

**King County Flood Control Zone District**  
**Proposed Work Program**  
**5-17-07**

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The proposed King County Flood Control Zone District work program is comprised of two major categories:

- Programmatic Work Program
  - Flood Preparedness, Regional Flood Warning Center, and Post Flood Recovery
  - Flood Hazard Assessments, Mapping, and Technical Studies
  - Planning, Grants, Mitigation, and Public Outreach
  - KCFCZD Implementation and Administration
  - Resource Management, Annual Maintenance, and Facility Monitoring
  - Management, Finance, Budget and General Administration
- Capital Improvement Program
  - Capital Improvement Projects
  - Acquisitions and Elevations

**Flood Preparedness, Regional Flood Warning Center and Post Flood Recovery Program**

**Program Summary:** Implement a comprehensive approach to preparing and educating citizens for flood events, coordinating emergency response and regional flood warning center operations during flood events, and ensuring consistency across basins for post-flood recovery actions. Specific programmatic elements include:

Flood Preparedness

- Coordinate flood hazard education program, communication tools (brochures, web content, customer service bulletins, etc) to increase the awareness of flood risks and prepare citizens for flood events.
- Track and disseminate flood hazard technical information to other King County departments (DOT, DDES, etc) and other local, state, and federal agencies.
- Coordinate annual flood awareness month and associated public information program strategy (meetings, websites, other) designed to increase the public's awareness of locally available resources and information.

Regional Flood Warning Center

- Staff the Regional Flood Warning Center monitoring and patrol teams during flood events.
- Coordinate with the following agencies in support of the Regional Flood Warning Center operations:
  - City of Seattle and Corps of Engineers on dam operation
  - National Weather Service on weather forecasts and flood predictions
  - King County Office of Emergency Management for coordinated emergency response activities
  - USGS on river gauging contract and gage upgrades

- King County Department of Transportation on road closures and emergency flood damage and repair response activities
- Coordinate flood emergency response activities.

#### Post-Flood Recovery Operations Program

- Complete preliminary damage assessments, and develop and track Project Worksheet completion, expenditures and general documentation.
- Coordinate with FEMA and Corps of Engineers on flood damage repairs and federal funding opportunities; determine eligibility.
- Identify projects and complete grant applications for post-disaster Hazard Mitigation Grant Program opportunities

#### **Flood Hazard Studies, Mapping, and Technical Services Program**

**Program Summary:** Generate technical information used to characterize, quantify, and delineate flood risks, as well as to develop and implement strategies and actions to reduce those risks. Flood hazard technical information types include hydrologic and hydraulic studies, floodplain and channel migration zone maps, geologic studies, geographic information system (GIS) land use data, dam operations studies, risk assessments and flood hazard management corridor working maps. Specific programmatic elements include:

- Conduct independently or with consultant contracts, as needed, the following technical study and mapping projects:
  - Floodplain delineation and mapping
  - Channel migration zone delineation and mapping
  - Channel monitoring
  - Gavel removal studies and analysis
  - Risk assessments
  - Hydraulic modeling
- Coordinate with FEMA and other local, state and federal agencies on mapping studies and products.
- Maintain accessible flood study and flood hazard data in a floodplain mapping library.

#### **Flood Hazard Planning and Grants, Repetitive Loss Mitigation, and Public Outreach**

**Program Summary:** Manage repetitive loss area mitigation coordination, public outreach, flood hazard management planning, and grant preparation. Specific programmatic elements include:

##### Repetitive Loss Area Mitigation Planning Program

- Track repetitive loss area and repetitive loss property information.
- Provide ongoing program database updates, including tracking property owner communications, interest, and staff recommendations for mitigation options.
- Manage and administer King County's Home Buyout and Acquisition Program.

### Public Outreach and Communications Program

- Provide increased citizen preparedness for floods.
- Provide community outreach support for capital projects.
- Support media relation activities.
- Coordinate citizen involvement and prepare and facilitate public meetings
- Coordinate updates to webpage and other outreach and educational materials.
- Coordinate outreach to landowners with facility easements regarding maintenance work.

### Community Rating System Coordination

- Manage the Community Rating System program, to maintain and improve CRS rating.
- Coordinate/manage updates and process to the planning and regulatory processes for future flood plan updates, King County's Regional Hazard Mitigation Plan, King County Comprehensive Plan, Shoreline Master Plan, and Critical Areas Ordinance. Including coordination with other jurisdictions.

### Grants Program

- Administer biennial Washington State Department of Ecology FCAAP process and track successful grants to ensure timely reporting.
- Coordinate and assist with preparation of applications for all state and federal flood hazard mitigation grant processes.
- Provide grant application technical assistance to cities and other stakeholders, as needed.

## **King County Flood Control Zone District Implementation and Administration**

**Program Summary:** Implement flood hazard management programs and capital improvement projects for the District. Teams of staff will be organized by river basin and will be responsible for identifying, implementing, and tracking flood risk reduction program and project actions within a given basin. Staff will also coordinate five basin technical committees with partner jurisdictions and maintain relationships with communities and other agencies. A District Coordinator will ensure that District governance, reporting, legislative process and cross-basin consistency is achieved. Specific programmatic elements include:

### Basin Team and Basin Technical Committee Program

- Identify and prioritize projects for implementation, and refine as needed based on work program priorities.
- Provide project design, construction and management on major maintenance and repair projects, new facility design and construction, home buyouts and acquisitions, and home elevations, including technical oversight and quality control of plans and documents for capital improvement projects within basin.
- Staff and coordinate regular Basin Technical Committees.
- Implement work program to guide private property owner and community outreach necessary to complete capital improvement projects.
- Develop ongoing relationships with cities, agencies, and stakeholders within the basin, and ensure consistency across basins under the countywide flood control zone district framework.
- Support or lead staff on acquisition coordination to Acquisition Unit.

- Provide river stewardship activities.
- Coordinate and support logjam investigation and response/action.
- Respond to, investigate and provide technical assistance for enforcement on complaints and general inquiries. Conduct citizen and/or landowner contact, communication and outreach.
- Work with the River Safety Council on project design proposals.
- Coordinate with Roads Services Division on construction crew scheduling.
- Provide quarterly project reporting to management.
- Address and seek resolution on basin-specific floodplain management issues.

#### KCFCZD Advisory Committee Coordination

- Staff and coordinate the KCFCZD Advisory Committee meetings and provide staff support to the Board of Supervisors.
- Track basin technical committee meetings, issues, and cross-basin policy issues.
- Serve as internal representative to analyze and prepare recommendations for policy issues pertaining to District.
- Coordinate public process across KCFCZD to ensure consistent outreach across basins.
- Report KCFCZD activities, accomplishments, revenues and expenditures through an Annual Report.

### **Resource Management, Annual Maintenance, and Facility Assessment Program**

**Program Summary:** Coordinate facility and property maintenance for the District which includes 500 flood protection facilities covering 119 linear miles and approximately 430 acres of land acquired for flood mitigation purposes. Specific programmatic elements include:

#### Annual Maintenance Program:

- Manage work authorizations and coordinate with Roads Services Division or contractor on completion of maintenance activities:
  - Facility mowing
  - Access gate maintenance
  - Access road maintenance
  - Noxious and non-native plant removal
  - Irrigation and watering
  - Interpretive sign installation and maintenance
- Coordinate design of facility and acquisition property revegetation projects.
- Coordinate design and implementation of volunteer planting and other land stewardship projects.
- Provide land and resource management including management of lands for appropriate levels of public access.
- Inspect, assess and, if necessary, remove hazardous trees.
- Collect and remove garbage from fee-simple owned property.

#### Flood Protection Facility Assessment and Monitoring Program

- Develop methods for facility inventory/assessment program.
- Conduct annual, spring and fall, facility assessments.

- Conduct, or assist with, post-flood damage assessments.
- Produce annual report on facility conditions.

#### Facility Maintenance and Repair Program

- Conduct or assist with facility assessments, consistent with the facility assessment and monitoring program.
- Support or lead staff on the Green River Pump Station Operation and Maintenance Program.

#### Sediment Management, Large Woody Debris, In-stream Management Program

- Coordinate sediment management program/project actions to reduce flood risks.
- Coordinate large woody debris program/project actions to reduce flood risks.
- Monitor other in-stream hazards and coordinate associated flood risk reduction actions.

### **Program Management and Supervision; Finance, Budget and General Administration**

**Program Summary:** Provide supervisory, budgeting, and administrative services for the District. Specific programmatic elements include:

#### Management and Supervision Tasks

- Manage the technical and business operations of District work program and staff.
- Develop annual operating and capital budgets, work programs and staff allocations.
- Provide supervision, technical assistance and quality control/assurance to staff.
- Carryout responsibilities for hiring, management performance, developing training expectations and recommending effective discipline and termination.
- Ensure programs and projects are completed to carryout the goals and objectives of the River and Floodplain Management Program.
- Work collaboratively with other government and regulatory agencies, departments within the County, and the public to address environmental policies and issues related to floodplain management principles, goals and objectives.

#### Finance and Budget Operations

- Develop annual capital and operating budget.
- Track and report annual capital and operating budget, revenue and expenditures.
- Provide grant and cost-share reporting, billing and documentation.
- Provide contract and procurement management, support and strategy.
- Support capital project managers/engineers with detailed project expenditures, revenues, scheduling, contract management and other finance needs in support of CIP implementation.

#### General Administration

- Records maintenance.
- Copying, filing, correspondence, and scheduling.
- Meeting preparation, coordination and support
- Photo-documentation management.
- General program administrative support

## **Capital Improvement Program Implementation**

**Program Summary:** The vast majority of the proposed District work program and budget is dedicated to implementation of major maintenance and capital projects. This work includes manage and implement major maintenance, repair and new flood protection facility design, permitting and construction; home buyouts and acquisitions; and home elevations.

Construction of flood protection infrastructure has paved the way for considerable residential, commercial and industrial economic development in flood hazard areas. The flood protection infrastructure has reduced the frequency of flooding and severity of erosion, and contained flood flows within levees that has allowed for significant economic growth by promoting development of historical floodplains, as exemplified by the industrial and commercial development lining the lower Green River. However, these areas will always face the potential risk that the flood protection facilities could be overwhelmed, resulting in serious flood damage, significant impacts to the regional economy, or personal injury and death. While the costs of flood protection facility construction and maintenance are borne by the public, the value to the economy is a regional benefit.

The Capital Improvement Program will complete high priority and regionally significant flood hazard management capital improvement projects to significantly protect public safety and reduce flood risks to the regional economy, transportation corridors, and public and private infrastructure and property. These capital improvement projects include retrofits and repairs to levees and revetments; levee setbacks to improve slope stability and increase flood conveyance and capacity; and targeted acquisition of repetitive loss properties and other at-risk developments. The FHMP Plan recommends approximately 135 capitol projects for the ten-year period, of which approximately 95 are construction projects and 40 are acquisition only.

The Capital Improvement Program will provide project design, construction and management on the following project implementation elements:

- Scope and Concept
  - Identify problem, alternatives, recommended solution and project goals
- Feasibility
  - Identify and conduct studies, analysis, cost estimates, resources needed, landowner issues
- Acquisition
  - Obtain the necessary property rights to perform the work
- Design and Permitting
  - Address all elements of the project (e.g. geomorphic, constructability)
  - Complete all federal, state and local permitting requirements (e.g. Corps, ESA)
    - Survey
      - Conduct pre- and post-construction (“as-built”) survey
    - AutoCAD
      - Develop design plan set
    - Hydraulic Modeling
      - Conduct pre- and post-project modeling
      - Complete LOMR for constructed projects, when/if warranted

- Ecological
  - Conduct pre- and post-construction monitoring
  - Complete pre-project feasibility studies/analysis
  - Provide project design support
  - Complete biological assessments/evaluations
    - Individual
    - Programmatic
  - Complete Section 7 consultation
  - Coordinate or support permitting and permit agency outreach
- SEPA
  - Complete individual project SEPA
  - Complete programmatic SEPA
- Geotechnical Engineering Support/Geologist/Geotechnical
  - Provide sediment management monitoring, analysis and modeling
  - Conduct pre- and post-construction monitoring
  - Conduct pre-project feasibility studies/analysis
  - Provide project design support
- Engineering (may include Project Management function as well)
  - Lead design engineer for projects
  - Manage construction of projects
  - Obtain resources for projects; make task assignments
  - Track and report project scope, schedule, and budget
  - Develop plan set for construction, or bid documentation support
  - Provide overall project QA/QC oversight
- Project Management
  - Obtain resources for projects; make task assignments
  - Track and report project scope, schedule, and budget
  - Provide overall project QA/QC oversight
- Monitoring and Adaptive Management
  - Pre-project baseline information
  - Construction Monitoring
  - Conduct pre- and post-construction monitoring
  - Provide monitoring reports to DDES and other agencies as required