

## 2021 County Shoreland Activity Summary Report

### Introduction

Each of the 85 Minnesota counties that have shoreland ordinances are required to complete an annual survey on their shoreland activities. The survey has been conducted since 1989 and is a component of the Shoreland Management Grant program (part of the Natural Resources Block Grant administered by BWSR). The survey data provides an opportunity to:

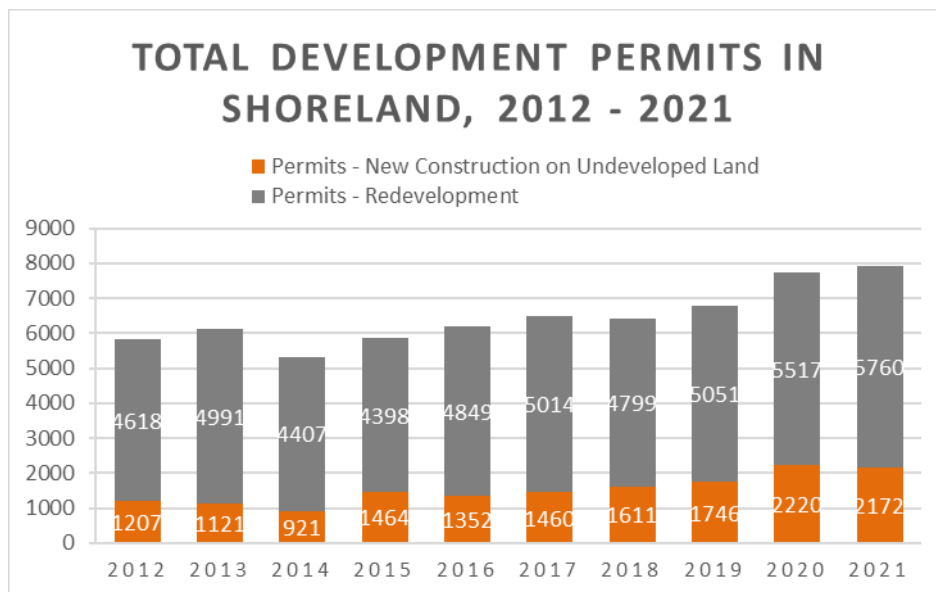
- Track the amount, type, and location of development activity to identify trends and potential threats to shoreland areas.
- Identify and share higher protection standards and identify administrative challenges, and develop guidance, training, model ordinance language, and other resources to aid administration.

The following is a summary of what counties reported having occurred during the 2021 calendar year. All 85 counties completed their shoreland activities survey by April 2022.

### Permits

Counties issued 9,523 land use permits in shoreland in 2021, which is higher than last year's total (8,846). Figure 1 shows how permit totals have been steadily increasing over the past 7 or 8 years. The data shows that redevelopment accounts for about three quarters of permits issued in shoreland. This makes sense as most of the suitable shoreland lots in the state have already been developed.

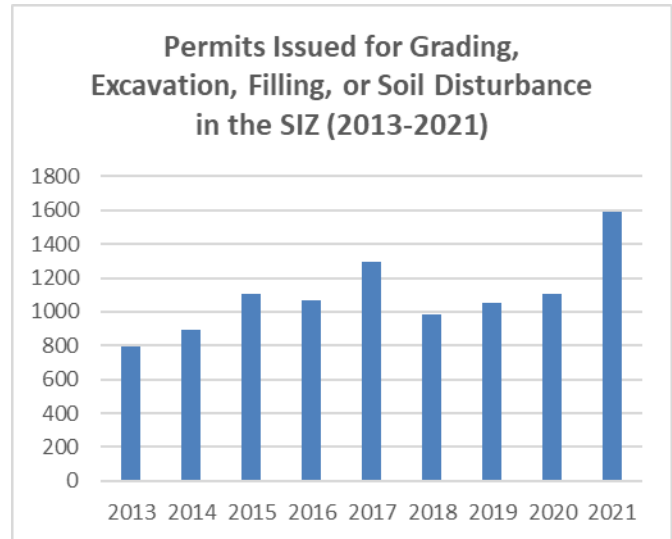
**Figure 1**



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

**Permits for Land Alterations.** Counties reported a total of 1591 permits for grading, excavation, filling, or soil disturbance in the Shore Impact Zone (SIZ) in 2021, which is higher than those reported since this statistic was first collected in 2013 (see Figure 2). It is important to manage SIZ activities, as this sensitive zone serves as a buffer to infiltrate runoff, prevent erosion, and provide critical habitat. A hallmark of good shoreland administration is to ensure these types of activities mitigate impacts. A permit process provides a means to communicate best management practices to property owners.

**Figure 2**



**Regulating Intensive Vegetation Removal.** Regulation and enforcement of vegetation removal activities is important for shoreline protection and maintaining the natural character of a water body. A challenge is that the vegetation removal standards in the shoreland rules are vague and difficult to administer, especially when staff resources are limited. Many counties have adopted better vegetation management standards, which are highlighted on the DNR’s [Innovative Shoreland Standards](#) web page. Thirty-two counties (38%) have clarified and strengthened the minimum vegetation standards by adopting specific, quantifiable standards for intensive vegetation clearing and/or selective cutting in their ordinances. Forty-six counties (54%) reported adopting a permitting process to help guide these activities. Forty-three counties (51%) reported some sort of inspection program. These approaches are more effective than relying on a complaint-based approach, which does little to curb impacts before they occur. Table 1 broadly categorizes the different ways Minnesota counties monitor and enforce vegetation removal.

**Table 1: Enforcement of Vegetation Removal (2021)**

Method	Percent
Complaint-Based	90%
Quantifiable Standards in Ordinance	38%
Require Permit	54%
Inspections	51%

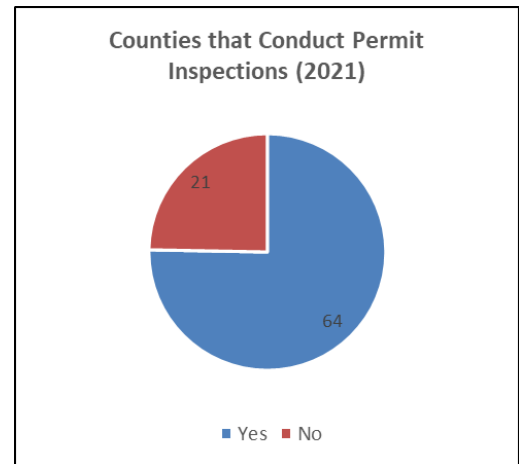
**Inspections.** Sixty-four of 85 counties (75%) report that they generally inspect permitted land use applications or building projects in some form or another (see Figure 3). Most counties inspect prior to construction, and half also inspect upon completion. A smaller percentage visit the site during construction or require as-builts (see Table 2).

**Table 2: Types of Inspections Conducted**

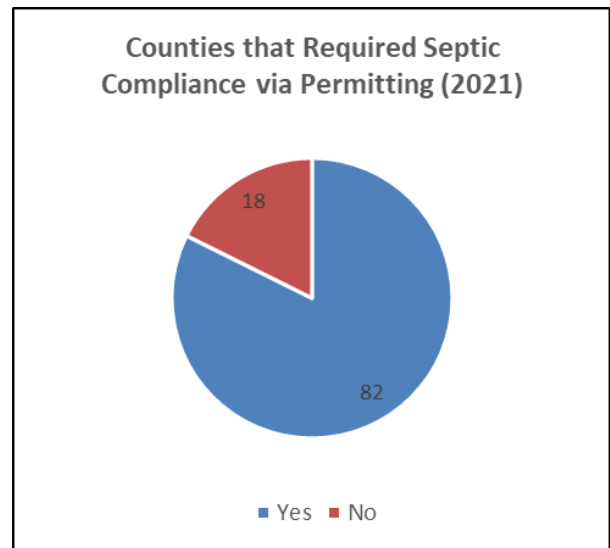
Method	Percent
On-site, pre-construction	58%
On-site, during construction	38%
On-site, after construction	53%
Reviewing/retaining as-builts	12%

**Septic Compliance.** Approximately 82% of all counties surveyed 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 an improvement over last year’s report of 80% and the previous year’s report of 76%, however it should be remembered that **this is a shoreland rule requirement. Nearly one fifth of all counties are not carrying it out.**

**Figure 3**



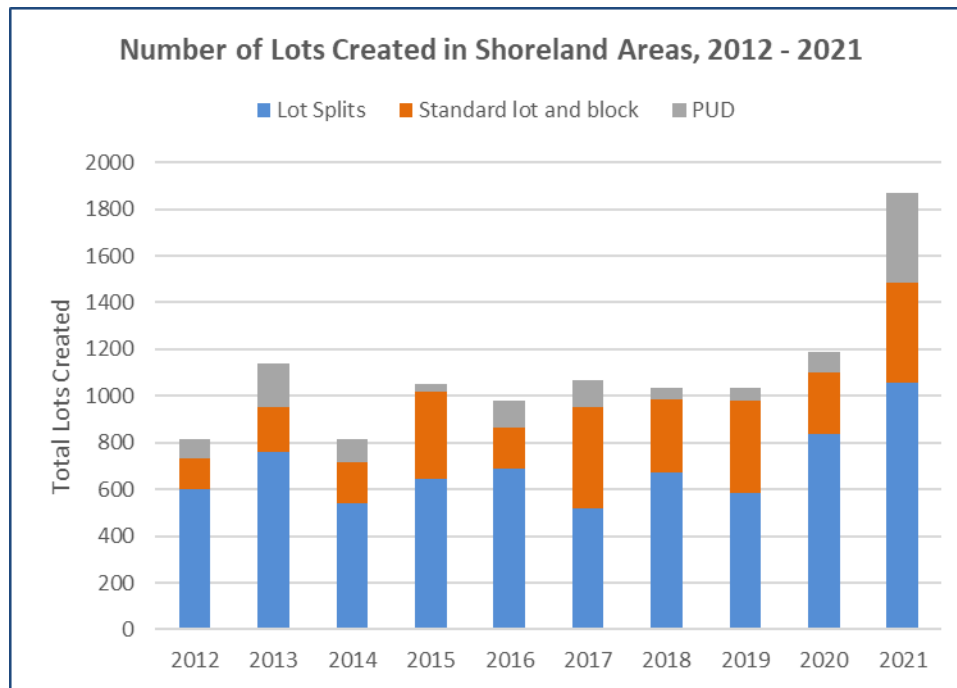
**Figure 4**



## Subdivisions and Lot Splits

Counties created 1,870 new shoreland lots in 2021, the majority by lot splits. This is a significant increase over the reported activity of the past ten years. (see Figure 5).

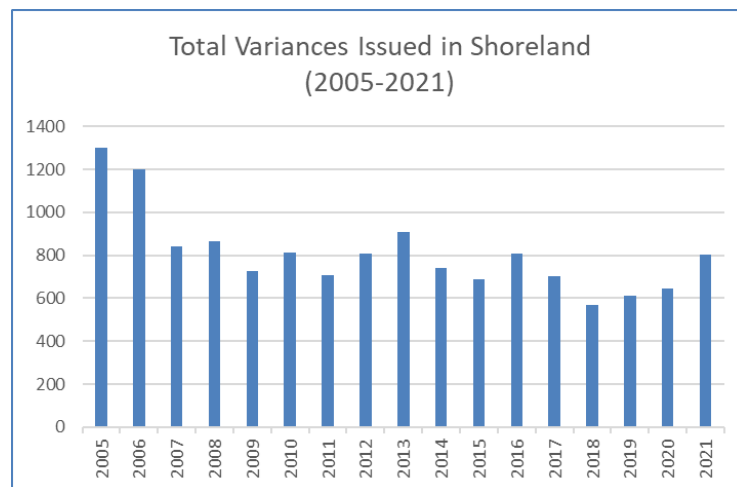
**Figure 5**



## Variances

**Total Variances.** The 85 counties responding to the survey reported a total of 802 shoreland variances during 2021. This is an increase from the numbers indicated in 2020 but is still lower than those reported in 2005-2008 (see Figure 6). All reported variances came out of 53 counties; 32 counties reported no variances in shorelands.

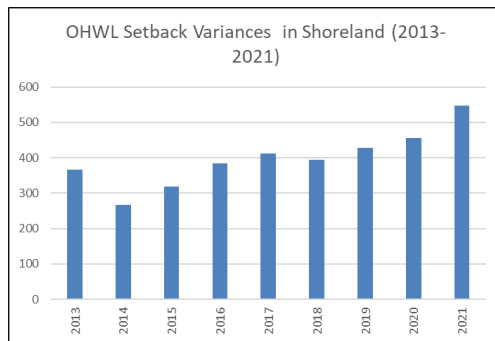
**Figure 6**



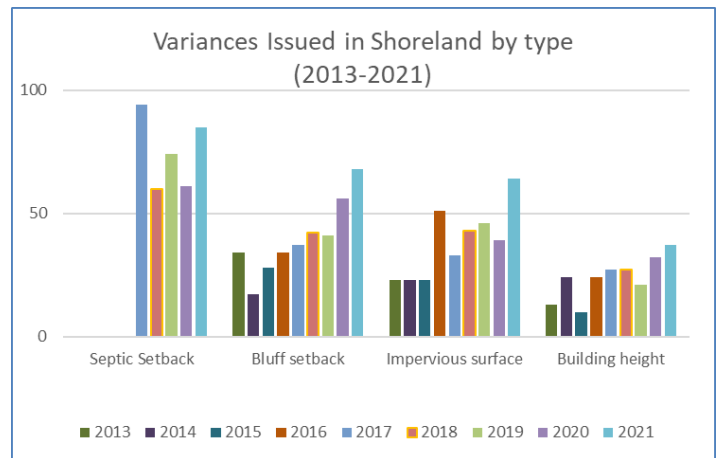
**Individual Developments with Multiple Variances.** The total number of variances identified in this survey may not necessarily reflect the total number of individual developments not meeting shoreland standards. A single proposal may trigger multiple variances. For example, the expansion of a nonconforming structure on a small nonconforming lot may vary from both setback and impervious surface standards. If processed correctly, a community should be requiring a separate variance for each individual standard that isn't being met.

**Types of Variances.** In 2013, the survey began asking respondents about the types of variances they were granting (see Figures 7 and 8). Variances for reduced Ordinary High Water Level (OHWL) setbacks are the most common, representing nearly 70% of all shoreland variances in 2021. No significant trends are observed when evaluating the types of variances granted.

**Figure 7**

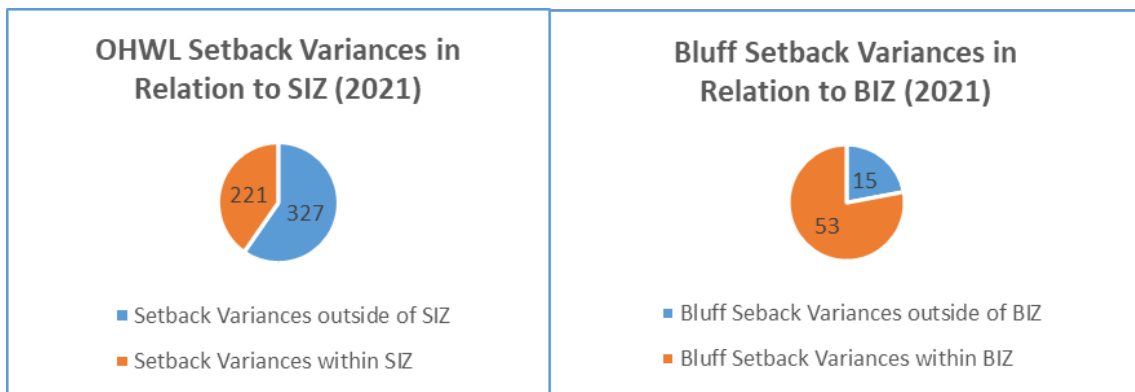


**Figure 8**



The shore impact zone (SIZ) and bluff impact zone (BIZ) are the shoreland areas that are 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 that involved activities within these sensitive zones. While there are significantly more variances approved in the SIZ than the BIZ, there is a much greater proportion of bluff setback variances approved in the BIZ (78%) than OHWL setback variances in the SIZ (40%) (see Figure 9). Local governments should recognize the importance of keeping structures out of these very sensitive areas. Structural and landscaping damage due to bluff failures and shoreline erosion are expensive and negatively affect water quality. It’s generally more cost effective to encourage development away from these areas.

**Figure 9**



**Survey Responses Regarding Variances**

*“How to look at variances and determine appropriate conditions to alleviate the negative impacts that may be realized with approval of a variance... would be helpful.”*

*“A training on conditions that are related to projects as well as variance statutory requirements to grant or deny variances would be beneficial. “*

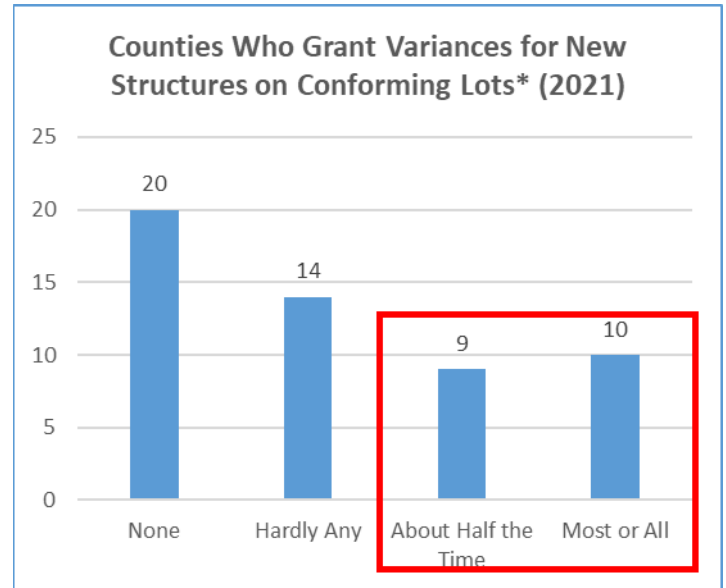
*“helping them understand practical difficulty related to the property, not the person” would be helpful.*

**Variations on Conforming and Nonconforming**

**Lots.** Nineteen of the 53 counties (36%) who granted variances in 2021 indicated that they regularly (about half the time or most of the time) approve variances involving new construction on conforming lots (see Figure 10). Though variances to build or rebuild on nonconforming lots are fairly common, **variances for new development on larger, conforming lots should be very rare.** If a lot is conforming, it can typically accommodate development that complies with shoreland regulations. As such, a “unique circumstance” should not typically exist. Unique circumstance as detailed in Minn. Stat. 394.27, Subd. 7, is one of the three statutory criteria used to determine a “practical difficulty,” which would justify variance approval.

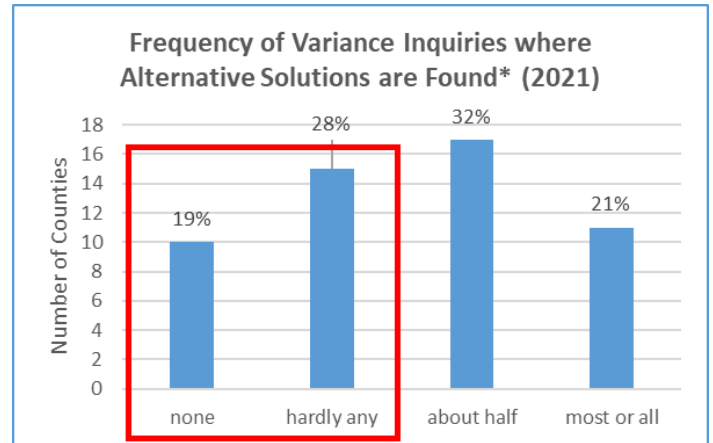
**Finding Alternatives to Variances.** It is generally a good administrative practice to proactively work with applicants to bring a project into conformance with the ordinance – thus minimizing or eliminating the need for a variance. Figure 11 shows the frequency of variance applications for which alternative solutions were found. Twenty-five of the 53 counties (47%) who granted variances in 2021 indicated that they “hardly ever” or “never” find alternatives to variance inquiries. Local administrators could be more proactive in working with applicants to find alternatives to variances. When variances involve new construction, it creates a nonconformity, which are frequently associated with future variance requests.

Figure 10



\*of the 53 counties who approved variances in 2021

Figure 11



\*of the 53 counties who approved variances in 2021

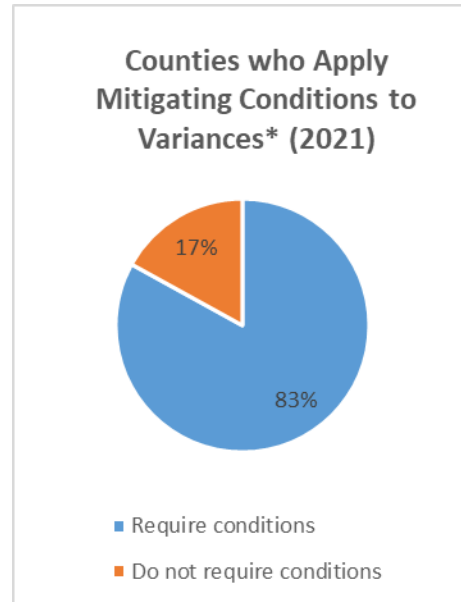
**Conditions on Variances.** When solutions cannot be found to avoid a variance, community officials should be placing conditions on variance applications that mitigate any potential project impacts. Nine of the 53 counties (17%) who granted variances in 2021 indicated that they do not typically impose conditions on variances (see Figure 12). There are varying levels of development intensity, but any near shore development has the potential to cause impacts to water quality and neighboring properties. Imposing conditions helps to mitigate those impacts and provide great opportunities to

**Common Conditions**  
Common conditions may include shoreline restoration, reduction in impervious surfaces, revegetation of near shore area, which may include a maintenance agreement.

encourage better resource protection.

*For more information on variances, visit the [DNR's Variances in Shorelands & Floodplains web page](#).*

**Figure 12**



**\*of the 53 counties who approved variances in 2021**



## Higher Standards and/or Special Initiatives

In the last few years, the survey has asked respondents to identify any new special initiatives or higher standards to protect shorelands. The DNR continues to look for new examples to highlight on the [Innovative Shoreland Standards](#) web page.

### **Samples of New County Higher Standards or Special Initiatives**

- *Planning for a Land Development and Water Quality Workshop began in September 2021 and will be held in February 2022. The workshop is focused on providing water quality protection rules, regulations, and permitting information for contractors, landscaper, realtors, etc.*
- *The SWCD partnered with Devil Track Lake Homeowner's Association and plans to implement projects within the Devil Track Lake Watershed.*
- *We pursued a formal partnership with the Crow Wing SWCD to help follow-up on shoreland vegetation removal, and assist with vegetation management plans for those property owners who are required to do so by condition of a public hearing or needed to do so as a result of land use ordinance violation. This was a great first-step partnership.*
- *The Lake County SWCD and Lake County P&Z Depts. participated in Lake Superior Shoreline Erosion and Restoration workshops for contractors, realtors and property owners.*
- *We have continued to operate a grant program to complete conservation and water quality projects in our shoreland districts. Staff conducts outreach to help educate homeowners on the importance of conservation.*
- *We will be promoting and implementing the Seasonal Area Riparian Management program within the Split Rock and Pipestone Creek watersheds with a 319 grant from MPCA.*
- *We work with our Lake Improvement districts on camper regulations as well as complaints from residences on a given lake through LID references. This is not something in the ordinance.*
- *We have a robust education and outreach program. Quarterly newsletter, annual shoreland mailings, and monthly mailings to new property owners.*

## Shoreland Administration in Townships

Over the last five years, the DNR asked counties to identify the townships that have taken on shoreland administration, or are in the process of doing so. The DNR is not typically informed of townships taking on shoreland zoning, but is responsible for reviewing and approving all shoreland ordinances. Though townships traditionally have few administrative staff, the DNR has a responsibility to work with all communities to ensure their ordinances are compliant and are being administered appropriately.

Transferring shoreland zoning authority from county to township can often be challenging, and requires a commitment to continued administration and enforcement. Before townships take on shoreland zoning controls, statute requires that townships demonstrate to the county that its proposed shoreland ordinance AND administrative capacity is as strong as the county's. The DNR encourages counties to inform their DNR Area Hydrologist of townships interested in taking on shoreland zoning, so we can help townships fully understand the full range of administrative responsibilities they will be taking on.

## County Issues or Needs

The challenges of administering shoreland ordinances are diverse and ongoing. A sample of responses on county needs and issues around shoreland ordinance administration follow. Some are reworded for clarity. Understanding these issues will help the DNR determine ways to better support county shoreland ordinance administration. DNR uses this information to determine potential new training and on-demand learning, web updates and resources, informational materials, model ordinance updates, and other tools.

### **Samples of Issues and Needs Identified**

#### **Guidance for Appointed Officials**

*"Board of Adjustment needs training on why shoreland ordinance is important. We plan to share with our Board the DNR spring webinars when they become available."*

*"[Need] reinforcement on having Findings of Fact to back up decisions."*

*"My Board would appreciate review comments on each application so they could be read into the record during the meeting."*

*"Our staff does take advantage of the training workshops that are offered, and we appreciate the guidance from DNR staff. We look forward to refreshers and updates on basic shoreland & floodplain topics, as well as more in-depth guidance on variances & other challenges. It is difficult to include our Board of Adjustment members in the traditional trainings; and it would be nice if there were some other opportunities available for training for them."*

*"Variance - findings of fact for our BOA members."*

*"Board of Adjustment or Planning Commission legal training."*

*"Public Hearings are becoming more contentious, and continual turn-over with the members of these Boards require on-going guidance & training. Having training and guidance that explores the standards, rationale, due process and developing the record are always good training and discussion topics."*

#### **Specific comments about land alterations and vegetation standards**

*"General Training on the importance of near shore vegetation and the impacts of development on water quality."*

*"Erosion Control Measures, Bluff & Steep Slopes Training, and Landscaping CE"*

*"Importance of buffers and impervious surface."*

*"Floodplain training, Variances- findings of fact, appropriate conditions to mitigate potential lake impacts, slope stabilization and alternatives, training in alternative methods for rip-rap."*

*"Need training on impervious surface calculations, grading/filling permits, and vegetation alterations."*

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

*"Need training in floodplain management and variances (findings of fact and appropriate conditions to mitigate potential lake impacts), slope stabilization and alternatives besides riprap."*

*"Need training on bluffs and steep slopes."*

*"Staff would appreciate training on how to establish OHWs on lakes that do not have OHW elevations marked on the ground or in a survey."*

*"Bigger picture training such as the impact of shoreland standards on water quality, property values, public infrastructure, etc."*

*"How to look at variances and determine appropriate conditions to alleviate the negative impacts that may be realized with approval of a variance."*

*"A training on conditions that are related to projects as well as variance statutory requirements to grant or deny variances would be beneficial."*

*"helping them understand practical difficulty related to the property, not the person."*

## **Training Opportunities**

For years, the DNR has conducted in-person training workshops for local officials on shoreland and floodplain topics. Due to COVID-19, the DNR was unable to provide these in-person training workshops in 2022. In 2022, DNR offered a full menu of online virtual trainings for local staff and decision-makers. Participation in these trainings far exceeded that of our in-person trainings. As a result, the DNR plans to offer online virtual trainings for most of our existing training topics as well as new topics. Training opportunities will be posted on the DNR's webpage through the Water Talk newsletter, and through email blasts to local officials. Watch for more information coming soon! Communities interested in customized trainings for appointed and elected officials are encouraged to contact Shoreland Program staff.