

King County Flood Control District Scope of Services 2010 Annual Report and 2011 First Quarter Performance Report

April 2011



KING COUNTY
FLOOD CONTROL
D I S T R I C T



King County

Department of Natural Resources and Parks
Water and Land Resources Division

River and Floodplain Management Section

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Snoqualmie Valley, December 2010

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I. Introduction and Highlights

This report provides information for 2010 and the first quarter of 2011 on King County's work to implement the King County Flood Control District (District) work program. The following list highlights project and program successes for 2010 and the first quarter of 2011.



Herzman Repair Project, Cedar River – Willow stakes

2010

- Completed **nine construction projects** to reduce flood risks to residential areas and critical infrastructure on multiple river systems: five on the Cedar River, two on the Upper Snoqualmie River, one on the Green River and one on the South Fork Skykomish River.
- Permanently removed repetitively flooded structures from the floodplain and obtained critical land for levee construction by acquiring **32 acres on 46 parcels at a total cost of \$9.5 million.**
- Supported the District's efforts to secure **\$44 million in federal funds to repair the United States Army Corps of Engineers (Corps) Howard Hanson Dam** to reduce flood risks in the Green River Valley.
- Acquired the **Snoqualmie Mobile Home Park**, using grant funds, which was substantially damaged in the January 2009 federally-declared disaster and relocated all of its residents to safer housing outside of the floodplain.
- Demolished **33 flood-prone structures, planted 30,000 riparian plants** to restore sites, **spent \$245,000** to remove vegetation along the Green River to comply with Corps requirements, and replaced or repaired **650 super sacks** along the Green River as part of facility and property management activities.
- Supported the District's effort to lobby the federal government for a science-based **levee vegetation management policy** and collaboration with the Seattle District of the Corps to develop a levee vegetation variance template for the Green and Cedar Rivers.



- Prepared for the 2010-2011 flood season, which marked the 50th anniversary of King County Flood Warning Services, and **responded to a major flood event in December 2010**.
- Received an **Achievement Award** from the National Association of Counties for the use of technology in the King County Flood Warning Program and an **Excellence Award** from the National Association of Government Communicators for the Green River Valley Flood Awareness Campaign.
- Procured \$4 million in contracts, with **10 contracts worth \$3.8 million** being issued to support engineering analysis and design for flood risk reduction projects.
- Developed a new **website for the Sub-Regional Opportunity Fund**, providing 40 jurisdictions with access to program information, advance reimbursement requests, and progress reports.
- **Distributed \$3.7 million to 18 jurisdictions to directly support local flood and stormwater actions** out of \$9.2 million appropriated by the Subregional Opportunity Fund.

2011 – First Quarter

- **Fifteen contracts** for engineering analysis, design and construction management of flood risk reduction projects, **with a capacity of \$13.5 million**, are scheduled to be awarded in 2011.
- **Responded to two major flood events** in January 2011 (the longest duration flood response since 1990 with 296 hours of operations and more than 1,500 staff hours) and March 2011, including post-flood facility inspections and identification of potential repair sites.
- **Acquired the 36-acre** Tuefel property in Kent to increase flood storage conveyance and storage capacity over a significant floodplain area and provide mitigation for vegetation removal efforts necessary to comply with Corps requirements.
- **Developed the Sammamish Transition Zone Report and Action Plan** in response to requests from lakeside homeowners concerned with the rising elevation of Lake Sammamish.
- Completed the **South Fork Snoqualmie River Gravel Removal Study** to characterize the existing sediment conditions and evaluate the effectiveness of gravel removal for flood reduction.
- Modeled **five farm pads and three barn elevations** in the lower Snoqualmie Valley to improve the ability of agricultural landowners to withstand flooding impacts.
- Conducted the **Cedar River Recreation Study** to better understand the public's perceptions of risk and their usage patterns and to develop a better context for recreational safety considerations related to large wood placement in river projects.

Scope of Services

The purpose of this report is to provide the District's Board of Supervisors Supervisors information on the status of each element of the District's annual work program.

The District's work program is comprised of two major components:

1. A capital improvement program to rehabilitate flood protection facilities and other projects to protect structures at high risk of flooding.
2. Operational and programmatic activities, such as identifying and communicating flood risks to the public; preparing for and responding to flood events; maintaining over 500 facilities in King County's flood protection system; and coordinating the District Advisory Committee and Basin Technical Committees (BTCs).



II. Capital Improvement Program Implementation

Projects proposed in the District's capital program reduce risks to health, safety, and critical public infrastructure from flooding, erosion, and rapid channel migration. A detailed description of flood hazard management conditions and objectives for each major river system is available in the adopted 2006 King County Flood Hazard Management Plan, which serves as the District's Comprehensive Plan. The District's capital program fulfills one or more of the following flood hazard management objectives:



Belmondo Revetment Project, Cedar River

- Repair, rehabilitate, and improve flood facility protection throughout major commercial, industrial and residential areas;
- Reduce hazards by removing flood, erosion, and landslide prone residential structures;
- Improve flood water conveyance and capacity; and
- Provide safe access to homes and businesses by protecting key transportation routes.

The District's 2010 revised capital program includes 73 capital projects. Over 87 percent of the District's 2010 budget of \$75.8 million is allocated to the capital component of the work plan, including over \$7 million in federal and state grant funds to implement flood damage repairs and acquire or elevate at-risk residential structures.

The 2010 capital program included the following activities:

- Repairs to flood facilities damaged in the January 2009 flood event;
- Levee rehabilitation and reconstruction;
- Acquisition of flood prone property to eliminate flood risk;
- Elevation of structures, such as homes and barns, to minimize flood risk; and
- Technical studies and design work to guide flood risk reduction projects.



Construction completed in 2010 include the following projects.

- **McKnight Repair, South Fork Skykomish River:** Repaired approximately 70 linear feet of erosion at the crown of the levee that protects a residential area. Damage was recorded from the January 2009 federally-declared disaster.
- **Mason Thorson Extension Repair, Upper Snoqualmie River:** Repaired approximately 25 feet of damage from the January 2009 federally-declared disaster.
- **Allen Repair, Upper Snoqualmie River:** Repaired approximately 30 feet of damage from the January 2009 federally-declared disaster.
- **Cedar Rapids Repair, Cedar River:** Repaired Cedar Rapids levee setback facility by installing 13 engineered log structures in the floodplain to minimize the risk of river migration.
- **Byers Curve Repair, Cedar River:** Repaired approximately 70 feet of damage from the January 2009 federally-declared disaster.
- **Herzman Repair, Cedar River:** Repaired 270 feet of revetment damaged in the January 2009 federally-declared disaster. Design is underway for the larger Herzman Levee setback immediately downstream of the repair site.
- **Cedar River Trail Site 2B, Cedar River:** Repaired 85 feet of revetment damaged in the January 2009 federally-declared disaster. Revetment protects the Cedar River Trail, SR-169, and a regionally significant fiber-optic cable.
- **Belmondo Revetment, Cedar River:** Installed flow deflection structure and reconstructed emergency repair site. Facility protects the Cedar River Trail, SR-169, and a regionally significant fiber-optic cable.
- **Stoneway Lower, Green River:** Stabilized river bank and repaired a cracked road under which a pipe carries landfill runoff to a wastewater treatment facility.



Herzman Repair Project, Cedar River – Placing rock

In addition to construction projects, capital program highlights include:

- **Riverside Mobile Home Park Acquisition and Relocation, Upper Snoqualmie River:** With grant funding from FEMA and the State of Washington, King County acquired the park and relocated the residents to safe housing outside the floodplain. Asbestos abatement and demolition was completed for sixteen mobile homes, two travel trailers, and two single-family homes.
- **Acquisition of at-risk structures, multiple river systems:** In addition to the Riverside Mobile Home Park, \$3.8 million was expended to acquire flood damaged structures and property interests necessary for the construction of high-priority levee rehabilitation projects. This also includes \$1 million for an easement along the Tukwila 205 levee to complete the real estate certification for a flood damage repair completed in 2008 through the Army Corps PL 84-99 program. In the first quarter of 2011, \$2.9 million was expended to acquire 40 acres of floodplain.
- **Mitigation for Army Corps PL 84-99 Levee Vegetation Management, Snoqualmie and Green rivers:** Trees were removed from levees at multiple locations in 2008 and 2009 so that levees could be made eligible for federal cost-sharing under the Corps' PL 84-99 program. Mitigation work was completed in 2010 at several locations on the Green and Snoqualmie Rivers. One project site, Camp Gilead in Carnation, was featured in a *Seattle Times* cover story, "King County turns to horses to move logs through delicate site," for its use of horse logging – a cost-effective and environmentally sound alternative to heavy equipment (seattletimes.nwsources.com/html/localnews/2012971347_horselogging23m.html).
- **Farm Pads and Barn Elevations:** Provided assistance to private landowners in the Snoqualmie Valley to model five farm pads and model three barn elevations to improve the ability of agricultural landowners to withstand flooding impacts. The barn elevation pilot program will enter into phase two shortly, with construction anticipated this summer. Modeling for seven more farms pads is expected in 2011.
- **Sub-Regional Opportunity Fund:** Payments to 18 jurisdictions of \$3.7 million (out of a total appropriation of \$9.2 million) to directly support local flood and stormwater actions; and a new website provides jurisdictions easy access to program information as well as advance reimbursement requests and progress reports (www.kingcounty.gov/environment/waterandland/flooding/flood-control-zone-district.aspx).



III. Operational and Programmatic Activities

A. Flood Preparedness, Regional Flood Warning Center and Post Flood Recovery Program

The District's operational work program includes 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.



Snoqualmie Valley, December 2010

Last year marked the **50th anniversary of King County's Flood Warning Services**.

The King County Flood Warning Program was established in 1960 to gather, analyze and distribute information to citizens and jurisdictions during flood events.

The National Association of Counties recognized the King County Flood Warning Services program with an **Achievement Award** for its use of technology in warning residents and agencies of impending flooding and helping to increase safety and preparedness. Residents use online applications to get river gage data; automated flood alerts; look up property in the Green River Inundation area; access the King County Flood Photo Viewer; and get sandbag distribution locations.

The **King County Flood Alert System**, providing automated flood phase information via text, phone, or email, now has nearly 5,000 subscribers. Staff are also refining the collection, analysis and distribution of flood warning data.

Additional flood preparedness information, including the Flood Alert System sign-up and the Flood Photo Viewer, is available at www.kingcounty.gov/flood.

2010-2011 Flood Events

During the 2010-2011 flood season, the Flood Warning Center opened for **three notable flood events** and several minor floods.

The first of the larger floods occurred December 12-13, 2010. No major damages were reported from this flood despite the Tolt River reaching phase 4 (major flooding) and the Green and Snoqualmie River reaching phase 3 (moderate flooding). This was the first time the Green River has exceeded flood phase 2 since the discovery of damages to the abutment at Howard Hanson dam in January 2009, resulting in significant media and citizen interest.

More than 10,000 King County Flood Alert messages were sent to subscribers and the Flood Warning Center responded to citizen inquiries – mostly in regard to the Green River. Flood Patrols inspected levees and flood protection facilities and sandbags were distributed to the public at several sites operated by cities and community groups. (For the full listing of sites go to: www.kingcounty.gov/flood.)

The second large flood event occurred January 13-26, 2011. **This event was the longest that the Flood Warning Center has been opened since 1990**, and involved approximately 296 hours of operation with over 1,500 staff-hours for flood warning and patrol work during the event. The Cedar River reached flood phase 4 and the Green, Snoqualmie and Tolt rivers reached flood phase 3.

During the event, the flood warning website received 82,000 page views by 60,000 unique users and over 20,000 Flood Alert messages were sent to subscribers. An emergency repair was performed at the Cedar Rapids facility to stabilize damages to the right bank setback levee. Damages were reported on river facilities on the North and Middle Fork Snoqualmie, Green, Miller, South Fork Skykomish and Cedar rivers. Governor Gregoire requested, and received, a Presidential Disaster Declaration for this flood event, which will provide federal money for emergency work and the repair or replacement of storm-damaged facilities in King County.

The third major flood event occurred from March 30 – April 1, 2011 when the Green River reached flood phase 2 and the Snoqualmie and Tolt rivers reached flood phase 3. The Flood Warning Center opened for three days to monitor rivers and coordinate information dissemination. During the event, King County Flood Alert registration increased to nearly 5,000 subscribers, confirming that most people sign up during public outreach around a flood event.

B. Flood Hazard Studies, Mapping, and Technical Services Program

In 2010, Lake Sammamish residents raised concerns that willows growing downstream from the Sammamish Weir (the river inlet structure) may be causing a backwater effect that limits the outflow of water from the lake to the Sammamish River, creating an atypical water height of Lake Sammamish during the spring and summer. King County maintains this vegetation as part of an agreement with the Corps and is currently conducting an analysis of the Sammamish Transition Zone Vegetation to determine the effect the vegetation plays on lake elevations and providing briefings, with a final report expected in the second quarter of 2011.

In the first quarter of 2011, King County staff will be responding to FEMA's review comments on the **Sammamish River Flood Study**, an effort to improve information about flood hazard areas along the Sammamish River to be used to update federal flood insurance rate maps. Staff have requested that FEMA provide a schedule for further review milestones.



Technical analyses for the grant-funded **Coastal Hazard Analysis** are being finalized. Staff are coordinating with affected cities and plan to hold a public meeting on Vashon-Maury Island in April 2011. Staff coordinated preparations with FEMA and the affected jurisdictions on FEMA's preliminary **Digital Flood Insurance Rate Maps** for the Green and Cedar Rivers. These maps were revised by FEMA and will be publically presented later in 2011 though FEMA has not established a timeline for the final flood insurance maps.



Allen Repair Project, Upper Snoqualmie River

During the first quarter of 2011, FEMA's administrator announced, in response to requests from several members of Congress, that FEMA would delay issuance of final flood insurance maps pending development of a new risk-based analytical approach intended to incorporate levees that are unaccredited but presumably provide some level of risk reduction. This significant policy shift may delay implementation of the new FEMA maps, resulting in the need for revised maps based on any new FEMA approach that is developed.

In the first quarter of 2011, the **South Fork Snoqualmie River Gravel Removal Study** was completed. It evaluated the impacts on flooding from gravel deposition and concluded that while there is some impact, the current sediment levels are not likely to merit action. Several effective gravel removal scenarios were evaluated and none were found to be unnecessary under the present conditions. Currently other mitigation efforts in this area are addressing gravel impacts.

C. Public Outreach, Flood Hazard Planning and Grants, and Repetitive Loss Mitigation

Following the Howard Hanson Dam/Green River Valley Flood Awareness campaign undertaken in 2010, specific actions were taken to better reach non-English speaking residents or residents with limited-English proficiency. **A flood safety and preparedness video was made in 21 of the top languages spoken in King County.** The video was posted on YouTube for easy access, as well as the King County website (www.kingcounty.gov/flood) and was distributed through the existing community networks of the American Red Cross, Public Health – Seattle & King County and other community groups. The flood safety videos have received a collective 2,356 views on YouTube in the four months they've been available.

A success story of this unprecedented outreach was among the Hmong farming community that exists in the frequently flooded Snoqualmie Valley. Many people who speak Hmong do not read it, as it is a primarily oral language. The Hmong Program Coordinator liaison for Washington State University was the "host" of the Hmong flood safety video and sent it to 90 Hmong households – with an estimated six people per household – reaching approximately 540 people.

Two major publications (“Flood Warning Information for Major Rivers in King County” and “Before, During and After a Flood: Flood Response Information to Help you Reduce Risk to your Family and Property”) were translated into Spanish for on-the-ground distribution during flood season.

In 2010, King County conducted the **Cedar River Recreation Study** to better understand the type, frequency, and timing of in-water recreational use on the Cedar River. The purpose was to quantify the number and types of recreational users (e.g., inner-tubes, kayaks, canoes); the types of safety preparation made; and the timing of recreational use (e.g., day of the week and weather and river conditions). The goal was to better understand the public’s perceptions of risk and their usage patterns to develop a better context for recreational safety considerations related to the design and location of river projects.

In the first quarter of 2011, production began on a **video about King County’s Home Elevation Program** featuring interviews of past participants discussing their experiences in elevating their homes.

Leveraging External Resources through Grants and Partnerships

For the report period, the District had nine FEMA grant-funded projects; three pending applications.

The following grant activities were performed.

- **Flood Mitigation Assistance Grant Program** (multiple grants) – Ten structural elevations in the Snoqualmie basin.
- **Hazard Mitigation Grant Program** (multiple grants) – Nine home elevations completed and four elevations in progress in the Snoqualmie basin. Acquisitions and retrofitting includes three purchase offers accepted; and one wet floodproofing construction portion of the project complete. Three substantially-damaged residential structures in the Snoqualmie basin were acquired, abated and demolished; site restoration is underway. Demolition and site restoration of the Riverside Mobile Home Park Acquisition in the City of Snoqualmie is complete.
- **King County Flood Control District Funding** – Two elevation projects in Shamrock Park were constructed and two are in the permitting phase. Funding has been dedicated for four additional elevations which homeowners have not yet initiated.
- **Cooperating Technical Partners Cooperative Agreement** – This agreement funds updating of the Digital Flood Insurance Rate Map and Flood Insurance Study report for King County.

INFORMACIÓN DE ADVERTENCIA CONTRA INUNDACIONES

para los ríos principales del Condado de King

2010-2011




EN EL INTERIOR VER INFORMACIÓN ACERCA DE:

- CÓMO PREPARARSE PARA UNA INUNDACIÓN
- OPERACIONES DE EMERGENCIA
- RECUPERACIÓN DESPUÉS DE UNA INUNDACIÓN

VISITE NUESTRO SITIO WEB PARA OBTENER MÁS INFORMACIÓN:

- Medidas del indicador de los ríos en tiempo real
- Vigilancias, advertencias y declaraciones con respecto a inundaciones
- Mapas de peligro de inundaciones
- Alertas de inundación del Condado de King
- Condición de la presa Howard Hanson Dam

www.kingcounty.gov/flood




- **Washington State Recreation and Conservation Office Grant**

- **White River Countyline to A-Street Setback and Restoration** – Purchase of flood-prone property and provide conveyance through an existing levee into adjacent floodplain and wetlands.

- **TransCanada Levee Setback Feasibility and Design** – Modify the breached portions of an existing levee to improve flood flow conveyance and decrease erosive flows in a currently constrained reach of the lower White River. This grant covers a feasibility study and conceptual (30 percent) design.



McKnight Repair Project, South Fork Skykomish River – Washington Conservation Corps crew, King County project manager and homeowner

In addition to moving forward on awarded grants, King County staff also are preparing new grant applications for the federal fiscal year 2011 grant application period. The District submitted two new grant applications for consideration under FEMA's Severe Repetitive Loss Grant Program. This program seeks to mitigate those properties that place the greatest financial burden on the National Flood Insurance Fund. Local funds are leveraged at 9 to 1 through this program. Applications will seek funding for:

- Home Elevations – Elevate six residential structures in the North Bend and Snoqualmie areas (total cost of \$715,000); and
- Home Acquisitions – Acquire two residential structures in the Snoqualmie Kimball Creek area (total cost of \$965,000).

Finally, staff submitted a FEMA Pre-Disaster Mitigation grant application to elevate eleven homes in and around Snoqualmie with \$750,000 in federal funds appropriated as a line-item in the 2010 federal budget but subject to FEMA's benefit-cost and other grant criteria. While landowners have signed letters of interest, these funds are now on hold due to the federal budget continuing resolution.

2006 King County Flood Hazard Management Plan Update

The 2006 King County Flood Hazard Management Plan (Plan) serves as the comprehensive plan for the District (RCW 86.15.110) and must be updated every five years to receive Community Rating System (CRS) credits. **This will be the major planning effort of staff for 2011.** A Citizens Advisory Committee is expected to be convened and the Board of Supervisors will provide policy direction on the proposed scope of work, which may include some or all of the following updates and policy issues.

- Update the Plan to reflect the creation of the District.
- Update information on current flood and channel migration studies and mapping.



- Update information on the recent flood events.
- Update the risk assessment.
- Update the 10-year Action Plan/Capital Improvement Projects list.
- Update information on the economic importance of flood risk reduction.
- Include policy issues, such as:
 - Levee certification and accreditation;
 - Levee vegetation and PL 84-99 participation;
 - Regional equity (particularly coastal areas and small streams);
 - Eminent domain; and
 - Update capital project prioritization and sequencing approach.

Levee Vegetation Management and Partnering with the U.S. Army Corps of Engineers

As noted in the King County Flood Control District 2010 Semi-Annual Report, the Corps has proposed a federal policy change that would create an extensive levee vegetation variance request process, likely making variances more difficult to obtain.

Corps headquarters has delayed the decision on the final policy until the summer of 2011. King County staff have provided technical support to the District’s consultant who has been lobbying members of Congress and federal agencies. At the invitation of Colonel Wright of the Seattle District, King County staff have also participated in a multi-agency work group to **establish a regional framework** for a science-based vegetation variance for the Green and Cedar rivers. A template will be developed for use on the Cedar and Green rivers that will support shared objectives for levee stability, inspections, flood-fighting access, and habitat recovery for listed species.

In light of the on-going efforts at the local, regional, and national level to change the Corps levee vegetation management policy, King County has requested that the Corps delay further vegetation maintenance compliance activities until this regional framework process is complete.



Mason Thorson Extension Repair Project, Middle Fork Snoqualmie River



South Fork Skykomish River

National Flood Insurance Program Biological Opinion

In September 2008, the National Marine Fisheries Service (NMFS) issued a final Biological Opinion regarding implementation of FEMA's National Flood Insurance Program (NFIP). At issue was the effect of the NFIP on Puget Sound salmon and orca whales, which are listed under the Endangered Species Act (ESA). In the Biological Opinion, NMFS recognizes that King County's regulations already go beyond the minimum requirements of the NFIP in ways that are likely to reduce habitat degradation for listed species. FEMA is requiring communities to demonstrate compliance with the Biological Opinion by September 2011. **King County submitted its documentation demonstrating consistency with the Biological Opinion in September 2010 and is currently working with FEMA to respond to comments and questions.**

During the first quarter of 2011, staff participated in a workshop convened by the Puget Sound Partnership in cooperation with FEMA and NMFS entitled, "Demystifying the National Flood Insurance Program Biological Opinion." Staff presented King County's perspective on efforts to comply with the requirements of the Biological Opinion.

King County Flood Control District Hazard Mitigation Plan

In 2010, King County staff prepared a comprehensive hazard mitigation plan consistent with the federal Disaster Mitigation Act (DMA) to address flood hazard areas and dam failure countywide. The plan was developed as a single jurisdictional plan, but language included in the plan allows other District jurisdictions to adopt it by: expanding the assessment of risk as necessary; identifying additional mitigation actions to address those risks; conducting public involvement; and adopting the plan.

Following the preliminary approval of the plan by the Washington State Emergency Management Division and FEMA Region X, the District Board of Supervisors adopted the plan (Resolution #FCD2010-34.1) in July 2010. Final FEMA approval was granted in August 2010. The District is now eligible to apply for grant funding under the federal Hazard Mitigation Grant Program, **expanding the District's ability to leverage federal and state funds** for high-priority flood risk reduction work.



Community Rating System (CRS) Outreach Strategy

King County and seven cities (Auburn, Bellevue, Issaquah, Kent, North Bend, Renton and Snoqualmie) participate in the CRS program under FEMA's National Flood Insurance Program. Several other cities within the District are considering participating. The CRS is a voluntary incentive program that rewards communities that go beyond the NFIP minimum standards for floodplain management in four types of activities: public information; mapping and regulations; flood damage reduction; and flood preparedness. Property owners within participating jurisdictions receive discounts on their flood insurance premiums based on their community's CRS rating. **Currently King County is the highest-rated county in the nation, with a Class 2 rating that provides property owners with a 40 percent discount on their flood insurance premiums;** Auburn, Bellevue, Issaquah and Snoqualmie are Class 5 communities that receive a 25 percent discount; and Kent, North Bend and Renton are Class 6 communities that receive a 20 percent discount.

As a regional service provider, activities conducted by the District provide CRS credits for participating communities. In September 2010, King County hosted an Outreach Projects Strategy (OPS) meeting to coordinate with District jurisdictions on outreach activities; and to prepare a written OPS document that was shared with all participating communities.

During the first quarter of 2011, King County provided consultant support to the cities of Bothell and Pacific to assess possible enrollment in the CRS program. King County staff and consultants will be meeting with each city to review the results in April 2011.

D. King County Flood Control District Implementation

This work program element includes coordination with King County cities through the Basin Technical Committees (BTCs) comprised of jurisdictions' technical staff and the 15-member Advisory Committee of elected officials. Activities in 2010 included multiple meetings in each basin to develop recommendations for the 2011 budget and the 2011-2016 capital project list. In light of two significant sources of uncertainty (levy suppression and Board direction on funding for coastal hazard projects), the Advisory Committee recommended a placeholder budget for 2011 only, and requested that the Board seek Advisory Committee input in the first quarter of 2011 after these two issues have been resolved.



Flood patrol staff on the Snoqualmie River during the December 2010 flood event

The Advisory Committee's Annual Report was transmitted to the Board by the King County Executive in August 2010; the report is available online (www.kingcounty.gov/environment/waterandland/flooding/flood-control-zone-District/governance/advisory-committee.aspx).

In November 2010, the Board of Supervisors adopted a 2011 budget resolution (FCD 2010-37). In that resolution, the Board directed the Advisory Committee to include \$4.25 million of District funds for a segment of the Seattle Alaskan Way seawall replacement flood control project in the 2011 CIP.



January 2011, post-flood facility inspections, Snoqualmie River

Additionally, if the District levy pro-rationing issues are resolved or substantially mitigated by the state legislature, the Board directed the Advisory Committee to provide the board with options within the six-year CIP for funding engineering and construction costs of an additional \$25.75 million for a segment of the **Seattle Alaskan Way seawall** replacement flood control project.

In December 2010 and the first quarter of 2011, staff developed CIP options for the 2011 capital program reprioritization as well as options for including funding for the seawall in advance of Advisory Committee meetings scheduled for the second quarter.

One of the most significant achievements in 2010 was the tremendous increase in contracting support facilitated through the staff addition of a contracts specialist. **In 2010, \$4 million in contracts were procured and \$3.8 million worth of contracts were issued to 10 firms. An additional 15 contracts, with a capacity of \$13.5 million are scheduled for 2011.**

E. Resource Management, Annual Maintenance, and Facility Assessment Program

This element of the District's work program includes maintenance of approximately 500 flood protection facilities along 119 linear miles of riverbank, approximately 430 acres of flood buyout properties, three pump stations, and related flood protection infrastructure.

Vegetation Management

During 2010, approximately 30,000 native plants were planted and maintained at 65 capital project or mitigation sites. Several dozen additional sites were inspected for maintenance needs including the identification of state listed noxious weeds.

Vegetation removal included cutting blackberry along 22 miles of levees to meet standards established under the Corps Rehabilitation and Inspection Program (RIP) and/or to enhance levee access and inspection during and between flood events. This routine work was hindered by the presence of temporary flood

protection measures on the lower Green River levees, requiring the need for higher-cost hand labor along ten miles of Green River levees that would normally be completed using heavy equipment working from the top of the levee.

Compliance with Corps standards also included the removal of native willows from the Tukwila 205 levee system. This new initiative cost \$245,000, of which \$160,000 was paid to the City of Tukwila to carry out a large portion of the work.

Property Management

During the reporting period, **33 homes were removed from flood buyout properties** (including 16 mobile homes and two houses in the Riverside Mobile Home Park). Approximately half of these demolitions are primarily intended to permanently eliminate the risk to residences, while the other half represented the first phases of larger capital projects. Removal of these structures includes asbestos abatement, materials salvage and recycling, demolition and site stabilization and security. Sites which are not proposed for future capital projects are also revegetated as resources allow.

Pump Station Improvements

King County maintains three pump stations in the Green River basin: the Black River Pump Station which drains the northeast corner of the lower Green River valley; the P-17 pump station which drains approximately one half of the Southcenter area; and a small station that provides internal drainage for the Segale levee. In 2010, consultants assessed several areas of safety and operational concerns at the both the P-17 and Black River Pumps stations. Currently, an interim plan is in place to allow refueling of the station during a prolonged, extreme high-flow event.

Temporary Levee Maintenance

In 2010, **19.82 miles of temporary levees along the Green River were inspected and, where necessary, repaired or replaced.** Maintenance of these structures included replacing approximately 150 super sacks; patching approximately 500 super sacks; and patching ultraviolet protective covering in hundreds of locations. The sources of damage included handling during initial installation, vandalism and vehicle impacts. ("Be on the lookout for vandalism to sand bags along the Green River," Kent Reporter - December 2010, www.pnwlocalnews.com/south_king/ken/news/111413339.html.) In addition, 30,000 standard sized sandbags were used to replace decayed burlap bags and fill gaps between the super sacks. The majority of this work was completed using Department of Adult and Juvenile Detention work crews.

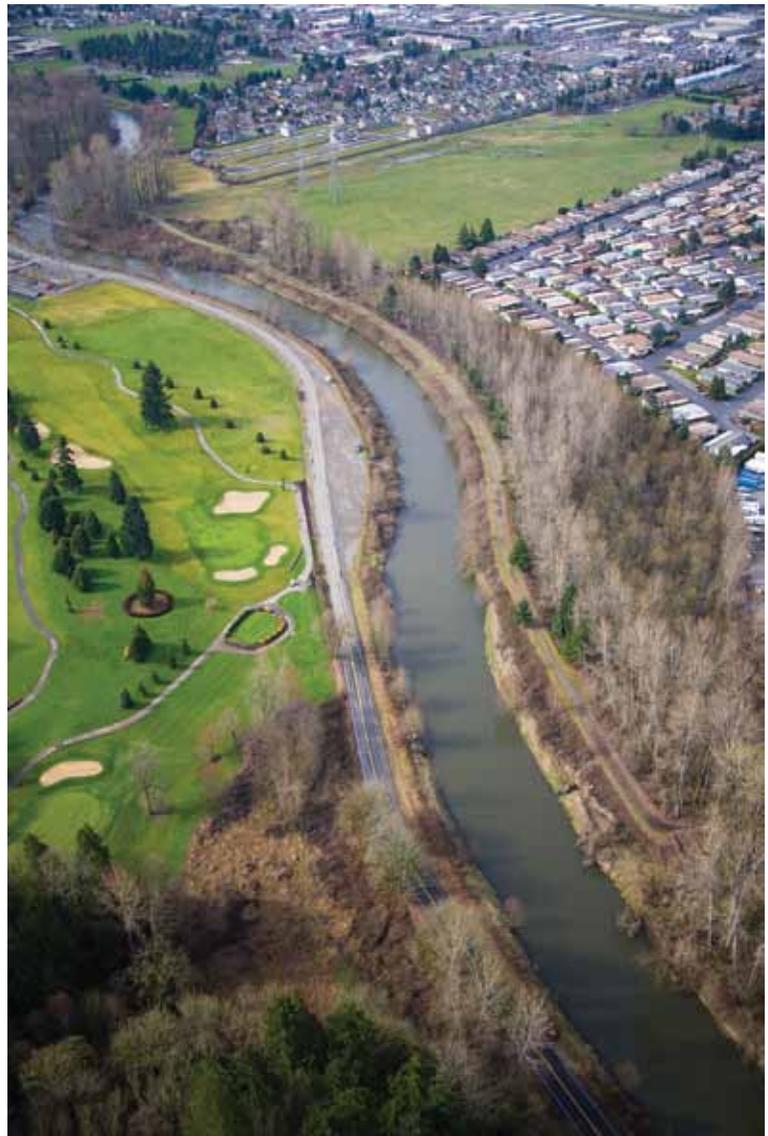
Temporary levees in the City of Pacific were also maintained to protect against flooding from the White River. This effort includes the operation of stormwater pumps during flood events and coordination, in agreement with city staff, to ensure that designed access gaps in the structures are closed during flood events.



F. Program Management and Supervision; and Finance, Budget and General Administration

Major activities during the end of 2010 included preparing 2011 operating and capital budgets for the Board and the Executive, such as grant billing and financial management; working with homeowners to provide accurate records of reimbursable home elevation costs; and preparation for converting to King County's new accounting system which is scheduled for January 2012.

Finance staff responded to a FEMA grant audit, as well as the annual internal audit by the District's accounting firm. Staff also prepared several alternative capital program scenarios to demonstrate the impacts of different levels of levy pro-rationing. In 2011, this work included supporting state legislative efforts by providing information on the District's progress, the public safety importance of the District's work program, and the impacts of levy pro-rationing in 2012 and 2013. This effort included a letter of support from the Advisory Committee sent to all members of the Washington State Legislature.



Reddington Reach Setback Project, Green River

Appendix A

2010 Final Budget



2010 Budget

Flood Control District Administration

\$607,000

Operating Budget

	Budget
Annual Maintenance	\$1,694,055
Flood Hazards Plan, Grants, Outreach	\$553,851
Flood Hazard Studies, Maps, Technical Services	\$1,592,550
Flood Preparation, Flood Warning Center	\$347,245
Program Management, Supervision, Finance, Budget	\$648,256
Program Implementation	\$1,677,292
Overhead / Central Costs	\$640,623
Total	\$7,153,872

Capital Budget

Project	Description	Budget
Snoqualmie River Basin		
FL0001	Miller River Home Buyout	\$19,985
FL0002	Miller River Road Protection	\$97,953
FL0004	Timber Lane Village Home Buyouts	\$99,239
FL0005	S.F. Skykomish River Repetitive Loss Mitigation	\$457,290
FL0007	McKnight Repair	\$57,479
FL1001	Middle Fork Snoqualmie River Flood Damage Repairs	\$5,380
FL1002	North Bend Area Residential Flood Mitigation	\$1,842,738
FL1003	South Fork Levee System Improvements	\$1,005,091
FL1005	Upper Snoqualmie River Flood Damage Repairs	\$26,399
FL1017	Kimball Creek and Snoqualmie Basin	\$230,098
FL1018	City of Snoqualmie Natural Area Acquisitions	\$236,928
FL1019	Middle Fork Levee System Capacity Improvements	\$999,213
FL1023	Upper Snoqualmie Residential Flood Mitigation	\$3,503,601
FL1024	Mason Thorson Ext Repair	\$46,371
FL1029	Vallcudra Repair	\$39,384
FL1030	Allen Repair	\$57,056
FL2001	Aldair & Fall City Reach Flood Mitigation	\$2,301,916
FL2002	Lower Snoqualmie River Flood Damage Repairs	\$586,893
FL2012	McElhoe/Person Levee	\$310,386
FL2013	Tolt Pipeline Protection	\$153,597
FL2014	Lower Snoqualmie River Repetitive Loss Mitigation	\$1,539,296
FL2015	McElhoe-Pearson Repair	\$50,000
FL2018	Farm/Flood Task Force Implementation	\$96,883
FL2020	Lower Snoqualmie Resl Flood Mitigation	\$600,000
FL3001	Tolt River Flood Damage Repairs	\$163,987
FL3002	Tolt Corridor Analysis	\$269,308
FL3003	Tolt River Road Shoulder Protection	\$12,529
FL3005	San Souci Neighborhood Buyout	\$1,253,297
FL3007	Tolt River SR 203 to Trail Bridge Floodplain Reconnection	\$1,000
FL3009	Tolt River Mile 1.1 Levee Setback	\$1,407,004
FL3011	HWY TO RR BR EMRGNCY RPR	\$175
FL3012	Frew Emergency Repair	\$1,897
FL4001	Alpine Manor Mobile Home Park Neighborhood Buyout	\$1,458,290
FL4002	Raging River Flood Damage Repairs	\$2,953
FL4017	Preston Fall-City Lowest Repair	\$26
FL4019	Bridge to Bridge R Repair	\$128
FL4021	Preston-Fall City Upper Repair	\$400,621
Total Snoqualmie Basin		\$19,334,391

Project	Description	Budget
Cedar River Basin		
FL6001	Issaquah Creek Streambank Stabilization	\$88,865
FL7001	Cedar Grove Mobile Home Park Acquisition	\$549,596
FL7002	Cedar Rapids Levee Setback	\$8,570
FL7003	Cedar River Flood Damage Repairs	\$713,548
FL7004	Cedar River Repetitive Loss Mitigation	\$879,063
FL7005	Elliott Bridge Levee Setback and Acquisition	\$528,010
FL7006	Rainbow Bend Levee Setback and Floodplain Reconnection	\$1,210,391
FL7014	Dorre Don Meanders- Phase 1	\$242,209
FL7015	Herzman Levee Setback & Floodplain Reconnection	\$286,305
FL7016	Jan Road-Rutledge Johnson Levee Setbacks	\$267,896
FL7018	Cedar River Gravel Removal	\$352,791
FL7026	Belmondo Emergency Repair	\$6,361
FL7027	Cedar Rapids Repair	\$1,041,133
FL7028	Cedar River Trail 1 Repair	\$1,032
FL7029	Cedar River Trail 3 Repair	\$819
FL7030	Orchard Grove Repair	\$40
FL7031	Petorak-Wadhams Repair	(\$411)
FL7032	Rhode Levee Repair	\$40
FL7034	Byers Curve Repair	\$23,968
FL7037	Rhode Levee Setback and Home Buyouts	\$242,998
FL7038	Herzman Repair	\$432,421
FL7040	Cedar Pre-Construction Strategic Acquisition	\$500,000
FL7043	Cedar River Trail 2B FEMA	\$217,579
FL7044	Belmondo Rvtmnt Repair FEMA PW1653	\$950,000
Total Cedar River Basin		\$8,543,224

Project	Description	Budget
Green River Basin		
FL8003	Green River 2006 Flood Damage Repairs	\$3,422
FL8011	Kent Shops-Narita	(\$1,782)
FL8016	Briscoe Levee #1-#3, #5-#8	\$3,798
FL8017	Briscoe Reach Design	\$2,822,571
FL8021	Reddington Reach Design	\$1,550,000
FL8023	42nd Ave South Repair	\$137
FL8027	Stoneway Lower Repair	\$742,956
FL8029	Horseshoe Bend Repair	\$60,000
FL8030	Ratolo Repair	\$25,000
FL8031	Gateway Lower/Codiga Repair	\$150,000
FL8037	Russell Rd Upper	\$164,000
FL8038	PL84-99 Mitigation Site	\$2,500,000
FL8041	Horseshoe Bend Acquisition & Reconnection	\$1,004,894
FL8043	Dykstra Lowspot Repair	\$20,463
FL8045	Green Flood Emergency Preparation	\$5,304,704
FL8058	Green Pre-Construction Acquisition	\$5,396,000
FL8059	Tukwila 205 - Lily Point Reimbursement	\$1,395,749
Total Green River Basin		\$21,141,912

Project	Description	Budget
White River Basin		
FL9001	County line to A-Street Flood Conveyance Improvement	\$2,281,630
FL9004	White-Greenwater Acquisition	\$10,901
FL9007	Pacific Right Bank Acquisition and Setback Berm	\$3,033,872
Total White River Basin		\$5,326,403

FLM000	Flood CIP Monitoring/Maintenance	\$410,407
FLS000	Subregional Opportunity Fund	\$9,238,660
FL8002	Alaskan Way Seawall Replacement Feasibility and Design	\$1,829,480

Project	Description	Budget
Countywide Costs		
FLX000	Central	\$79,837
FLX012	Stockpile Chargeback Projects	\$5,259
FLX013	Large Wood Public Process	\$7,017
FLX200	Flood Emergency Contingency	\$167,913
Total Countywide Costs		\$260,026
TOTAL CAPITAL BUDGET		\$66,084,503

Appendix B

2010 Expenditures



2010 Expenditures

District Administration \$417,847

Operating Expenditures

Annual Maintenance	\$1,577,401
Flood Hazards Plan, Grants, Outreach	\$464,682
Flood Hazard Studies, Maps, Technical Services	\$313,538
Flood Preparation, Flood Warning Center	\$174,556
Program Management, Supervision, Finance, Budget / Overhead Costs	\$2,045,679
Program Implementation	\$726,782
Howard Hanson Dam Related Expenditures	\$277,174
Transfers and Charges to Capital and Other Projects / Loan Out Labor Recovery	\$334,249
TOTAL	\$5,914,061

Capital Expenditures

Project	Description	2010 Expenditures	Life to Date Expenditures	Total Projected Cost	Percent Complete
Snoqualmie River Basin					
FL0001	Miller River Home Buyout	\$19,064	\$21,747	\$622,668	3%
FL0002	Miller River Road Protection	\$12,796	\$19,591	\$104,748	19%
FL0004	Timber Lane Village Home Buyouts	\$5,222	\$1,064,978	\$6,063,265	18%
FL0005	S.F. Skykomish River Repetitive Loss Mitigation	\$253,843	\$253,843	\$2,764,090	9%
FL0007	McKnight Repair	\$17,738	\$20,259	\$20,259	100%
FL1001	Middle Fork Snoqualmie River Flood Damage Repairs	(\$19,211)	\$179,229	\$179,229	100%
FL1002	North Bend Area Residential Flood Mitigation	\$383,306	\$632,716	\$632,716	100%
FL1003	South Fork Levee System Improvements	\$173,060	\$670,878	\$7,269,560	9%
FL1005	Upper Snoqualmie River Flood Damage Repairs	\$452	\$221,309	\$221,309	100%
FL1017	Kimball Creek and Snoqualmie Basin	\$12,080	\$49,999	\$68,017	74%
FL1018	City of Snoqualmie Natural Area Acquisitions	\$10,287	\$10,287	\$236,928	4%
FL1019	Middle Fork Levee System Capacity Improvements	\$217,432	\$320,767	\$3,649,693	9%
FL1023	Upper Snoqualmie Residential Flood Mitigation	\$2,356,628	\$2,357,542	\$8,304,515	28%
FL1024	Mason Thorson Ext Repair	\$45,209	\$98,834	\$98,834	100%
FL1029	Vallcudra Repair	\$210	\$2,830	\$42,004	7%
FL1030	Allen Repair	\$37,801	\$40,744	\$40,744	100%
FL2001	Aldair & Fall City Reach Flood Mitigation	\$184,834	\$1,037,442	\$3,740,859	28%
FL2002	Lower Snoqualmie River Flood Damage Repairs	\$9,872	\$241,762	\$1,318,783	18%
FL2012	McElhoe/Person Levee	\$43,120	\$43,120	\$1,430,857	3%
FL2013	Tolt Pipeline Protection	\$2,890	\$2,890	\$3,071,857	0%
FL2014	Lower Snoqualmie River Repetitive Loss Mitigation	\$472,611	\$474,159	\$2,595,047	18%
FL2015	McElhoe-Pearson Repair	\$9,517	\$9,517	\$9,517	100%
FL2018	Farm/Flood Task Force Implementation	\$67,918	\$67,918	\$796,883	9%
FL2020	Lower Snoqualmie Resl Flood Mitigation	\$59,971	\$59,971	\$3,300,000	2%
FL3001	Tolt River Flood Damage Repairs	\$716	\$38,736	\$38,736	100%
FL3002	Tolt Corridor Analysis	\$45,953	\$55,865	\$279,220	20%
FL3003	Tolt River Road Shoulder Protection	\$12,529	\$242,262	\$242,262	100%
FL3005	San Souci Neighborhood Buyout	\$554,416	\$559,616	\$3,624,464	15%
FL3007	Tolt River SR 203 to Trail Bridge Floodplain Reconnection	\$756	\$756	\$6,416,936	0%
FL3009	Tolt River Mile 1.1 Levee Setback	\$1,281,481	\$2,144,477	\$8,028,353	27%
FL3011	HWY TO RR BR EMRGNCY RPR	\$175	\$156,020	\$156,020	100%
FL4001	Alpine Manor Mobile Home Park Neighborhood Buyout	\$283,621	\$944,681	\$6,843,376	14%
FL4002	Raging River Flood Damage Repairs	(\$28,258)	\$350,399	\$350,399	100%
FL4017	Preston Fall-City Lowest Repair	\$26	\$432	\$432	100%
FL4019	Bridge to Bridge R Repair	\$128	\$49,531	\$49,531	100%
FL4021	Preston-Fall City Upper Repair	\$12,696	\$25,694	\$413,619	6%
Total Snoqualmie River Basin		\$6,540,888			

Cedar River Basin

FL6001	Issaquah Creek Streambank Stabilization	\$88,865	\$112,756	\$112,756	100%
FL7001	Cedar Grove Mobile Home Park Acquisition	\$486,665	\$5,084,187	\$5,084,187	100%
FL7002	Cedar Rapids Levee Setback	\$5,948	\$1,189,902	\$1,189,902	100%
FL7003	Cedar River Flood Damage Repairs	\$19,765	\$509,710	\$703,493	72%
FL7004	Cedar River Repetitive Loss Mitigation	\$733,967	\$2,501,699	\$3,546,795	71%
FL7005	Elliott Bridge Levee Setback and Acquisition	\$330,282	\$2,184,240	\$3,351,088	65%
FL7006	Rainbow Bend Levee Setback and Floodplain Reconnection	\$166,099	\$194,380	\$2,085,731	9%
FL7015	Herzman Levee Setback & Floodplain Reconnection	\$20,916	\$41,157	\$1,188,902	3%
FL7016	Jan Road-Rutledge Johnson Levee Setbacks	\$9,017	\$9,017	\$1,005,603	1%
FL7026	Belmondo Emergency Repair	\$6,221	\$164,572	\$164,572	100%
FL7027	Cedar Rapids Repair	\$1,040,111	\$1,442,978	\$1,442,978	100%
FL7028	Cedar River Trail 1 Repair	\$1,032	\$297,485	\$297,485	100%
FL7029	Cedar River Trail 3 Repair	\$819	\$185,646	\$185,646	100%
FL7030	Orchard Grove Repair	\$40	\$4,630	\$4,630	100%
FL7031	Petorak-Wadhams Repair	(\$411)	\$154,342	\$154,342	100%
FL7032	Rhode Levee Repair	\$40	\$13,851	\$13,851	100%
FL7034	Byers Curve Repair	\$20,677	\$20,677	\$20,677	100%
FL7037	Rhode Levee Setback and Home Buyouts	\$22,889	\$22,889	\$2,136,622	1%
FL7038	Herzman Repair	\$146,491	\$146,491	\$432,421	34%
FL7040	Cedar Pre-Construction Strategic Acquisition	\$224,523	\$224,523	\$10,000,000	2%
FL7043	Cedar River Trail 2B FEMA	\$220,157	\$220,157	\$220,157	100%
FL7044	Belmondo Rvtmnt Repair FEMA PW1653	\$174,129	\$174,129	\$174,129	100%
Total Cedar River Basin			\$3,718,241		

Green River Basin

FL8003	Green River 2006 Flood Damage Repairs	\$2,575	\$2,343,154	\$2,343,154	100%
FL8011	Kent Shops-Narita	(\$1,782)	\$4,103,988	\$4,103,988	100%
FL8016	Briscoe Levee #1-#3, #5-#8	\$1,472	\$138,711	\$138,711	100%
FL8017	Briscoe Reach Design	\$364,942	\$381,545	\$1,339,174	28%
FL8021	Reddington Reach Design	\$734,354	\$760,942	\$16,593,588	5%
FL8023	42nd Ave South Repair	\$137	\$353,708	\$353,708	100%
FL8027	Stoneway Lower Repair	\$747,451	\$841,022	\$850,000	99%
FL8029	Horseshoe Bend Repair	\$12,665	\$12,665	\$12,665	100%
FL8037	Russell Rd Upper	\$2,455	\$2,455	\$914,000	0%
FL8038	PL84-99 Mitigation Site	\$111,937	\$111,937	\$3,789,600	3%
FL8041	Horseshoe Bend Acquisition & Reconnection	\$25,343	\$25,343	\$3,208,610	1%
FL8043	Dykstra Lowspot Repair	\$21,530	\$214,067	\$229,000	93%
FL8045	Green Flood Emergency Preparation	\$3,427,118	\$6,519,993	\$8,697,579	75%
FL8059	Tukwila 205 - Lily Point Reimbursement	\$1,394,900	\$1,394,900	\$1,394,900	100%
Total Green River Basin			\$6,845,099		

White River Basin

FL9001	County line to A-Street Flood Conveyance Improvement	\$465,638	\$790,995	\$8,962,005	9%
FL9004	White-Greenwater Acquisition	\$10,752	\$30,769	\$726,483	4%
FL9007	Pacific Right Bank Acquisition and Setback Berm	\$3,041,211	\$4,346,610	\$7,971,670	55%
Total White River Basin			\$3,517,601		

FLM000	Flood CIP Monitoring/Maintenance	\$236,909	\$310,532	\$3,151,731	
FLS000	Subregional Opportunity Fund	\$3,724,143	\$4,859,751	\$33,242,506	
FL8002	Alaskan Way Seawall Replacement Feasibility and Design	\$1,835,328	\$2,005,848	\$2,005,848	100%

Countywide Costs

FLX000	Central Costs	\$79,837	\$79,837	\$79,837	
FLX013	Large Wood Public Process	\$7,017	\$7,017	\$7,017	100%
FLX200	Flood Emergency Contingency	\$30,290	\$30,290	\$1,817,913	
Total Countywide Costs			\$117,145		

D15712	Fund Default Project	(\$11,434)	\$84,831	N/A	
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Total 2010 Capital Expenditures			\$26,523,921		
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Appendix C

2011 Budget



2011 Budget

District Administrative Budget

\$473,000

Operating Budget

Program	2011 Requested
Annual Maintenance	\$1,508,460
Flood Hazards Plan, Grants, Outreach	\$523,930
Flood Hazard Studies, Maps, Technical Services	\$1,482,056
Flood Preparation, Flood Warning Center	\$372,421
Program Management, Supervision, Finance, Budget	\$707,867
Program Implementation	\$1,823,966
Overhead / Central Costs	\$688,489
Total Operating Budget	\$7,107,188

Capital Budget

Snoqualmie River Basin

FL0001	Miller River Home Buyout	\$600,000
FL0010	SF Skykomish/Maloney Confluence Improvements	\$50,000
FL1003	South Fork Levee System Improvements	\$1,766,862
FL1017	Kimball Creek and Snoqualmie Basin	(\$200,000)
FL1019	Middle Fork Levee System Capacity Improvements	\$960,444
FL1023	Upper Snoqualmie Residential Flood Mitigation	\$1,105,615
FL2001	Aldair & Fall City Reach Flood Mitigation	\$86,335
FL2002	Lower Snoqualmie River Flood Damage Repairs	\$500,000
FL2012	McElhoe/Person Levee	\$75,000
FL2013	Tolt Pipeline Protection	\$300,000
FL2015	McElhoe-Pearson Repair	(\$50,000)
FL2018	Farm/Flood Task Force Implementation	\$100,759
FL2020	Lower Snoqualmie Resl Flood Mitigation	\$300,000
FL3005	San Souci Neighborhood Buyout	\$1,365,967
FL3009	Tolt River Mile 1.1 Levee Setback	\$1,937,850
FL4001	Alpine Manor Mobile Home Park Neighborhood Buyout	\$1,083,244
Total Snoqualmie River Basin		\$9,982,076

Cedar River Basin

FL7003	Cedar River Flood Damage Repairs	(\$500,000)
FL7005	Elliott Bridge Levee Setback and Acquisition	\$930,440
FL7006	Rainbow Bend Levee Setback and Floodplain Reconnection	\$832,059
FL7015	Herzman Levee Setback & Floodplain Reconnection	\$469,504
FL7016	Jan Road-Rutledge Johnson Levee Setbacks	\$394,321
FL7018	Cedar River Gravel Removal	\$369,684
FL7037	Rhode Levee Setback and Home Buyouts	\$463,816
FL7040	Cedar Pre-Construction Strategic Acquisition	\$1,114,015
Total Cedar River Basin		\$4,073,839

Green River Basin

FL8017	Briscoe Reach Design	\$100,000
FL8021	Reddington Reach Design	\$50,000
FL8037	Russell Rd Upper	\$2,775,500
FL8031	Gateway Lower/Codiga Repair	\$400,000
FL8063	Reddington Levee Setback	\$1,350,191
Total Green River Basin		\$4,675,691

Capital Budget

White River Basin		
FL9001	County line to A-Street Flood Conveyance Improvement	\$4,775,000
FL9007	Pacific Right Bank Acquisition and Setback Berm	\$1,760,046
Total White River Basin		\$6,535,046
Seattle Projects		
FL8024	South Park - Duwamish Backwater Inundation	\$3,000,000
FLC001	Alaskan Way Seawall Replacement	\$4,250,000
Total Seattle Projects		\$7,250,000
FLM000	Flood CIP Monitoring/Maintenance	\$256,781
FLS000	Subregional Opportunity Fund	\$3,607,031
FLX200	Flood Emergency Contingency	\$250,000
FLX300	PL84-99 Mitigation	\$2,100,000
FLX400	Central Costs	\$115,000
Total Countywide Costs		\$2,465,000
	Suppression Contra ¹	(\$8,500,000)
	Seattle Seawall Contra ¹	(\$4,000,000)
Total 2011 Capital Budget		\$26,345,464

Notes:

1) The numbers shown here represent the budget as adopted in Resolution FCD2010-37. It is the new appropriation for 2011 and does not include carryover budget from 2010. It is anticipated the District Board of Supervisors will adopt the carryover additions to the budget in the second quarter of 2011.

2) The 2011 budget was approved with two large "contra" projects which serve as placeholders for anticipated expenditures that could not be fully accounted for at the time of adoption. The District Board of Supervisors is anticipated to adopt a revised version of the budget that reallocates appropriation and eliminates the contra projects.

