



WISCONSIN GREAT LAKES

Marina Resilience Assessment

UNIVERSITY OF WISCONSIN SEA GRANT INSTITUTE

Todd Breiby
Julia Noordyk
Theresa Qualls

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WISCONSIN GREAT LAKES MARINA RESILIENCE ASSESSMENT

Coastal port, harbor and marina infrastructure and natural resources in Wisconsin are vulnerable to numerous hazards including intense storms, erosion, wave energy, flooding and inundation, ice, severe precipitation and fluctuating Great Lakes water levels.

These hazards can impact working waterfronts, including marinas, threatening the structural integrity of infrastructure, damaging coastal natural resources, compromising the safety of marina staff and boaters, and impacting the economic well-being of coastal communities. Marinas provide both a direct and indirect economic impact to coastal communities and the region. It is important to ensure that marinas can plan for potential hazards and implement best practices to limit damage and maintain continuous operation.

According to the National Oceanic and Atmospheric Administration (NOAA), resilience is the ability to plan for, absorb, recover from and adapt to coastal hazards and stressors. Planning, building and enhancing port, harbor and marina resilience can assist in lessening the impacts of coastal hazards.

What is the purpose and background of the assessment?

The Wisconsin Great Lakes Marina Resilience Assessment is a resource for coastal marinas to help identify risks, vulnerabilities and information gaps, and provide a blueprint to coastal communities and marinas on how to identify, prioritize, plan and initiate enhancements to ensure marina resiliency to coastal hazards. This resource is incorporated into the Wisconsin Clean Marina Program and Guidebook.

The development of this resource is part of a larger initiative in Southeastern Wisconsin by the Wisconsin Coastal Management Program, University of Wisconsin Sea Grant, University of Wisconsin-Madison Civil and Environmental Engineering, Southeastern Wisconsin Regional Planning Commission and NOAA to improve and enhance communities' resiliency to coastal hazards by developing a community of practice, mapping shoreline recession, developing guidance documents, assessing risks and vulnerabilities, and providing technical and financial assistance for coastal resilience planning efforts.

Who should use this assessment?

This tool is intended for use by marina managers, owners and/or other marina staff. If the marina is publicly owned, if appropriate county and municipal staff may want to complete this assessment with marina staff, as well as any other relevant individuals with local knowledge.

The assessment can also be completed with the Wisconsin Clean Marina Program Coordinator or program representatives.

What is in the assessment?

Marina Resiliency Checklist

This questionnaire is used to help marinas determine their risk and vulnerability to coastal hazards and identify information gaps, the questionnaire is broken up into four planning categories:

1. Local and Regional Community Planning
2. Facility Planning
3. Emergency Response Planning
4. Financial Planning

Priority Actions and Next Steps

Using the results of the Marina Resiliency Checklist, marina staff will identify priority actions for implementation as next steps.

How do we complete the assessment?

If you have questions about or are interested in completing the assessment with Wisconsin Clean Marina Program representatives, please contact Theresa Qualls, Wisconsin Clean Marina program coordinator at quallst@uwgb.edu or (920) 465-5031.

Partners



Funding



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WISCONSIN GREAT LAKES MARINA RESILIENCE ASSESSMENT

NAME OF MARINA _____

ADDRESS _____

DATE OF ASSESSMENT _____

MARINA STAFF AND OTHERS COMPLETING THIS ASSESSMENT _____

WISCONSIN CLEAN MARINA PROGRAM REPRESENTATIVES (IF APPLICABLE) _____

RESILIENCE ASSESSMENT CHECKLIST

Instructions

Resilience questions are assigned to the following four categories:
 Local and Regional Community Planning Facility Planning,
 Emergency Response Planning, Financial Planning

Check “yes,” “no” or “unsure” for each question. If you feel a resilience question does not apply to your facility, indicate N/A.
 Include additional relevant information in the comments section.

| LOCAL AND REGIONAL COMMUNITY PLANNING | | | | | |
|--|-----|----|--------|-----|----------|
| | Yes | No | Unsure | N/A | Comments |
| 1. Does your facility have established relationships with community planning organizations? For example, local planning department, regional planning commissions, state coastal management programs. | | | | | |
| 2. Is your facility included in community planning efforts? For example, master planning, harbor, waterfront, comprehensive and resilience planning. | | | | | |
| 3. Does your facility have established relationships with hazard mitigation and emergency response organizations? For example, local emergency management, natural resource and environmental protection agencies, state emergency management. | | | | | |
| 4. Is your facility included in your local government’s current hazard mitigation plan? For example, critical infrastructure, hazardous chemical Tier II reporting. | | | | | |

FACILITY PLANNING

| | Yes | No | Unsure | N/A | Comments |
|---|-----|----|--------|-----|----------|
| 1. Does your facility use information related to historic water level trends, past extreme weather events and future climate conditions in facility planning? For example, shorter winters, variable weather conditions, more intense storms and reductions in ice cover. | | | | | |
| 2. Have you invested in property upgrades that limit damage and maintain function during varying lake levels, ice, coastal storms, extreme precipitation and flood events? If so, please identify investments in comments box. | | | | | |
| 3. Do you conduct a regular assessment of critical infrastructure to identify site conditions, maintenance needs and safety concerns? | | | | | |
| 4. Has your facility performed a high-water-level risk assessment to identify the property upgrades necessary to limit damage and maintain function? | | | | | |
| 5. Has your facility performed a low-water-level risk assessment to identify the property upgrades necessary to limit damage and maintain function? | | | | | |
| 6. Has your facility performed an ice hazard risk assessment to identify the property upgrades necessary to limit damage and maintain function? | | | | | |

FACILITY PLANNING (continued)

| | Yes | No | Unsure | N/A | Comments |
|--|-----|----|--------|-----|----------|
| 7. Has your facility performed a coastal storm hazard risk assessment to identify the property upgrades necessary to limit damage and maintain function during high wind, wave, storm surge and seiche events? | | | | | |
| 8. Has your facility performed an extreme precipitation risk assessment to identify the property upgrades necessary to limit damage and maintain function during extreme rain, snow melt and flood events? | | | | | |
| 9. Does your facility educate and communicate with staff, tenants, boards and on-site businesses on the condition and preparedness of the marina? | | | | | |
| 10. Does your facility communicate with external partners to obtain technical assistance and other resources? For example, local, state and federal agencies and engineering consultants. | | | | | |

EMERGENCY RESPONSE PLANNING

| | Yes | No | Unsure | N/A | Comments |
|--|-----|----|--------|-----|----------|
| 1. Do you have a designated staff lead or leadership team responsible for updating and executing emergency response and evacuation plans? | | | | | |
| 2. Does your facility regularly update staff contact lists? | | | | | |
| 3. Does your facility store backup hard copy files or electronic files at a location not subject to the same risks? | | | | | |
| 4. Does your facility have a list of vendors and contact information to allow for quick scheduling of emergency response and recovery services? For example, equipment, supplies, damage assessment, facility control and channel maintenance. | | | | | |
| 5. Do you provide annual emergency response and evacuation training for staff? | | | | | |
| 6. Do you have an up-to-date emergency response plan on file that includes weather- and Great Lakes-related hazards and is readily accessible to staff? | | | | | |

EMERGENCY RESPONSE PLANNING (continued)

| | Yes | No | Unsure | N/A | Comments |
|---|-----|----|--------|-----|----------|
| 7. Do you have an up-to-date evacuation plan on file that is readily accessible to staff? | | | | | |
| 8. Do you review and update your emergency response and evacuation plans annually? | | | | | |
| 9. Do you have emergency plan diagrams posted on all exit doors that reference fire extinguishers, power/gas shutoffs and exit locations? | | | | | |
| 10. Are tenants aware of the evacuation plan and their responsibilities during an emergency? | | | | | |
| 11. Do you provide annual training for tenants on how to properly secure and store boats during storm events? | | | | | |

FINANCIAL PLANNING

| | Yes | No | Unsure | N/A | Comments |
|---|-----|----|--------|-----|----------|
| 1. Has your facility conducted a financial risk assessment that analyzes potential losses due to vulnerability and the probability of occurrence of hazards? | | | | | |
| 2. Has your facility determined an acceptable level of risk (or risk tolerance) for various hazards? | | | | | |
| 3. Has your facility conducted a recent assessment of the costs of maintaining, repairing and replacing its assets, including dredging the marina basin and navigational channel? | | | | | |
| 4. Does your facility insurance policy include a comprehensive statement of values with replacement costs or actual cash values for its assets? | | | | | |
| 5. Does your facility require boaters to carry insurance? | | | | | |
| 6. Does your facility explore financing opportunities from the local, state or federal government that would help in planning for and reducing hazard risk? | | | | | |

PRIORITY ACTIONS AND NEXT STEPS

Use your responses in the Wisconsin Great Lakes Marina Resilience Assessment Checklist to consider actions that could be implemented to initiate, enhance or expand your facility's resilience to hazards.

Instructions

List questions that generated the most interest for your facility or were identified as a high priority, and briefly describe possible actions that could be initiated or expanded on to address these questions and increase resilience.

QUESTION # _____

POSSIBLE ACTIONS _____

QUESTION # _____

POSSIBLE ACTIONS _____

QUESTION # _____

POSSIBLE ACTIONS _____

QUESTION # _____

POSSIBLE ACTIONS _____
