

2015 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.

2015 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 which the SWCD and Door County Public Health Department (DCPHD) have joint responsibility for. 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.

Door County Greenprint Project – The Door County Greenprint Model, a joint project with the Door County Planning Department, has been developed to provide an online public access tool for analysis of lands for natural resource protection and land use planning in the county.

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 has been completed and the effort is now in the implementation phase of land use practices, changes to reduce nutrient sources causing the eutrophication, and the removal of legacy phosphorus that has accumulated in the organic sediments of the Lake.

Gypsy Moth Suppression Program - This program protects trees from mortality by controlling gypsy moth population outbreaks through an aerial spraying program sponsored by the WI DNR. Aerial spraying typically occurs in late May to early June. Aerial spraying is only conducted during years of identified significant population outbreaks.

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.

Sister City Program – The SWCD is the lead County Department that, along with the Door County Economic Development Corporation, coordinates the Sister City Program with Jingdezhen, China. Door County hosts annual Sister City Delegations from Jingdezhen and sends a Delegation to Jingdezhen.

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 grants 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 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 conservation standards required by the county. The Door County SWCD ensures participants meet state conservation standards to remain eligible for tax credits.

Goals/Objectives Achieved in 2015

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, a one-time donation from Ducks Unlimited and numerous donations from landowners, local Town Boards; supporting both educational and control activities. Two limited-term employees inspected 118 boats with 239 boaters regarding Clean Boats Clean Water educational efforts. Volunteer match hours totaled over 530 for both aquatic and terrestrial work. Follow up herbicide control treatments occurred on 25.84 acres of Phragmites along the shorelines within the Towns of Liberty Grove, Washington Island, Egg Harbor, Gibraltar, portions of Sturgeon Bay, and Bailey's Harbor, as well as the Villages of Sister Bay and Egg Harbor. Additionally, the Town of Jacksonport adopted a noxious weed ordinance for Phragmites to be controlled on landowner's shorelines. The DCIST Coordinator and SWCD assisted volunteers with the inventory using GPS units and providing draft permission letters, but long term the program will be monitored by the Town of Jacksonport and the Shores of Jacksonport Neighborhood Association. Phragmites inventory was conducted by the DCIST Coordinator on the shores and right-of-ways of Nasawaupsee and will be provided to the town in 2016 to assist with the town's Phragmites noxious weed ordinance. Efforts were also made by SWCD LTE's and DCIST volunteers to control pioneer populations of cut-leaved teasel, Japanese knotweed, and Garden Valerian.

Agricultural Performance Standards Ordinance – Sixty three 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-complainant status. Of the sixty three letters twenty two of them were follow up letters to inform landowners that compliance was achieved.

As a result of a quality performance audit that was conducted of several private sector prepared agricultural Nutrient Management Plans the SWCD established a priority goal of greater reviews of Nutrient Management Plans for standards and code compliance. The audit results indicated that the private sector prepared Plans were noncompliant with standards and code and were incorrectly presented by the preparers.

Animal Waste Storage Facility Ordinance – Two waste storage permits were issued for construction. The SWCD programming has been redirected to a greater emphasis on “soft” agricultural conservation practices such as erosion control and nutrient management.

Beaches - Efforts included the final implementation efforts with municipalities for utilizing a \$702,300 GLRI grant awarded to the SWCD in 2011. The SWCD worked with the Town of Sturgeon Bay, Town of Nasewaupsee, Town of Liberty Grove, Town of Jacksonport and the County Parks Department for implementation at Portage Park, Haines Beach, Sand Bay, Hotz Park, Lakeside Park Beach and Murphy Park Beach. All design work, construction plans, permit applications, and construction of BMPS were completed in 2015. The 2015 efforts focused on monitoring, maintenance, and installation of educational signage. The GLRI grant period concluded on December 31, 2015.

Buffer Programs- Project status reviews were conducted of previously cost-shared buffer installations. Restoration existing buffers as necessary with past projects and the promotion of the installation of additional vegetated buffers is promoted.

Door County Greenprint Project – Routine updates to the Greenprint model with the most current data and website continued in 2015. In 2016 we will be reviewing the contract as well as the site metrics to determine if any changes will be necessary for current and complete data. Training for users continued with presentations and informational displays of the Greenprint website and the available products for the user.

Door County Cost-Share: Well Abandonment – Policy was updated to increase contribution benchmarks for each category of well type to offset increases in labor and materials cost and also observe dug wells the same as pit wells. A total of 15 letters were mailed to landowners with possible improperly abandoned wells informing them of the cost share program.

Dunes Lake Watershed Study and Pollution Reduction - The SWCD along with the Department of Natural Resources, the University of Wisconsin – Madison Department of Geology & Geophysics, the Wisconsin Geologic and Natural History Survey (WGNHS), and the Nature Conservancy have teamed up to form the Dunes Lake Partnership (DLP) to investigate the cause of the accelerated eutrophication occurring in Dunes

Lake, located in the Town of Sevastopol. The study has been completed and is now in the implementation phase to reduce nutrient sources causing the eutrophication.

Dunes Lake Non Agricultural Activities - In 2015, efforts focused on advancing the feasibility study for engineering design of a third polishing cell, promoting the designation of a public parking area, advancing a pilot effort to remove legacy phosphorus accumulated in organic sediments, and development of a friends group. The engineering efforts for a third cell has been hampered by a lack of funding and a lack of interest by the Valmy/Institute Sanitary District President. The SWCD's position is until the Sanitary District implements additional discharge treatment, Dunes Lake will be harmed by excess nutrients to the Lake's ecosystem's harm.

Funding for the small public parking area on Town of Sevastopol property has been obtained and will be constructed in 2016. Removal of organic sediments and legacy phosphorus was delayed in 2015 and is proposed for 2016 provided additional funding is obtained. Project partners include The Nature Conservancy, Ducks Unlimited, the Wisconsin Department of Natural Resources, Doorland Preserve, the Town of Sevastopol and local private individuals. Also in 2015 a project update titled Saving Dunes Lake Project Status was mailed to all residents within the watershed to begin the recruitment process for an eventual Dunes Lake Friends group.

Gypsy Moth Suppression Program - There were no spray blocks eligible for treatment in 2015 and there are no spray blocks scheduled in Door County for 2016.

Land & Water Resource Management Plan & Program – A total of \$37,500 in a state cost-sharing grant funds were encumbered on one cost-share agreement for a manure storage project in 2015. Construction of a water quality protection feed storage runoff control project was completed in 2015, receiving cost-sharing of \$49,500. In October of 2015 the SWCD applied for and received a 5 year extension of our Land and Water Resource Management Plan and a 5 year extended work plan from the Department of Agriculture, Trade and Consumer Protection (DATCP).

Nonmetallic Mine Reclamation Ordinance - One site applied for a plan amendment in December of 2015. This site was then approved in January 2016 to include a 3.5 acre utility line area that was mutually regraded by the operator and the utility company. No sites were reclaimed, and one operator was required to increase their financial assurance. One operator applied for a nonmetallic mining reclamation permit, however the operational permit was denied at the June 4, 2015 RPC meeting. As a result the reclamation permit was denied and the prepaid annual fee was returned. There remains 51 permitted mines representing 1,689 potential mine acres and 836 acres which are currently active and/or un-reclaimed. All sites are inspected annually for compliance and adequacy of financial assurance. This program is sustained entirely on fees, which are reviewed and assessed annually to the operators of permitted sites. Operator annual fees were reduced on a one-year basis in 2015 by 35% to reflect the anticipated SWCD workload. Reduction in mining activities is the main reason for reducing fees.

Nutrient Management Program - In the spring 224 nutrient management plans were submitted to the SWCD, covering 78,147 acres. An additional 23 Soil & Water Resource Management (SWRM) cost-share agreements were signed to enroll 1,116.90 additional acres of nutrient management planning starting in 2016 and an additional

283.6 acres where cost-sharing was offered, but not accepted by the landowner/operator. Annual cost-sharing for the program was provided by a SWRM Grant of \$39,200.

As a result of the SWCD's emphasis on the quality of private sector prepared nutrient management plans (due to previously identified noncompliant plan preparation) the quality of private sector prepared plans has improved.

Parks Department Assistance – In 2015, the SWCD assisted the Parks Department with planning, design, monitoring and construction supervision of projects at the Horseshoe Bay Cave and Murphy Park. The SWCD was an active partner in the Horseshoe Bay Cave research and data collection efforts. In addition, the SWCD continues a co-lead role in the development and implementation of a Management Plan for Horseshoe Bay Cave which includes a bat white-nose syndrome component as well as potential future uses of the cave.

Planning Department Referrals - The SWCD reviewed 17 land disturbance projects, one nonmetallic mine proposal and reviewed or investigated 11 new or existing projects for storm water.

Sister City Program – A Sister City Delegation from Jingdezhen, China was hosted in June and a Door County Delegation was sent to Jingdezhen, China in October. A Door County Sister City Square to be constructed in Jingdezhen was designed and presented to Jingdezhen representatives.

Targeted Runoff Management Program - The Dunes Lake Watershed large-scale grant was completed in 2015. With all the BMP's installed through this grant the pollutant load reductions were:

- 151.9 lbs/yr of Phosphorus
- 666.9 lbs/yr of Nitrogen
- 3.6 Tons/yr of sediment

Tree and Shrub Program – Three DNR tree customers rented the County's tree planters. DNR tree and shrub orders have experienced a decline in public participation in recent years.

Wildlife Damage Abatement & Claims Program (WDACP) – Fifteen landowners enrolled for deer and/or turkey crop damage abatement. No damage appraisals were conducted in 2015. Landowner complaints continue to be increasing with deer and turkey damage. Sand hill crane complaints were minimum, however sand hill cranes are currently regulated by the federal government and are ineligible for any WDACP assistance. Eight shooting permits were issued to control excessive deer damage and one permit was issued for excessive turkey damage. A preliminary count indicates that 23 deer were shot by the 8 permitted landowners. The number of turkeys harvested under the one permit is not yet available. The Deer Donation Program for Door County received 33 deer donated to local food pantries, compared to 24 in 2014, 39 in 2013, 43 in 2012, 40 in 2011, 58 in 2010, 70 in 2009 and 253 deer donated in 2008 (last earn-a-buck season). The SWCD also approved a fence modification contract to remove a tract of land so that it could be sold to the Door County Land Trust.

Wisconsin Working Lands Initiative/Farmland Preservation Program – Forty participants were under contract or under Exclusive Agriculture zoning in Door County. Self-certification forms were sent to all participants and the SWCD will be verifying compliance for participants to remain eligible for tax credits.

2015 Knowledge Sharing

Beaches

- Completion of 6 beach projects in late 2014 and early 2015 wrapped up the construction phase of the current GLRI grant. Projects however reporting data sharing, and site tours are ongoing.
- Presentations continue for local and statewide audiences regarding the SWCD's beach water quality program and other conservation and resource protection projects.

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. 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 5 local Town meetings.
- Clean Boats Clean Water LTE conducted educational contacts to 239 boaters during boat inspections at several boat launches in the county.
- Informational packets along with an invitation to participate were sent to approximately 2,920 landowners.

Other

- Provided office information to Door County new employees, Door County Leadership class, and to the Learning in Retirement participants.
- Provided educational presentations for individual farmers and their respective employees regarding manure spreading hazards.
- Provided a presentation to 23 Sturgeon Bay High School Ecology Students about groundwater protection and concerns.
- Provided a presentation to ~95 4th grade students about groundwater protection and concerns at Sunrise School in Sturgeon Bay.
- Attended Legislative Days and presented groundwater concerns for Door and Kewaunee Counties.
- Participated/joined Great Lakes Committee (WLWCA)
- Assisted landowner with the official name change for two local creeks that were misspelled.
- Assisted Parks Department in public Horseshoe Bay Cave Tour.
- Participated in Sustainable Fair; Wetland/Pond Workshop at Crossroads; DCIST booth at Bass Tournament.
- Conducted an LCC tour of conservation practices.

- Staff was featured on the television show “Into the Outdoors” on nonpoint pollution.
- Staff appeared in the “Discover Wisconsin” television program regarding Wisconsin Coastal Management Funding for Beach Health at Washington Island School House Beach.
- Provided educational presentations for individual farmers and their respective employees regarding manure spreading hazards.

SWCD Budget Status

Approved 2015 Budget	\$1,667,514	Actual 2015 Budget	\$1,347,103
2015 Budgeted revenue	\$1,255,537	2015 Actual Revenue	\$943,644
2014 Levy appropriation	\$402,076	2015 Levy appropriation	\$411,977
2014 Actual Levy appropriation	\$386,072	2015 Actual Levy appropriation	\$403,459

Grant Totals Utilized In 2015:

DNR Lake Planning Grant (Dunes)	\$1,803.66
DNR Aquatic Invasive Species Grant	\$42,737.32
DNR Weed Management Area Grant	\$12,490.00
DNR Targeted Runoff Management Grant	\$247,842.93
DATCP Soil & Water Resource Management Grant	\$163,679.00
DATCP Land & Water Resource Management Grant	\$96,840.40
DNR Wildlife Damage Claims Program	\$19,700.45
US Environmental Protection Agency (Beach)	\$267,865.43
US Forest Service (Invasive Species)	\$17,043.45

Revenue from Self-funding Accounts:

Soil & Water Fund	\$9,594.18
Tree & Shrub Program	\$131.31
Nonmetallic Mine Program	\$27,510.41

Donations Utilized in 2015:

Invasive Species Donations	\$12,742.99
Dunes Lake Donations	\$3,019.28
Green Printing Donations	\$5,395.00

Other Revenue

Copies & Postage	\$242.60
Vehicle Replacement Fund	\$15,005.50

Other Accomplishments

- 2 Village of Ephraim construction site erosion/stormwater runoff control reviews and sump/flooding complaints.
- Installation of informational beach best management practice signage at Lakeside Park, Murphey Park, Hotz Memorial Park, Sand Bay Park, Haines Park, and Portage Park.
- Individual landowner, local business, and local government drainage problem reviews and conservation planning.
- Lead and arsenic pesticide residue in soils and groundwater information and technical assistance to landowners, potential buyers, real estate agencies, and land developers.

- Phase I reviews for potential property contamination issues (orchard mixing sites, old dumps, etc.)
- Participated in Door/Kewaunee DNR workgroups regarding groundwater protection and Karst topography.
- Individual landowner pond and wetland technical assistance and development.
- Preparation and review of farm operation specific prioritization maps for the winter spreading of animal waste to reduce water quality impacts.
- Conducted compliance inspections on stormwater runoff construction projects and construction site erosion practices.
- Conducted approximately 75 site reviews of cost-share projects with contractual operation and maintenance periods.
- Assisted NRCS with EQIP sign-up and implementation.
- Conservation planning with farmers for proper resource management.

2015 Conservation Practice Summary

38	New nutrient management plans submitted/1,400.5 acres of new cropland acres enrolled in the nutrient management program
224	Nutrient Management plans/78,148 acres
51	Nonmetallic Mine Reclamation Plan Review/Permits
1	Nonmetallic mine permit amendment
11	Topographic/PS/Laser Surveys
11	Planning/Design with Landowners
3	Animal Waste Storage Systems
1	Transfer System
1	Extensive review of CAFO Calf Facility plans.
1	Barnyard Runoff Control Systems
1	Bunker Leachate Collection System
17	Stormwater Management/Erosion Control Reviews
2	Well Abandonment
23	Deer harvested on eight shooting permits issued in the WDACP
33	Deer donated in Door County through Deer Donation Program
118	Boats inspected by <i>Clean Boats Clean Waters</i> LTE
239	Boaters contacted during <i>Clean Boats Clean Waters</i> inspections
529.5	Volunteer Hours of Invasive Species Control work throughout Door County
34.62	Acres Phragmites treated
25.3	Right of Way miles of Wild Parsnip treated
4	Acres of Wild Parsnip treated on private land

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 2016:

1. Maintain existing natural resource protection programs implementation during a time of diminishing fiscal resources and governmental uncertainty.
2. Locate and/or develop new program support revenue streams.
3. Continued implementation of agricultural nonpoint water quality performance standards. Continue greater emphasis on requiring quality private sector prepared nutrient management plans.

4. Work with State Legislative Representatives to develop and require agricultural groundwater protection standards which provide greater groundwater quality protection than existing standards.
5. Conduct pilot legacy phosphorus sediment removal on approximately two acres of Dunes Lake.
6. Develop an engineering plan for a polishing cell to further treat the effluent discharged from the sanitary lagoons to reduce point source nutrient delivery to Dunes Lake Watershed (Geisel Creek, Dunes Lake, Shivering Sands Creek, Lake Michigan and local ground water).
7. Build a designated Town of Sevastopol parking area to improve access and use of Dunes Lake.
8. Assist the City of Sturgeon Bay in final installation of water quality practices and lake restoration efforts for Little Lake.
9. Assist the City of Sturgeon Bay with the planning and installation of improvements from Walmart storm water systems.
10. Obtain additional funding for aquatic and terrestrial invasive species control work for DCIST.
11. Conduct additional acres of nutrient management implementation and compliance reviews.
12. Continue Greenprint training to agencies, staff and public to increase awareness of the model and plan the Program's future.