

2017 ANNUAL REPORT
DOOR COUNTY SOIL AND WATER CONSERVATION DEPARTMENT
<http://map.co.door.wi.us/swcd/>

Mission Statement and Summary of Responsibilities:

The Door County Soil and Water Conservation Department is created under the authority of Chapter 92 of Wisconsin Statutes. Chapter 92 gives the SWCD the responsibility for the administration of the County soil and water conservation program and the authority to exercise the powers granted to the Land Conservation Committee. The legislative declared policy of the State in Chapter 92 is to halt and reverse the depletion of the State's soil resources and pollution of its waters. The SWCD has a responsibility, and directive under Chapter 92, to promote land uses and programs which advance conservation and the protection of Door County's natural resources. The mission of conservation and environmental advocacy is the standard by which SWCD programs are developed and implemented.

2017 Soil and Water Conservation Department Program Summary

Aggressive Invasive Species Initiative - The Door County SWCD maintains a lead role in the Door County Invasive Species Team (DCIST). DCIST is a collaboration of natural resource professionals, community leaders and interested citizens who are concerned with preserving Door County's natural environment. DCIST seeks to halt the invasion of exotic non-native plants by empowering citizens with the education, the tools, and the skills necessary to control invasive species.

Agricultural Performance Standards Ordinance - Agricultural operations are reviewed for compliance with minimum statewide nonpoint pollution standards for protection of ground and surface water quality. Operations found to be in noncompliance are contacted and a plan and schedule for achieving compliance is developed.

Animal Waste Storage Facility Ordinance - Permits are issued through Chapter 23 of Door County Code. The ordinance regulates the location, design and construction of animal waste storage facilities to reduce the impact to ground and surface water quality.

Beaches - The quality of the surface water at Door County beaches is the focus of a program for which the SWCD and Door County Public Health Department have joint responsibility. The SWCD is responsible for the pollution source identification and beach contamination reduction portions of the project.

Buffer Programs - The SWCD works with several agencies utilizing available funding sources to install vegetated buffer strips in critical and riparian areas to protect surface and groundwater resources.

Dunes Lake Watershed Study and Pollution Reduction – The SWCD along with other public and private sector natural resource organizations and individuals have investigated the cause and extent of the accelerated eutrophication occurring in Dunes Lake, located in the Town of Sevastopol. The study and nonpoint abatement activities have been completed and the effort is now in the restoration phase for the removal of legacy phosphorus that has accumulated in the organic sediments, the control of

invasive cattails and phragmites, and the reestablishment of fish connectivity from Lake Michigan through Dunes Lake for native fish such as northern pike and suckers.

Land & Water Resource Management Plan & Program – The LWRM Plan establishes the SWCD programming and priorities. State funds are allocated to the SWCD by the Wisconsin Department of Agriculture, Trade & Consumer Protection and Department of Natural Resources to address conservation issues identified in the approved LWRM Plan.

Nonmetallic Mine Reclamation Ordinance – Door County Code Chapter 36 is administered by the SWCD and was established to ensure that local nonmetallic mining sites would be properly reclaimed in accordance to State administrative code and Statutes. Annual compliance inspections are performed for each site. Financial assurance is also required and monitored annually to ensure adequacy.

Nutrient Management Program - The purpose of the program is to minimize nonpoint pollution in ground and surface waters by avoiding the over-application of nutrients to crop fields through the proper placement, timing and crediting of nutrients such as animal manure, legumes, and commercial fertilizers.

Planning Department Referrals - The SWCD provides technical reviews and onsite inspections of proposed plans for stormwater, erosion control, rockhole alternative protection, nonmetallic mining operations, and land disturbance projects. This review process is included in an inter-departmental agreement between the SWCD and the Planning Department for permitted land uses under County Ordinances.

Targeted Runoff Management Program - A competitive grant program through the Department of Natural Resources to address water quality issues over a two-year grant period for small-scale projects and three years for large-scale projects. The Program provides grants to the SWCD by which cost-share can be offered to landowners to install water quality practices.

Technical Assistance Provided - Technical Assistance to the public is a service provided by the SWCD. The SWCD maintains a personnel resource base of diverse knowledge and expertise in natural resources to serve the public. Maintaining a resource network for referrals to other departments and agencies is also an important element of the technical assistance provided to the public. Technical assistance to the public will continue as SWCD resources are available and where the service will provide an environmental or conservation benefit.

Tree and Shrub Program - The Wisconsin DNR tree/shrub program provides large increments of seedlings to be purchased for reforestation, windbreak packets, hardwood forest packets and wildlife habitat packets. Door County SWCD assists the DNR with this program. The SWCD also has tree planters which are made available to the public for a rental fee.

Water Pollution Abatement Cost-share Program - This program financially assists landowners in the cost of installing practices, which prevent and/or reduce ground or surface water pollution.

Wildlife Damage Abatement & Claims Program - The wildlife damage program is a technical assistance program for landowners who are experiencing crop damage from deer, geese, turkey and/or bear. Eligible crops under the program include any commercial or agricultural crops. Enrolled landowners must choose one of two public hunting options and follow their abatement plan to remain eligible for assistance, claim payments, and/or abatement reimbursements. If a landowner does not want their land open to the public for deer hunting, there is a shooting permit option, with mandatory harvest objectives, where in return enrollees forfeit eligibility for any claim payments or abatement reimbursements.

Wisconsin Working Lands Initiative/Farmland Preservation Program - Eligible landowners receive income tax credits for maintaining land in farming activities and meeting required conservation standards. The Door County SWCD ensures participants meet state conservation standards to remain eligible for tax credits.

Inactive programs: Door County Greenprint Project, Gypsy Moth Suppression Program

Goals/Objectives Achieved in 2017

Aggressive Invasive Species Initiative – Several accomplishments were possible as a result of the implementation of a DNR Aquatic Invasive Species (AIS) grant, one US Forest Service (USFS) grant, and one Wisconsin Coastal Management Program grant along with donations from landowners and local Town Boards; supporting both educational and control activities. Two limited-term employees inspected 387 boats with 798 boaters for Clean Boats Clean Water educational efforts. Volunteer match hours totaled over 300 hours for both aquatic and terrestrial work. Phragmites herbicide control treatments occurred on 12 acres of state and county road right-of-ways. Efforts were also made by SWCD LTE's and DCIST volunteers to control pioneer populations of common/cut-leaved teasel, Manna grass and Garden Valerian.

As funding for invasive species control becomes increasingly limited, the SWCD has emphasized the need for municipalities to manage invasive species within their boundaries. In 2017 the Towns of Liberty Grove, Baileys Harbor, and Forestville adopted a noxious weed ordinance for Phragmites, Wild Parsnip, Japanese Knotweed and Common/Cut Leaved Teasel management. To date, ten of the county's 17 municipalities have such a noxious weed ordinance and of those, five have begun implementing their own control program. The DCIST Coordinator and SWCD assisted volunteers with the inventory using GPS units, ArcPad and the Great Lakes Early Detection Network mobile application. This inventory provided the county and its landowners a comprehensive inventory of Phragmites along shorelines and right-of-ways and the other three priority species of Wild Parsnip, Japanese Knotweed and Common/Cut-Leaved Teasel. An invasive species forum was held for the general public as well as professionals providing invasive species management recommendations and highlighting other invasive species projects within the county. At this forum packets were handed out that contained draft permission letters, draft ordinance wording and invasive species id guidance.

Agricultural Performance Standards Ordinance – Nineteen notification letters were sent to landowners/operators informing them of the compliance or non-compliance status findings regarding their property/operation. Many of the landowners/operators were offered cost-share funds to facilitate correction of their non-complaintant status. Of

those offered cost-share assistance, five accepted cost-share and implemented corrective measures, one accepted cost-share and achieved partial compliance, and three declined cost-share and implemented corrective measures at their own cost. Six letters were notifications to inform landowners that compliance was achieved.

Animal Waste Storage Facility Ordinance – Four waste storage permits were issued for construction.

Beaches – Efforts focused on providing experience and advice to the Town of Egg Harbor for beach designs on newly purchased property adjacent to the existing beach, and data sharing through a “Lessons Learned” presentation at the November 10th Wisconsin Coastal Beaches annual conference in Green Bay .

Buffer Programs – The SWCD renewed a lapsed contract with the WI Department of Agriculture Trade and Consumer Protection to enable Door County landowners to participate in the Conservation Reserve Enhancement Program (CREP) through FSA and DATCP. Twelve contracts were successfully renewed, providing protection for 68 acres of riparian buffers along streams and wetlands in southern Door County.

Door County Cost-Share: Well Abandonment – A total of 8 letters were mailed to landowners with possible improperly abandoned wells informing them of the cost share program and of those three approved abandonments were completed.

Dunes Lake Watershed Restoration Efforts - The SWCD along with the Department of Natural Resources, Ducks Unlimited, the Door County Nature Conservancy, and the Doorland Preserve landowners have teamed up to focus on final restoration efforts for Dunes Lake. Restoration efforts to date include a 2 acre pilot dredging and treatment of 32 acres of invasive cattails and 1 acre of invasive Phragmites. In 2017 a public parking lot to improve public access was constructed and an interpretive sign was created to educate the public on the entire scope of the project. Ongoing activities are focused on grant applications to secure funding for completing approximately 18 more acres of hydraulic dredging, continued treatments of invasive plants and reestablishing of connectivity for fish migration through the currently impeding cattail barrier.

Land & Water Resource Management Plan & Program – A total of \$12,530 in a state cost-sharing grant funds were encumbered on one cost-share agreement for a manure storage roof project in 2017. Construction of a milking center waste control system project was completed in 2017, receiving cost-sharing of \$32,000.

NFWF Conservation Partners Program - The Door County SWCD was awarded \$53,000 from the NFWF Conservation Partners Program for the Sugar, Renard, and Silver Creek Watersheds Phosphorus Reduction Project in 2017 and 2018. Funding was used primarily to support staff time to provide technical assistance to landowners to identify conservation practices. In 2017 staff effort was focused on nutrient management, resulting in 728 acres of new nutrient management plans being developed by operators within the targeted watershed areas. Water quality and benthic macroinvertebrate samples were also collected from six sites within the three watersheds in 2017.

Nonmetallic Mine Reclamation Ordinance –There remains 50 permitted mine sites representing 1,684 potential mine acres and approximately 830 actively mined or un-

reclaimed acres. All sites are reviewed annually to assess status and financial assurance needs. The nonmetallic reclamation program is a self-sustaining fee driven effort. Operator annual fees in 2017 were reduced by 45 percent to reflect actual 2018 anticipated SWCD workload. Annual fees collected for program year 2018 totaled \$29,580.65.

Nutrient Management Program – In 2017, 211 nutrient management plans were submitted to the SWCD, covering approximately 76,832 acres. Eleven Soil & Water Resource Management (SWRM) cost-share agreements were signed to enroll 620 new acres in nutrient management plans and an additional 245 acres where cost-sharing was offered, but not accepted by the landowner/operator. One cost-share agreement was signed to establish 43 acres of cover crops. Annual cost-sharing for the program was provided by a SWRM Grant of \$19,600.

Planning Department Referrals - The SWCD reviewed 6 land disturbance projects, 4 new or existing projects for storm water and 4 Impervious Surface Ratio applications.

Parks Department Assistance / Forestville Millpond Project – The SWCD, in conjunction with the Airport and Parks Department, was awarded a \$22,013 WDNR Lake Management Planning Grant for the Forestville Millpond Watershed. Funding was used to complete water chemistry samples and sediment cores with the University of Wisconsin - Oshkosh, aquatic plant survey, bathymetric survey, public opinion survey, and watershed inventory. Results will be incorporated into a final report in 2018.

Targeted Runoff Management Program - The West Jacksonport Source Water Protection Groundwater Protection Project grant was completed in 2017. Practices installed included a manure storage system and barnyard runoff control system. With all the BMP's installed through this grant the pollutant load reductions were: 356 lbs/yr of phosphorus and 968 lbs/yr of nitrogen. The SWCD successfully applied for two new projects in the Fabry Creek and Silver Creek Headwaters, totaling \$247,246 available for cost-share for best management practice installation in 2018-2019.

Tree and Shrub Program – Eight DNR tree customers rented the County's tree planters to plant 27,530 trees. DNR tree and shrub orders have experienced a decline in public participation in recent years.

Wildlife Damage Abatement & Claims Program (WDACP) –Fifteen landowners completed enrollment for deer and/or turkey crop damage abatement. No damage appraisals were conducted in 2017. Landowner complaints continue to be increasing with deer and turkey damage. Sandhill crane complaints were minimal, however Sandhill cranes are currently regulated by the federal government and are ineligible for any WDACP assistance. Nine shooting permits were issued to control excessive deer damage and one permit was issued for excessive turkey damage. A preliminary count indicates that 58 deer were shot by 8 of the permitted landowners. The Deer Donation Program for Door County received 54 deer donated to local food pantries, which was consistent with average numbers over the past nine years, but substantially less than the 253 deer donated in 2008 which was the last earn-a-buck season.

Wisconsin Working Lands Initiative/Farmland Preservation Program – Self-certification forms were sent to all participants under contract or under Exclusive

Agriculture zoning and the SWCD issued 23 Certificates of Compliance for the 2017 tax year.

2017 Knowledge Sharing

Beaches

- Presented a “Lessons Learned” presentation at the November 10th Wisconsin Coastal Beaches Annual meeting.
- Provided historic beach improvement PowerPoint presentations to Health Department staff for a future Board of Health presentation on the effects of best management practices on beach health.
- Provided guidance to the Town of Egg Harbor for the planning of an additional beach area on recently purchased property.

Invasive Species

- The DCIST website continues to be updated and is a useful resource for many with all of its features including: alerts, video links, printable color publications, online resources and contacts, identification and control methods, and an online calendar of DCIST events.
- DCIST created a new Facebook page to reach new audiences.
- Recent invasive plant inventories and control activities are now on the County Web Map under the Conservation folder.
- Handouts, brochures, and wildcards were made available at all meetings, presentations, landowner work groups, and workshops administered by the DCIST coordinator.
- Coordinator and SWCD staff presented and administered numerous educational presentations, and hands-on workshops to the general public, organizations, county personnel, landowner groups, and members of DCIST. Including presentations at 6 local Town meetings.
- Clean Boats Clean Water LTE conducted educational contacts to 243 boaters during boat inspections at several boat launches in the county.
- Staff provided a presentation at Wisconsin Wetlands Association, Green Bay Conservation Partners, Lake Michigan Regional Invasive Species Coalition, and North American Invasive Species Management Association on local ordinance efforts on invasive species.
- Staff held seven public meetings to educate individual landowners on how to ID new growth Phragmites and next steps in maintenance after a large scale treatment effort.
- Staff and Coordinator provided 45 one on one site visits to provide personalized invasive management plan. The area covered by these site visits was nearly 454-acres of land in Door County and included 6,103 feet of Door County shoreline

Other

- Provided a guided tour of Dunes Lake restoration effort for the Ridges Sanctuary Festival of Nature.
- Participated in Door County Land Trust collaboration efforts for potential acquisitions within priority areas through a NRDA funding opportunity.
- Provided potential spring monitoring sites for TNC groundwater study.
- Provided office information to Door County new employees and to the Learning in Retirement participants.

- Provided numerous Phase 1 or potential historic property impairments for environmental companies and realtors for parcels being sold or purchased.
- Provided a presentation to 17 Sturgeon Bay High School Ecology Students about groundwater protection and concerns.
- Continued participation with the Great Lakes Committee (WLWCA)
- Participated in Sustainable Fair; DCIST booth at Bass Tournament (113 individual contacts) and Farm Technology Days (233 individual contacts).
- Participated on County Deer Advisory Council.
- Presented to Door County teachers at their annual Science Forum.
- Participated in county Land Records Software search.

SWCD Budget Status

Approved 2017 Budget	\$1,006,172	Actual 2017 Budget	\$852,177
2017 Budgeted revenue	\$588,771	2017 Actual Revenue	\$512,352
2016 Levy appropriation	\$420,866	2017 Levy appropriation	\$417,401
2016 Actual Levy appropriation	\$417,893	2017 Actual Levy appropriation	\$339,825

Grant Totals Utilized In 2017:

WI Coastal Management (Dunes Lake)	\$5,200.00
DNR Aquatic Invasive Species Grant	\$30,197.35
DNR Targeted Runoff Management Grant	\$115,793.15
DATCP Soil & Water Resource Management Grant	\$156,727.00
DATCP Land & Water Resource Management Grant	\$63,232.34
DNR Wildlife Damage Claims Program	\$21,259.32
WI Coastal Management (Invasive Species)	\$17,035.52
US Forest Service (Invasive Species)	\$16,154.88
NFWF Phosphorus Reduction	\$19,671.12
DNR Lake Planning Grant (Forestville Millpond)	\$5,630.98

Revenue from Self-funding Accounts:

Soil & Water Fund	\$1,173.75
Tree & Shrub Program	\$0.00
TRM Technical Support	\$0.00
Nonmetallic Mine Program	\$31,863.35
Shoreland Zoning	\$2,000.00

Donations Utilized in 2017:

Beach Donations	\$582.22
Dunes Lake Donations	\$953.67

Other Revenue

RRSB Interest	\$1,095.71
Copies & Postage	\$294.79
Vehicle Replacement Fund	\$23,487.26

Other Accomplishments

- Preparation and review of farm operation specific prioritization maps for the winter spreading of animal waste to reduce water quality impacts.
- Conservation planning with farmers for proper resource management.

- Provided individual training sessions to Door County farmers to assist them with Nutrient Management and how to use SnapPlus.
- Continued in-depth Nutrient Management Plan Reviews for fields located in Door County and operated by CAFOs. Discrepancies were communicated to the landowner, farm owner and crop consultant.
- Conducted depth to bedrock determinations using soil probes and augers on soils classified as 20-40 inches to bedrock to verify actual depths. This was done for CAFO purposes because of the NR 243 rule stating CAFOs must not spread manure on soils with less than 24 inches to bedrock.
- Continued assistance with the City of Sturgeon Bay in final installation of water quality practices and lake restoration efforts for Little Lake.
- Assisted the City of Sturgeon Bay with potential ongoing stormwater improvements.
- Individual landowner, local business, and local government drainage problem reviews and conservation planning.
- Sinkhole mapping and guidance for Horseshoe Bay Golf course in regards to potential impacts to underlying cave and bat populations.
- Lead and arsenic pesticide residue in soils and groundwater information and technical assistance to landowners, potential buyers, real estate agencies, and land developers.
- Participated in Door/Kewaunee DNR workgroups regarding groundwater protection and Karst topography.
- Participation in the Door/Kewaunee Legislative Days, with groundwater protection in karst areas as one of the focus topics.
- Staff participation with the Standard Oversight Committee for revisions to the WDNR Storm Water Infiltration Standard Code 1002 and NRCS Waste Management Standard 313.
- Conducted compliance inspections on storm water runoff construction projects and construction site erosion practices.
- Conducted approximately 69 site reviews of cost-share projects with contractual operation and maintenance periods.

2017 Conservation Practice Summary

865	new cropland acres enrolled in the nutrient management program
211	Nutrient Management plans/76,832 acres
42	Acres of Cover Crop installed with cost-sharing
50	Nonmetallic Mine Reclamation Plan Review/Permits
1	Public parking lot for Dunes Lake access improvement
5	Topographic/PS/Laser Surveys
10	Planning/Design with Landowners
1	Animal Waste Storage Systems
1	Transfer System
1	Barnyard Runoff Control Systems
14	Stormwater Management/Erosion Control/ Impervious Surface Reviews
3	Well Abandonment
58	Deer harvested on seven shooting permits issued in the WDACP
54	Deer donated in Door County through Deer Donation Program
243	Boaters contacted during <i>Clean Boats Clean Waters</i> inspections
393	Volunteer Hours of Invasive Species Control work throughout Door County
12	Acres Phragmites controlled along road right-of-ways
66	Right of Way miles of Wild Parsnip controlled

Issues, Concerns and Restraints:

Program demands and natural resource protection needs are continuing to expand while fiscal and staffing resources are limited or decreasing. Recently hired staff members of less experience are actively being trained and advancing their skillsets.

Goals and Objectives for 2018:

1. Maintain and build upon existing natural resource protection programs during a time of diminishing fiscal resources. Locate and/or develop new cost-share and program support revenue streams.
2. Advocate for groundwater quality protection by supporting the development and implementation of targeted performance standards for karst areas in ch. NR 151, Wisconsin Administrative Code.
3. Continue implementation of agricultural nonpoint water quality performance standards. Focus staff effort and cost-share funds on sites susceptible to groundwater contamination and in targeted watersheds for surface water quality improvement, including the NFWF Conservation Partners Program Project Area (Sugar, Renard, and Silver Creeks) and the Forestville Millpond Watershed. Seek additional cost-share funds to install best management practices within targeted watersheds.
4. Promote sound nutrient management on agricultural fields by increasing acres covered by nutrient management plans, ensuring quality plans are prepared by the private sector and are followed by landowners, and promoting the use of current standards and SnapPlus software.
5. Update the Forestville Millpond report with monitoring information collected in 2017. Work with the Facilities & Parks and Land Conservation Committees to identify preferred management option(s) with an implementation timeline.
6. Obtain additional funding for completion of restoration efforts at Dunes Lake.
7. Conduct educational tours into Dunes Lake to illustrate the effects of nutrient loading to a unique and sensitive coastal wetland complex.
8. Continue to seek funding for aquatic and terrestrial invasive species management for DCIST.
9. Support municipalities as they implement Noxious Weed Ordinances, by providing opportunities for information sharing and a municipal cost share program (reviewed annually) for control activities.
10. Provide educational guidance on invasive plant identification and management to seasonal limited term employees for County Highway Department, Facilities & Parks Department, and other DCIST partners.
11. County adopted invasive species strategic plan available to the public and natural resource professionals.