

WATER AND LAND RESOURCES DIVISION CAPITAL IMPROVEMENT PROGRAM

Introduction to Program, Program Goals, and Key 2005-2010 Issues

The Water and Land Resources Division (WLRD) provides services that protect the quality of life, health, and safety of all citizens by promoting the conservation of land and water resources in King County. The WLRD Strategic Plan provides the vision and direction for the division's work, clarifies its core businesses, and establishes an organizational structure that supports the division's core work programs.

The WLRD Capital Improvement Program includes construction projects and land acquisitions implemented under a variety of programs and funding sources. These projects originate in each of the four core business areas: flood hazard reduction; stormwater; land and water stewardship; and rural and resource lands protection services. WLRD also implements capital projects and provides technical analyses for other DNRP and county clients where that work is strategically aligned to accomplish division goals.

Flood Hazard Reduction Services

The Flood Hazard Reduction Services core business goal is to protect public health and safety by minimizing flood hazard and damage to public and private property on major rivers throughout King County. This is accomplished through flood hazard reduction projects and programs, regulation and policy development, flood warning and emergency response, and disaster assistance programs. King County's state-approved Flood Hazard Reduction Plan (FHRP), developed with citizen advisory input and adopted by the King County Council in 1993, establishes criteria for prioritization of capital needs as well as recommendations for flood hazard reduction policies and regulations. Many additional federal, state, and local natural resource management policies and regulations, including the Endangered Species Act (ESA), guide King County's flood hazard reduction program's projects. The FHRP also includes a prioritized list of capital needs, as of 1993, that has been updated and supplemented primarily in response to flood events in 1995 and 1996 and in combination with new approaches to flood hazard reduction.

Stormwater Services

The Stormwater Services section oversees and plays an integral role in the county's management of stormwater quantity and quality that discharges from developed land surfaces. The goals are to ensure compliance with state and federal regulations pertaining to stormwater, protect health, safety, property, and aquatic life/habitat, and facilitate restoration of lost or degraded aquatic resources. This is accomplished through several linked programs and services including drainage investigation and facilities inspection,

engineering support and response, and regulation development and compliance. Stormwater Services responds to surface water management complaints and inquiries, develops and implements solutions to identified problems, develops stormwater regulations, inspects and maintains residential stormwater facilities, inspects privately maintained stormwater facilities, and manages the county's NPDES permit.

Land and Water Stewardship Services

Land and Water Stewardship Services (LAWS) facilitates the responsible use of land and water resources in King County by helping individuals, communities, businesses and governments learn about, care for, and restore private lands, watersheds and King County's natural resources. This is accomplished through *on the ground* service delivery and capital program support service which includes such diverse activities as the local hazardous waste management program, stewardship and regulatory compliance support programs for urban and rural properties, lakes, wetlands, and streams, groundwater education, and community events, grants and incentives. Capital support services include identification, prioritization of projects, application for grant funding where applicable, and providing implementation assistance for capital projects and acquisitions.

Rural and Resource Lands Protection Services

The Office of Rural and Resource Lands Protection Services programs support the core business of rural and resource lands protection and stewardship. This core business includes, but is not limited to, agriculture, livestock management, farmland preservation, current use taxation programs, forestry, the noxious weeds program, and rural economic development. The office coordinates the management of the county's natural lands and encourages environmental stewardship and is responsible for the interdepartmental coordination of the agricultural program, property management and site planning for the county-owned natural lands, and other rural and resource-based programs.

The capital programs include assistance to farmers and livestock owners in the installation of structures called for in farm plans to protect water quality and habitat, assistance to farmers in drainage improvements and the maintenance of agricultural ditches, and improvements to county natural land sites to protect resources and public safety.

Project Prioritization Methodology

Projects are first prioritized within each core business and funding source based on specific criteria by project. Factors of cost, effectiveness, feasibility, urgency, and community benefit are considered. The projects are then prioritized and scheduled across business lines by the management at the division from the beginning of the annual budget process. The focus of this second prioritization is optimization of the division's effectiveness across all business lines and funding sources.

Growth Management and Comprehensive Plan Issues

The projects included in the 2005 request address the Growth Management Act policy directives in accordance with the Adopted 2000 King County Comprehensive Plan. A number of policies refer to the capital program and capital projects while others are specific to the work of the division. Chapter 4, Environment, contains Policy E-126 which states that stormwater runoff shall be managed through a variety of methods to limit impacts to aquatic resources, protect and enhance the viability of agricultural lands, and promote groundwater recharge. Policy E-128 requires that river and stream channels, stream outlets, headwater areas, and riparian corridors be preserved, protected and enhanced for their hydraulic, hydrologic, ecological and aesthetic functions, including their functions in providing woody debris sources to salmonid-bearing streams. In addition, policy E-168 states that King County shall use measures such as regulations, incentives, capital projects and purchase, to designate and protect fish and wildlife habitat conservation areas. Chapter 7, Facilities, lists resources and services that the county must provide: regional parks, trails, and preserved open spaces; water resource management, surface water management and flood warning, protection and preservation of natural resources.

Financial Planning and Policy Overview

Multi-year financial plans showing all revenues and expenditures for the present year, the prior year actuals, and a two year projection are maintained for each CIP fund. A six year plan is prepared annually to quantify the division's long term capital requirements in conformance with long-term comprehensive plans.

There are several funding sources for capital projects. Revenue for Flood Hazard Reduction Services capital projects is from a transfer from the County River Improvement Fund (Fund 105), Federal and State agencies, and the Green River Flood Control Zone District. This revenue is budgeted in the Surface and Stormwater Construction Fund 3180. Stormwater and Water Quality Services capital projects are funded from the Surface Water Management fee that is collected on tax parcels in unincorporated King County, and Surface Water Management Bonds. These revenues are collected and budgeted for expenditure in Fund 3290. This fund has several sub-funds, which prevent commingling of funds from separate sources.

Land and Water Stewardship projects are funded from numerous county fund sources. This is partially due to the integration of different business units and the variety of capital projects and programs being funded. Several stewardship projects are also supported by the Surface Water Management Funds (3290).

In addition to Fund 3290, the major county funds are the 1989 Open Space Bond Fund (3521) and Open Space Non-Bond Fund (3522), three Agriculture Preservation Funds (3840), the Working Forest Fund (3391), and the Conservation Futures Fund (3150). See the Conservation Futures and Open Space section for a discussion of the Conservation Futures Committee 2004 CIP Recommendations.

Asset Preservation

Water and Land Resources Division (WLRD) inspects and maintains storm water flow control facilities constructed by private developers and King County. Developers construct flow control and water quality facilities as part of new developments. These facilities are transferred to King County at the end of a two-year maintenance defect bond program. Due to the large number of facilities, they are inspected on a phased assessment schedule and maintenance work is performed by Department of Transportation Special Operations Crews. WLRD staff inspects privately owned multi-family and commercial flow control facilities, notifies owners of maintenance needs, and monitors maintenance completion. Surface Water Management fee discounts are granted to residents who maintain their facilities to performance design standards.

WLRD also inspects and maintains river levee systems that were constructed by the U.S. Army Corps of Engineers in the 1930s along the six major river systems that flood annually in King County. Annual river facility assessments and new approaches to flood hazard reduction maximize public health and safety and minimize flood hazards and damage to public and private property.

In addition, WLRD oversees county-owned natural lands, such as those acquired for forest preservation and aquatic habitat protection, or to increase the amount of river flood plain. The division installs bollards and gates to restrict access, posts "no trespassing" signs, and removes any hazards such as dilapidated structures. When access is breached, the division removes any substantial debris left by trespassers and squatters.

A summary of the various revenue sources is shown in Table A.

Table A: CIP Funds and Restrictions		
Fund No.	Fund Name	Fund Usage/Restrictions
3151	Conservation Future Levy	KCC Citizen Oversight Committee selects [Open Space] acquisition projects from a list of applications meeting specific Conservation Futures Levy selection criteria for council approval. Levy proceeds also provide debt service for several major open space acquisition projects.
3180	River Improvement Fund	For projects to control waters subject to flooding conditions through the construction, operation and maintenance of dams and impounding basins and dikes, and the acquisition of property.
3292	Surface Water Management Original [Urban] Service Area	Funds can be used only in the original SWM service area for projects that protect life and property from stormwater damage and that restore/protect aquatic habitat.
3292	Surface Water Management Rural (Extended Service Area)	Funds can only be used in the Rural (extended) service area, new in 2000, for projects that provide protection from stormwater damage for life and property.
3292	SWM Bonds	Restricted to SWM projects identified on various bond issues.
3391	Working Forestry ANRI Bond	Funds to be used for Forest preservation with any remaining money spent on Forestry.
3521	1989 Open Space Bond County	Funds can only be used for selected Open Space Bond projects; reallocations must meet Open Space Bond intent and Open Space criteria.
3522	Open Space Non-Bond Fund	Revenue from numerous sources such as REET, IAC and SRFB grants. Restrictions on usage depend upon revenue source.
3840	Farmland Preservation Bond	For acquisition of Farmland Development rights within specific Agriculture Production Districts. Agriculture Committee must approve allocation and reallocation.
3841	Agriculture ANRI Bond	For acquisition of Farmland Development rights within specific Agriculture Production Districts. Agriculture Committee must approve allocation and reallocation.

E. CIP Program Accomplishments and Completion Lists

Projects Completed in 2003

Stormwater Services Projects (SWM “Urban” Area)

- 3A1205 May Valley Flood Reduction Demonstration Project - Constructed
- 0B1395 Somerset Creek Drainage - Feasibility Analysis
- 0D1395 Coal Creek Park Stabilization – 2 designed, 1 constructed
- 0A1405 Skyway/West Hill Projects: 8 Designed, 1 Constructed
- 0B1625 Lakewood Park Pump Replacement Design and Contract - Design
- 2B1646 Lake Hicks Discharge Improvement at 10th Ave Drainage
- 0D1645 N. Fork Hamm Creek Bypass – Constructed
- 0A1785 Urban NDAP: Capital & Maintenance projects: 6 Designed, 6 Constructed
- 0B1785 Local Rapid Response, Opportunity, and Emergency Program
- 0B1785 Getchman House Demolition at Cedar River - Constructed
- 9F1785 Lake Hicks Force Main Repairs - Emergency
- 9F1785 SW 11th Avenue at 120th Street Sinkhole - Emergency
- 4C1787 Arbor Lake Drainage Improvement – Minor Repairs
- 6B1787 Gypsy Creek Culvert Removal – Constructed
- 4Y1787 Garrison Creek Slope Restoration - Constructed
- 0A1786 SWM Small CIP/DHI: 2 Designed, 2 Constructed
- 0D1787 CIP Monitoring and maintenance Program – Monitored 19 Projects, Maintenance Work on 17 Projects
- 0A1790 Native Plant Salvage Program – 8,900 Plants Salvaged, 595 Volunteers Involved, 7,920 Plants Established in 31 Projects

Rural Drainage Program Service Area

- 0F1795 Tuck Creek Phase 2 – Polar Farm Flood Bypass - Constructed
- 2P1799 Herb Farm – Constructed 3 Separate Small CIPs
- 0A1803 Rural Rapid Response, Opportunity, and Emergency Program
- 0A1803 Ribary Creek at 413th Avenue SE Drainage Improvement - Designed
- 0A1803 Ground Penetrating Radar – Culvert Inspection - Completed
- 4A1803 Vashon Community Center WQ Improvement – Feasibility Analysis
- 4A1803 Storybook Creek – Technical Assistance
- 2U1799 Weiss Creek Channel Stabilization Grant Opportunity - Designed
- 0A1799 Rural Small CIP/DHI – 1 Designed, 2 Constructed

0A1799 Rural NDAP: Capital Improvement Projects – 2 Designed, 2 Constructed

Land and Water Stewardship Services

SWM (“Urban”) Area

- 0B1205 May Canyon Stream Restoration Project – Construction Completed. Project Jointly Funded by KC SWM, KCD Grant, and the Cities of Renton and Newcastle.
- 0C1205 May Creek Erosion Reduction – Completed Erosion Study for Renton and King County
- 0F1155 Taylor Creek Final Phase – Acquisition
- 0F1135 Peterson Creek Habitat Enhancement Project – Construction Completed
- 1A1505 Auburn Narrows Floodplain Restoration – PIP Completed, Assisted Tacoma with Design of its Wetland Mitigation
- 00A975 Sammamish Transition Zone – Conceptual Design Report Completed
- 0F1095 Urban Small Habitat Restoration Program – 14 Projects Constructed, 5 Projects Completed Design, 7 Projects Maintained and Monitored, Provided Technical Assistance to 2 Property Owners
- 0A1475 Green Duwamish Ecosystem Restoration Program – Complete Design for Northwind’s Weir (fund share with COE)

Rural Drainage Program Service Area

- 0F1095 Tuck Creek Phase II – Completed
- 0A1795 Lower Tolt Levee Setback – Completed PIP with City of Seattle
- 0L1795 Raging River at Carlin Levee – Completed PIP for LAWS Grant Applications
- 0A1810 Green River Ecosystem Restoration Program – Rural – Completed Design for Newaukum Creek at LDS site (Fund Share with COE)
- 0A1798 Rural Small Habitat Restoration Program – 14 Constructed; 10 Designed; 2 Maintained and Monitored

Support to Others

- 0A1767 Des Moines Creek Basin Plan Projects – Design of Suite of 4 Large Regional CIPs (Multi-entity funding)
- 0A1061 Patterson Creek Tributary 383 Habitat Restoration Projects – Approx. 2:1 cost share with Seattle Public Utilities – Design and preliminary construction
- 86313F Madsen Creek R/D Pond Phase 1 (WTD Funding) - Design
- 86316F Madsen Creek Storm Drainage Conveyance (WTD Funding) - Constructed
- 86318F Cedar Hills regional Landfill Southwest Flow Control Facility Retrofit (SWD Funding) - Design
- Various Endangered Species Act/Biological Review Panel – Reviewed 12 Projects
- Various Approximately 40 Projects (Roads Services Division) – 15 Design, 25 Regulatory Reviews

Projects Completed in 2004

Stormwater Services

SWM (“Urban”) Area

- 0B1625 Lake Hicks Pump replacement – Construction and Operation/Maintenance
- 0C1625 Lakewood Park LID (Water Quality Demonstration Project)
- 0A1627 White Center Greenway – Design
- 0D1790 Stormwater CIP Feasibility – Feasibility Level Designs of Up to 10 Projects
- 0E1645 Hamm Creek Clover Leaf Water Quality Improvement – Design and Permit
- 0A1405 Skyway/West Hill Projects – 5 Designed, 1 Constructed
- 0A1786 SWM Small CIP/DHI – Constructed
- 0A1785 Urban NDAP: C&M Projects – 5 Designed, 1 Constructed
- 0D1787 CIP Monitoring and Maintenance Program – Monitor 15 Projects, Maintenance Work on 20 Projects
- 0A1795 Urban Rapid Response, Opportunity, and Emergency Program
- 9F1785 Lake Hicks Pumphouse Retrofit – Constructed
- 1A1827 Mallard Lake Water Quality Improvement - Constructed
- 1C1827 Lewis Creek Fish Passage Improvement - Constructed

Rural Drainage Program

- 0G1795 Shamrock Park at 413th Avenue South - Constructed
- 0A1796 Rural NDAP : Capital & Maintenance – 5 Designed, 1 Constructed
- 0A1803 Rural Rapid Response, Opportunity, and Emergency Program
- 4A1803 Storybook Creek – Technical Assistance
- 5A1803 SE 456th Slope Stabilization – Constructed (KCDOT Partner)
- 7A1803 Watercress Creek Conveyance Improvement – Constructed (KCDOT and ADAP Partners)
- 0A1799 Rural Small CIP/DHI- 3 Constructed

Land and Water Stewardship Services

SWM (“Urban”) Area

- 0A1155 Taylor Creek Final Phase – Final Design

- 0D1155 Lions Club Habitat Restoration – Conceptual Design
- 1F1155 Williams Pipeline mitigation - Designed
- 1A1505 Auburn Narrows Floodplain Restoration – Design and Construct Phase I
- 0F1095 Urban Small Habitat Restoration Program – 23 Projects Constructed, 2 Projects Designed, 9 Projects Maintained/Monitored
- 0A1475 Green Duwamish Ecosystem Restoration Program – Soil Remediation of Duwamish Site 1. Design Lones Levee

Rural Drainage Program

- 0A1795 Lower Tolt Levee Setback - Designed
- 0L1795 Raging River at Carlin Levee - Designed
- 0A1798 Rural Small Habitat Restoration Program – 20 Projects Constructed, 5 Projects Maintained/Monitored

Rural and Resource Lands Protection Services

SWM (“Urban”) Area

- 0A1061 Patterson Creek Tributary 383 Habitat Restoration Projects – Approx. 2:1 Cost Share with SPU, Completed Next Phase of Planting, Conducting Monitoring and Maintenance
- 423236 York Pump Station Drainage – Design/Construct (WTD)
- 316440 Marymoor Soccer Field Drainage – Design/Construct (WTD)
- 86318F Cedar Hills Stormwater management Plan (SWD) - Design
- 86318F Cedar Hills Water Quality Retrofits (SWD) – Design/Construct
- 86317F Madsen Creek Stormwater Management Plan (WTD) – Construction of Madsen R/D Pond
- Various Endangered Species Act/Biological Review Panel – Review 33 Projects
- Various Approximately 35 Projects (Road Services Division) – 19 Designs, 16 Regulatory Reviews

Projects to be Completed in 2005

SWM (“Urban”) Area

- 0F1155 Taylor Creek Restoration Final Phase - Construction
- 1F1155 Taylor Creek Williams Pipeline Mitigation - Construction
- 5A1205 May Valley Channel Improvements – 2 Designs
- 0A1767 Des Moines Creek Basin Plan Projects – Regional Detention Facility – Construction Management Support (Multi-entity Funding)
- 0A1311 Ambaum Way Drainage Improvement – Design/Construction
- 0B1311 Mallard Lake Flood Reduction – Design/Permit

- 0C1311 12th Avenue SW Conveyance Improvement – Design/Permit
- 0D1311 Mill Creek Tributary 045 Tightline Conveyance – Design/Permit
- 0E1311 Mill Creek Tributary 053 Conveyance Improvement – Design
- 0B1395 Somerset Conveyance Improvement – Design/Permit
- 0C1625 Lakewood Park LID (Water Quality Demonstration Project)
- 0A1627 White Center Greenway Wetland – Construction
- 0E1645 Hamm Creek Clover Leaf Water Quality Improvement – Design and Permit
- 0A1405 Skyway/West Hill Projects – 2 Designed, 2 Constructed
- 0D1790 Stormwater CIP Feasibility – Feasibility Level Designs up to 10 Projects
- 0A1786 SWM Small CIP/DHI – Constructed
- 0A1795 Urban Rapid Response, Opportunity, and Emergency Program – 1 Constructed, 2 Designed
- 0A1785 Urban NDAP: CIP Projects – 4 Designed, 2 Constructed

Rural Drainage Program

- 0G179 Shamrock Park – Feasibility Analysis/Partner Negotiation
- 0A1796 Rural NDAP: NDAP-CIP – 1 Designed, 1 Constructed
- 0A1803 Rural Rapid Response, Opportunity, and Emergency Program – 1 Constructed, 1 Designed
- 0A1799 Rural Small CIP/DHI: Constructed and Designed

Land and Water Stewardship Services

SWM (“Urban”) Area

- 2F1155 Williams Pipeline Mitigation - Construct.
- 0D1155 Lions Club Habitat Restoration – Complete Design and Construct
- 1A1505 Auburn Narrows Floodplain Restoration – Monitor and Maintain Phase I. Design River Margin Habitat Enhancement
- 0B1351 Soos Creek LWD Placement - Design
- 0C1086 Holder Creek – Complete Design
- 0A1475 Green Duwamish Ecosystem Restoration Program – Final Design and Permit of North Wind’s Weir, Design and Permit for Lones Levee
- 0F1095 Urban Small Habitat Restoration Program – 14 Projects Designed and Constructed
- 0D1787 CIP Monitoring and Maintenance Program – Monitor 23 Projects, Maintenance Work on 25 Projects
- 0A1790 Native Plant Salvage Program – Approx. 9,000 Plants Salvaged, Approx. 8,000 Plants Established in Projects

Rural Drainage Program

- 0L1795 Raging River at Carlin Levee – Complete Permitting

- 0A1795 Lower Tolt Levee Setback – Complete Permitting and Construct Phase I
- 0Z1795 Lower Boise Creek Stream Relocation – Complete Design
- 0A1798 Rural Small Habitat Restoration Program – 1 Project Designed and Constructed
- 0A1061 Patterson Creek Tributary 383 Habitat Restoration Projects – Approx. 2:1 Cost Share with SPU, Perform Monitoring and Maintenance

Support to Others

- 86318F Cedar Hills Stormwater Management Plan (SWD) - Design
- Various Endangered Species Act/Biological Review Panel – review 25 Projects
- Various Approx. 35 projects (Roads Services Division)