

2021-2026 Stormwater Capital Plan and 20-year Plan Strategy

Clark County Council Work Session

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October 7, 2020 9:00 AM



Work Session Goals and Agenda

Goals:

- ▶ Overview of 2021-2026 Six-Year Stormwater Capital Plan
- ▶ Introduction to 20-year Stormwater Capital Plan process

- ▶ Council Action: No action required – informational

Agenda:

- Permit Overview
- County Policies/Goals and Regulatory Requirements

Six-year Plan

- ▶ Priorities
- ▶ Project Types
- ▶ Funding
- ▶ Leveraging/Grants

20-year Plan

- ▶ Principles
- ▶ Strategies and Considerations
- ▶ Project Types
- ▶ Opportunities/Needs



Next Steps



NPDES Phase 1 Municipal Stormwater Permit

State and Federal law

- Federal Clean Water Act - EPA
- EPA delegates authority to Ecology
 - ▶ National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit
 - ▶ Regulates discharges to waters of the state
 - ▶ Updated every 5 years – current permit August 2019 – July 2024

Permit Compliance

- Led by Clean Water Division
- Supported by multiple divisions and depts
- Numerous requirements and criteria

Compliance is important!

- Public health, water body health, and quality of life
- Fines and third-party lawsuits

Program Components/ Requirements

- Storm sewer inventory
- Code and manual updates
- Watershed planning
- Source control and illicit connections Stormwater capital planning
- Stormwater facility maintenance
- Coordination with other jurisdictions
- Surface water and stormwater monitoring
- Education and outreach



Local Framework and Regulatory Requirements

Primary Policy and Goals

Policy:

- Meet Phase I Municipal Stormwater Permit requirements

Goals:

- Protect and enhance streams and wetlands
- Minimize stormwater impacts to receiving waters
- Maximize public benefits of county-owned lands

Regulatory Requirements

Phase 1 Municipal Stormwater Permit:

- Structural stormwater controls – prevent or reduce impacts to waters of state
- Stormwater Management Planning
- Maintenance and Operations

Underground Injection Control Program:

- County must address any drywells that pose a threat to groundwater

Growth Management Act:

- Capital Facilities Plan includes stormwater

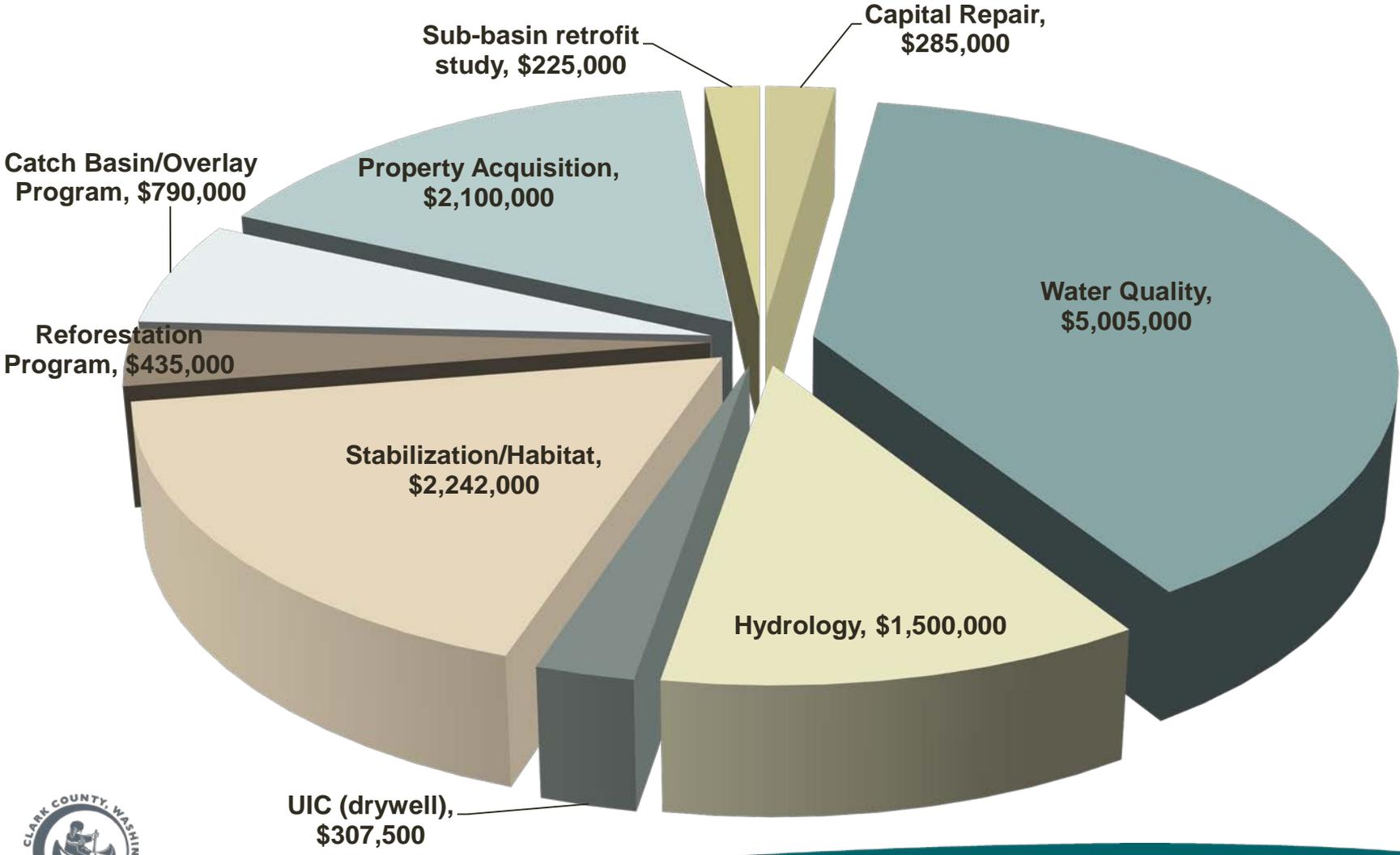


2021-2026 Priorities

- **Required capital repair projects (>\$25,000)**
- **Required Underground Injection Control (UIC) projects**
- **Water quality treatment in Suds Creek and Cougar Creek**
- **Whipple Creek hydrology and water quality treatment**
- **Ongoing Programs**
 - Catch basin treatment retrofits (coordination with HMA Overlay project)
 - Reforestation
 - Drainage basin retrofit studies
 - *Street Sweeping

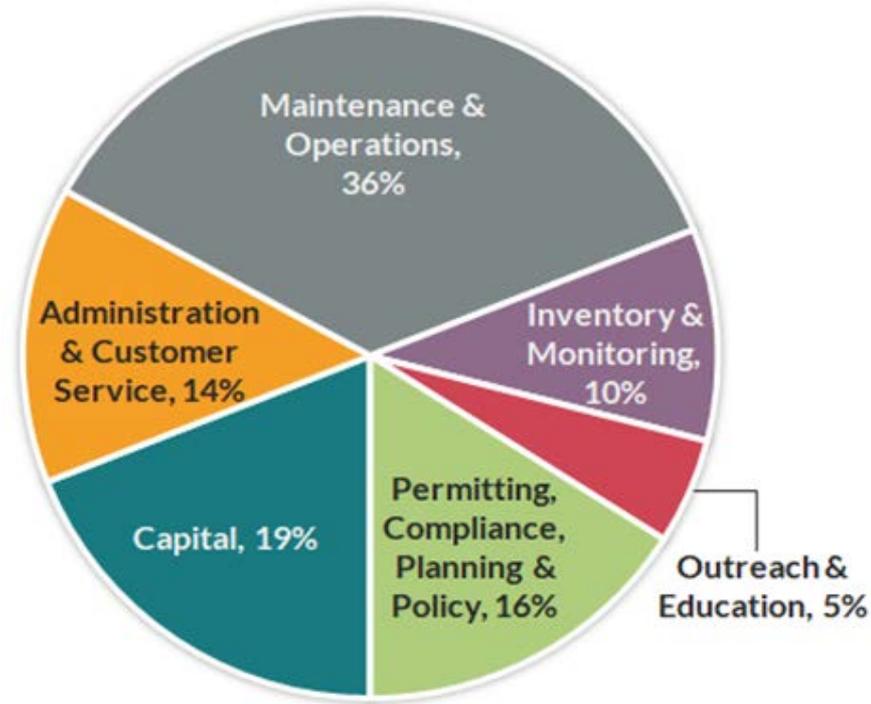


Project Types



\$12.9 Million Six-year Total

Funding



2020 Clean Water Adopted Budget

Total budget: \$8 million

Capital: \$1.5 million



Leveraging

- **County Lands**

- Legacy Lands acquisitions qualify for capital credit; Clean Water may contribute funding toward Parks or Legacy Lands purchases
- Reforestation program: 6-year target 30 acres of county-owned lands
- Heritage Farm headwaters restoration – capital credit and completes a component of the farm Master Plan without using general fund dollars

- **County Road Projects**

- Annually install treatment inlets ahead of overlay program
- Combine required UIC retrofits at Country Meadows with completion of Northeast 99th Street in 2022
- Ongoing coordination with CRP to leverage opportunities



Grants

History

- 2003-2019 grants provided 22% of funding for stormwater capital projects

2021-2026 Funding

- Funding awarded toward four projects: \$1,180,000 total

Current and Future Proposals

- \$500,000 additional grant for Heritage Farm – results in December 2020
- October 2020 – submit proposal for Northeast Highway 99 Water Quality Retrofit (~\$500,000)
- October 2021 – submit proposals for:
 - Northeast Hazel Dell Avenue Water Quality Retrofit (~\$400,000)
 - Cougar Creek 3 Enhancement (~\$500,000)



20-year Plan Strategy



Thomas Wetlands East, East Minnehaha Neighborhood



Overview

Team

- Seven county staff – Clean Water, Design, Operations, Community Planning
- Two Clean Water Commissioners – public input; professional expertise

Principles (six-year principles plus...)

- Support sound asset management
- Identify leveraging and collaborative opportunities
- Achieve measurable water quality improvements and protection
- Address deficiencies in drainage systems to reduce flooding

6-year vs. 20-year

- 20-year = long-term, proactive, planning and prioritization; the “menu”
- Six-year = short-term needs and requirements; the “meal”



Strategies and Considerations

Strategic Investment

- maximize positive impacts by investing in the most effective projects and programs

Sustainability

- focus on holistic watershed health rather than “projects of opportunity”

Adaptability

- develop a broad range of projects and programs that can adapt to changing needs and regulatory environment

Leveraging and Partnerships

- continue and expand internal and external partnerships to leverage stormwater dollars for the greatest benefit

Population Growth/Climate/Environmental Justice

- incorporate long-term projections into project prioritization
- address state objectives to assist overburdened communities



20-year Project Types

Same as current six-year plan

- Capital Repairs >\$25,000
- Water Quality and Hydrology Retrofits
- Underground Injection Control (UIC)
- Stream Stabilization, Habitat, and Fish Barrier Removal
- Reforestation
- Property Acquisition for Stormwater Benefit
- Sweeping Program

Need for New Programs

- **Repair of Aging Infrastructure**
- **Conveyance System Inspection and Repair**
- Drainage Improvements/Flood Reduction
- Enhanced Sweeping



Opportunities/Needs

Conveyance System Inspection and Maintenance

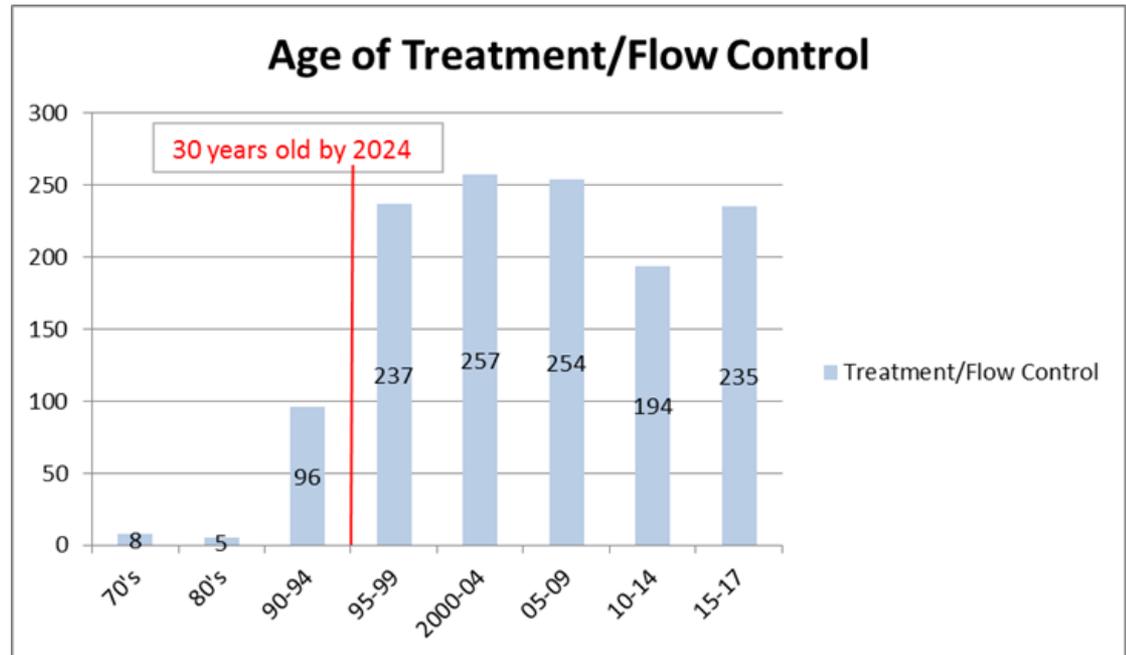
- 400 miles of stormwater pipe dating to 1952
- No current inspection program
- \$750,000 in emergency repairs during 2019-2020

Need:

- Invest in pipe inspection
- Prioritize proactive repairs
- Include in 20-year and 6-year capital plans

Repair of Aging Infrastructure

- Within 20 years over 800 treatment and flow control facilities will be at least 30 years old
- High-cost repairs or replacement will increase



Next Steps

Six-year Plan

- Incorporate Feedback from Clark County Council
- Adoption on November 3, 2020

20-year Plan

- Incorporate Feedback from Clark County Council
- Re-convene planning team in 2021
 - Program development, prioritization, project matrix
- Council adoption – Q3 2021



20-year Stormwater Capital Opportunities Summary

DESCRIPTION	NEED/OPPORTUNITY	FUNDING
ASSET MANAGEMENT		
CAPITAL REPAIRS >\$25,000/TREATMENT & FLOW CONTROL REPLACEMENT		
Repair required by Permit	Twelve (12) repairs not currently programmed	Within current revenues
Repair required by Permit when fail, or systematically replace	850 Treatment and Flow Control facilities aged 30-60 years by 2040	No funding identified
CONVEYANCE SYSTEM INSPECT AND REPAIR		
400 miles existing piped stormwater conveyance Aged to 1952	Current complaint or emergency only	Current budget \$50,000/year
No existing inspection or replacement	Inspection/Repair Program needed - \$750,000 capital investment - 2-3 FTE staff investment	Fund balance held for initial capital outlay No funding identified for repair/replace
RETROFIT PROJECTS		
WATER QUALITY and HYDROLOGY		
Add or enhance water quality or flow control practices in areas lacking or underserved	At least fifty (50) identified not currently programmed	Exceeds projected revenues
LARGE-SCALE CIP LEVERAGING		
Apply Clean Water dollars to expand/enhance treatment or flow control for major CIP road projects	At least four (4+) current potential; high-dollar projects	No funding identified



20-year Stormwater Capital Opportunities Summary

DESCRIPTION	NEED/OPPORTUNITY	FUNDING
UNDERGROUND INJECTION CONTROL (UIC)		
Retrofit or Decommission required under UIC regulations for all High-Threat drywells	Sixteen to eighteen (16-18) wells not currently programmed	Within current revenues
DRAINAGE/FLOODING IMPROVEMENTS		
Install drainage infrastructure to alleviate flooding in areas that have no existing infrastructure	Nine (9) identified issues; high dollar projects	No funding identified
STREAM HABITAT RESTORATION		
Improve stream habitat and function	Three (3) priority projects not currently programmed; 9 additional identified	Grant-dependent; match within current revenues
REFORESTATION		
Enhance county properties with native vegetation for stormwater and environmental benefit	Current target to plant an average of six (6) acres annually	Within current revenues
PROPERTY ACQUISITION FOR STORMWATER BENEFIT		
Leverage Clean Water funds to assist Legacy Lands purchase properties from Conservation Areas Acquisition Plan	Opportunities identified through current and 20-year acquisition plans	Within current revenues
STREET SWEEPING		
Utilize Clean Water funds to provide arterial sweeping	Clean Water currently funds ~75% of annual arterial sweeping	Within current revenues
Provide enhanced sweeping program to maximize water quality benefit and reduce other maintenance costs	Enhanced sweeping program -\$250,000 per sweeper capital outlay -1 FTE staff investment per sweeper	No funding identified



Thank You!

Comments and Questions

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