, generally less than 10 percent Shallow runoff depth, generally not exceeding the height of the grass. In hilly terrain, buffers should be located on upland surfaces and integrated with depression storage and soil filtration measures

Recommended Setback

Properly incorporated into planning, design, permitting, and construction criteria, **setback** buffers are an invaluable tool for minimizing future requirements for mitigation or restoration of disturbed areas. It is recommended that the Borough retain the 75-foot setback and regulate the activities within the setback using performance standards to ensure that the intent of the setback is met. A 75-foot setback is justified for the following reasons:

- A comprehensive scientific evaluation of effective shoreline setback distances in the Borough has not been completed. Due to the magnitude of such a project and limited resources, it is unlikely it will be completed in the near future. In addition, the literature reveals that the widths of setbacks vary significantly even when based on sound scientific research. Literature generally supports site-specific setbacks; however, this is an unrealistic approach with the Borough's limited resources.
- Lacking scientific data gathered along the shorelands of the Mat-Su Borough, a change in the setback is politically unpopular and is a highly charged issue. Those in compliance with the 75-foot setback do not want to see a lesser setback and are concerned about view obstructions and other impacts to the waterbody environment. Regulating agencies and environmental groups would also resist a lesser setback because of adverse impacts and would like to see at least a 100-foot setback. A larger setback could result in more variances being required, increased non-compliance, and lengthy challenges.
- A process still exists to apply for a variance to reduce the setback if it presents the property owner with an undue hardship.
- Literature supports a setback of between 50 and 100 feet with the inclusion of minimum development standards. This indicates that **75** feet is a reasonable distance to offer at least some protection to natural resources under a variety of development scenarios.

Recommended Minimum Performance Standards

Effective performance standards **or** Best Management Practices are enforceable and can be consistently applied to all property owners. This will add increased protection to the Borough's waterbodies as they become more popular and more heavily populated, and it **will** help to bring **Mat-Su** Borough ordinances on shoreline development into compliance with the provision of the Mat-Su Borough Coastal Management Program (MSBCMP) that "proposed uses and activities within 75 feet of the high water line must be reviewed to ensure protection of water quality and fish and wildlife habitat."

Regulation of activities within the 75-foot setback must focus on the following **two** concerns which can have a significant impact on water quality, fish and wildlife habitat, and the aesthetics of shorelands and waterbodies:

- **Loss of riparian vegetation:** Removal of existing vegetative cover in the riparian zone to provide shoreline access for boats, create lawn, or for other activities is likely to lead to erosion and sediment transport in runoff waters into the waterbody. Vegetation in this zone helps to filter sediment, nutrients, and pollutants out of surface runoff, while stabilizing banks, controlling erosion, and dissipating floodwaters. Additionally, many terrestrial and aquatic animals use this area for foraging, breeding and rearing their young, and taking protective cover.
- **Use of impervious surfaces:** An impervious, or nonporous surface is one that will not allow water infiltration such as blacktop, concrete and rooftops. Runoff water from these surfaces increases the rate at which pollutants and excess nutrients are carried the water. Impervious surfaces also interrupt natural drainage patterns and can cause shore degradation through concentration of runoff and erosion.

Uniform application and consistent enforcement of specific performance standards can effectively address the above concerns before development starts, at a point when such measures are both inexpensive to the property owner and easy to implement. Moreover, the following measures will also address visual impacts and can serve to buffer and reduce noise generated on the waterbodies.

1. Preserve a minimum 25-foot wide buffer of undisturbed native vegetation across a total of 30 percent of the parcel's shoreline. **This** zone is a permanent planting and should be left untouched, except for the removal of select or fallen trees. In the remaining 70 percent of the buffer zone, limited clearing of trees and shrubs and cutting and pruning of trees is permitted to accommodate the placement of stairways and landings, picnic areas, access paths, beach and watercraft access areas, and permitted water-oriented accessory structures as well as providing a view to the water from the principal dwelling site is allowed provided that:
 - The screening of structures, vehicles, or other facilities as viewed from the water, assuming summer leaf on conditions, is not substantially reduced.
 - Along rivers, existing shading of water surfaces is preserved.

These provisions shall not apply to the removal of dead, diseased or dying trees.

2. In cases where the following land uses are present within the 75-foot buffer zone, an additional **15-foot** wide vegetative buffer, the same length as the use, must be in place between the use and the shoreline to intercept runoff. Non-native vegetation can be used in this zone.
 - Driveway
 - Parking lot
 - Road
 - Car wash
 - Dog kennels
 - Boat Maintenance and Other Repair Activities
3. Any paved, impermeable, or roofed surfaces within the 75-foot buffer zone must have an infiltration bed of sufficient size to control the velocity and volume of runoff.
4. Impervious surface coverage of lots must not exceed **25** percent of the lot area.
5. Boathouses must be set back 2 feet from the water's edge, and are of a height and color so as not to detract from the natural beauty of the shoreline and shall not be used for human habitation.
6. Development shall be accompanied by a site plan indicating methods of preserving shoreline vegetation and for control of erosion during and following construction.
7. **All** structures, accessory buildings and ancillary facilities, other than those related to water use such as **docks**, piers, and boat houses shall be set back a minimum of 30 feet from the ordinary high water mark.
8. Parking shall not be permitted over water or within 30 feet of the shoreline.

In cases where a property owner seeks a variance from the 75-foot buffer, it is recommended that the above performance standards still apply.

Conclusion

Some regulation is necessary to preserve the value and enjoyment of the Borough's waterways, especially as they grow in popularity for residential and recreational use. A recommended **75-foot** setback with minimum performance standards begins to address the protection of water quality and fish and wildlife habitat. In addition, the vegetated setback also serves an important function in the protection of values associated with quality of life to include noise reduction and aesthetics.

However, because water quality is intrinsically linked to the day to day activities of residents and users on and surrounding the waterbody, education is also critical to preserving the resource. Therefore, it is also recommended that in addition to the Matanuska-Susitna Borough's Property Owner's Guide to Shoreline Landscaping, a booklet containing Best Management Practices for waterfront property owners be developed promoting responsible development. Example Best Management Practices might include the following.

- Protect bare soil surfaces. Vegetation **is** the best protection because it both absorbs and uses water. Seed and mulch exposed soil within the watershed as soon as possible after disturbance (gardens, construction sites, etc.).
- Use fertilizer sparingly. **All** fertilizers are carried in runoff and dissolve into the groundwater. Use non-phosphate varieties.
- Do not concentrate or channelize water flow unless absolutely necessary. On undisturbed slopes, water percolates through soil slowly. When all runoff is focused on one spot, such as a culvert or roof gutter, the natural protection of the ground surface is often not sufficient to prevent this extra **flow** from breaking through to bare soil. If runoff must be directed, protect the outflow area with an energy dissipator, such as rock or securely anchored brush, that will withstand storm flows.
- Prevent water from running off roads, driveways, roofs or lawns directly into lakes and streams. Direct surface runoffs into natural depressions, or flat, wooded areas, where the water can seep into the ground slowly.
- Keep septic tanks maintained. Pump every 2-3 years for year-round homes: every 5-6 years for seasonal cottages. This expense is well worth every penny. Pumping is the key to keeping your septic system working. It *is* far less expensive to pump than to have a new leaching field installed.
- Avoid the use of phosphate containing detergents.
- Don't wash vehicles near the waterbodies.
- Use lawn clippings and leaves as mulch for shrubs and gardens. Pile these where they will not be washed into the waterbodies by heavy rains.
- Don't provide feed for wild ducks and geese. **As** pretty as these may be, large numbers **of** Canada Geese have become major problems and polluters (fecal coliform) of lakes elsewhere in the state.
- Place manure and composting piles as far as you can from the waterbodies or from drains or ditches which lead directly to lakes or streams.
- Limit human use or animal use of vulnerable areas. Trails can channel the **flow**.
- Establish temporary berms during construction to contain runoff overflow.

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DRAFT

October 28, 1998



MATANUSKA-SUSITNA BOROUGH

350 East Dahlia Avenue, Palmer, Alaska 99645-6488

Planning and Land Use Department, Code Compliance Division

(907)745-9853 FAX:(907) 745-9876 E-mail: ccb@msb.co.mat-su.ak.us

SHORELANDS MANAGEMENT STUDY QUESTIONNAIRE

The Planning Department of the Matanuska-Susitna Borough has an FY99 **309** Enhancement Grant from the Alaska Coastal Management Program (ACMP) to study how people want the *shorelands* to be managed. As the communities of the Borough, especially their outdoor activities and amenities, continue to attract new residents, businesses, and visitors, how much value will people place on integrating the natural framework of creeks, rivers, lakes, and drainage basins with the life-styles and economic opportunities of the Borough?

The Planning Department is asking for help from a broad spectrum of interests. Whatever your background, the Borough is interested in your local knowledge, phrasing of problems, and ideas for managing the *shorelands*. How can the *shorelands* be integrated into a community that places great value on private market activities and community organizations, and has a strong dislike for government regulation?

1. What are **your current activities** and **uses** of the *shorelands*?

- | | | | |
|--------------------------|--------------------------------------|--------------------------|--|
| <input type="checkbox"/> | residence
or
second
home | <input type="checkbox"/> | walking, bicycling, skiing , or other non -
motorized recreation |
| <input type="checkbox"/> | camping or temporary residential use | <input type="checkbox"/> | boating, flying, snow machining, or other
motorized recreation |
| <input type="checkbox"/> | commercial or industrial business | <input type="checkbox"/> | access to waterways |
| <input type="checkbox"/> | fishing or hunting | <input type="checkbox"/> | sightseeing or traveling through Borough |
| <input type="checkbox"/> | guiding or tourism | | |
| <input type="checkbox"/> | job or work | | |

What are your **other activities or uses**?:

2. Does anything **displease, disturb, or threaten** you about uses and activities on the *shorelands*?

- | | | | |
|--------------------------|--|--------------------------|---|
| <input type="checkbox"/> | Disruption from motorized vehicles, boats
and airplanes | <input type="checkbox"/> | Fragmented habitat and wildlife systems |
| <input type="checkbox"/> | Rudeness among residents, visitors, and
neighbors | <input type="checkbox"/> | Flood damage from bluff failure and
changing stream patterns |
| <input type="checkbox"/> | Infringement of privacy and property
rights | <input type="checkbox"/> | Declining environmental quality |
| <input type="checkbox"/> | Declining fishing and hunting
opportunities | <input type="checkbox"/> | Crowded recreation and tourism
destinations |
| <input type="checkbox"/> | Interference with private market | <input type="checkbox"/> | Limited public access to public lands and
waters |
| <input type="checkbox"/> | Shrinking of job opportunities | <input type="checkbox"/> | Loss of heritage and damage to artifacts |

DRAFT

September 29, 1998

Can you identify other **problems** and **threats** regarding *shorelands*?:

What do you **want to see happen** on the *shorelines*?

- | | |
|--|--|
| <input type="checkbox"/> A linked and adequate system of habitat for small and large wildlife | <input type="checkbox"/> Encouragement of commercial and industrial patterns that incorporate the values of <i>shorelands</i> |
| <input type="checkbox"/> Positive protections of anadromous streams in development projects | <input type="checkbox"/> Identification of access and other needs of resource based industries |
| <input type="checkbox"/> Encouragement of existing riparian vegetation and protection of natural systems in developing areas | <input type="checkbox"/> Preservation of quality recreational and tourism opportunities |
| <input type="checkbox"/> Protection of the native vegetation, soils, and waterways in large natural areas | <input type="checkbox"/> Friendliness and cooperation among neighbors, visitors, and residents |
| <input type="checkbox"/> An overall system to avoid the dangers to life and property from flooding | <input type="checkbox"/> Identification and integration of heritage resources in <i>shorelands</i> activities and uses |
| <input type="checkbox"/> Identification of development opportunities and incentives that are consistent with <i>shorelands</i> | <input type="checkbox"/> Public procedures that encourage partnerships and a cooperative spirit to protect and develop <i>shorelands</i> |
| <input type="checkbox"/> Integration of <i>shorelands</i> with fire safety | |

What else would you **like to happen** in the *shorelands*?

4. What can be done to better manage the *shorelands*?

- | | |
|--|--|
| <input type="checkbox"/> Maintain existing rules regarding the 75 feet setback | <input type="checkbox"/> Protection of valuable existing uses and activities from more intense development |
| <input type="checkbox"/> Easier methods for the public to follow | <input type="checkbox"/> Significant incentives to encourage appropriate development in <i>shorelands</i> |
| <input type="checkbox"/> Graphic examples of riparian vegetation and improvements | <input type="checkbox"/> Nurturing of partnerships and resource sharing arrangements among organizations |
| <input type="checkbox"/> Funding for pilot projects that others may follow | <input type="checkbox"/> Outreach and public information programs to encourage and motivate private businesses |
| <input type="checkbox"/> Mapping of potential development and significant preservation areas | |
| <input type="checkbox"/> Improvements and vegetation in accord with a plan that will protect the <i>shorelands</i> | |
| <input type="checkbox"/> Discouragement of patterns that result in cumulative impacts | |

What other **methods or tools** could be used to manage the *shorelands*?

FURTHER COMMENTS:

If you are interested in providing additional information, specialized knowledge, or insight, or participating in the Advisory Committee or the other *shorelands* activities please indicate your **name, phone number, fax, e-mail, and/or mailing address**:

**PLEASE FOLD AND MAIL
THIS SELF-ADDRESSED AND STAMPED QUESTIONNAIRE**

DRAFT

October 28, 1998



MATANUSKA-SUSITNA BOROUGH

350 East Dahlia Avenue, Palmer, Alaska 99645-6488

Planning and Land Use Department, Code Compliance Division

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SHORELANDS MANAGEMENT STUDY SHORELANDS STEERING COMMITTEE (INTERIM)

AGENDA

(anticipation of public process and study)

INTRODUCTIONS

APPROVAL OF AGENDA

HANDY MEETING RULES

(consensus of people at meeting)

- e One person speaks at a time
- e Briefly Identify yourself, interests, and background
- e Practice good listening skills
- e Do not repeat comments of others
- e Keep comments brief and on the subject
- e Avoid being judgmental of others
- e Share your background and information openly
- e Defer to the meeting coordinator
- e Seek consensus and avoid group voting and decision-making
- e Place objectives of study and borough above special interests

PURPOSE OF PROJECT

Review of staff information and background

Background, input, and questions from others

IDENTIFICATION OF PEOPLE AND INTERESTS TO HELP WITH STUDY

(This is the focus and most important activity of the meeting-see attached memo

The remainder of the agenda is for your information and comment)

Interests

Groups

People

PUBLIC PROCESS AND INFORMATION

DRAFT

October 28, 1998

Schedule
Questionnaires
Interim Steering Committee
Public Forum
Workshops
Announcements and newsletters

SHORELANDS MANAGEMENT STUDY

Background and literature review
Issues and problems
Goals and objectives
Management Policies and Strategies

CHAPTER 17.55: SETBACKS AND SCREENING EASEMENTS

Section

[17.55.004 Definitions](#)

[17.55.005 General](#)

[17.55.010 Setbacks](#)

[17.55.015 Shorelands; definition \[Repealed\]](#)

[17.55.020 Setbacks for shorelands](#)

[17.55.040 Violations, enforcement, and penalties](#)

17.55.004 DEFINITIONS.

(A) For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

- “Aircraft hangar” means a roofed structure which is used to completely or partially enclose and store aircraft and aircraft accessories.
- “Boathouse” means a roofed structure which is used to completely or partially enclose and store boats and boating accessories.
- “Building” means any structure intended for the shelter, housing, or enclosure of any individual, animal, process, equipment, goods, or materials of any kind or nature.
- “Building line” means the line of that part of the building nearest the property line.
- “Dedication” means the reservation of land to a public use by the owner manifesting the intention that it shall be accepted and used presently or in the future for such public purpose. A dedication by the owner under the terms of this section is a conveyance of an interest in property which shall be deemed to include the warranties of title listed in A.S. 34.15.030. The dedication of streets, alleys, sidewalks, or public open space shall convey a fee interest in the area dedicated. The dedication of all other public rights-of-way shall be deemed to create an easement in gross to perform the indicated function in the area depicted.
- “Engineer” means a registered professional civil engineer authorized to practice engineering in the state of Alaska.
- “Incidental” means subordinate and minor in significance and bearing a reasonable relationship to the primary

use.

- “Lot” means the least fractional part of subdivided lands having limited fixed boundaries and having an assigned number, or other name through which it may be identified.
- “Lot depth” means the average distance between front and rear lot lines.
- “Lot frontage” means all property abutting the right-of-way of a dedicated street or road easement, measured along the right-of-way between side lot lines of a lot.
- “Lot width” means the average distance between side lot lines.
- “Ordinary high water mark” means the mark made by the action of water under natural conditions on the shore or bank of a body of water which action has been so common and usual that it has created a difference between the character of the vegetation or soil on one side of the mark and character of the vegetation and soil on the other side of the mark.
- “Parcel” means an unsubdivided plot of land.
- “Right-of-way” means a strip of land reserved, used, or to be used for a street, alley, walkway, airport, or other public or private purpose.
- “Structure” means anything that is constructed or created and located on or above the ground, or attached to something fixed to the ground. For purposes of minimum setbacks and building separation requirements, the following are not considered structures unless specifically addressed by code: signs; fences; retaining walls; parking areas; roads, driveways, or walkways; window awnings; a temporary building when used for 30 days or less; utility boxes and other incidental structures related to utility services; utility poles and lines; guy wires; clotheslines; flagpoles; planters; incidental yard furnishings; water wells; monitoring wells; and/or tubes, patios, decks, or steps less than 18 inches above average grade.
- “Subdivision” means the division of a tract or parcel of land into two or more lots, sites, or other divisions, or the combining of two or more lots, tracts, or parcels into one lot, tract, or parcel for the purpose, whether immediate or future, of sale or lease for more than ten years, including any resubdivision and when appropriate to the context, the process of subdividing or the land actually subdivided.
- “Surveyor” means a professional land surveyor who is registered in the state of Alaska.
- “Utility box” means electric transformers, switch boxes, telephone pedestals and telephone boxes, cable television boxes, traffic control boxes, and similar devices.
- “Utility services” means the generation, transmission, or distribution of electricity, gas, communications, and

municipal water and sewer systems.

(Ord. 22-063, § 3, 2022; Ord. 21-019, § 2, 2021; Ord. 17-088(SUB), § 2, 2017; Ord. 13-164, §§ 2, 3, 2013; Ord. 93-042, § 2 (part), 1993; Ord. 89-072, § 2 (part), 1989; Ord. 88-221, § 2 (part), 1988)

17.55.005 GENERAL.

This chapter establishes minimum structural setbacks from lot lines, water courses and water bodies, rights-of-way, and specific screening easements for certain lands within subdivisions in the Matanuska-Susitna Borough except where otherwise specified in special land use district regulations within this title.

(Ord. 03-053, § 2, 2003; Ord. 88-190, § 3 (part), 1988)

17.55.010 SETBACKS.

(A) No structure or building line shall be placed within 25 feet from the right-of-way line of any public right-of-way, except no furthestmost protruding portion of any structure shall be placed within ten feet from the right-of-way line of any public right-of-way when the pre-existing lot:

(1) measures 60 feet or less in frontage on a public right-of-way, and is not located on a cul-de-sac bulb;
or

(2) comprises a nonconforming structure erected prior to July 3, 1973. This setback shall be known as the structure or building line setback.

(B) Except where specifically provided otherwise by ordinance, no furthestmost protruding portion of any structure or building line shall be located nearer than ten feet from any side or rear lot line.

(C) Except as otherwise specified by code, eaves may project a maximum of three feet into required setback areas.

(D) The setback requirements of this section do not apply to property within the cities of Palmer and Wasilla.

(E) If a condemnation by a governmental agency reduces the building line setback of a structure below 25 feet, but there remains at least ten feet setback, and the setback reduced by the condemnation met the requirements of this section prior to the condemnation, the resulting setback shall be the setback requirements for the lot.

(F) For purposes of this chapter, commercial or industrial buildings on separate but adjacent parcels, which otherwise meet the setback requirements, may have connecting pedestrian walkways, enclosed or not.
Pedestrian walkways:

(1) shall not contribute to the building area or the number of stories or height of connected buildings; and

(2) must comply with the current adopted edition of the International Building Code, except that the

outside width of the walkway shall not exceed 30 feet in width, exclusive of eaves.

(G) No furthestmost protruding portion of any structure or building line shall be located nearer than ten feet from railroad rights-of-way, except that utilities and rail dependent structures may extend up to railroad rights-of-way.

(Ord. 11-159, § 2, 2011; Ord. 11-019, § 2, 2011; Ord. 93-042, § 2 (part), 1993; Ord. 88-190, § 3 (part), 1988)

17.55.015 Shorelands; definition. [Repealed by Ord. 17-088(SUB), § 3, 2017]

17.55.020 SETBACKS FOR SHORELANDS.

(A) Except as provided in subsection (B) of this section, no structure or footing shall be located closer than 75 feet from the ordinary high water mark of a body of water. Except as provided otherwise, eaves may project three feet into the required setback area.

(B) Docks, piers, marinas, aircraft hangars, and boathouses may be located closer than 75 feet and over the water, provided they are not used for habitation and do not contain sanitary or petroleum fuel storage facilities. Structures permitted over water under this subsection shall conform to all applicable state and federal statutes and regulations.

(1) Boathouses or aircraft hangars which are exempt from a minimum shoreline setback for structures shall:

- (a) be built over, in, or immediately adjacent to a waterbody and used solely for storing boats and boating accessories;
- (b) be designed, constructed and oriented for primary access by boats or aircraft directly to a waterbody;
- (c) not have more than incidental accessory access to a street or driveway; and
- (d) not be usable as a garage or habitable structure without significant alteration.

(C) In the city of Wasilla, this section does not apply to structures where construction was completed prior to November 16, 1982. Elsewhere in the borough, this section does not apply to structures where construction was completed prior to January 1, 1987, if the present owner or owners of the property had no personal knowledge of any violation of the requirements of this section prior to substantial completion of the structures. The director of the planning department shall, upon application by a property owner, determine whether a property qualifies for an exception under this subsection.

(1) An application for a shoreline setback exception shall include a filing fee as established by resolution of the assembly.

(D) In this section, a “structure” is any dwelling or habitable building or garage.

(E) No part of a subsurface sewage disposal system shall be closer than 100 feet from the ordinary high water mark of any body of water. The planning commission shall require this distance be increased where necessary to protect waters within the borough.

(Ord. 17-088(SUB), § 4, 2017: IM 96-019, page 1, presented 3-19-96; Ord. 93-095, § 2, 1993; Ord. 93-042, § 2 (part), 1993; Ord. 90-052, § 3, 1990; Ord. 88-190, § 3 (part), 1988; initiative election of 5-5-87)

17.55.040 VIOLATIONS, ENFORCEMENT, AND PENALTIES.

(A) Except as otherwise specified in this chapter violations of this chapter are infractions.

(B) Remedies, enforcement actions, and penalties shall be consistent with the terms and provisions of MSB 1.45.

(Ord. 95-088(SUB)(am), § 26 (part), 1995)

CHAPTER 17.65: VARIANCES

Section

[17.65.010 Intent](#)[17.65.020 Requirements for granting a variance](#)[17.65.030 Cases where variance is illegal](#)[17.65.040 Variance; conditions of approval](#)[17.65.050 Initiation of a variance request](#)[17.65.070 Planning commission action](#)[17.65.080 Record of variances](#)[17.65.090 Termination of variances](#)[17.65.100 Appeal procedure](#)[17.65.110 Violations, enforcement, and penalties](#)**17.65.010 INTENT.**

This chapter addresses variances not otherwise addressed within this title. It is not intended that this chapter replace or supersede variance regulations of other chapters within this title, nor is it intended that this chapter address variances to conditional uses.

(Ord. 90-56, § 3 (part), 1990)

17.65.020 REQUIREMENTS FOR GRANTING A VARIANCE.

(A) In order to grant a variance to the regulations of MSB title 17, the planning commission must find that each of the following requirements has been met:

- (1) There are unusual conditions or circumstances that apply to the property for which the variance is sought.
- (2) The strict application of the provisions of this title would deprive the applicant of rights commonly enjoyed by other properties under the terms of this title.
- (3) The granting of the variance will not be injurious to nearby property, nor harmful to the public welfare.

(4) The granting of the variance will be in harmony with the objectives of this title and any applicable comprehensive plans.

(5) The deviation from the requirement of this title that is permitted by the variance will be no more than is necessary to permit a reasonable use of the property.

(Ord. 90-56, § 3 (part), 1990)

17.65.030 CASES WHERE VARIANCE IS ILLEGAL.

(A) A variance from this title may not be granted if:

- (1) special conditions that require the variance are caused by the person seeking the variance;
- (2) the variance will permit a land use in a district in which that use is prohibited;
- (3) the variance is sought solely to relieve pecuniary hardship or inconvenience.

(Ord. 90-56, § 3 (part), 1990)

17.65.040 VARIANCE; CONDITIONS OF APPROVAL.

(A) The planning commission, in granting a variance, may prescribe any conditions and safe-guards that it deems to be necessary or desirable to:

- (1) assure conformity with this title and any applicable comprehensive plans;
- (2) protect adjacent properties;
- (3) protect the public health, safety and welfare.

(Ord. 90-56, § 3 (part), 1990)

17.65.050 INITIATION OF A VARIANCE REQUEST.

(A) A request to the planning commission for a variance to the requirements of MSB title 17 may be initiated by the property owner or the manager's authorized agent.

(B) A variance application shall be filed with the planning director on a form provided by the planning department.

(C) An application for a variance shall include:

- (1) a legal description of the property involved;

- (2) a description of the variance requested, including the code section reference;
- (3) a specific statement of the reasons why the variance is required and conforms to the requirements of MSB [17.65.020](#);
- (4) a site plan or as-built of the particular parcel or parcels affected, submitted under the seal of a professional land surveyor, which shows all information relevant to the variance request;
- (5) an appropriate filing fee as established by the assembly, payable to the borough.

(Ord. 90-56, § 3 (part), 1990)

17.65.070 PLANNING COMMISSION ACTION.

The planning commission shall hear any interested parties and shall render a written decision on the variance application within 30 calendar days from the closure of public hearing.

(Ord. 90-56, § 3 (part), 1990)

17.65.080 RECORD OF VARIANCES.

The planning department shall keep a record of all variances.

(Ord. 90-56, § 3 (part), 1990)

17.65.090 TERMINATION OF VARIANCES.

(A) Any variance granted shall become null and void if:

- (1) the variance is not exercised within one year after being granted;
- (2) any structure or characteristic of use permitted by a variance is moved, removed or discontinued.

(Ord. 90-56, § 3 (part), 1990)

17.65.100 APPEAL PROCEDURE.

Decisions by the planning commission on a variance application may be appealed to the borough board of adjustment and appeals. Appeals shall be filed and conducted in accordance with MSB 15.39.

(IM 96-013, page 1 (part), presented 3-19-96; Ord. 90-56, § 3 (part), 1990)

17.65.110 VIOLATIONS, ENFORCEMENT, AND PENALTIES.

(A) Except as otherwise specified in this chapter violations of this chapter are infractions.

(B) Remedies, enforcement actions, and penalties shall be consistent with the terms and provisions of MSB 1.45.

(Ord. 95-088(SUB)(am), § 30 (part), 1995)

CHAPTER 17.80: NONCONFORMING STRUCTURES

Section

[17.80.010 Intent](#)[17.80.020 Legal nonconforming structures](#)[17.80.030 Fees](#)[17.80.040 Written determination required](#)[17.80.050 Nonconforming lots of record](#)[17.80.060 Standards for nonconforming structures](#)[17.80.070 Application for a determination of legal nonconforming status](#)[17.80.080 Repairs and maintenance](#)[17.80.090 Restoration of damaged property](#)[17.80.100 Termination of nonconformities](#)[17.80.110 Violations and enforcement](#)**17.80.010 INTENT.**

(A) Within the Matanuska-Susitna Borough there may exist lots, permanent structures, and uses of land and structures, which were lawful before the effective date of the applicable regulations but which would be prohibited, regulated or restricted under the terms of current regulations, or a future amendment. Except as otherwise provided by code, it is the intent of this chapter to permit nonconforming permanent structures to remain until they are removed or abandoned but not to encourage their perpetuation. It is not intended that this chapter replace or supersede nonconformity regulations in other chapters within this title. This ordinance is promulgated pursuant to AS 29.40.040(A)(2) "Land Use Regulations" and encourages the minimization of the unfavorable effects of the construction of structures that do not conform to code.

(B) Nothing in this chapter requires a change in the plans or construction of any building actually under construction or development prior to the effective date of adoption of this ordinance as long as the building was allowable under the code in effect at the start of development. Where excavation, demolition or removal of an existing building has begun in preparation of rebuilding, such excavation, demolition or removal shall be considered to be actual construction or development, provided that continuous progress is being made toward

completion of the project. Development is defined as any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations.

(Ord. 95-011(SUB1), § 3 (part), 1995)

17.80.020 LEGAL NONCONFORMING STRUCTURES.

(A) The following structures qualify as legal nonconforming structures without an administrative determination, however, an administrative determination may be issued if requested by the property owner:

- (1) structures built lawfully and made nonconforming by adoption of subsequent ordinances;
- (2) structures built in violation of the ordinance existing at the time of construction, then made legal by adoption of subsequent ordinance, and later made nonconforming by adoption of subsequent ordinances;
- (3) permanent structures which were constructed lawfully after the date of adoption of the Acknowledgement of Existing Regulations, Chapter 17.01, but which were made unlawful after the date of start of construction due to adoption of subsequent regulations.

(B) The following structures require an administrative determination in order to be granted legal nonconforming status;

- (1) structures granted a variance in accordance with Chapter 17.65;
- (2) structures built in violation of shoreline setback ordinances existing at the time of construction, and subsequently granted an exemption from shoreline setbacks in accordance with MSB 17.55.020(C);
- (3) permanent structures built in violation of ordinances existing at the time of construction, and subsequently granted legal nonconforming status in accordance with MSB [17.80.070](#).

(Ord. 95-011(SUB1), § 3 (part), 1995)

17.80.030 FEES.

(A) Applications for determination of legal nonconforming status, made pursuant to MSB [17.80.020](#)(A)(1), (2) and (3), and (B)(1) and (2), are not subject to fees set forth in MSB [17.80.070](#).

(B) Applications for determination of legal nonconforming status, made pursuant to MSB [17.80.020](#)(B)(3) are subject to fees as set forth in MSB [17.80.070](#).

(Ord. 95-011(SUB1), § 3 (part), 1995)

17.80.040 WRITTEN DETERMINATION REQUIRED.

Nonconforming structures, covered under MSB [17.80.020\(B\)\(3\)](#), shall not have legal nonconforming status for purposes of this chapter unless a written administrative determination of legal nonconforming status has been issued by the planning director, pursuant to MSB [17.80.070](#).

(Ord. 95-011(SUB1), § 3 (part), 1995)

17.80.050 NONCONFORMING LOTS OF RECORD.

Structures and accessory buildings may be erected on nonconforming lots of record as long as they meet all applicable provisions of code. This provision shall apply even though the lot fails to meet the requirements for area, or width, or both, currently applicable.

(Ord. 95-011(SUB1), § 3 (part), 1995)

17.80.060 STANDARDS FOR NONCONFORMING STRUCTURES.

(A) Where a permanent structure exists that could not be built under the terms of the current regulations, the structure may continue to exist as long as it remains lawful subject to subsections (1) through (4) of this subsection. However:

(1) a nonconforming structure may not be enlarged or altered in any way unless the alteration or enlargement is otherwise specifically allowed by code. Any nonconforming structure or portion of a nonconforming structure may be altered to decrease its nonconformity.

(2) a nonconforming structure may not be enlarged or altered vertically or horizontally in a way which would increase the height, width, depth, area, or volume of the structure except as specifically allowed by current code for similar new structures in that location. A nonconforming structure which straddles a required minimum setback line may be expanded vertically or horizontally only where the expansion is located outside the minimum setback distance.

(3) the physical location of a nonconforming structure may be changed only to reduce or eliminate the nonconformity.

(4) an existing structure devoted to a use not permitted by code shall not be enlarged, extended, moved, or structurally altered.

(B) Structures found in violation of any of the standards set forth in subsection (A) of this section, are not eligible for a determination of legal nonconforming status.

(C) Structures which are in trespass are not eligible for a legal nonconforming status determination.

(D) *[Repealed by Ord. 17-142, § 3, 2018]*

(E) The planning director may not grant legal nonconforming status, pursuant to MSB [17.80.070](#), unless the applicant provides evidence that the structure was erected prior to the adoption of the Acknowledgment of Existing Land Use Regulations, MSB 17.01.

(F) The planning director will consider public health, safety, and welfare concerns raised in comments received pursuant to MSB [17.80.070](#)(C) when making a determination whether to grant a legal nonconforming determination.

(Ord. 17-142, § 3, 2018; Ord. 01-016, § 2, 2001; Ord. 95-011(SUB1), § 3 (part), 1995)

17.80.070 APPLICATION FOR A DETERMINATION OF LEGAL NONCONFORMING STATUS.

(A) An application for a determination of legal nonconforming status may be initiated by the property owner or his authorized agent. The application shall be filed with the planning director on a form provided by the planning department. The application shall be accompanied by a nonrefundable application fee, established by the assembly, and made payable to the Matanuska-Susitna Borough. The planning director may not grant legal nonconforming status unless the applicant provides evidence that the structure was erected prior to the adoption of the Acknowledgment of Existing Land Use Regulations chapter except as noted herein.

(B) In addition to the completed application form, the submittal shall contain the following items:

- (1) description and photographs of the structure;
- (2) as-built drawing(s), prepared by a professional surveyor, registered in the state of Alaska, verifying the location(s) or the structure(s);
- (3) any other documentation the planning director may deem necessary to evaluate the application.

(C) When an application is submitted, the borough shall give notice of the application by publication in a newspaper of general circulation in the borough at least 15 calendar days before the earliest date the planning director may render a decision.

(D) Notice of the application shall be mailed to owners of all property within 600 feet of the lot lines of the property containing the nonconforming structure at least 10 calendar days prior to the earliest date upon which the planning director may make a final decision on the application. The notice shall contain the following:

- (1) the earliest date a decision may be rendered;
- (2) brief description of the application;
- (3) a vicinity map of the area surrounding the subject property;
- (4) legal description of the subject property;

- (5) the names of the applicants and owners of the subject property;
- (6) the planning department's telephone number; and
- (7) identify the location where the application and other supporting material will be available for public inspection.

(E) Prior to the date of the decision, the applicant shall pay the cost of all mailings or advertisements required by this section.

(Ord. 95-011(SUB1), § 3 (part), 1995)

17.80.080 REPAIRS AND MAINTENANCE.

Except as otherwise addressed by code, nothing in this chapter shall prevent keeping in good repair a nonconforming permanent building or a building in which a nonconforming use is conducted. However, any building that is declared by an authorized official to be unsafe or unlawful by reason of physical condition shall not be restored, repaired or rebuilt in violation of the standards set forth in MSB [17.80.060\(A\)](#).

(Ord. 95-011(SUB1), § 3 (part), 1995)

17.80.090 RESTORATION OF DAMAGED PROPERTY.

(A) Except as otherwise addressed by borough code, nothing in this ordinance shall prevent restoration and subsequent continued occupancy and use of a permanent building destroyed to up to 50 percent of its replacement value by fire, explosion, or other casualty or act of God.

(B) A dwelling made nonconforming through adoption or amendments to Title 17, Zoning, may be replaced or reconstructed within two years after accidental damage or accidental destruction by fire, explosion, or other casualty or act of God. Reconstruction or replacement not completed within two years of the date of the damage is prohibited except in compliance with current regulations. Replacement or reconstruction may be undertaken in the same three dimensional space that it occupied prior to damage or destruction even though the damage or destruction exceeded 50 percent of its replacement value provided it was a legal structure at the date of construction. Except as otherwise specifically allowed by code, reconstruction and replacement shall not increase the height, depth, area, or volume of the structure beyond that which existed on the date the structure became a pre-existing legal nonconforming structure.

- (1) The borough manager may grant a one time extension of the allowed time to complete rebuilding of a pre-existing legal nonconforming structure which is otherwise eligible for reconstruction under this section. To grant the time extension authorized under this section, the borough manager must find from evidence presented that:

(a) the requirement to rebuild within two years from the date of destruction would result in undue hardship on the applicant;

(b) the applicant diligently pursued reconstruction during the original two-year period; and

(c) the need for an extension is caused by unforeseen and unavoidable circumstances beyond the control of the applicant.

(2) The extension shall be for a specific amount of time, not to exceed three years from the original two-year deadline.

(3) An application for the three-year extension of time to rebuild a pre-existing legal nonconforming structure shall be submitted in writing to the borough manager and shall provide sufficient detail to describe the proposed structure and its compliance with applicable borough code. The application must also contain the evidence required by MSB [17.80.090](#)(B)(1)(a-c).

(4) The borough manager will review the application and make a decision regarding the request. A public hearing is not required. Appeals of this decision are as prescribed in MSB 15.39.030.

(C) The percentage of loss, under MSB [17.80.090](#)(A) and (B) shall be determined by an independent adjuster or appraiser who is Financial Institutions Reform and Recovery Enforcement Act (FIRREA) certified or the appraisal must be accompanied by the appraiser's license number and certification of type of appraisal they are licensed to perform.

(Ord. 01-016, § 3, 2001; Ord. 99-197, § 2, 1999; Ord. 95-011(SUB1), § 3 (part), 1995)

17.80.100 TERMINATION OF NONCONFORMITIES.

When a legal nonconforming permanent structure is abandoned for a period of one year or more, the building shall not then be used except in compliance with this chapter. For the purposes of this chapter, abandonment means discontinuation or failure to complete construction and begin use, for a continuous period of more than one year. Whether the property owners intended to abandon the structure is not relevant to an abandonment determination. Reconstruction of a damaged nonconforming structure is not prohibited after the one-year period if the reconstruction was prohibited due to lawful orders issued by a court or in the course of an arson or criminal investigation.

(Ord. 95-011(SUB1), § 3 (part), 1995)

17.80.110 VIOLATIONS AND ENFORCEMENT.

Violations and enforcement of this chapter shall be consistent with the terms and provisions of Chapter 17.56.

(Ord. 95-011(SUB1), § 3 (part), 1995)

CHAPTER 17.125: DEFINITIONS

Section

17.125.005 General provisions**17.125.010 Definitions****17.125.005 GENERAL PROVISIONS.**

(A) The definitions listed in this section shall apply to the words and phrases used in MSB Title 17 unless otherwise described within the individual chapters.

- (1) Words used in the present tense shall include the future.
- (2) Words in the singular number shall include the plural number and the plural number shall include the singular.
- (3) The word “shall” is mandatory.
- (4) The words “include,” “including,” and “includes” shall be interpreted as being followed by the phrase “but not limited to.”
- (5) The word “lot” includes the words “plot” and “parcel.”

(B) In instances where a word is not included in this section nor in the applicable section, reference will be made first to the most recent publication of “The Illustrated Book of Development Definitions” then to “The Zoning Dictionary” by Lehman and Associates, then to “Webster’s New Universal, Unabridged Dictionary.”

(Ord. 05-125(SUB)(AM), § 2 (part), 2005)

17.125.010 DEFINITIONS.

- “Access” means a legal way or means of approach to provide physical ingress or egress to a property.
- “Accessory building” means a building detached from a principal building located on the same lot and customarily incidental and subordinate to the principal building or use.
- “Accessory use” means a use or structure incidental and subordinate to the principal use or structure on a parcel of land, is on the same parcel as the principal use or structure, and is a use or structure commonly associated with the principal use or structure and integrally related to it. Some examples are: private garages or storage sheds on residential property or barns on agricultural property.
- “Administrative permit” means a written document issued administratively which may specify controls,

restrictions and safeguards on the administratively permitted activity to ensure compatibility with permitted uses.

- “Adult bookstore” means a commercial establishment where at least 51 percent of its interior floor area or retail merchandise is devoted to the sale, rent, lease, inspection, or viewing of books, films, video cassettes, magazines, or other media or periodicals whose dominant theme is actual or simulated specified sexual activities, display or exhibition of specified anatomical areas, removal of articles of clothing, or total nudity.
- “Adult business” means any bookstore, adult cabaret, adult escort service, adult massage service, adult mini-theater, or adult motion picture theatre.
- “Adult cabaret” means a restaurant, coffee house, or cabaret which features topless dancers, strippers, male or female impersonators, or similar entertainers who provide live adult entertainment for commercial purposes at any time or any number of times.
- “Adult entertainment” means any motion picture, live performance, display, or dance of any type whose dominant theme is actual or simulated specified sexual activities, display or exhibition of specified anatomical areas, removal of articles of clothing, or total nudity, whether live or by shadow effects, offered for commercial purposes.
- “Adult escort” means a person who, for monetary consideration such as a fee or tip, or for other non-monetary consideration, agrees or offers to act as a companion, guide, or date that may provide services such as modeling lingerie, adult entertainment, adult massage service, or similar activities.
- “Adult escort service” means a person or business that, for monetary consideration such as a fee or tip, or for other non-monetary consideration, furnishes or offers adult escorts.
- “Adult massage service” means a person or business that, for monetary consideration such as a fee or tip, or for other non-monetary consideration, furnishes or offers massages or related services, for which the service providers do not have a license for the practice of that profession or vocation as regulated under Alaska Statute Title 8, or which also provides adult entertainment.
- “Adult mini-theater” means an enclosed building with a capacity of less than 50 persons used for the purpose of displaying adult entertainment through films, video, or other motion pictures for commercial purposes.
- “Adult motion picture theater” means an enclosed building with a capacity of 50 or more persons used for the purpose of displaying adult entertainment through films, video, or other motion pictures for commercial purposes.
- “Adverse impact” means a condition that creates, imposes, aggravates, or leads to inadequate, impractical, unsafe, or unhealthy conditions on a site proposed for development or on other properties and facilities.
- “Affordable housing” means housing renting for monthly rent of not more than 30 percent of the total monthly

household income of low income households (defined to be household earnings less than 80 percent of the median annual income adjusted for household size, as determined by the United States Housing and Urban Development Department); or housing that may be purchased with monthly payments including: principal, interest, taxes, insurance, homeowner association fees, and assessments that do not add up to more than 30 percent of the total monthly household income of low income households.

- “Agricultural” means the production and harvest or care of plants, animals, birds, fish, bees, and other organisms by humans for use in providing food, fuel, fiber, shelter, travel, clothing, energy, and aesthetics.
- “Allowed use” means a use of land or a structure, which is permissible by right or condition within a certain zoning district according to the regulations of this code.
- “Amateur radio tower” means any tower used for amateur radio transmissions consistent with the “Complete Federal Communications Commission U.S. Amateur Part 97 Rules and Regulations” for amateur radio facilities.
- “Americans with Disabilities Act (ADA)” means a 1990 federal law designed to bring disabled Americans into the economic mainstream by providing them equal access to jobs, transportation, public facilities, and services.
- “Ancillary structure” means any form of development associated with a telecommunication facility, including but not limited to: foundations, concrete slabs on grade, guy wires, guy anchors, generators, and transmission cable supports; however, specifically excluding equipment cabinets.
- “Angle of repose” means the steepest angle material can be piled without slumping.
- “Antenna” means any apparatus designed for the transmitting or receiving of electromagnetic waves. Types of antenna include, but are not limited to: omni-directional antennas, directional antennas, multi or single bay, yagi, or parabolic antennas.
- “Applicant” means a person or authorized representative submitting an application for development.
- “Aquifer” means a formation, a group of formations, or part of a formation that contains sufficient saturated permeable material to yield economical quantities of water to wells and springs.
- “Batch plant” means a plant or equipment used for production of asphalt or concrete.
- “Bedroom” means a private room planned and intended for sleeping, separated from other rooms by a door, and accessible to a bathroom without crossing another bedroom.
- “Berm” means an earthen mound designed to provide visual interest, screen undesirable views, decrease noise, or control or manage surface drainage.

- “Bioswales” means open channels that usually possess a dense cover of grasses and other herbaceous plants through which runoff is directed during storm events. Bioswales allow runoff to infiltrate.
- “Breakpoint technology” means the engineering design of a tower wherein a specified point is designed to have stresses concentrated so that the stress point is at least 5 percent more susceptible to failure than any other point along the structure. In the event of a structural failure, the failure will occur at the breakpoint rather than at the base plate, anchor bolts, or any other point on the tower.
- “Broadcast facilities” means a tower, antennas, or antenna arrays for FM/TV/HDTV broadcasting transmission facilities, and tower(s) utilized as antennas for an AM broadcast station that are licensed by the Federal Communications Commission.
- “Buffer” means a method of protection against negative impacts, which provides a physical separation or barrier.
- “Building” means any structure, including mobile homes, intended for the shelter, housing, or enclosure of any person, animal, process, equipment, goods, use, materials, or services of any kind or nature.
- “Cabin” means any residential building no greater than 800 square feet in gross floor area.
- “Capture area” means the area on the surface of the ground where infiltrating water will travel to a drinking water well.
- “Caretaker” means a person(s) who takes care of land, dwellings, animals, or belongings when an owner is absent.
- “Certified site plan” means a site plan that is prepared and sealed by an architect, professional engineer or land surveyor, authorized to engage in that profession by the state of Alaska. The certified site plan shall be at a scale of one inch equals 50 feet (or less) showing dimensions and locations of all existing and proposed development on the site in relationship to all property lines.
- “Character” means those attributes, qualities, and features that make up and distinguish a development project and give such project a sense of purpose, function, definition, and uniqueness.
- “Circulation” means systems, buildings, and physical improvements for the movement of people, goods, water, air, sewage, or power by such means as streets, highways, railways, waterways, and airways.
- “Collocation” means the installation of antennas and associated equipment from more than one provider on a single structure.
- “Commencement of construction or placement” means the first placement of permanent construction of a

building on a site, such as the pouring of a slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a building upon a foundation.

- “Commercial use” means a land use, business enterprise, or vehicle maintained for the purpose of buying or selling goods or services.
- “Commission” means the Matanuska-Susitna Borough Planning Commission.
- “Compatible design” means the visual relationship between adjacent and nearby buildings and the immediate streetscape, in terms of a consistency of materials, colors, building height, building elements, building mass, and other constructed elements of the urban environment, such that abrupt or severe differences are avoided.
- “Conditional use” means a use of a structure or land, which may be allowed by the planning commission after a public hearing and review and subject to certain prescribed or imposed conditions.
- “Conditional use permit (CUP)” means a written document which may specify controls, restrictions and safeguards on the conditional permitted activity to ensure compatibility with permitted uses.
- “Conditions of approval” means requirements established by the borough before preliminary or final approval of an application becomes effective.
- “Confined aquifer” means an aquifer which is bounded above and below by formations of impermeable or relatively impermeable material. An aquifer in which ground water is under significantly greater pressure than atmospheric pressure and its upper limit is the bottom of a bed of distinctly lower hydraulic conductivity than that of the aquifer itself. Confined aquifer is synonymous with artesian aquifer.
- “Confining layer” means a geologic bed or layer that retards but does not necessarily prevent the flow of water. A confining layer does not readily yield water to wells or springs. Confining layer is synonymous with aquitard.
- “Contiguous acres” includes acreage that may be separated by a highway or railroad.
- “Deciduous” means plants that drop their foliage annually before becoming dormant.
- “Density” means the number of dwelling units allowed per area of a development site or parcel.
- “Design standards” means a set of regulations defining parameters to be followed in site and building design and development.
- “Designee” means the director or his/her duly authorized representative.
- “Developer” means the legal or beneficial owner or owners of a lot or of any land included in a proposed

development, including the holder of an option or contract to purchase or other persons having enforceable proprietary interests in such lands.

- “Development” means the construction, reconstruction, conversion, structural alteration, relocation, placement, or enlargement of any building.
- “Director” means the director of planning and land use.
- “Dog mushing” means a transport method powered by one or more dogs for sport or paid service.
- “Drainage plan” means a plan that is prepared and stamped by a civil engineer authorized to operate in the state of Alaska, which contains the following:
 - (a) background information:
 - (i) project description;
 - (ii) existing (predevelopment) conditions; and
 - (iii) proposed future (development) conditions.
- “Duplex” means a structure containing two dwelling units, each of which has direct access to the outside.
- “Dwelling unit” means one or more rooms, providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.
- “Earth materials” includes those natural resources such as sand, rock, gravel, soil, peat moss, sphagnum, stone, pumice, cinders and clay; also called “materials.”
- “Earth materials processing” means any crushing, loading, screening, sorting, storing, washing, or production of asphalt.
- “Efficiency” means a one-room unit that serves as the occupant’s total living, sleeping, and eating space, usually containing a separate bathroom.
- “Egress” means an exit.
- “Equipment compound” means the area occupied by a tower including areas inside or under the following: an antenna-support structure’s framework, equipment cabinets, and ancillary structures.
- “Evergreen” means vegetation that has foliage that persists and remains green throughout the year.

- “Extraction” means to take and remove earth materials from the subject site to an off-site location.
- “Fair Housing Act of 1968” means that Title VIII of the Civil Rights Act of 1968 (Fair Housing Act), as amended, which prohibits discrimination in the sale, rental, and financing of dwellings, and in other housing-related transactions, based on race, color, national origin, religion, sex, familial status, and handicap (disability).
- “Feed lines” means cables used as the interconnecting media between the transmission or receiving equipment and the antenna.
- “Fence” means a manmade barrier of any material or combination of materials erected to enclose, screen, or separate areas.
- “Fence, solid” means a fence, including any gates, constructed of solid material, wood, or masonry, through which no visual images may be seen.
- “Fire service area” means a geographic region or area established by the borough to provide fire stations and related facilities or services that are needed to protect the health, safety, or welfare of persons and property within that area.
- “Flag lot” means a lot with a long, narrow strip protruding from one side (pole) which fronts on a borough standard width legal right-of-way and provides access to the lot.
- “Garage” means an accessory building or portion of a main building primarily used for storage of motor vehicles. A “garage” is distinguished from a “carport” in that a garage is enclosed on more than three sides, so that the stored or parked car is contained entirely inside the building.
- “Ground cover” means grasses or other low-growing plants and landscaping.
- “Groundwater” means that part of the subsurface where water occurs in the saturated zone.
- “Habitable” means a residence that is safe and can be occupied in reasonable comfort; the premises should be closed in against the weather, provide running water, access to decent toilets and bathing facilities, heating, and electricity. Particularly in multifamily developments, freedom from noxious smells, noise, and garbage are expected.
- “Heavy industrial” means the use of land, buildings, or structures for the manufacturing, processing, fabricating, or assembly of raw materials, warehousing or bulk storage of goods, and related accessory uses.
- “Height, building” means the height of a building, the vertical distance as measured from the base of the building at finished grade to the highest point of the building including appurtenances. The average between the highest and lowest grades within 20 feet of the building shall be considered finished grade and be used in

calculating the height.

- “Height, tall structure” means the vertical distance measured from finished grade to the highest point of the tall structure, not including appurtenances, antennas, or equipment affixed thereto. In the case of wind energy conversion systems, the blade is considered part of the overall height of the structure.
- “Historical uses” means lands with sites, structures, landmarks, or objects with local, regional, statewide, or national historical significance that have been used by past populations for historic or traditional uses (such as subsistence activities, trail use, etc.) and that are often currently enjoyed by users.
- “Impermeable” means a surface or material that provides a functional barrier to significant liquid flow or infiltration.
- “Impervious area/surface” means the area of the subject site covered by impenetrable materials. This surface has been compacted or covered with a layer of material so that it is highly resistant to infiltration by water.
- “Incentive points” means numerical points that are provided to applicants that exceed the required minimum design standards.
- “Industrial use” means any activity which includes manufacturing, processing, warehousing, storage, distribution, shipping, or other related uses.
- “Ingress” means access or entry.
- “Isochron” means a line drawn on a map through all points having the same numerical value of time.
- “Junkyard/refuse area” means a location which is commercially used for the purpose of the outdoor storage, handling, dismantling, wrecking, keeping or sale of used, discarded, wrecked or abandoned airplanes, appliances, vehicles, boats, building and building materials, machinery, equipment, or parts thereof, including, but not limited to, scrap metals, wood, lumber, plastic, fiber, or other tangible materials.
- “Landfill” means an area in which solid waste is disposed of on or into the land, or that portion of a facility where landfilling is taking or has taken place. “Landfill” does not include a landspreading facility or a containment structure used for the disposal of drilling wastes.
- “Landscape plan” means a plan, drawn to scale, showing proposed location and type of existing vegetation to be retained, and proposed new vegetation. The landscape plan may be a component of the certified site plan. Landscape plans shall also include:
 - (a) proposed grade changes;

(b) proposed buffers; and

(c) proposed screening devices.

- “Landscaping” means any of the following or combination of material such as, but not limited to, grass, natural ground cover, shrubs, flowers, vines, hedges, trees, indigenous plant materials, planters, brick, stone or natural forms, water forms, but not including the use of smooth concrete or asphalt.
- “Large-scale commercial” means a commercial building whose total gross building area, including outdoor display and sales area, is equal to or exceeds 25,000 square feet. Large-scale commercial does not include agricultural uses or activities.
- “Legal trail” means a trail that has been legally dedicated for public use either in fee simple or as a public use easement as a trail. The trail has an existing right-of-way or formal, written and recorded landowner permission allowing public access along its entire length.
- “Livable space” means the square footage of habitable or living areas in a building intended for occupancy by one or more persons for living or sleeping quarters.
- “Livestock” means outdoor animals (i.e., cows, goats, horses, pigs, sled dogs, barnyard fowl, etc.) kept for the purpose of providing food, clothing, work or recreation.
- “Living area” means an area or room(s) in a building designed for occupancy by one or more persons for living or sleeping quarters.
- “Lot” means the least fractional part of subdivided lands having limited fixed boundaries and having an assigned number, or other name through which it may be identified.
- “Lot area” means the total horizontal area within the lot lines of a lot, but does not include the pole area of a flag lot and excludes any street rights-of-way.
- “Maintenance” means the servicing, repairing, or altering of any premises, appliance, apparatus, or equipment to perpetuate the use or purpose for which such premises, appliance, apparatus, or equipment was originally intended.
- “Mixed use development” means the development of a neighborhood, tract of land, building with a variety of complementary and integrated uses, such as, but not limited to, residential, office, neighborhood commercial, retail, public, recreation, in a compact urban form.
- “Monitoring well” means any cased excavation or opening into the ground made by digging, boring, drilling, driving, jetting or other methods for the purpose of determining the physical, chemical, biological, or radiological

properties of groundwater.

- “Multifamily” means any development that exceeds the density thresholds within MSB 17.73.040(A).
- “Natural features” means, but is not limited to, floodplains and surface drainage channels, stream corridors, wetlands and riparian habitat, wildlife and scenic corridors, and other bodies of water, steep slopes, prominent ridges, bluffs, or valleys, and existing trees and vegetation.
- “Natural grade” means the elevation of the ground level in its natural state, before construction, filling, or excavation.
- “Neighborhood” means an area of a community with characteristics that distinguish it from other areas and that may include distinct social or economic characteristics, housing types, schools, or boundaries defined by physical barriers such as major highways, and railroads, or natural features such as water bodies or topography.
- “Neighborhood commercial use(s)” means mixed use establishments primarily engaged in the provision of frequently or recurrently needed goods for household consumption, such as prepackaged food and beverages and limited household supplies and hardware. Typical commercial uses include neighborhood convenience stores, laundromats, dry cleaners, small neighborhood offices, postal services, and gas stations.
- “Occupied” means the presence of an individual or individuals in a structure or on a parcel of land or contiguous parcels.
- “Operator or manager” means any natural person responsible for the actual operation and management of an adult business.
- “Ownership interest” in any unincorporated business, means any interest in real or personal property used in connection with the business, coupled with any degree of exercise of management, supervision, direction, or control of the business. In any incorporated business, the term “ownership interest” means ownership of any stock of the corporation.
- “Parcel” means a lot or contiguous group of lots in single ownership or under single control, usually considered a unit for purposes of development.
- “Parking area/lot” means any public or private area, under or outside a building, designed and used for parking motor vehicles, including parking lots, garages, private driveways, and legally designated areas of public streets.
- “Path/pathway” means a cleared way for pedestrians or bicycles that may or may not be improved.
- “Pedestrian walkway” means a walkway or tunnel located at, above, or below grade level that is used as a

means of travel by persons.

- “Permit” means written governmental permission issued by an authorized official, empowering the holder thereof to do some act not forbidden by law but not allowed without such authorization.
- “Pervious hard surface” means any material that permits full or partial absorption of storm water into a previously unimproved land.
- “Phase” means a portion of an operation undertaken in a logical time and geographical sequence.
- “Pollution” means the contamination or other degradation of the physical, chemical or biological properties of water or air, including change in temperature, taste, color, turbidity or odor, or such discharge of any liquid, gaseous, solid, radioactive or other substance into water or air as will or is likely to create a nuisance or render such water or air harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.
- “Primary vehicle access” means, in the context of multifamily development, a vehicle access to the development that is, at a minimum, characterized by the following elements: (1) full-turn vehicle access (i.e., turns allowed in all directions); (2) entryway signage with name of development and address; and (3) principal entry for prospective owners or renters. All public and private roads must meet design standards as outlined in the borough’s subdivision construction manual and addressing/street naming requirements as designated by the borough’s geographic information systems department.
- “Principal use” means the primary or predominant use of any lot, building, or structure.
- “Property” means a lot, parcel, or tract of land together with the building located thereon.
- “Public land” means land owned, maintained, or managed by a public agency.
- “Qualified professional” means a professional hydrologist, geologist, or registered engineer that has specific education and experience with groundwater hydrology.
- “Recreational uses” means the pursuit of leisure-time activities such as, but not limited to, boating, dog mushing, fishing, hunting, trapping, swimming, motorized and nonmotorized activities, sports, games of skill, hiking, skiing, etc., and may include the enjoyment of natural beauty, historic landmarks, or wildlife.
- “Reserved trail” means a trail that has been legally dedicated for public use either in fee simple or as a public use easement as a trail. The trail has an existing right-of-way or formal, written and recorded landowner permission allowing public access along its entire length.

- “Responsible party” means the landowner or the land owner’s designated agent.
- “Residential use” means the use of land, buildings or structures for human habitation.
- “Right-of-way” means a strip of land reserved or dedicated, used or to be used for a street, alley, walkway, trail, airport, or circulation related purpose.
- “Road” means a public or private way that provides access to property for vehicles or pedestrians.
- “Runoff” means the portion of rainfall, melted snow, irrigation water, and any other liquids that flows across the ground surface.
- “Scenic views” means scenic, natural views that may be of significant natural beauty, farmlands, mountains, or other scenes. The goal of development should be to preserve unique vistas and scenic corridors to the greatest extent possible.
- “Screening” means a method of visually shielding or buffering one abutting or nearby building or use from another by fencing, walls, berms, or densely planted vegetation.
- “Seasonal high water table” means the highest level to which the groundwater rises in most years. Estimates are based on observations of the water table at selected sites and on the evidence of a saturated zone, the upper limit often consisting of a mixture of grayish and reddish mottles in the soil.
- “Setback” means the distance between a structure or activity and any lot line, right-of-way, or easement and also the minimum distance required to be maintained between two structures or between a structure and property line, right-of-way, water well, or water body. The distance shall be calculated in a straight line, without regard to intervening structures or objects to the closest exterior point of the structure, property line, or shore line, or center of the well.
- “Short-term transient accommodation” means accommodations for compensation in a building or portions of a building consisting of a residency of any period less than 60 days. If residency exceeds 59 consecutive days, it cannot be considered a short-term transient accommodation for the purposes of this title.
- “Sidewalk” means a paved, surfaced, or leveled area, paralleling and usually separated from the traveled way, used as a pedestrian walk.
- “Single-family dwelling” means a building containing one dwelling unit.
- “Site” means any plot or parcel of land or combination of contiguous lots or parcels of land.
- “Slope” means the rate of vertical change of ground surface expressed as a percentage figure and

determined by dividing the vertical distance by the horizontal distance.

- “Solid waste” means drilling wastes, garbage, refuse, sludge, building material, or other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, or agricultural operations, or from community activities. For purposes of this chapter, “solid waste” does not include:
 - (a) spoil and overburden from road construction, land clearing, or mining operations;
 - (b) mining waste regulated by federal and state regulations;
 - (c) domestic sewage and other wastes that are discharged into and pass through a sewer system to a publicly owned treatment works;
 - (d) industrial or mining wastes that are being collected, stored, or treated in:
 - (i) a wastewater treatment plant before discharge or removal; or
 - (ii) an industrial processing facility for continual re-use;
 - (e) industrial discharges that are point sources subject to federal or state permits;
 - (f) nuclear or nuclear byproduct material.
- “Specified anatomical areas” means:
 - (a) less than completely and opaquely covered human genitals, pubic region, buttocks, and female breast below a point immediately above the top of the areola; and
 - (b) human male genitals in a discernibly turgid state, even if opaquely covered.
- “Specified sexual activities” means simulated or actual:
 - (a) display of human genitals in a state of sexual stimulation or arousal;
 - (b) acts of masturbation, sexual inter-course, sodomy, bestiality, necrophilia, sado-masochistic abuse, fellatio, or cunnilingus; and
 - (c) fondling or erotic touching of human genitals, pubic region, buttocks, or female breasts.
- “Standards” means mandatory regulations, which are indicated by use of the terms “will,” “shall” and “must.”
- “Steep slopes” means any portion of a development site where the natural grade of the land has a slope of 40

percent or greater.

- “Stream” means a body of flowing water, where the water flows in a natural channel as opposed to a canal.
- “Stream corridor” means the corridor defined by the top of the stream’s channel bank, plus the adjacent land areas that contain vegetation, habitats, and ecosystems associated with bodies of water or dependent on the flow of water in the stream. Biologists often refer to the adjacent land area, which will vary in width depending on the particular stream, as a “riparian ecosystem.” In braided channels, the stream corridor shall include the entire stream feature.
- “Street” means any vehicular way that is (1) an existing state, municipal, or borough roadway; (2) shown upon a plat approved pursuant to law; (3) approved by other official action; (4) shown on a plat duly filed and recorded in the office of the recording clerk; (5) shown on the official map or adopted master plan. It includes the land between the street lines, whether improved or unimproved.
- “Structure” means anything that is constructed or created and located on or under the ground, or attached to something fixed to the ground. For purposes of minimum setbacks and building separation requirements, the following are not considered structures unless specifically addressed by code: fences; retaining walls; parking areas; roads, driveways, or walkways; window awnings; a temporary building when used for 30 days or less; utility poles and lines; guy wires; clotheslines; flagpoles; planters; incidental yard furnishings; water wells; monitoring wells; and/or tubes, patios, decks, or steps less than 18 inches above average grade.
- “Structure, rail dependent” means a structure with a primary function requiring close proximity to railroad tracks.
- “Subdivider” means any person having an ownership interest in the land that is the subject of an application for development.
- “Subdivision” means the division of a tract or parcel of land into two or more lots, sites, or other divisions, or the combining of two or more lots, tracts, or parcels into one lot, tract, or parcel for the purpose, whether immediate or future, of sale or lease for more than ten years, including any resubdivision.
- “Subject site” means the property subject to the interim materials district; conditional use permit; or administrative permit for earth materials extraction activities.
- “Swale” means a low-lying or depressed land area commonly wet or moist, which can function as an intermittent drainageway.
- “Tall structure” means a structure that is over 85 feet above grade. The term includes, but is not limited to, tethered balloons, flag poles, sculpture, buildings, elevators, storage or processing facilities, water tanks,

derricks, cranes, signs, chimneys, area illumination poles, towers, broadcast facilities, and supports for communication.

- “Telecommunication facility” means any unmanned facility established for the purpose of providing wireless transmission of voice, data, images, or other information including, but not limited to, cellular telephone service, personal communications service, paging service, and television or radio communications. Telecommunication facilities may include one or more towers, antennas, equipment cabinets, feed lines, ancillary structures, and fencing.
- “Telecommunication tower” means a tower built for the sole or primary purpose of supporting any FCC licensed or authorized antennas and their associated facilities, including structures that are constructed for wireless communications services including, but not limited to, private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul.
- “Topographic features” means the physical land surface relief including terrain elevation and slope.
- “Tower” means a vertical projection composed of metal or other material designed for the purpose of accommodating antennas, wind turbine equipment, or other equipment at a desired height or utilization as a broadcast facility. Examples of tower types include guyed, lattice, monopole, concealed, and other similar type facilities. Towers do not include any device used to attach antennas to an existing building, unless the device extends above the highest point of the building by more than 20 feet.
- “Traditional uses” means an inherited, established, or customary pattern of land uses that may involve a cultural, historical practice, or a social custom.
- “Trail” means a traveled way which may have recreational, aesthetic, alternative transportation, or educational opportunities.
- “Transmission equipment” means equipment that facilitates transmission for any FCC licensed or authorized wireless communication service, including, but not limited to, radio transceivers, antennas, coaxial or fiber-optic cable, and regular backup power supply.
- “Unbuildable” means an area or land that cannot be used practically or is not feasible for a habitable building because of natural conditions, such as a slope exceeding 40 percent, wetlands, floodplains, streams, ponds, or other impeding conditions.
- “Unconfined aquifer” means an aquifer whose upper surface is a water table free to fluctuate.
- “Undeveloped land” means land in its natural state before commencement of construction or placement of any building.

- “Use” means the purpose for which land, a building, or structure is arranged, designated, or intended, is occupied or maintained.
- “Useable open space” means land within or related to a development that is designed and intended for the common use or enjoyment of the residents of the development and may include complementary buildings and improvements as are necessary and appropriate.
- “Variance” means specific grant of relief from one or more of the requirements of this title as provided in MSB 17.65.
- “Water bodies” means permanent or temporary areas of standing or flowing water. Water depth is such that water, and not air, is the principal medium in which organisms live. Water bodies include, but are not limited to: lakes, ponds, streams, rivers, sloughs, and all salt water bodies.
- “Water table” means the upper surface of a zone of saturated soil, including natural seasonal fluctuations, but excluding fluctuations caused by heavy rains or rapid snowmelt; the water table is indicated by the level at which water stands in a well that is open along its length and penetrates the surficial deposits just deeply enough to encounter standing water in the bottom.
- “Wetlands” means those areas that are inundated and saturated by surface or groundwater 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, including swamps, marshes, bogs, and similar areas.
- “Width of a structure” means the horizontal distance measured from the outermost points of the structure including attachments and structural supports but excluding guy wires and transmission lines strung between towers as in the case of electrical power lines.
- “Wind energy conversion system (WECS)” means any device such as a wind charger, windmill, turbine, energy ball, wind tower, or another similar device, which is typically mounted to a tower or pole, and its associated mechanical and electrical equipment, which is designed to convert wind energy to a form of usable energy.
- “Yard” means an open space that lies between the principal building or buildings and the nearest lot line.
- “Yard, front” means a space extending across the full width of the lot between the principal building and the front lot line and measured perpendicular to the building to the closest point of the front lot line.
- “Yard, rear” means a space extending across the full width of the lot between the principal building and the rear lot line and measured perpendicular to the building to the closest point of the rear lot line.
- “Yard, required” means the minimum open space between a lot line and the yard line within which no building

is permitted to be located except as provided by the design standards.

- “Yard, side” means a space extending from the front yard to the rear yard between the principal building and the side lot line and measured perpendicular from the side lot line to the closest point of the principal building.

(Ord. 18-030, § 8, 2018; Ord. 18-013, § 6, 2018; Ord. 17-096, § 5, 2017; Ord. 15-016, § 3, 2015; Ord. 12-169, § 4, 2013; Ord. 12-064, § 3, 2012; Ord. 11-159, § 3, 2011; Ord. 11-153, § 18, 2011; Ord. 11-146, § 8, 2011; Ord. 11-074, § 5, 2011; Ord. 11-019, § 3, 2011; Ord. 09-014, § 3, 2009; Ord. 08-161(AM), § 3, 2008; Ord. 08-136, § 3, 2008; Ord. 08-018(SUB), § 18, 2008; Ord. 08-017(AM), § 3, 2008; Ord. 07-058, § 12, 2007; Ord. 06-192(AM), § 3, 2007; Ord. 06-188(SUB), § 3, 2007; Ord. 05-182(AM), § 9, 2005; Ord. 05-125(SUB)(AM), § 2 (part), 2005)