AGENDA

1. Call Meeting to Order
2. Establish a Quorum
3. Adopt Agenda / Properly Noticed
4. Elect Chair and Vice-Chair
5. Public Comment (Maximum agenda item of 30 minutes with a maximum of three minutes per speaker)
6. New Business
   • Land and Water Resource Management Plan Overview Page 2
   • Local Advisory Committee Overview Page 7
   • Public Input Sessions Results (February 17, 19, and 20) Page 12
   • Prioritized List of Land and Water Resource Needs
   • Next Steps
7. Future Agenda Items
8. Next Meeting Date(s)
9. Adjourn

Deviation from the order shown may occur
DOOR COUNTY

LAND & WATER RESOURCE
MANAGEMENT PLAN

Prepared by the
Door County Soil & Water Conservation Department
and approved by the
Door County Land Conservation Committee

2011-2020

Principal Contributors

William E. Schuster, SWCD Department Head
Brian Forest, SWCD Conservationist
Beth Hanson, SWCD Administrative Assistant

Complete Plan can be found here: http://map.co.door.wi.us/swcd/
Hard copy of plan will be provided at Local Advisory Committee Meeting
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Resolution No. 2020-03
CREATION AND APPOINTMENT OF A § ATCP 50.12(3)(A), WIS. ADM. CODE ADVISORY COMMITTEE

TO THE DOOR COUNTY BOARD OF SUPERVISORS:

WHEREAS, Every county land conservation committee is to establish and maintain a county soil and water conservation program, including a county land and water resource management ("LWRM") plan under § ATCP 50.12, Wis. Adm. Code and § 92.10, Wis. Stats.; and

WHEREAS, The Door County Land Conservation Committee ("LCC") must re-write Door County’s LWRM Plan in 2020; and

WHEREAS, A county land conservation committee, when preparing a LWRM plan, must appoint and consult with a local advisory committee of interested persons (See: § ATCP 50.12(3)(a), Wis. Adm. Code); and

WHEREAS, The membership of the local advisory committee should reflect a broad spectrum of public interests and perspectives.

NOW, THEREFORE, BE IT RESOLVED, That the Door County Board of Supervisors hereby approves the creation and appointment of a § ATCP 50.12(3)(a), Wis. Adm. Code Door County Advisory Committee consisting of fourteen (14) members as set forth in Addendum A (attached hereto and incorporated herein by reference as if fully set forth).

BE IT FURTHER RESOLVED, That § ATCP 50.12(3)(a), Wis. Adm. Code Door County Advisory Committee members are not eligible for compensation, but are eligible for mileage, under Door County’s Rules of Order.

BE IT FURTHER RESOLVED, That, upon approval of the re-written Door County LWRM Plan by the Wisconsin Land and Water Conservation Board, the § ATCP 50.12(3)(a), Wis. Adm. Code Door County Advisory Committee will automatically cease to exist.

SUBMITTED BY:

LAND CONSERVATION COMMITTEE

Ken Fisher, Chairperson

Dan Austad

Vinni Chomeau

Richard Virlee

Mike Vandenhouten

Randy Halstead

FISCAL IMPACT: The mileage expense for the creation of this Committee was not part of the 2020 budget process, monies can be transferred as needed from contingency in 2020 and will part of future budget processes. STW
### Resolution No. 2020-03
#### Addendum A

<table>
<thead>
<tr>
<th>Organization</th>
<th>Representative</th>
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<tbody>
<tr>
<td>Brey Cycle Farm / Demonstration Farms Network</td>
<td>Tony Brey, Co-owner</td>
</tr>
<tr>
<td>Door County Cooperative</td>
<td>Caleb Cornell, Agronomist</td>
</tr>
<tr>
<td>Door County Economic Development Corporation</td>
<td>Tom Strong, Business Development Specialist</td>
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<tr>
<td>Door County Environmental Council</td>
<td>Mike Barke, President</td>
</tr>
<tr>
<td>Door County Land Trust</td>
<td>Tom Clay, Executive Director</td>
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<tr>
<td>Door County Land Use Services</td>
<td>Mariah Goode, Director</td>
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<tr>
<td>Door County Visitor Bureau</td>
<td>Michelle Rasmusson, Director of Marketing &amp; Sales</td>
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<tr>
<td>Olson Family Farm</td>
<td>Rich Olson, Owner</td>
</tr>
<tr>
<td>The Nature Conservancy</td>
<td>Mike Grimm, Conservation Ecologist</td>
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<tr>
<td>U.S. Natural Resource Conservation Service</td>
<td>Joe Johnson, District Conservationist</td>
</tr>
<tr>
<td>University of Wisconsin – Oshkosh</td>
<td>Greg Kleinheinz, Chair, Dept. of Engineering Technology</td>
</tr>
<tr>
<td>UW Madison Peninsular Research Station</td>
<td>Matt Stasiak, Emeritus Fruit &amp; Ag. Research Specialist</td>
</tr>
<tr>
<td>Wisconsin Department of Natural Resources</td>
<td>Erin Carviou, Nonpoint Source Coordinator</td>
</tr>
<tr>
<td>Wisconsin Geological and Natural History Survey</td>
<td>David Hart, Hydrogeologist/Geophysicist</td>
</tr>
</tbody>
</table>
Timeline for the Update of the 2020 Land and Water Resource Management Plan

January

February

March

April

May

June

July

August

September

October

November

December

Gather Public Participation Information

Comments from LCC

Draft to DATCP & DNR

Draft to LCC

Public Hearing[s]

Complete Plan to DATCP - September 6

County Board Approval - November 10

Final Draft to DATCP & DNR

Land and Water Conservation Board Approval - October 6

Comments from DATCP & DNR

SWCD Activities

Input From LCC

Local Advisory Group/Public Input

Input From DATCP

Input From DNR

LCC

Public Hearing[s]

Door County Board

Land and Water Conservation Board
Organizations Involved in the 2020 Update of the Door County Land and Water Resource Management Plan

- Door County Board of Supervisors
- Wisconsin Land and Water Conservation Board
- Door County Land Conservation Committee
- Door County Soil and Water Conservation Department
- Input from WIDNR and WIDATCP
- Local Advisory Group
- Public Input

County
State
Public
Local Advisory Committee Meeting Schedule

Meeting 1 – February 25
- Plan Overview
  - What is it? What does the current LWRMP look like?
- Plan Process & Timeline
- Local Advisory Committee Role
- Public Input Results
  - Overview of Information Given at Input Sessions
  - Review of Results
- Establish Prioritized List of Resource Needs

Meeting 2 - March
- Approve Section 2 – Land and Water Resource Needs
- Review portions of Section 3 and 4 – Agricultural Implementation & Goals
  - Existing Programs
    - Description
    - Status
  - Goals and Objectives of Existing Programs
    - Tied to Identified Resource Needs

Meeting 3 – April (Early)
- Approve portions of Section 3 and 4 – Agricultural Implementation & Goals
- Review portions of Section 3 and 4 – Non-Agricultural Implementation & Goals
  - Existing Programs
    - Description
    - Status
  - Goals and Objectives of Existing Programs
    - Tied to Identified Resource Needs

Meeting 4 – April (Late)
- Approve portions of Section 3 and 4 – Non-Agricultural Implementation & Goals
- Review of Section 5 – Summary Work Plan and Fiscal Management

Meeting 5 – May
- Review of Complete Draft
- Approval to Forward Complete Draft to LCC
Tonight’s Proceedings

• Information on land, water and natural resources in Door County
• Participatory discussion of the soil, water and natural resources in Door County
• Prioritize the issues
Land and Water Resource Management Plan

- Each county in Wisconsin is required to have a plan approved by the State Land and Water Conservation Board
Land and Water Resource Management Plan

• Each county in Wisconsin is required to have a plan approved by the State Land and Water Conservation Board

• Plans are approved for a 10 year period, with review in year 5
Land and Water Resource Management Plan

• Each county in Wisconsin is required to have a plan approved by the State Land and Water Conservation Board
• Plans are approved for a 10 year period, with review in year 5
• Plans guide annual department work plans
Land and Water Resource Management Plan

- Each county in Wisconsin is required to have a plan approved by the State Land and Water Conservation Board
- Plans are approved for a 10 year period, with review in year 5
- Plans guide annual department work plans
- Plans are required to contain established key elements and follow an established process
Plan Content

• **Assessment** of land and water resource needs
  • causes of impairments and pollutant sources by watershed

• **Implementation plan** to address resource needs
  • available programs, funding sources, and needed conservation practices
  • voluntary approach as well as state and local regulations

• **Goals** to address identified impairments
  • water quality objectives and pollutant load reduction targets

• **Work plan** to achieve established goals
  • multi-year with benchmarks for performance
  • anticipated costs for implementation
Plan Content

- **Assessment** of land and water resource needs
  - causes of impairments and pollutant sources by watershed

- **Implementation plan** to address resource needs
  - available programs, funding sources, and needed conservation practices
  - voluntary approach as well as state and local regulations

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- **Work plan** to achieve established goals
  - multi-year with benchmarks for performance
  - anticipated costs for implementation
Plan Development Process

• Public input sessions - February
• Local Advisory Group & Land Conservation Committee Meetings – Jan - May
• Land Conservation Committee approves draft plan - June
• Revise draft to incorporate State Agencies comments - July
• Public hearing – August
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Natural Resource Concerns Identified in the 2010 Plan

1. Groundwater Protection and Improvement
2. Surface Water Protection
3. Impacts of Development on Natural Resources
4. Human Waste Management
5. Animal Waste Management
6. Storm Water Management
7. Soil Erosion Control; Agricultural and Construction Site
8. Non-Metallic Mine Reclamation
9. Invasive Species
10. Beach Contamination
11. Agricultural Land Protection
12. Lack of Education on and Awareness of Environmental Issues and Sustainable Farming Practices
Geology
Soil Characteristics

- Sinkholes/Karst Features
- Closed Depressions
- Solution Enlarged Crevices
- 22% less than 18 inches to bedrock
- 39% less than 36 inches to bedrock
- Filter between surface activities and our drinking water
Groundwater - Nitrate

- 2011-2015 - 557 Wells Sampled
  - 1% exceeded Nitrate standards
- 2015 – 477 Wells Sampled
  - 3% exceeded Nitrate standards
- 2016 – 392 Wells Sampled
  - 2% exceeded Nitrate standards
- 2019 – 148 Wells Sampled
  - 2% exceeded Nitrate standards

State Average ~10% Exceeding Nitrate standards

Door County Average Less than 2% Exceeding Nitrate standards

Data courtesy of UW-Stevens Point
Groundwater - Bacteria

- 2011 – 2015
  - 21% exceeded standards for Total Coliform
  - 10% indicated the presence of E. coli
- 2015 – 477 Wells sampled
  - 12% exceeded standards for Total Coliform
  - 1% indicated the presence of E. coli
- 2016 – 392 Wells sampled
  - 22% exceeded standards for Total Coliform
  - 2% indicated the presence of E. coli
- 2019 – 148 Wells sampled
  - 16% exceeded standards for Total Coliform
  - No detects of E. coli
Surface Waters

• Nearly 300 Miles of Shoreline
• 38 Named Streams
• 25 Named Lakes
• Nearly 55,000 Acres of Wetlands
Significant Wildlife Habitat and Natural Areas

- Ahnapee River Corridor
- Black Ash Swamp
- Delwiche-Sand Hill Pineries & Fabry Creek Complex
- Renard Swamp
- Stony Creek Wetlands Complex
- Brussels Hill/Keyes Creek/Gardner Swamp Complex
- Hungry Settlement Marsh
- Southern Lake Michigan Shoreline
- Sawyer Harbor/Lost Creek & Larson Creek Watersheds Complex
- West Branch Whitefish Bay Creek Corridor
- Bay Shore Bluff Lands
- Logan Creek/Lost Lake Corridor
- Bay to Lake Wildlife Corridor
- Ephraim/Baileys Harbor Forest Corridor & North Bay Lowlands
- Mink River/Rowley’s Bay System
- Europe Lake Forest Area
- Grand Traverse Islands
Large-Scale Watersheds

- Upper Door
- Red River/Sturgeon Bay
- Stony Creek
- Ahnapee River
Class I Trout Streams Waters

Streams are high-quality streams where trout populations are sustained by natural reproduction.
Streams have some natural reproduction of trout but need stocking to maintain a desirable fishery.
An *outstanding resource water* is a lake, stream or flowage having excellent water quality, high recreational and aesthetic value and high quality fishing. ORW waters are free from point source or nonpoint source pollution.
Exceptional Resource Waters

An exceptional resource water is a lake, stream, or flowage exhibiting the same high quality resource values as outstanding waters, but may be affected by point source pollution or have the potential for future discharge from a small sewer community.
Impaired Waters

Every two years, Section 303(d) of the Clean Water Act requires states to publish a list of all waters that do not meet water quality standards. The list, also known as the Impaired Waters List, is updated to reflect waters that are newly added or removed based on new information or changes in water quality status.
Kayes Creek – Larson Creek
Kayes Creek – Larson Creek

Macroinvertebrate Index of Biotic Integrity - 2019

- Excellent
- Good
- Fair
- Poor

Kayes Creek: 3.77
Malutz Creek: 4.66
Larson Creek: 3.82

Map showing locations of Kayes Creek and Larson Creek with stars indicating sampling points.
### Macroinvertebrate Index of Biotic Integrity, 2010 - 2018

**Ahnapee River at CTH H near Forestville - Station 153161**

<table>
<thead>
<tr>
<th>Year</th>
<th>Index of Biotic Integrity</th>
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<tbody>
<tr>
<td>2010</td>
<td>4.36</td>
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<tr>
<td>2011</td>
<td>5.76</td>
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<tr>
<td>2012</td>
<td>3.45</td>
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<td>2013</td>
<td>5.43</td>
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<tr>
<td>2015</td>
<td>4.93</td>
</tr>
<tr>
<td>2016</td>
<td>6.19</td>
</tr>
<tr>
<td>2017</td>
<td>5.58</td>
</tr>
<tr>
<td>2018</td>
<td>5.67</td>
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</table>

*Legend:*
- Excellent: Index of Biotic Integrity > 6.00
- Good: 4.00 ≤ Index of Biotic Integrity ≤ 6.00
- Fair: 2.00 ≤ Index of Biotic Integrity ≤ 4.00
- Poor: Index of Biotic Integrity < 2.00
Stony Creek

Total Phosphorus - County H
14 out of 18 Samples Exceeded 0.075 mg/L

Total Phosphorus - Rosewood Road
7 out of 23 of Samples Exceeded 0.075 mg/L
Schuyler Creek

Total Phosphorus - Schuyler Creek

0 out of 6 Samples Exceeded 0.075 mg/L
Beach Monitoring

• Approximately 30 Beaches monitored
Beach Monitoring

- Approximately 30 Beaches monitored
- 13 Beaches with Installed BMPs
Beach Monitoring

• Approximately 30 Beaches monitored

• 13 Beaches with Installed BMPs

• 2019 – 1,060 Samples Collected
  • 25 Advisories (235 CFU/100 ml)
  • 8 Closures (1,000 CFU/100 ml)
Rural Development

• Approximately 12,000 POWTS (Private Onsite Wastewater Treatment System)
• Sanitary Survey Complete in 2015
• Inspections from 1986 – 2015 yielded an average failure rate of 26%
Cropland

• Approximately 83,807 Acres of Cropland
Cropland Operated within the Guidelines of a Nutrient Management Plan

• Approximately 83,807 Acres of Cropland
• Approximately 93% Acres in Nutrient Management Plans
Cropland Operated by Concentrated Animal Feeding Operations

• Approximately 83,807 Acres of Cropland
• Approximately 93% Acres in Nutrient Management Plans
• Approximately 16,618 Acres of Cropland Operated by CAFOs (20%)
Non-Metallic Mine Reclamation

• 50 Permitted Mines
• 1,684 Potential Mine Acres and Approximately 840 Actively Mined or Un-reclaimed Acres
### Aggressive Invasive Non-Indigenous Species

- Russian/Autumn Olive
- Garlic Mustard
- Japanese Barberry
- Phragmites
- Dame’s Rocket
- Common Buckthorn
- Bush Honeysuckle
- Japanese Knotweed
- Purple Loosrife
- Teasel
- Glossy Buckthorn
- Hound’s Tongue
- Leafy Spurge
- Reed Canary Grass
- Wild Parsnip
Aggressive Invasive Non-Indigenous Species

- Teasel – 11 Acres
- Phragmites – 102 Acres
- Japanese Knotweed – 2 Acres
- Wild Parsnip – 20 Acres
Questions?

This presentation and the current plan can be downloaded:
http://map.co.door.wi.us/swcd
What are the most important soil, water and other natural resource issues facing Door County over the next decade?
Plan Development Process

- Public input sessions - February
- Local Advisory Group & Land Conservation Committee Meetings – Jan - May
- Land Conservation Committee approves draft plan - June
- Revise draft to incorporate State Agencies comments - July
- Public hearing – August
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