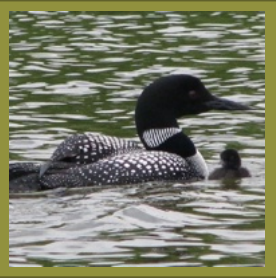
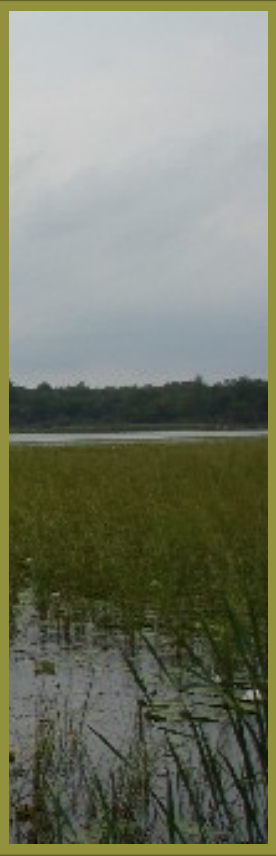




Mooring

Mooring



■ The State's Interest

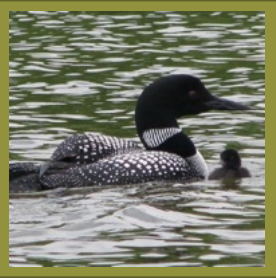
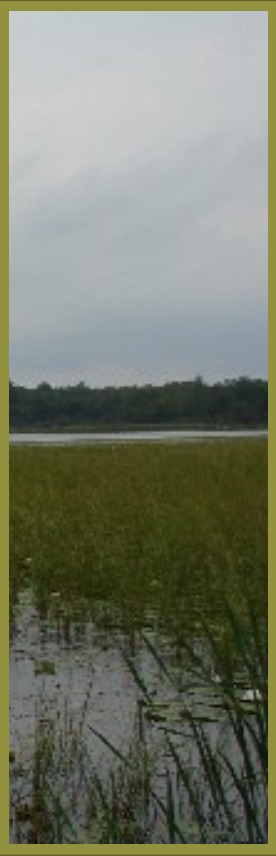
- *preserve the natural character of public waters and their shorelands*
- *provide a balance between the protection and use of public waters*
 - *Riparian access is a right*
 - *Dockage occupies public waters*
 - *Dockage is a privilege, which is regulated to protect public interests*
 - *Mooring spaces ≠ parking spaces; avoid the privatization of public waters*

■ Ecological Consequences of Docks and Mooring Spaces

- **What kind of site-level assessment would support a findings of fact?**

Ecological Consequences

- **Alteration and reduction of Lake Plants**
- **Reduction in fish habitat**
- **Loss of wildlife habitat**



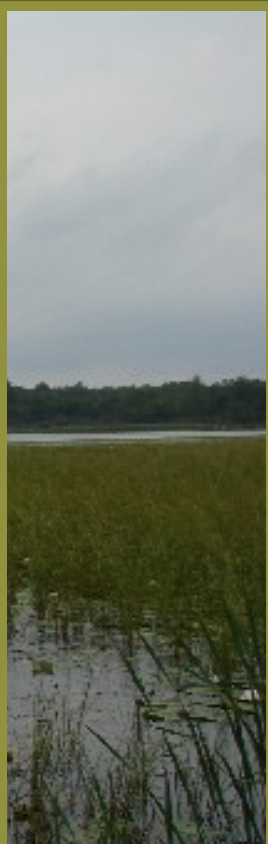


Dockage eliminates lake plants

Smaller dockage was more likely to have vegetation nearby than larger dockage

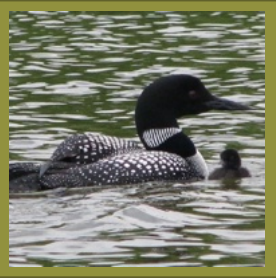
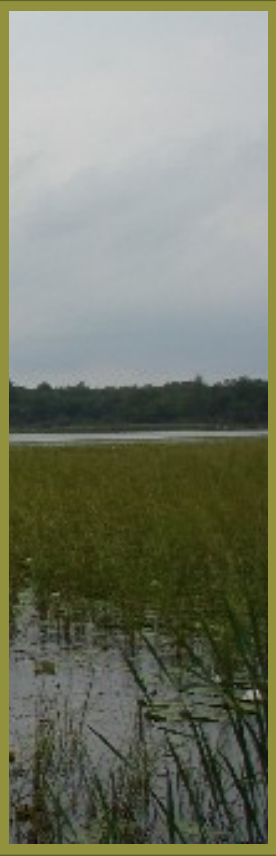
Radomski and Goeman. Consequences of human lakeshore development on emergent and floating-leaf vegetation. *North American Journal of Fisheries Management*

Garrison et al. Effects of pier shading on littoral zone habitat and communities in Wisconsin lakes.



Ecological Consequences

- **Alteration and reduction of Lake Plants**
- **Reduction in fish habitat**
- **Loss of wildlife habitat**

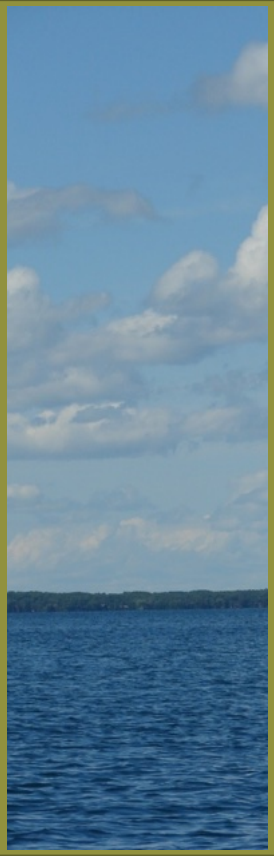


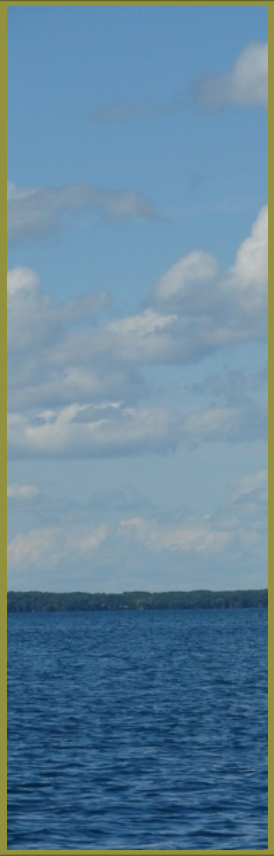


Dockage reduces fish use in the area

Juvenile fish abundances were significantly lower under piers than in control sites

Garrison et al. Effects of pier shading on littoral zone habitat and communities in Wisconsin lakes.



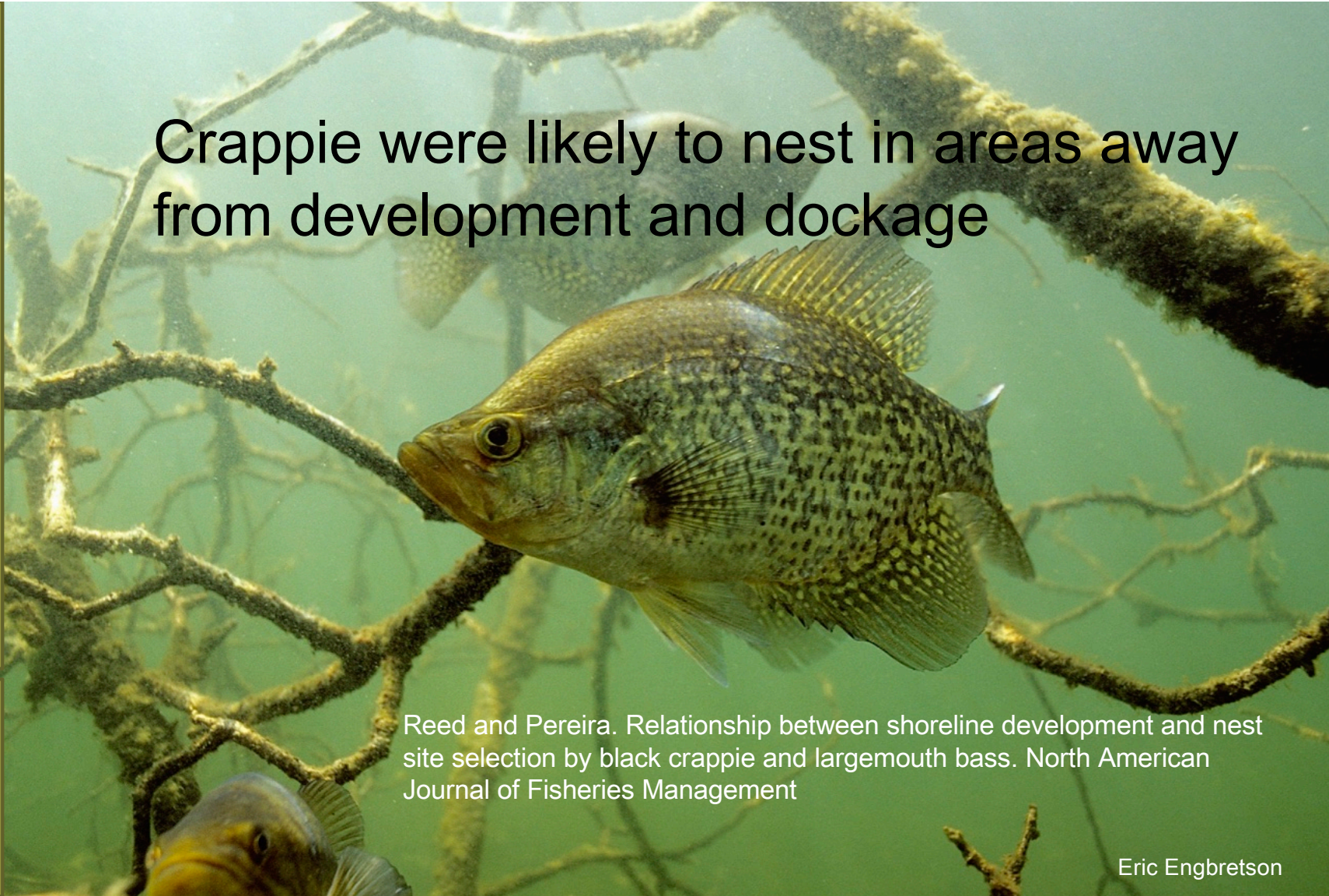


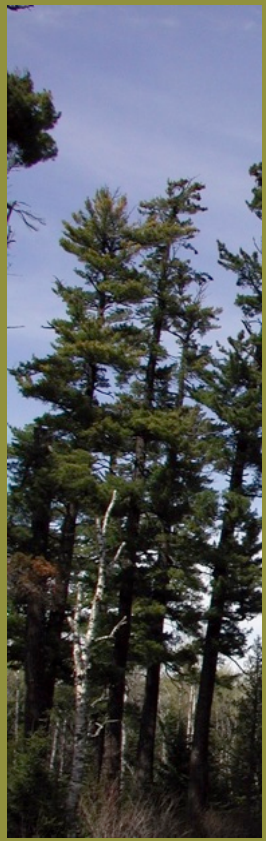
Eric Engbretson

Crappie were likely to nest in areas away from development and dockage

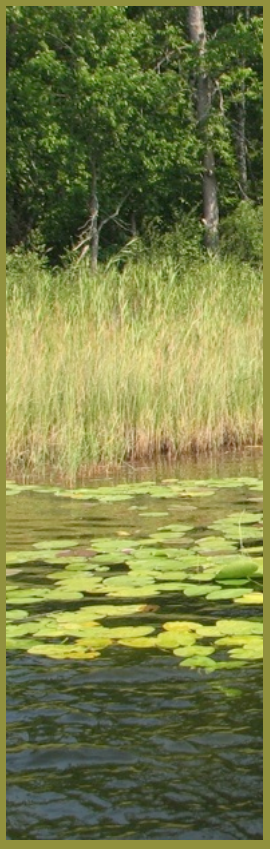
Reed and Pereira. Relationship between shoreline development and nest site selection by black crappie and largemouth bass. North American Journal of Fisheries Management

Eric Engbretson





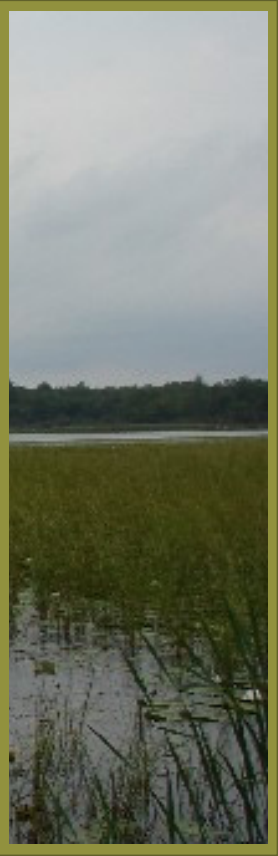
Bill Lindner



Robert Fitzsimmons

Ecological Consequences

- **Alteration and reduction of Lake Plants**
- **Reduction in fish habitat**
- **Loss of wildlife habitat**



Wildlife habitat is destroyed in dock areas



Loss of Loon Nesting Habitat

Loons are more likely to nest away from shoreline development, in areas with low fetch, low littoral slope, and high plant richness



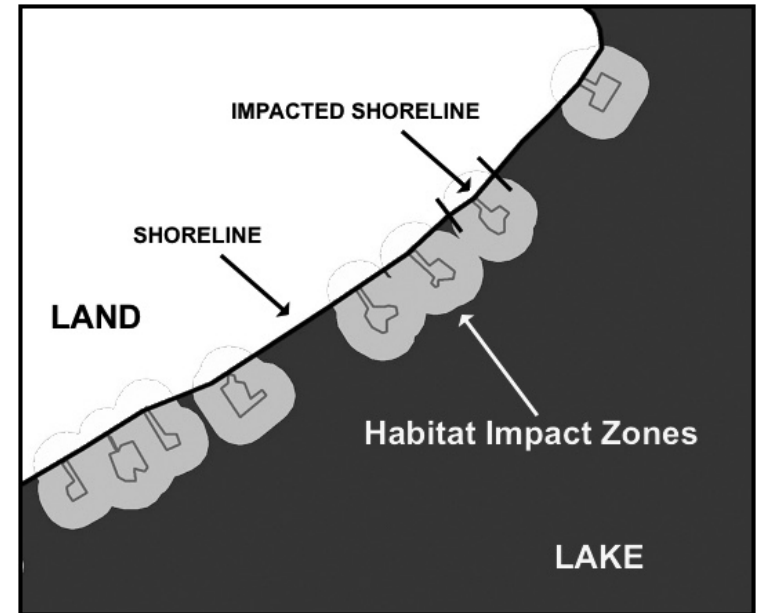
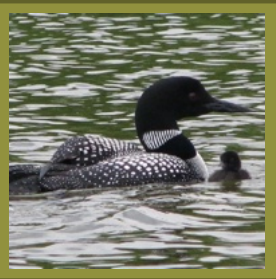
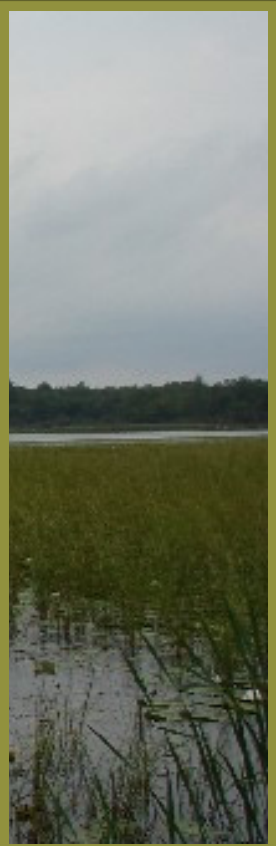
Andrea Lee Lambrecht



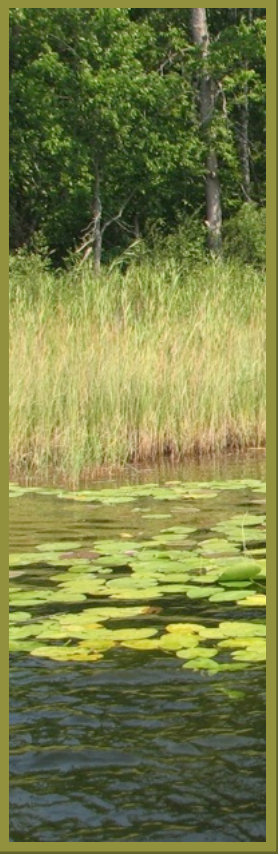
Radomski et al. Common loon (*Gavia immer*) nesting habitat models for north-central Minnesota lakes. *Waterbirds*

Ecological Consequences

- **Cumulative Effect:** Build-out scenarios estimated that up to half of the shoreline and 14% of the littoral zone could be impacted with future development.
- **Larger structures produce larger habitat losses**



Radomski et al. Potential impacts of docks on littoral habitats in Minnesota lakes. Fisheries



The number of mooring space matters

Findings of Fact on Mooring Spaces

- ❑ Historical use
- ❑ Essential character of area (out of place or scale)
- ❑ Environmental assessment of suitability/impacts
 - ❑ Land conditions (wetland fringe, etc.)
 - ❑ Lake substrates by depth (sediment suspension)
 - ❑ Littoral slope/Water depth (scale and navigation issues)
 - ❑ Aquatic vegetation (habitat losses from shading/physical disturbance)



Thank you

Paul J. Radomski



Docks, Platforms, Mooring Facilities, and Marinas

Public Waters Rules

Jen Sorensen | Public Waters Hydrologist

Dock

Dock:

- Narrow platform or structure extending waterward from the shoreline for ingress/egress for moored watercraft/seaplanes or to provide access to deeper water for water-oriented recreational activities
- Can be a temporary or permanent structure
- No-permit-required dimensional standards:
 - Not more than 8 feet in width, free flow of water beneath, length limited to that necessary to intended use, including reaching navigable water depths, consistent with local regulations
 - Limits on how can be combined to create a larger structure (DNR's Platform General Permit)
- Online info:
 - DNR webpage [Docks and Access in Public Waters](#)
 - DNR [Docks and Access in Public Waters factsheet](#)
 - DNR [General Permit 2008-0401 – Authorization of Dock Platforms](#)



Docks and Access in Public Waters

What you should know about docks and other water access structures

Do I need a permit for my dock?

No permit is needed to install, construct, or maintain your dock on shallow property that is not subject to the following:

- A dock is a narrow platform or structure extending beyond the water from the shoreline. A dock may provide access to moored watercraft or deeper water for swimming, fishing, and other recreational activities.
- The structure is not more than 8 feet wide and is not combined with other similar structures or is across a larger area.
- The dock is no larger than needed to access and operate boats.
- The structure is not located in a navigable water depth.
- The structure is not located in navigation, flood, or other critical areas.
- The structure will allow the free flow of water beneath it.
- The structure is not used or intended as a platform.
- The structure is consistent with the guidelines of the local unit of government.

Docks placed on rock-filled or other non-natural substrates must be built with permanent access.

Restrictions on docks and other structures

You may not place a dock or other structure in public waters if the structure:

- obstructs navigation or water access;
- is placed on a public fish spawning area;
- is located in a lake or stream where it includes walls, a roof, or sewage facilities;
- is located on property you do not own or have rights to use.

If you have questions concerning the contents of this bulletin, contact your local DNR field biologist for contact information on nearby lake.

General Permit 2008-0401

A general permit was issued in 2008 to allow a number of platforms at the lake end of a dock under certain conditions. This general permit allows a single, temporary platform up to 200 square feet (measured separately from the access dock). The square feet excluding the area of the adjacent access dock, the following conditions apply: the access dock must be 8 feet or less in width and the dock must be on a lake with a shoreline classification of General Development or Recreational Development. See typical dock configurations on the next page. Refer to General Permit 2008-0401 at <http://www.dnr.state.nj.us/waters/watermgmt/activities/properties/docks.html> for more details.

Mooring Facility

Mooring Facility:

- Concentrated area intended solely for the mooring of 7 or more watercraft/seaplanes by docks, mooring buoys, or other means
- Permit not required as long as meet no-permit-required standards for docks and facility is not being used as a marina
- Public waters rule change in 2002 placed more reliance on local zoning officials to implement land use controls to address watercraft mooring
- DNR permit required for mooring facilities if part of the structure is more than 8 feet wide



Marina

Marina:

- An inland or offshore commercial mooring facility for the concentrated mooring of 7 or more watercraft/seaplanes, where commercial ancillary services common to marinas are provided
- DNR permit required
 - Designed in a compact fashion, minimize encroachment waterward
 - Sized consistent with the demand for mooring in the area and the number of watercraft to be served
 - Area zoned for marina or the local government grants a land use permit



Examples of commercial ancillary services:

- Bait shop
- Restaurant
- Gas fueling/sales
- Boat storage
- Boat repair
- Boat launching
- Sewage pumpout
- Other services



Mooring spaces and resorts, campgrounds & hotels

Dan Petrik | Shoreland Program Manager

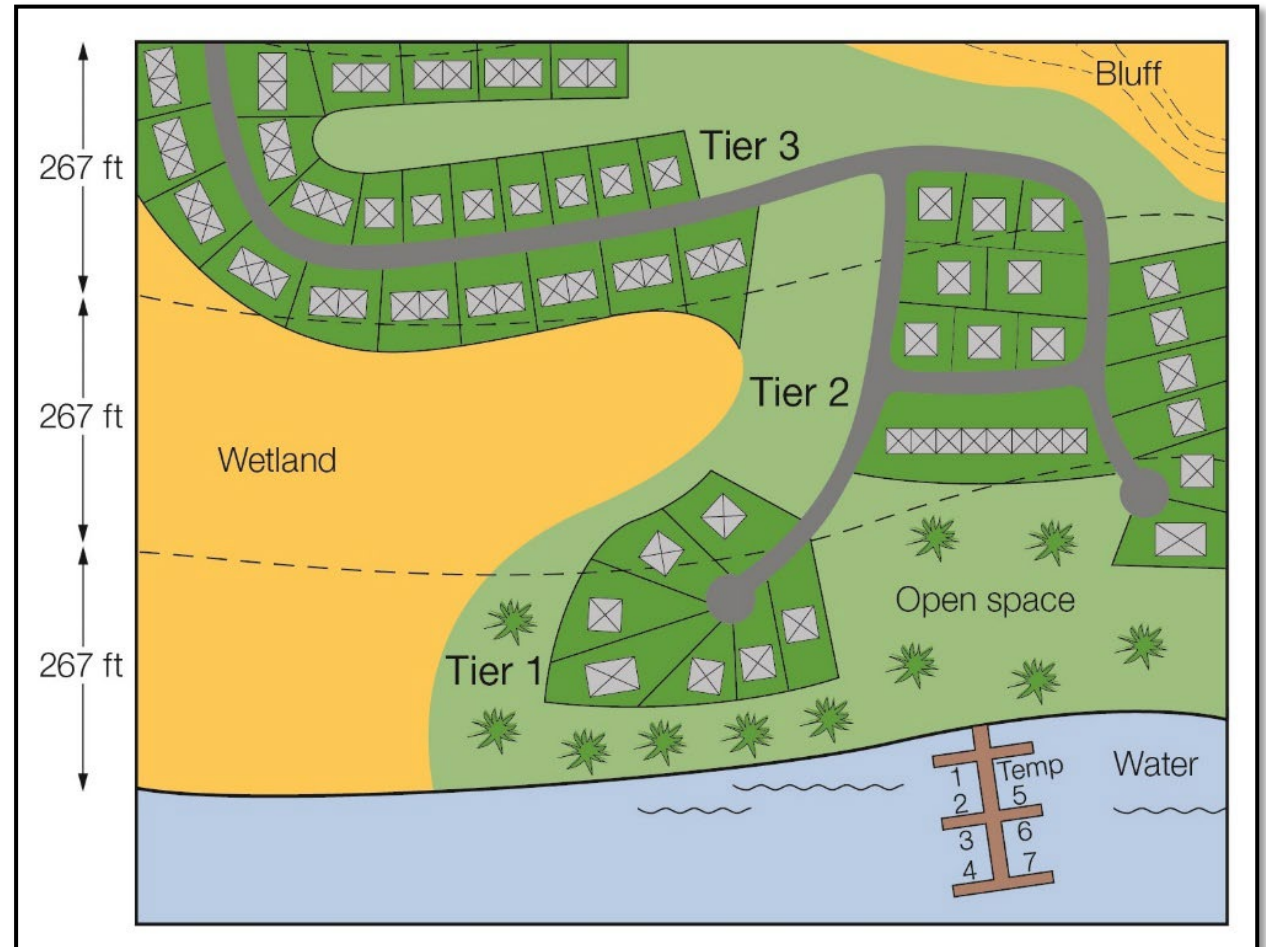
Shoreland Commercial PUDs

- Transient lodging: campgrounds, resorts, and hotels
- A conditional use with performance standards
 - Mooring spaces and facilities
 - 50% open space
 - Limits on impervious surface
- Not a negotiated development!!!!



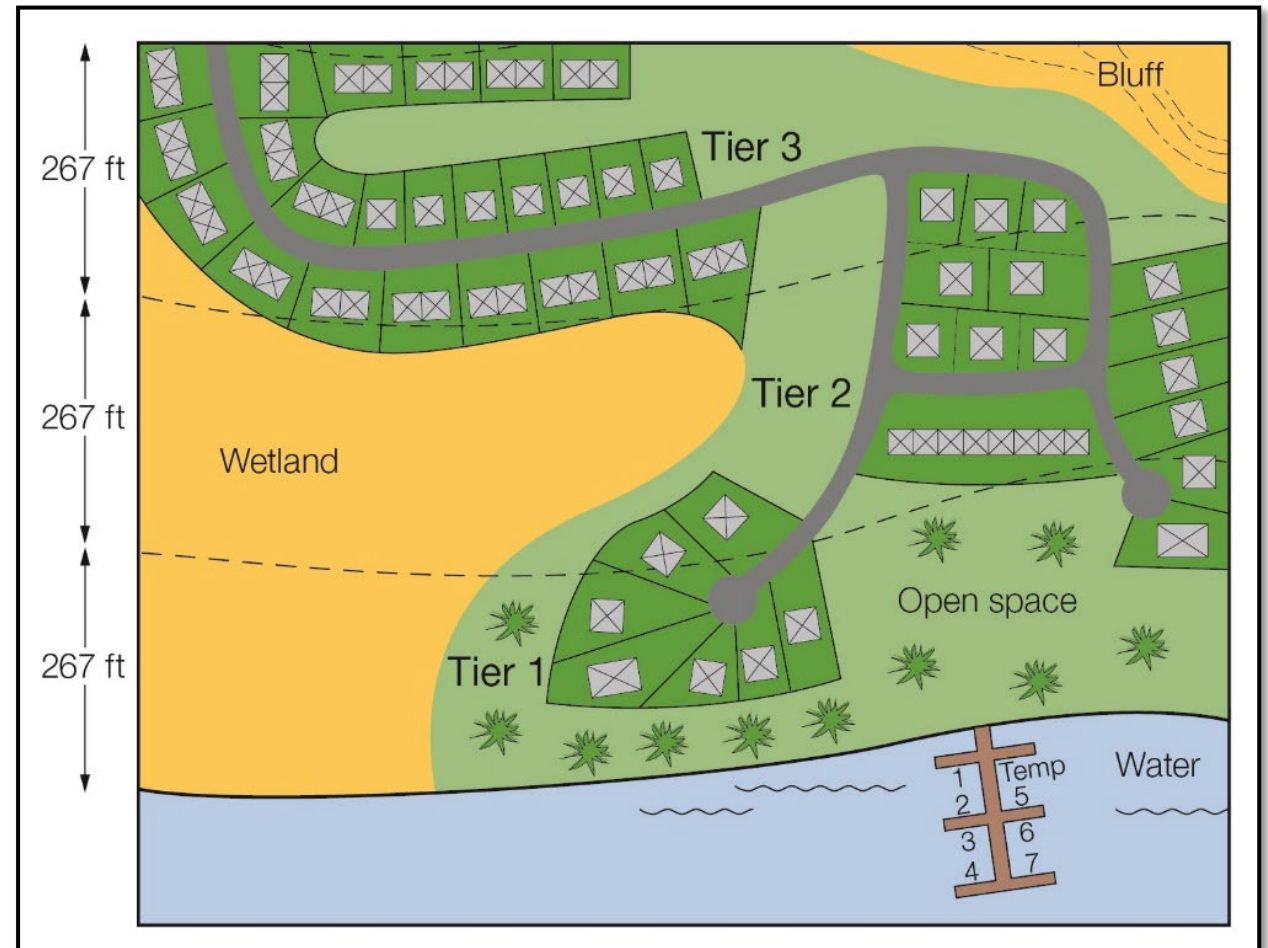
Commercial PUDs – Design Evaluation

1. Identify analysis tiers (varies by lake classification)
2. Calculate suitable development area in each tier
3. Determine base density for each tier (varies by lake classification & unit size)
4. Apply density bonus, if applicable, for each tier

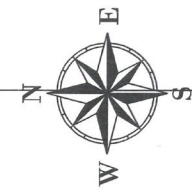


Commercial PUDs

- The number of mooring spaces is limited to the number of units allowed in the first tier.
- Facilities must be centralized.



Proposed New Layout



Tier 3 suitable area = 120,000 SF

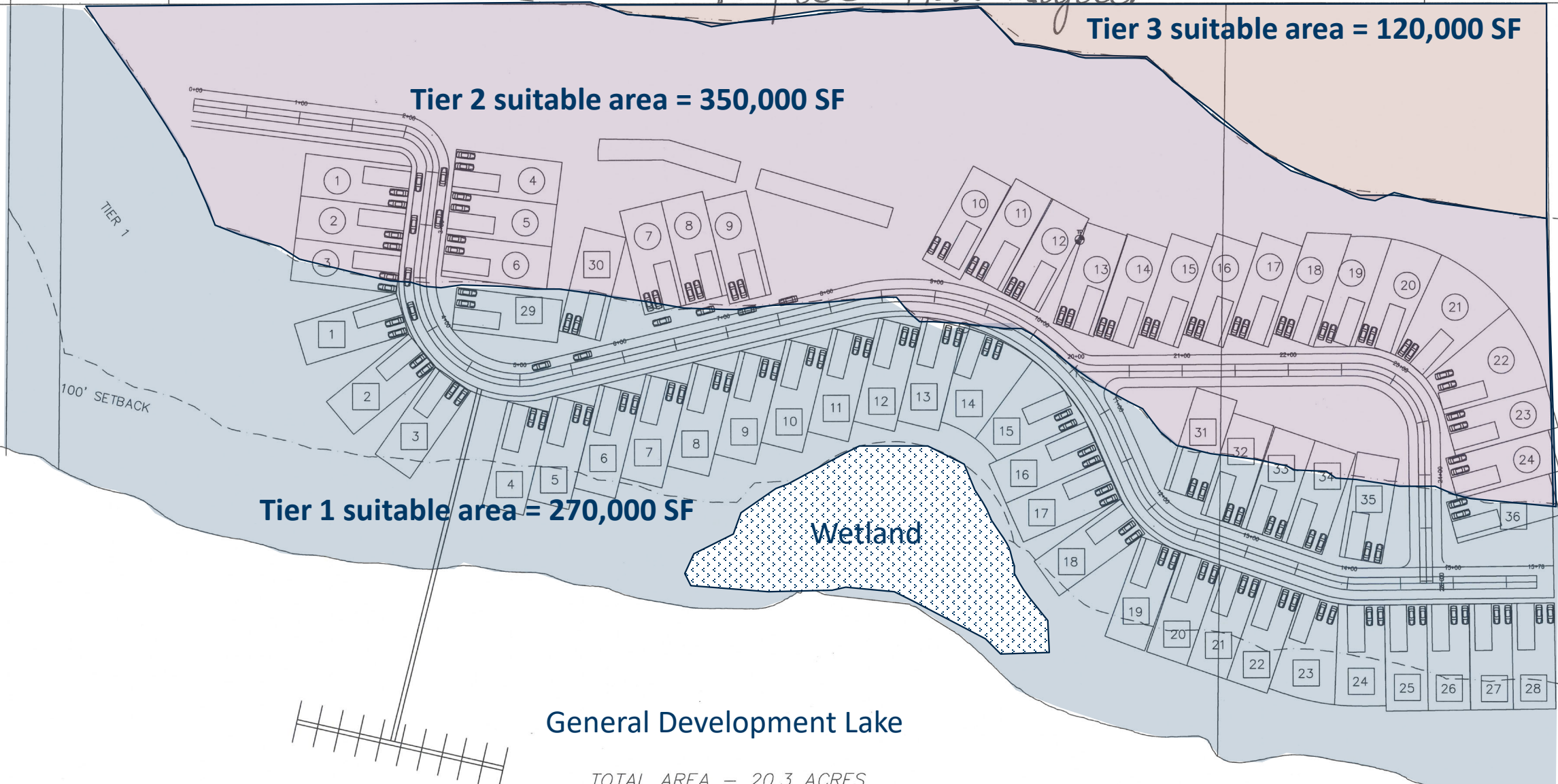
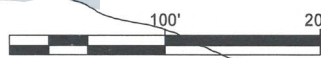
Tier 2 suitable area = 350,000 SF

Tier 1 suitable area = 270,000 SF

Wetland

General Development Lake

TOTAL AREA - 20.3 ACRES
IMPERVIOUS ROAD - 1.85 ACRES
60 RV PADS - 0.96 ACRES



DNR must approve SL PUDs for LGUs without DNR-approved SL PUD Standards

MR 6120.3800 subp. 1

Controlled Access Lots

- Conventional lot/block subdivision – not SL PUD
- Lots used to give owners of non-riparian lots access to water
- Docks, beach, boat ramp
- Minimum lot size requirements
- Get 6 mooring spaces per lot – can increase width, per formula, to get more



Challenging Situations

- Expansions to PUDs existing prior to SL ordinance adoption and the number of existing spaces already exceeds what is allowed.
- Expansions to existing PUDs previously approved after SL ordinance adoption but with no documentation and/or stated limit on mooring spaces in that approval and the number of existing spaces exceeds what is allowed.

What is a legal or illegal
nonconforming mooring space???

DNR Perspective on Legal Status

- Mooring space use regulated by SL PUD zoning is a land use (even though its in the water) under MN land use/zoning statutes
- Legal nonconforming use status only applies to those spaces existing prior to SL ordinance adoption
- Legal nonconformities are protected – repair, maintain, replace, etc... but not expanded
- Poor enforcement of zoning provisions limiting mooring spaces doesn't make spaces that exceed the number allowed conforming uses – they are only violations that haven't been remedied

Best Practices - Enforcement

- Monitor and/or track mooring spaces and enforce
- Many LGUs have policies to reduce nonconformities, cite these when enforcing limits on mooring spaces



Best Practices- Applications

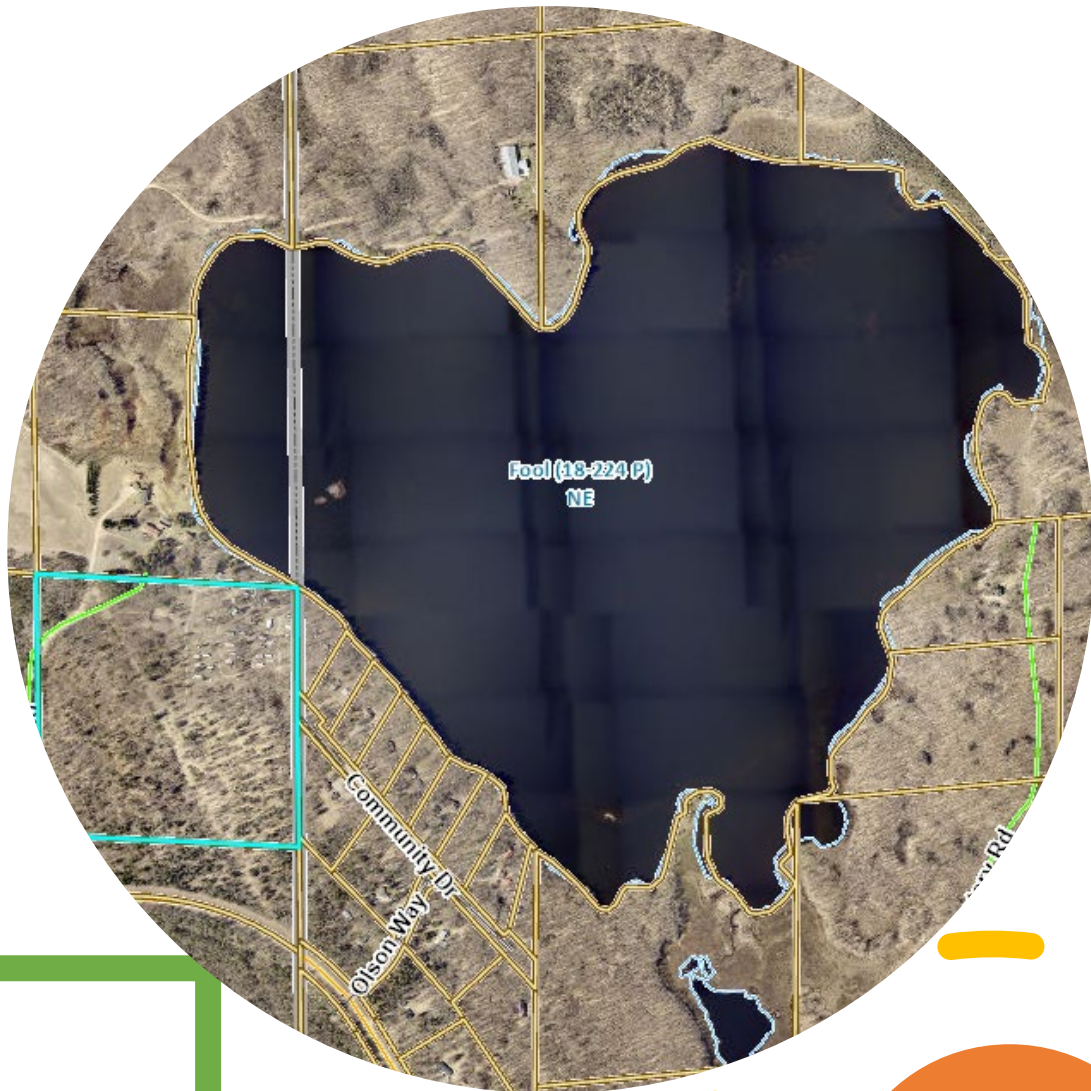
- Develop good documentation during application, review, and approval process
- Determine basic facts on number of spaces:
 - Require tiering analysis to determine allowable units in first tier
 - Document existing mooring space and past mooring space approvals
 - Records review (LGU records, resort maps, documents, etc.)
 - Aerial photos
 - Do Aquatic analyses for impacts and for least impactful locations
 - Opportunity to bring noncompliant docks/platforms into public water rule compliance
 - Engage DNR Area Hydro early in process



Panel Discussion

- Darrin Hoverson – DNR, Moderator
- Chris Pence – Crow Wing County
- Eric Buitenwerf – Hubbard County
- Dave Rush – Douglas County

Fools Lake Campground Expansion- Crow Wing County



Fools Lake –Natural Environment Lake

Existing Campground (pre-ordinance)

12 primitive sites (Owner not in agreement)

2010 CUP – Add 20 Modern Sites

2012 CUP – Add 36 Modern Sites

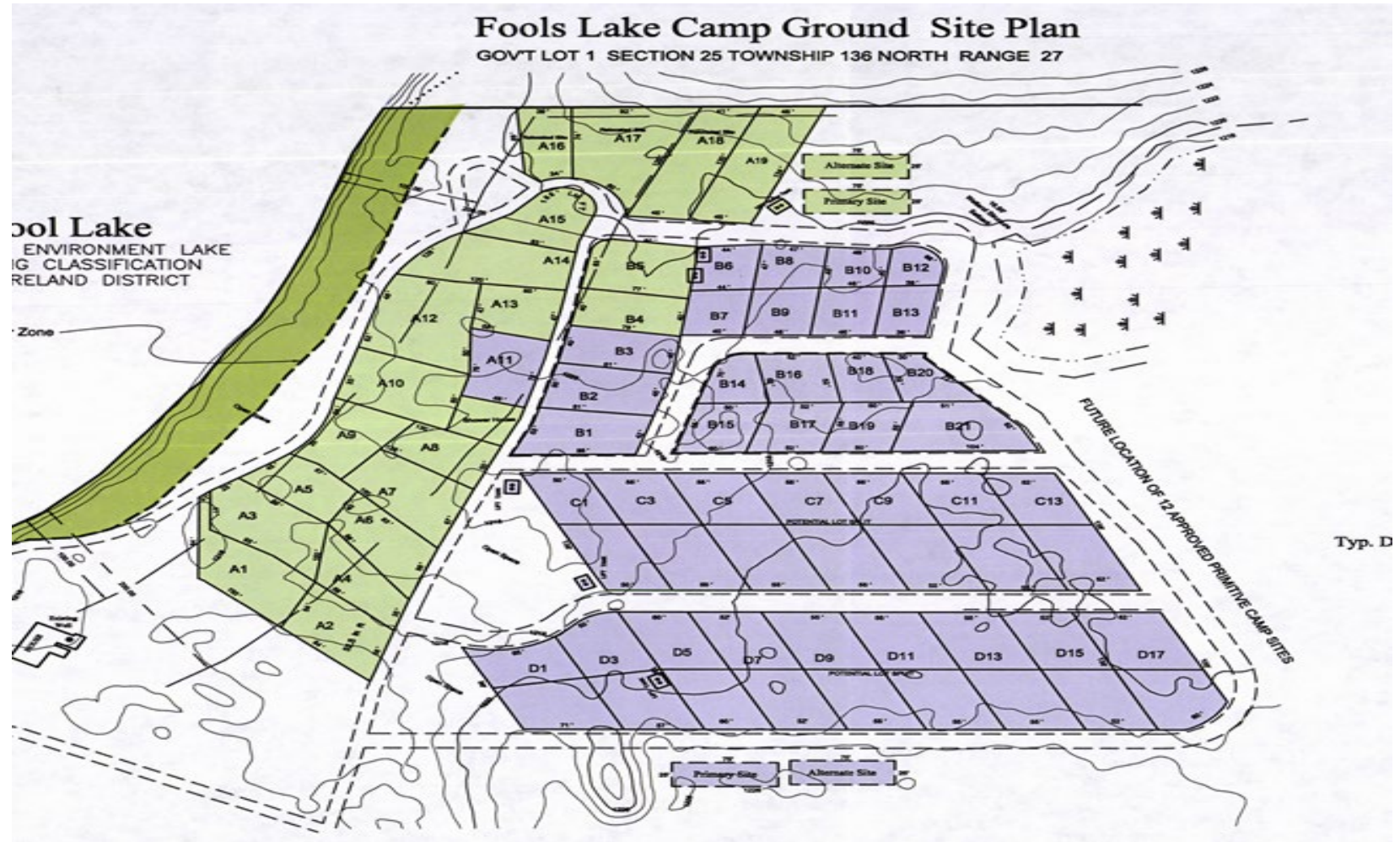
2021 CUP – Denied for 24 Modern Sites

Docks Addressed – Decision to allow 5 docks
with 6 mooring spaces per dock

Analyses –

Look at previous ordinance, Historic Aerial
Photos – Current Ordinance – Compromise!

2012 Site Plan – CUP Expansion



2010 Dockage



2019 Dockage



Starlight Bay Resort – Hubbard Co.

Eleven cabin Tier 1 nonconforming use resort + 2005 CUP allowing a 44 RV site campground in Tiers 3 & 4 (21 of the 44 sites have been created); 19.1 ac., ~1400' shoreline

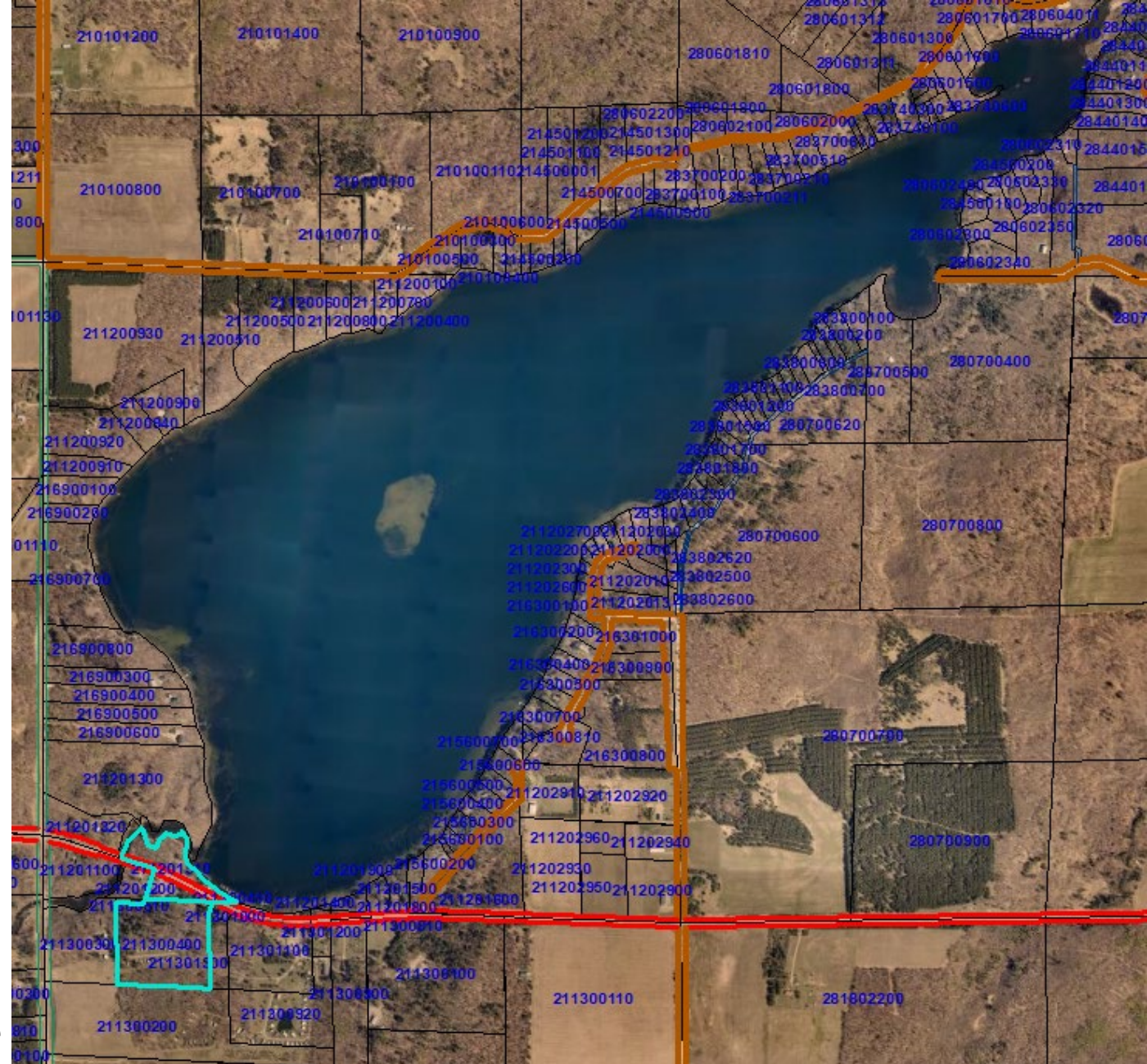
5th Crow Wing Lake: RD class, 503 ac., ~125 riparian lots, 1 public access

Crow Wing River: Tributary class

Dec. '21: New owners; told by seller 23 slips existed and were allowed. CUP allowed 11 slips – one for each Tier 1 unit.

Feb.-July '22: New owners sought variance and CUP amendment to have 13 addt'l slips (24 slips on 2 docks total: 12 for seasonal RV sites, 10 for Tier 1 cabins, + 2 for rental) in exchange for waiving their right to have 19 of the 44 approved RV sites in Tiers 3 and 4.

No nearshore aquatic veg where docks proposed. Dock locations chosen to avoid impacting veg located elsewhere on property's shoreline.



Challenges

- Complex blend of nonconforming resort and conditional RV campground uses
- Insufficient documentation to support/refute seller's claim of operating 23 slips since 2005
- Not penalizing new owners for prior owner's vios that they were systematically correcting
- Adjacent large nonconforming use resort w/similar # of slips and amount of shoreline impact
- Unique applicant offer of reducing # of RV sites in exchange for addt'l slips

Outcome

- Variance granted for 13 addt'l slips on condition owners waive right to construct 13 of the 44 originally allowed RV sites.
- CUP amendment approved.
- As campground density was compliant, the BOA felt giving up 13 RV sites (vs 19) was a fair amount of mitigation and a "win" in terms of the property's impact to aquatic and terrestrial resources.



Douglas County - Big Foot Resort Expansion

- ▶ 2021 CUP application to allow a 49-unit campground expansion (42 new units, 7 unpermitted existing units) with no increase in docking.
- ▶ Resort is located on Lake Mary - General Development Shoreland
- ▶ Resort was in existence prior to county-wide zoning in 1966. Several expansions occurred since that time:
 - ▶ 1983 - CUP issued 13-unit campground expansion
 - ▶ 1984 - CUP for 24-unit campground expansion
 - ▶ 1985 - CUP for 5-unit mobile home court
 - ▶ 1990 - CUP for 1 mobile home. Site drawing and density calcs at that time showed the resort had 6 cabins, 1 home, 35 campsites, and 5 mobile homes (47 total units)
 - ▶ 2000 - CUP for 35-unit expansion to an existing 49 units + 1 house (total 85)

Big Foot Docking History

- ▶ 2021 CUP for expansion does not include a request for additional docking, but previous CUP's do not include dock numbers.
- ▶ Applicant is seeking to maintain 105 mooring spaces on existing docks
- ▶ Under 2021 Shoreland Rules/DC Ordinance - number of mooring spaces would be one per allowable tier 1 units - 40 mooring spaces
- ▶ MN SS 394.36 allows legal non-conforming uses to be maintained so long as they don't cease for 365 days or more. These uses cannot be expanded.
- ▶ MN DNR requested that Doug Co document the number of spaces in current permit request.
- ▶ Owner provided evidence of existing mooring spaces including:
 - ▶ Number of resort watercraft owned and operated
 - ▶ Seasonal site rentals in 1990 allowing one boat per rental site
 - ▶ Cabin rental in 1990 allowing 3 watercraft per cabin
 - ▶ Photos of docking system in place
 - ▶ Neighbor testimony

Big Foot Docking History

- ▶ The docking facility does not cover more than 20,000 sq ft of water surface and therefore did not meet the threshold as a marina. In addition, marina services were not being provided.
- ▶ The docking location is within a very large, but shallow bay of the lake. Depths are less than 5 ft and the bottom is sandy and silty. Submergent vegetation is present and portions of the large bay are designated by the DNR as spawning habitat.
- ▶ Challenges for the LGU:
 - ▶ Lack of clear and precise documentation of mooring facilities
 - ▶ Intermediary position of county between applicant, public, and DNR
 - ▶ Outcome is based on legal analysis rather than ecological analysis

Big Foot Docking Outcome

- ▶ Planning Commission/County Board issued permit to expand and documented that the resort had legally maintained 70 “permanent” mooring sites (those with lifts and canopies) and 30 “transient” sites (those without such facilities).
- ▶ Decision was based on:
 - ▶ Applicant provided documentation of resort rental history, purchase history of size and layout of dock, included aerial photos of dock in water, previous owner and neighbor testimony supported applicant claim.
 - ▶ County had not documented mooring spaces and regulated them in the past. In this circumstance, the County was not required to limit mooring spaces but to create a record for future regulation. The County saw its role as a judge to assess the evidence of past mooring sites presented and determine what was the accurate number.
 - ▶ DNR and other parties raised concerns about the number of watercraft moorings at the resort. Information was provided about the rules related to moorings for PUD, but no specific resource concerns were identified. Agency recognized that limiting mooring spaces by current rules would be hardship for resort.

Discussion Topics

- Thoughts on nonconformities – interpretation and role they play in decision making?
- What role does, or should, aquatic resource assessment and impacts play in determining the number of spaces allowed, location, and decision making (CUP, variance)?
- How can decision-making processes be improved – application submissions, reviewing, approving, monitoring, enforcement, other???
- What are the opportunities for improvement?