## **Continuing Your Learning**



The zoning tools in our last lesson are just some of the approaches communities can take while implementing plans for their shorelines. This email course was designed to be an introduction to some important topics to consider when planning for our Great Lakes shorelines. Our lesson today offers ways you can access more information and resources. We encourage you to consider continuing your learning through use of these resources.



# Michigan Sea Grant and MSU Extension's Water School

Michigan Water School is a program to help elected and appointed officials increase their knowledge about water management and gain access to tools and resources to help impact their local economy. The program seeks to provide local decision-makers and municipal staff with

#### LESSON 5

critical, relevant information needed to understand Michigan's water resources. Lessons include understanding the fundamentals of water science in order to support sound water management decisions and increase awareness of current and future local and state water issues.

For more information about Water School please visit <u>canr.msu.edu/</u> <u>water-school</u> or email <u>MIWaters@msu.</u> <u>edu</u>.

#### MSU Extension's Citizen Planner Program

The MSU Extension Citizen Planner Program offers land use education for locally appointed and elected planning officials and interested residents throughout Michigan. This non-credit course leads to a certificate of completion awarded by

#### MICHIGAN STATE UNIVERSITY

#### **MSU Extension**

MSU Extension Citizen Planner Program



#### Search for SELECT PLANNING AND ZONING DECISIONS 2020 PUBLISHED ON JULY 16, 2020 Brief summaries of select Michigan planning and zoning court decisions from May 2019 to April Filter by content type 2020. Publications SELECT PLANNING AND ZONING DECISIONS 2019 Date Published PUBLISHED ON JUNE 4, 2019 Selects articles from the date entered to Brief summaries of select Michigan planning and zoning court decisions from May 2018 to April the most recent 2019. mm/dd/yyyy Filter by Tags HOW TO END A PLANNING AND ZONING PROGRAM -Separate tags by commas REPEAL OF THE ZONING ORDINANCE AND PLANNING COMMISSION ORDINANCE michigan citizen planner

This publication is to review things to consider if a municipality (city,

MSU Extension. Advanced training through the Master Citizen Planner (MCP) credential is also available. The Citizen Planner Program is offered in a classroom or via video conference setting, or through a convenient self-paced opportunity called Citizen Planner Online.

Search.

For more information on the Citizen Planner Program please visit <u>citizenplanner.msu.edu</u> or email <u>CPlanner@msu.edu</u>.

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### Michigan Department of Environment Great Lakes and Energy

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) is tasked with protecting "Michigan's environment and public health by managing air, water, land, and energy resources." EGLE has many programs dealing with water and shoreline issues, such as the Michigan Coastal Zone Management Program. EGLE also often offers events and training on a variety of topics. Several helpful websites from EGLE include:

- <u>Michigan Coastal Management</u>
  <u>Program</u>
- <u>Michigan's Resilient Coast: Living</u> on the nation's longest freshwater coastline

Resources compiled by the Michigan Coastal Management Program to help communities create more resilient coasts.

#### High Risk Erosion Areas: Programs and Maps

An overview of EGLE's High Risk Erosion Area program and maps of these areas by county.

If you have questions about the Michigan Coastal Management Program email Ronda Wuycheck at <u>WuycheckR@michigan.gov</u>.

### Building Coastal Resilience Series

This series of six videos introduces viewers to some of the challenges facing Great Lakes coasts and steps communities can take to become more resilient against those challenges. Learn from experts around the state about the impacts of high water, data and tools for making informed decisions, adaptation strategies, and more. Each video is about 10 minutes long and makes a great resource to share with others in your community.

EGLE has compiled all six videos into a playlist on Youtube here.

### NOAA Lake Level Viewer and Digital Coast

The Lake Level Viewer is a webbased tool from the National Oceanic Atmospheric Administration (NOAA)



that is a great resource for visualizing the impacts of the changing water levels discussed in Lesson 1. For each Great Lake, the tool can create a visual showing lake levels at +/- six feet from the long term average. This can be very useful when planning for your coastal areas or considering revisions to a zoning ordinance.

## The NOAA Lake Level Viewer is available <u>online</u>.

NOAA's Digital Coast is a platform to provide coastal communities and managers with data, tools, and training needed. Digital Coast content comes from many different places and covers a variety of topics, but all of it is vetted by NOAA. One of the many tools available are the <u>Coastal County</u>. <u>Snapshots</u> that provide useful charts and graphs for complex coastal issues at the county level. The <u>Digital Coasts'</u> <u>self guided resources</u> are a great way to continue your learning on coastal issues.

The NOAA Digital Coast can be accessed <u>online</u>.

### Michigan's Great Lake Shorelines Throughout Time

The Great Lakes Research Center at Michigan Technological University has created a web based mapping tool that allows users to see the changing Great Lakes shorelines over time. Using data that spans 80 years, users can use this tool to see historical water levels and blufflines overlaid onto satellite imagery. The map also contains oblique photography of the shorelines that give a view of looking at the shore from out above the water. How has the shoreline in your community changed over the past 80 years? The Michigan Great Lakes Shorelines Throughout Time is available online.

### Resilient Great Lakes Coasts

The Resilient Great Lakes Coast program "is a multi-disciplinary research initiative meant to help coastal communities across the State of Michigan enhance their resilience to coastal flooding." This program led the efforts in scenario-planning for shorelines from Lesson 3. The research team has taken the lessons learned and created this website to guide other communities who want to replicate the process. The site features sources for coastal data as well as technical methodology guides for communities to create and model scenarios for planning.

#### Funding and financing: Options and considerations for coastal resilience projects

This <u>quick reference guide</u> available through <u>NOAA's Digital Coast</u> provides an overview of different types of funding and financing options for coastal resilience projects. These are presented in NOAA's Funding and Financing Coastal Resilience virtual training series, where participants learn more about these approaches and how a range of communities have successfully used them.

The Federal Emergency Management Agency has also compiled a guide to assistance resources for federal, state, and nongovernmental hazard mitigation that is available for <u>Michigan</u> and <u>tribal nations</u>.

#### Great Lakes Coastal Resilience Planning Guide

This is an online hub of best practices, resources, and lessons-learned for building community resilience, as shared by practitioners through an assortment of case studies in the Great Lakes. The planning guide is available <u>online</u>.

## Review the lessons from this course

Links for each of the lessons in this email course can be found below and will remain available for you to revisit. Feel free to bookmark or save them and return often.

- Lesson 1: Coastal Processes
- Lesson 2: Legal Framework
- Lesson 3: Planning for Shorelines

- Lesson 4: Zoning Tools for Shorelines
- Lesson 5: Continuing Your Learning

Thank you for participating in this MSU Extension and Michigan Sea Grant Coastal Planning & Zoning Email course. We hope that you found this short email series helpful as an introduction to some important topics to consider when planning for our Great Lakes shorelines. In a few days you will receive an email with an evaluation survey. We would appreciate any feedback you can give to help us improve this experience. If you have questions or would like more information on any of the materials used in this course please email Tyler Augst, augsttyl@msu.edu.





<u>Michigan Sea Grant</u> helps to foster economic growth and protect Michigan's coastal, Great Lakes resources through education, research and outreach. A collaborative effort of the <u>University of Michigan</u> and <u>Michigan State University</u> and its MSU Extension, Michigan Sea Grant is part of the <u>NOAA-National Sea Grant</u> network of 34 university-based programs.

This email series was prepared in part by Michigan Sea Grant under award NA180AR4170102 from the National Oceanic and Atmospheric Administration, U.S. Department of Commerce through the Regents of the University of Michigan. The statement, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of the National Oceanic and Atmospheric Administration, the Department of Commerce, or the Regents of the University of Michigan.

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