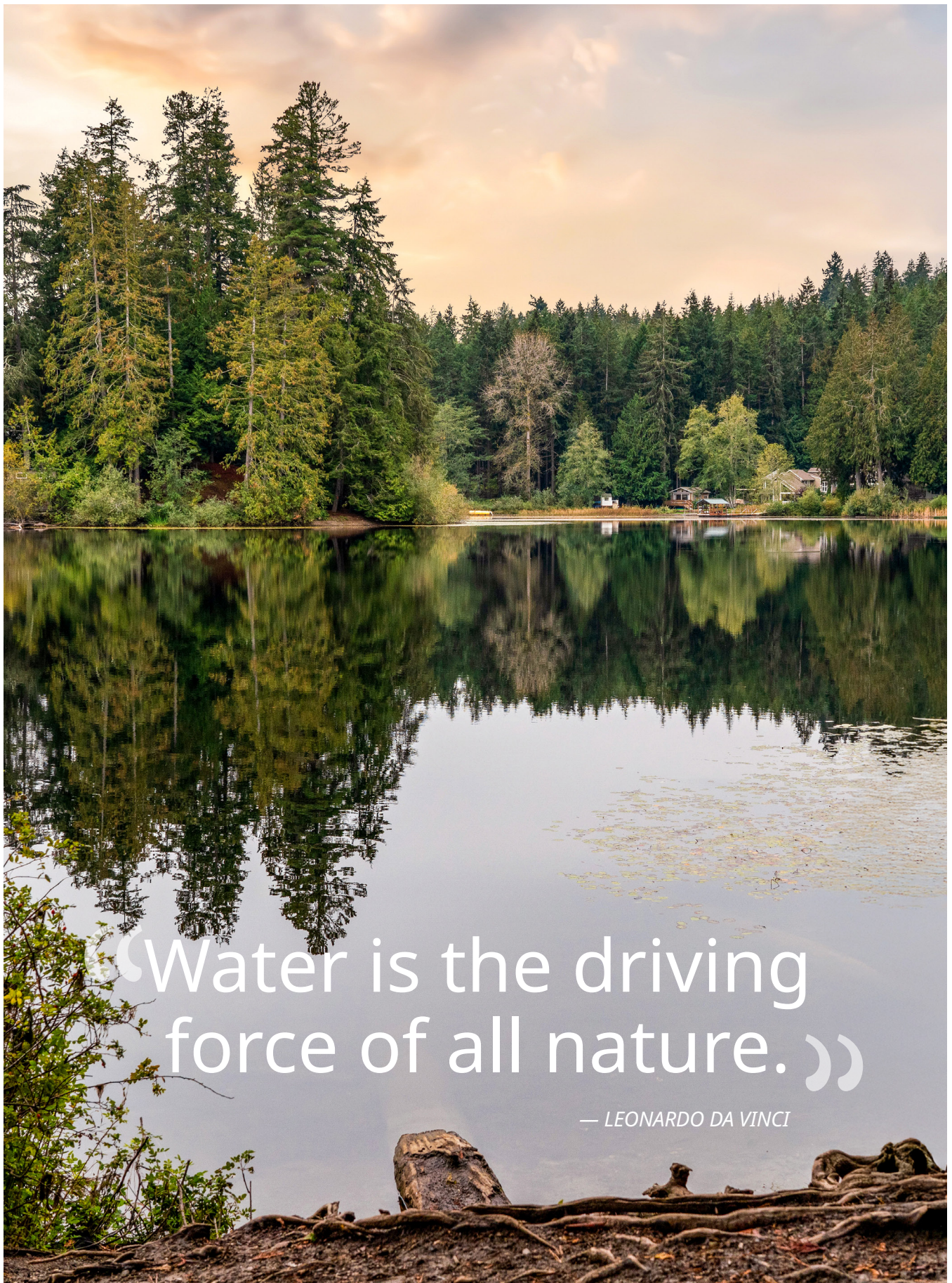




Kitsap County Public Works
Stormwater Division

5-Year 2025-2030 Strategic Plan



“Water is the driving
force of all nature.”

— LEONARDO DA VINCI

Executive Summary



As Senior Program Manager of the Kitsap County Public Works Stormwater Division and a proud resident of this beautiful region, I am excited to introduce our new 5-Year Stormwater Strategic Plan.

Kitsap County is a remarkable place, featuring over 250 miles of coastline, vibrant salmon-bearing streams, and the expansive beauty of Hood Canal and Puget Sound. With years of experience and specialized knowledge, Kitsap County Stormwater has established itself as a driving force in the industry, committed to innovative solutions that manage stormwater runoff, mitigate flooding, prevent pollution, and restore vital habitats. These essential efforts protect the health of our citizens and the integrity of our waterways while supporting sustainable development and recreational activities.

We back these goals with our internal strategies, fostering a culture of accountability and fiscal responsibility, promoting innovation and continuous improvement, and developing a dedicated team committed to providing excellent service to our expanding community.

Three years ago, we embarked on a journey to define our program's direction with a 3-Year Strategic Plan focused on continual improvement. I'm proud to say that we have successfully achieved most of those goals, laying a strong foundation for the future.

Over the past year, we have engaged with experts, considered the needs of our overburdened communities, and integrated the latest science into our planning process. The resulting 5-Year Strategic Plan not only aligns with the new 2024-2029 NPDES Permit but also sets ambitious goals to enhance our services and foster resilience in our environment.

This plan emphasizes our commitment to continuous improvement, both in how we serve our community and in cultivating a supportive work environment for our dedicated staff. We believe that when our employees thrive, so does our capacity to deliver exceptional service.

As we move forward, we are committed to transforming insights into actions that will create a sustainable future for our community, our environment, and ourselves. Together, let's embrace this journey and continue to make Kitsap County a place we are proud to call home.

Michelle Perdue | Senior Program Manager
Kitsap County Public Works | Stormwater Division

“Effective leadership in water management means safeguarding our future by valuing water as the precious resource it is, ensuring every drop is wisely managed for the benefit of communities and ecosystems alike.”

-Susan Leal, author of “Running Out of Water”



MISSION

Protect, sustain, enhance, and restore the quality of Kitsap County's surface waters to protect human health, support economic growth and recreational activities, and sustain a healthy natural environment.



VISION

Be a recognized leader in sustainable stormwater management by adapting to environmental change, mitigating human impacts upon our watersheds and treating water as a resource.

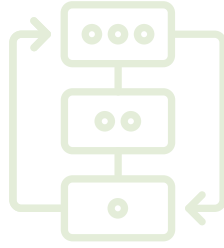


VALUES

- Trustworthy
- Responsive
- Accountable
- Innovative
- Service-driven
- Efficient
- Just, Equitable, Diverse, Accessible & Inclusive

“There is no power for change greater than a community discovering what it cares about.”

— MARGARET J. WHEATLEY



How This Plan Was Developed

The regulatory framework for our Stormwater Management Strategic Plan is established by federal and state mandates. Under the Clean Water Act, the EPA creates and enforces federal stormwater regulations. The EPA's National Pollutant Discharge Elimination System (NPDES) sets the permitting requirements for various types of pollution discharges.

In Washington, the Department of Ecology is responsible for developing and administering NPDES municipal stormwater permits, including the Western Washington Phase II Permit. This Permit mandates that local governments manage stormwater runoff to prevent pollution in downstream waters. The current permit is in effect from August 1, 2024, to July 31, 2029.

This Stormwater Management Strategic Plan is designed to serve as a roadmap for the Division's decision-makers to implement a proactive, compliant, and sustainable stormwater management philosophy. The goals and objectives in this plan guide our annual work plans and illuminate a course that focuses on maintaining compliance and implementing policies that protect our precious natural resources and enhance Kitsap residents' quality of life.

Our strategic planning process is a collaborative effort that actively engages the entire Stormwater Division. We held dedicated sessions to gather valuable feedback from all team members, ensuring that we integrated diverse perspectives. This inclusive approach allowed us to create a comprehensive strategy that reflects the collective expertise and insights of the entire Division.

Strategic Planning Team

Michelle Perdue, Senior Program Manager
Shawn Alire, Retrofit and Asset Manager
Steve Downing, Maintenance and Operations Supervisor
Aislin Gallagher, Monitoring and Outreach Manager
The Kitsap County Stormwater Division Team



Plan



Challenges Affecting Our Division



New Permit Conditions

Kitsap County's stormwater program follows the rules set by our NPDES Municipal Stormwater Phase II Permit. These permits are renewed every five years and focus on keeping our water clean by preventing pollution in streams, lakes, and marine waters. Although we are meeting all the requirements of our 2019-2024 permit, the new Permit has some important updates and additional requirements:

Stormwater management for existing development:

We are required to implement a new program to control or reduce stormwater discharges from areas of existing development. This program focuses on strategic stormwater investments over longer planning horizons, requiring targeted system retrofits to address flow control and treatment.

Tree canopy cover

Tree cover is an important Best Management Practice (BMP) for stormwater that can help control the amount and quality of water runoff. We must adopt and implement new goals and policies for tree canopy cover to enhance stormwater management and improve water quality in receiving waters; including mapping properties with tree canopy cover in relation to existing stormwater infrastructure, as well as identifying tree canopy coverage for overburdened communities.

Actions to address pollutants of emerging concern (PCBs, PFAS & 6PPD-q)

The Permit adds several new actions to address specific pollutants like polychlorinated biphenyls (PCBs), per- and polyfluoroalkyl substances (PFAS), and 6PPD-quinone at their sources:

- » **Implement public education initiatives to reduce pollutant discharges while washing down buildings that may contain PCB materials.**



- » Collaborate with local firefighting agencies/departments to develop a PFAS management plan to reduce PFAS-containing firefighting foam discharges into the stormwater system.
- » Establish a street sweeping program to enhance water quality in receiving waters and track metrics to measure success.

Environmental justice

Environmental justice is addressed in several sections of the new Permit, which updates the definition of “overburdened communities” to match the Washington HEAL Act. The Permit adds new requirements to:

- » Report on how these communities were engaged in public involvement opportunities and methods used for identifying these populations.
- » Design outreach and behavior change campaigns to prioritize overburdened communities.
- » Map overburdened communities in relation to stormwater infrastructure, ensuring their needs are considered in stormwater planning and the development of the Stormwater Management Action Plan (SMAP).

New mapping requirements

New mapping methods are required to assess the basins that discharge to outfalls or our stormwater treatment and flow control Best Management Practices (BMPs).

Cost tracking of Permit implementation

One of the most significant operational changes in the new Permit includes requirements to track and report our annual average costs associated with implementing each Permit element.

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Divisional Capacity

Capacity refers to an organization’s potential to perform effectively, focusing on how well we can leverage our talent and resources to achieve our goals and meet stakeholder expectations. We measure our capacity by our ability to implement, track, and manage our desired outcomes, identify future opportunities, and utilize our human, financial, and other resources for positive change.

In a fast-changing environment with increasing demands, stricter regulations, and limited resources, managing our Division’s capacity is a challenging balancing act. The needs we face today differ significantly from those of the past, creating unique challenges that we must overcome to meet our goals, service standards, and adapt to change effectively.

We have identified several significant challenges that put a strain on our capacity. Tackling these challenges is essential as we set our five-year goals. By focusing on these key areas, we can enhance our Division’s ability to handle both current and future challenges.



Staffing

Recruiting and retaining staff is a significant challenge in our industry. High turnover leads to lost time and costs associated with hiring and training, disrupts core services, and impacts team morale. The factors that attract employees today are different from a decade ago, so we must evolve our workplace to stay competitive. Over the past three years, we've focused on enhancing our workforce programs and workplace culture, but more work is needed.

In the short term, we are placing an emphasis on developing our internal talent and fostering a culture of innovation and recognition, ensuring that Kitsap County remains a preferred employer.

Knowledge

As our team and work environment change, we risk losing decades of institutional knowledge. Our current data storage systems are complex and disorganized, making it hard to find and access important information. This affects the efficiency of daily operations, difficulties onboarding new employees, and can lead to knowledge loss when staff leave or retire. Preserving this knowledge and creating a straightforward, comprehensive data storage system is essential for our efficiency and accuracy.

We have identified immediate tasks to tackle, such as improving onboarding processes to ensure all employees start with the same foundational knowledge, establishing succession planning to capture and transfer historical knowledge, and enhancing our data storage systems.

Aging Infrastructure

Much of the critical infrastructure added during Kitsap County's last major building boom in the 1980s is now nearing the end of its lifespan. While some repairs or replacements can be done in-house, many will need to be contracted out, which can be expensive and time-consuming due to market conditions.

In the short term, we're prioritizing the development of a comprehensive asset management plan to guide our efforts. This includes an 18-month project to establish a Strategic Asset Management Plan for the Division, create templates for individual asset plans, and train staff on how to use and manage this data effectively.

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Emerging pollutants of concern

In addition to well-known pollutants like metals, oils, nutrients, and trash, new pollutants are becoming significant challenges for water quality, particularly those transported by stormwater. Recently, 6PPDq, a chemical found in tire breakdown products, was identified as a major factor in the pre-spawn mortality of Coho salmon. This discovery, along with other "chemicals of emerging concern" (CECs), has gained attention from the public and stormwater managers, prompting discussions on how to reduce these pollutants in urban runoff.

Some of these CECs are already being regulated, and more are expected to be added in the future. This will require our Division to implement further measures to manage their impacts. We are working with local and regional jurisdictions to address these emerging pollutants collaboratively where possible. Additionally, we are closely monitoring research and engaging in discussions with stakeholders—including local jurisdictions, regulatory agencies, and environmental advocates—to explore possible responses and strategies.

Climate change and increased severe weather events

The impacts of climate change are just starting to become clear. Climate models indicate that Kitsap County can expect rising sea levels to affect developed areas and stormwater infrastructure, potentially leading to local flooding and system failures. Additionally, severe weather events—such as more frequent and intense storms and higher temperatures—are already on the rise and will continue to increase.

We are beginning to assess how these changes will affect our operations and service levels and working with County Comprehensive Planning efforts to develop comprehensive climate change resiliency actions.



5 Finding Our Focus

Our Five-Year Plan Outlines Several Important Focal Areas:



NPDES Permit Compliance: Implementing the requirements of the County's National Pollutant Discharge Elimination System (NPDES) permit.



Environmental Protection: Creating an environment where communities, citizens, and natural habitats can thrive.



Workforce Development: Maintaining a skilled and innovative workforce as our responsibilities evolve.



Operational Improvements: Strengthening and updating our key processes, guidance documents, and codes.



Transparency and Accountability: Demonstrating our commitment to operational transparency and fiscal responsibility.



Agility and Responsiveness: Positioning ourselves to adapt quickly to changing conditions and seize emerging opportunities.

5-Year Plan Goals – A Plan for Action

As each goal is complete, the remainder will move up the list for prioritization in future years.

- 1. Implement the requirements of the 2024-2029 NPDES Permit**
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- 2. Develop a system to track the costs of implementing our Stormwater Program**
- 3. Create a long-term strategy for workforce retention and succession planning**
- 4. Evaluate the Division's current capacity and ability to meet projected needs for the next 5 years**
- 5. Identify the Division's heavy equipment needs over the next 5 year**

2025

- 6. Help the public understand the importance of our invisible infrastructure**
- 7. Improve our internal systems and processes for better communication and efficiency**
- 8. Create and implement a system to identify and plan for possible emergency scenarios**
- 9. Identify and maximize information sources for climate change impacts**
- 10. Implement and update the Strategic Plan to continue the improvement of our Division**





Where Do We Start?

Programmatic Priority Goals



Under One Umbrella: Implementing the NPDES Permit

Kitsap County Stormwater is recognized as a regional leader in innovation, environmental protection, and award-winning programs and projects. However, our stormwater program is fundamentally based on the requirements outlined in the NPDES Permit. The 2024-2029 Permit introduces many new elements, and we will develop and implement the necessary programs and processes over the next five years to meet these requirements.

The following objectives, outputs, and measures of success are essential to our multi-year goal of implementing the NPDES Permit. We will also integrate additional Permit objectives into our other strategic goals, ensuring comprehensive tracking and compliance across all initiatives. These elements, combined with other goal-related measures, will guide our progress and enhance accountability.

Primary Objectives:

- Internal Coordination: Collaborate internally to ensure actions meet NPDES Permit requirements
- Enhance CMMS and Mapping: Evaluate and improve the stormwater Computerized Maintenance Management System (CMMS) and mapping capabilities to align with Permit needs and enhance efficiency
- Stormwater Retrofits: Implement a suite of stormwater retrofits guided by the Stormwater Management Action Plan and emerging opportunities
- Strategic Plan Integration: Integrate specific Permit metrics into related strategic goals and initiatives to ensure comprehensive compliance and performance evaluation



Goals



Key Outputs:

- Enhanced GIS and CMMS: New GIS layers and an upgraded computerized asset maintenance management system (Cartegraph)
- Targeted Retrofits: 6-year Capital Facilities Plan and annual Retrofit Plans including a targeted suite of retrofits
- Other Outputs: Additional Permit-required outputs as outlined in related strategic goals and initiatives



Measuring Our Progress and Success:

- Key Deadlines Met: Successfully met all Permit deadlines, including Annual Permit reporting and the establishment of revised County Code(s)
- GIS and CMMS Integration: Completion of GIS mapping enhancements and the integration of upgraded CMMS to effectively track stormwater infrastructure and maintenance
- Targeted Retrofits Completed: Achieved the required amount of stormwater retrofits
- Other Performance Targets: Additional Permit-required targets as outlined in related strategic goals and initiatives

Create a simple, standardized process for tracking stormwater program costs

We will create a straightforward, comprehensive process to accurately track the costs associated with each aspect of our stormwater program. This will equip us with the ability to conduct a thorough and objective review of our efforts and results, enhance efficiency, comply with NPDES Permit requirements, and provide transparency to ratepayers regarding program costs.



Primary Objectives:

- Assess Current Systems: Review our existing systems and capabilities to identify gaps in the process
- Cost Tracking Plan: Develop a plan to start tracking the costs of program implementation
- Stakeholder Engagement: Identify stakeholders, create a project timeline, and develop a communication and change management strategy
- Standard Operating Procedures (SOPs): Create SOPs to standardize time and cost tracking
- Implementation and Training: Roll out the process and provide comprehensive training to all staff
- Reporting Metrics: Create and implement metrics for reporting

Key Outputs:



- Systems Gap Analysis: Report identifying gaps in current systems
- Implementation Plan: Detailed plan for tracking costs
- Cost Tracking SOPs: Standard procedures for tracking costs
- Communication/Change Management Plan: Strategy for engaging stakeholders and managing changes
- Training Sessions: Training for staff and stakeholders on the new processes

Measuring Our Progress and Success:



- Increased Accuracy: Enhanced accuracy in tracking time and costs for individual program element
- Universal Cost Tracking: All program elements include a cost-tracking component
- Improved Cost-Benefit Analysis: Better capability to perform cost-benefit analyses to prioritize limited resources
- NPDES Compliance: Achieve NPDES Permit deadline for reporting program costs

Create a strategy for managing our human and information assets

Investing in our dedicated and skilled staff is one of our top priorities. By creating plans for workforce development, succession planning, and effective onboarding of new employees, we aim to be an employer of choice and retain the talent that keeps us innovative. Similarly, managing our information assets well will help us work efficiently and preserve important knowledge for the future.

Primary Objectives:



- Succession Planning: Develop a process that creates career advancement opportunities for staff and ensures smooth operations during transitions
- Enhance Division Culture: Focus on maintaining a positive workplace culture and improving employee engagement
- Regular Group Meetings and Team Integration: Continue hosting All Hands meetings, cross-team collaboration opportunities, and other team-building events
- Standardized Onboarding: Create a comprehensive onboarding process for new employees to ensure a smooth and consistent experience
- Streamlined Information Management: Improve how we store and access information to make it easier for everyone to find the knowledge they need
- Employee Involvement: Provide opportunities for staff to participate in key planning efforts such as this 5-Year Strategic Plan



Key Outputs:

- Succession Planning Process: A clear process for career advancement within teams and key positions
- Onboarding Plan: A standardized plan for integrating new employees into the team
- Information Management Plan: A streamlined process for managing and storing information assets
- Strategic Plan: Team feedback and participation intervals included in strategic planning process



Measuring Our Progress and Success:

- Employee Retention: Increase in employee retention and a decrease in turnover rates
- Smooth Transitions: Faster and easier onboarding and succession for new and promoted employees
- Job Posting Engagement: Higher staff awareness of and engagement in internal job postings
- Internal Promotions: More internal hires and promotions of qualified candidates
- Improved Access: Reduced time and frustration in accessing and storing information
- Team Feedback: Input from the team is included in the 5-Year Strategic Plan

By focusing on these objectives, we'll ensure our staff feels valued and supported while also enhancing our ability to manage critical information effectively.



Evaluate the Division's capacity and ability to meet needs

As the region and our service area grow, the Division faces increasing demands to meet various needs while adhering to regulatory and service level requirements. To navigate these challenges effectively and maintain our leadership in industry innovation, we must strategically assess our capacity. This involves a thorough evaluation of how well we are meeting current needs, our preparedness for future growth, and the areas where we need to invest.

Primary Objectives:



- Evaluate Current Capacity: Assess our current program capacity, level-of-service needs, new regulatory requirements, and anticipated growth
- Gap Analysis: Identify areas where we may need additional capacity over the next five years
- Resource Needs: Determine any changes required in staffing, equipment, or technology, and identify opportunities for increased efficiency
- Quantify Work Disruptions: Analyze work stoppages and bottlenecks caused by inadequate equipment or breakdowns
- Fleet Evaluation: Review our fleet of equipment for end-of-service dates, identify additional needs, and ensure that replacements are budgeted appropriately

Key Outputs:



- Capacity Gap Analysis: Detailed analysis of capacity gaps
- Recommendation Report: Outlining recommended strategies for addressing identified needs
- Operations Budget: Budget that accounts for necessary staffing, maintenance and improvements

Measuring Our Progress and Success:



- Service Standards: Established utility level-of-service standards are maintained
- Regulatory Compliance: Full compliance with all elements of the 2024-2029 NPDES Permit
- Deficiency Reporting: Any deficiencies in the program's ability to meet regulatory requirements and current service standards are detailed
- Improvement Recommendations: Provide a report of recommendations for improvements, along with actions taken for implementation
- Revenue Secured: Sufficient revenue is secured to support necessary capacity improvements

Update our key Divisional Guidance Plans, Documents, and County Code

In addition to the NPDES Stormwater Permit, the Division is guided by multiple guidance documents, plans, and local regulations, including the Strategic Plan, Stormwater Comprehensive Plan, Stormwater Management Action Plan (SMAP), and County Code. Our regulatory landscape is continually evolving alongside advancements in scientific knowledge, stormwater management practices, and community needs. These changes require our plans, systems, and local regulations to adapt accordingly.

Primary Objectives:



- Evaluate Existing Plans and Code: Review current documents and identify necessary updates
- Revise County Code: Update key areas of the County Code, including Low Impact Development (LID), Illicit Discharge Detection and Elimination (IDDE), and Source Control, to incorporate new NPDES Permit requirements
- Update Key Plans: Revise or create essential Divisional plans and tools, including the Stormwater Comprehensive Plan, Overburdened Communities Equity Tool, Operations & Maintenance Manual, Tree Canopy goals, and SMAP
- Develop New Protocols: Create plans and protocols to address emerging pollutant requirements, such as PFAS, PCBs, and 6PPDq
- Ensure Compliance: Align our program with the Kitsap County Comprehensive Plan

Key Outputs:



- Gap Analysis: Detailing needed updates and new plans, protocols, or code revisions
- County Code Updates: Developed and updated Kitsap County Code.
- Revised Plans: New or updated plans and documents
- Street Sweeping Program Plan: Detailed plan and report for the new Street Sweeping Program, including Permit-required metrics
- Firefighting PFAS Management Plan: Strategy for managing PFAS discharges from firefighting activities
- Updated Policies: New or revised policies and procedures

Measuring Our Progress and Success:



- Regulatory Compliance: Key stormwater guidance documents and codes meet regulatory requirements and align with the latest scientific knowledge and best practices
- Reaccreditation: Achieve successful reaccreditation from the American Public Works Association (APWA)
- Timely Reporting: Achieve NPDES Permit reporting requirements for new regulatory code, policies, procedures, and plan updates on schedule



Goals



“ Water may bend, but it never breaks.
Be like water—stay strong and adaptable.”

— ANONYMOUS



Future Goals:

Navigating Our Path Forward

Over the next five years, we will also focus on these important initiatives for improvement:

- **Create Public Awareness:** Develop and launch a campaign to educate the public about the connection between their stormwater fees and the importance of invisible infrastructure
- **Long-Term Equipment Planning:** Identify our heavy equipment needs for the next five years to prevent work interruptions and bottlenecks, ensure compliance with regulatory requirements, and prepare for future growth
- **Enhance Internal and Interdepartmental Communication:** Improve communication within the Division and with other County Departments to boost efficiency and accountability
- **Improve Existing Tools:** Leverage the Cartegraph system to streamline interdepartmental communication and notifications, enhancing overall efficiency
- **Emergency Preparedness Planning:** Identify potential emergencies and create a plan to ensure rapid response capabilities during crises
- **Climate Change Research:** Identify and utilize reliable scientific information sources to assess potential local impacts of climate change, aiding in the development of a long-term Stormwater Resilience Plan
- **Update the Programmatic Strategic Plan:** Continuously implement and refine the Programmatic Strategic Plan to support ongoing improvements within the Division



Planning For The Future

Our leadership team will utilize this Plan to shape their annual work plans. By aligning these work plans with our overall goals and objectives, we ensure that staff remain connected to and accountable for the Division's greater mission and vision.

This Plan is designed to align with the current NPDES permit cycle, which is valid until July 31, 2029 and runs for six years. Upon adoption, this version of the Stormwater Management Strategic Plan will take effect, with a planned update scheduled for 2028. As a living document, the plan may be revised at any time during this period if significant changes are required.

“I alone cannot change the world, but I can cast a stone across the water to create many ripples.”

— Mother Teresa



Our Future



Who We Are

The Stormwater Division has 36 positions that span a wide range of areas of expertise, from professional and technical staff to field operations crews. Together, this group forms a powerful ensemble that provides the Division the proficiency and capability to make Kitsap County one of the principal players in the stormwater management arena.

The Stormwater Division operates within four quadrants:

Administration

The Stormwater Program Manager, assisted by the Leadership Team—which includes the Monitoring and Outreach Manager, Retrofit and Asset Manager, and Operations & Maintenance Supervisor—oversees the Division's overall operations. Together, they achieve the Division's goals, including implementing the Strategic Plan, ensuring compliance with federal, state, and local regulations (such as the County's NPDES Stormwater Permit), and overseeing the Stormwater Capital Facilities Plan and budget.

Asset Management

This team focuses on inspecting public, private, and commercial stormwater systems to ensure they are functioning correctly. They respond to public concerns, maintain a comprehensive database of stormwater assets, and manage the repair or replacement of aging infrastructure. Additionally, the team designs updates and improvements to enhance the stormwater network's efficiency and reliability.

Water Quality

The water quality section relies on the collaboration between the County's internal team and the Clean Water Kitsap partnership to achieve its goals. Together, they focus on education and outreach, water quality monitoring, and addressing illicit discharges. This partnership ensures effective stormwater management by evaluating current practices, assessing water quality, and addressing issues like spills and illicit connections. They also raise public awareness about stormwater pollution, encourage behavior changes to protect water resources, and promote programs such as school-based education initiatives.

Maintenance and Operations

Field crews in this section maintain stormwater systems to ensure consistent functionality of infrastructure, including pipes, storm drains, and green infrastructure. Their work includes regular upkeep, repairs, and upgrades, as well as operating the County's decant facility at the Central Kitsap Treatment Plant. These efforts are essential for complying with stormwater regulations and keeping the system operating efficiently.



Many Hands, One Mission: Clean Water
Kitsap County Stormwater



Team



KitsapCounty