



2014-2019 COMPREHENSIVE PLAN

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Washington Conservation District
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Washington Conservation District Mission

To enhance, protect, and preserve the natural resources of Washington County through conservation projects, technical guidance, and educational services to citizens and local government

Encouraging voluntary conservation efforts since 1942

Natural Resources – Definition

Lakes, wetlands, streams, groundwater, rivers, natural areas, wildlife habitat, soil, forests, and other natural features in Washington County.



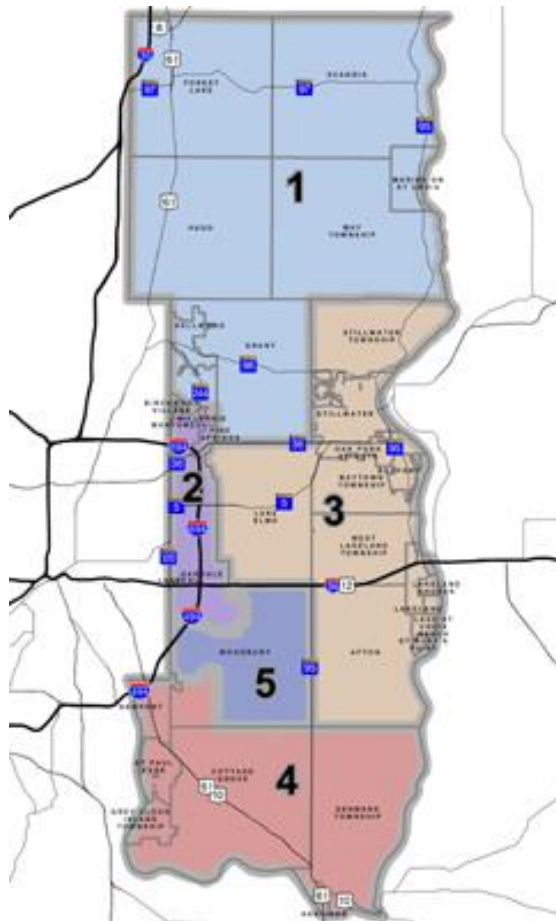
COMPREHENSIVE PLAN

Purpose of the Comprehensive Plan

The comprehensive plan will guide the Washington Conservation District (WCD) in effectively achieving its goals in the District program and in developing its grant applications, collaborative initiatives, technical service agreements, and annual workload. This plan will extend from 2014 through 2019.

Introduction to the Washington Conservation District

The Washington Conservation District is a special purpose local unit of government dedicated to the management of soil and water resources in Washington County, Minnesota. Originally formed in 1942, the WCD is a Soil and Water Conservation District as set forth in Chapter 103C, Minnesota Statutes. This law gives wide ranging authority to districts to plan and implement necessary practices to benefit and preserve the soil and water resources in Minnesota.



Chapter 103C also allows a SWCD to cooperate or enter into agreements with any occupier, agency or unit of government. Also, within the limits of available appropriations the District may furnish financial or other aid to implement the policies within the District.

The District is governed by a five member Board of Supervisors who are responsible for establishing District policy, supporting District programs and activities and making fiscal decisions concerning the soil and water resources of the county.

The County is divided into five supervisor districts (shown on the map to the left) of which one supervisor is elected to represent each resource district for a four year term.

Washington County Geology and Soils

In accordance with State Statute 103C.331, subdivision 11.9.b "the [comprehensive] plan shall include a classification of the soil types within the district as determined by the Minnesota Cooperative Soil Survey."



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Washington County is dominated by the Eastern St. Croix Moraine. This glacial and terminal moraine is characterized by steep hills, interspersed with deep depressions filled with small lakes, peat or silty sediments.

Along the northwestern part of Washington County, the Anoka Sand Plain is an undulating outwash plain made up principally of fine sand. Depressions that are filled with peat deposits, marshes or lakes are common in the sand plain.

The Mississippi River Valley Outwash occupies the southwestern and east central portion of Washington County. This area is characterized by nearly level terraces and flood plains along the major rivers and their tributaries.

The southeastern part of Washington County is dominated by the Kenyon-Taopi Plain. This sloping silt-mantled eroded till plain is characterized by long swell and swale relief with a well established dendritic drainage pattern.

The drainage system of Washington County is unusual. In spite of the proximity of the deep-cut valleys of the St. Croix and Mississippi Rivers, there are only a few perennial streams draining large watershed areas, and many short streams flowing directly to the rivers. Elsewhere the drainage is downward into underlying sands and gravel or bedrock, or for short distances, runoff finds its way by swales and shallow, indefinite valleys to the lakes and depressions.

The highest elevations in the county occur within the area dominated by the Eastern St. Croix Moraine, located in Section 17, Woodbury, and it is about 1104 feet above sea level. The lowest elevation above sea level is at the extreme southern tip of the county where the St. Croix River flows into the Mississippi River at an elevation of about 675 feet.

The general soil map shows broad areas that have a distinctive pattern of soils, relief, and drainage. Each map unit on the general soil map is a unique natural landscape. Typically, a map consists of one or more major soils and some minor soils. It is named for the major soils. The soils making up one unit can occur in other units but in a different pattern.



Critical Areas

In accordance with State Statute 103C.331, subdivision 11.9.c “the [comprehensive] plan must identify the areas within the district where erosion, sedimentation, and related water quality problems appear most in need of control methods.

Sub-watersheds with high pollutant loads and lake grade trends are a direct measure of erosion, sedimentation, and associated water quality impairments. See Appendix A for exhibits demonstrating some of the data available in Washington County that will be used on an annual basis to prioritize outreach, technical assistance, and cost-share project implementation.

Sources of information for determining problems and prioritizing WCD activities will include the most current version of the following data/plans/documents:

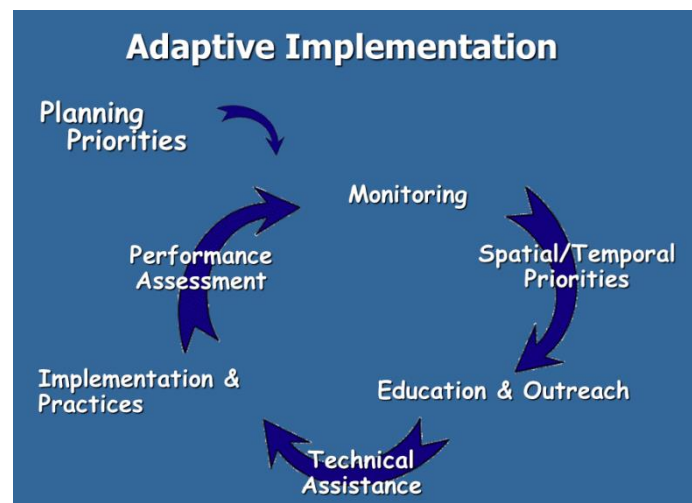
- WCD/County/Watershed Monitoring Program
- County Groundwater Plan
- County Comprehensive Plan
- County Conservation Plan
- Local Watershed Management Plans
- Total Maximum Daily Load (TMDL) Studies and Implementation Plans

Additional resource information and technical expertise will be utilized on an annual basis to determine priority areas for WCD programs. This includes field reconnaissance and direct landowner contacts to assess non-monitored sites.

Adaptive Implementation

The WCD shall implement its programs following the adaptive management model. Adaptive implementation includes a continuum of:

- determining planning priorities (i.e. the Strategic Plan);
- designing a strategy to address the problem;
- education to promote conservation priorities and motivate voluntary participation;
- providing technical assistance to implement a solutions (project or program);
- monitoring and evaluating the outcome of the solution (project, practice, or program);





- re-assessment of the overall problem;
- design of additional strategies to address problem; and so on.

This adaptive process will be integrated into annual workload planning and outreach prioritization to maximize the positive benefits of WCD activities.

IMPLEMENTATION STRATEGIES

Washington Conservation District Priority Issues

The Goals described below guide the implementation of strategies to address the natural resource threats in Washington County. The WCD uses three main techniques to implement Strategies: *Technical Assistance*, *Financial Assistance*, and *Educational Assistance*. To ensure the WCD is a leader in these techniques, staff training and office technology shall be assessed regularly and advanced as necessary.

Goals and Strategies are developed to address the following nine priority issues:

1. New Development - The urbanization of land generates temporary and permanent adverse impacts to natural resources, including habitat fragmentation, increased impervious areas, and soil loss.
2. Existing Development - Existing urban and suburban areas contribute to water pollution and other natural resource impacts.
3. Agriculture - Conservation practices greatly reduce the impacts of agricultural activities on water quality and enhance wildlife habitat. Agricultural activities include commodity crop production, pasture management, and livestock operations.
4. Rural Land - Rural land includes hobby farms, pastures, fallow farmland, and natural areas. These areas generally encompass properties larger than five acres. New conservation practices and management strategies are critical to protecting these areas.
5. Prime Soil and Habitat – Conserving, restoring, and managing land at large scales is critical to preserving ecosystems. This requires new approaches and partnerships to be effective.
6. Education and Marketing – Education and marketing are central components of all WCD efforts. None of the Goals and Strategies are achievable without an effective education program..
7. Collaboration – Partnerships and effective government coordination are required to reduce duplication and provide efficient services.
8. Data Acquisition and Sharing – Monitoring, research, and data sharing are important to identify resource problems, track changes, determine project effectiveness, educate the public, and further the science of conservation.
9. Financial Stability – Long-term planning and project implementation is maximized when financial stability is secured.



Washington Conservation District Goals and Strategies

New Development Goal

The WCD shall minimize the adverse impacts of new development on natural resources.

New Development Strategies

1. Develop and implement countywide erosion and sediment control program.
2. Develop and implement enhanced cost-share and voluntary incentive program for innovative stormwater management. Work with watershed organizations to develop Best Management Practice (BMP) programs countywide.
3. Promote Low Impact Development (LID) through demonstration sites, cost-share program, ordinance enhancement, watershed planning, and educational activities.
4. Partner with County and watersheds to implement groundwater protection strategies (proper ISTS installation, recharge area protection, stormwater infiltration, etc). Use groundwater models during plan review process.
5. Assist with implementation of the County's Municipal Separate Storm Sewer System (MS4) program.
6. Minimize wetland impacts through implementation of the Wetland Conservation Act.
7. Work with land use decision makers to improve programs, ordinances, and rules for surface water, groundwater, wetland, and upland habitat protection/enhancement.
8. Conduct site plan reviews and become involved early in the plat review process to promote designs that protect the ecological integrity of receiving waters (surface and groundwater) and integration of greenway corridor and LID concepts. Prioritize reviews based on surface water quality, habitat value, resource impairment (e.g. TMDL involved), and groundwater sensitivity.
9. Ensure the environmental review process is effective and efficient.
10. Conduct educational and marketing activities targeting new development issues. See Education and Marketing Goal.



Existing Development Goal

The WCD shall minimize the adverse impacts of existing development on natural resources.

Existing Development Strategies

1. Implement stormwater management retrofit program. Use existing cost-share and incentive programs such as State Cost Share , the WCD Water Quality Cost-Share Grant, and Watershed BMP programs. Seek additional funding sources for incentive funds.
2. Assist with implementation of the County's Municipal Separate Storm Sewer System (MS4) program. Provide comparable MS4 services to all communities.
3. Minimize wetland impacts through implementation of the Wetland Conservation Act.
4. Promote urban/suburban tree program. Investigate opportunities to provide incentives and discounted trees through partnerships with nurseries and others.
5. Promote proper shoreland and vegetation management. Integrate with tree program, BMP programs, easements, invasive weed control, and noxious weed control.
6. Assist the County to ensure proper ISTS operations and maintenance. Provide assistance for failing ISTS through the AgBMP low interest loan program.
7. Conduct educational and marketing activities targeting existing development issues. See Education and Marketing Goal.



Agricultural Goal

The WCD shall minimize the adverse impacts of agricultural activities on natural resources.

Agricultural Strategies

1. Synchronize WCD, Natural Resource Conservation Service (NRCS), and watershed programs to maximize local, state and federal funds to implement agricultural conservation practices. Strive to ensure all agricultural lands have Tolerable soil losses. Work with watersheds to implement agricultural BMPs.
2. Implement Feedlot Management Program through local delegation of a County Feedlot Officer (CFO) and associated activities.
3. Implement and promote a native vegetated buffer program.
4. Work with agricultural producers to promote resource-sensitive drainage management and promote natural stream management. Integrate with Comprehensive Wetland Management Plans and Wetland Conservation Act.
5. Enhance County-owned cropland management program and aid in the transition from cropland to native prairie.
6. Promote proper pasture management, irrigation techniques, and nutrient management.
7. Target work with nurseries and other growers.
8. Collaborate with DNR and County to ensure proper water appropriation management.
9. Conduct educational and marketing activities targeting agricultural issues. See Education and Marketing Goal.
10. Implement priority conservation projects identified through Top50P!, PMZ, etc.



Rural Land Goal

The WCD shall minimize the adverse impacts of rural land activities on natural resources.

Rural Land Strategies

1. Promote conservation and vegetation management through multiple efforts, such as:
 - a. Community/Association land management
 - b. Upland habitat management plans
 - c. Shore land management – buffers
 - d. Wetland restoration/enhancement
 - e. Tree program
 - f. Invasive weed control program
 - g. Erosion control – gully stabilization, ATV issues
 - h. Gully inventory
 - i. Cost-share incentive programs
2. Develop and implement hobby farm and stables management program.
3. Minimize wetland impacts through implementation of the Wetland Conservation Act.
4. Implement and promote septic management and County ISTS program. Provide assistance for failing ISTS through the AgBMP low interest loan program.
5. Work with County to implement and promote an unused well sealing program.
6. Partner with County and local units of government to manage gravel roads and road drainage to protect water resources.
7. Work with County to implement Off Highway Vehicle (OHV) erosion controls.
8. Conduct educational and marketing activities targeting agricultural issues. See Education and Marketing Goal.



Prime Soil and Habitat Goal

The WCD shall work with County and local partners to preserve large, contiguous tracts of open space, prime agricultural soils, and natural areas.

Prime Soil and Habitat Strategies

1. Integrate Greenway Programs with plan review process. See New Development Goal.
2. Coordinate NRCS, State, County, Private, non-profit, and other easement programs.
3. Promote and support Comprehensive Wetland Management Plans.
4. Promote and support County and DNR Greenway programs. Assist with local implementation of easement and land protection programs.
5. Partner to protect sensitive groundwater dependent resources and recharge areas.
6. Complete and update countywide land cover mapping using the Minnesota Land Cover Classification System.
7. Promote and provide cost-share to restore native habitats.
8. Work with County and local units of government to ensure conservation easement areas are effectively managed and maintained.
9. Work with landowners to develop conservation easement management plans.
10. Conduct educational and marketing activities targeting agricultural issues. See Education and Marketing Goal.



Education and Marketing Goal

The WCD shall conduct education and marketing activities to (1) actively engage citizens and decision-makers and (2) influence and/or change behavior in a way that will have a measurable positive effect on natural resources.

Education and Marketing Strategies

1. Identify target audiences and develop targeted education and marketing strategies. Prepare annual WCD education plan and integrate with MS4 education plan.
2. Develop and implement County MS4 education plan. Collaborate with MS4s to implement program. Coordinate and synchronize MS4 education with other WCD education activities.
3. Showcase demonstration projects and conduct regular tours. Prepare self-guided tour brochure for WCD cost-share projects.
4. Actively coordinate education and marketing efforts with Washington County Water Consortium, Metro Watershed Partners, U of M Extension, Minnesota Erosion Control Association, and others.
5. Enhance and maintain up-to-date, interactive, and user-friendly website. Include menu-list of educational opportunities.
6. Prepare regular WCD Newsletter (3-4 times per year). Provide articles to other County, Watershed, and Municipal Newsletters.
7. Conduct technical trainings and workshops as identified in annual WCD education plan. Promote and implement NEMO program. Work closely with lake associations.
8. Make regular public appearances, such as the County Fair Booth, Envirothon, municipal events, and others.
9. Prepare regular press/news releases to promote WCD programs and activities.
10. Coordinate WCD educational activities with Adult education and community education programs.
11. Become member of Metro Watershed Partners and support their website.
12. Enhance centralized WCD library and Fact Sheet reference library. Make accessible to public.



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13. Coordinate reference materials with County Library system. Develop a "Conservation Corner."
14. Continue to provide Homeowner Packets. Develop packets targeted for specific audiences.
15. Partner with County and watersheds to develop educational techniques that show the surface water/groundwater interactions in Washington County.
16. Coordinate solid waste management and ISTS education with County.
17. Develop and distribute WCD Intro Packet to new landowners, real estate agents, and communities.
18. Utilize and promote MASWCD award programs.
19. EMWREP



Collaboration Goal

The WCD shall develop and nurture collaborative partnerships to enhance natural resource conservation efforts.

Collaboration Strategies

1. Actively participate in Water Consortium to coordinate surface and ground water efforts.
2. Create goal-specific interagency workgroups to meet annually and assess strategies and tasks to achieve conservation goals.
3. Prepare collaborative Grant applications to enhance conservation efforts and promote partnerships.
4. Coordinate and implement the Washington County MS4 Collaborative.
5. Enhance permit coordination between agencies through regular communications with DNR, County, MPCA, Watersheds, Municipalities, and others.
6. Develop and enhance relationships with local units of government through joint projects, cost-share, technical services, and other practices.
7. Implement and Expand EMWREP.



Data Acquisition and Sharing Goal

The WCD shall be the definitive source of natural resource information in Washington County by acquiring, maintaining, and sharing timely data in a user-friendly format.

Data Acquisition and Sharing Strategies

1. Develop accessible water resource database.
2. Create website interface for reports on specific water resources (link to DNR lakefinder).
3. Develop and implement county baseline monitoring program.
4. Complete and update countywide land cover mapping using the Minnesota Land Cover Classification System.
5. Develop GIS-based projects and permit interface to make Karen's life easier.
6. Link rain gauge data to our website.
7. Ensure data are compatible by using up-to-date software and hardware.
8. Compile water resource data and integrate into publicly available interface – e.g. Washington groundwater study data
9. Conduct and update natural resource inventories, including, St. Croix Gullies, Feedlots, and others.
10. Collection field data digitally and ensure rapid synchronization and integration with project database.
11. Research and report findings on cost-share projects, innovative stormwater management projects, and other BMPs to advance the state of the art.



Financial Stability Goal

The WCD shall have long-term financial stability and adequate funding to support the WCD mission and provide efficient implementation of cost-effective methods to address natural resource concerns.

Financial Stability Strategies

1. Work with County, MASWCD, and others to develop long-term stable funding for Conservation Districts, such as taxing authority.
2. Develop multi-year contracts and agreements with watersheds and other partners.
3. Work to ensure County levy adequately supports conservation efforts in Washington County and effectively addresses citizen concerns/needs.
4. Regularly prepare targeted grant applications to achieve goals.