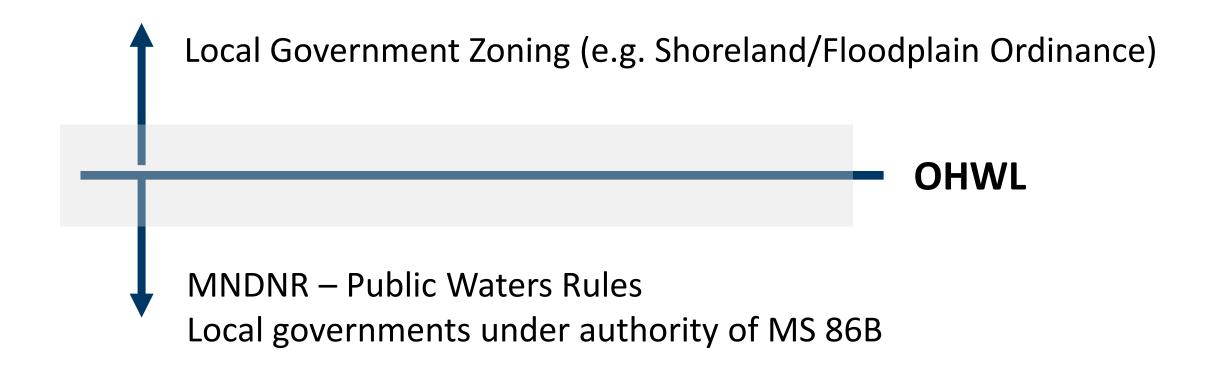


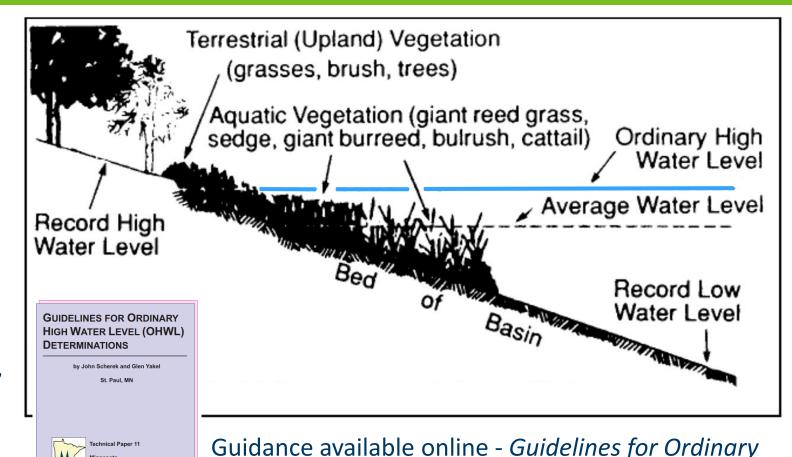
Federal and State Requirements for Enforcement of Ordinance (Floodplain Focus)

Jurisdiction for Riparian Activities



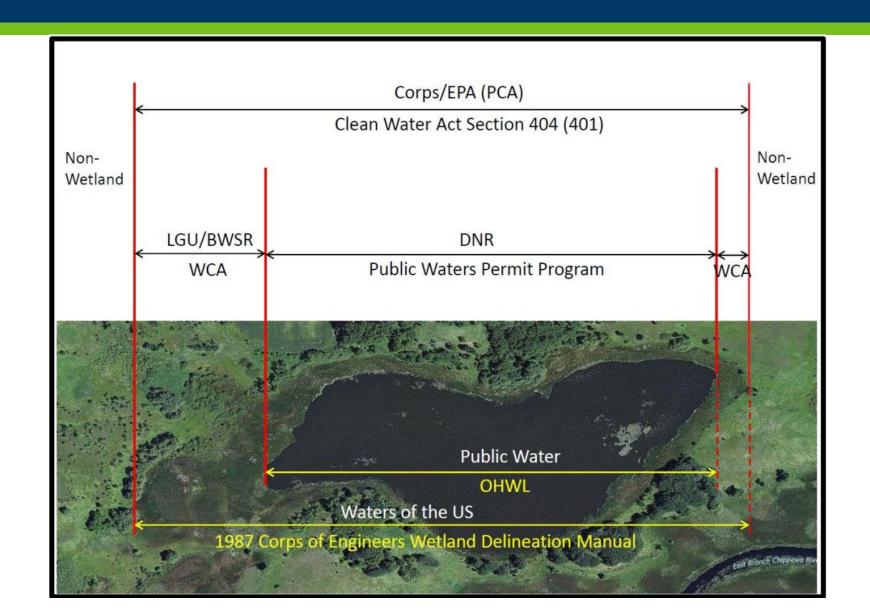
OHWL

- OWHL = Ordinary High Water Level
 - The highest water level that has been maintained for a sufficient period of time to leave evidence on the landscape, commonly the point where natural vegetation changes from predominantly aquatic to predominantly terrestrial
- The OHWL elevation is DNR's regulatory and jurisdictional boundary
- For lakes that the DNR has surveyed, the OHWL elevation is in LakeFinder
- DNR area hydrologists can also located the OHWL onsite or provide an estimated OHWL if needed

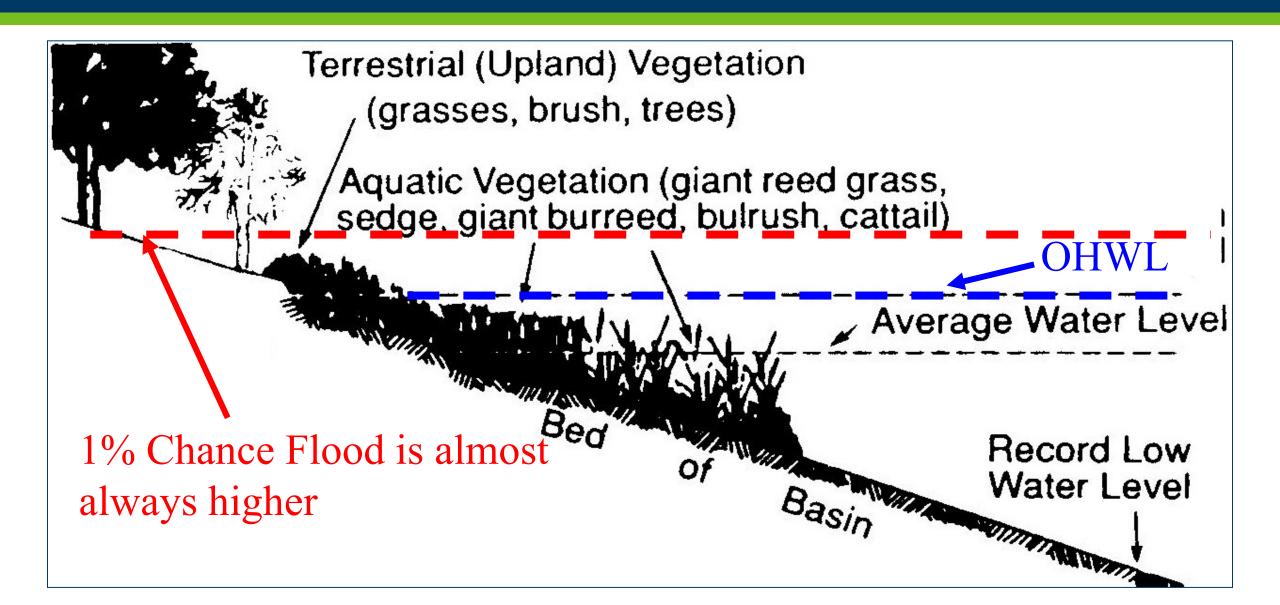


High Water Level (OHWL) Determination

Jurisdiction of Main Wetland Regulatory Programs in MN



Ordinary High Water Level (OHWL)



Federal Violation Definition



Regulations

44 CFR 59.1 – "Violation means the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that document is provided."

State and Local Higher Standards - Compliance

- Communities that adopt more restrictive ("higher") standards are expected to enforce the rules they adopt.
- "... any flood plain management regulations adopted by a State or community which are more restrictive than the criteria set forth in this part are encouraged and shall take precedence."
 [44 CFR 60.1(d)]



High Level – What's required?

- Require permits for development within FEMA mapped floodplain (and adjacent area below BFE)
- Determine proposal meets applicable ordinance standards
- Issue permit with requirement for "as-built" documentation
- 4. Inspections & As-Built Documentation
- 5. Enforce ordinance

All "Development" Needs Permit

From 44 CFR 60.3 (b), 1: "Require permits for all proposed construction or other development" within Zone A on the community's FEMA maps.

Development Definition: From 44 CFR 59.1 "...<u>any man-made change to improved or unimproved real estate</u>, including buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials."

Permit Requirements

A DEVELOPMENT PERMIT

_{No.} 2462

HAS BEEN ISSUED TO: Mike Sims

FOR THE CONSTRUCTION OF a house

AT 4050 Victoria St

LOT 8 BLOCK __ SUBDIVISION Shoreline Park

FLOOD COUNTY, USA

Willis Garrey

THIS NOTICE SHALL BE POSTED IN A CONSPICUOUS LOCATION AT THE FRONT OF THE ABOVE DESCRIBED PROPERTY AT THE TIME OF COMMENCEMENT OF WORK.

...Building permit

...Land Alteration Permit

...Floodplain permit

All OK. Any type of permit works

Verify proposal meets ordinance & issue permit



Consider waiving fees for development that wouldn't otherwise require a permit

As-Built Documentation Required

From 44 CFR 60.3 (b), 5: that communities maintain a record of the lowest floor relative to the BFE for all new and substantially improved structures (or floodproofing documentation)

FEMA emphasizes this regulation also requires that the community retains these records indefinitely.

Minnesota Rules 6120.5800, subpart 1"Certification of compliance. No vacant flood plain land shall be occupied or used and no building hereafter erected, altered, or moved shall be occupied until the applicant submits to the appropriate local official a certification by a registered professional engineer, land surveyor, or other qualified person designated by the local governing body that the finished fill and building floor elevations or other flood protection measures are in compliance with appropriate flood plain zoning provisions and other flood plain regulations."

Enforcement – Required Ordinance Language

FEMA will not approve a floodplain management ordinance unless it has:

- Abrogation and Greater Restriction (e.g., This Ordinance shall not in any way impair/remove the
 necessity of compliance with any other applicable laws, ordinances, regulations, etc. Where this Ordinance
 imposes a greater restriction, the provisions of this Ordinance shall control.)
- Severability (e.g., If any section, provision, or portion of this ordinance is adjudged unconstitutional or invalid by a court, the remainder of the ordinance shall not be affected.)
- "Adequate enforcement provisions (including a violation and penalty section specifying actions the community will take to assure compliance)."

Ordinance Properly Adopted

Floodplain ordinances adopted by local government units are invalid unless they are approved by the DNR (MS 103F.121, Subd. 2(d)).

Steps required by MN Statutes:

- 10-day (or more) publication notice of public hearing (in newspaper) and to DNR (preferred electronically)
- Public hearing
- DNR conditional approval
- Adoption
- Summary notice publication (or full ordinance, but summary normally preferred and cheaper)
- DNR final approval



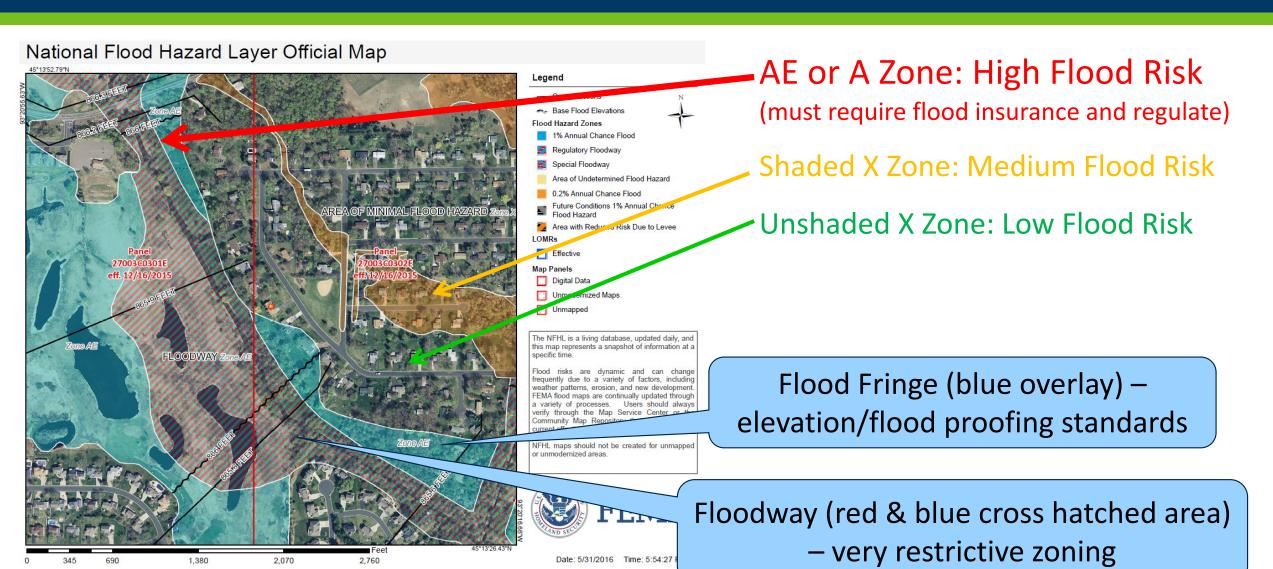
Steps Communities Take To Enforce Ordinance

Typical Permitting Process

A typical permitting process

- 1. In Floodplain? In Shoreland?
- 2. Determine Floodplain District
- 3. Does Proposal Meet Ordinance Standards?
- 4. Permit Review
- 5. Inspections & As-Built Documentation

Detailed Zones on Newer Digital Flood Insurance Rate Maps (DFIRMs)



FLOOD FREQUENCY

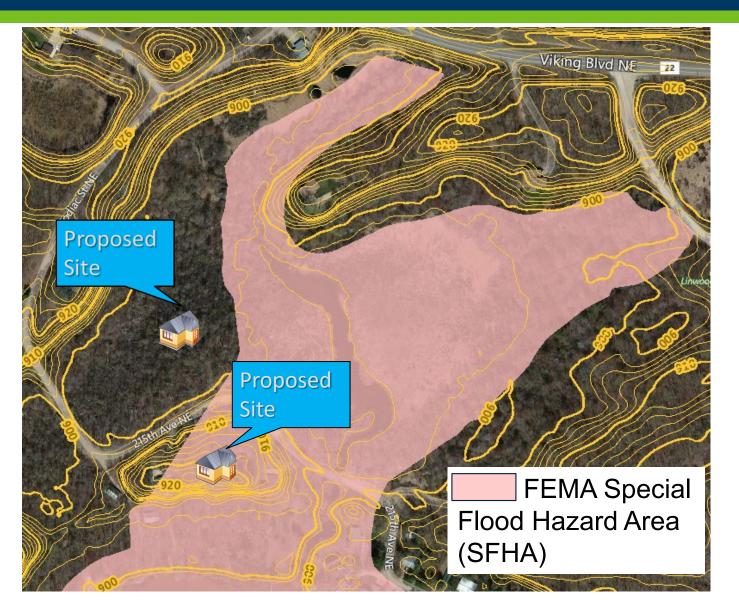
Flood Frequency	of Occurrence
10-Year	10% *
50-Year	2% *

100-Year 1% *

500-Year 0.2% *

* Chance of being equaled or exceeded in any given year.

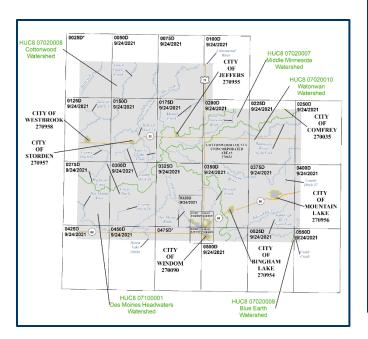
Where Do Floodplain Regulations Apply? Is it in the floodplain?

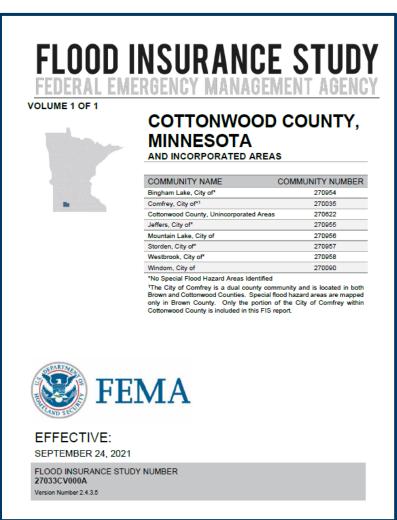


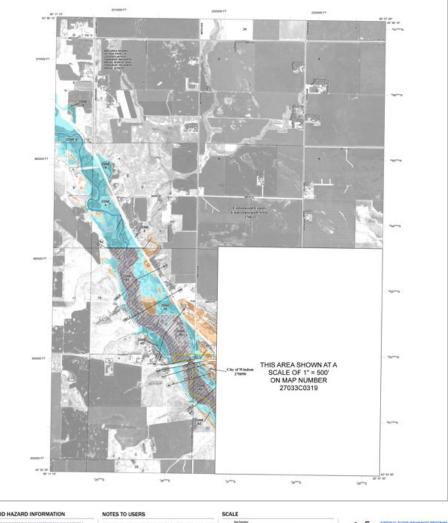
- In FEMA mapped areas
- State law (MN Rule 6120.5700, subp.3, D) specifies areas still must meet Floodplain Regulations if below Base Flood Elevation and adjacent to FEMA mapped areas

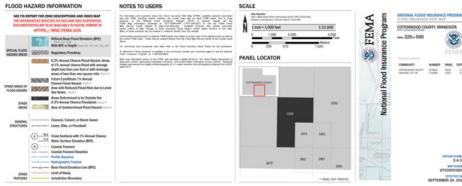
Newer Digital Flood Insurance Rate Maps (DFIRMs)

- ✓ FIS Report (FIS)
- ✓ Map Panels
- ✓ GIS layer (called DFIRM_DB)



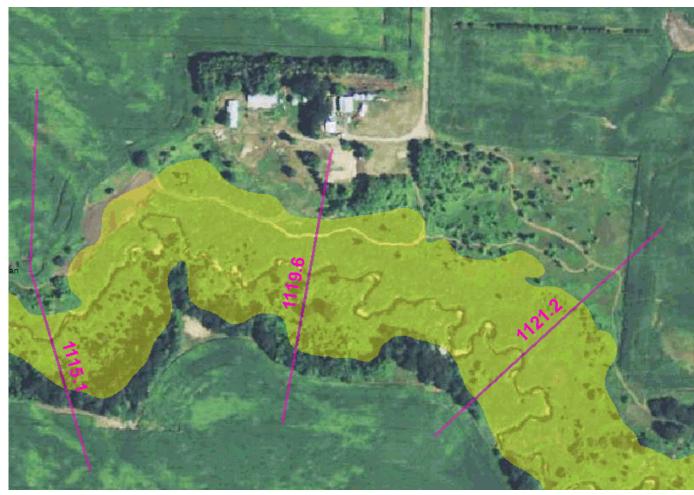






Including A Zones





Typical Permitting Process

A typical permitting process

- 1. In Floodplain?
- 2. Determine Floodplain District
- 3. Does Proposal Meet Ordinance Standards?
- 4. Permit Review
- 5. Inspections & As-Built Documentation

Sample Permit Application Forms

Details relevant standards, and creates a record for exactly what is being approved

Available on DNR website

- ✓ <u>Simplified version</u>
- ✓ Building version

Simplified Version



Minnesota Simplified Sample Floodplain Development Permit Application

For development that doesn't involve buildings

This permit application shall be required when any type of "development" is proposed within the floodplain. This application can be used when the project does not involve buildings (structures with two or more rigid walls). Development must comply with the specific standards outlined in your community's floodplain ordinance.

- <u>Development</u> any manmade change to improved or unimproved real estate, including buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.
- Regulatory Flood Protection Elevation an elevation not less than one foot above the base flood plus any increases in
 the water surface elevation caused by encroachments on the floodplain that result from designation of a floodway.

Applicant Information

For Other Development Activities (check all that apply)

☐ Earth moving, excavation, grading, or fill

□ Road or trail construction

☐ Mining

Applicant	Hormation	
Property Owne	er:	Contractor/Agent:
Mailing Addres	ss:	Mailing Address:
Phone:		Phone:
Email:		Email:
Site Informa	ation	
Site Address:		
Parcel #:		
☐ Location and □ ☐ Copies of any	dequirements detail of grading, fill, and methods to stabilize so other required state or federal permits or appropriate propertion of Project	
For Structur	ral Developments (check all that apply)
☐ Deck/Patio/G	azebo	☐ Gas or liquid storage tank
☐ Fence		☐ Utilities, well, ISTS, or other service facilities

☐ Shoreline stabilization or restoration

□ Subdivision

□ Bridge or culvert construction or alteration

Sample Permit Application Form

Details relevant standards, and creates a record for exactly what is being approved

Available on DNR website



Minnesota Sample Floodplain Development Permit Application

This permit application shall be required when any type of "development" is proposed within the "regulatory floodplain." Development must comply with the specific standards outlined in your community's floodplain ordinance.

- <u>Development</u> any manmade change to improved or unimproved real estate, including buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.
- <u>Regulatory Floodplain</u> Typically includes all areas within the floodplain limits identified on the official FEMA Flood Insurance Rate Maps (FIRMs), as well as adjoining areas below the Regulatory Flood Protection Elevation (RFPE).
- Regulatory Flood Protection Elevation an elevation not less than one foot above the base flood plus any increases in
 the water surface elevation caused by encroachments on the floodplain that result from designation of a floodway.

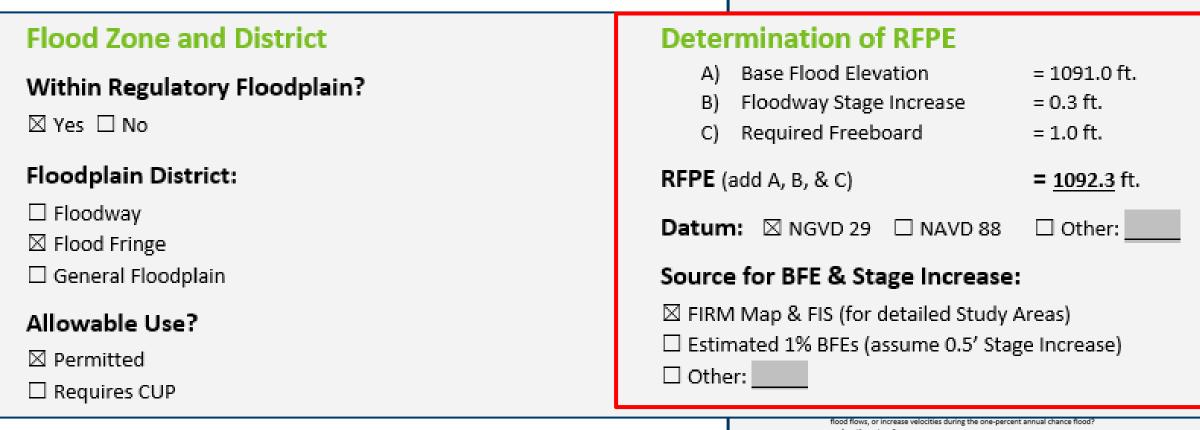
Description of Work

Applicant Information

Property Owner:	Contractor/Agent:
Mailing Address:	Mailing Address:
Phone:	Phone:
Email:	Email:
Site Information	
Site Address:	

Tareer in
Submittal Requirements
☐ Location and detail of grading, fill, and methods to stabilize soil
 □ Copies of any other required state or federal permits or approvals (if applicable) □ For buildings, please include:
Site plan of the property detailing all existing and proposed buildings, structures, service facilities, roads, waterbodies, and other pertinent design features. Where applicable, plans shall detail:
☐ Anchoring
☐ Proposed elevations of lowest floor (including basement or crawlspace)
 Detail of the materials used and flood protection of all facilities servicing the building
☐ Engineer/Architect certifications (for floodproofed structures)
☐ Detail of repairs and improvements, including cost estimate (for existing nonconforming structures)
Brief Description of Project

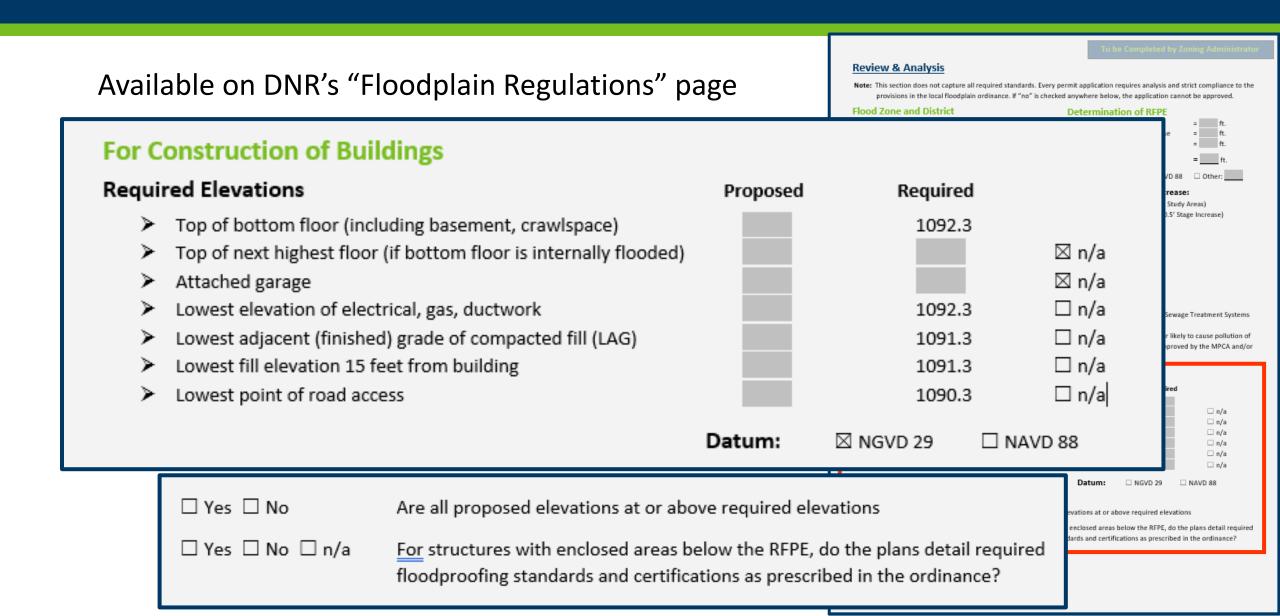
Local Official Part of Permit Application Form



Regulatory Flood Protection Elevations (RFPE) needed for structures & buildings

flood flows, or increase velocities during the one-percent annual chance flood?
➤ If yes, how?
 Analysis performed by a professional engineer. Attach analysis and No-Rise Certification.
 Verified through other accepted standard engineering practices (such as when a riprap
project is proposing to restore the site to its previous cross-sectional area). Attach analysis.
➤ If no:
☐ Yes ☐ No Has a Conditional Letter of Map Revision been obtained?
☐ Yes ☐ No Does the use or activity require a conditional use permit?
➤ If yes:
☐ Yes ☐ No Does the development meet the associated standards for the CUP as
described in the ordinance?
☐ Yes ☐ No ☐ n/a If development is proposed below the Ordinary High Water Level in the bed of a public water, is a DNR Public Waters Work Permit or utility crossing license included with application, or is the activity exempt
from a DNR permit?

Permit Application Form



Wet Floodproofing



Auto Opening Engineered Vent Examples



Need Engineering Certificates showing equivalent square inches of opening



Grading/Crossings

In Floodway:

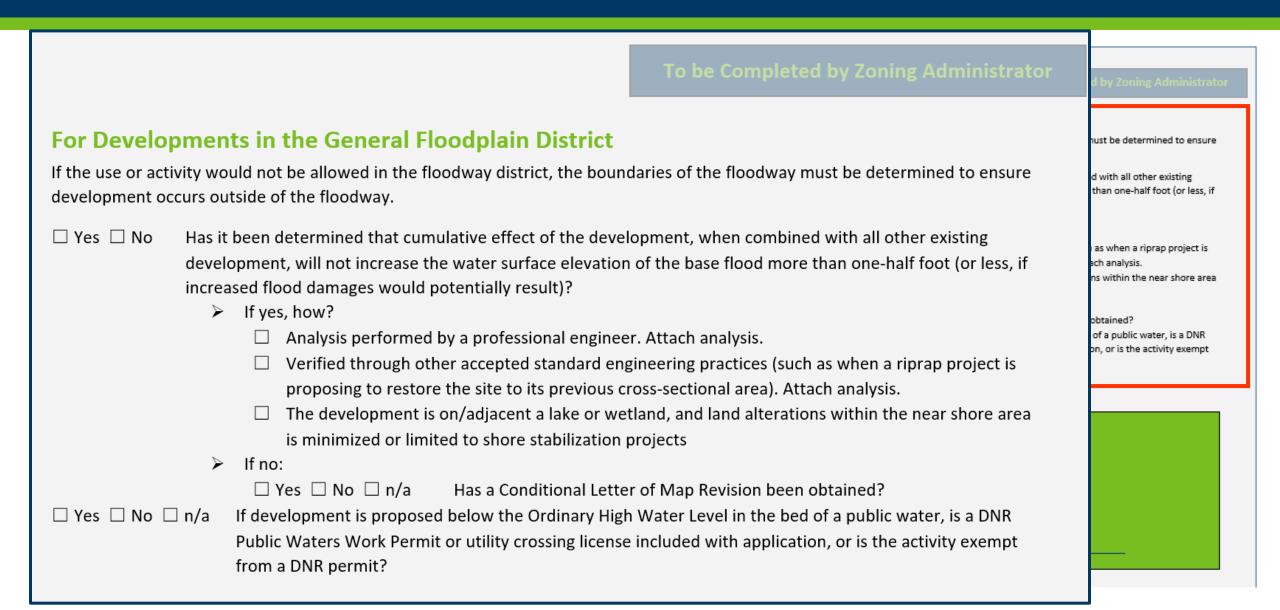
- Same standards in flood fringe
- PLUS Certification of "No Rise" (0.00')
 required for any filling, grading or
 obstructions in Floodway
- Completed by engineer, or satisfied through other standard engineering practices*
- If there is any increase, a Conditional Letter of Map Revision (CLOMR) is mandatory
- *E.G., Document returning site to previous grade

MINNESOTA "NO-RISE" CERTIFICATION This is to certify that I am a duly qualified professional engineer licensed to practice in the State of Minnesota. It is further to certify that the attached technical data supports the fact that the proposal (development name / short project description) will not impact the floodway width or 100-year flood elevation (will not raise or lower by more than 0.00 feet) on ______ (Name of stream) at published sections in the Flood Insurance Study for ______ (Name of Community) (Study Date) and will not impact the 100-year flood elevation (will not raise or lower by more than 0.00 feet) at unpublished cross-sections in the vicinity of the proposed development / project. Attached are the following documents that support my findings: {SEAL}

Local Official Part of Permit Application Form

For Developmer	nts in the Floodway
☐ Yes ☐ No	Development is an allowable use in the Floodway District
☐ Yes ☐ No	Has it been determined that development will not cause an increase in water surface elevations, obstruct
	flood flows, or increase velocities during the one-percent annual chance flood?
	➤ If yes, how?
	Analysis performed by a professional engineer. Attach analysis and <u>No-Rise Certification</u> .
	\square Verified through other accepted standard engineering practices (such as when a riprap
	project is proposing to restore the site to its previous cross-sectional area). Attach analysis.
	➤ If no:
	☐ Yes ☐ No Has a Conditional Letter of Map Revision been obtained?
☐ Yes ☐ No D	oes the use or activity require a conditional use permit?
	➤ If yes:
	\square Yes \square No Does the development meet the associated standards for the CUP as
	described in the ordinance?
☐ Yes ☐ No ☐ n/a	If development is proposed below the Ordinary High Water Level in the bed of a public water, is a DNR
	Public Waters Work Permit or utility crossing license included with application, or is the activity exempt
	from a DNR permit?

Local Official Part of Permit Application Form



Grading/Crossings

In Zone A & Zone AE without mapped floodway:

- Requirements for all zones
- Demonstrate within
 "allowable rise" no more
 than ½ foot increase in
 flood elevation AND no
 existing buildings
 impacted

See page 42 of Minnesota Quick Guide

Limiting Rises Where Floodways Not Delineated

Buildings and Structures. New buildings and structures, substantial improvements, and additions are not permitted in Zone A or Zone AE where floodways have not been delineated, unless applicants provide certification prepared by experienced Professional Engineers that show sites are flood fringes, without causing flood level increases more than Allowable Increases (below).

Other Development. When development such as filling, grading, alteration of a watercourse, and culverts and bridges are proposed where floodways have not been delineated, communities must determine proposed projects will not cause more than Allowable Increases (below).

Allowable Increases (Rises). In Zone A and Zone AE where floodways have not been delineated, allowable cumulative increase (rise) in flood level is:

- Up to 0.5 feet, as long as there is no increased flood damage potential (i.e., no existing buildings are in or touching the floodplain).
- No more than 0.00 feet, if existing buildings are impacted.



Flood studies and floodway/flood fringe determinations for development and subdivisions of 50 lots or 5 acres (whichever is lesser) must be certified by experienced Professional Engineers.

Typical Permitting Process

A typical permitting process

- 1. In Floodplain?
- 2. Determine Floodplain District
- 3. Does Proposal Meet Ordinance Standards?
- 4. Permit Review
- 5. Inspections & As-Built Documentation

Can Use FEMA Elevation Certificate or DNR Sample As-Built Form (or both)

National Flood Insurance Program

Elevation Certificate

and Instructions

2023 EDITION



Must use FEMA Elevation Certificate:

- In CRS communities
- For flood insurance rating

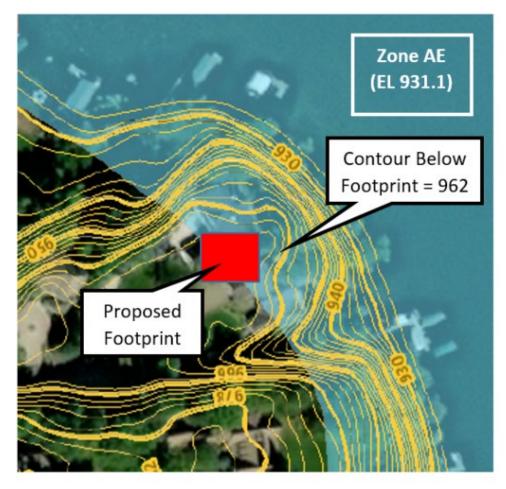
PID		Project Address or Coordinates	
		ELEVATION CERTIFICATION (AS BUILT)	
1.	•	Information; the elevations cited herein are based on the following described	
	-		
	BM elevation is in: NGVD, 1929 NAVD, 19	988 Local or Assumed Datum (specify)	
	Regulatory Flood Protection NGVD, 1929 NAVD, 19	(RFPE) elevation is in: 988	
	If the BM & RFPE are in a diff	ferent datum, conversion factor is	
2. S	tructure:	Required By Ordinance Actual As-Built	
	 a. Top of bottom floor (includi or enclosed floor) 	ing basement, crawl space, =	
	b. Top of next higher floor	=	
	c. Attached garage (top of slab	o) =	
		ery or equipment servicing the quipment	
	e. Lowest adjacent (finished) g	grade (LAG): =	
3. Lo	west compacted fill elevation	at 15 feet from building: =	
a)		enclosure(s) provide: enclosure(s)sq ft c) Total net area of flood openings in 5.(b)sq in the crawl space or enclosures(s) walls within 1.0 foot above adjacent grade	
a)		ge, provide: ge sq ft c) Total net area of flood openings in 6.(b) sq in s in the detached garage walls within 1.0 foot above adjacent grade	n
		- CERTIFICATION -	
I,		, hereby certify that, to the best of my knowledge, information and	
	(print or type name)	istructed in accordance with the elevations stated immediately above.	
Sign	ature:	Date:	
Regi	stration No. (*):		
_	. ,	uires certification by registered professional engineer or registered surveyor)	

Sometimes LiDAR Can Be Used For Documenting Minimum Elevations Met

When applicable:

- ✓ If it's not a close call that it's meeting minimum elevations (i.e., FEMA map includes high areas, in shoreland district outside of mapped floodplain)
- ✓ The 2-foot contour below the building footprint is at least one foot above the Regulatory Flood Protection Elevation and there will not be basement or crawl space)
- Typical situations:
 - ✓ High above due to poor FEMA maps
 - ✓ For small sheds that are wet floodproofed
 - ✓ If lowest floor is slab on grade

1. High Above Base Flood Elevation (BFE) Example:



See "Using LiDAR Data for Elevation Documentation" – Dec. 2021 Water Talk



What's a Violation? / Steps to Address

What's a Violation (by the applicant/landowner How to Address Violation

Type of violation

Not getting a permit

- Start work before permit issued
- Not building in compliance with the permit
- Not submitting "as-built" documentation

Typical LGU action

- Require After-Fact Permit (common to charge higher fee, typically double)
- Advise to stop; Formal Stop Work Order
- Advise to correct; Formal Stop Work Order; withholding Certificate of Occupancy
- Withhold Certificate of Occupancy or escrow

Enforcement Options For Communities

- Verbal and/or email reminder; AND letter
- Require After-Fact Permit (common to charge higher fee, typically double)
- Formal Stop Work Orders
- Issue citation for misdemeanor
- Withhold Certificate of Occupancy or escrow (i.e., if not submitting "as-builts"
- Court action
- If community has used all options, can request FEMA section 1316 action (property is put on no flood insurance policies allowed list)

Other actions used in your communities?

What Happens if Community Doesn't Properly Enforce Ordinance?

- Audit DNR (or FEMA) will conduct Community Assistance Visit (CAV)
- Community Rating System (CRS) class downgraded
- NFIP Downgrades
 - Probation: FEMA puts community on "Probation" (if patterns of inadequate enforcement)
 - ✓ If community "fails to adequately enforce flood plain management regulations" (44 CFR 59.24, (b))
 - √\$50 surcharge on flood insurance policies in community
 - O **Suspension:** FEMA suspends community (if ordinance not adopted within 6 months, or community continues patterns of inadequate enforcement with no effort to improve)
 - ✓ No NFIP flood insurance policies can be issued or renewed within community.
 - ✓ Not eligible for some cost-share grants
 - ✓ Not eligible for some type of post-disaster assistance



Local Examples

MURRAY COUNTY FLOODPLAIN AND SHORELAND VIOLATIONS

DNR Local Governments Forum March 20, 2024





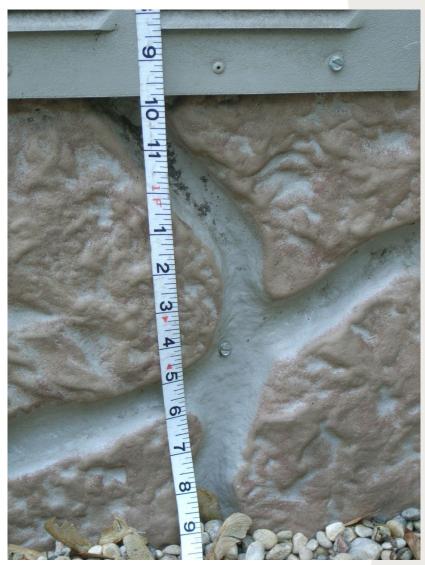
Breakaway Walls

• Flood Vents not required





Sizing and placement of vents









Garage Addition – below RFPE

• Automatic Flood Vents Required







Sizing and placement of flood vents





Acres of Opportunity

Vents Caulked Shut Blocked Openings







Utilities impacted





New Cabin

- CUP Backfilled Stem Wall
- Utilities must be raised to RFPE



FLOODPLAIN SUCCESSES



Remodeled Cabin

• Flood Vents added to Pre-Firm Structure



FLOODPLAIN SUCCESSES





New Cabins



FLOODPLAIN SUCCESSES





Remodeled Cabin

- Raised Structure via CUP
- Flood Vents required
- Recent Inspection found insulation on inside of vent



?? Questions ??

Jean Christoffels

Murray County Zoning

507-836-1166

jchristoffels@co.murray.mn.us



Shoreland Restoration Order:

an After-the-Fact CUP to Correct Intensive Vegetation Clearing

Valerie Sheedy
Angie Lipelt
Mower County Environmental Services



Situation



- Spring 2022; received complaint and confirmed that intensive clearing had occurred within the "shore impact zone" (50ft adjacent to water)
- Issued a C&D Order on clearing; leave any stumps, install silt fence.
- ► Farm Manager provided Mower Co. a Wetland Determination from NRCS which allows for removal of trees for "maintenance"
- Site visit with Farm Manager, County Staff, SWCD Staff, and DNR Staff was conducted to find a resolution



Why is Shoreland protected?

What priority does agriculture get?

U of M and DNR Resources were provided and discussed;

Vegetation=

- Slope stabilization
- Filtration
- Shade/water quality
- Buffer Law

Farming practices;

- Roots along the shore impede tile drainage
- Vegetative buffer can cause buildup of sediment runoff from ag land
- Downgradient erosion, rills



What are the challenges?

Zoning Ordinance, SWCD Role, DNR Role

- ► CUP Required (including erosion and sedimentation plan) for grading more than 50CY in Shoreland area
- ➤ Zoning Ordinance: "Intensive vegetation clearing is prohibited within shore impact zones"
- Agricultural Erosion Control Plan: "must outline the agricultural erosion control practices to be installed which will prevent excessive erosion, or abate or minimize excessive sedimentation..."
- Subject to review from SWCD; must be consistent with local Water Plan and land use controls
- ► Consultation with DNR Forestry for appropriate re-vegetation plan

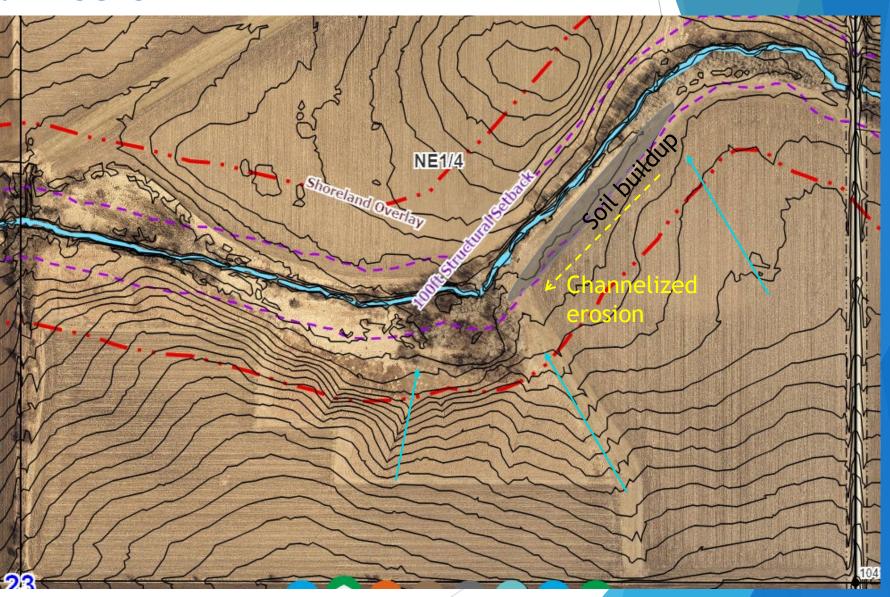
The Role and solution for Agricultural Erosion

2021 imagery2ft contours (lidar)

Ag Erosion Plan included rock chutes and drainageway improvements

50ft buffers reestablished

Requires ongoing maintenance





Pathway to Resolve

Solution provided:

- Zoning Ordinance 14-97 (Shoreland Alteration Standards) and 14-165 (Agricultural Erosion Control Plan) are the official controls;
- Submit a plan to complete the intended drainage improvement work that under an Agricultural Erosion Control Plan;
- The plan can be considered by the local Soil and Water Conservation District under 14-97(a) for work in the shore impact zone; and
- By the Planning Commission for work outside of that area under 14-97(b and d) for an After-The-Fact Conditional Use Permit.

What is a reasonable solution?

- Mower County: Conditional Use Permit
- 2. DNR Hydro: Work in Waters
- 3. SWCD: Ag. Erosion Control Plan
- 4. DNR Forestry: Vegetation Replacement

In April and June of 2022, we (County, DNR, SWCD, Farm Mgr., and Contractor) walked the site to discuss how to restore the integrity of Shoreland (replace the vegetation) while balancing the priority for agricultural land use.

Outcomes:

- Stumps stay, finish grading for surface drainage, establish seed
- Tile repair can be done
- Map tile lines so tree planting can "work around"
- Rock chutes will go in following DNR permit, consistent with erosion control plan
- Re-visit site fall 2022 to get final plan and restoration order

Tree Planting Plan



DNR Forestry provided 4 planting "blocks"; avoiding known tile outlets and working around hydric soils that are not suitable for trees.

Each block is a combination of hardwood trees and fruiting shrubs, with species recommendations and spacing/maintenance suggestions.

Planting Location	dimensions	Trees	Shrubs
Block 1 (west, N)	325 x 72	170 (6 rows)	65
Block 2 (center)	200 x 60	100 (5 rows)	0
Block 3 (east, N)	475 x 50	300 (6 rows)	200
Block 4 (east, S)	475 x 50	300 (6 rows)	200
	~1.9 Ac	870	265



- It took the whole team: County Staff, County Board, SWCD, DNR Hydrology, DNR Forestry, Landowner, Contractor
- At times, nobody was happy
- Use the tools at your disposal
 - ▶ What *can* we do
 - ▶ What is reasonable
 - What is best in the long run, for everyone
- ▶ It takes time; 2 years

Final tips & takeaways

Farm drainage was improved; erosion reduced

Thank you



Valerie Sheedy - Asst. Public Works Director valeries@co.mower.mn.us

Angie Lipelt - Environmental Services Supervisor angiel@co.mower.mn.us

507-437-7718



Shoreland Violations

Katie Wigen | Area Hydrologist



Water Access: In

What are the site co for public ar

Access to Minnesota waters is important because there are ne-15,000 lakes and 90,000 miles of streams in the state. Almost 3,000 public access sites are available; about half of these are administered by the Department of Natural Resources (DNR) and the remainder by local and federal agencies.

The decision to install a private boat ramp should be made carefully because the site may be unsuitable and construction expenses and maintenance can be significant. Most private bo ramps serve resorts and campgrounds, and a smaller number a constructed for individual lots where no public access is availab Among the questions to consider for a boat ramp is the following Is the site suitable for a boat ramp?

Site considerations

Before a boat ramp construction project begins, the potential imp habitat) by construction and subsequent traffic should be cons be capable of supporting the boat ramp without the use of pile minimal grading. A boat ramp should not be installed in bluff at



A private boat ramp may be needed if the lake has no public boat ramp.

Minnesota's requireme

In some cases, a DNR permit is needed to install a private or 1 DNR Fisheries if aquatic plants will be removed. However, a constructing a boat ramp that meets the criteria listed on the n Area Hydrologist; see contact information on the back of this require their own permit or a separate permit, or they may not

Water Access: Installing a Boat Ramp August 2008/revised March 2012

Shoreline Alterations: Beach Blanket



IS AN INDIVIDUAL PERMIT REQUIRED?

Minnesota

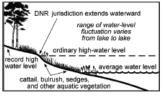
Pollution

Control

For most projects constructed below the ordinary high-water level* (OHWL) of public waters as determined by the Minnesota Department of Natural Resources (DNR), an individual permit is required from the DNR.

Beach blanket exception: An individual permit from the DNR is not required for beach sand or gravel placement if the conditions outlined in this information sheet are followed.

If you have questions concerning the contents of this information sheet, contact your local DNR Area Hydrologist. See contact information on reverse side.



Shoreline cross section

ARE OTHER PERMITS REQUIRED?

Other governmental units (federal, state, city, county, township, and watershed authority) may require a permit for that portion of the project within their jurisdiction, which usually involves work above the OHWL. It is advisable to contact them.

*For lakes and wetlands, the OHWL is the highest elevation that has been maintained as to leave evidence on the landscape. It is commonly that point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. For watercourses, the OHWL is the top of the bank of the channel. For reservoirs and flowages, the OHWL is the operating elevation of the normal summer pool.

Will a sand beach work on my shoreline?

One goal of DNR Ecological and Waters Resources is to limit unnecessary and potentially damaging alterations to shorelines. Specifically, use of beach sand and other types of fill is limited in order to prevent damage to fish spawning areas, aquatic habitat, and water quality of Minnesota's lakes.

Although natural sand beaches can be found on many Minnesota lakeshores, landowners often attempt to create them on shores where they do not naturally occur (i.e., a muddy-bottom lake). If you are considering adding a beach blanket, you should know a few important things before investing your money.

- · Beach material that erodes into the lake may coat aquatic plant beds and fish spawning grounds, degrading fish and wildlife habitat and damaging the water quality of your lake.
- · Beach material must be clean and washed free of fine particles and must be of the appropriate grain size (coarse sand or larger) to stay in place under wave action. Placed material that migrates from your site may constitute a violation of water quality standards. To further minimize the risk of your beach migrating away from the site, maintain aquatic vegetation on both sides of your beach. like in the diagram on page two.
- The lakebed must be capable of holding beach material in place. If the lake bottom is soft, the sand or gravel will only sink into the muck and disappear.
- · You are only allowed to install sand or gravel twice in the same location without a permit.
- Vegetation will constantly emerge through the beach material. and additional plant control will be needed on the beach. If you plan to weed by hand or apply herbicide, an aquatic plant management permit may be required from the DNR Division of Fisheries.
- Beach blankets may not be placed over emergent vegetation such as bulrush or cattails unless you obtain a permit from the Division

Keep in mind that you are not allowed to install any plant barrier or liner (e.g., filter fabric or plastic) underneath your constructed beach. If owning lakeshore property with a sandy beach is a high priority for you, look for lakeshore property where sandy beaches occur naturally before you make that important purchase.



Beach blanket at shoreline

Shoreline Alterations: Beach Blanket/revised October 2012



t Plans

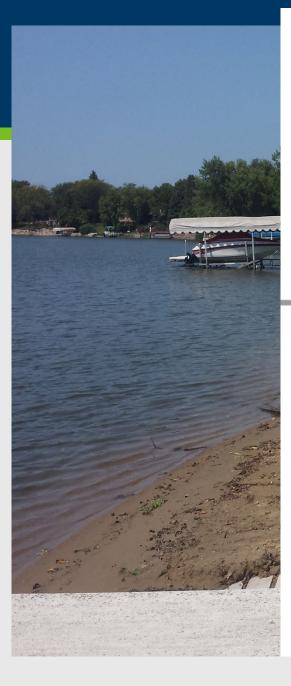


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A short time later....





following Restoration Order.

Order:

- 1. You shall accomplish restoration by doing the following: Remove or reconstruct the boat ramp to comply with MN Rules 6115.0210: Privately owned boat ramps do not exceed 12 feet in width and do not extend more than 10 feet beyond the shoreline or into water more than four feet in depth, whichever is less.
- 2. Complete the landscape project in such a way to ensure that the sand beach blanket complies with MN Rules 6115.0190 Subp. 4 The sand or gravel layer does not exceed six inches in thickness, 50 feet in width along the shoreline, or one-half the width of the lot, whichever is less, and does not extend more than ten feet waterward of the ordinary high water level.

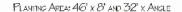
- 3. The restoration work described above must be completed by August 31, 2015 and comply with all state and Watonwan County shoreland rules.
- 4. You must contact Compliance Hydrologist Katie Wigen at 507-389-8807 or katie.wigen@state.mn.us prior to commencement of this restoration to arrange for an on-site meeting to clarify the extent of the required work, the schedule of work and the details of how it will be accomplished.
- 5. Notify Compliance Hydrologist Katie Wigen at 507-389-8807 or katie.wigen@state.mn.us within seven days of completing the work required by this Order.
- A Certificate of Satisfactory Restoration will be issued upon inspection and verification of a completed project compliant with this order.

This Order is final and binding on you, unless within 30 days of the date on which it was served on you, you appeal the terms and conditions of this restoration order to the commissioner by filing a written request for review. Please mail any such request to: DNR Ecological and Water Resources, Violations Coordinator, 500 Lafayette Rd., St. Paul, MN 55155-4032

Violation of this order is a misdemeanor.



Resolution



TOTAL PLANTS: 36

GRASSES: 18

- 50% OF TOTAL PLANTING

FLOWERING SPECES: 8

NATIVE PLANTS: 31

- 86.1% OF TOTAL PLANTING

Charge Converge

@ Lescus Nove -1

Install beach sand blanket: Blanket is not to exceed 50' wide x 6" deep and no more than 10' waterward.

Grade and Install boat ramp:

The ramp will be no more than 12 feet wide along shore and 10 feet waterward of the shoreline or into a water depth of 4 feet, whichever is less.

Placement of no more than 5 cubicyards of crushed rock, gravel, clean sand, or small stone are allowed to provide a stable base or maintain use of the ramp.

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Install Rip Rap:

linear feet

Rip rap to be natural stone (no

diameter, underlain with a non

woven geotextile fabric. Total

area of rip rap not to exceed 200

concrete) between 6 - 30"

Prake Discrete: Name: 3.

Вшерты - Ситуатер - 2. ■ Boureloux - Clurvated - 2

CAREX Narve 3

Læms - Narst - 2.

 Gew-Name-2 * Astre-Note:-2

●Adepas-Name-2 BAHGA-NAME-2

Corrix - Name − 3

@Gov-Nov-1 Francisco Name - 1

♠Apres - Newc - 1

Account Name of

This mock up is for visualization purposes only. Shrubs, flowers and trees are representative of species after a period of growth.

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Grade and install wall (> 10 cubic yards)

All work above OHWL is subject to local

zoning ordinance and permits.

Scale: Landscape Plan: 1 Revision #: 1 Hultgren Residence 1/16" = 1" Date: 5/20/2016

Landscape Design by: Johanna Olson Drummers Garden Center & Floral



Thank You!

Katie Wigen

Katie.wigen@state.mn.us

507-389-8807