



Title: MCWD Strategic Dialogs – Phase 1 Historic Analysis – WHITE PAPER #5

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Purpose:

At the June 23, 2022 Policy and Planning Committee (PPC), Louis Smith will facilitate a discussion with Board members around the fourth in a series of white papers that explore the Minnehaha Creek Watershed District's (MCWD) organizational history for timeless strategic insights that will guide and serve future generations of the District team.

Background:

2022 represents the midpoint of the Minnehaha Creek Watershed District's 10-year plan, and is also the 5 year anniversary of the District's 2017 plan for organizational alignment. As the District approaches this midterm milestone the Board of Managers expressed a desire to continue strategic preparations for the future.

As part of ongoing preparations for the future, and efforts to continuously improve the organization, the Board has decided to engage in a series of organizational conversations that will explore its past and benchmark its current position, to inform refinements in its mid-term strategic direction and priorities.

This work has been broken into three phases of work as follows:

1. Phase 1 – Past – Where have we been and what have we learned?
 - a. A historical analysis to derive insights that underpin MCWD's identity today, and lessons for the future
2. Phase 2 – Present – Where are we now and what needs to be done?
 - a. Status of current strategic priorities, and assessment of what will be required near term to execute
3. Phase 3 – Future – What challenges will we face in the future, and how can we prepare?
 - a. An inventory and education on emerging strategic issues the District wishes to begin preparing for

Below are links to past Board and Committee packets where Managers and staff discussed the purpose and scope of these strategic dialogs.

- [October 2020 PPC](#) Introductory Discussion
- [November 2020 PPC](#) Discussion of purpose and desired outcomes
- [January 2021 PPC](#) Review proposed process and scope of work
- [February 11, 2021](#) Approval of the process and scope of work
- [March 2021 PPC](#) Kickoff of Phase 1 Strategic Dialogs – Historic Analysis
- [June 2021 OPC](#) White Paper #1, 1967 – 1979: Formation of MCWD and Initial Mandate
- [August 2021 PPC](#) White Paper #2, 1980 – 1992: Establishing Data-Driven Project Planning
- [November 2021 PPC](#) White Paper #3, 1993 – 1999: Acceleration of Capacity, Planning, Implementation
- [March 2022 OPC](#) White Paper #4, 2000 – 2009: A TMDL Approach to Planning and Expanding Programs

June 23, 2022 PPC Meeting:

At the June 23, 2022 Meeting, Mr. Smith will review the key events of the time period 2010 – 2020. *White Paper #5 Focus on Partnership with the Land Use Community.*

The Committee will discuss the preliminary principles and lessons learned emerging from this research. Feedback and discussion from the committee will be used to refine White Paper #5, before moving into the final phase of this project – distillation of lessons learned and timeless organizational principles.

Next Steps:

Ultimately, the White Papers and associated dialog with the Board will be synthesized into a package that chronicles MCWD's history into discrete periods, key events, and importantly timeless principles that will serve the organization well into the future.

If there are questions in advance of the meeting, please contact James Wisker at Jwisker@minnehahacreek.org

Supporting documents (list attachments):

- Attachment A – MCWD's Historical Periods
- Attachment B – White Paper #5

1967 – 1979: Formation of MCWD and Initial Mandate

In its first twelve years, the MCWD focused on addressing flooding issues and construction of the Gray's Bay dam. Invited by cities to review land use development for water resource impacts, the MCWD developed its first regulatory program, initiated several major technical studies, and pursued an early land conservation initiative along the Creek in St. Louis Park.

Key Events:

- Impetus for the 1966 Petition made by Hennepin County and MCWD's initial "mandate"
- 1969 Watershed Plan – Goals and Programs included Monitoring, Permitting, CIP
- Elimination of municipal wastewater discharges to Lake Minnetonka (1971 – 1986)
- Construction of Gray's Bay Dam
 - Extensive litigation with USACE on legal requirements
- First computer model developed for Lake Minnetonka watershed
- Initial role in reviewing development projects at city requests
- Development of first rules to require watershed district permits; early enforcement actions
- Wayzata Wetland Study for USEPA
- Early land conservation initiative along Minnehaha Creek in St. Louis Park, partnership with City for HUD grants to acquire riparian easements

Hypotheses:

- Flood mitigation is central to MCWD mission, identity, and relationships; flooding will always be a source of conflict and strategic opportunity for MCWD to provide value at the nexus of land use and water management
- MCWD establishes its value through responding to the needs of cities and other land use actors with science-based or data-driven technical assistance
- Establishing a credible regulatory program requires a commitment to enforcement
- MCWD can play a leadership role in mobilizing resources for conservation of riparian areas in collaboration with a city partner

1980 – 1992: First Evolution – Establishing Data Driven Project Planning

The MCWD continued to build its technical understanding of the watershed, keeping a primary focus on flood mitigation, while also writing a second more comprehensive water resources management plan.

Key Events:

- Hydraulic flood study of Creek in Minneapolis
- TR-20 runoff model for 1, 10 and 100 year events for existing and future unmanaged scenarios
- Edina – MNDOT flood management projects at Hwy 100 & dredging at 44th Street
- Engagement with MndOT on I-35W construction planning
- Painter Creek subwatershed improvement projects
- 1987 Watershed Plan
 - Response to 1982 Metropolitan Surface Water Management Act
 - Evolution of goals and programs
 - Pursuit of Hennepin County financing for projects (unsuccessful)

Hypotheses:

- Effective relationships with county boards are vital to MCWD success
- Strong technical understanding of Creek hydrology is essential to mission and establishes a basis for credible regulatory program and project partnership potential
- Merely adequate outreach to cities, counties, and state agencies gains plan approval, but effective engagement with citizens or general public creates more relationship capital and greater project opportunities

1993 – 1999: Second Evolution – Growth of Planning and Implementation

MCWD entered a time of greater public visibility by addressing water quality in the Minneapolis Chain of Lakes. City leaders learned the power of MCWD's broad tax levy, technical expertise, and unique ability to improve water quality in major lake assets. MCWD learned the power of negotiating effective multiparty agreements to reflect true working partnerships, and learned the challenging consequences of proceeding with projects such as Long Lake without such partnerships in place.

Key Events:

- 1993 Watershed Plan
- Engagement with MNDOT, legislature to establish MCWD permitting jurisdiction over highway projects (1996)
- Extensive litigation on shoreline improvements issues (1996-97)
- Long Lake Feasibility and Pond Projects (1996)
 - Condemnation and litigation
- Gleason Creek Flood Control (1995) and Phase II work for Water Quality (2000s)
- Chain of Lakes and Blue Water Commission (1996 – 2000)
 - Informed the art of negotiating public partnership and cooperative agreements
 - Twin Lakes Projects (1996)
 - Cedar Lake Project; geometry, function and aesthetics
 - Chain of Lakes Stormwater Ponds (1996-1996)
 - Important lawsuit to facilitate project
 - Lake Nokomis Ponds & Weir (1998-2001)
 - Strong working relationship with mayor of Minneapolis, Hennepin County, MPRB, St. Louis Park,
- Outstanding Watershed District of the Year (1996)
- Noted for the largest urban lake restoration project in the United States; received five environmental awards, including the CF Industries National Watershed Award and the Minnesota Governor's Award for Excellence in Pollution Prevention
- MN Landscape Arboretum Wetland Restoration (1997)
- 1997 Watershed Management Plan
 - Increased emphasis on education and public participation

Hypotheses:

- MCWD occasionally faces critical tests (David v. Goliath) of its credibility and authority; passing these tests can establish MCWD's relevance, but also presents risk in creating perception of heavy-handed regulatory agency

- Partnership with MNDOT, other state agencies based on mutual respect is most productive posture
- MCWD can face tough dilemmas in moving ahead with water quality project without strong partnership with key actors; (cf. Long Lake, Medina, Orono, land owners); just because there is science to support a project doesn't mean the District should go it alone.
- There are many more "opportunities and needs" than time or money. Selectively working where we have partnership capital provides long term wind in our sails, and credibility; building relationship capital requires more than MCWD's financial investment
- Exercising eminent domain to acquire property rights for project can have significant costs in local perceptions and relationships;
 - Note technical issues re Wahlfors, Pearce ponds;
- Price of moving ahead without strong partner support can be long-lasting;
- Relationships with local leaders are essential to success
 - Discuss dynamic with MPRB, Mayor of Mpls, County Commissioners
 - Compare Long Lake challenges and Chain of Lakes successes
 - note emboldened by "David v. Goliath" success

2000 – 2009: Third Evolution – Updating Science, TMDL Approach and Expanding Programs

MCWD entered the new millennium taking strong stands, willing to pursue the leading and bleeding edge of water resources protection. It succeeded with groundwater protection at Highway 55 thanks in part to strong legislative support, and failed with regulatory ideas like imposing lake buffers and allowing fees in lieu of site compliance. A Total Maximum Daily Load or pollutant loading allocation approach in the MCWD plan, followed by the development of new District regulations, brought more stringent standards and imposed somewhat unwelcome demands on cities. The MCWD also continued to expand its vision of partnerships to include private partners such as Methodist Hospital, Duke Realty, and Bachmans. The MCWD also expanded its education programming pursuing cost share projects to promote resident action, to serve as demonstration within the watershed, and to increase grass roots engagement.

Key Events:

- Highway 55 Camp Coldwater Conflict, MNDOT, MAC, Groundwater, Boundary Change (2000s)
- Pamela Park Projects (2000)
- Studies HHPLS, Stream Assessment, Creek Visioning, Assessment of Wetlands (2003-2005)
- Buffer Requirements, Rule M, fee in lieu (2002-2004)
- 2007 Watershed Plan – TMDL approach, abstraction, rules, program expansion
- Land Conservation Program issues
- Rule revisions and BATC (2006 – 2011)
- Terminated feasibility work in Carver, Long Lake; lack of systems context and relationships
- Mound Downtown Redevelopment Projects (2006)
- Bachmans Project
- Methodist Development (2007 – 2009)
- Big Island (2009)
- Duke Realty and formation of LID, later Cost-Share (2009)
- Minnehaha Glen, USACE, MPRB (2007 - 2009) – problems in collective understanding among partners and challenges in project execution
- Grass roots engagement through Cost Share Iterations and the Lake Association initiative

Hypotheses:

- MCWD is willing to play David against Goliath if the issue is central to its mission
- Partnering with private land developers can yield significant water resource benefits not otherwise attainable
- Good intentions are not enough to succeed in rulemaking or watershed plan; careful stakeholder engagement is essential
 - Substantively important changes in water resource protection; volume, load allocations
 - Critical need to build understanding and support
- Expansive program growth in response to serial requests or perceived needs can expand MCWD reach but also result in lack of focus and alignment
- MCWD benefits by having citizens who understand and support the MCWD mission, but local water issues can also be a source of conflict and divert MCWD resources or attention
- Partnering with land use actors creates endless opportunities, but opportunities should be evaluated for fit with MCWD mission and strategic goals, and risk assessment
 - Unforeseen problems in project execution can have lasting consequences on relationships
 - Spending and science do not necessarily build relational capital

2010 – 2020: Fourth Evolution – Focus on Partnerships with Land Use Community

MCWD entered a new era of strategic focus on integrating its mission with the missions of public and private land use actors through effective partnerships. The organization underwent a significant staff change and undertook its first major strategic planning exercise as an organization which facilitated refocused direction, deeper Board engagement in governance, new staff organizational structure and attention to culture, and capacity to pursue a new watershed management plan.

Key Events:

- Richfield Taft-Legion Development (2010 – 2013)
- Watershed Partnerships Paper (2011)
- Initiated and Sunset AIS programming (2011-2016)
- Himle-Horner Governance Evaluation (2012)
- Master Water Stewards initiative (2012)
- Reach 14 Streambank Projects (2013)
- Balanced Urban Ecology (2014)
- Leadership Transition (2014)
- Bushaway Road Development (2011 – 2014)
- Strategic planning (2016) and Program Insights
- Greenway Planning (2009 – 2020)
 - Acquisition of 325 Blake Road (2011)
 - Cottageville Park Development (2010 – 2015)
 - Japs Olson (2012 – 2016)
 - Meadowbrook Project Failure
- 2017 Watershed Management Plan
 - Introduce Cities to BUE and Focal Geographies
- Flooding
 - 2014 flood of record

- Wettest six years on record (2014-2019)
 - 2019 wettest year)
- Arden Park (2019)
- Minneapolis Planning
 - 2017 MPRB & Mpls MOU
 - 2018-2019 FEMA Repairs
 - 2020 Minnehaha Parkway)
- Six Mile Creek Halsted Bay
- Focus on culture and leadership

Hypotheses:

- Pausing to reflect deeply on organizational strategy can yield many long-term benefits in MCWD capacity and success
- A thorough risk analysis and staff engagement before launching new projects can help to avoid a misdirection of MCWD resources
- MCWD can achieve much more resource protection by working in partnership with key land use actors including cities and private developers
- MCWD can achieve much more resource protection by developing trusted relationships through concentrating on specific geographic areas
- Relationships alone are not enough; MCWD is most impactful when we have an optimized blend of sound science justifying our work, we integrate outside considerations (land use) to maximize benefit of our actions, we assess risks, and develop relationships and support at all levels needed to be successful
- Continued assessment and reflection can develop a culture of self-awareness, learning, celebrating failures as opportunities to grow, and continuous improvement
- Careful attention to staff/Board leadership and personnel can transform the organization's culture, resiliency, and capacity for success.

DRAFT White Paper #5
June 23, 2022

2010 – 2020
Focus on Partnerships with the Land Use Community

2010 – 2020: Fourth Evolution – Focus on Partnerships with Land Use Community

MCWD entered a new era of strategic focus on integrating its mission with the missions of public and private land use actors through effective partnerships. The organization underwent a significant staff change and undertook its first major strategic planning exercise, which facilitated refocused direction, deeper Board engagement in governance, new staff organizational structure and attention to culture, and capacity to pursue a new watershed management plan.

Governance Improvements & Leadership Transitions

Himle-Horner Governance Evaluation

The MCWD retained the Himle-Horner firm in 2012 to advise the District in search of better and increased engagement in long term planning and policy work. Previous projects and programs over the past decades had been widespread and lacked a coordinated focus, and in order to better coordinate programs, establishing a clear and foundational internal structure of the District was necessary. Additionally and relatedly, general concern around the quantity of and time spent in meetings had grown as meetings themselves multiplied.

Three main goals were developed for the restructuring proposal to focus on: 1) enhancement of the public's ability to monitor and engage with the District, specifically by addressing the confusing amount of committees and meetings; 2) achieving a better balance between policy and strategic planning compared to program management and implementation, and finally 3) the allocation of staff resources to their best use.

In response to these goals, the proposal advanced the consolidation of committees down to three streamlined versions: an executive committee, an operations and programs committee, and a planning and policy committee. Externally, these would be a clear and understandable organization for the public to engage with. Internally, the streamlined versions consolidated staff work and planning in an efficient structure. This supported both the balance between policy development and program management, and created a clear mechanism for staff to engage with and fully utilize their respective skills.

Leadership Transition (2014-2018)

In April 2014, a majority of the Board of Managers made the difficult decision to relieve Eric Evenson Marden as administrator, after over fifteen years of serving in the position. While four managers felt it was time to change direction, three managers were strongly in support of Mr. Evenson Marden. Community representatives and members of the Citizens Advisory Committee expressed support for him as well. While much of 2014 reflected this division of

views, Jeff Spartz, the former Hennepin County administrator and former county commissioner, agreed to serve as the interim MCWD administrator. Mr. Spartz provided seasoned leadership and a strong listening ear to the staff, while also helping the MCWD move toward a permanent administrator.

A lengthy and robust search process culminated in the Board's selection of Lars Erdahl to serve as administrator in February 2015. Mr. Erdahl had a background in environmental education at the Minnesota Zoo, and served as MCWD administrator until February 2018. During this time, Planning and Projects Director James Wisker took on increasing responsibility for projects, policy development, and human resources planning. When Mr. Erdahl resigned in early 2018, the Board of Managers named Mr. Wisker as MCWD administrator. Having first joined the MCWD as an intern in 2005, Mr. Wisker was the first internal selection for administrator in the fifty-year history of the District, a reflection of the staff development and capacity over this time.

Development of MCWD Philosophy and 2017 Plan **Watershed Partnerships Paper (2011)**

In 2011, administrator Eric Evenson commissioned District counsel to undertake an exploration of public-private collaboration to address watershed issues. The MCWD joined with Nine Mile Creek Watershed District, the Dakota County Farmland & Natural Areas Program, and with private sector partners Allina Health and Target to explore new approaches to water resource management. Focusing on Minnehaha Creek, Nine Mile Creek, and the Vermilion River, the paper noted that each of these streams was impaired, had difficult land use issues that posed impacts to water quality and habitat, and each stream was the focus of recreational interest. Target brought direct experience in community engagement in the Midtown Greenway and an interest in great design, sensitivity to place-making, and a commitment to sustainability. Allina brought a vision of health extending beyond treatment of illness to healing communities, and a sense of strong connections between healthy people, healthy stream corridors and greenways, and healthy communities.

The paper traced the evolution of watershed management, including Minnesota's unique creation of watershed districts, and the general absence of the private sector in watershed work. It also traced the development of greenways and conservation corridors – continuously linked tracts of land, often parks or trails, which are protected and managed for multiple uses, including recreation, non-motorized transportation, and conservation. Many greenways are adjacent to streams, and the tangible nature of greenway developments also frequently facilitates the effective engagement of the private sector. Finally, the paper considered the history of public-private partnerships, noting that the dynamic relationship between the public and private sectors is a critical quality of our democracy. It concluded with concrete recommendations for greenway partnerships along Minnehaha Creek, Nine Mile Creek, and the Vermilion River.

Balanced Urban Ecology

Growing out of the vision developed in the Watershed Partnerships Paper of 2011, planning and project implementation experiences in the Minnehaha Creek Greenway, and responding to state, county and non-profit assessments that called for increased integration of water resource and land use planning, the Balanced Urban Ecology Policy became a guiding, influential philosophy for MCWD.

The policy recognized that the Minnehaha Creek Watershed is part of an intricate urban ecological system of interdependent natural and man-made parts. It called for integrated planning and partnership with public, private, and civic partners, to find ways for these parts to work in reasonable harmony – thereby achieving balanced, sustainable, and successful communities. The policy identified three key principles: first, join others in pursuing watershed management goals; second, intensify and maintain focus on high-priority projects, and finally, maintain flexibility and creativeness in adapting practices to partnership practices.

The policy reflected a distinctive change in direction for the framework of MCWD work. Projects over the previous decade had been scattered and lacked focus; this re-directed vision focused work and centered partnerships in order to do a better job of project implementation and partner communication.

Through its adoption, the Board of Managers established Balanced Urban Ecology as MCWD's fundamental philosophy and way of doing business, and directed staff to operationalize the policy in part by having it guide the 2017 Water Management Plan.

2016 Strategic planning and Program Insights

To operationalize the Balanced Urban Ecology policy, in advance of developing the 2017 Watershed Management Plan, the District undertook a strategic planning exercise, with goals of (1) evaluating existing programs to provide meaningful change, alignment and prioritization of resources; (2) establishing a framework to evaluate new initiatives and opportunities for organizational priority and alignment, (3) providing a foundation for clear communication and engagement of constituents in the District's work.

Using a robust process to mine feedback through staff focus groups, and Board work session, the effort evaluated the organization from a strategic to an operational level, analyzing the history, baseline purpose and alignment of each program to best support the District's emphasis on high impact capital improvements guided by a Balanced Urban Ecology.

The work, completed internally, identified key issues within each area of District function and provided directions for strategically aligning around a revised vision and mission statement that better captured and communicated the District's goals and values. A vision of "a landscape of vibrant communities where the natural and built environments in balance create value and enjoyment"; and a mission to "collaborate with public and private partners to protect and improve land and water for current and future generations."

Through its adoption, the Board of Managers directed the Administrator to implement the approved strategic direction through the 2017 Water Management Plan, the budget and financial plans, and human resources plans.

2017 Watershed Plan

The District's 2017 watershed plan for the new decade developed out of the new Balanced Urban Ecology approach of partnership, focus, and flexibility. The plan leveraged data to clearly frame water resource issues, their drivers, and corresponding management strategies. The plan brought focus by consolidated the previous plan's 17 goals into four, oriented around water quality, water quantity, ecological integrity and thriving communities. It also introduced the concept of focal geographies to community partners, whereby the District would focus time and resources within key areas of need to support the practice of deeply integrated planning and relationship building.

The planning process was used to reintroduce MCWD, and its Balanced Urban Ecology philosophy, to agencies and communities through an extensive engagement process that invited land use partners to integrate local context and priorities into the plan. To bring partners into the process, building awareness and support, the District utilized a policy advisory committee, technical advisory committee, provided geographically tailored subwatershed mapping meetings, offered boat tours to introduce the plan and collect feedback, and networked with community development staff through a "planners breakfast" that offered third party testimonials of successful partnership with MCWD. This resulted in significant levels of written support for the District's shift in approach, strengthening community relationships and opening lines of communication.

2017 – 2018 Human Resources Plan

To complete its shift, building on the adoption of the Balanced Urban Ecology Policy, strategic planning to create clear, aligned focus, and the 2017 Watershed Planning process which cemented community support for MCWD's shift in approach, the District undertook a comprehensive restructuring of its staff.

Emphasis was placed on right sizing the staff structure to optimally deliver the vision of realigned programming, with a commitment to refocus staffing and to grow only from proven results. This ultimately resulted in a contraction of staffing from 36 to 27 over a two-year period. Through this significant period of turnover, the District placed emphasis on hiring, onboarding and performance management, to drive the alignment of new staff.

Through this restructuring process the Board of Managers formally recognized that its most important resources in delivering its bold vision and achieving its mission were its human resources. To accompany the restructuring, the Board of Managers directed the development of new policies surrounding compensation, including pay for performance which reinforced the organization's culture of meritocracy, and established new market-based benchmarks for remaining competitive in the region's marketplace for talent.

Major Project Initiatives

With this foundation of a new Balanced Urban Ecology philosophy and sound planning, the MCWD undertook a series of major projects that were driven by sound science, careful study of resource needs and community goals, and great care in cultivating trusted partnerships. The strength of these partnerships yielded high impact projects and multiple sources of partner funding and grants to supplement MCWD's investments. Also during this time Hennepin County committed to long term program of debt finance for MCWD projects.

Minnehaha Greenway

The Minnehaha Greenway project was a central, multi-pronged and highly successful project that spanned the decade, including the initiatives at Cottageville Park, 325 Blake Road, the Minnehaha Creek Preserve, and a second phase of work at Methodist Hospital started in the previous decade. The multi-project and multi-partner effort focused on the restoration of degraded urban stretches of Minnehaha Creek and the creation of recreational access and habitat protection. Guided by the Balanced Urban Ecology philosophy, the Minnehaha Greenway project emphasized the integration of community planning, redevelopment and improvement of water resources.

Cottageville Park Development

A cooperative agreement with the City of Hopkins signed in 2014 coordinated efforts between the City and the District on a degraded area that drained into Minnehaha Creek. Restoration of the stretch included vegetation restoration of 400ft of streambank and installation of a park and recreation area, as well as an innovative underground stormwater management and drain system that captured both dissolved phosphorus and sediment from runoff. Funded by a \$483,000 grant from the Clean Water Land & Legacy Fund through the Board of Water and Soil Resources, the project resulted in not only ecological restoration but also a reduction of crime in the surrounding community. The project took significant input from the community at many stages, working to incorporate local voices to guide key aspects of project design.

Japs Olson

Japs Olson is a printing company and major area employer straddling Hopkins and St. Louis Park. MCWD was able to partner with Japs Olson to facilitate its expansion involving 150 new jobs, trading monetized stormwater credits, while also gifting MCWD three acres of land adjacent to Minnehaha Creek. The project also involved redrawing the boundary between St. Louis Park and Hopkins. The Japs Olson project highlights the successful nature of the District's private partnerships during this decade. A letter of understanding was signed in February of 2014, which served to align visions at the start and guide project implementation, thus facilitating communication and goals to avoid the difficulties encountered by partnerships in the prior decade.

Minnehaha Preserve

In 2010, through its land conservation program, the MCWD acquired four contiguous parcels along Minnehaha Creek on Excelsior Boulevard in St. Louis Park. At the time, the District did

not have specific plans for the use of the property, but the acquisition opportunity presented itself and the Board of Managers elected to acquire the site for the significance of its location.

By 2013, the MCWD took advantage of the site to construct a major restoration of this stretch of Minnehaha Creek, re-meandering the Creek by restoring natural curves and lengthening the Creek by 1600 feet. The project also treated polluted stormwater from 79 acres of surrounding area that previously flowed untreated into the creek, preventing erosion by slowing down water, creating fish and wildlife habitat, and connecting the creek to its historic wetlands.

In July 2015, the MCWD completed and opened the “Minnehaha Preserve,” featuring 2,200 feet of boardwalk and 4,600 feet of paved trail around this restored stretch of Minnehaha Creek. It became the cornerstone of the Minnehaha Greenway, now a stretch of more than 109 acres of continuous green space constructed or planned for construction along Minnehaha Creek. The Preserve quickly became a site of great community use and recreation, including outdoor education areas for schools and community groups and reconstructed canoe launches. Unfortunately, premature wood rotting led to temporary closures of the boardwalk, and the MCWD had to take legal action against the design and construction firms and plan boardwalk reconstruction in 2022.

325 Blake Road

In 2011, the MCWD purchased a 17-acre cold storage industrial site in Hopkins for approximately \$16 million with the goal of the site becoming a capstone on the Minnehaha Greenway project and providing one of the larger proof points of Balanced Urban Ecology. The site has more than 1,000 feet along Minnehaha Creek, and is adjacent to the Metro Green Line light rail transit project, as well as the Cedar Lake Regional Trail. The MCWD’s vision is to retain about 5 acres of the site to create access to Minnehaha Creek and treat 270 acres of stormwater runoff coming to the site. The MCWD has worked closely with the City of Hopkins to assure that the City’s land use plans and goals are incorporated into the project. By 2018, the MCWD had obtained state and county grants to facilitate environmental cleanup of the site and complete demolition of the industrial facility. The MCWD collaborated with the City of Hopkins in a process that led to selecting Kraus Anderson as a developer to pursue the private development portion of the site. By 2019, the MCWD and Kraus Anderson were not able to come to terms on the sale of the site and development concepts, and the MCWD elected to focus on the planning and development of the public realm elements of the site to assure that any private developer would align its plans with the MCWD public realm.

By 2020, the MCWD and the City entered into a new cooperative agreement to express concurrence in guiding design principles and a process for collaborating in the selection of a developer for the site. The MCWD worked intensely in 2020 and 2021 to develop a strong design vision for the public realm elements of the site, which would assure that any private developer would embrace Creek access and water resource management as key design features of any development. This design work allowed the MCWD to enter a developer selection process with a much stronger vision of its goals. In June 2021, at a joint meeting of the Board of Managers and the Hopkins City Council, the MCWD and the City agreed to select

Alatus as the developer for the site. The Alatus proposal includes affordable housing, a market rate housing tower, restaurants, and careful attention to bring water onto the development as an amenity.

Six Mile Creek Halsted Bay

Building on the successes and lessons from the Minnehaha Greenway, the MCWD chose to make the Six Mile Creek – Halsted Bay Subwatershed its next focal geography in applying its Balanced Urban Ecology principles. The work on the Six Mile Creek project focused on the large-scale restoration of 2,488 acres of habitat across 14 connected deep and shallow lakes. Restoration focused on the creation of restored wetland and upland corridors between these lakes, and included carp management and prairie restoration projects as well. The Halsted Bay area had been determined to require the largest nutrient load reduction in the Minnehaha Creek Watershed, which supported designating this area as one of the main focal geographies for the 2017 watershed plan. MCWD also negotiated a debt finance arrangement with Carver County to support this initiative as needed.

Wassermann Lake Preserve

A first major project in the Subwatershed was the Wassermann Lake Preserve. In 2015, the MCWD executed a memorandum of understanding with the City of Victoria, which affirmed the mutual value of cooperative and integrated land use and water resource planning. Lake Wassermann was on the state Impaired Waters list due to invasive common carp and high phosphorus loading to the lake. In 2016, the MCWD worked with partners to establish the Six Mile – Halsted Bay Planning Partnership, which committed all partners to proactive and collaborative planning and communication about priorities. City of Victoria and MCWD staff soon identified 33.5 acres of undeveloped land on the Lake Wasserman shoreline. This parcel included Wassermann West Pond and adjacent wetlands; restoring these areas could result in significant reduction in phosphorus entering Lake Wassermann, while also providing the public access to the lake, which was a goal identified in the City of Victoria's 2008 Comprehensive Plan. The MCWD purchased the 33.5 acres in June 2017, and then executed a cooperative agreement with the City of Victoria to coordinate responsibilities to design and construct a public park, while restoring wetland and woodland areas and implementing water quality improvements. The project was completed in 2021 and enjoys extensive public use.

Carp Management

The MCWD received a grant from the Lessard-Sams Outdoor Heritage Council for carp management in this Subwatershed. The Aquatic Invasive Species Research Center of the University of Minnesota partnered with the District on this aspect, tagging and tracking migration patterns. developing a comprehensive data set that then provided researchers with the ability to develop three primary carp management strategies: suppressing carp reproduction, installing three permanent carp barriers, and significant adult carp removal.

Six Mile Marsh Prairie Restoration

To help improve water quality in the Subwatershed, the MCWD purchased two adjacent farms totaling 210-acres and restored the property's steep slopes and drain-tiled low areas to native

prairie and wetlands which has prevented eroded soil and other pollutants from flowing into Six Mile Creek. The MCWD planned and executed the project in two phases. Beginning in 2012, the first phase included restoration of the natural areas and preservation of the historic barn on the property. Following the removal of drain tile in use while the land was being farmed, over 10 wetlands reappeared and were improved with native plantings. Upland areas were restored to native tallgrass prairie vegetation, and an oak savanna above Six Mile Marsh was expanded. A temporary mowed trail leading from the Dakota Rail Trail onto the western part of the prairie has been maintained since 2016, which allowed the public to begin to explore the site. The second phase of the project includes construction of a permanent pedestrian trail that will lead from the Dakota Rail Trail and allow trail users to experience the restored prairie and wetlands within 100 acres of the site. Interpretive elements that tell the story of the site will also be installed. Construction is expected to be completed in 2022.

Partnership with Lennar

MCWD reviewed a permit application for a 99-unit residential development in Victoria. By working in coordination with the City of Victoria and Lennar, MCWD forged a partnership to restore 12 acres and permanently protect 23.5 acres of public water wetland, which was beyond Lennar's regulatory obligation.

Mader Family Wetland Bank

In 2014, the Mader Family Trust was considering selling their 77-acre [parcel](#) for development. They were interested in maximizing their financial return while also preserving the site's natural heritage, including a large wetland complex, as a family legacy. The Mader family reached out to MCWD early in their planning process to learn more about the district's permitting rules. This sparked some creative problem solving and a collaboration between MCWD, the landowner, and the City of Minnetrista. The partners worked together on a plan to restore 42 acres of wetland and upland buffer, which provided natural resource benefits greater than what would otherwise be required by MCWD's permitting regulations. The plan also provided the opportunity for the Mader family to take advantage of city density increases allowed through conservation development that allowed four additional lots within the subdivision, increasing the value for the landowner, the city, and the developer.

Other Notable Projects

Arden Park

The Arden Park project success also grew out of an implementation of the Balanced Urban Ecology policy goals of partnership and fostering of a coordinated focus on preservation and rehabilitation of water resources. The City of Edina had adopted a transportation policy to balance the needs of motorists, bicyclists, and transit riders in order to improve safety and community throughout the metropolis. As the scope of this work included reconstruction of streets, the City reached out to the District to try and implement better stormwater management techniques into the project.

From there, the City – MCWD collaboration led the project to include creek improvements, the installation of a new park facility and trails along the creek, and the District ended up contributing around \$2.3 million in project funding. The District and City worked jointly to install significant stormwater management features, including a subsurface infiltration trench under Halifax Avenue, a new and innovative pervious paver system in Jay Place, and the placement of sump manholes at three different locations within city neighborhoods. Altogether, these features provided significantly improved stormwater management along the reconstructed streets, resulting in both better safety and access for community transport as well as creek health and pollution reduction. Community residents were initially quite concerned about the project’s changes to historic park uses, but through ongoing community engagement and project adjustments, the ultimate result has been well received.

Response to Historic Flooding

In August of 2013, the Atlas 14 Report noted that average rainfall had increased an average of 5 inches over the last 50 years. The ensuing decade would go to be the wettest in the state’s recorded history.

In February of 2014, delays in melting of the larger-than-usual triggered concerns over a quick melt in mid-March and intense flooding. Concerns were valid, and spring led to wet conditions around the state. In June, this was compounded by severe high water and flooding events, as the first six months of the year broke flooding records. In September, the District contracted Wenck Associates to complete a flood assessment report, which catalogued the record-breaking precipitation and its impact on lake levels and creek flows. Of particular interest to the District during this period was the integrity of stream slopes: seven stream slopes collapsed under flooding stress, but most significantly, many streams overflowed without degradation. Examination of these stream banks later led to interest in incorporating these natural features into stream bank restoration projects.

Precipitation records of 2014 were subsequently broken in 2019. Intense flooding that began earlier in the year sparked coordination between the District, the NWS, Hennepin County Emergency Management and all 29 of the District’s communities to share information on areas with high flooding potential in order to better manage storm impact. By August, precipitation had broken 2014 records, and November marked precipitation for the year at 11.25 inches above average.

This record precipitation and related flooding sparked intensive community discussion around Lake Nokomis, where some residents were experiencing unusual flooding, and around planning for the future of the Hiawatha golf course. The MCWD served as a technical convener to address these issues in partnership with the City of Minneapolis, Minneapolis Park and Recreation Board, Hennepin County, Department of Natural Resources, United States Geological Survey, and the University of Minnesota. The MCWD produced a white paper presenting data and analysis of the Lake Nokomis area groundwater and surface water issues, and the University of Minnesota provided third party review of this paper. A productive town hall meeting to discuss the paper was held in May 2022.

Minneapolis Planning (2017 MPRB & Mpls MOU and 2020 Minnehaha Parkway)

In fall of 2014, the District began to make assessment of flood damage that had occurred on the six major creeks of the watershed during the intense flooding that spring and summer. In light of the findings, the District applied to and secured \$500k in FEMA funding assistance for creek repairs.

Within the Minnehaha Creek sub-watershed, the District entered into a Memorandum of Understanding with both the City of Minneapolis and the Minneapolis Parks and Recreation Board to undertake integrated project planning of work. A key feature to facilitate this work was map sharing, where priority sites could be identified and shared mutually to develop the scope of work.

Throughout the watershed, the project scope focused on stream bank repairs, especially those damaged by the high water flows of 2014 and 2015. Initially, 47 damaged sites were identified for repair, a number that was narrowed down to 11 priority sites given that several had been able to self-repair over time and others were targeted for MPRB work in the future.

Richfield Taft-Legion Development

The Taft-Legion project concerned the drainage of 1500 acres of land into Lake Nokomis, a partnership initiated by the City of Richfield. A Memorandum of Understanding was signed in 2010 that detailed key project goals to guide communication, and a cooperative agreement was completed in 2012 to further develop the partnership.

The 1500 acres that the project targeted comprised nearly 60% of the Lake Nokomis drainage area. Project features included a water reuse irrigation system and infiltration system, as well as native prairie restoration and buffer strips, pretreatment basins, grit chambers, and a flocculation treatment feature for Taft Lake internal loading. These extensive measures all worked together to improve storm water quality flowing into the Lake and creek, and were estimated to remove 187-482 lbs. of phosphorus runoff every year as well as a 130-280 acre ft. in volume reduction. These results would aid TMDL reduction goals assigned to sources even outside of the City of Richfield.

The City financed the project with \$2.7 million in bonds, and provided for operations and maintenance costs, while the District agreed to make the payments on the bonds through its annual capital improvement levy.

Despite efforts to clarify project goals and communication by use of the MOU and cooperative agreement, the project experienced ongoing problems and significant failure to achieve the project's performance goals. Poor historic data on nutrient concentrations that were meant to guide project design caused setbacks, and mechanical issues complicated volume reduction goals. The MCWD and the City of Richfield agreed to have the project reviewed by a different engineering firm and discussions to address these problems are ongoing.

Bushaway Road Development

The reconstruction of the intersection of Highway 101 and Bushaway Road took shape as a multi-partner project with Hennepin County, the City of Wayzata, and the City of Minnetrista. Out of these partners, a task force was assembled. Initially, the project was sparked by the City of Wayzata's work to handle a large lakefront surface parking lot, but then grew to address making the lakefront a proper comprehensive expression of the city's relationship with the lake and to integrate recreational and ecological value to the community.

Implementation of this vision involved the use of native plants and extensive bioengineering work to stabilize the shoreline. This reduced erosion, encouraged infiltration of storm water, provided habitat for native wildlife, and improved the overall aesthetics of the area. Throughout the project, the community voiced positive support, and participation at public meetings hosted by the District were constructive in addressing concerns and providing a platform for question and answer.

Meadowbrook Project

The Meadowbrook Project was envisioned as a joint-partnership with the Minneapolis Parks and Recreation Board for golf course redevelopment and creek restoration. The concept involved restoration of the Meadowbrook Golf Course so that the Course could handle high water events without extensive damage. Additionally, 7-9 acres of wetland restoration and creek re-meandering at the Course would continue District work along Minnehaha reaches 19 and 21.

A cooperative agreement was signed with MPRB in 2015, which outlined scope of work and mutual goals to facilitate communication during the project. The project included a budget total of \$9 million, with the District work totaling \$1.5 million. The MPRB decided not to go forward with the project as it further contemplated budget and golf course policy issues.

Master Water Stewards Initiative

In 2013, the District contracted with the Freshwater Society in a grant agreement with the Board of Soil and Water Resources to implement the newly developed Master Water Stewards program. Developed by the Freshwater Society, the program was modeled off the Master Gardener's program and aimed to educate individuals who could then encourage and teach others in their communities how to effectively manage stormwater on their own properties and promote the message of water resources stewardship.

Candidates go through a program of extensive training and practical implementation. Based in social networking, the program curriculum was designed to broaden the implementation strategies used to meet the Clean Water Act Municipal Separate Storm Sewer System requirements for cities and the District. Upon completion, candidates receive a certificate that authorizes them as Master Water Stewards, creating a pool of volunteers and educators throughout the District communities.

In its first year, the program focused on the Chain of Lakes area and eastern region of the watershed, with the focus moving westward across the District over the following years. Statistics from the first year indicated that over 4,761 gallons of water had been captured in a one inch event alone, using the 14 Best Management Practices constructed by and in collaboration with the Master Water Stewards. Additionally, 7542 feet of drainage area was captured. Freshwater Society assumed full responsibility for the program in 2019 (check), and to date, 277 master water stewards have undertaken over 80 projects and have contributed to infiltration of over 1 million gallons of stormwater.

Reflections and Lessons Learned

1. Leadership matters

Careful attention to staff leadership and personnel generally can transform the organization's culture, resiliency, and capacity for success. The MCWD committed several years to organizational change, refocusing on mission, vision, and building human resources planning from that central focus. This commitment, and attention to several years of strategic changes, has led to improved staff morale, focused and disciplined staff, and greater capacity to pursue significant projects.

2. Balanced Urban Ecology principles are effective

MCWD can achieve much more resource protection by working in partnership with key land use actors including cities and private developers. The commitment to focused attention on a priority area of the watershed, sustained cultivation of trusted relationships, and collaboration with partners to integrate community, land use, and water resources goals has demonstrated tangible results.

3. Without risk there are no rewards. So calculate and take risk wisely.

A thorough risk analysis and staff engagement before launching new projects can help to avoid a misdirection of MCWD resources. Unplanned opportunities may present themselves, but it is worth pausing amidst fresh exuberance to carefully identify and evaluate a proposal's potential risks – financial, technical, political – before committing resources to it.

4. It takes more than relationships

Investing in trusted relationships is critical, but relationships alone are not enough. MCWD is most impactful when we have an optimized blend of sound science justifying our work, we integrate outside considerations (land use) to maximize benefit of our actions, we assess risks, and develop relationships and support at all levels needed to be successful.

5. Maintain a culture of self-critical reflection

Our organization thrives in a culture of transparency and openness to critical review. Continued mutual assessment and reflection is essential for a culture of learning and self-awareness. This learning culture requires openness about mistakes, so that failures are understood as opportunities to grow, and thereby contribute to our continuous improvement.

6. Culture may beat strategy. But strong culture and clear strategy are unbeatable

Success over the long term comes from an energized team who believe in the mission and understand how to achieve it. With one of the most important organizational resources being human resources, having cultural values to guide talented driven people chasing bold vision with a clear strategy is a difference maker.