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# **2024 County Shoreland Activities Summary Report**

05/21/2025

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Introduction

All 85 Minnesota counties administering shoreland ordinances are required to complete an annual shoreland activities survey. The survey has been conducted since 1989 and is required to receive the Shoreland Management Grant (part of the Natural Resources Block Grant administered by the MN Board of Water and Soil Resources (BWSR)). The survey data provides an opportunity to:

- Track the amount, type, and location of development activity to identify trends and potential threats to shoreland areas.
- Identify administrative challenges, and develop guidance, training, model ordinance language, and other resources to aid administration.

The following is a summary of county shoreline activities during calendar year 2024. All 85 counties completed their shoreland activities survey by April 2025.

Permits

Counties issued 6,594 construction permits in shoreland in 2024, which is comparable to recent years. Figure 1 shows how permit totals have been changing over the past several years. The data shows that redevelopment typically accounts for about three quarters of the permits issued in shoreland zones.

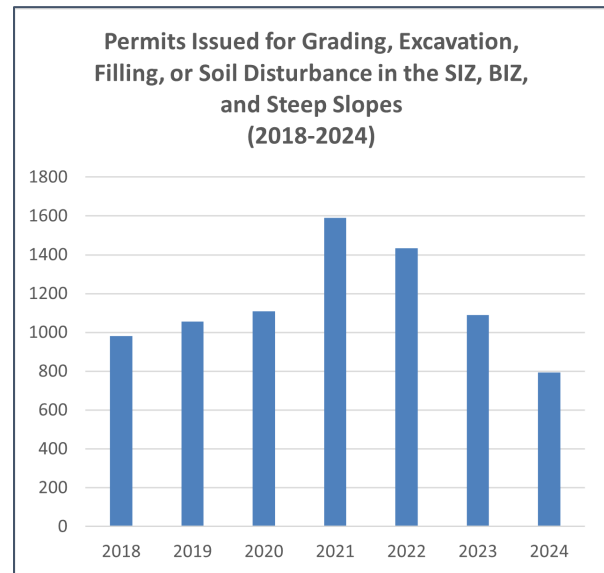
Figure 1



Statistics for new development vs. redevelopment were not tracked prior to 2012.

**Permits for Land Alterations.** Counties reported a total of 794 permits for grading, excavation, filling, or soil disturbance in the Shore Impact Zone (SIZ), Bluff Impact Zone (BIZ), and steep slope areas. This continues a downward trend in number of permits since 2021 and is the lowest number of permits since 2018. (see Figure 2). The SIZ is 50% of the Ordinary High Water Level (OHWL) structure setback. It is important to manage land alteration in this area which serves as a buffer to infiltrate and slow runoff, prevent erosion, and provide critical habitat.

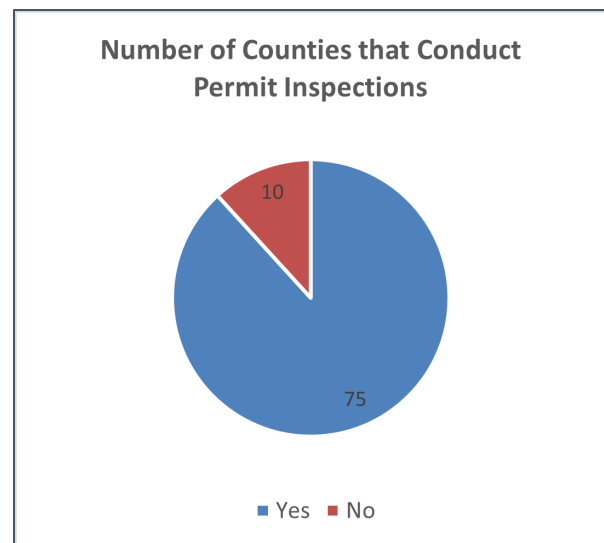
**Figure 2**



**Inspections.** Seventy five of 85 counties (88%) report that they generally inspect permitted land use applications or building projects in some form or another (see Figure 3). This is an increase over inspection numbers reported in the previous five years, which reflected an inspection percentage in the 70s.

Most counties inspect prior to construction, and more than half also inspect upon completion. A smaller percentage visit the site during construction or require “as-built” documentation (see Table 1).

**Figure 3**

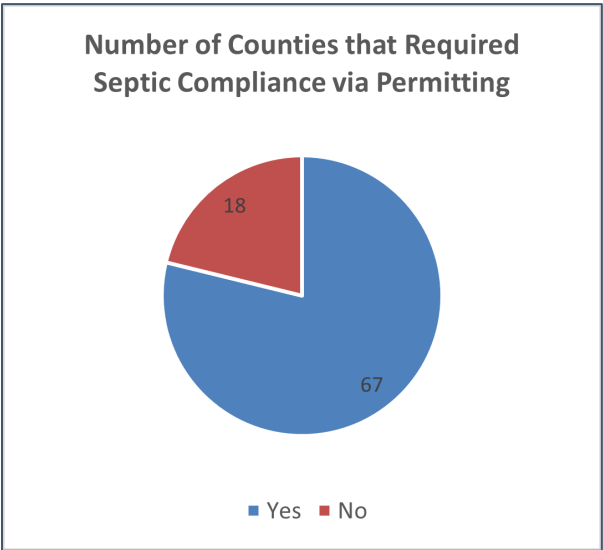


**Table 1: Types of Inspections Conducted**

Method	Percent
On-site, pre-construction	79%
On-site, during construction	48%
On-site, after construction	68%
Require “as-built” documentation	19%

**Septic Compliance.** Sixty-seven counties (79%) report that they require septic system compliance inspections or system upgrades whenever a variance or permit of any kind is granted (see Figure 4). This is a shoreland rule requirement.

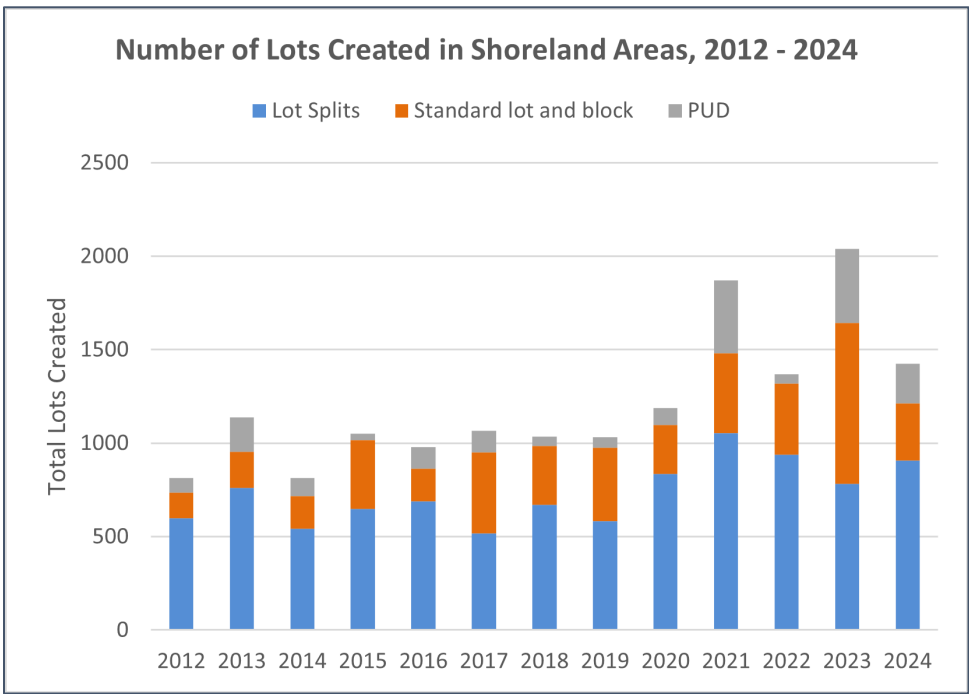
Figure 4



Subdivisions and Lot Splits

Counties created 1,425 new shoreland lots in 2024, the majority through lot splits. This is slightly above the overall mean since 2012.

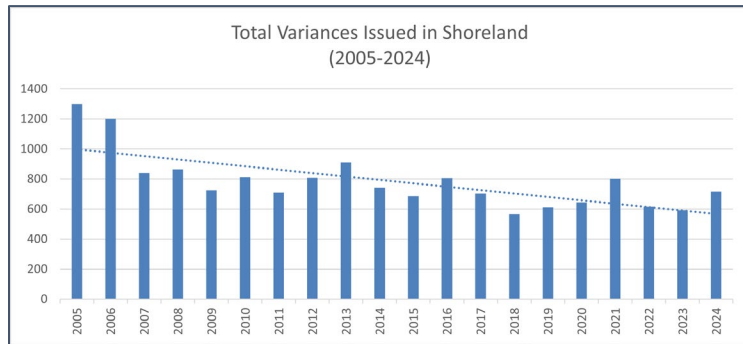
Figure 5



## Variances

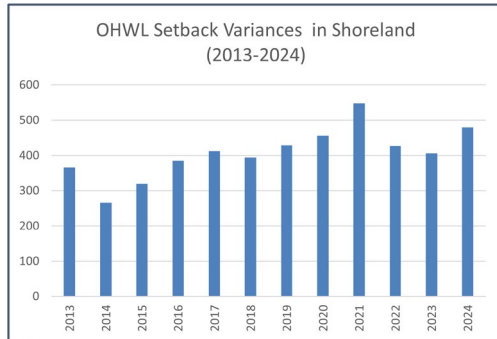
**Total Variances.** The 85 counties reported a total of 717 shoreland variances during 2024. This is slightly more than the prior two years but still in keeping with an overall pattern of decline in reported variances since 2005 (see Figure 6). During 2024 52 counties reported variances in shoreland and 33 counties reported no variances in shorelands.

**Figure 6**

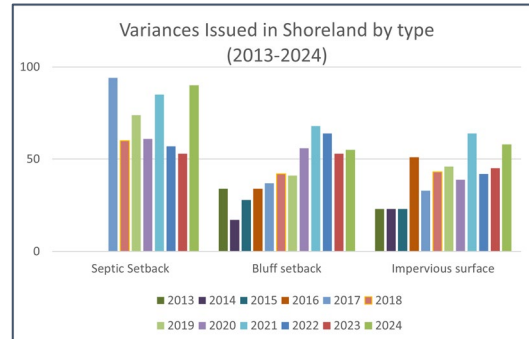


**Types of Variances.** With a state wide total of nearly 500 instances, variances for Ordinary High Water Level (OHWL) setbacks are over five times more common (See Figure 7) than all other types of shoreland variances (See Figure 8).

**Figure 7**

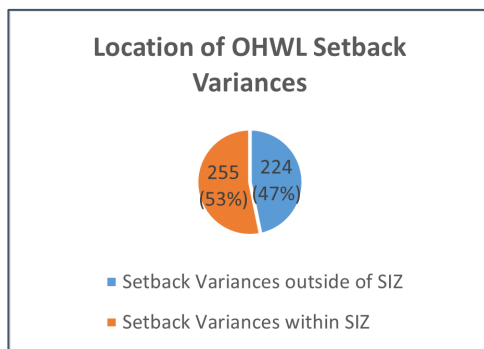


**Figure 8**

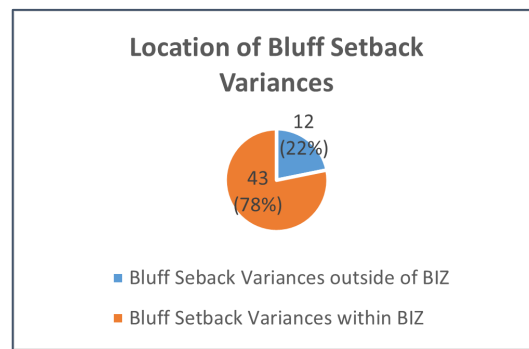


The shore impact zone (SIZ) and bluff impact zone (BIZ) are the shoreland areas most sensitive to development impacts, and most important for the health of lakes and rivers. The survey asked counties to report how many setback variances they approved in these sensitive areas. While there are significantly more variances approved in the SIZ than the BIZ, 255 vs. 43, there are relatively more variances approved in the BIZ than the SIZ (78% to 47%). (see Figure 9).

**Figure 9**



**Figure 10**



## Survey Responses Regarding Effective Approaches to Finding Alternatives to Variances

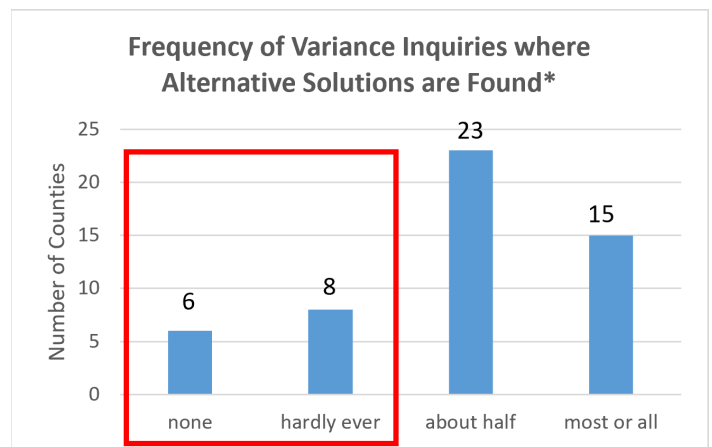
Counties were asked to share approaches that have proven effective for them in finding alternatives to granting variances. Some of these are:

- Discussing alternative proposals that would meet ordinance standards was effective in many cases for landowners. It saved them the cost of the variance process and other things that would have been needed for the variance (Surveying, Engineering).
- I make a point to meet with the landowners onsite to discuss what they want to do and we talk about any alternative options. Have also been working with the DNR Hydrologist to look at some alternative designs that could be completed on County owned parks to give lake shore owners something to see when we talk about alternatives while stabilizing our slopes.
- Our staff works through the criterion with them and explain to landowners what alternative options are available to them that do not require a variance as the variance is likely to be denied. We advise them where structures can go without a variance and explain the higher standards they would be subject to if building in shoreland.

- Explaining that if there are alternatives that meet setbacks then the County will not approve the variance. Only if there are no other options to use the lot in a reasonable manner through a variance should you apply for a variance of setbacks.
- Working with applicants to understand their ultimate goals and looking for alternatives which work within the framework of the existing regulations. Ensuring the applicant understands the Board of Adjustment's role and the standards by which their requests will be measured may help applicants focus on their genuine needs.

**Figure 11**

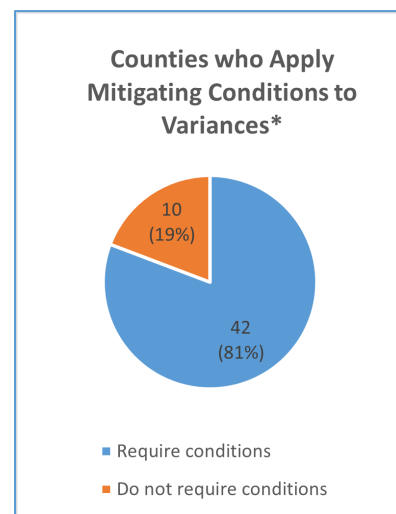
**Finding Alternatives to Variances.** 73% of all counties proactively work with applicants to bring a project into conformance with the ordinance – thus minimizing or eliminating the need for a variance and its impacts. Figure 10 shows the frequency of variance applications for which alternative solutions were found. Fourteen of the 52 counties (27%) who granted variances in 2024 indicated that they “hardly ever” or “never” find alternatives to variance inquiries, which is down from last year’s 35%.



\*of the 52 counties who approved variances in 2024

**Conditions on Variances.** When solutions cannot be found to avoid a variance, community officials can put conditions on variance applications to mitigate potential project impacts. Ten of the 52 counties (19%) who granted variances in 2024 indicated that they do not typically impose conditions on variances (see Figure 11). Imposing conditions to mitigate impacts is always a good idea if they are related to and proportional to the impact.

**Figure 12**



\*of the 52 counties who approved variances in 2024

## Shoreland Administration in Townships

The DNR is not always informed by townships who are taking on shoreland zoning so we ask counties to let us know when they become aware of this activity. Counties and the DNR have roles in insuring that township ordinances are consistent with and no less restrictive than county ordinances. The DNR, in collaboration with the Minnesota Association of Townships and MACPZA published [guidance for townships taking on shoreland zoning](#).

Two counties reported a total of three townships taking on shoreland administration in 2024. No counties reported being aware that any townships were considering taking on administration in 2025.

## Riprap Administration

### Introduction

This year, the DNR added several questions about counties' riprap regulations and administration. The DNR is assessing its "no permit required" option for installing riprap below the OHWL. County responses to these questions will help the DNR understand perceptions, local regulations, as well as challenges in reducing the amount of unnecessary riprap.

### Results Summary

Fifty-four, or 64%, of the counties reported that they require a permit for riprap.

Counties vary in the type of permit requirements. Following are the most common requirements among counties requiring a riprap permit (some counties require more than one of these):

- The dimensional standards from the shoreland rules (40 counties)
- Evidence that there is active erosion (32 counties)
- Limits on the amount of riparian vegetation that can be removed (28 counties)
- Limits on the length of riprap (11 counties)
- Other (7 counties)
- No requirements (5 counties)

Figure 13

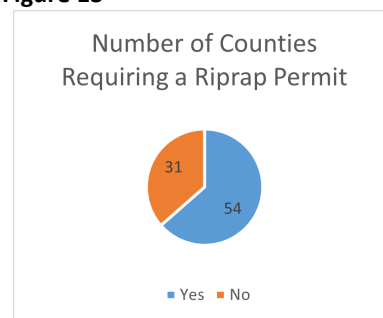
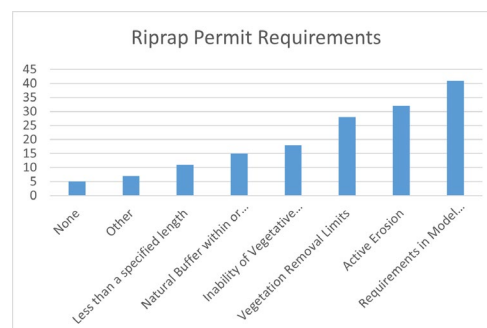


Figure 14



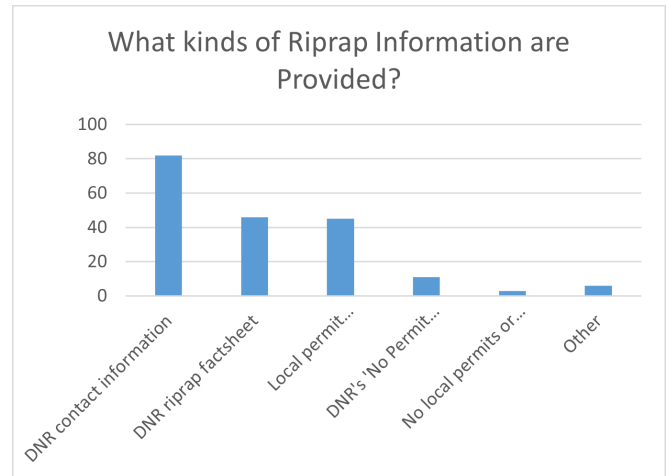


## Riprap Information

Almost all the counties (82) provide landowners with DNR contact information in response to requests for riprap-related information. Other kinds of information provided include the DNR riprap factsheet; information on local permit conditions; and existence of the DNR's "no permit required" option under certain conditions. One county noted that they schedule meetings with the local DNR area hydrologist to review project specifics if the riprap proposal starts below the OHWL. One county has adopted standards requiring that riprap consist of natural rock, free of debris and averaging 6-30 inches in diameter, with a crushed rock or fabric filter.

Counties were asked whether the DNR's no permit required option for riprap installation below the OHWL affects their ability to protect shoreland resources. Twenty five (29%) of the counties said "yes". Common explanations were that it is confusing to landowners; some landowners conclude that, if the DNR doesn't require a permit, then no local permit is required; or that the lack of a DNR permit puts the onus on the county.

**Figure 15**

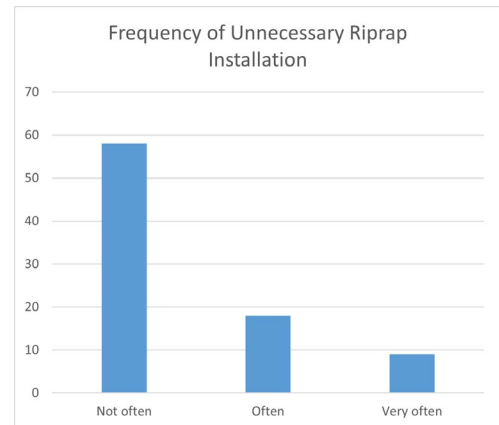


## Unnecessary Riprap

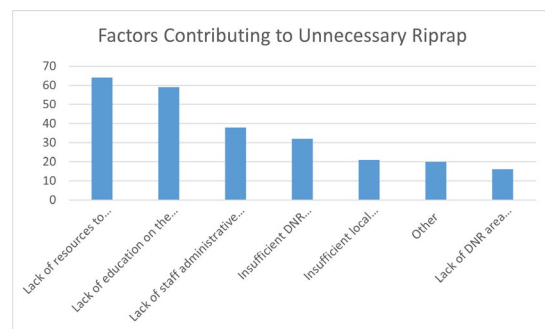
Counties were asked how often riprap is installed when there isn't a significant erosion problem. Fifty-eight (68%) said "not often.", whereas 27 counties (32%) said "often" or "very often.". Common reasons given for the unnecessary installation of riprap include, in descending order include:

- Lack of resources to provide landowners and contractors for alternative solutions
- Lack of education on the importance of natural shorelines
- Lack of staff administrative and/or enforcement capacity
- Insufficient DNR requirements
- Insufficient local requirements
- Lack of DNR area hydrologist capacity to review projects below the OHWL
- A lack of effective alternatives in some situations
- Aesthetic and maintenance concerns

**Figure 16**



**Figure 17**



In addition, some counties also cited that quantifying ‘active’ or ‘significant’ erosion problems is challenging, making it more difficult to assess whether a proposed riprap installation is necessary or not.

#### Suggestions for Reducing Unnecessary Riprap Installation

County suggestions on how to reduce the amount of unnecessary riprap installation include the following ideas:

- Training for LGUs and contractors on what constitutes erosion and best practices for design and installation of riprap
- Better define the level of existing shoreline erosion needed before riprap is allowed as an erosion control measure
- Better define methods to demonstrate or prove that a specified level of existing erosion exists
- Require permits for all riprap from the DNR
- Require permits for all riprap from the local government

#### **County Issues or Needs**

The challenges of administering shoreland ordinances are diverse. A sample of responses on county needs and issues around shoreland ordinance administration follow. Some are reworded for clarity. DNR uses this information to develop new training and on-demand learning, web resources, and model ordinance updates.

#### **Variance Guidance**

- Guidance to create a solid record of decision findings for all variance criteria
- How to strategically use conditions of approval to help improve shoreland stewardship and mitigate impacts
- refresher variance training would be helpful
- Guidance on what constitutes practical difficulties

#### **Other General comments about shoreland issues**

- Guidance on slope stabilization and alternatives, and training on alternatives to riprap
- Training on how other counties and the DNR administer vegetation alteration regulations
- More training on bluffs and steep slopes
- BOA and staff would benefit from some scientific information about the known impacts from development in shoreland areas, encroachment into shore impact zones, and what specifically are the hazards related to alterations/development in bluff areas
- How to mitigate existing nonconforming structures that need improvement
- Guidance on determining how impervious surfaces impact properties, including determining where the removal of impervious surface would be most impactful

- Updated guidance on determining ordinary high water levels in areas outside of lake country
- More guidance and trainings specific to Lake Superior would be helpful. Seawalls/riprap projects are a challenge to evaluate; it is also difficult to set fair/effective conditions on Lake Superior properties i.e. the BOA could not condition that riprap be installed because of the huge cost of the project. Large boat lift canopies placed in the water have been an ongoing issue

## Managing Climate Trends

Several counties are taking actions to deal with changing climate. Following are some examples.

- We're participating in a Green Infrastructure Audit done by MN Sea Grant, which is recommending changes to the Land Use Ordinance that will reduce runoff and sediment.
- (We) edited a solar and wind ordinance for the county.
- No formal efforts have taken place, but we do take a concerted effort to take climate change into consideration in our work.
- We incorporate higher precipitation levels for single rainfall events when compiling stormwater management plans.
- The county has taken on a very active role in water storage, implementing 1-2 storage projects a year. These are important in building climate resilience and reducing impacts.
- The county has prohibited construction of new houses in floodplain areas, due to potential flooding increases.

## DNR shoreland-related web pages

Following are key DNR shoreland-related webpages:

- [Shoreland Management](#) – The main source of shoreland information with links to many other resources and webpages including the following webpages:
- [Lake, river and stream classifications](#)
- [Shoreland & river-related training](#)
- [Climate trends affecting shoreland](#)
- [Bluff resources](#)
- [Variances](#)



### ECOLOGICAL AND WATER RESOURCES

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