

RESOLUTION 2014-15

RESOLUTION NO. 2014-15 A RESOLUTION OF THE BOARD OF COMMISSIONERS OF SOUTHWEST SUBURBAN SEWER DISTRICT, KING COUNTY, WASHINGTON, AUTHORIZING THE ADOPTION OF THE KING COUNTY REGIONAL HAZARD MITIGATION PLAN UPDATE

WHEREAS, all of King County has exposure to natural hazards that increase the risk to life, property, environment and the County's economy; and

WHEREAS; pro-active mitigation of known hazards before a disaster event can reduce or eliminate long-term risk to life and property; and

WHEREAS, The Disaster Mitigation Act of 2000 (Public Law 106-390) established new requirements for pre- and post-disaster hazard mitigation programs; and

WHEREAS; a coalition of King County, Cities, Towns and Special Purpose Districts with like planning objectives has been formed to pool resources and create consistent mitigation strategies within the King County planning area; and

WHEREAS, the coalition has completed a planning process that engages the public, assesses the risk and vulnerability to the impacts of natural hazards, develops a mitigation strategy consistent with a set of uniform goals and objectives, and creates a plan for implementing, evaluating and revising this strategy;

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of Southwest Suburban Sewer District, King County, Washington,

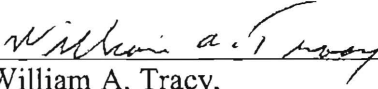
- 1.) Adopts in its entirety, Volume 1 and the introduction, chapter 53, Southwest Suburban Sewer District's jurisdictional annex, and the appendices of Volume 2 of the King County Regional Plan Update (RHMP).
- 2.) Will use the adopted and approved portions of the RHMP to guide pre- and post-disaster mitigation of the hazards identified.
- 3.) Will coordinate the strategies identified in the RHMP with other planning programs and mechanisms under its jurisdictional authority.
- 4.) Will continue its support of the Steering Committee and continue to participate in the Planning Partnership as described by the RHMP.
- 5.) Will help to promote and support the mitigation successes of all RHMP Planning Partners.

ADOPTED by the Board of Commissioners of Southwest Suburban Sewer District, King County, Washington, at a regular meeting thereof held this October 21st, 2014

SOUTHWEST SUBURBAN SEWER DISTRICT
KING COUNTY, WASHINGTON

Individual Commissioner's
Vote on Resolution

In Favor of: _____
Opposed: _____
Abstained: _____



William A. Tracy,
President and Commissioner

In Favor of: _____
Opposed: _____
Abstained: _____



Susan M. Genzale
Vice-President and Commissioner

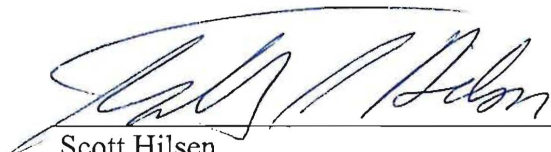
In Favor of: _____
Opposed: _____
Abstained: _____



Scott Hilsen,
Secretary and Commissioner

CERTIFICATE

I, Scott Hilsen, Secretary of the Board of Commissioners of Southwest Suburban Sewer District, King County, Washington, DO HEREBY CERTIFY that the foregoing resolution is a true and correct copy of Resolution 2014-15 of said Board, duly adopted at a regular meeting thereof held on the 21st of October, 2014, signed by the members of such Board in attendance at such meeting and attested by myself in authentication of such adoption.



Scott Hilsen
Secretary of the Board of Commissioners
Southwest Suburban Sewer District



Southwest Suburban Sewer District

431 SW Ambaum Boulevard – Burien, WA 98166
Phone 206-244-9575 Fax 206-433-8546

"Dedicated to preserve the purity of your environment."

MEMORANDUM

To: Board of Commissioners

From: Ron Hall

Date: 10/21/2014

Subject: Adopt Resolution 2014-15 accepting all of Volume 1 and the District's portion of Volume 2 of the King County Regional Hazard Mitigation Plan Update.

GENERAL MANAGER RECOMMENDS:

Adoption of Resolution 2014-15 accepting all of Volume 1 and the District's portion of Volume 2 of the King County Regional Hazard Mitigation Plan Update.

BACKGROUND

Hazard Mitigation Planning in King County:

In January of 2013, a partnership of King County cities and special purpose districts embarked on a planning process to prepare for and lessen the impacts of specified natural hazards by updating the King County Regional Hazard Mitigation Plan. Responding to federal mandates in the Disaster Mitigation Act of 2000 (Public Law 106-390), the partnership was formed to pool resources and to create a uniform hazard mitigation strategy that can be consistently applied to the defined planning area and used to ensure eligibility for specified grant funding success.

This effort represents the second comprehensive update to the initial hazard mitigation plan, approved by the Federal Emergency Management Agency (FEMA) in November of 2004, as well as a return to a truly regional effort following the truncated 2009 planning process. The 54 member planning partnership involved in this program includes King County, 26 city and town governments and 27 special purpose districts. The planning area for the hazard mitigation plan was defined as all incorporated and unincorporated areas of King County as well as the incorporated areas of cities that cross County boundaries: Auburn, Bothell, Milton and Pacific. The result of the organizational effort will be a FEMA and State Emergency Management Agency (WAEMD) approved multi-jurisdictional, multi-hazard mitigation plan.

Mitigation is defined in this context as any sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event. Mitigation planning is the systematic process of learning about the hazards that can affect the community, setting clear goals, identifying appropriate actions and following through with an effective mitigation strategy. Mitigation encourages long-term reduction of hazard vulnerability and can reduce the enormous cost of disasters to property owners and all levels of

government. Mitigation can also protect critical community facilities, reduce exposure to liability, and minimize post-disaster community disruption.

The hazard identification and profiling in the hazard mitigation plan addresses the following hazards of concern within the planning area:

1. Avalanche
2. Dam failure
3. Earthquake
4. Flood
5. Landslide
6. Severe weather
7. Severe winter weather
8. Tsunami
9. Volcano
10. Fire

With the exception of dam failure, this plan does not provide a full risk assessment of technological and human-caused hazards. However, brief, qualitative discussions of the following hazards of interest are included: health hazards, cybersecurity and terrorism.

The King County Office of Emergency Management has been the lead agency role in developing the hazard mitigation plan. All participating local jurisdictions have been responsible for assisting in the development of the hazard and vulnerability assessments and the mitigation action strategies for their respective jurisdictions and organizations. The Plan presents the accumulated information in a unified framework to ensure a comprehensive and coordinated plan covering the entire King County planning area. Each jurisdiction has been responsible for the review and approval of their individual sections of the Plan.

The Plan was prepared in accordance with the guidelines established by the Washington Military Department Emergency Management Division and has been aligned with the goals, objectives and priorities of the State's multi-hazard mitigation plan.

A 19 member Steering Committee (SC) composed of representative stakeholders was formed early in the planning process to guide the development of the Plan. In addition, residents were asked to contribute by sharing local knowledge of their individual area's vulnerability to natural hazards based on past occurrences. Public involvement has been solicited via a multi-media campaign that included two rounds of public meetings, web-based information, a questionnaire and progress updates via the news media.

Why adopt this Plan?

Once the hazard mitigation plan is adopted by each jurisdictional partner and approved by FEMA, the partnership will collectively and individually become eligible to apply for hazard mitigation project funding under the unified hazard mitigation assistance grant program, which provides pre- and post-disaster grant opportunities (*For more details on this program see Attachment 1*).

What is the Pre-Disaster Mitigation competitive grant program?

The PDM competitive grant program provides funds to State, Tribal and local governments for pre-disaster mitigation planning and projects primarily addressing natural hazards. Cost-effective pre-disaster

mitigation activities reduce risk to life and property from natural hazard events before a natural disaster strikes, thus reducing overall risks to the population and structures, while also reducing reliance on funding from actual disaster declarations. Funds will be awarded on a competitive basis for mitigation planning and project applications intended to make local governments more resistant to the impacts of future natural disasters (*For more details on this program see Attachment 1*).

What is the Hazard Mitigation Grant Program?

Authorized under Section 404 of the Stafford Act, the HMGP administered by FEMA provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster (*For more details on this program see Attachment 1*).

Where do we go from here?

Upon adoption of Volume 1 and Southwest Suburban Sewer District Annex of Volume 2 of the King County Regional Hazard Mitigation Plan Update (RHMP) and subsequent approval of said plan by WAEMD and FEMA, the District will be eligible to apply for specified grants. The grant funds are made available to states and local governments and can be used to implement the long-term hazard mitigation measures specified within the District's annex of the RHMP before and after a major disaster declaration. The RHMP is considered a living document such that, as awareness of additional hazards develops and new strategies and projects are conceived to offset or prevent losses due to natural disasters, the RHMP will be evaluated and revised on a continual 5-year time frame.

Attachments:

1. The Unified Hazard Mitigation Assistance Grant Programs Fact Sheet
2. Southwest Suburban Sewer District Annex of the King County Regional Hazard Mitigation Plan Update
3. Draft Resolution 2014-15

Attachment 1
The Unified Hazard Mitigation Assistance Grant Programs Fact Sheet



FEMA

Program Information

Mitigation

The Unified Hazard Mitigation Assistance Grant Programs



Hazard Mitigation Assistance

The Department of Homeland Security (DHS) Federal Emergency Management Agency (FEMA) Hazard Mitigation Assistance (HMA) programs present a critical opportunity to reduce the risk to individuals and property from natural hazards while simultaneously reducing reliance on Federal disaster funds.

A Common Goal

While the statutory origins of the programs differ, all share the common goal of reducing the risk of loss of life and property due to natural hazards.

Funding Disaster Recovery Efforts

The Hazard Mitigation Grant Program (HMGP) may provide funds to States, Territories, Indian Tribal governments, local governments, and eligible private non-profits following a Presidential major disaster declaration.

The Hazard Mitigation Grant Program (HMGP) is authorized by



Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended (the Stafford Act), Title 42, United States Code (U.S.C.) 5170c. The key

purpose of HMGP is to ensure that the opportunity to take critical mitigation measures to reduce the risk of loss of life and property from future disasters is not lost during the reconstruction process following a disaster. HMGP is available, when authorized under a Presidential major disaster declaration, in the areas of the State requested by the Governor. The amount of HMGP funding available to the Applicant is based upon the total Federal assistance to be provided by FEMA for disaster recovery under the Presidential major disaster declaration.

The Pre-Disaster Mitigation (PDM)



program is authorized by Section 203 of the Stafford Act, 42 U.S.C. 5133. The PDM program is designed to assist States, Territories, Indian Tribal governments, and local communities in

implementing a sustained pre-disaster natural hazard mitigation program to reduce overall risk to the population and structures from future hazard events, while also reducing reliance on Federal funding from future disasters.

The Flood Mitigation Assistance (FMA) program is authorized by Section



1366 of the National Flood Insurance Act of 1968, as amended (NFIA), 42 U.S.C. 4104c, with the goal of reducing or eliminating claims under the National Flood Insurance Program (NFIP).

The Repetitive Flood Claims (RFC)



program is authorized by Section 1323 of the NFIA, 42 U.S.C. 4030, with the goal of reducing flood damages to individual properties for which one or more claim payments for losses have been made under flood insurance coverage and that will result in the greatest savings to the National Flood Insurance Fund (NFIF) in the shortest period of time.

The Severe Repetitive Loss (SRL)



program is authorized by Section 1361A of the NFIA, 42 U.S.C. 4102a, with the goal of reducing flood damages to residential properties that have experienced severe repetitive losses under flood insurance coverage and that will result in the greatest amount of savings to the NFIF in the shortest period of time.

Additional HMA resources, including the HMA Unified Guidance, may be accessed at www.fema.gov/government/grant/nma/index.shtm

Available Funding

PDM, FMA, RFC, and SRL are subject to the availability of appropriations funding, as well as any directive or restriction made with respect to such funds.

HMGP funding depends on Federal assistance provided for disaster recovery.

General Requirements

All mitigation projects must be cost-effective, be both engineering and technically feasible, and meet Environmental Planning and Historic Preservation requirements in accordance with HMA Unified Guidance. In addition, all mitigation activities must adhere to all relevant statutes, regulations, and requirements including other applicable Federal, State, Indian Tribal, and local laws, implementing regulations, and Executive Orders.

All Applicants and subapplicants must have hazard mitigation plans that meet the requirements of 44 CFR Part 201.

Program Comparisons

Cost Sharing

In general, HMA funds may be used to pay up to 75 percent of the eligible activity costs. The remaining 25 percent of eligible costs are derived from non-Federal sources.

The table below outlines the Federal and State cost share requirements.

COST SHARE REQUIREMENTS

Programs	Mitigation Activity Grant (Percent of Federal/ Non-Federal Share)
HMGP	75/25
PDM	75/25
PDM (subgrantee is small impoverished community)	90/10
PDM (Tribal grantee is small impoverished community)	90/10
FMA	75/25
FMA (severe repetitive loss property with Repetitive Loss Strategy)	90/10
RFC	100/0
SRL	75/25
SRL (with Repetitive Loss Strategy)	90/10

Eligible Applicants and Subapplicants

States, Territories, and Indian Tribal governments are eligible HMA Applicants. Each State, Territory, and Indian Tribal government shall designate one agency to serve as the Applicant for each HMA program. All interested subapplicants must apply to the Applicant.

The table below identifies, in general, eligible subapplicants.

ELIGIBLE SUBAPPLICANTS

Subapplicants	HMGP	PDM	FMA	RFC	SRL
State agencies	✓	✓	✓	✓	✓
Indian Tribal governments	✓	✓	✓	✓	✓
Local governments/communities	✓	✓	✓	✓	✓
Private non-profit organizations (PNPs)	✓				

✓ = Subapplicant is eligible for program funding

Individuals and businesses are not eligible to apply for HMA funds, however, an eligible subapplicant may apply for funding to mitigate private structures. RFC funds are only available to subapplicants who cannot meet the cost share requirements of the FMA program.

Eligible Activities

The table below summarizes eligible activities that may be funded by HMA programs. Detailed descriptions of these activities can be found in the HMA Unified Guidance.

ELIGIBLE ACTIVITIES

Mitigation Activities	HMGP	PDM	FMA	RFC	SRL
1. Mitigation Projects	✓	✓	✓	✓	✓
Property Acquisition and Structure Demolition or Relocation	✓	✓	✓	✓	✓
Structure Elevation	✓	✓	✓	✓	✓
Mitigation Reconstruction					✓
Dry Floodproofing of Historic Residential Structures	✓	✓	✓	✓	✓
Dry Floodproofing of Non-Residential Structures	✓	✓	✓	✓	
Minor Localized Flood Reduction Projects	✓	✓	✓	✓	✓
Structural Retrofitting of Existing Buildings	✓	✓			
Non-Structural Retrofitting of Existing Buildings and Facilities	✓	✓			
Safe Room Construction	✓	✓			
Infrastructure Retrofit	✓	✓			
Soil Stabilization	✓	✓			
Wildfire Mitigation	✓	✓			
Post-Disaster Code Enforcement	✓				
5% Initiative Projects	✓				
2. Hazard Mitigation Planning	✓	✓	✓		
3. Management Costs	✓	✓	✓	✓	✓

✓ = Mitigation activity is eligible for program funding

Management Costs

For HMGP only: The Grantee may request up to 4.89 percent of the HMGP allocation for management costs. The Grantee is responsible for determining the amount, if any, of funds that will be passed through to the subgrantee(s) for their management costs.

Applicants for PDM, FMA, RFC, or SRL may apply for a maximum of 10 percent of the total funds requested in their grant application budget (Federal and non-Federal shares) for management costs to support the project and planning subapplications included as part of their grant application.

Subapplicants for PDM, FMA, RFC, or SRL may apply for a maximum of 5 percent of the total funds requested in a subapplication for management costs.

National Flood Insurance Program (NFIP) Participation

There are a number of ways that HMA eligibility is related to the NFIP:



SUBAPPLICANT ELIGIBILITY: All subapplicants for FMA, RFC, or SRL must currently be participating in the NFIP, and not withdrawn or suspended, to be eligible to apply for grant funds. Certain non-participating political subdivisions (i.e., regional flood control districts or county governments) may apply and act as subgrantee on behalf of the NFIP-participating community in areas where the political subdivision provides zoning and building code enforcement or planning and community development professional services for that community.

PROJECT ELIGIBILITY: HMGP and PDM mitigation project subapplications for projects sited within a Special Flood Hazard Area (SFHA) are eligible only if the jurisdiction in which the project is located is participating in the NFIP. There is no NFIP participation requirement for HMGP and PDM project subapplications located outside of the SFHA.

PROPERTY ELIGIBILITY: Properties included in a project subapplication for FMA, RFC, and SRL funding must be NFIP-insured at the time of the application submittal. Flood insurance must be maintained at least through completion of the mitigation activity.

Application Process

Applications for HMGP are processed through the National Emergency Management Information System (NEMIS). Applicants use the Application Development Module of NEMIS, which enables each Applicant to create project applications and submit them to the appropriate FEMA Region in digital format for the relevant disaster.

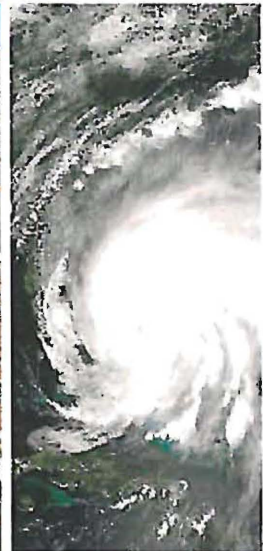
Applications for PDM, FMA, RFC, and SRL are processed through a web-based, electronic grants management system (eGrants), which encompasses the entire grant application process. The eGrants system allows Applicants and subapplicants to apply for and manage their mitigation grant application processes electronically. Applicants and subapplicants can access eGrants at <https://portal.fema.gov>.

Application Deadline

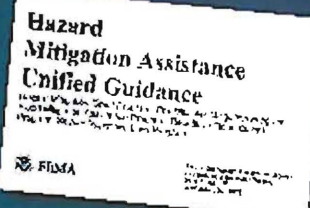
The PDM, FMA, RFC, and SRL application period is from early June through early December. Applicants must submit a grant application to FEMA through the eGrants system. The HMGP application deadline is 12 months after the disaster declaration date and is not part of the annual application period. Details can be found in the HMA Unified Guidance.

FEMA Review and Selection

All subapplications will be reviewed for eligibility and completeness, cost-effectiveness, engineering feasibility and effectiveness, and for Environmental Planning and Historical Preservation compliance. Subapplications that do not pass these reviews will not be considered for funding. FEMA will notify Applicants of the status of their subapplications and will work with Applicants on subapplications identified for further review.



Details about the HMA Grant Application process can be found in the Hazard Mitigation Assistance Unified Guidance, which is available at www.fema.gov/government/grant/hma/index.shtm



GovDelivery Notifications

Stay up-to-date on the HMA Grant Programs by subscribing to GovDelivery notifications. Have updates delivered to an e-mail address or mobile device. To learn more, visit www.fema.gov

Contact Information

HMA Helpline: Tel 866-222-3580, or e-mail hmagrantshelp@fema.gov

Contact Information for FEMA Regional Offices is provided at www.fema.gov/about/contact/regions.shtm

Contact Information for each State Hazard Mitigation Officer (SHMO) is provided at www.fema.gov/about/contact/shmo.shtm



FEMA

Attachment 2

Southwest Suburban Sewer District's Jurisdictional Annex of the King County Regional Hazard Mitigation Plan Update

SOUTHWEST SUBURBAN SEWER DISTRICT UPDATE ANNEX

1.1 HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact

Laura Gallez, Supervisor
431 SW Ambaum Blvd
Burien, WA 98166
Telephone: (206) 432-3513
e-mail Address: laura.gallez@swssd.com

Alternate Point of Contact

Ron Hall, General Manager
431 SW Ambaum Blvd
Burien, WA 98166
Telephone: (206) 432-3512
e-mail Address: ron.hall@swssd.com

JURISDICTION PROFILE

Southwest Suburban Sewer District was established in 1945 in order to maintain sewer infrastructure installed by the Federal Government during WWII. The District formally purchased the sewer infrastructure in 1954. The first sewer comprehensive plan was adopted in the 1950's to provide sanitary sewer service.

Southwest Suburban Sewer District is located in west central portion of King County and encompasses more than 12.5 square miles serving the City of Burien, the City of Normandy Park, portions of the City of Seattle, City of Des Moines, City of SeaTac, and a portion of Valley View Sewer District. The District service area is generally bounded on the north by the City of Seattle and unincorporated King County, on the east by the City of SeaTac, to the south by the City of Des Moines, and on the west by Puget Sound.

The District provides sanitary sewer service to customers within its sewer service area. Wastewater ultimately flows to one of three locations:

- Miller Creek Wastewater Treatment, which is owned and operated by the District.
- Salmon Creek Wastewater Plant, which is owned and operated by the District.
- Midway Sewer District. A segment of the southern portion of the District boundaries generally flows in a southerly direction to the Midway Sewer District.

Wastewater that affects the total flows through the District's collection and conveyance system can be categorized into two sources:

- Direct service—Flow from customers within the boundaries of the District
- Tributary Service—Flow that originates from areas outside the District boundaries from other sewer agencies. These tributary areas include flow from the Cities of Seattle, SeaTac, Des Moines, Normandy Park and Burien, unincorporated King County and from the Valley View Sewer District.

Inter-local agreements between the District and the neighboring sewer agencies define the terms by which sewer service is provided. It is possible that those agreements could be amended in the future but it is unlikely that flows would be routed differently than currently described. It is assumed for the purposes of this Plan that the flows will continue under the current routing mode and that there would be no change to the current inter-local agreements that govern these sewer services.

The District encompasses 8,000 acres. Of these 8,000 acres approximately 601 acres and 670 acres of the sewer infrastructure is maintained by Seattle Public Utilities (SPU) and Valley View Sewer District, respectively. All flow is treated by one of the two waste water treatment plants in the District. In 2010, the District provided sewer service directly to 24,700 connections and serves approximately 56,791 people.

The District is governed by an elected three person board of commissioners and is under the general management of Mr. Ron Hall. There are 33 full time employees that comprise the District staff. Board of Commissioners assumes responsibility for the adoption of this plan; Ron Hall will oversee its implementation. Funding for projects comes primarily through sewer rates, with additional revenue coming from loans, such as the Public Works Trust Fund, the issuance of bonds and available grants.

The following is a summary of key information about the jurisdiction:

Population Served—56,791 people as of 2010

Land Area Served—8,000 acres

Value of Area Served—Estimated value of the area served by the jurisdiction is \$3,375,165,100

Land Area Owned—35 acres

List of Critical Infrastructure/Equipment Owned by the Jurisdiction:

- 1,531,200 LF Sewer System	\$215,000,000
- Vactor	\$350,000
- Camera Truck	\$300,000
- Sludge Hauler	\$150,000
- Excavation Equipment	\$200,000
- Service Trucks	\$300,000
- Tank Truck	\$75,000
- District Fleet Vehicles	\$750,000
- Portable Generators	\$60,000
- Pumps and Misc Equipment	\$100,000
- Network and Computer Equipment	\$150,000
- Emergency Communication Equipment	\$50,000

Total Value of Critical Infrastructure/Equipment—The total value of critical infrastructure and equipment owned by the jurisdiction is \$217,485,000.

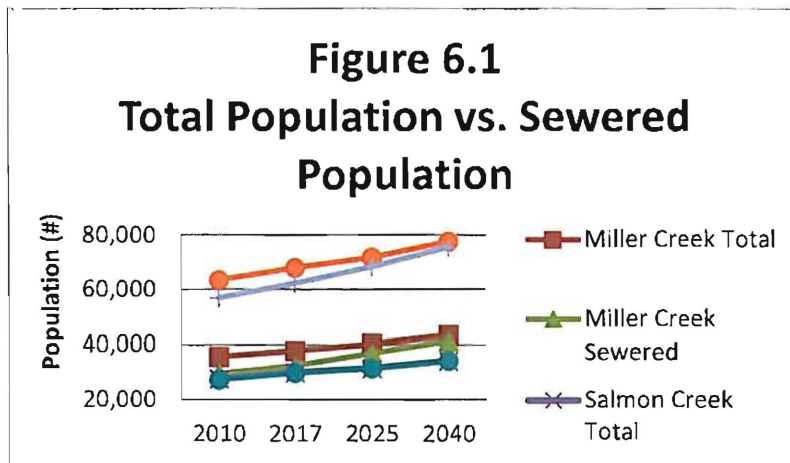
List of Critical Facilities Owned by the Jurisdiction:

Administration and Sewer Department Facility	\$10,000,000
Salmon Creek Treatment Plant	\$50,000,000
Miller Creek Treatment Plant	\$60,000,000
Pump Stations No. 2	\$600,000
Pump Station No. 4	\$600,000
Pump Station No. 7	\$600,000
Pump Station No. 8	\$1,000,000

Pump Station No. 11	\$600,000
Pump Station No. 12	\$600,000
Pump Station No. 14	\$600,000
Pump Station No. 15	\$600,000
Pump Station No. 16	\$600,000
Pump Station No. 17	\$1,000,000
Pump Station No. 18	\$600,000

Total Value of Critical Facilities—The total value of critical facilities owned by the jurisdiction is \$127,400,000.

Current and Anticipated Service Trends— The following graph demonstrates the predicted District population growth for the District geographical area and the growth trends associated with the current non-sewer served population. The next two tables represent the current WWTP flows and the projected flows relating to population growth, I&I, and increased seasonal water flows. This data was taken from the 2013 SWSSD Comprehensive Plan.



Parameter	Miller Creek WWTP	Salmon Creek WWTP
Average dry weather flow (ADWF), mgd	2.00	1.70
Annual average flow (AAF), mgd	2.85	2.31
Average wet weather flow (AWWF) ² , mgd	3.19	2.90
Maximum month flow (MMF) ³ , mgd	4.58	4.32
Peak day flow (PDF), mgd	14.76	14.37
Peak wet weather flow (PWWF), mgd	>22.00	>22.00

¹ Values presented are the annual average values for years 2007 to 2010.

² AWWF is defined as the average of four wet weather months (Nov – Feb) for years 2007 to 2010.

³ Maximum month flow (MMF) is the average flow for the maximum month, as defined in the current NPDES permit. The MMF is sometimes referred to as peak month flow and is considered the design flow.

Flow Projections for SWSSD WWTPs for 2017, 2025, 2040

Parameter	Miller Creek WWTP			Salmon Creek WWTP		
	2017	2025	2040	2017	2025	2040
Average dry weather flow (ADWF), mgd	2.23	2.52	2.81	1.93	2.03	2.21
Annual average flow (AAF), mgd	3.15	3.55	3.98	2.52	2.65	2.90
Maximum month flow (MMF) ³ , mgd	5.05	5.69	6.40	4.65	4.90	5.37
Peak day flow (PDF), mgd	16.19	18.17	20.55	15.31	16.16	17.74
Peak wet weather flow (PWWF), mgd	24.60	27.61	31.23	23.61	24.92	27.34
Equivalent Sewered Population	37,191	42,040	46,915	32,120	33,859	36,917

¹ Per capita flow rates applied population projections to estimate future ADWF.

² I/I contribution (gpad) calibrated to 2010 flows then increased at 7% per decade due to assumed pipe degradation.

³ Peak Wet Weather Flow Estimate assumes a peaked ADWF, based on diurnal patterns.

1.2 APPLICABLE REGULATIONS AND PLANS

The following existing codes, ordinances, policies or plans are applicable to this hazard mitigation plan:

- 2013 Comprehensive Sewer Plan Update
- Southwest Suburban Sewer District 2009-28 Resolution
- Regional Coordination Framework (Disaster Plan)
- WAWARN- The Washington Water/Wastewater Agency Response Network

1.3 JURISDICTION-SPECIFIC NATURAL HAZARD EVENT HISTORY

Table 0-1 lists all past occurrences of natural hazards within the jurisdiction.

**TABLE 0-1.
NATURAL HAZARD EVENTS**

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Winter Weather	4056	01/2012	
Flood	1963	01/2011	\$11,300
Landslide	1963	01/2011	\$16,500
Flood		12/2010	\$6,500
Winter Storm	1817	01/2009	INA
Winter Storm	1825	12/2008	INA
Flood/Landslide	1734	12/2007	\$60,000
Winter Storm	1682	12/2006	INA
Winter Storm	1671	11/2006	INA
Flood		11/2004	INA
Flood	1499	10/2003	\$2,000
Wind		12/2002	\$1,000
Earthquake	1361	02/2001	\$124,600
Wind		03/2000	\$1,000
Wind		03/1999	\$2,000
Wind		01/1999	\$2,000
Winter Storm		12/1998	INA
Winter Storm	1159	01/1997	INA
Landslide	1100	02/1996	INA
Landslide/Flood	1079	11/1995	INA
Flood	981	01/1993	INA
Flood	852	11/1990	INA
Flood	757	11/1986	INA
Flood		12/1985	INA

1.4 HAZARD RISK RANKING

Table 0-2 presents the ranking of the hazards of concern.

TABLE 0-2. HAZARD RISK RANKING		
Rank	Hazard Type	Risk Rating Score (Probability x Impact)
1	Earthquake	45
2	Flood	39
2	Severe Winter Weather	39
3	Severe Weather	36
3	Landslide	36
4	Volcano	16
5	Wildfire	10
6	Avalanche	7
7	Dam Failure	0
8	Tsunami	0

1.5 STATUS OF PREVIOUS PLAN INITIATIVES

Table 0-3 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

TABLE 0-3. PREVIOUS ACTION PLAN IMPLEMENTATION STATUS				
Action #	Action Status			Comments
	Completed	Carry Over to Plan Update	Removed; No Longer Feasible	
SSSD-1		X		Completed emergency mitigation work. Still seeking a comprehensive geological study of the acreage surrounding facility. See Int.#03
SSSD-2			X	Revised this initiative for next five year plan. See Int.#07
SSSD-3			X	See above statement
SSSD-4		X		See Int.#4
SSSD-5		X		Currently in design phase for this project. See Int.#6

1.6 HAZARD MITIGATION ACTION PLAN AND EVALUATION OF RECOMMENDED INITIATIVES

Table 0-4 lists the initiatives that make up the jurisdiction’s hazard mitigation plan. Table 0-5 identifies the priority for each initiative. Table 0-6 summarizes the mitigation initiatives by hazard of concern and the six mitigation types.

TABLE 0-4. HAZARD MITIGATION ACTION PLAN MATRIX							
Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline	Included in Previous Plan?
Initiative #SW01—Continue to support county-wide initiatives identified in part 3 of volume 1 of this plan.							
New and Existing	All Hazards	All Objectives	King County	Low	General Fund	On-going	No
Initiative #SW02— Participate in the plan maintenance strategy identified in part 3 of volume 1 of this plan							
New and Existing	All Hazards	2,4,7,13	SWSSD	Low	General Fund	On-going	No
Initiative #SW03—Conduct geologic and mitigation study on assets located within identified landslide prone areas							
Existing	All Hazards	1,5,9,12,	SWSSD	High	General Fund, Loan, Grant	Long Term	Yes
Initiative #SW04—COOP							
New and Existing	All Hazards	1,2,3,8,12	SWSSD	Low	General Fund	Short Term	Yes
Initiative #SW05—Install emergency fuel storage tanks							
New	All Hazards	1,8,12	SWSSD	Medium	General Fund	Short Term	Yes
Initiative #SW06—Relocate assets out of hazard area							
Existing	All Hazards	1,5,9,12	SWSSD	High	Grant, Bond, Reserves	Short Term	No
Initiative #SW07—Conduct wastewater collection system and treatment plant risk analysis for CIP prioritization							
Existing	Winter Storm, Flood	1,5,9,12	SWSSD	Low	General Fund	Short Term	No
Initiative #SW08—Assemble cache of emergency supplies and repair parts							
Existing	All Hazards	1,5,9,12	SWSSD	Medium	General Fund	Short Term	No

**TABLE 0-5.
MITIGATION STRATEGY PRIORITY**

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority ^a
SW01	15	Low	Low	Yes	No	Yes	High
SW02	4	Low	Low	Yes	No	Yes	High
SW03	4	Medium	Medium	Yes	No	Yes	High
SW04	5	High	Low	Yes	No	Yes	High
SW05	3	Medium	Low	Yes	Yes	No	High
SW06	4	High	High	Yes	Yes	No	High
SW07	4	Medium	Low	Yes	No	Yes	High
SW08	4	High	Low	Yes	No	Yes	High

a. See Chapter 1 for explanation of priorities.

**TABLE 0-6.
ANALYSIS OF MITIGATION INITIATIVES**

Hazard Type	Initiative Addressing Hazard, by Mitigation Type ^a					
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Avalanche	01,02,04	06				
Dam Failure	01,02,04					
Drought	01,02,04					
Earthquake	01,02,04	06,07		03,04,08	05,08	
Flood	01,02,04	06,07		03,04,08	05,08	
Landslide	01,02,04	06		03,04,08	05,08	
Severe Weather	01,02,04	06,07		03,04,08	05,08	
Tsunami	01,02,04					
Volcano	01,02,04	06				
Wildfire	01,02,04	06				

a. See Chapter 1 for explanation of mitigation types.

Attachment 3
Draft Resolution 2014-15 Southwest Suburban Sewer District's Jurisdictional Annex of the King
County Regional Hazard Mitigation Plan Update