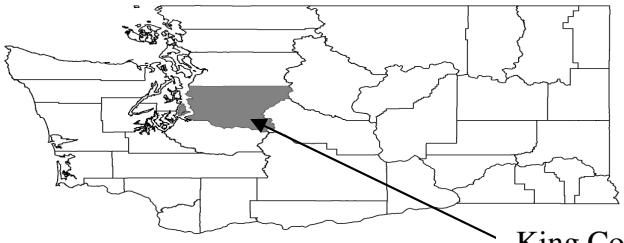
FLOOD INSURANCE STUDY

KING COUNTY, WASHINGTON AND INCORPORATED AREAS



Volume 2 of 5

COMMUNITY NAME	COMMUNITY NUMBER
*ALGONA, CITY OF	530072
AUBURN, CITY OF	530073
*BEAUX ARTS VILLAGE, TOWN OF	530242
BELLEVUE, CITY OF	530074
BLACK DIAMOND, CITY OF	530272
BOTHELL, CITY OF	530075
BURIEN, CITY OF	530321
CARNATION, CITY OF	530076
*CLYDE HILL, CITY OF	530279
COVINGTON, CITY OF	530339
DES MOINES, CITY OF	530077
DUVALL, CITY OF	530282
ENUMCLAW, CITY OF	530319
FEDERAL WAY, CITY OF	530322
*HUNTS POINT, TOWN OF	530288
ISSAQUAH, CITY OF	530079
KENMORE, CITY OF	530336
KENT, CITY OF	530080
KING COUNTY, UNINCORPORATED AREAS	530071
KIRKLAND, CITY OF	530081
LAKE FOREST PARK, CITY OF	530082
*MAPLE VALLEY, CITY OF	530078
*MEDINA, CITY OF	530315
*MERCER ISLAND, CITY OF	530083
MUCKLESHOOT INDIAN TRIBE	530165
NEWCASTLE, CITY OF	530134
NORMANDY PARK, CITY OF	530084
NORTH BEND, CITY OF	530085
PACIFIC, CITY OF	530086
REDMOND, CITY OF	530087
RENTON, CITY OF	530088
SAMMAMISH, CITY OF	530337
SEATAC, CITY OF	590320
SEATTLE, CITY OF	530089
SHORELINE, CITY OF	530327
SKYKOMISH, TOWN OF	530236
SNOQUALMIE, CITY OF	530090
*SNOQUALMIE INDIAN TRIBE	530066
TUKWILA, CITY OF	530091
WOODINVILLE, CITY OF	530324
*YARROW POINT, TOWN OF	530309

*No Special Flood Hazard Areas Identified

REVISED DATE: AUGUST 19, 2020

Federal Emergency Management Agency

Flood Insurance Study Number

53033CV002B

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) report may not contain all data available within the Community Map Repository. Please contact the Community Map Repository for any additional data.

The Federal Emergency Management Agency (FEMA) may revise and republish part or all of this FIS report at any time. In addition, FEMA may revise part of this FIS report by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS report. Therefore, users should consult with community officials and check the Community Map Repository to obtain the most current FIS report components.

Selected Flood Insurance Rate Map panels for this community contain information that was previously shown separately on the corresponding Flood Boundary and Floodway Map panels (e.g., floodways, cross sections). In addition, former flood hazard zone designations have been changed as follows:

Old Zone(s)	New Zone
Al through A30	AE
V1 through V30	VE
B	X
C	X

Initial Countywide FIS Effective Date: September 29, 1989

Revised Countywide Date(s): May 16, 1995
May 20, 1996
March 30, 1998
November 8, 1999
December 6, 2001
April 19, 2005
August 19, 2020

ATTENTION: On FIRM panels 53033C0663G, 53033C0664G, 53033C0957G, 53033C0959G, 53033C0966G, 53033C0967G, 53033C0969G, 53033C0976G, 53033C0977G, 53033C0978G, 53033C0979G, 53033C0986G, 53033C0988G, 53033C1232G, 53033C1251G, 53033C1253G, and 53033C1254G the Green River (except Horseshoe Bend, Fenster, Muellen, Potter, Neeley, and Hammakami) levees have not been demonstrated by the community or levee owners to meet the requirements of Section 65.10 of the NFIP regulations in 44 CFR as it relates to the levee's capacity to provide 1-percent- annual -chance flood protection. The subject areas are identified on FIRM panels (with notes and bounding lines) and in the FIS report as potential areas of flood hazard data changes based on further review.

FEMA has updated the levee analysis and mapping procedures for non-accredited levees. Until such time as FEMA is able to initiate a new flood risk project to apply the new procedures, the flood hazard information on the aforementioned FIRM panels that are affected by the Green River (except Horseshoe Bend, Fenster, Muellen, Potter, Neeley, and Hammakami) levees are being added as a snapshot of the prior previously effective information presented on the FIRMs and FIS reports dated May 16, 1995. As indicated above, it is expected that affected flood hazard data within the subject area could be significantly revised. This may result in floodplain boundary changes, 1-percent- annual -chance flood elevation changes, and/or changes to flood hazard zone designations.
The effective FIRM panels (and the FIS report) will again be revised at a later date to update the flood hazard information associated with the Green River (except Horseshoe Bend) levees when FEMA is able to initiate and complete a new flood risk project to apply the updated levee analysis and mapping procedures.

TABLE OF CONTENTS

Volume 1 – August 19, 2020

TABLE OF CONTENTS (continued)

TABLE OF CONTENTS (continued)

Table of Contents (continued)

FIGURES

Volume 2 – August 19, 2020

TABLES

Volume 1 – August 19, 2020

Volume 2 – August 19, 2020

EXHIBIT

Volume 3 – August 19, 2020

Exhibit 1 – Flood Profiles

Table of Contents (continued)

EXHIBIT (continued)

Volume 3 – August 19, 2020

Exhibit 1 – Flood Profiles (continued)

Volume 4 – August 19, 2020

EXHIBIT (continued)

Volume 4 – August 19, 2020 (continued)

PUBLISHED SEPARATELY

3.3 Wave Height Analysis

This section outlines the technical approach used to simulate waves and water levels in the Puget Sound (King County) and Puget Sound (Vashon Island). Waves in sheltered waters are typically generated by local conditions, so the processes are less complex than open coastal settings. The primary processes affecting waves and water levels in sheltered waters include wind, astronomic tides, tidal residuals (i.e. differences between observed and predicted tides), currents, and tidal wave amplification. Within the study area, the potential effect of currents is negligible, so they were not included in offshore wave modeling. Furthermore, preliminary analyses with the wave model showed that rising and falling tides had no amplifying effect on waves so this factor could also be ignored.

The two-dimensional numerical model SWAN (Simulating Waves Nearshore, Version 40.41) was used to simulate wave generation, including shoaling effects.

For this study, historical wind data was obtained from 19 gages located throughout the Puget Sound region. The length of record at these stations varies greatly, and most of the records contain large gaps, so it was difficult to find periods when data from most or all of the gages were available. The gage at SeaTac International Airport has hourly wind data from 1948 to 2009 with very few gaps, so it was chosen as the primary source of wind data for this study. However, since wind speed and direction are not uniform over the study area, the other 18 gages were used to define spatial variability. These secondary gages were correlated with the SeaTac gage for this purpose as described below.

Figure 1 is a profile for a hypothetical transect showing the effects of energy dissipation on a wave as it moves inland. This figure shows the wave elevations being decreased by obstructions, such as buildings, vegetation, and rising ground elevations and being increased by open, unobstructed wind fetches. Actual wave conditions may not necessarily include all of the situations shown in Figure 1.

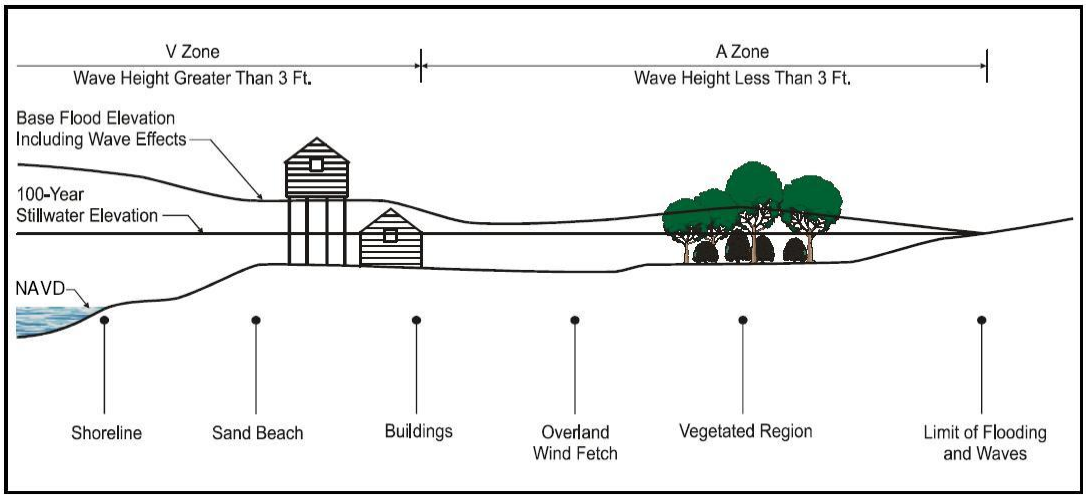


Figure 1 - Transect Schematic

3.4 Vertical Datum

All FIS reports and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum used for newly created or revised FIS reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD). With the completion of the North American Vertical Datum of 1988 (NAVD), many FIS reports and FIRMs are now prepared using NAVD as the referenced vertical datum.

To accurately convert flood elevations for the streams in King County from the current NGVD29 datum to the newer NAVD88 datum, the following procedure was implemented. Locations at the upstream and downstream end of the stream, as well as a point to represent the intermediate point between the two end points, were evaluated using the

USACE's CORPSCON (Reference 133) datum conversion software. The resulting values for each of the three points were the computed difference between the NGVD29 and NAVD88 elevations. Individual conversion factors at the upstream end, the downstream end, and at an intermediate point, were averaged to develop an average conversion; these factors can be seen in Table 5, Datum Conversion Factors. The final NAVD88 elevations provided were computed by adding the calculated factor to the existing NGVD29 data (References 1-18).

Table 5. Datum Conversion Factors

Stream	Upstream	Middle	Downstream	Vertical Adjustment (feet)
Bear Creek	3.64	3.60	3.58	3.61
Big Soos Creek	3.57	3.56	3.52	3.55
Black River	3.58	3.52	3.49	3.53
Cedar River	3.56	3.56	3.56	3.56
Coal Creek	3.62	3.61	3.58	3.60
Des Moines Creek	3.52	3.53	3.49	3.51
East Fork Issaquah Creek	3.65	3.62	3.60	3.62
Evans Creek	3.59	3.59	3.58	3.59
Forbes Creek	3.59	3.59	3.59	3.59
Gardiner Creek	3.67	3.61	3.61	3.60
Green River	3.58	3.52	3.49	3.53
Holder Creek	3.65	3.61	3.58	3.61
Issaquah Creek	3.58	3.64	3.60	3.61
Issaquah Creek (Gilman Overflow)	3.58	3.64	3.60	3.61
Kelsey Creek	3.58	3.58	3.57	3.58
Kelsey Creek (West Trib)	3.58	3.58	3.58	3.58
Kelsey Creek (East Branch)	3.58	3.58	3.58	3.58
Little Bear Creek	3.63	3.62	3.62	3.62
Longfellow Creek	3.55	3.56	3.56	3.56
Lower Overflow	3.62	3.61	3.61	3.61
Lyon Creek	3.63	3.63	3.62	3.63
McAleer Creek	3.63	3.63	3.62	3.63
Maloney Creek	4.05	4.05	4.05	4.05
May Creek	3.61	3.59	3.57	3.59
May Creek Tributary	3.60	3.60	3.60	3.60
Mercer Creek	3.57	3.57	3.57	3.57
Mercer Creek (North Branch)	3.57	3.57	3.57	3.57
Mercer Creek (Right Channel)	3.57	3.57	3.57	3.57
Meydenbauer Creek	3.57	3.56	3.56	3.56
Meydenbauer Creek (North Fork)	3.57	3.56	3.56	3.56
Middle Fork Snoqualmie River	3.67	3.61	3.61	3.63
Middle Overflow	3.61	3.60	3.60	3.60
Mill Creek - Auburn	3.52	3.51	3.51	3.51
Mill Creek - Kent	3.53	3.53	3.53	3.53
Miller Creek	3.55	3.53	3.48	3.52
North Creek	3.62	3.62	3.62	3.62
North Fork Issaquah Creek	3.60	3.59	3.59	3.59
North Fork Snoqualmie River	3.67	3.63	3.62	3.64
North Fork Thornton Creek	3.62	3.62	3.61	3.62
Patterson Creek	N/A	N/A	N/A	3.58
Raging River	3.61	3.60	3.62	3.61
Richards Creek	3.59	3.59	3.58	3.59
Richards Creek (West Trib)	3.59	3.59	3.58	3.59
Richards Creek (East Trib)	3.59	3.59	3.58	3.59
Rolling Hills Creek	3.63	3.59	3.59	3.60
Sammamish River	3.57	3.60	3.62	3.60
Snoqualmie River	3.61	3.57	3.60	3.59
South Fork Skykomish River	4.08	4.02	3.93	4.01
South Fork Snoqualmie River	3.63	3.59	3.59	3.60
South Fork Thornton Creek	3.61	3.61	3.61	3.61

Table 5. Datum Conversion Factors

Stream	Upstream	Middle	Downstream	Vertical Adjustment (feet)
Springbrook Creek	3.54	3.54	3.55	3.54
Swamp Creek	3.63	3.62	3.62	3.62
Thornton Creek	3.61	3.60	3.59	3.60
Tibbetts Creek	3.61	3.61	3.61	3.61
Tolt River	3.62	3.59	3.57	3.59
Upper North Overflow	3.61	3.60	3.60	3.60
Upper South Overflow	3.60	3.60	3.61	3.60
Vasa Creek	3.62	3.61	3.60	3.61
Walker Creek	3.50	3.49	3.49	3.49
West Fork Issaquah Creek	3.60	3.60	3.60	3.60
White River	3.53	3.53	3.51	3.52
Yarrow Creek	3.59	3.58	3.58	3.58
Stillwater Source				
Lake Sammamish	NA	NA	NA	3.6
Puget Sound	NA	NA	NA	3.5

Flood elevations shown in this FIS report and on the DFIRM are referenced to NAVD88. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the NGVD and NAVD, visit the National Geodetic Survey website at www.ngs.noaa.gov, or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242
(301) 713-4172 (fax)

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the DFIRM, they may be found in the Technical Support Data Notebook associated with the FIS report and DFIRM for this community. Interested individuals may contact FEMA to access these data.

To obtain current elevation, description, and/or location information for benchmarks shown on this map, please contact the Information Services Branch of the NGS at (301) 713-3242, or visit their website at www.ngs.noaa.gov.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. To assist in this endeavor, each FIS report provides 1-percent-annual-chance floodplain data, which may include a combination of the following: 10-, 2-, 1-, and 0.2-percent-annual-chance flood elevations; delineations of the 1- and 0.2-percent-annual-chance floodplains; and a 1-percent-annual-chance floodway. This information is presented on the FIRM and in many components of the FIS report, including Flood Profiles, Floodway Data tables, and Summary of Stillwater Elevation tables. Users should reference the data presented in the FIS report as well as additional information that may be available at the local community map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent-annual-chance flood has been adopted by FEMA as the base

flood for flood for floodplain management purposes. The 0.2-percent-annual-chance flood is employed to indicate additional areas of flood risk in the community. For each stream studied by detailed methods except Bear Creek, Des Moines Creek, Little Bear Creek, Miller Creek, North Creek, Sammamish River, Swamp Creek, Thornton Creek Main Branch, North Branch, Overflow, Overflow Bypass, Walker Creek and White River, except, the 1- and 0.2-percent-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using topographic maps at scales of 1:240, 1:1,200, 1:2,400, 1:4,800, and 1:6,000, with contour intervals of 1, 2, 4, 5, and 10 feet (Reference 46 and 63 to 78).

For Puget Sound the 1-percent-annual-chance floodplain boundaries were interpolated using 2 foot contours (Reference, 192).

For Bear Creek, Des Moines Creek, Little Bear Creek, Miller Creek, North Creek, Sammamish River, Swamp Creek, Walker Creek and White River, the topography used to delineate the 1- and 0.2-percent–annual-chance floodplain boundaries are unknown.

For Thornton Creek Main Branch, North Branch, Overflow, Overflow Bypass, the 1-percent-annual-chance floods were delineated using PSLC aerial survey of the City of Seattle in 2000/2001. This bare-earth topographic data has a 6-foot grid spacing with a vertical accuracy approximately ± 1 foot. Because the topography of Jackson Park Golf Course along the North Branch was significantly altered since the PSLC survey, engineering drawings of the golf course (provided by SPU) were used in place of the LiDAR in that area.

The 1- and 0.2-percent-annual-chance floodplain boundaries are shown on the Flood Insurance Rate Map (Exhibit 2). On this map, the 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A, AE, AH, AO, and VE); and the 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1- and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 1-percent-annual-chance floodplain boundary is shown on the Flood Insurance Rate Map (Exhibit 2).

Approximate 1-percent-annual-chance floodplain boundaries in some portions of the study area were taken directly from the Flood Hazard Boundary Maps (References 79 to 89), or Flood Insurance Rate Maps (References 90 and 91).

The base flood elevation (BFE) is the water surface elevation for the 1%-annual-chance event. BFEs are the greatest elevation between the "with levee" and "without levee" (discussed in Section 3.2.5.9) simulations. The elevation difference between the two simulations is negligible due to the ineffectiveness of the overbanks in conveying flow. Users should be aware that the BFEs shown on the work maps represent rounded whole-foot elevations and may not exactly reflect the elevations presented on the Flood Profiles (Exhibit 1) or in the Floodway Data Table (Table 6). The BFEs shown on the work maps are primarily intended for illustrative purposes. For construction and/ or floodplain management purposes, users are cautioned to refer to the elevation data presented in the Floodway Data Table as well as the Flood Profiles in conjunction with the data illustrated on the work maps.

Within this jurisdiction there are one or more levees that have not been demonstrated by the community or levee owner(s) to meet the requirements of 44CFR Part 65.10 of the NFIP regulations as it relates to the levee's capacity to provide 1 percent annual chance flood protection. As such, the floodplain boundaries in this area were taken directly from the previously effective FIRM and are subject to change. Please refer to the Notice to Flood Insurance Study Users page at the front of this FIS report for more information on how this may affect the floodplain boundaries shown on the FIRM.

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the NFIP, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 1-percent-annual-chance floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the base flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1 foot, provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as minimum standards that can

be adopted directly or that can be used as a basis for additional floodway studies.

A Regulatory Floodway was delineated for the Lower Green River using the HEC-RAS and FLO-2D models. In general, the floodway was developed to coincide with the effective Green River floodway to the greatest extent possible. The HEC-RAS model was run to determine if the effective floodway could fully contain the 1-percent-annual-discharge flood without causing surcharges in excess of one foot relative to the "fail all levee" condition. In areas where the one-foot surcharge could not be achieved, the overbank portions of the floodway were delineated using the FLO-2D model as described above in Section 3.2.8.2. Encroachments in the overbank areas were manually defined until a reasonable floodway boundary was established. Floodway widths were computed at each cross-section in the HEC-RAS model and the delineation between section were drawn based on topographic information. At some cross-sections, the floodway boundary coincides with the top of the channel banks and the channel does not encroach into the channel. The floodway along the certified levee near Southcenter (i.e., the Tukwila 205 Levee) was delineated along the landward toe of the levee fill. In locations where the floodway and the 1,-percent-annual-discharge floodplain boundary coincide, only the floodway boundary is shown. Floodway data is not provided for portions of the floodway that were analyzed using FLO-2D.

The floodways presented in this study were computed for certain stream segments on the basis of equal-conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross section (see Table 6, Floodway Data). In cases where the floodway and 1-percent-annual-chance floodplain boundaries are either close together or collinear, only the floodway is shown.

The area between the floodway and 1-percent-annual-chance floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation (WSEL) of the base flood more than 1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 2.

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BEAR CREEK								
A	0.03[1]	137	1,194	1.6	35.3	34.9[3]	35.9	1.0/0.0[4]
B	0.40 [1]	119	618	3.8	39.2	39.2	39.4	0.2
C	0.62 [1]	255	1,164	2.1	41.0	41.0	41.2	0.2
D	0.70 [1]	305	1,151	2.6	41.5	41.5	41.6	0.1
E	0.79 [1]	370	1,300	1.7	42.0	42.0	42.2	0.2
F	38[2]	69	377	4.1	44.5	44.5	45.1	0.6
G	1,455[2]	154	659	2.3	46.9	46.9	47.4	1.0/0.0[4]
H	2,523[2]	160	895	1.7	49.7	49.7	50.3	1.0/0.0[4]
I	3,563[2]	590	2,311	0.7	49.9	49.9	50.6	0.9/0.1[4]
J	4,655[2]	747	2,090	0.7	50.0	50.0	50.8	1.0/0.0[4]
K	6,764[2]	415	709	1.6	51.5	51.5	52.4	0.9/0.1[4]
L	7,664[2]	33	159	6.7	52.6	52.6	53.6	1.0/0.0[4]
M	8,525[2]	100	530	2.0	56.9	56.9	57.9	1.0/0.0[4]
N	10,232[2]	35	262	4.1	60.3	60.3	61.1	0.8/0.2[4]
O	11,575[2]	200	703	1.5	62.0	62.0	63.0	1.0/0.0[4]
P	13,713[2]	118	691	1.4	66.2	66.2	67.2	0.9/0.1[4]
Q	16,016[2]	125	596	1.7	70.7	70.7	71.4	0.7/0.3[4]
R	19,048[2]	91	423	2.4	77.7	77.7	78.7	1.0/0.0[4]
S	20,277[2]	66	297	3.4	83.7	83.7	83.8	0.1/0.9[4]
T	21,325[2]	80	414	2.4	85.3	85.3	86.0	0.7/0.3[4]
U	21,980[2]	55	341	2.9	86.5	86.5	87.3	0.8/0.2[4]
V	23,059[2]	45	278	3.6	89.6	89.6	90.2	0.7/0.3[4]
W	23,930[2]	100	486	2.1	91.6	91.6	91.8	0.3/0.7[4]
X	25,253[2]	85	236	2.2	94.9	94.9	95.4	0.6/0.4[4]
Y	5.54[1]	34	179	2.9	97.8	97.8	98.6	0.8
Z	5.67[1]	41	176	3.0	100.8	100.8	101.5	0.7

[1]Miles Above Mouth

[2]Feet above State Route 202

[3]Elevation Computed Without Consideration of Backwater Effects From Sammamish River

[4]Surcharge Over Base Conditions/Available Surcharge

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

BEAR CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BEAR CREEK (CONTINUED)								
AA	5.81	38	189	2.8	103.9	103.9	104.4	0.5
AB	5.94	48	144	3.5	106.4	106.4	106.7	0.3
AC	5.98	44	128	3.9	107.6	107.6	107.7	0.1
AD	6.02	81	270	1.9	108.7	108.7	108.8	0.1
AE	6.21	96	230	2.2	113.8	113.8	114.4	0.6
AF	6.41	69	255	2.0	122.0	122.0	122.5	0.5
AG	6.45	20	122	4.1	122.6	122.6	123.1	0.5
AH	6.46	20	102	4.9	122.6	122.6	123.2	0.6
AI	6.49	79	313	1.6	123.8	123.8	124.2	0.4
AJ	6.63	84	235	1.8	125.6	125.6	126.2	0.6
AK	6.75	76	189	2.3	128.3	128.3	128.8	0.5
AL	6.90	30	129	3.3	130.9	130.9	131.7	0.8
AM	6.97	71	197	2.2	132.3	132.3	133.3	1.0
AN	7.02	83	283	1.5	133.2	133.2	134.2	1.0
AO	7.20	81	244	1.8	136.8	136.8	137.8	1.0
AP	7.23	31	122	3.5	137.4	137.4	138.3	0.9
AQ	7.23	31	139	3.1	137.7	137.7	138.6	0.9
AR	7.29	49	143	3.0	139.4	139.4	140.0	0.6
AS	7.36	29	107	4.0	142.0	142.0	142.3	0.3
AT	7.42	47	212	2.0	143.0	143.0	143.5	0.5
AU	7.59	23	56	7.3	146.4	146.4	146.7	0.3
AV	7.67	34	105	3.9	150.5	150.5	151.3	0.8
AW	7.76	42	140	2.9	153.8	153.8	154.1	0.3
AX	7.84	33	121	3.4	155.9	155.9	155.9	0.0
AY	7.88	9	36	11.4	158.5	158.5	158.5	0.0
AZ	7.94	27	140	2.4	158.8	158.8	158.8	0.0

[1]Miles Above Mouth

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BEAR CREEK (CONTINUED)								
BA	8.11	39	92	3.6	165.1	165.1	166.0	0.9
BB	8.16	19	76	4.4	168.4	168.4	168.5	0.1
BC	8.16	19	85	3.9	168.8	168.8	168.9	0.1
BD	8.21	46	149	2.2	169.9	169.9	170.1	0.2
BE	8.34	29	74	4.5	174.4	174.4	174.9	0.5
BF	8.54	44	130	2.5	183.9	183.9	184.0	0.1
BG	8.70	84	262	1.3	186.6	186.6	187.1	0.5
BH	8.87	86	177	1.7	189.2	189.2	190.2	1.0
BI	8.97	56	69	4.5	198.0	198.0	198.2	0.2
BJ	9.04	23	94	3.3	204.6	204.6	204.6	0.0
BK	9.07	43	76	4.1	206.4	206.4	206.5	0.1
BL	9.17	23	73	4.2	215.4	215.4	215.4	0.0
BM	9.30	87	166	1.9	222.2	222.2	222.3	0.1
BN	9.39	95	168	1.8	225.6	225.6	225.6	0.0
BO	9.55	114	142	2.2	232.9	232.9	232.9	0.0
BP	9.61	34	99	3.1	235.6	235.6	235.6	0.0
BQ	9.64	38	124	2.5	236.7	236.7	236.8	0.1
BR	9.76	36	101	2.9	239.9	239.9	240.4	0.5
BS	9.85	44	130	2.2	243.1	243.1	243.3	0.2
BT	9.98	64	234	1.2	244.1	244.1	244.6	0.5
BU	10.08	54	199	1.5	244.8	244.8	245.6	0.8
BV	10.12	20	83	2.8	245.3	245.3	246.1	0.8
BW	10.14	20	79	2.9	245.6	245.6	246.3	0.7
BX	10.17	34	111	2.1	246.4	246.4	247.0	0.6
BY	10.22	31	118	1.9	248.6	248.6	249.1	0.5
BZ	10.32	30	103	2.2	250.0	250.0	250.7	0.7

[1]Miles Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

BEAR CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BEAR CREEK (CONTINUED)								
CA	10.49	51	127	1.8	255.1	255.1	255.5	0.4
CB	10.64	47	132	1.7	258.8	258.8	259.1	0.3
CC	10.68	44	162	1.4	259.4	259.4	259.9	0.5
CD	11.01	45	188	1.2	261.8	261.8	262.7	0.9

[1]Miles Above Mouth

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BIG SOOS CREEK								
A	17,687	20	76	10.5	174.9	174.9	175.0	0.1
B	17,849	20	201	4.0	178.0	178.0	178.0	0.0
C	17,949	63	276	2.9	178.2	178.2	178.2	0.0
D	18,909	72	194	4.1	186.4	186.4	186.4	0.0
E	20,189	33	180	4.4	202.8	202.8	203.6	0.8
F	20,989	52	170	4.7	213.7	213.7	214.7	1.0
G	21,939	51	295	2.7	220.3	220.3	221.3	1.0
H	23,099	32	85	9.4	236.3	236.3	236.3	0.0
I	25,019	46	244	3.3	262.2	262.2	263.2	1.0
J	25,969	27	113	7.1	272.1	272.1	272.8	0.7
K	26,609	32	124	3.1	285.1	285.1	285.1	0.0
L	27,769	37	77	5.0	299.9	299.9	300.0	0.1
M	29,169	41	220	1.8	307.0	307.0	308.0	1.0
N	29,369	33	168	2.3	307.5	307.5	308.5	1.0
O	29,515	48	246	1.6	308.0	308.0	308.8	0.8
P	30,315	49	196	2.0	309.3	309.3	310.2	0.9
Q	31,515	43	143	2.7	313.2	313.2	314.2	1.0
R	32,635	165	620	0.6	314.4	314.4	315.4	1.0
S	33,124	32	151	2.6	316.7	316.7	317.4	0.7
T	33,224	185	722	0.5	316.7	316.7	317.6	0.9
U	33,904	44	95	3.0	316.9	316.9	317.9	1.0
V	34,704	48	176	1.6	319.7	319.7	320.1	0.4
W	34,954	66	289	1.0	319.9	319.9	320.3	0.4
X	35,113	40	176	1.6	320.0	320.0	320.4	0.4
Y	36,313	59	286	1.0	320.2	320.2	321.2	1.0
Z	38,163	190	365	0.8	321.1	321.1	322.0	0.9

[1]Feet Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

BIG SOOS CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BIG SOOS CREEK								
AA	39,843	217	264	1.1	323.5	323.5	323.7	0.2
AB	41,903	96	248	1.1	327.3	327.3	328.3	1.0
AC	42,248	34	210	1.3	330.2	330.2	330.4	0.2
AD	42,448	63	240	1.2	330.3	330.3	330.8	0.5
AE	43,209	25	120	2.3	330.5	330.5	331.3	0.8
AF	43,329	134	510	0.5	330.7	330.7	331.4	0.7
AG	44,689	34	126	2.2	330.9	330.9	331.9	1.0
AH	46,529	21	96	2.9	334.6	334.6	335.6	1.0
AI	46,677	19	99	2.8	334.8	334.8	335.8	1.0
AJ	46,837	27	129	1.7	335.3	335.3	336.2	0.9
AK	47,737	24	100	2.2	336.2	336.2	337.1	0.9
AL	48,280	23	72	3.1	337.5	337.5	337.9	0.4
AM	48,607	45	73	3.0	337.6	337.6	338.0	0.4
AN	50,070	59	118	1.9	339.1	339.1	340.1	1.0
AO	51,270	21	58	3.8	344.2	344.2	344.2	0.0
AP	52,470	50	160	1.4	345.8	345.8	345.8	0.0
AQ	53,670	56	201	1.1	346.6	346.6	347.6	1.0
AR	55,010	143	335	0.7	347.7	347.7	348.6	0.9
AS	55,156	13	62	3.6	348.2	348.2	349.2	1.0
AT	55,216	94	290	0.8	348.8	348.8	349.6	0.8
AU	56,896	20	47	4.7	350.5	350.5	351.1	0.6
AV	57,636	101	232	0.9	351.7	351.7	352.6	0.9
AW	57,886	14	50	4.4	351.9	351.9	352.8	0.9
AX	58,015	68	159	1.4	352.9	352.9	353.6	0.7
AY	59,215	13	42	5.2	354.6	354.6	355.4	0.8
AZ	60,495	76	127	1.7	358.5	358.5	359.3	0.8

[1]Feet Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

BIG SOOS CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BIG SOOS CREEK								
BA	60,775	15	46	4.7	359.3	359.3	360.1	0.8
BB	61,025	49	101	1.5	360.6	360.6	360.8	0.2
BC	61,925	27	31	4.8	362.3	362.3	362.3	0.0
BD	62,323	13	46	3.3	364.2	364.2	365.0	0.8
BE	62,473	139	361	0.4	364.6	364.6	365.3	0.7
BF	64,353	44	115	1.3	364.7	364.7	365.7	1.0
BG	65,563	31	42	2.2	367.9	367.9	367.9	0.0
BH	66,623	40	75	1.2	369.4	369.4	370.2	0.8
BI	67,623	46	64	1.4	371.6	371.6	372.6	1.0
BJ	67,792	5	19	4.9	373.6	373.6	373.9	0.3
BK	67,932	11	44	2.0	374.2	374.2	374.5	0.3
BL	68,932	84	201	0.4	374.4	374.4	375.1	0.7
BM	70,132	11	24	3.7	375.0	375.0	375.8	0.8
BN	71,516	74	134	0.7	383.9	383.9	383.9	0.0
BO	72,676	90	234	0.4	383.9	383.9	384.4	0.5
BP	74,054	97	77	1.2	384.3	384.3	385.2	0.9
BQ	75,314	17	16	5.6	400.4	400.4	400.4	0.0

[1]Feet Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

BIG SOOS CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
CEDAR RIVER								
A	119	221	1,216	7.2	24.2	24.2	24.2	0.0
B	975	153	1,218	8.4	24.8	24.8	24.8	0.0
C	1,640	155	1,226	9.1	25.4	25.4	25.4	0.0
D	2,438	140	1,169	9.7	26.4	26.4	26.7	0.3
E	3,364	145	1,228	8.9	28.1	28.1	28.8	0.7
F	3,962	160	1,164	8.0	29.6	29.6	30.0	0.4
G	4,063	145	1,142	9.0	29.6	29.6	30.0	0.4
H	4,344	128	1,134	10.0	30.0	30.0	30.4	0.4
I	5,255	138	1,173	9.4	32.1	32.1	32.5	0.4
J	5,565	164	1,156	7.4	33.2	33.2	33.6	0.4
K	5,636	180	1,181	6.4	33.6	33.6	33.9	0.3
L	5,746	149	1,173	6.7	33.8	33.8	34.3	0.5
M	5,850	196	1,202	7.1	34.0	34.0	34.3	0.3
N	6,485	119	1,131	10.6	34.3	34.3	34.6	0.3
O	6,530	119	1,129	9.9	35.0	35.0	35.2	0.2
P	6,708	117	1,139	10.1	35.2	35.2	35.5	0.3
Q	6,917	137	1,137	9.1	35.7	35.7	36.2	0.5
R	6,961	149	1,149	7.4	37.5	37.5	38.1	0.6
S	7,658	119	1,128	9.4	38.2	38.2	38.8	0.6
T	7,736	119	1,128	8.8	39.1	39.1	39.7	0.6
U	8,011	130	1,134	8.0	39.8	39.8	40.3	0.5
V	8,383	114	1,126	8.4	40.2	40.2	40.6	0.4
W	8,443	114	1,130	7.6	41.6	41.6	42.1	0.5
X	8,694	171	1,269	5.2	42.0	42.3	43.3	1.0
Y	8,891	166	1,350	6.9	42.3	42.0	43.0	1.0
Z	10,776	87	1,089	11.7	44.1	44.1	45.0	0.9

[1]Feet above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

CEDAR RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
CEDAR RIVER								
AA	12,173[1]	120	1,235	8.7	48.3	48.3	49.0	0.7
AB	12,741[1]	95	1,183	11.5	48.7	48.7	49.5	0.8
AC	13,187[1]	125	1,297	9.0	50.8	50.8	51.3	0.5
AD	13,726[1]	92	1,514	12.0	51.3	51.3	51.8	0.5
AE	14,467[1]	113	1,458	8.7	54.1	54.1	54.5	0.4
AF	14,481[1]	113	1,458	8.7	54.2	54.2	54.5	0.3
AG	15,604[1]	100	1,202	9.4	58.6	58.6	59.2	0.6
AH	16,576[1]	132	1,267	7.9	61.3	61.3	62.0	0.7
AI	18,083[1]	124	1,460	10.9	64.0	64.0	64.7	0.7
AJ	19,281[1]	115	1,150	10.2	68.2	68.2	68.5	0.3
AK	19,692[1]	139	1,181	9.6	69.5	69.5	70.0	0.5
AL	20,670[1]	125	1,151	9.0	74.4	74.4	75.1	0.7
AM	21,843[1]	128	1,204	8.6	77.6	77.6	78.6	1.0
AN	22,508[1]	94	1,129	11.8	78.9	78.9	79.7	0.8
AO	23,080[1]	201	1,772	5.8	82.4	82.6	83.1	0.5
AP	23,492[1]	124	2,108	10.5	82.6	82.4	82.8	0.4
AQ	24,120[1]	304	2,341	4.9	85.5	85.5	86.3	0.8
AR	24,875[1]	675	2,407	3.5	87.2	87.2	87.8	0.6
AS	26,219[1]	97	2,036	10.4	91.6	91.6	91.8	0.2
AT	26,848[1]	628	2,258	3.9	96.5	96.5	96.8	0.3
AU	27,259[1]	825	2,481	2.7	97.9	97.9	98.9	1.0
AV	27,833[1]	645	2,293	3.5	98.9	98.9	99.9	1.0
AW	590[2]	814	3,790	3.1	102.1	102.1	102.5	0.4
AX	1,071[2]	760	2,713	4.3	103.0	103.0	103.4	0.4
AY	1,583[2]	427	2,548	4.6	104.3	104.3	104.5	0.2
AZ	2,347[2]	207	1,081	10.8	106.6	106.6	106.6	0.0

[1]Feet above mouth

[2]Thousands of feet above 590 feet downstream of 149th Avenue S.E.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

CEDAR RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
CEDAR RIVER								
BA	3,100	92	1,028	11.3	110.4	110.4	111.0	0.6
BB	3,578	129	1,326	8.8	113.1	113.1	113.7	0.6
BC	4,287	126	1,330	8.8	115.2	115.2	115.8	0.6
BD	4,645	196	1,768	6.6	116.8	116.8	117.4	0.6
BE	5,014	355	2,834	4.1	117.9	117.9	118.4	0.5
BF	5,654	175	1,300	9.0	118.4	118.4	118.7	0.3
BG	6,171	148	1,145	10.2	120.7	120.7	120.9	0.2
BH	6,876	147	1,214	9.6	124.9	124.9	125.0	0.1
BI	7,228	124	1,096	10.6	126.4	126.4	126.6	0.2
BJ	7,496	196	1,699	6.9	128.0	128.0	128.7	0.7
BK	8,013	175	1,256	9.3	129.8	129.8	130.0	0.2
BL	8,469	233	1,699	6.7	131.8	131.8	132.4	0.6
BM	8,991	140	1,108	10.3	133.3	133.3	133.8	0.5
BN	9,587	169	1,365	8.4	136.6	136.6	137.2	0.6
BO	10,092	198	1,565	7.3	138.7	138.7	139.1	0.4
BP	10,840	90	801	14.2	140.9	140.9	141.0	0.1
BQ	11,239	237	1,800	6.3	145.4	145.4	145.5	0.1
BR	11,912	148	1,200	9.5	147.0	147.0	147.1	0.1
BS	12,248	166	1,297	8.8	147.9	147.9	148.9	1.0
BT	12,821	253	1,826	6.2	150.5	150.5	151.3	0.8
BU	13,422	110	911	12.5	152.4	152.4	152.5	0.1
BV	14,014	289	1,969	5.8	156.9	156.9	157.0	0.1
BW	14,471	556	2,377	4.8	158.2	158.2	158.6	0.4
BX	14,939	405	1,500	7.6	159.4	159.4	159.6	0.2
BY	15,450	128	905	12.6	161.6	161.6	161.6	0.0
BZ	15,974	287	1,968	5.8	165.9	165.9	165.9	0.0

[1]Thousands of feet above 590 feet downstream of 149th Avenue S.E.

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
CEDAR RIVER								
CA	16,300	292	1,813	6.3	166.6	166.6	166.6	0.0
CB	16,902	859	1,551	7.4	168.8	168.8	168.8	0.0
CC	17,394	1,405	1,608	7.1	171.1	171.1	171.1	0.0
CD	17,898	1,780	3,528	3.2	174.2	174.2	174.2	0.0
CE	18,580	1,857	5,744	2.0	176.5	176.5	176.5	0.0
CF	19,471	1,471	2,422	4.7	179.0	179.0	179.0	0.0
CG	20,032	888	1,901	6.0	182.6	182.6	182.6	0.0
CH	20,511	376	1,803	6.3	184.7	184.7	184.7	0.0
CI	21,044	159	1,174	9.7	186.7	186.7	186.7	0.0
CJ	21,474	172	1,386	8.2	188.8	188.8	189.1	0.3
CK	21,884	100	966	11.8	190.2	190.2	190.3	0.1
CL	22,087	183	1,860	6.1	192.5	192.5	192.8	0.3
CM	22,545	140	1,438	7.9	193.4	193.4	193.5	0.1
CN	23,036	116	1,237	9.2	194.8	194.8	195.2	0.4
CO	23,570	177	1,692	6.7	196.7	196.7	197.6	0.9
CP	24,060	120	1,159	9.8	198.1	198.1	198.7	0.6
CQ	24,478	193	1,643	6.9	200.5	200.5	200.7	0.2
CR	25,048	168	1,621	7.0	201.7	201.7	202.3	0.6
CS	25,469	315	2,485	4.6	202.6	202.6	203.5	0.9
CT	26,187	336	2,214	5.2	204.6	204.6	205.0	0.4
CU	26,714	719	4,076	2.8	206.5	206.5	206.7	0.2
CV	27,080	659	3,995	2.9	207.3	207.3	207.4	0.1
CW	27,649	742	2,795	4.1	208.8	208.8	208.8	0.0
CX	28,133	1,047	4,397	2.6	210.8	210.8	210.8	0.0
CY	28,752	640	2,589	4.4	212.7	212.7	212.9	0.2
CZ	29,376	580	3,036	3.8	215.1	215.1	216.1	1.0

[1]Thousands of feet above 590 feet downstream of 149th Avenue S.E.

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
CEDAR RIVER								
DA	29,786	483	2,309	4.9	216.5	216.5	217.4	0.9
DB	30,140	585	2,786	4.1	218.4	218.4	219.2	0.8
DC	30,645	583	2,555	4.5	220.2	220.2	221.0	0.8
DD	31,246	366	1,884	6.1	222.5	222.5	223.0	0.5
DE	31,606	326	1,533	7.4	223.8	223.8	224.5	0.7
DF	32,180	1,192	5,359	2.1	226.0	226.0	227.0	1.0
DG	32,766	147	1,083	10.5	228.5	228.5	228.5	0.0
DH	33,216	450	2,714	4.2	231.4	231.4	231.6	0.2
DI	33,625	497	2,187	5.2	231.8	231.8	232.6	0.8
DJ	34,530	722	3,097	3.7	235.4	235.4	235.9	0.5
DK	35,050	1,120	3,863	3.0	236.3	236.3	237.3	1.0
DL	35,259	1,290	4,066	2.8	236.9	236.9	237.8	0.9
DM	35,925	590	2,513	4.5	238.9	238.9	239.4	0.5
DN	36,800	584	2,487	4.5	241.9	241.9	242.7	0.8
DO	37,407	780	1,728	6.5	244.5	244.5	244.9	0.4
DP	37,897	630	1,221	9.2	247.8	247.8	247.9	0.1
DQ	38,884	1,300	5,354	2.1	251.5	251.5	251.7	0.2
DR	39,493	760	2,014	5.6	251.9	251.9	252.0	0.1
DS	39,911	1,263	3,725	3.0	254.2	254.2	254.7	0.5
DT	40,484	677	1,689	6.7	256.0	256.0	256.5	0.5
DU	41,036	583	2,166	5.2	259.8	259.8	259.8	0.0
DV	41,629	1,526	3,966	2.8	261.8	261.8	262.0	0.2
DW	42,240	1,320	2,664	4.2	263.2	263.2	263.5	0.3
DX	42,705	614	2,279	4.9	265.5	265.5	266.1	0.6
DY	43,094	464	1,945	5.8	267.8	267.8	267.8	0.0
DZ	43,598	195	1,192	9.4	270.3	270.3	271.2	0.9

[1]Thousands of feet above 590 feet downstream of 149th Avenue S.E.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

CEDAR RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
CEDAR RIVER								
EA	44,367	668	3,164	3.6	274.1	274.1	275.1	1.0
EB	44,960	739	1,793	6.3	277.0	277.0	277.1	0.1
EC	45,348	622	2,596	4.3	279.3	279.3	279.8	0.5
ED	45,990	175	1,012	11.1	281.7	281.7	282.6	0.9
EE	46,158	121	1,008	11.2	284.2	284.2	284.2	0.0
EF	46,262	163	1,502	7.5	285.8	285.8	285.8	0.0
EG	46,551	524	2,624	4.3	287.0	287.0	287.0	0.0
EH	47,012	526	2,482	4.5	288.0	288.0	288.2	0.2
EI	47,529	517	2,586	4.4	289.4	289.4	290.0	0.6
EJ	48,270	1,331	3,875	2.9	291.6	291.6	292.6	1.0
EK	48,965	466	1,666	6.5	295.3	295.3	295.3	0.0
EL	49,473	792	2,516	4.3	297.7	297.7	298.7	1.0
EM	49,927	489	1,511	7.2	300.0	300.0	300.0	0.0
EN	50,711	350	1,540	7.1	305.2	305.2	305.4	0.2
EO	51,403	477	2,215	4.9	307.8	307.8	308.8	1.0
EP	51,802	251	1,074	10.2	310.3	310.3	310.3	0.0
EQ	52,054	122	1,497	7.3	313.5	313.5	313.5	0.0
ER	52,566	153	1,501	7.3	315.7	315.7	315.7	0.0
ES	52,856	303	1,970	5.5	317.0	317.0	317.0	0.0
ET	53,510	751	1,448	7.5	319.3	319.3	319.4	0.1
EU	53,861	879	1,778	6.1	322.0	322.0	322.1	0.1
EV	54,556	553	1,965	5.6	327.1	327.1	327.9	0.8
EW	55,246	527	2,171	5.0	330.6	330.6	331.4	0.8
EX	55,616	536	1,502	7.3	332.6	332.6	332.6	0.0
EY	56,100	735	3,381	3.2	335.5	335.5	336.2	0.7
EZ	56,515	732	2,704	4.0	336.7	336.7	337.4	0.7

[1]Thousands of feet above 590 feet downstream of 149th Avenue S.E.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

CEDAR RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
CEDAR RIVER								
FA	56,750	712	2,920	3.7	337.9	337.9	338.2	0.3
FB	57,330	626	1,623	6.7	339.9	339.9	340.3	0.4
FC	57,998	730	3,364	3.2	344.0	344.0	345.0	1.0
FD	58,549	595	1,820	6.0	345.4	345.4	346.4	1.0
FE	59,046	300	1,167	9.3	350.1	350.1	350.5	0.4
FF	59,599	246	1,369	8.4	356.5	356.5	356.5	0.0
FG	60,000	256	2,246	4.9	357.3	357.3	357.4	0.1
FH	60,471	345	2,115	5.2	358.0	358.0	358.1	0.1
FI	61,078	285	1,687	6.5	359.4	359.4	360.1	0.7
FJ	61,651	133	1,117	9.8	363.6	363.6	363.8	0.2
FK	62,017	241	1,698	6.4	365.1	365.1	366.1	1.0
FL	62,629	240	1,648	6.6	367.7	367.7	368.5	0.8
FM	62,939	218	1,572	6.9	369.1	369.1	370.1	1.0
FN	63,517	342	1,749	6.2	371.7	371.7	372.7	1.0
FO	63,910	337	2,173	5.0	375.1	375.1	375.1	0.0
FP	64,346	338	1,745	6.3	375.8	375.8	376.2	0.4
FQ	64,898	325	1,618	6.7	378.5	378.5	378.6	0.1
FR	65,258	409	1,905	5.7	381.2	381.2	381.2	0.0
FS	65,539	257	1,393	7.8	382.4	382.4	382.4	0.0
FT	66,387	240	1,246	8.7	387.0	387.0	387.3	0.3
FU	67,106	235	1,523	7.2	390.8	390.8	391.7	0.9
FV	67,669	266	1,233	8.8	393.7	393.7	394.3	0.6
FW	68,244	235	1,655	6.6	398.0	398.0	398.1	0.1
FX	68,915	516	1,347	8.1	400.4	400.4	400.8	0.4
FY	69,450	417	1,671	6.5	405.1	405.1	405.9	0.8
FZ	69,935	436	1,945	5.6	408.3	408.3	409.2	0.9

[1]Thousands of feet above 590 feet downstream of 149th Avenue S.E.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

CEDAR RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
CEDAR RIVER								
GA	70,720	129	1,047	10.4	412.8	412.8	413.8	1.0
GB	71,336	199	1,239	8.8	419.0	419.0	419.0	0.0
GC	71,828	378	1,607	6.6	421.9	421.9	422.8	0.9
GD	72,416	219	1,265	8.3	426.0	426.0	426.0	0.0
GE	72,593	229	1,286	8.2	427.2	427.2	427.3	0.1
GF	72,809	195	919	11.5	428.3	428.3	428.4	0.1
GG	73,297	162	1,109	9.5	433.5	433.5	433.5	0.0
GH	73,905	163	1,005	10.5	438.0	438.0	438.0	0.0
GI	74,288	280	2,145	4.9	442.9	442.9	442.9	0.0
GJ	74,562	267	2,005	5.3	443.8	443.8	443.8	0.0
GK	75,119	265	1,217	8.7	445.4	445.4	445.4	0.0
GL	75,786	275	1,300	8.1	450.2	450.2	450.2	0.0
GM	76,313	203	1,168	9.0	452.9	452.9	453.0	0.1
GN	76,895	144	976	10.8	456.0	456.0	456.0	0.0
GO	77,539	142	980	10.8	460.3	460.3	460.3	0.0
GP	78,285	142	1,091	9.7	465.0	465.0	465.0	0.0
GQ	78,755	186	946	11.2	468.0	468.0	468.2	0.2
GR	79,317	410	2,273	4.6	472.1	472.1	472.8	0.7
GS	79,805	414	1,830	5.8	473.8	473.8	474.6	0.8
GT	80,215	187	1,317	7.8	476.7	476.7	476.7	0.0
GU	80,731	182	1,062	9.7	479.0	479.0	479.0	0.0
GV	81,312	184	1,501	6.9	482.3	482.3	482.4	0.1
GW	81,855	188	1,243	8.3	484.2	484.2	484.3	0.1
GX	82,301	148	1,164	8.9	486.0	486.0	486.4	0.4
GY	82,757	155	1,353	7.6	488.2	488.2	488.4	0.2
GZ	83,445	155	838	12.3	491.4	491.4	491.4	0.0

[1]Thousands of feet above 590 feet downstream of 149th Avenue S.E.

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
CEDAR RIVER								
HA	83,983	140	1,043	9.9	497.7	497.7	497.7	0.0
HB	84,268	118	915	11.3	499.0	499.0	499.0	0.0
HC	84,761	112	980	10.5	502.0	502.0	502.1	0.1
HD	85,516	91	741	13.9	506.8	506.8	507.2	0.4
HE	86,113	84	866	11.9	513.2	513.2	513.6	0.4
HF	86,837	118	1,099	9.4	518.2	518.2	518.5	0.3
HG	87,605	113	932	11.1	522.2	522.2	522.2	0.0
HH	88,321	136	1,381	7.5	526.4	526.4	526.4	0.0
HI	88,521	124	1,235	8.3	526.9	526.9	526.9	0.0
HJ	88,831	124	1,038	9.9	528.0	528.0	528.0	0.0

[1]Thousands of feet above 590 feet downstream of 149th Avenue S.E.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

CEDAR RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
EAST BRANCH UPPER VASA CREEK								
A	254	25	12	4.0	391.3	391.3	391.3	0.0
B	387	30	13	3.7	401.7	401.7	401.7	0.0
C	526	18	18	2.7	403.2	403.2	403.2	0.0

[1]Feet Above confluence with Upper Vasa Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

EAST BRANCH UPPER VASA CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
EAST FORK ISSAQUAH CREEK								
A	100	30	155	6.8	78.6	76.6[2]	77.5[2]	0.9
B	334	23	114	9.2	79.4	79.4	80.3	0.9
C	620	28	123	8.6	83.8	83.8	84.4	0.6
D	871	30	184	5.7	89.1	89.1	89.7	0.6
E	1,071	34	150	7.1	91.2	91.2	91.2	0.0
F	1,164	42	152	6.9	92.0	92.0	92.0	0.0
G	1,540	29	113	9.3	95.2	95.2	95.7	0.5
H	1,950	35	143	7.4	101.9	101.9	102.5	0.6
I	2,069	59	234	4.0	104.0	104.0	104.8	0.8
J	2,166	41	152	7.2	104.8	104.8	105.2	0.4
K	2,657	35	155	6.8	110.1	110.1	111.0	0.9
L	3,053	27	128	8.2	114.8	114.8	115.4	0.6
M	3,543	28	151	7.0	122.1	122.1	123.1	1.0
N	3,950	76	222	4.7	128.7	128.7	128.9	0.2
O	4,415	45	177	5.9	137.7	137.7	138.3	0.6
P	4,696	32	136	7.7	141.9	141.9	141.9	0.0
Q	4,912	21	127	8.2	144.8	144.8	145.4	0.6
R	5,201	31	131	8.0	150.0	150.0	150.6	0.6
S	5,378	22	91	11.5	157.1	157.1	157.1	0.0

[1]Feet Above Confluence with Issaquah Creek

[2]Elevation Computed Without Consideration of Backwater Effects

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

EAST FORK ISSAQUAH CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
EVANS CREEK								
A	0.35	39	137	2.9	53.0	53.0	53.9	0.9
B	0.81	190	136	2.1	59.9	59.9	60.4	0.5
C	1.21	90	197	1.7	66.1	66.1	66.9	0.8
D	1.41	354	557	1.3	66.8	66.8	67.6	0.8
E	1.67	69	322	1.8	68.3	68.3	68.7	0.4
F	1.89	200	407	1.4	68.3	68.3	69.0	0.7
G	2.26	45	192	2.6	70.9	70.9	71.1	0.2
H	2.28	32	181	3.3	71.0	71.0	71.2	0.2
I	2.55	80	248	2.1	75.7	75.7	76.1	0.4
J	2.73	56	126	4.3	76.1	76.1	77.1	1.0
K	2.93	19	114	3.5	78.5	78.5	79.2	0.7
L	3.08	38	270	2.5	79.4	79.4	80.1	0.7
M	3.25	40	84	5.3	79.9	79.9	80.5	0.6
N	3.67	18	51	7.8	82.6	82.6	83.0	0.4
O	3.99	262	248	2.6	89.0	89.0	89.7	0.7
P	4.35	220	137	2.2	96.2	96.2	96.2	0.0
Q	4.41	207	90	1.8	98.7	98.7	98.7	0.0
R	4.79	120	56	3.6	105.3	105.3	105.6	0.3

[1]Miles above confluence with Bear Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

EVANS CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
FORBES CREEK								
A	0.27	87	170	1.3	23.4	23.4	23.9	0.5
B	0.31	100	191	1.1	24.1	24.1	24.8	0.7
C	0.49	55	88	2.1	31.2	31.2	31.8	0.6
D	0.63	52	70	2.1	39.8	39.8	40.1	0.3
E	0.73	57	102	1.5	41.4	41.4	41.6	0.2
F	0.86	59	36	4.2	46.0	46.0	46.0	0.0
G	0.92	100	56	2.0	51.7	51.7	52.1	0.4
H	0.93	60	109	1.0	51.8	51.8	52.2	0.4
I	1.05	14	19	5.7	57.0	57.0	57.0	0.0
J	1.15	15	22	5.0	73.0	73.0	73.4	0.4
K	1.18	20	56	2.0	82.1	82.1	82.4	0.3
L	1.22	18	56	2.0	89.1	89.1	89.1	0.0
M	1.34	16	18	6.2	108.0	108.0	108.0	0.0

[1]Miles Above Mouth

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY[2] (FEET NAVD)	WITHOUT FLOODWAY[3] (FEET NAVD)	WITH FLOODWAY[4] (FEET NAVD)	INCREASE[5] (FEET)
GREEN RIVER								
A	20,207	463	8,354	1.55	12.3[6]	9.0	9.0	0.0
B	20,543	535	10,009	1.30	12.3[6]	9.0	9.0	0.0
C	22,539	385	7,384	1.76	12.3[6]	9.1	9.1	0.0
D	25,439	594	9,509	1.37	12.3[6]	9.2	9.2	0.0
E	27,373	753	11,015	1.18	12.3[6]	9.3	9.3	0.0
F	28,246	394	5,501	2.36	12.3[6]	9.3	9.3	0.0
G	29,209	246	3,819	3.40	12.3[6]	9.5	9.5	0.0
H	30,000	246	3,638	3.57	12.3[6]	9.7	9.7	0.0
I	31,659	238	3,141	4.13	12.3[6]	10.3	10.3	0.0
J	33,180	188	2,610	4.97	12.3[6]	11.2	11.2	0.0
K	34,655	232	3,164	4.38	12.4	12.2	12.2	0.0
L	36,119	225	2,832	4.58	13.1	12.9	12.9	0.0
M	37,262	187	2,890	4.49	13.7	13.5	13.5	0.0
N	38,342	193	2,882	4.50	14.2	14.0	14.0	0.0
O	39,076	192	2,932	4.43	14.6	14.4	14.4	0.0
P	40,402	223	3,249	4.00	15.2	15.0	15.0	0.0
Q	41,506	183	2,504	5.18	15.7	15.4	15.4	0.0
R	42,557	228	3,045	4.26	16.4	16.1	16.1	0.0
S	43,324	280	3,587	3.62	16.8	16.5	16.5	0.0
T	44,823	324	3,884	3.34	17.4	17.2	17.2	0.0
U	46,470	197	2,833	4.58	18.2	17.9	17.9	0.0
V	47,583	248	3,064	4.24	18.7	18.4	18.4	0.0
W	48,843	211	2,675	4.85	19.3	19.0	19.0	0.0
X	49,962	222	3,027	4.29	20.0	19.7	19.7	0.0
Y	50,893	204	3,147	4.12	20.4	20.1	20.1	0.0
Z	51,855	270	3,252	3.99	20.8	20.5	20.5	0.0

[1]Feet Above Mouth [2]Regulatory BFE computed using HEC-RAS with baseline geometry and flows [3]Without Floodway elevations computed using HEC-RAS with flows as extracted from FLO-2D Model for "Fail-all" levee scenario [4]With Floodway elevations computed using HEC-RAS with flows as extracted from FLO-2D Model for floodway run

[5]Increase computed as the difference between the simulated water levels for the "with " and "without" floodway scenarios (e.g. the "fail-all" levee scenario versus the floodway run)

[6] Regulatory BFE below cross section J were set based on 1% chance tidal elevation at Seattle Station as computed by Seattle District USACE

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

GREEN RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY[2] (FEET NAVD)	WITHOUT FLOODWAY[3] (FEET NAVD)	WITH FLOODWAY[4] (FEET NAVD)	INCREASE[5] (FEET)
GREEN RIVER								
AA	52,857	267	3,301	3.93	21.2	20.9	20.9	0.0
AB	53,754	180	3,066	4.23	21.5	21.2	21.3	0.1
AC	54,886	170	2,839	4.57	22.0	21.6	21.7	0.1
AD	55,673	215	3,130	4.15	22.4	22.0	22.1	0.1
AE	56,380	216	2,678	4.85	22.6	22.3	22.4	0.1
AF	57,121	208	3,109	4.17	23.1	22.8	22.8	0.1
AG[6]	58,075	179	2,907	4.21	23.4	23.1	23.1	0.1
AH[6]	59,039	153	2,592	4.23	23.8	23.5	23.5	0.0
AI[6]	60,504	177	3,197	3.40	24.6	24.0	24.1	0.1
AJ[6]	61,573	151	2,563	4.20	25.0	24.3	24.4	0.1
AK[6]	62,609	183	3,081	3.50	25.6	24.7	24.9	0.2
AL[6]	63,809	213	3,337	3.23	26.0	25.0	25.2	0.2
AM[6]	64,489	161	3,117	3.45	26.2	25.1	25.4	0.2
AN[6]	65,275	151	2,531	4.24	26.7	25.5	25.7	0.2
AO[6]	66,328	173	2,736	3.91	27.2	25.9	26.2	0.3
AP[6]	67,221	164	3,038	3.53	27.7	26.3	26.5	0.3
AQ[6]	68,179	158	2,802	3.82	27.9	26.5	26.8	0.3
AR[6]	68,933	159	2,523	4.24	28.3	26.8	27.0	0.3
AS[6]	69,795	154	2,741	3.91	28.7	27.1	27.4	0.3
AT[6]	70,518	164	2,727	3.93	29.0	27.3	27.7	0.3
AU[6]	71,446	137	2,465	4.35	29.3	27.7	28.0	0.3
AV[6]	72,628	156	2,601	4.11	29.9	28.1	28.4	0.3
AW[6]	74,037	156	2,471	4.30	30.3	28.5	28.8	0.3
AX[6]	75,556	162	2,835	4.10	30.8	28.9	29.2	0.3
AY[6]	76,739	143	2,356	4.52	31.3	29.3	29.6	0.3
AZ[6]	77,401	163	2,767	3.78	31.6	29.6	30.0	0.4

[1]Feet Above Mouth [2]Regulatory BFE computed using HEC-RAS with baseline geometry and flows [3]Without Floodway elevations computed using HEC-RAS with flows as extracted from FLO-2D Model for "Fail-all" levee scenario [4]With Floodway elevations computed using HEC-RAS with flows as extracted from FLO-2D Model for floodway run

[5]Increase computed as the difference between the simulated water levels for the "with " and "without" floodway scenarios (e.g. the "fail-all" levee scenario versus the floodway run)

[6]The data reflect the hydraulic characteristics of the main channel. The Springbrook Creek split floodway was analyzed using a combination of tools including the FLO-2D model and therefore corresponding hydraulic data is not available for the split flow reach. Section 3.2.8.2 and 4.2 of the FIS provide further information about the development of the split flow.

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY[2] (FEET NAVD)	WITHOUT FLOODWAY[3] (FEET NAVD)	WITH FLOODWAY[4] (FEET NAVD)	INCREASE[5] (FEET)
GREEN RIVER								
BA[6]	77,870	146	2,372	4.41	31.7	29.7	30.0	0.4
BB[6]	78,852	155	2,578	4.03	32.1	30.1	30.4	0.3
BC[6]	79,728	154	2,575	4.07	32.4	30.3	30.6	0.3
BD[6]	81,335	160	2,547	4.28	32.9	30.7	31.1	0.3
BE[6]	82,341	167	2,806	4.02	33.3	31.1	31.4	0.3
BF[6]	83,713	183	3,241	3.49	33.8	31.6	31.9	0.3
BG[6]	84,566	164	2,812	4.02	33.9	31.7	32.0	0.3
BH[6]	85,463	155	2,556	4.61	34.1	32.0	32.3	0.3
BI[6]	86,670	170	2,910	4.05	34.5	32.4	32.7	0.3
BJ[6]	87,744	191	3,110	3.82	34.8	32.7	33.0	0.3
BK[6]	88,703	156	2,602	4.65	35.0	32.9	33.2	0.3
BL[6]	89,786	219	3,306	3.77	35.4	33.4	33.7	0.3
BM	90,934	142	2,451	5.08	35.6	33.6	33.9	0.3
BN	92,018	165	2,721	4.58	36.0	34.1	34.5	0.4
BO	93,067	160	2,727	4.57	36.3	34.4	34.8	0.4
BP	94,288	174	2,614	4.77	36.7	34.9	35.3	0.4
BQ	95,423	173	2,706	4.60	37.0	35.3	35.7	0.4
BR	96,696	179	3,450	3.61	37.4	35.7	36.2	0.4
BS	97,529	232	3,054	4.08	37.6	35.9	36.3	0.4
BT	98,269	181	2,479	5.03	37.7	36.1	36.5	0.4
BU	99,303	176	3,036	4.10	38.2	36.6	37.0	0.5
BV	100,715	154	2,802	4.46	38.5	37.0	37.5	0.5
BW	101,568	168	2,741	4.55	38.8	37.3	37.7	0.5
BX	102,469	169	2,849	4.38	39.1	37.6	38.1	0.5
BY	103,796	170	3,014	4.13	39.5	38.0	38.5	0.5
BZ	105,122	207	3,588	3.48	39.8	38.4	38.9	0.5

[1]Feet Above Mouth [2]Regulatory BFE computed using HEC-RAS with baseline geometry and flows [3]Without Floodway elevations computed using HEC-RAS with flows as extracted from FLO-2D Model for "Fail-all" levee scenario [4]With Floodway elevations computed using HEC-RAS with flows as extracted from FLO-2D Model for floodway run

[5]Increase computed as the difference between the simulated water levels for the "with " and "without" floodway scenarios (e.g. the "fail-all" levee scenario versus the floodway run)

[6]The data reflect the hydraulic characteristics of the main channel. The Springbrook Creek split floodway was analyzed using a combination of tools including the FLO-2D model and therefore corresponding hydraulic data is not available for the split flow reach. Section 3.2.8.2 and 4.2 of the FIS provide further information about the development of the split flow.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

GREEN RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY[2] (FEET NAVD)	WITHOUT FLOODWAY[3] (FEET NAVD)	WITH FLOODWAY[4] (FEET NAVD)	INCREASE[5] (FEET)
GREEN RIVER								
CA	106,309	181	3,020	4.13	40.0	38.6	39.1	0.5
CB	107,061	169	2,953	4.23	40.2	38.9	39.4	0.5
CC	107,930	166	3,029	4.12	40.5	39.2	39.7	0.5
CD	108,676	173	3,257	3.83	40.8	39.4	40.0	0.5
CE	109,776	162	3,421	3.65	41.1	39.8	40.3	0.5
CF	110,959	161	2,936	4.25	41.3	40.0	40.5	0.5
CG	111,665	202	3,519	3.55	41.6	40.3	40.8	0.5
CH	112,400	185	3,000	4.17	41.7	40.5	41.0	0.5
CI[6]	113,008	182	3,005	4.12	42.0	40.8	41.3	0.5
CJ[6]	113,746	194	3,215	3.63	42.2	41.0	41.5	0.5
CK[6]	114,464	196	3,217	3.63	42.4	41.2	41.7	0.5
CL[6]	115,242	147	2,827	4.12	42.6	41.4	41.9	0.5
CM[6]	116,486	178	3,380	3.45	43.1	41.9	42.4	0.5
CN[6]	117,618	174	3,048	3.86	43.4	42.2	42.6	0.5
CO[6]	118,427	163	3,087	3.81	43.6	42.4	42.9	0.5
CP[6]	119,669	186	3,192	3.69	43.9	42.7	43.2	0.5
CQ	120,429	199	3,090	3.81	44.1	42.9	43.4	0.5
CR	121,584	185	3,221	3.66	44.5	43.2	43.7	0.5
CS	122,375	202	3,209	3.68	44.7	43.4	43.9	0.5
CT	123,160	173	2,775	4.25	44.9	43.7	44.2	0.5
CU	123,956	188	3,313	3.57	45.3	44.1	44.6	0.5
CV	124,874	156	2,849	4.16	45.5	44.3	44.8	0.5
CW	125,794	175	2,973	4.18	46.0	44.8	45.3	0.5
CX	126,924	134	2,586	4.80	46.4	45.2	45.7	0.5
CY	128,056	168	2,821	4.40	47.1	45.9	46.4	0.5
CZ	128,817	169	2,846	4.37	47.5	46.3	46.8	0.5

[1]Feet Above Mouth [2]Regulatory BFE computed using HEC-RAS with baseline geometry and flows [3]Without Floodway elevations computed using HEC-RAS with flows as extracted from FLO-2D Model for "Fail-all" levee scenario [4]With Floodway elevations computed using HEC-RAS with flows as extracted from FLO-2D Model for floodway run

[5]Increase computed as the difference between the simulated water levels for the "with " and "without" floodway scenarios (e.g. the "fail-all" levee scenario versus the floodway run)

[6] The data reflect only the hydraulic characteristics of the main channel. The floodway encompassing the Mill Creek/Mullen Slough floodplain was analyzed using the FLO-2D model and therefore cross sectional hydraulic data is not available for this area. Sections 3.2.8.2 and 4.2 of the FIS provide further information about the development of the Mill Creek floodway.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

GREEN RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY[2] (FEET NAVD)	WITHOUT FLOODWAY[3] (FEET NAVD)	WITH FLOODWAY[4] (FEET NAVD)	INCREASE[5] (FEET)
GREEN RIVER								
DA	129,780	139	2,485	5.01	47.9	46.7	47.2	0.5
DB	130,492	191	2,862	4.35	48.3	47.1	47.7	0.6
DC	131,142	156	2,579	4.83	48.6	47.4	48.0	0.6
DD	132,419	168	3,056	4.07	49.2	48.0	48.7	0.6
DE	133,265	184	2,934	4.25	49.7	48.5	49.1	0.6
DF	134,161	174	3,068	4.06	50.0	48.8	49.5	0.7
DG	134,902	167	2,885	4.32	50.3	49.1	49.7	0.7
DH	136,498	154	2,767	4.51	50.9	49.7	50.4	0.7
DI	137,249	183	2,870	4.33	51.3	50.1	50.8	0.7
DJ	137,768	178	3,110	4.00	51.5	50.3	51.0	0.7
DK	138,564	276	4,501	2.77	51.9	50.7	51.4	0.7
DL	139,281	195	3,049	4.09	51.9	50.7	51.5	0.7
DM	140,641	281	3,641	3.43	52.5	51.3	52.1	0.7
DN	141,871	358	3,585	3.49	52.9	51.8	52.5	0.7
DO	143,024	310	3,958	3.17	53.3	52.3	52.9	0.7
DP	143,968	152	2,914	4.31	53.6	52.6	53.2	0.6
DQ	144,741	501	6,592	1.91	54.0	53.0	53.6	0.6
DR	145,834	232	3,030	4.16	54.1	53.2	53.8	0.6
DS	146,211	155	2,083	6.05	54.2	53.3	53.8	0.6
DT	146,953	279	3,510	3.60	55.0	54.1	54.7	0.5
DU	147,885	659	6,253	2.02	55.4	54.6	55.1	0.5
DV	148,950	221	2,460	5.16	55.7	54.9	55.4	0.5
DW	149,946	193	2,656	4.79	56.3	55.6	56.1	0.4
DX	151,250	168	2,226	5.73	57.0	56.4	56.8	0.4
DY	152,282	155	2,043	6.23	57.8	57.2	57.6	0.4
DZ	153,085	307	3,052	4.19	58.6	58.0	58.4	0.4

[1]Feet Above Mouth [2] Regulatory BFE computed using HEC-RAS with baseline geometry and flows. [3] Without Floodway elevations computed using HEC-RAS with flows as extracted from FLO-2D Model for "Fail-all" levee scenario [4]With Floodway elevations computed using HEC-RAS with flows as extracted from FLO-2D Model for floodway run

[5]Increase computed as the difference between the simulated water levels for the "with " and "without" floodway scenarios (e.g. the "fail-all" levee scenario versus the floodway run)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

GREEN RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY[2] (FEET NAVD)	WITHOUT FLOODWAY[3] (FEET NAVD)	WITH FLOODWAY[4] (FEET NAVD)	INCREASE[5] (FEET)
GREEN RIVER								
EA	154,226	384	2,711	4.56	59.1	58.7	59.0	0.3
EB	155,396	219	2,052	6.14	59.7	59.2	59.5	0.3
EC	156,193	182	1,822	7.03	60.2	59.8	60.0	0.3
ED	156,897	164	1,819	7.05	60.7	60.3	60.5	0.3
EE	158,079	165	1,619	7.92	61.3	61.0	61.2	0.2
EF	158,822	231	2,311	5.55	62.4	62.1	62.3	0.2
EG	159,510	204	1,894	6.77	62.6	62.4	62.6	0.1
EH	160,393	152	1,561	8.21	63.2	63.0	63.1	0.1
EI	161,505	164	1,625	7.89	64.4	64.3	64.4	0.1
EJ	162,646	320	2,275	5.64	65.9	65.8	65.9	0.1
EK	163,508	182	1,625	7.89	66.3	66.3	66.3	0.0
EL	164,063	161	2,041	6.79	67.0	66.9	67.0	0.0
EM	165,137	185	1,808	7.09	67.5	67.4	67.5	0.0
EN	166,009	170	1,916	6.69	68.4	68.4	68.4	0.0
EO	166,774	186	1,937	6.62	68.8	68.8	68.8	0.0
EP	167,559	280	2,421	5.29	69.4	69.3	69.4	0.0
EQ	168,451	166	1,806	7.10	69.6	69.6	69.6	0.0
ER	169,353	685	4,667	2.75	70.5	70.5	70.5	0.0
ES	170,280	169	1,831	7.00	70.4	70.4	70.5	0.0
ET	170,876	351	2,780	4.61	71.2	71.2	71.3	0.0
EU	171,743	1,119	6,448	1.99	72.1	72.1	72.1	0.0
EV	172,540	450	1,830	7.01	71.9	71.9	71.9	0.0
EW	173,355	937	3,651	3.51	75.2	75.2	75.2	0.0
EX	174,460	537	2,428	5.28	76.8	76.8	76.8	0.0
EY	175,554	209	1,658	7.73	78.4	78.4	78.4	0.0
EZ	176,179	190	1,533	8.00	79.0	79.0	79.6	0.6

[1]Feet Above Mouth [2]Regulatory BFE computed using HEC-RAS with baseline geometry and flows [3]Without Floodway elevations computed using HEC-RAS with flows as extracted from FLO-2D Model for "Fail-all" levee scenario [4]With Floodway elevations computed using HEC-RAS with flows as extracted from FLO-2D Model for floodway run

[5]Increase computed as the difference between the simulated water levels for the "with " and "without" floodway scenarios (e.g. the "fail-all" levee scenario versus the floodway run)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

GREEN RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
GREEN RIVER								
FA	177,547	231	1,701	7.20	81.2	81.2	81.3	0.1
FB	178,864	940	5,398	2.30	82.5	82.5	83.3	0.8
FC	180,266	1,503	4,180	2.90	83.6	83.6	84.5	0.9
FD	181,817	1,349	3,643	3.40	85.1/86.5[2]	85.1[3]	86.0	0.9
FE	182,832	262	1,457	8.40	88.2/88.6[2]	88.2[3]	88.5	0.3
FF	184,216	318	2,445	5.00	91.0/91.7[2]	91.0[3]	92.0	1.0
FG	185,304	263	1,953	6.30	92.5/92.8[2]	92.5[3]	93.5	1.0
FH	186,759	282	2,236	5.50	95.0	95.0	95.9	0.9
FI	188,034	231	1,647	7.40	97.2	97.2	97.6	0.4
FJ	188,447	576	3,544	3.50	98.2	98.2	99.0	0.8
FK	188,967	261	2,004	6.10	98.8	98.8	99.4	0.6
FL	190,144	313	1,923	6.40	100.8	100.8	101.6	0.8
FM	191,358	255	1,865	6.60	103.1	103.1	104.0	0.9
FN	192,134	238	1,794	6.80	105.0	105.0	105.3	0.3
FO	192,955	665	3,390	3.60	106.4	106.4	107.3	0.9
FP	193,966	595	3,444	3.60	107.4	107.4	108.4	1.0
FQ	195,104	417	1,508	8.10	109.4	109.4	109.5	0.1
FR	196,240	289	1,755	7.00	112.5	112.5	113.4	0.9
FS	196,978	726	3,972	3.10	114.2	114.2	115.2	1.0
FT	198,067	508	2,189	5.60	115.2	115.2	116.2	1.0
FU	198,927	518	2,789	4.40	118.2	118.2	118.3	0.1
FV	200,508	1,035	3,325	3.70	120.2	120.2	120.7	0.5
FW	201,334	853	2,659	4.60	121.9	121.9	122.0	0.1
FX	202,882	260	1,627	7.50	126.3	126.3	126.7	0.4
FY	203,990	724	1,859	6.60	130.1	130.1	130.7	0.6
FZ	205,669	2,565	6,882	1.80	133.3	133.3	133.6	0.3

[1]Feet Above Mouth [2]Landward of left levee/Riverward of levee [3]Elevation computed without consideration of levees

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
GREEN RIVER								
GA	207,091	1,897	3,571	3.40	134.1	134.1	134.2	0.1
GB	208,392	773	1,801	6.80	138.9	138.9	139.2	0.3
GC	209,681	594	3,116	3.90	143.8	143.8	144.6	0.8
GD	210,762	418	1,713	7.20	146.1	146.1	146.7	0.6
GE	211,124	292	1,386	8.80	147.7	147.7	147.8	0.1
GF	212,061	219	1,549	7.90	151.3	151.3	151.4	0.1
GG	213,420	234	1,221	10.00	156.2	156.2	156.2	0.0
GH	213,974	178	1,481	8.20	159.0	159.0	159.0	0.0
GI	215,224	162	1,151	10.50	162.5	162.5	162.8	0.3
GJ	216,549	392	2,174	5.60	168.2	168.2	168.2	0.0
GK	217,601	205	1,379	8.80	171.3	171.3	171.3	0.0
GL	218,555	191	1,480	8.20	174.3	174.3	174.3	0.0
GM	219,891	166	979	12.30	178.6	178.6	178.6	0.0
GN	221,292	204	1,417	8.50	186.5	186.5	186.5	0.0
GO	222,370	176	1,109	10.90	190.2	190.2	190.2	0.0
GP	223,543	213	1,456	8.30	195.6	195.6	195.7	0.1
GQ	224,575	230	1,589	7.60	198.6	198.6	198.7	0.1
GR	225,330	134	1,432	8.40	200.4	200.4	200.5	0.1
GS	226,549	223	1,610	7.50	203.7	203.7	203.9	0.2
GT	227,871	160	1,248	9.70	207.9	207.9	208.2	0.3
GU	229,144	308	1,980	6.10	213.0	213.0	213.4	0.4
GV	230,306	1,022	2,280	5.30	217.1	217.1	217.1	0.0
GW	231,741	812	2,873	4.20	222.3	222.3	222.3	0.0
GX	232,666	1,123	2,863	4.20	225.3	225.3	225.3	0.0
GY	234,104	471	2,597	4.70	229.5	229.5	229.5	0.0

[1]Feet Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

GREEN RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
HOLDER CREEK								
A	470	79	122	6.6	407.2	407.2	407.2	0.0
B	1,830	40	130	6.2	428.3	428.3	428.4	0.1
C	2,625	20	84	9.6	441.3	441.3	442.0	0.7
D	3,460	30	119	6.7	456.6	456.6	457.3	0.7
E	4,735	23	82	9.8	480.0	480.0	480.2	0.2
F	4,830	42	133	6.0	482.0	482.0	482.9	0.9
G	4,900	38	145	5.5	483.7	483.7	483.7	0.0
H	4,935	29	83	9.7	484.2	484.2	484.4	0.2
I	5,500	19	86	9.3	497.1	497.1	497.9	0.8

[1]Thousands of Feet Above Mouth

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
ISSAQUAH CREEK								
A	950	1,950	2,974	2.2	38.1	38.1	38.1	0.0
B	1,954	1,650	1,422	3.3	39.9	39.9	39.9	0.0
C	3,590	1,000	936	3.4	46.5	46.5	46.5	0.0
D	5,554	265	1,610	2.5	50.9	50.9	51.9	1.0
E	6,517	255	1,534	2.6	53.1	53.1	54.1	1.0
F	7,095	273	1,492	2.6	54.2	54.2	55.0	0.8
G	7,855	127	884	4.0	57.9	57.9	58.8	0.9
H	8,716	210	970	4.3	59.8	59.8	60.7	0.9
I	9,458	62	535	6.7	62.0	62.0	62.8	0.8
J	9,828	86	787	4.5	64.1	64.1	64.7	0.6
K	10,078	86	705	5.1	64.6	64.6	65.2	0.6
L	10,507	88	797	4.5	65.5	65.5	66.3	0.8
M	10,867	93	831	5.0	67.2	67.2	68.0	0.8
N	11,402	81	742	5.6	68.8	68.8	69.5	0.7
O	11,869	71	611	6.8	70.4	70.4	71.0	0.6
P	12,193	115	792	5.3	71.6	71.6	72.1	0.5
Q	12,750	71	585	7.1	73.0	73.0	73.7	0.7
R	13,033	210	1,063	3.9	73.9	73.9	74.9	1.0
S	13,454	123	690	6.0	74.5	74.5	75.4	0.9
T	13,727	89	558	7.5	76.6	76.6	77.4	0.8
U	14,021	59	557	6.0	79.5	79.5	80.2	0.7
V	14,693	195	969	3.5	83.5	83.5	84.3	0.8
W	15,157	58	641	5.2	84.9	84.9	85.8	0.9
X	15,518	68	623	5.4	86.0	86.0	86.9	0.9
Y	16,199	77	689	4.9	88.6	88.6	89.3	0.7
Z	16,752	61	536	6.3	90.2	90.2	90.9	0.7

[1]Thousands of Feet Above Mouth

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
ISSAQUAH CREEK								
AA	17,344	97	609	5.5	91.7	91.7	92.5	0.8
AB	17,469	64	560	6.0	92.3	92.3	93.0	0.7
AC	17,744	110	575	5.8	94.9	94.9	95.3	0.4
AD	17,950	110	552	6.1	95.2	95.2	95.7	0.5
AE	18,436	85	521	6.4	96.2	96.2	96.6	0.4
AF	18,734	100	494	6.7	96.4	96.4	97.2	0.8
AG	19,019	125	502	6.6	97.5	97.5	98.1	0.6
AH	19,214	152	991	3.3	98.9	98.9	99.3	0.4
AI	19,814	60	401	8.3	101.0	101.0	101.8	0.8
AJ	20,439	69	508	6.5	103.9	103.9	104.9	1.0
AK	20,953	79	516	6.4	105.5	105.5	106.2	0.7
AL	21,223	102	633	5.2	106.2	106.2	107.0	0.8
AM	21,761	82	532	6.1	117.3	117.3	117.6	0.3
AN	22,914	351	1,852	1.8	120.8	120.8	121.7	0.9
AO	23,852	483	1,876	1.7	123.9	123.9	124.6	0.7
AP	24,254	475	2,235	1.5	125.3	125.3	126.3	1.0
AQ	24,687	524	1,154	2.8	126.7	126.7	127.5	0.8
AR	25,056	755	1,971	1.7	128.8	128.8	129.8	1.0
AS	25,980	97	558	5.7	134.3	134.3	135.2	0.9
AT	26,749	53	394	8.0	136.8	136.8	137.4	0.6
AU	27,306	85	472	6.4	138.3	138.3	138.9	0.6
AV	27,875	46	291	10.3	141.0	141.0	141.2	0.2
AW	28,169	48	283	10.6	142.5	142.5	142.5	0.0
AX	28,399	49	321	9.3	143.7	143.7	144.1	0.4
AY	28,699	66	496	6.2	147.2	147.2	148.2	1.0
AZ	29,227	73	618	4.9	149.3	149.3	150.3	1.0

[1]Thousands of Feet Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

ISSAQUAH CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
ISSAQUAH CREEK								
BA	29,755	98	582	5.2	150.1	150.1	151.1	1.0
BB	30,389	79	488	6.3	153.0	153.0	153.6	0.6
BC	31,445	85	463	6.6	156.4	156.4	156.6	0.2
BD	32,501	84	476	6.4	159.6	159.6	159.9	0.3
BE	33,715	163	569	5.3	163.6	163.6	163.8	0.2
BF	34,771	170	452	6.4	170.3	170.3	170.8	0.5
BG	36,091	292	826	3.5	179.2	179.2	180.2	1.0
BH	37,253	74	294	9.8	185.7	185.7	185.7	0.0
BI	37,515	74	449	6.4	192.4	192.4	192.5	0.1
BJ	38,412	103	389	7.4	194.8	194.8	194.8	0.0
BK	38,993	119	368	7.8	200.5	200.5	200.7	0.2
BL	39,521	52	198	14.5	203.8	203.8	204.0	0.2
BM	40,313	120	510	5.6	214.5	214.5	214.5	0.0
BN	41,369	96	344	8.4	222.2	222.2	222.2	0.0
BO	42,636	52	280	10.3	227.6	227.6	227.6	0.0
BP	42,751	68	386	6.3	229.2	229.2	229.2	0.0
BQ	43,032	67	243	10.0	231.8	231.8	232.0	0.2
BR	43,402	45	281	7.2	233.4	233.4	234.4	1.0
BS	44,194	43	175	11.6	237.5	237.5	237.5	0.0
BT	45,197	40	232	8.7	243.8	243.8	244.1	0.3
BU	45,355	39	182	11.1	244.4	244.4	244.7	0.3
BV	45,461	44	374	5.4	248.9	248.9	248.9	0.0
BW	45,566	41	340	5.9	249.0	249.0	249.0	0.0
BX	46,728	32	159	12.7	252.0	252.0	252.0	0.0
BY	47,520	37	188	10.7	259.2	259.2	259.7	0.5
BZ	48,946	50	224	9.0	268.6	268.6	268.8	0.2

[1]Thousands of Feet Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

ISSAQUAH CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
ISSAQUAH CREEK								
CA	50,002	114	350	5.8	273.0	273.0	273.5	0.5
CB	50,952	219	388	5.2	279.0	279.0	279.0	0.0
CC	51,797	48	182	11.1	284.4	284.4	284.5	0.1
CD	52,800	132	433	4.7	291.5	291.5	292.3	0.8
CE	52,958	42	235	8.1	292.5	292.5	293.5	1.0
CF	53,011	42	216	8.9	294.9	294.9	294.9	0.0
CG	53,117	192	634	3.0	296.4	296.4	296.4	0.0
CH	53,222	38	271	7.1	296.6	296.6	296.7	0.1
CI	53,381	184	885	2.2	297.8	297.8	298.0	0.2
CJ	54,595	125	247	7.7	303.7	303.7	303.7	0.0
CK	55,335	165	554	3.4	308.6	308.6	309.6	1.0
CL	56,285	193	320	6.0	314.1	314.1	314.3	0.2
CM	56,602	41	251	7.6	316.1	316.1	317.1	1.0
CN	57,922	39	213	9.0	324.8	324.8	325.2	0.4
CO	59,664	51	267	6.2	335.1	335.1	336.0	0.9
CP	59,770	45	233	7.2	335.7	335.7	336.5	0.8
CQ	59,822	51	340	4.9	338.0	338.0	338.2	0.2
CR	59,875	54	332	5.0	338.4	338.4	338.4	0.0
CS	61,037	40	172	9.7	342.9	342.9	343.3	0.4
CT	62,515	58	242	6.9	355.4	355.4	356.3	0.9
CU	63,571	53	269	6.2	362.7	362.7	363.7	1.0
CV	65,102	35	186	9.0	379.0	379.0	379.0	0.0
CW	66,528	47	283	5.9	391.4	391.4	392.3	0.9

[1]Thousands of Feet Above Mouth

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Kelsey Creek								
A	0	57	179	10.7	20.7	20.7	20.7	0.0
B	699	66	475	2.4	29.5	29.5	29.5	0.0
C	958	119	771	1.5	30.1	30.1	30.1	0.0
D	1,196	86	586	3.3	30.8	30.8	30.8	0.0
E	1,340	81	603	2.3	31.7	31.7	31.7	0.0
F	1,744	210	1,593	0.7	31.8	31.8	31.8	0.0
G	2,284	225	835	4.9	31.7	31.7	31.7	0.0
H	2,608	150	1,129	1.0	32.7	32.7	32.8	0.0
I	2,813	128	987	1.2	32.9	32.9	32.8	0.0
J	2,898	149	1,047	0.7	33.0	33.0	33.0	0.1
K	3,883	179	1,183	0.6	33.0	33.0	33.1	0.1
L	4,544	352	1,907	0.4	33.1	33.1	33.2	0.1
M	5,213	100	482	1.1	33.2	33.2	33.4	0.2
N	5,973	200	687	0.7	33.5	33.5	34.1	0.5
O	7,052	155	166	3.1	38.9	38.9	39.5	0.6
P	7,623	141	144	3.5	43.6	43.6	44.1	0.5
Q	8,753	89	135	4.2	55.8	55.8	56.1	0.4
R	9,068	70	161	3.2	58.8	58.8	59.4	0.6
S	10,084	29	62	5.2	66.1	66.1	66.1	0.0
T	10,700	25	87	5.9	75.7	75.7	75.9	0.1
U	11,694	36	86	5.8	88.0	88.0	88.0	0.0
V	12,021	23	70	7.0	89.6	89.6	89.6	0.0
W	12,520	18	69	7.2	97.7	97.7	97.7	0.0
X	13,342	24	66	7.5	112.6	112.6	112.6	0.0
Y	13,567	63	77	6.3	122.9	122.9	122.9	0.0
Z	13,833	75	136	3.6	125.3	125.3	125.3	0.0

[1]Feet above confluence with Mercer Slough

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

KELSEY CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Kelsey Creek								
AA	14,488	37	63	7.6	133.7	133.7	133.8	0.0
AB	14,643	51	91	5.3	135.7	135.7	135.7	0.0
AC	15,691	44	97	5.0	150.0	150.0	150.0	0.0
AD	16,063	51	53	9.1	155.0	155.0	155.0	0.0
AE	16,433	31	58	8.3	162.6	162.2	162.2	0.0
AF	17,097	18	46	9.7	171.4	171.4	171.4	0.0
AG	17,834	39	88	5.1	184.0	184.0	184.0	0.0
AH	17,921	39	72	6.2	184.6	184.6	184.6	0.0
AI	18,362	19	70	2.4	194.1	194.1	194.2	0.1
AJ	20,519	15	28	6.0	230.1	230.1	230.3	0.2
AK	21,061	18	23	7.1	240.2	240.2	240.2	0.0
AL	21,354	22	38	5.3	244.5	244.5	244.5	0.0
AM	21,466	55	207	3.2	248.1	248.1	248.1	0.0
AN	21,683	20	72	2.3	249.5	249.5	249.6	0.0
AO	21,983	59	226	0.7	251.2	251.2	251.2	0.0
AP	22,496	194	455	1.3	251.2	251.2	251.3	0.0
AQ	23,194	150	437	1.4	251.9	251.9	252.0	0.0
AR-BB[2]								

[1] Feet above confluence with Mercer Slough

[2] Floodway not computed

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

KELSEY CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
LITTLE BEAR CREEK								
A	40	39	289	1.7	27.7	27.4 [2]	27.4	0.0
B	177	8	78	6.4	29.2	29.2	29.2	0.0
C	427	14	97	5.2	30.0	30.0	30.3	0.3
D	577	24	70	7.1	30.0	30.0	30.6	0.7
E	617	19	52	9.6	30.9	30.9	30.9	0.0
F	764	39	182	2.7	36.9	36.9	37.0	0.1
G	849	31	102	4.9	36.9	36.9	37.0	0.1
H	949	49	124	4.4	37.4	37.4	37.5	0.1
I	1,059	55	247	2.3	39.9	39.9	39.9	0.0
J	1,159	44	179	3.2	40.1	40.1	40.1	0.0
K	1,199	50	194	2.9	40.1	40.1	40.1	0.0
L	1,224	31	137	4.1	40.1	40.1	40.1	0.0
M	1,413	26	157	3.6	41.8	41.8	41.8	0.0
N	1,493	31	183	3.1	41.9	41.9	42.0	0.1
O	1,773	32	109	5.2	42.1	42.1	42.2	0.1
P	1,979	11	51	11.0	46.4	46.4	46.8	0.4
Q	2,103	24	174	3.3	49.3	49.3	49.3	0.0
R	2,792	20	104	5.4	51.9	51.9	52.7	0.8
S	3,642	34	130	4.4	57.3	57.3	57.7	0.4
T	4,602	38	89	6.4	64.5	64.5	64.9	0.4
U	5,122	28	129	4.4	68.0	68.0	69.0	1.0
V	5,962	24	94	6.0	72.9	72.9	73.5	0.6
W	6,652	45	303	1.8	84.5	84.5	84.5	0.0
X	7,052	24	111	4.8	84.7	84.7	85.2	0.5
Y	7,452	36	175	3.1	87.2	87.2	88.2	1.0
Z	7,762	23	148	3.6	94.3	94.3	94.3	0.0

[1]Thousands of Feet Above Confluence With Sammamish River

[2]Elevation Computed Without Consideration of Backwater Effects from Sammamish River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE BEAR CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
LITTLE BEAR CREEK (CONTINUED)								
AA	8,162	27	150	3.6	94.8	94.8	95.8	1.0
AB	9,522	21	73	7.4	104.5	104.5	105.3	0.8
AC	10,562	23	136	4.0	114.0	114.0	114.6	0.6
AD	10,742	46	247	2.2	114.5	114.5	115.1	0.6

[1]Thousands of Feet Above Confluence With Sammamish River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE BEAR CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
LONGFELLOW CREEK								
A	11,210	9	84	4.5	120.5	120.5	120.5	0.0
B	11,360	31	197	1.9	120.8	120.8	120.9	0.1
C	11,650	18	71	5.3	120.8	120.8	120.9	0.1
D	12,150	54	145	2.6	122.4	122.4	123.4	1.0
E	12,380	15	64	5.4	125.8	125.8	126.7	0.9
F	12,650	12	54	6.5	127.1	127.1	128.0	0.9
G	12,810	13	59	5.3	128.0	128.0	129.0	1.0
H	12,920	14	88	3.5	131.3	131.3	132.3	1.0
I	13,100	11	57	5.4	131.5	131.5	132.5	1.0
J	13,780	12	37	8.4	135.7	135.7	136.2	0.5
K	14,230	19	49	6.3	140.4	140.4	141.4	1.0
L	14,290	12	41	7.6	141.5	141.5	141.7	0.2
M	14,410	39	130	2.4	143.3	143.3	144.2	0.9
N	14,830	13	43	7.2	144.1	144.1	144.8	0.7
O	15,010	41	212	1.4	150.2	150.2	151.2	1.0
P	15,280	48	223	1.3	150.5	150.5	151.4	0.9
Q	15,475	36	126	2.3	152.2	152.2	153.2	1.0
R	16,200	21	57	5.0	154.9	154.9	155.6	0.7
S	16,230	10	50	5.6	155.6	155.6	155.8	0.2
T	16,480	70	308	0.9	162.1	162.1	163.1	1.0
U	16,850	18	38	7.4	162.6	162.6	163.1	0.5
V	17,165	13	46	6.1	169.2	169.2	169.5	0.3
W	17,245	25	78	3.6	170.1	170.1	170.6	0.5
X	19,555	12	20	7.4	230.1	230.1	230.1	0.0
Y	19,835	10	18	7.7	236.1	236.1	236.1	0.0
Z	20,455	35	45	3.1	245.0	245.0	245.0	0.0
AA	21,575	13	23	6.1	256.8	256.8	256.8	0.0

[1]Hundreds of Feet Above Mouth

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
LOWER OVERFLOW								
A	1,280	203	1,443	1.0	432.5	431.2[2]	432.0[2]	0.8
B	2,380	126	586	2.4	437.6	433.4[2]	434.1[2]	0.7
C	3,155	147	331	4.2	438.8	435.8[2]	436.4[2]	0.6
D	3,855	99	281	5.0	440.4	440.1[2]	440.1[2]	0.0
E	4,805	95	274	5.1	443.9	443.9	444.0	0.1
F	5,855	162	556	4.1	451.1	451.1	452.0	0.9
G	6,555	306	1,258	1.8	452.4	452.4	453.0	0.6
H	6,980	192	325	7.1	454.6	452.7[2]	453.7[2]	1.0

[1]Feet Above Convergence with Middle Fork Snoqualmie River

[2]Elevations Computed Without Backwater Effects from Middle Fork Snoqualmie River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

LOWER OVERFLOW

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MALONEY CREEK								
A	100	27	197	5.7	926.6	920.2[2]	921.2[2]	1.0
B	175	55	270	4.2	926.6	920.9[2]	921.9[2]	1.0
C	240	28	178	6.3	926.6	921.6[2]	922.1[2]	0.5
D	550	64	257	4.4	926.6	922.3[2]	923.1[2]	0.8
E	885	29	126	9.0	926.6	923.4[2]	924.3[2]	0.9
F	990	58	208	5.4	926.6	925.6[2]	925.6[2]	0.0
G	1,440	98	324	3.5	926.8	926.8	927.6	0.8

[1]Feet Above Mouth

[2]Elevation Computed Without Consideration of Backwater Effects From South Fork Skykomish River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

MALONEY CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MAY CREEK								
A	0.14	34	158	5.5	24.6	24.6	25.1	0.5
B	0.16	60	239	3.6	25.4	25.4	25.8	0.4
C	0.24	42	99	8.8	26.9	26.9	26.9	0.0
D	0.25	42	110	7.9	29.3	29.3	29.3	0.0
E	0.31	31	121	7.2	32.6	32.6	32.8	0.2
F	0.39	40	150	5.8	36.1	36.1	36.6	0.5
G	0.46	28	87	10.0	39.4	39.4	39.4	0.0
H	0.52	23	123	7.1	43.6	43.6	44.2	0.6
I	0.57	45	165	5.3	45.4	45.4	46.1	0.7
J	0.63	31	89	9.7	48.9	48.9	48.9	0.0
K	0.78	33	133	6.5	58.8	58.8	58.8	0.0
L	0.94	79	143	6.1	68.3	68.3	68.3	0.0
M	1.09	33	113	7.7	80.0	80.0	80.2	0.2
N	1.25	39	128	6.6	89.0	89.0	89.0	0.0
O	1.36	32	89	9.6	96.7	96.7	96.8	0.1
P	1.39	40	172	4.9	99.2	99.2	99.6	0.4
Q	1.41	33	90	9.5	99.4	99.4	99.4	0.0
R	1.42	33	111	7.7	100.0	100.0	100.0	0.0
S	1.46	30	95	8.9	103.4	103.4	103.5	0.1
T	1.54	22	91	9.3	110.4	110.4	110.5	0.1
U	1.56	8	68	12.5	115.8	115.8	115.8	0.0
V	1.61	43	283	2.9	117.8	117.8	118.7	0.9
W	1.74	27	81	9.9	124.5	124.5	124.5	0.0
X	1.83	38	170	4.8	128.6	128.6	129.3	0.7
Y	1.96	52	101	8.0	139.4	139.4	139.4	0.0
Z	2.02	42	130	6.3	144.0	144.0	144.1	0.1

[1]Miles Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

MAY CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MAY CREEK								
AA	3.23	37	124	5.1	270.0	270.0	270.9	0.9
AB	3.34	33	78	8.2	281.9	281.9	281.9	0.0
AC	3.49	41	135	4.7	293.2	293.2	293.8	0.6
AD	3.68	40	134	4.8	303.9	303.9	303.9	0.0
AE	3.74	15	78	8.2	307.9	307.9	308.1	0.2
AF	3.80	21	80	8.0	310.1	310.1	310.5	0.4
AG	3.90	18	105	5.3	312.8	312.8	313.6	0.8
AH	3.99	53	257	2.2	313.6	313.6	314.3	0.7
AI	4.07	19	92	5.5	313.8	313.8	314.7	0.9
AJ	4.13	92	371	1.4	315.1	315.1	315.7	0.6
AK	4.22	75	303	1.7	315.1	315.1	315.9	0.8
AL	4.37	231	983	0.5	315.4	315.4	316.4	1.0
AM	4.48	96	387	1.3	315.5	315.5	316.5	1.0
AN	4.58	137	540	0.9	315.7	315.7	316.7	1.0
AO	4.68	19	78	6.5	316.1	316.1	316.7	0.6
AP	4.90	133	559	0.9	317.0	317.0	318.0	1.0
AQ	5.12	115	325	1.6	317.4	317.4	318.4	1.0
AR	5.30	44	120	4.2	319.1	319.1	319.6	0.5
AS	5.47	12	57	6.5	322.8	322.8	322.8	0.0
AT	5.56	73	413	0.9	323.9	323.9	324.7	0.8
AU	5.72	85	444	0.8	323.9	323.9	324.8	0.9
AV	5.86	184	743	0.5	324.0	324.0	325.0	1.0
AW	6.00	216	491	0.8	324.0	324.0	325.0	1.0
AX	6.16	50	70	5.3	325.5	325.5	325.8	0.3
AY	6.29	100	271	1.4	326.8	326.8	327.8	1.0
AZ	6.44	170	324	1.1	327.6	327.6	328.4	0.8

[1]Miles Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

MAY CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MAY CREEK								
BA	6.56	13	40	6.0	327.9	327.9	328.9	1.0
BB	6.65	138	106	2.3	333.1	333.1	333.1	0.0
BC	6.70	11	26	4.3	334.4	334.4	335.0	0.6
BD	6.78	34	58	1.9	335.6	335.6	336.4	0.8
BE	6.93	61	48	2.3	337.7	337.7	338.7	1.0
BF	7.10	33	37	2.9	341.7	341.7	342.4	0.7
BG	7.24	11	26	4.2	345.5	345.5	346.3	0.8

[1]Miles Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

MAY CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY[2] (FEET NAVD)	WITH FLOODWAY[2] (FEET NAVD)	INCREASE (FEET)
MAY CREEK TRIBUTARY								
A	700	61	127	1.1	333.1	331.6	332.6	1.0
B	1,100	78	198	0.7	333.1	331.7	332.7	1.0
C	1,600	69	151	0.3	333.1	331.8	332.8	1.0
D	1,950	45	92	0.5	333.1	331.8	332.8	1.0
E	2,420	51	96	0.5	333.1	331.9	332.9	1.0
F	2,760	13	22	2.1	333.1	332.1	333.0	0.9

[1]Thousands of Feet Above Mouth

[2]Elevations Computed Without Consideration of Backwater from May Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

MAY CREEK TRIBUTARY

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE (FEET)
						FEET (NAVD)		
MIDDLE FORK SNOQUALMIE RIVER								
A-AG[2]								
AH	43.22	450	7,992	4.8	428.5	428.5	429.5	1.0
AI	43.69	2,162	29,756	1.3	429.6	429.6	430.6	1.0
AJ	44.05	2,900	27,113	1.4	429.8	429.8	430.8	1.0
AK	44.27	3,171	16,806	2.3	429.9	429.9	430.8	0.9
AL	44.51	3,205	19,507	2.0	430.7	430.7	431.7	1.0
AM	44.69	2,970	15,882	2.3	431.7	431.7	432.4	0.7
AN	44.95	924	5,066	7.3	438.0	438.0	438.8	0.8
AO	45.16	649	5,173	7.2	442.5	442.5	442.8	0.3
AP	45.40	803	6,072	6.1	446.5	446.5	447.2	0.7
AQ	45.66	457	3,697	10.1	453.3	453.3	453.4	0.1
AR	45.90	361	3,461	11.4	458.7	458.7	459.0	0.3
AS	46.12	984	7,132	5.5	464.6	464.6	465.0	0.4
AT	46.36	610	3,432	12.8	470.7	470.7	470.7	0.0
AU	46.64	600	3,716	11.8	481.4	481.4	481.4	0.0
AV	47.76	639	4,554	9.6	484.8	484.8	485.7	0.9
AW	47.80	434	3,997	11.0	485.9	485.9	486.9	1.0
AX	47.92	518	5,506	8.0	490.2	490.2	491.1	0.9
AY	48.03	281	3,070	14.3	492.3	492.3	492.8	0.5
AZ	48.15	411	4,835	9.1	497.6	497.6	498.5	0.9
BA	48.31	378	3,843	11.4	501.8	501.8	501.9	0.1
BB	48.44	732	5,589	7.8	506.8	506.8	507.2	0.4
BC	48.58	796	6,073	7.2	510.4	510.4	510.7	0.3
BD	48.71	507	4,052	10.8	513.9	513.9	514.0	0.1
BE	48.83	637	4,813	9.1	518.9	518.9	519.0	0.1

[1] Stream distance in miles above mouth

[2] Cross sections A-AG reserved for Snoqualmie River

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MIDDLE FORK SNOQUALMIE RIVER								
BF	48.95	676	5,576	7.9	522.3	522.3	522.9	0.6
BG	49.07	725	5,030	8.7	525.1	525.1	526.0	0.9
BH	49.18	234	2,781	15.8	528.5	528.5	529.4	0.9
BI	49.31	274	3,655	12.0	535.8	535.8	536.1	0.3
BJ	49.44	295	3,720	11.6	539.7	539.7	539.9	0.2
BK	49.56	350	3,140	13.9	544.5	544.5	544.5	0.0
BL	49.65	225	2,638	16.6	549.9	549.9	549.9	0.0
BM	49.77	238	3,257	13.4	556.6	556.6	556.7	0.1
BN	49.87	278	3,592	12.2	559.8	559.8	560.2	0.4
BO	50.00	316	2,850	15.4	566.3	566.3	566.5	0.2
BP	50.12	251	3,612	12.1	571.8	571.8	572.7	0.9
BQ	20.26	216	3,171	13.8	575.7	575.7	576.3	0.6
BR	50.38	175	2,938	14.9	579.7	579.7	579.9	0.2
BS	50.62	351	3,508	12.5	589.2	589.2	590.1	0.9
BT	50.80	321	2,732	16.0	599.9	599.9	599.9	0.0
BU	51.03	202	2,790	15.7	614.5	614.5	614.6	0.1
BV	51.32	194	2,255	19.4	632.4	632.4	632.4	0.0

[1] Stream distance in miles above mouth

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MIDDLE OVERFLOW								
A	1,000	87	372	2.4	434.7	434.7	435.1	0.4
B	1,575	135	273	2.9	436.3	436.3	436.3	0.0
C	1,975	129	215	4.0	437.5	437.5	437.5	0.0
D	2,924	206	743	1.2	440.4	440.4	440.8	0.4
E	3,675	292	298	3.0	443.1	443.1	443.1	0.0
F	4,125	100	294	3.1	444.7	444.7	444.8	0.1

[1]Feet Above Convergence with South Fork Snoqualmie River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

MIDDLE OVERFLOW

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY[3] (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MILL CREEK - AUBURN								
A	240	--[2]	--[2]	--[2]	45.4	33.5	--[2]	--[2]
B	960	--[2]	--[2]	--[2]	45.4	33.8	--[2]	--[2]
C	1,490	--[2]	--[2]	--[2]	45.4	36.4	--[2]	--[2]
D	1,518	--[2]	--[2]	--[2]	45.4	36.5	--[2]	--[2]
E	1,720	--[2]	--[2]	--[2]	45.4	37.7	--[2]	--[2]
F	2,140	--[2]	--[2]	--[2]	45.4	38.4	--[2]	--[2]
G	2,305	--[2]	--[2]	--[2]	45.4	38.5	--[2]	--[2]
H	2,460	--[2]	--[2]	--[2]	45.4	38.9	--[2]	--[2]
I	3,140	--[2]	--[2]	--[2]	45.4	39.4	--[2]	--[2]
J	4,060	--[2]	--[2]	--[2]	45.4	40.1	--[2]	--[2]
K	4,770	--[2]	--[2]	--[2]	45.4	41.3	--[2]	--[2]
L	5,450	--[2]	--[2]	--[2]	45.4	41.8	--[2]	--[2]
M	5,630	--[2]	--[2]	--[2]	45.4	41.9	--[2]	--[2]
N	5,810	--[2]	--[2]	--[2]	45.4	42.5	--[2]	--[2]
O	6,600	--[2]	--[2]	--[2]	45.4	42.8	--[2]	--[2]
P	7,460	--[2]	--[2]	--[2]	45.4	42.8	--[2]	--[2]
Q	7,860	--[2]	--[2]	--[2]	45.4	43.5	--[2]	--[2]
R	7,990	--[2]	--[2]	--[2]	45.4	43.6	--[2]	--[2]
S	8,500	--[2]	--[2]	--[2]	45.4	43.8	--[2]	--[2]
T	8,750	--[2]	--[2]	--[2]	45.4	43.9	--[2]	--[2]
U	8,960	--[2]	--[2]	--[2]	45.4	44.3	--[2]	--[2]
V	9,420	--[2]	--[2]	--[2]	45.4	44.6	--[2]	--[2]
W	9,840	--[2]	--[2]	--[2]	45.4	44.6	--[2]	--[2]
X	10,340	--[2]	--[2]	--[2]	45.4	44.6	--[2]	--[2]
Y	10,580	--[2]	--[2]	--[2]	45.4	44.6	--[2]	--[2]
Z	10,760	--[2]	--[2]	--[2]	45.4	44.8	--[2]	--[2]

[1]Thousands of Feet Above Mouth

[2]Storage Floodway

[3]Elevation Computed Without Consideration of Backwater From Green River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

MILL CREEK - AUBURN

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MILL CREEK - AUBURN								
AA	10,090	--[2]	--[2]	--[2]	45.4	44.8[3]	--[2]	--[2]
AB	11,070	--[2]	--[2]	--[2]	45.4	45.2[3]	--[2]	--[2]
AC	11,580	--[2]	--[2]	--[2]	45.4	45.3[3]	--[2]	--[2]
AD	12,210	52	267	1.8	45.8	45.8	46.1	0.3
AE	12,860	70	341	1.4	45.9	45.9	46.2	0.3
AF	13,590	35	165	2.9	46.1	46.1	46.5	0.4
AG	14,420	44	125	3.8	46.6	46.6	47.3	0.7
AH	14,766	17	71	5.6	47.6	47.6	48.1	0.5
AI	15,160	32	190	2.1	49.5	49.5	50.1	0.6
AJ	15,850	51	219	1.8	49.7	49.7	50.4	0.7
AK	17,050	44	168	2.4	50.2	50.2	50.8	0.6
AL	17,940	34	142	2.8	50.8	50.8	51.4	0.6
AM	18,190	15	83	4.3	51.0	51.0	51.6	0.6
AN	18,360	103	241	1.5	51.4	51.4	51.9	0.5
AO	19,220	98	195	1.8	52.0	52.0	52.6	0.6
AP	20,120	110	139	2.6	52.8	52.8	53.3	0.5
AQ	20,960	13	181	4.9	53.8	53.8	54.3	0.5
AR	21,210	260	67	0.6	53.9	53.9	54.4	0.5
AS	21,630	310	573	1.1	54.9	54.9	55.9	1.0
AT	22,070	310	312	0.7	55.7	55.7	56.1	0.4
AU	22,680	300	497	1.0	56.3	56.3	56.7	0.4
AV	23,150	220	325	6.9	56.5	56.5	57.0	0.5
AW	23,370	230	48	0.3	56.8	56.8	57.1	0.3
AX	23,760	209	1,127	0.4	59.9	59.9	60.9	1.0
AY	24,590	197	933	0.4	60.0	60.0	61.0	1.0
AZ	25,450	250	395	0.9	60.1	60.1	61.1	1.0

[1]Thousands of Feet Above Mouth

[2]Storage Floodway

[3]Elevation Computed Without Consideration of Backwater From Green River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

MILL CREEK - AUBURN

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MILL CREEK - AUBURN								
BA	25,680	215	251	1.5	60.4	60.4	61.1	0.7
BB	26,430	219	194	1.6	61.5	61.5	61.8	0.3
BC	27,250	145	221	1.4	62.2	62.2	62.6	0.4
BD	28,200	43	77	4.1	63.5	63.5	64.2	0.7
BE	29,000	40	114	2.8	65.2	65.2	65.6	0.4
BF	29,240	42	222	1.4	65.3	65.3	65.8	0.5
BG	29,512	65	223	1.4	65.3	65.3	65.8	0.5
BH	29,650	58	94	3.3	65.3	65.2	65.7	0.5
BI	30,480	56	95	3.3	65.8	65.8	66.2	0.4
BJ	31,310	42	109	2.9	66.2	66.2	66.5	0.3
BK	31,620	59	37	8.3	66.4	66.4	66.4	0.0
BL	31,747	48	30	10.4	67.2	67.2	67.2	0.0
BM	32,430	125	293	1.1	70.9	70.9	71.6	0.7
BN	32,880	575	935	0.1	72.7	72.7	73.5	0.8
BO	33,760	946	747	0.2	72.7	72.7	73.5	0.8
BP	34,470	562	436	0.3	72.8	72.8	73.6	0.8
BQ	34,925	724	519	0.1	72.8	72.8	73.6	0.8
BR	35,230	365	386	0.1	72.8	72.9	73.7	0.8
BS	35,850	565	480	0.1	72.9	72.9	73.7	0.8

[1]Thousands of Feet Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

MILL CREEK - AUBURN

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET	MEAN VELOCITY (FEET/SEC.	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
A	0.109	63	474	1.4	21.6	21.6	22.6	1.0
B	0.138	60	322	2.0	20.6	20.6	22.6	1.0
C	0.737	49	331	2.0	23.0	23.0	23.7	0.7
D	0.788	50	323	2.0	23.8	23.8	24.5	0.7
E	1.083	56	405	1.6	25.8	25.8	26.3	0.5
F	1.410	57	328	2.0	26.2	26.2	26.7	0.5
G	1.476	41	300	2.2	26.3	26.3	26.8	0.5
H	1.660	40	276	2.4	27.4	27.4	27.8	0.4
I	1.767	50	349	1.9	28.4	28.4	28.8	0.4
J	1.803	38	325	1.6	28.7	28.7	29.0	0.3
K	1.992	37	277	1.9	28.8	28.8	29.3	0.5
L	2.203	43	346	0.8	29.1	29.1	29.5	0.4
M	2.294	42	311	0.9	29.0	29.0	29.5	0.5
N	2.357	32	254	1.1	29.2	29.2	29.7	0.5
O	2.545	41	210	1.3	29.3	29.3	29.8	0.5
P	2.612	38	270	1.0	29.4	29.4	29.9	0.5
Q	2.679	22	137	2.0	29.5	29.5	30.0	0.5
R	2.922	50	232	1.2	29.9	29.9	30.3	0.4
S	2.953	34	185	1.5	29.9	29.9	30.4	0.5
T	3.048	45	248	1.1	30.2	30.2	30.7	0.5
U	3.188	37	238	1.2	31.5	31.5	32.0	0.5
V	3.230	29	222	1.2	31.8	31.8	32.3	0.5
W	3.683	29	107	1.2	32.0	32.0	32.6	0.6
X	3.910	56	116	1.1	32.3	32.3	32.9	0.6
Y	3.943	47	78	1.7	33.5	33.5	34.5	1.0
Z	4.066	30	97	1.3	33.9	33.9	34.8	0.9
AA	4.175	27	99	1.3	34.1	34.1	35.0	0.9

[1] Miles Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

MILL CREEK - KENT

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET	MEAN VELOCITY (FEET/SEC.	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
AB	22,218	16	82	1.6	34.9	34.9	35.8	0.9
AC	22,258	12	47	2.8	34.9	34.9	35.8	0.9
AD	22,558	12	82	1.6	35.3	35.3	36.2	0.9
AE	22,668	19	95	1.4	35.4	35.4	36.3	0.9
AF	22,828	27	85	1.5	35.4	35.4	36.3	0.9
AG	23,147	9	53	2.3	37.2	37.2	38.1	0.9
AH	23,377	24	105	1.1	37.3	37.3	38.2	0.9
AI	23,547	25	77	1.5	37.3	37.3	38.2	0.9
AJ	23,620	8	49	2.4	38.0	38.0	38.9	0.9
AK	23,640	21	100	1.2	38.2	38.2	39.0	0.8
AL	23,740	18	99	1.2	38.2	38.2	39.0	0.8
AM	24,055	22	117	1.0	39.2	39.2	40.0	0.8
AN	24,230	12	80	1.5	39.6	39.6	40.3	0.1
AO	24,275	31	163	0.7	39.6	39.6	40.3	0.7
AP	24,675	27	129	0.9	39.6	39.6	40.3	0.1
AQ	24,995	22	120	1.0	39.7	39.7	40.4	0.7
AR	25.555	26	126	0.8	39.7	39.7	40.4	0.7
AS	25,995	24	106	1.5	39.7	39.7	40.4	0.7
AT	26,395	23	137	1.0	39.8	39.8	40.6	0.8
AU	26,497	25	120	1.2	40.2	40.2	40.9	0.1
AV	26,897	19	82	1.7	40.3	40.3	41.0	0.7
AW	27,257	39	65	2.1	40.5	40.5	41.3	0.8
AX	27,537	12	51	2.7	40.8	40.8	41.4	0.6
AY	28,312	11	40	3.5	44.2	44.2	44.8	0.6
AZ	28,382	11	44	3.2	44.6	44.6	45.2	0.6

1 Thousands of Feet Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

MILL CREEK - KENT

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MILLER CREEK								
A[3]								
B[3]								
C[3]								
D	1,586	15	59	8.1	19.2	19.2	19.2	0.0
E	1,916	17	82	5.8	21.2	21.2	22.1	0.9
F	3,016	23	59	8.1	34.2	34.2	34.3	0.1
G	3,391	17	62	7.8	39.8	39.8	39.8	0.0
H	3,867	54	54	8.9	46.8	46.8	46.8	0.0
I	4,109	24	76	5.6	49.7	49.7	49.7	0.0
J	4,579	25	60	7.2	59.9	59.9	59.9	0.0
K	6,494	24	67	6.4	105.2	105.2	105.2	0.0
L	8,984	22	57	5.2	161.6	161.6	161.6	0.0
M	9,428	12	58	5.1	172.9	172.9	173.9	1.0
N	10,248	19	70	3.9	191.9	191.9	192.1	0.2
O	10,603	37	136	2.0	195.6	195.6	195.7	0.1
P	11,028	17	67	4.1	196.3	196.3	196.4	0.1
Q	11,869	22	72	7.4	201.1	201.1	201.1	0.0
R	12,572	14	61	4.5	207.5	207.5	207.5	0.0
S	12,759	76	111	2.5	210.1	210.1	210.2	0.1
T	13,314	13	78	2.7	215.6	215.6	216.0	0.4
U	13,434	12	69	3.1	216.3	216.3	216.5	0.2
V	13,960	16	32	6.6	218.0	218.0	218.5	0.5
W	14,861	19	48	4.4	227.2	227.2	227.9	0.7
X	15,461	18	47	4.5	233.3	233.3	233.5	0.2
Y	16,006	11	37	5.8	239.4	239.4	240.0	0.6
Z	16,202	42	169	1.2	250.9	250.9	250.9	0.0

[1]Thousands of Feet above Puget Sound

[2]Computed Without Consideration of Walker Creek Floodway

[3]Coastal Flood Effects from Puget Sound

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

MILLER CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MILLER CREEK (CONTINUED)								
AA	16,837	13	43	4.9	254.0	254.0	254.0	0.0
AB	17,415	28	70	3	264.3	264.3	264.3	0.0
AC	17,801	20	78	2.7	267.5	267.5	267.8	0.3
AD	18,062	13	59	3.6	268.7	268.7	269.2	0.5
AE	18,982	335	973	0.2	268.9	268.9	269.9	1.0
AF[2]								

[1]Thousands of Feet above Puget Sound

[2]Floodway not computed

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
NORTH CREEK								
A	0	65[3]	412	3.9	26.3	25.2[2]	25.2	0.0
B	275	44	276	5.8	26.3	25.4[2]	25.4	0.0
C	660	79	332	4.3	26.3	26.0[2]	26.0	0.0
D	1,088	95	604	2.4	26.6	26.6	26.7	0.1
E	1,706	90	516	2.8	26.9	26.9	27.5	0.6
F	2,220	250	846	1.7	27.2	27.2	28.0	0.8
G	3,085	436	1,071	1.3	28.2	28.2	28.9	0.7
H	3,765	514	1,604	0.9	28.5	28.5	29.4	0.9
I	4,625	35	149	9.8	30.9	30.9	31.0	0.1
J	4,874	72	484	6.2	33.4	33.4	33.4	0.0
K	5,234	235	778	2.3	34.6	34.6	34.6	0.0
L	5,689	46	279	6.2	34.9	34.9	34.9	0.0
M	6,059	96	460	3.7	36.9	36.9	36.9	0.0
N	6,274	79	397	4.3	37.7	37.7	37.7	0.0
O	6,796	114	662	2.6	39.8	39.8	39.8	0.0
P	7,556	546	3,655	0.5	40.6	40.6	40.6	0.0
Q	8,571	111	703	2.4	41.4	41.4	41.4	0.0
R	8,886	74	590	3.2	42.6	42.6	42.6	0.0
S	9,764	159	747	2.3	46.6	46.6	46.6	0.0

[1]Thousands of feet above confluence with Sammamish River

[2] Elevations Computed Without Consideration of Backwater Effects from Sammamish River

[3] The floodway shown on the FIRM has been widened beyond this value to account for Sammamish River floodway

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

NORTH CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
NORTH FORK ISSAQUAH CREEK								
A	25	50	138	2.3	54.0[2]	48.7	49.7	1.0
B	1,159	49	83	3.8	57.1[2]	56.1	56.1	0.0
C	1,695	46	128	2.5	59.3[2]	58.3	58.6	0.3
D	2,267	46	206	1.5	60.1[2]	59.6	60.5	0.9
E	2,389	40	213	1.5	61.8[2]	60.8	61.6	0.8
F	2,993	42	211	1.5	64.3	64.3	65.0	0.7
G	3,215	40	173	1.8	64.4	64.4	65.1	0.7
H	3,887	13	67	4.7	65.8	65.8	66.1	0.3
I	4,054	13	38	8.2	67.9	67.9	68.2	0.3
J	4,565	30	121	2.6	70.0	70.0	70.6	0.6
K	5,122	49	231	1.4	75.4	75.4	75.4	0.0
L	5,359	14	34	9.2	75.4	75.4	75.4	0.0
M	5,468	34	77	4.1	77.4	77.4	77.4	0.0
N	5,814	16	36	8.6	85.7	85.7	85.7	0.0
O	6,055	16	36	8.6	93.6	93.6	93.6	0.0

[1]Feet Above Confluence With Issaquah Creek

[2]Backwater Effects from Issaquah Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

NORTH FORK ISSAQUAH CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
NORTH FORK SNOQUALMIE RIVER								
A	0.16	770	4,239	6.4	429.6	423.5[2]	424.5[2]	1.0
B	0.28	320	2,082	13.1	429.7	425.5[2]	426.1[2]	0.6
C	0.36	155	1,923	14.1	430.7	428.1[2]	428.7[2]	0.6
D	0.48	550	5,299	5.1	432.2	432.2	432.4	0.2
E	0.64	1300	9,056	3.0	432.8	432.8	433.7	0.9
F	0.74	1100	8,352	3.3	433.3	433.3	434.3	1.0
G	0.84	800	4,769	5.7	433.9	433.9	434.8	0.9
H	0.97	1450	8,048	3.4	436.4	436.4	437.3	0.9
I	1.07	1562	6,883	4.0	438.0	438.0	438.5	0.5
J	1.17	1348	6,422	4.2	438.9	438.9	439.2	0.3
K	1.22	1082	3,654	7.4	439.7	439.7	439.8	0.1
L	1.33	474	2,819	9.6	444.7	444.7	445.6	0.9
M	1.42	294	2,245	12.1	448.4	448.4	448.4	0.0
N	1.50	230	2,095	13.0	450.5	450.5	451.1	0.6
O	1.57	228	2,269	12.0	453.9	453.9	454.2	0.3
P	1.65	240	3,472	7.8	456.1	456.1	457.0	0.9
Q	1.72	202	1,664	16.3	458.8	458.8	458.8	0.0
R	1.78	280	2,734	10.0	462.5	462.5	463.2	0.7
S	1.86	295	2,344	11.6	464.5	464.5	465.2	0.7
T	1.93	234	1,987	13.7	466.8	466.8	467.3	0.5
U	2.01	227	1,944	14.0	470.1	470.1	470.4	0.3
V	2.10	268	2,442	11.1	473.9	473.9	474.8	0.9
W	2.16	267	2,280	11.9	476.2	476.2	476.5	0.3
X	2.24	164	1,598	17.0	478.3	478.3	478.3	0.0
Y	2.32	190	1,959	13.9	482.9	482.9	483.0	0.1
Z	2.42	147	1,524	17.9	486.2	486.2	486.0	0.2

[1]Miles Above Mouth

[2]Elevations Computed Without Consideration of Backwater Effects from Middle Fork Snoqualmie River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

NORTH FORK SNOQUALMIE RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
PATTERSON CREEK								
A	78	222	736	1.1	86.3[2]	75.3	76.2	0.9
B	1,015	390	1,697	0.5	86.3[2]	75.4	76.4	1.0
C	2,349	181	499	1.2	86.3[2]	76.2	77.0	0.8
D	3,126	170	574	1.1	86.3[2]	78.6	79.0	0.4
E	3,733	39	177	3.4	86.3[2]	79.0	79.6	0.6
F	4,694	70	321	1.9	86.3[2]	81.3	81.9	0.7
G	5,485	71	268	2.3	86.3[2]	82.2	83.2	1.0
H	7,142	80	300	2.0	87.3	87.3	88.3	1.0
I	9,568	55	198	2.3	95.2	95.2	96.1	0.9
J	10,999	33	178	2.5	101.5	101.5	101.9	0.4
K	12,600	113	650	0.7	101.7	101.7	102.5	0.9
L	14,724	170	576	0.8	101.9	101.9	102.9	1.0
M	16,491	168	458	1.0	102.6	102.6	103.6	1.0
N	17,923	168	346	1.3	104.3	104.3	105.3	1.0
O	19,117	151	539	0.7	104.9	104.9	105.9	1.0
P	20,662	282	502	0.8	105.6	105.6	106.6	1.0
Q	22,700	160	444	0.9	106.4	106.4	107.4	1.0
R	23,798	284	554	0.7	107.0	107.0	107.9	0.9
S	24,919	191	471	0.8	108.4	108.4	109.3	0.9
T	26,301	300	545	0.6	109.4	109.4	110.3	1.0
U	27,033	167	407	0.8	109.9	109.9	110.9	1.0
V	27,788	270	604	0.5	110.1	110.1	111.1	1.0
W	29,211	120	461	0.7	110.6	110.6	111.5	0.9
X	30,573	124	326	1.0	111.8	111.8	112.7	0.9
Y	31,251	81	329	1.3	113.3	113.3	114.2	1.0
Z	33,279	83	360	1.4	115.6	115.6	116.5	0.9

[1]Feet Above SE 24th Street

[2]Elevation controled by backwater of Snoqualmie River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

PATTERSON CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
PATTERSON CREEK								
AA	34,370	165	483	0.7	115.8	115.8	116.8	1.0
AB	36,032	90	211	1.1	117.4	117.4	118.4	1.0
AC	37,942	60	131	1.8	121.8	121.8	122.8	1.0
AD	39,012	90	205	1.2	123.8	123.8	124.8	1.0
AE	40,516	82	112	2.1	130.0	130.0	130.9	0.9
AF	41,035	65	111	2.2	133.1	133.1	133.5	0.4
AG	42,279	31	40	3.7	141.9	141.9	142.9	1.0
AH	43,233	13	31	4.8	158.9	158.9	158.9	0.0
AI	43,512	13	31	4.9	161.9	161.9	162.5	0.6

[1]Feet Above SE 24th Street

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

PATTERSON CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
RAGING RIVER								
A	200	436	1,130	6.6	101.1	85.3[2]	86.3[2]	1.0
B	698	308	807	9.2	102.1	94.3[2]	95.3[2]	1.0
C	1,607	522	1,481	5.0	104.6/105.2/104.1[3]	102.5[4]	103.5[4]	1.0
D	2,183	476	1,075	6.9	107.8/108.0/105.7[3]	105.6[4]	106.6[4]	1.0
E	2,667	164	926	8.0	112.4/114.2/112.4[3]	112.4[4]	112.4[4]	0.0
F	3,000	242	835	8.9	114.6/114.7/115.0[3]	114.6[4]	114.6[4]	0.0
G	3,519	87	653	11.4	117.6/119.4/118.5[3]	117.4[4]	118.4[4]	1.0
H	3,935	116	693	10.7	122.1/122.4/121.7[3]	121.8[4]	122.3[4]	0.5
I	4,447	122	891	8.3	125.9/125.8/126.2[3]	125.9[4]	126.3[4]	0.4
J	5,117	135	695	10.7	131.3/131.5/131.5[3]	131.2[4]	131.5[4]	0.3
K	5,498	134	751	9.9	135.9/135.8/135.7[3]	135.8[4]	135.8[4]	0.0
L	5,868	95	571	13.0	139.5/139.5/139.6[3]	139.5[4]	139.5[4]	0.0
M	6,372	105	742	10.0	145.6/145.6/145.5[3]	145.5[4]	145.5[4]	0.0
N	6,824	92	576	12.9	150.4/150.4/150.3[3]	150.3[4]	150.3[4]	0.0
O	7,388	77	575	12.9	159.1/159.1/159.2[3]	159.1[4]	159.1[4]	0.0
P	7,720	97	623	11.9	163.5/163.5/163.5[3]	163.5[4]	163.5[4]	0.0
Q	8,246	98	700	10.6	169.9	169.9	170.2	0.3
R	8,746	86	592	12.5	175.2	175.2	175.2	0.0
S	9,301	86	595	12.5	182.0	182.0	182.9	0.9
T	9,804	283	1,616	4.6	187.0	187.0	188.0	1.0
U	10,373	133	641	11.6	193.0	193.0	193.1	0.1
V	10,697	113	657	11.3	196.6	196.6	197.5	0.9
W	11,106	122	1,332	5.6	207.6	207.6	208.0	0.4
X	11,594	97	648	11.4	209.5	209.5	209.7	0.2
Y	12,122	67	487	15.2	216.5	216.5	216.5	0.0
Z	12,723	140	858	8.6	226.9	226.9	226.9	0.0

[1]Thousands of Feet Above Confluence With Snoqualmie River [2]Elevations Computed Without Consideration of Influence from Snoqualmie River

[3]Landward of Left Levee/Riverward of Levees/Landward of Right Levee

[4]Elevations Computed Without Consideration of Levees

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

RAGING RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
RAGING RIVER								
AA	13,162	81	516	14.4	234.2	234.2	234.2	0.0
AB	13,767	96	821	9.0	246.4	246.4	246.4	0.0
AC	14,171	123	620	12.0	251.8	251.8	251.9	0.1
AD	14,636	119	1,099	6.3	262.2	262.2	262.3	0.1
AE	15,177	96	658	10.6	265.5	265.5	265.8	0.3
AF	15,862	77	484	14.4	277.5	277.5	278.0	0.5
AG	16,532	90	663	10.5	289.5	289.5	290.5	1.0
AH	16,958	104	540	12.9	298.1	298.1	298.1	0.0
AI	17,808	177	747	9.3	317.0	317.0	317.1	0.1
AJ	18,647	95	650	10.7	329.7	329.7	329.7	0.0
AK	19,379	121	776	9.0	338.4	338.4	339.3	0.9
AL	20,267	84	595	11.7	350.0	350.0	351.0	1.0
AM	20,827	137	770	9.1	358.4	358.4	359.2	0.8
AN	21,506	97	631	11.0	366.8	366.8	367.8	1.0
AO	22,376	103	705	9.9	378.2	378.2	379.2	1.0
AP	23,127	185	907	7.7	385.3	385.3	386.3	1.0
AQ	23,828	101	683	10.2	397.4	397.4	397.4	0.0
AR	24,406	100	564	12.4	404.5	404.5	404.7	0.2
AS	24,950	115	639	10.9	415.6	415.6	416.0	0.4
AT	25,526	133	816	8.5	423.6	423.6	423.6	0.0
AU	25,983	79	471	12.7	429.0	429.0	429.0	0.0
AV	26,586	272	845	7.1	437.4	437.4	437.6	0.2
AW	27,197	150	666	9.0	444.4	444.4	444.7	0.3
AX	27,733	93	556	10.8	452.5	452.5	452.6	0.1
AY	28,479	168	789	7.6	462.7	462.7	463.1	0.4
AZ	28,950	87	459	13.1	471.2	471.2	471.2	0.0

[1]Thousands of Feet Above Confluence With Snoqualmie River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

RAGING RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
RAGING RIVER								
BA	29,643	73	592	10.2	483.4	483.4	484.1	0.7
BB	30,343	137	586	10.3	493.2	493.2	494.1	0.9
BC	31,163	176	751	8.0	508.3	508.3	509.3	1.0
BD	31,933	291	730	8.2	517.7	517.7	518.6	0.9
BE	32,803	261	1,211	5.0	530.4	530.4	531.3	0.9
BF	33,643	162	656	9.2	539.7	539.7	539.8	0.1
BG	34,413	149	932	5.2	548.6	548.6	549.6	1.0
BH	35,233	123	470	10.4	558.5	558.5	558.5	0.0
BI	36,443	164	777	6.3	574.9	574.9	575.9	1.0
BJ	37,183	131	514	9.5	585.8	585.8	586.4	0.6
BK	38,043	78	592	8.2	598.9	598.9	599.4	0.5
BL	38,643	105	454	10.7	608.6	608.6	608.6	0.0
BM	39,273	101	522	9.3	618.5	618.5	619.2	0.7
BN	39,473	113	625	7.8	622.3	622.3	622.8	0.5
BO	39,583	96	618	7.9	623.7	623.7	624.3	0.6
BP	40,003	80	450	10.8	629.3	629.3	629.3	0.0
BQ	40,663	97	604	8.1	638.3	638.3	639.2	0.9
BR	41,083	117	383	8.9	645.7	645.7	645.8	0.1
BS	41,283	212	766	4.4	649.7	649.7	650.7	1.0
BT	41,348	216	987	3.5	650.8	650.8	651.4	0.6
BU	42,043	84	313	10.9	657.8	657.8	657.8	0.0
BV	42,493	58	394	8.6	666.9	666.9	667.8	0.9
BW	43,123	86	413	8.3	676.7	676.7	677.4	0.7

[1]Thousands of Feet Above Confluence With Snoqualmie River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

RAGING RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SAMMAMISH RIVER								
A	1,115	289	1,836	2.9	18.9	18.9	19.7	0.8
B	3,327	175	1,433	3.7	19.8	19.8	20.4	0.6
C	6,577	123	1,157	3.8	20.9	20.9	21.3	0.4
D	8,297	103	1,076	4.1	21.4	21.4	21.8	0.4
E	10,547	115	1,214	3.6	22.4	22.4	22.7	0.3
F	14,042	132	1,275	3.4	23.6	23.6	23.8	0.2
G	15,874	132	1,352	3.2	24.1	24.1	24.3	0.2
H	19,365	133	1,384	3.2	25.4	25.4	25.5	0.1
I	21,431	118	1,164	3.8	25.8	25.8	25.9	0.1
J	26,646	124	1,185	2.8	27.1	27.1	27.2	0.1
K	30,064	116	1,202	2.4	28.1	28.1	28.1	0.0
L	32,937	123	1,166	2.4	28.6	28.6	28.7	0.1
M	36,161	114	1,251	2.3	29.4	29.4	29.4	0.0
N	40,414	108	1,231	2.2	30.3	30.3	30.3	0.0
O	42,296	131	1,291	2.1	30.6	30.6	30.6	0.0
P	45,243	122	1,242	2.2	31.1	31.1	31.1	0.0
Q	49,406	111	1,252	2.2	31.8	31.8	31.8	0.0
R	53,592	120	1,191	2.2	32.6	32.6	32.6	0.0
S	55,445	159	1,495	1.7	33.0	33.0	33.1	0.1
T	58,387	112	1,240	2.1	33.8	33.8	33.8	0.0
U	60,742	132	1,312	2.0	34.4	34.4	34.4	0.0
V	62,852	126	1,382	1.9	34.8	34.8	34.9	0.1
W	66,582	114	1,146	1.4	35.4	35.4	35.5	0.1
X	67,559	107	1,077	1.5	35.5	35.5	35.6	0.1
Y	68,847	268	2,450	0.7	35.7	35.7	35.8	0.1
Z	70,402	159	1,221	1.4	36.1	36.1	36.3	0.2
AA	71,647	524	2,459	0.7	36.2	36.2	36.4	0.2

[1]Feet above confluence with Lake Washington

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SNOQUALMIE RIVER								
A-Z[2]								
AA	29,093	8,349	154,290	0.6	49.5	49.5	50.3	0.8
AB	30,307	9,736	176,349	0.5	49.5	49.5	50.4	0.8
AC	31,522	10,718	195,325	0.4	49.6	49.6	50.4	0.8
AD	33,317	10,258	190,328	0.5	49.6	49.6	50.4	0.8
AE	34,901	9,136	156,198	0.6	49.6	49.6	50.4	0.8
AF	36,485	8,197	133,337	0.7	49.6	49.6	50.4	0.8
AG	37,541	7,422	118,796	0.7	49.6	49.6	50.4	0.8
AH	38,597	7,035	108,917	0.8	49.6	49.6	50.5	0.8
AI	40,498	6,326	86,420	1.0	49.7	49.7	50.5	0.9
AJ	43,666	5,713	78,894	1.1	49.8	49.8	50.7	0.9
AK	45,144	4,774	69,808	1.2	49.9	49.9	50.8	0.9
AL	46,411	4,212	64,054	1.4	50.1	50.1	51.0	0.9
AM	47,520	4,366	58,375	1.5	50.2	50.2	51.0	0.9
AN	48,418	4,268	29,814	2.9	50.4	50.4	51.3	0.8
AO	48,523	4,270	30,148	2.9	50.6	50.6	51.4	0.8
AP	49,632	4,610	56,052	1.6	51.1	51.1	51.8	0.7
AQ	50,424	4,619	64,587	1.3	51.4	51.4	52.0	0.7
AR	51,480	4,706	66,796	1.3	51.4	51.4	52.1	0.7
AS	52,219	4,920	72,265	1.2	51.6	51.6	52.3	0.7
AT	52,906	4,710	64,175	0.3	51.6	51.6	52.3	0.7
AU	54,117	NA	NA	NA	51.7	51.7	51.7	0.0
AV	55,479	NA	NA	NA	51.7	51.7	51.7	0.0
AW	56,793	NA	NA	NA	51.7	51.7	51.7	0.0
AX	57,658	4,253	61,149	1.4	51.8	51.8	52.5	0.7
AY	58,766	4,468	74,758	1.2	52.0	52.0	52.6	0.7
AZ	59,506	4,598	74,866	1.2	52.0	52.0	52.7	0.7

[1]Feet Above Confluence with Skykomish River

[2] Cross Sections A - Z are shown in Snohomish County, Washington.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SNOQUALMIE RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SNOQUALMIE RIVER								
BA	60,562	4,791	68,438	1.3	52.1	52.1	52.8	0.7
BB	62,093	4,750	54,454	1.6	52.2	52.2	52.9	0.7
BC	63,149	4,750	54,346	1.6	52.3	52.3	53.1	0.7
BD	64,416	4,600	55,790	1.6	52.5	52.5	53.2	0.7
BE	65,472	4,600	50,712	1.7	52.6	52.6	53.4	0.8
BF	67,373	4,800	48,509	1.8	52.8	52.8	53.6	0.8
BG	69,432	4,500	42,841	2.1	52.9	52.9	53.7	0.8
BH	70,118	4,400	50,075	1.8	52.9	52.9	53.7	0.8
BI	72,970	4,500	44,665	2.0	53.0	53.0	53.8	0.8
BJ	73,234	4,400	43,230	2.0	53.1	53.1	53.9	0.8
BK	73,392	4,400	43,002	2.1	53.2	53.2	54.0	0.8
BL	74,448	4,250	47,323	1.9	53.4	53.4	54.2	0.8
BM	75,504	3,850	46,678	1.9	53.6	53.6	54.4	0.8
BN	76,560	3,300	36,781	2.4	53.8	53.8	54.5	0.8
BO	77,933	4,150	40,509	2.2	54.2	54.2	55.0	0.8
BP	79,622	4,125	47,041	1.9	54.4	54.4	55.3	0.8
BQ	80,731	4,100	48,073	1.9	54.5	54.5	55.3	0.8
BR	82,526	3,950	43,092	2.1	54.7	54.7	55.5	0.8
BS	83,635	4,100	41,102	2.2	54.9	54.9	55.7	0.8
BT	85,430	4,400	37,981	2.4	55.3	55.3	56.0	0.8
BU	87,014	4,858	41,430	2.2	55.3	55.3	56.0	0.8
BV	88,440	5,928	63,644	1.4	55.6	55.6	56.3	0.8
BW	91,978	6,622	90,166	1.0	55.7	55.7	56.5	0.8
BX	93,086	6,467	70,266	1.3	55.8	55.8	56.6	0.8
BY	94,459	6,166	62,325	1.5	56.2	56.2	56.9	0.7
BZ	96,518	4,546	46,585	1.9	56.7	56.7	57.3	0.6

[1]Feet Above Confluence with Skykomish River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SNOQUALMIE RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SNOQUALMIE RIVER								
CA	98,736	4,109	54,421	1.7	56.7	56.7	57.3	0.6
CB	100,320	4,070	50,855	1.8	56.9	56.9	57.5	0.6
CC	101 ,904	4,775	38,272	2.4	57.5	57.5	58.2	0.6
CD	103,382	5,076	46,570	2.0	58.6	58.6	59.2	0.6
CE	104,650	5,787	54,725	1.7	58.8	58.8	59.4	0.6
CF	105,970	5,413	48,236	1.9	59.1	59.1	59.7	0.6
CG	107,026	5,117	49,577	1.9	59.4	59.4	60.0	0.6
CH	108,187	4,863	50,654	1.8	59.6	59.6	60.2	0.5
CI	109,349	3,940	39,050	2.4	60.2	60.2	60.7	0.5
CJ	110,510	4,505	45,888	2.0	60.9	60.9	61.3	0.4
CK	112,358	3,906	32,898	2.8	61.6	61.6	62.1	0.5
CL	112,988	NA	NA	NA	62.4	62.4	62.4	0.0
CM	114,629	5,106	29,919	3.1	63.6	63.6	64.3	0.7
CN	115,474	4,734	30,002	3.1	64.2	64.2	65.0	0.8
CO	115,579	4,658	42,349	2.2	67.9	67.9	68.7	0.9
CP	115,790	4,720	43,334	2.2	67.9	67.9	68.8	0.9
CQ	116,635	4,717	38,422	2.4	68.0	68.0	68.9	0.9
CR	117,586	4,683	38,205	2.5	68.3	68.3	69.2	0.8
CS	118,536	4,060	29,580	3.2	68.6	68.6	69.4	0.8
CT	119,909	2,603	24,994	3.8	69.8	69.8	70.6	0.8
CU	120,595	1,950	21,178	4.4	71.0	71.0	71.9	0.8
CV	121 ,440	1,900	19,049	4.9	72.7	72.7	73.5	0.8
CW	122,549	1,600	19,665	4.8	74.2	74.2	75.2	1.0
CX	124,133	1,800	17,744	5.3	76.0	76.0	76.8	0.9
CY	124,661	1,797	20,165	4.7	76.9	76.9	77.6	0.7
CZ	125,136	1,788	20,620	4.1	77.7	77.7	78.5	0.8

[1]Feet Above Confluence with Skykomish River

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SNOQUALMIE RIVER								
DA	125,400	1,600	18,131	4.7	78.0	78.0	78.8	0.8
DB	125,611	1,700	17,592	4.8	77.8	77.8	78.6	0.8
DC	126,086	2,100	29,527	2.9	78.5	78.5	79.3	0.7
DD	126,192	2,096	33,692	2.5	79.2	79.2	79.9	0.7
DE	127,090	2,019	34,950	2.4	79.2	79.2	79.9	0.7
DF	128,146	3,214	49,109	1.8	79.3	79.3	80.1	0.7
DG	129,413	3,971	58,998	0.4	79.5	79.5	80.3	0.8
DH	130,680	1,972	35,290	1.0	79.5	79.5	80.3	0.8
DI	133,003	5,376	75,091	1.1	79.5	79.5	80.3	0.8
DJ	134,798	5,305	75,353	1.1	79.5	79.5	80.3	0.8
DK	135,907	5,322	68,282	1.2	79.6	79.6	80.4	0.8
DL	137,280	5,394	73,289	1.2	79.6	79.6	80.4	0.8
DM	138,283	5,561	66,202	1.3	79.6	79.6	80.4	0.8
DN	140,026	5,120	56,474	1.5	79.8	79.8	80.6	0.8
DO	141,821	4,968	54,718	1.6	80.0	80.0	80.9	0.9
DP	143,352	5,495	58,164	1.4	80.2	80.2	81.2	1.0
DQ	145,200	5,701	59,489	1.4	80.4	80.4	81.4	1.0
DR	146,309	5,373	54,909	1.5	80.6	80.6	81.6	1.0
DS	147,840	5,490	55,823	1.5	80.8	80.8	81.8	1.0
DT	149,213	5,441	53,567	1.6	81.1	81.1	82.1	1.0
DU	150,691	4,890	49,199	1.7	81.4	81.4	82.3	0.9
DV	152,434	5,627	46,924	1.8	81.9	81.9	82.8	0.9
DW	154,334	6,503	48,421	1.8	82.6	82.6	83.6	0.9
DX	160,195	6,871	48,929	1.8	82.9	82.9	83.8	0.9
DY	162,835	4,894	35,989	2.4	83.5	83.5	84.3	0.8
DZ	164,472	4,824	33,599	2.6	84.3	84.3	85.1	0.8

[1]Feet Above Confluence with Skykomish River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SNOQUALMIE RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SNOQUALMIE RIVER								
EA	166,690	4,646	41,293	2.1	85.0	85.0	85.7	0.7
EB	167,218	4,895	48,048	1.8	85.1	85.1	85.9	0.8
EC	167,640	4,903	45,814	1.9	85.2	85.2	86.0	0.8
ED	168,643	5,399	45,622	1.9	85.6	85.6	86.4	0.8
EE	169,699	6,257	60,835	1.4	86.4	86.4	87.4	1.0
DF	171 ,970	5,104	38,574	1.2	87.6	87.6	88.3	0.8
EG	172,867	4,865	37,390	1.3	88.3	88.3	88.8	0.5
EH	173,818	3,752	25,958	3.4	89.5	89.5	89.8	0.3
EI	174,715	3,395	28,696	3.0	90.7	90.7	91.0	0.3
EJ	176,510	2,839	20,978	4.2	92.5	92.5	92.9	0.4
EK	177,038	2,571	20,961	4.2	93.1	93.1	93.6	0.5
EL	177,989	2,181	17,602	5.0	94.1	94.1	94.8	0.7
EM	178,886	2,296	16,214	5.4	94.9	94.9	95.9	1.0
EN	179,626	1,899	14,126	6.2	96.2	96.2	97.1	0.9
EO	180,259	1,276	15,255	5.7	98.4	98.4	99.1	0.7
EP	180,365	1,267	14,274	6.1	98.8	98.8	99.5	0.7
EQ	180,682	1,249	13,346	6.1	100.3	100.3	100.9	0.6
ER	181,421	1,271	14,349	5.7	101.6	101.6	102.2	0.6
ES	181,843	1,359	15,525	5.3	102.0	102.0	102.4	0.4
ET	183,322	2,085	24,552	3.3	103.2	103.2	104.1	0.9
EU	184,800	2,606	27,882	2.9	103.5	103.5	104.3	0.8
EV	186,014	3,100	34,729	2.4	103.7	103.7	104.5	0.8
EW	186,965	3,448	33,330	2.5	103.8	103.8	104.7	0.8
EX	187,915	2,925	24,543	3.3	104.1	104.1	104.9	0.8
EY	188,813	2,721	26,214	3.1	104.4	104.4	105.2	0.7
EZ	189,922	2,172	19,201	4.3	104.7	104.7	105.4	0.7

[1]Feet Above Confluence with Skykomish River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SNOQUALMIE RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SNOQUALMIE RIVER								
FA	191,083[1]	946	9,806	8.4	106.7	106.7	107.1	0.4
FB	192,350[1]	500	7,968	10.4	110.7	110.7	110.7	0.1
FC	193,248[1]	434	7,724	10.7	112.8	112.8	113.0	0.2
FD	194,304[1]	839	13,812	6.0	115.9	115.9	116.3	0.4
FE	195,466[1]	1,650	21,951	3.8	116.7	116.7	117.2	0.5
FF	196,152[1]	1,700	18,344	4.5	117.0	117.0	117.6	0.5
FG	197,155[1]	846	8,020	10.3	117.2	117.2	117.6	0.4
FH	198,053[1]	300	7,711	10.3	119.7	119.7	120.0	0.4
FI	199,162[1]	360	5,459	14.5	119.5	119.5	119.8	0.3
FJ	199,901[1]	363	7,182	11.0	122.8	122.8	123.1	0.3
FK	201,485[1]	188	3,578	22.1	125.4	125.4	125.7	0.3
FL	40.42[2]	283	4,593	17.4	416.6	416.6	416.6	0.0
FM	40.66[2]	568	9,384	8.5	422.9	422.9	422.9	0.0
FN	40.72[2]	816	13,988	5.7	423.6	423.6	424.0	0.4
FO	40.94[2]	1,762	19,978	3.9	424.5	424.5	424.9	0.4
FP	41.19[2]	2,314	24,106	3.3	425.3	425.3	425.5	0.2
FQ	41.34[2]	2,490	25,544	3.1	425.5	425.5	425.7	0.2
FR	41.68[2]	3,898	57,914	1.4	425.8	425.8	426.4	0.6
FS	42.00[2]	5,039	75,880	1.0	426.2	426.2	426.9	0.7
FT	42.19[2]	5,356	49,249	1.6	426.5	426.5	427.5	1.0
FU	42.51[2]	4,529	44,191	1.8	427.0	427.0	428.0	1.0
FV	42.80[2]	4,120	53,662	1.5	427.3	427.3	428.3	1.0
FW	43.06[2]	3,900	18,226	2.7	427.5	427.5	428.3	0.8
FX	43.39[2]	3,330	47,273	1.7	428.1	428.1	429.1	1.0
FY	43.67[2]	3,330	40,111	2.0	428.4	428.4	429.4	1.0

[1]Feet Above Confluence with Skykomish River

[2]Miles Above Confluence with Skykomish River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SNOQUALMIE RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SOUTH FORK SKYKOMISH RIVER								
A	56.34	1,803	13,122	5.4	754.9	754.9	755.4	0.5
B	56.56	1,604	11,789	6.0	757.1	757.1	757.7	0.6
C	56.77	1,825	15,350	4.6	760.0	760.0	760.8	0.8
D	56.97	545	6,845	10.4	762.4	762.4	762.9	0.5
E	57.21	570	6,632	10.8	766.6	766.6	767.1	0.5
F	57.38	461	5,835	12.2	769.6	769.6	770.6	1.0
G	57.46	364	5,039	14.2	772.4	772.4	772.8	0.4
H	57.67	467	6,544	10.9	778.0	778.0	778.1	0.1
I	57.92	820	6,637	10.7	782.4	782.4	782.5	0.1
J	58.14	1,070	8,834	8.1	787.2	787.2	787.7	0.5
K	58.32	1,140	8,266	8.6	789.1	789.1	790.1	1.0
L	58.52	715	6,726	10.6	791.9	791.9	792.1	0.2
M	58.73	785	7,241	9.8	795.4	795.4	796.4	1.0
N	58.91	800	7,371	9.7	799.7	799.7	799.7	0.0
O	59.13	865	9,467	7.5	804.6	804.6	805.5	0.9
P	59.27	274	3,979	17.9	806.1	806.1	806.8	0.7
Q	59.48	671	8,695	8.2	813.9	813.9	814.3	0.4
R	59.70	850	7,912	9.0	816.8	816.8	817.2	0.4
S	59.94	490	6,100	11.7	822.0	822.0	822.3	0.3
T	60.11	561	6,310	11.3	824.9	824.9	825.9	1.0
U	60.32	658	8,163	8.7	830.3	830.3	830.7	0.4
V	60.53	950	12,476	5.7	833.9	833.9	834.5	0.6
W	60.74	990	8,560	8.3	835.0	835.0	836.0	1.0
X	60.95	1,270	12,060	5.9	838.5	838.5	839.5	1.0
Y	61.18	1,255	10,668	6.7	841.2	841.2	842.2	1.0
Z	61.57	1,123	9,203	7.7	847.4	847.4	848.4	1.0

[1]Miles Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SOUTH FORK SKYKOMISH RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SOUTH FORK SKYKOMISH RIVER								
AA	61.79	969	6,569	10.9	853.5	853.5	854.3	0.8
AB	62.13	430	6,322	11.3	861.9	861.9	862.6	0.7
AC	62.26	316	5,116	13.9	866.9	866.9	866.9	0.0
AD	62.35	257	4,790	14.9	869.3	869.3	869.3	0.0
AE	62.46	177	3,665	19.5	870.9	870.9	870.9	0.0
AF	62.64	700	10,071	7.1	877.7	877.7	878.5	0.8
AG	62.84	500	7,261	9.8	879.2	879.2	879.8	0.6
AH	63.02	700	7,393	9.6	882.2	882.2	883.1	0.9
AI	63.39	782	9,229	7.7	889.9	889.9	890.9	1.0
AJ	63.72	734	7,527	7.2	895.3	895.3	896.3	1.0
AK	63.99	323	4,637	11.7	899.0	899.0	899.8	0.8
AL	64.18	277	4,195	12.9	904.6	904.6	904.6	0.0
AM	64.36	291	4,277	12.7	907.6	907.6	908.0	0.4
AN	64.53	723	7,671	7.1	911.2	911.2	911.7	0.5
AO	64.82	283	3,442	15.8	915.4	915.4	915.4	0.0
AP	65.11	620	7,936	6.8	924.2	924.2	924.8	0.6
AQ	65.35	637	7,145	7.6	926.8	926.8	927.7	0.9
AR	65.45	600	6,476	8.4	928.5	928.5	929.0	0.5
AS	65.49	560	5,299	10.2	929.2	929.2	929.7	0.5
AT	65.55	548	4,576	11.9	929.4	929.4	930.4	1.0
AU	65.61	195	2,567	21.2	930.3	930.3	930.3	0.0
AV	65.69	455	6,738	8.1	937.9	937.9	937.9	0.0
AW	65.82	351	4,327	12.5	938.5	938.5	938.5	0.0
AX	65.95	289	3,660	14.8	940.5	940.5	941.4	0.9
AY	66.05	570	4,577	11.9	943.8	943.8	943.8	0.0
AZ	66.28	619	3,952	13.7	950.1	950.1	950.1	0.0

[1]Miles Above Mouth

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SOUTH FORK SKYKOMISH RIVER								
BA	66.49	374	4,132	13.1	955.8	955.8	956.7	0.9
BB	66.61	265	5,133	10.6	964.1	964.1	964.1	0.0
BC	66.72	600	8,065	2.8	966.0	966.0	966.0	0.0
BD	66.90	1,354	7,601	3.0	966.3	966.3	966.4	0.1
BE	67.18	790	4,099	5.6	969.1	969.1	969.7	0.6
BF	67.39	233	2,363	9.6	973.0	973.0	973.7	0.7
BG	67.61	128	1,275	17.9	980.3	980.3	980.3	0.0
BH	67.89	330	2,989	7.6	992.8	992.8	992.9	0.1
BI	68.05	330	3,227	7.1	996.4	996.4	996.4	0.0
BJ	68.18	360	2,319	9.8	998.9	998.9	999.5	0.6
BK	68.34	202	1,752	13.0	1,004.2	1,004.2	1,004.3	0.1
BL	68.59	154	1,821	12.5	1,014.5	1,014.5	1,014.5	0.0
BM	68.80	159	1,360	16.8	1,023.7	1,023.7	1,023.7	0.0
BN	69.08	114	1,245	18.3	1,043.1	1,043.1	1,043.6	0.5

[1]Miles Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SOUTH FORK SKYKOMISH RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SOUTH FORK SNOQUALMIE RIVER								
A	9,400	1,681	9,892	2.0	434.6/434.6/434.6[2]	434.6[3]	435.1[3]	0.5
B	12,378	166	1,615	9.3	440.4/440.7/440.6[2]	440.4[3]	440.4[3]	0.0
C	14,432	862	4,541	3.3	445.1/446.1/445.3[2]	444.9[3]	445.3[3]	0.4
D	14,768	721	3,772	4.0	445.6/447.8/446.4[2]	445.2[3]	445.7[3]	0.5
E	16,540	220	2,257	6.6	450.7/452.1/452.1[2]	450.3[3]	451.1[3]	0.8
F	16,960	319	2,151	7.0	451.1/452.3/448.7[2]	450.8[3]	451.6[3]	0.8
G	17,775	860	6,143	2.4	452.8/453.2/453.1[2]	452.6[3]	453.4[3]	0.8
H	18,592	421	2,361	6.4	453.3/453.5/453.4[2]	453.3[3]	453.8[3]	0.5
I	19,180	315	2,735	5.5	454.9/455.4/455.3[2]	454.9[3]	455.3[3]	0.4
J	19,545	307	2,162	6.9	455.5/455.9/455.8[2]	455.5[3]	455.8[3]	0.3
K	20,250	304	2,053	7.3	457.5/457.8/457.8[2]	457.5[3]	457.8[3]	0.3
L	21,220	607	2,076	7.2	460.0/461.1/461.1[2]	460.0[3]	460.9[3]	0.9
M	21,905	985	4,684	3.2	462.7/463.7/463.3[2]	462.4[3]	463.3[3]	0.9
N	23,415	836	3,483	4.3	466.8/467.6/465.1[2]	465.0[3]	466.0[3]	1.0
O	24,088	557	2,380	6.3	468.9/469.6/467.8[2]	467.7[3]	468.1[3]	0.4
P	24,597	388	1,835	8.2	470.7/471.0/469.3[2]	469.3[3]	470.1[3]	0.8
Q	25,613	143	1,587	9.5	476.4/476.6/476.6[2]	476.4[3]	476.7[3]	0.3
R	26,087	192	1,993	7.5	478.2/478.4/478.4[2]	478.2[3]	478.2[3]	0.0
S	27,297	475	2,894	5.2	479.6/479.6/479.7[2]	479.9[3]	480.6	0.6
T	27,913	693	4,110	3.7	481.7/481.7/480.8[2]	480.9[3]	481.8	0.8
U	28,440	462	3,317	5.3	483.6/483.6/481.4[2]	481.5[3]	481.8	0.3
V	28,869	699	2,712	5.5	484.3/484.3/482.6[2]	482.7[3]	483.5	0.7
W	29,243	386	1,863	8.1	485.4/485.4/484.7[2]	484.8[3]	484.8	0.0
X	29,747	158	1,431	10.5	487.5/487.5/486.9[2]	487.0[3]	487.1	0.0
Y	30,763	119	1,247	12.0	490.6/490.6/490.1[2]	490.2[3]	490.6	0.3
Z	31,898	139	1,368	11.0	495.9/495.6/495.5[2]	495.6[3]	495.5	0.1

[1]Feet Above Confluence with Snoqualmie River

Note: Reference to Left and Right are Based on Looking Downstream Direction

[2]Landward of Left Levee/Riverward of Levees/Landward of Right Levee

[3]Elevations Computed Without Consideration of Levees

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SOUTH FORK SNOQUALMIE RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SOUTH FORK SNOQUALMIE RIVER								
AA	32,358	167	1,592	9.4	497.0/498.4/497.4[2]	497.4[3]	498.1	0.7
AB	32,737	162	1,389	10.8	497.8/498.0/498.8[2]	498.7[3]	499.6	0.9
AC	33,205	273	2,180	6.9	500.2/502.1/501.0[2]	502.1[3]	502.5	0.4
AD	33,741	310	2,439	6.2	502.1/503.0/502.7[2]	503.2[3]	503.9	0.7
AE	34,406	182	1,085	13.8	504.3/504.3/504.9[2]	504.3[3]	504.3	0.0
AF	34,784	335	2,167	6.9	509.5/509.5/509.2[2]	509.5[3]	509.5	0.0
AG	35,191	351	1,914	7.8	511.5/511.5/511.4[2]	511.5[3]	511.5	0.0
AH	35,682	152	1,242	12.1	514.9/514.9/514.9[2]	514.9[3]	514.9	0.0
AI	36,189	108	1,244	12.1	519.7/519.7/519.6[2]	519.6[3]	519.7	0.1
AJ	36,704	103	1,340	11.2	527.0/527.0/528.7[2]	527.0[3]	527.0	0.0
AK	37,291	143	1,393	10.8	531.0/531.0/527.8[2]	531.0[3]	531.0	0.0
AL	37,841	102	1,000	15.0	535.5/535.5/536.6[2]	535.5[3]	535.4	0.2
AM	38,443	155	1,591	9.4	542.1/542.1/514.7[2]	542.1[3]	542.6	0.5
AN	39,109	119	1,270	11.8	550.1	550.1[3]	550.1	0.0
AO	39,654	100	1,204	12.5	554.1	554.1[3]	554.1	0.0
AP	40,086	128	1,685	8.9	557.4	557.4	557.5	0.1
AQ	40,576	142	1,622	9.3	559.1	559.1	559.3	0.2
AR	41,027	182	1,397	10.7	561.3	561.3	561.4	0.1
AS	41,637	189	2,039	7.4	565.8	565.8	565.8	0.0
AT	42,231	121	1,246	12.0	567.7	567.7	567.7	0.0
AU	43,074	404	3,147	4.8	572.5	572.5	573.1	0.6
AV	43,631	382	2,726	5.5	573.9	573.9	574.6	0.7
AW	44,390	754	4,079	3.7	575.8	575.8	576.8	1.0
AX	44,968	561	2,869	5.2	577.2	577.2	578.1	0.9
AY	45,730	318	2,143	7.0	580.9	580.9	581.0	0.1
AZ	46,420	134	1,312	11.4	583.1	583.1	583.8	0.7

[1]Feet Above Confluence with Snoqualmie River

Note: Reference to Left and Right are Based on Looking Downstream Direction

[2]Landward of Left Levee/Riverward of Levees/Landward of Right Levee

[3]Elevations Computed Without Consideration of Levees

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SOUTH FORK SNOQUALMIE RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SOUTH FORK SNOQUALMIE RIVER								
BA	47,164	545	3,336	4.5	587.4	587.4	588.1	0.7
BB	48,308	1350	8,269	1.8	593.9	593.9	594.3	0.4
BC	48,829	1293	6,026	2.5	594.3	594.3	594.8	0.5
BD	49,371	113	923	16.3	595.8	595.8	595.8	0.0
BE	49,854	133	1,342	11.2	601.5	601.5	601.9	0.4
BF	50,445	235	1,658	9.0	606.0	606.0	606.0	0.0
BG	50,814	239	1,187	12.6	609.9	609.9	609.9	0.0
BH	51,203	203	1,898	7.9	614.8	614.8	615.0	0.2

[1]Feet Above Confluence with Snoqualmie River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SOUTH FORK SNOQUALMIE RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET	MEAN VELOCITY (FEET/SEC.	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
A	0.00	74	342	3.2	18.5	10.0	11.0	1.0
B	0.07	26	173	6.4	18.5	10.5	11.1	0.6
C	0.16	76	436	2.5	18.5	11.3	12.2	0.9
D	0.17	67	380	2.9	18.5	11.3	12.3	1.0
E	0.32	37	168	6.6	18.5	12.2	12.6	0.4
F	0.41	48	274	4.0	18.5	13.5	14.5	1.0
G	0.49	11	100	11.0	18.5	14.9	15.9	1.0
H	0.55	25	331	3.3	19.9	19.0	19.4	0.4
I	0.57	39	440	2.5	19.9	19.0	19.6	0.6
J	0.59	59	576	1.9	19.9	19.1	19.7	0.6
K	0.63	28	346	3.2	19.9	19.1	19.7	0.6
L	0.67	24	270	4.1	19.9	19.1	19.7	0.6
M	1.25	50	439	2.9	19.3	19.3	19.8	0.5
N	1.49	83	638	2.0	19.5	19.5	20.1	0.6
O	1.62	25	297	4.0	19.5	19.5	20.2	0.7
P	1.99	63	581	2.1	20.1	20.1	20.9	0.8
Q	2.57	44	325	3.8	20.5	20.5	21.4	0.9
R	2.61	43	383	3.2	20.8	20.8	21.7	0.9
S	2.67	56	476	2.6	20.9	20.9	21.8	0.9
T	2.76	88	881	1.4	21.1	21.1	22.0	0.9
U	3.03	80	477	2 .6	21.3	21.3	22.3	1.0
V	3.17	70	561	1.2	21.5	21.5	22.5	1.0
W	3.49	75	520	1.3	21.7	21.7	22.7	1.0
X	3.80	88	453	1.5	22.1	22.1	23.1	1.0
Y	3.95	59	328	2.0	22.7	22.7	23.7	1.0
Z	4.08	100	733	0.9	26.5	26.5	27.5	1.0

1 Miles Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SPRINGBROOK CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET	MEAN VELOCITY (FEET/SEC.	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
AA	4.29	50	316	2.1	26.7	26.7	27.6	0.9
AB	4.33	92	739	0.9	26.8	26.8	27.0	0.2
AC	4.51	30	303	1.7	26.9	26.9	27.1	0.2
AD	4.63	33	238	2.1	27.0	27.0	27.3	0.3
AE	4.82	29	218	2.3	27.2	27.2	27.5	0.3
AF	4.97	21	141	3.5	27.5	27.5	28.0	0.5
AG	5.13	28	211	2.4	28.1	28.1	28.7	0.6
AH	5.16	20	161	3.1	28.1	28.1	28.8	0.7
AI	5.36	30	202	2.5	28.9	28.9	29.6	0.7
AJ	5.53	19	147	3.4	29.7	29.7	30.3	0.6
AK	5.57	24	174	0.1	30.0	30.0	30.6	0.6
AL	5.65	30	187	0.6	30.0	30.0	30.6	0.6
AM	5.80	28	122	0.9	30.0	30.0	30.7	0.7
AN	5.94	28	87	1.3	30.2	30.2	30.8	0.6
AO	6.07	19	59	2.0	30.8	30.8	31.2	0.4
AP	6.18	25	75	1.4	31.4	31.4	31.8	0.4
AQ	6.21	34	96	1.1	31.8	31.8	32.2	0.4
AR	6.36	28	60	1.8	32.1	32.1	32.5	0.4
AS	6.38	30	69	1.4	32.5	32.5	33.2	0.7
AT	6.46	35	81	1.2	32.7	32.7	33.3	0.6
AU	6.58	23	92	0.8	33.5	33.5	34.3	0.8
AV	6.74	13	50	2.0	34.0	34.0	34.7	0.7
AW	6.85	25	99	1.0	34.3	34.3	34.9	0.6
AX	6.89	30	130	1.5	35.1	35.1	35.1	0.0
AY	7.18	30	78	3.8	36.7	36.7	36.7	0.0

1 Miles Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SPRINGBROOK CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SQUIBB CREEK (Also known as Upper Vasa Creek)								
A	1,430	16	23	6.9	318.1	318.1	318.1	0.0
B	1,699	14	23	7.1	334.2	334.2	334.2	0.0
C	1,933	33	30	5.4	345.0	345.0	345.0	0.0
D	2,164	17	24	6.7	352.1	352.1	352.1	0.0
E	2,763	6	13	8.6	395.5	395.5	395.5	0.0
F	3,080	29	63	1.8	410.4	410.4	410.4	0.0
G	3,370	16	18	6.1	419.9	419.9	419.9	0.0
H	3,557	12	17	6.8	437.2	437.2	437.2	0.0
I	3,745	26	22	5.2	448.8	448.8	448.8	0.0

[1]Feet Above I-90

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SQUIBB CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)[3]	WITHOUT FLOODWAY (FEET NAVD)[4]	WITH FLOODWAY (FEET NAVD)[4]	INCREASE (FEET)
SW 23rd STREET DRAINAGE CHANNEL								
CA	0	60[2]	32	4.5	20.0	16.9	17.8	0.9
CB	420	60[2]	183	0.8	20.6	16.9	17.8	0.9
CC	500	60[2]	169	0.9	20.7	16.9	17.8	0.9
CD	550	60[2]	165	0.9	20.8	16.9	17.8	0.9
CE	810	60[2]	89	1.6	21.0	16.9	17.8	0.9
CF	896	60[2]	293	0.5	21.0	17.0	17.8	0.8
CG	947	90[2]	254	0.6	21.0	17.0	17.8	0.8
CH	1,061	53	153	0.9	21.0	17.0	17.8	0.8
CI	1,110	60	26	5.5	21.0	17.1	17.8	0.7
CJ	1,545	60	204	0.7	21.0	17.1	17.8	0.7
CK	2,075	60	184	0.8	21.0	17.1	17.8	0.7
CL	2,292	40	105	1.4	21.0	17.1	17.9	0.8
CM	2,391	40	248	0.5	21.0	18.1	18.4	0.3
CN	2,492	40	218	0.5	21.0	18.1	18.4	0.3

[1]Feet Above Confluence With Springbrook Creek

[2] Cross Section Includes Wetlands

[3]The flood elevations are controlled by Green River flood. Base Flood Elevations are derived from 1% chance flood elevations from the Green River

[4]Elevations computed without consideration of the Green River effects

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SW 23RD STREET DRAINAGE CHANNEL

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SWAMP CREEK								
A	960	50	232	3.9	20.6	19.8[3]	19.8	0.0
B	1,400	47	240	3.8	20.9	20.6[3]	20.6	0.0
C	1,870	147	652	1.4	25.0	25.0	26.0	1.0
D	2,300	45	294	3.1	25.2	25.2	26.2	1.0
E	2,491	84	374	2.4	26.0	26.0	26.8	0.8
F	2,791	26	191	4.8	26.3	26.3	26.9	0.6
G	3,271	28	214	4.3	27.1	27.1	28.0	0.9
H	3,860	54	283	3.2	28.3	28.3	29.2	0.9
I	4,461	413	1,330	0.7	28.9	28.9	29.9	1.0
J	5,151	302	419	2.1	30.5[2]	29.7	30.7	1.0
K	5,661	530	834	1.0	34.0[2]	31.9	32.9	1.0
L	6,271	286	275	3.2	35.6[2]	34.6	35.5	0.9
M	6,961	467	865	1.0	39.7[2]	38.0	39.0	1.0
N	7,561	37	95	9.1	43.9[2]	43.1	43.1	0.0
O	7,941	59	223	3.9	46.3[2]	46.3	47.2	0.9
P	8,141	47	192	4.5	47.9	47.9	48.5	0.6
Q	8,181	66	186	4.7	48.3	48.3	48.6	0.3
R	8,931	242	397	2.2	53.3	53.3	53.7	0.4
S	9,631	33	93	9.4	56.5	56.5	56.6	0.1
T	9,961	295	351	2.5	60.6	60.6	61.5	0.9
U	10,231	75	143	6.1	62.7	62.7	63.2	0.5
V	10,791	48	172	5.1	67.9	67.9	68.9	1.0
W	11,381	55	144	6.0	75.0	75.0	75.0	0.0
X	12,031	28	176	4.9	78.9	78.9	79.8	0.9
Y	12,791	57	169	5.1	84.0	84.0	84.3	0.3

[1]Thousands of Feet above confluence with Sammamish River

[2]Elevation Computed for Flow Confined to Main Channel Between Sections I and N

[3]Elevations Computed Without Consideration of Influence from Sammamish River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

SWAMP CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
THORNTON CREEK MAINSTEM								
A	0	22	71	5.9	17.6	17.6	17.6	0.0
B	1,071	23	149	2.8	27.2	27.2	27.8	0.6
C	1,489	27	159	2.6	29.3	29.3	29.9	0.6
D	1,918	29	240	1.8	34.9	34.9	34.9	0.0
E	2,455	21	201	2.1	39.2	39.2	39.2	0.0
F	2,779	42	301	1.4	39.2	39.2	39.5	0.3
G	2,901	35	231	1.8	39.3	39.3	39.6	0.3
H	3,485	19	115	3.8	39.5	39.5	40.3	0.8
I	4,846	22	108	4.4	43.4	43.4	43.7	0.3
J	4,899	14	82	5.8	43.5	43.5	43.8	0.3
K	5,157	81	254	1.9	44.5	44.5	44.9	0.4
L	5,441	19	76	6.9	45.2	45.2	45.6	0.4
M	5,530	17	84	6.2	46.3	46.3	46.6	0.3
N	5,556	21	114	5.0	47.4	47.4	47.8	0.4
O	5,639	18	113	4.6	47.7	47.7	48.1	0.4
P	5,684	17	111	4.7	47.9	47.9	48.3	0.4
Q	5,839	33	160	3.3	48.4	48.4	48.7	0.3
R	5,916	33	142	3.7	48.5	48.5	48.9	0.4

[1]Feet above limit of detailed study

(Limit of detailed study is approximately 1,015 feet downstream of Northeast 93rd Street)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA
AND INCORPORATED AREAS

FLOODWAY DATA

THORNTON CREEK MAINSTEM

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
THORNTON CREEK MAINSTEM (CONTINUED)								
S	5,929	32	146	3.6	48.5	48.5	49.0	0.5
T	6,003	31	156	3.4	48.6	48.6	49.5	0.9
U	6,102	20	138	3.8	49.0	49.0	50.0	1.0
V	6,655	48	252	3.5	49.9	49.9	50.7	0.8
W	6,852	28	139	6.4	51.0	51.0	51.7	0.7
X	7,173	29	111	8.0	53.0	53.0	53.6	0.6
Y	7,212	21	80	11.2	53.7	53.7	54.2	0.5
Z	7,332	119	184	4.9	55.9	55.9	56.6	0.7

[1]Feet above limit of detailed study

(Limit of detailed study is approximately 1,015 feet downstream of Northeast 93rd Street)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA
AND INCORPORATED AREAS

FLOODWAY DATA

THORNTON CREEK MAINSTEM

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
THORNTON CREEK NORTH BRANCH								
AA	7,481	54	166	2.8	56.3	56.3	57.3	1.0
AB	7,912	28	124	3.7	62.2	62.2	63.0	0.8
AC	8,607	22	66	7.1	67.6	67.6	67.6	0.0
AD	9,342	13	34	9.3	83.3	83.3	83.3	0.0
AE	9,959	39	67	4.8	101.4	101.4	101.4	0.0
AF	10,708	18	39	8.3	111.9	111.9	111.9	0.0
AG	11,944	34	166	1.9	140.6	140.6	140.6	0.0
AH	13,570	17	38	8.4	160.9	160.9	160.9	0.0
AI	14,245	14	124	2.6	179.1	179.1	179.1	0.0
AJ	15,100	12	68	4.7	192.7	192.7	192.9	0.2
AK	15,651	14	35	9.1	197.5	197.5	197.5	0.0
AL	16,518	16	38	8.0	210.1	210.1	210.1	0.0
AM	17,195	12	38	8.5	225.4	225.4	225.5	0.1
AN	17,814	25	89	3.6	236.4	236.4	236.4	0.0
AO	18,076	49	57	5.6	237.5	237.5	237.9	0.4
AP	11,804	11	34	4.8	244.7	244.7	245.0	0.3
AQ	20,030	13	190	1.7	266.8	266.8	266.8	0.0
AR	20,887	43	277	0.6	266.8	266.8	266.9	0.1
AS	21,791	27	45	3.6	272.2	272.2	272.2	0.0

[1]Feet above limit of detailed study

(Limit of detailed study is approximately 1,015 feet downstream of Northeast 93rd Street)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA
AND INCORPORATED AREAS

FLOODWAY DATA

THORNTON CREEK NORTH BRANCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
THORNTON CREEK NORTH BRANCH (CONTINUED)								
AT	22,759[1]	29	34	4.8	279.3	279.3	279.3	0.0
AU	22,926[1]	29	34	4.8	281.3	281.3	281.3	0.0
AV	23,645[1]	20	29	8.1	288.1	288.1	288.1	0.0
AW	23,791[1]	22	80	2.2	291.5	291.5	291.5	0.0
AX	72[2]	11	15	6.9	303.1	303.1	303.1	0.0
AY	564[2]	10	9	5.4	308.0	308.0	308.0	0.0
AZ	1,397[2]	*	*	*	311.8	311.8	*	*
BA	1,784[2]	*	*	*	311.8	311.8	*	*
BB	2,332[2]	2	10	5.9	321.2	321.2	321.2	0.0
BC	3,234[2]	8	13	6.7	333.0	333.0	333.0	0.0
BD	3,636[2]	3	17	9.7	341.5	341.5	341.5	0.0
BE	4,397[2]	9	16	4.2	352.1	352.1	352.1	0.0
BF	5,763[2]	10	16	2.7	361.8	361.8	361.8	0.0
BG	6,074[2]	24	38	1.1	362.3	362.3	362.3	0.0
BH	6,504[2]	4	7	6.3	364.1	364.1	364.1	0.0
BI	6,864[2]	9	16	2.7	365.3	365.3	365.4	0.1

[1]Feet above limit of detailed study (Limit of detailed study is approximately 1,015 feet downstream of Northeast 93rd Street)

[2]Feet above limit of detailed study (Limit of detailed study is approximately 850 feet downstream of 1st Avenue Northeast)

*No mapped floodway

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA
AND INCORPORATED AREAS

FLOODWAY DATA

THORNTON CREEK NORTH BRANCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
THORNTON CREEK OVERLFOW BYPASS								
A	152	12	16	3.8	306.3	306.3	306.3	0.0
B	1,013	11	16	3.9	317.0	317.0	317.0	0.0
C	1,519	9	10	6.2	324.9	324.9	324.9	0.0

[1]Feet above convergence with Thornton Creek North Branch

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA
AND INCORPORATED AREAS

FLOODWAY DATA

THORNTON CREEK OVERFLOW BYPASS

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
THORNTON CREEK SOUTH BRANCH								
A	587	36	108	4.2	60.7	60.7	61.1	0.4
B	1,139	36	126	3.6	66.5	66.5	67.2	0.7
C	1,473	34	69	6.5	68.5	68.5	68.8	0.3
D	1,900	21	88	5.1	74.6	74.6	75.1	0.5
E	2,578	35	125	3.6	84.6	84.6	84.6	0.0
F	2,867	15	45	10.0	88.6	88.6	88.6	0.0
G	3,161	16	47	9.6	95.0	95.0	95.0	0.0
H	3,756	20	64	7.0	104.9	104.9	105.1	0.2
I	4,580	5	47	7.2	132.2	132.2	132.2	0.0
J	5,508	24	51	6.6	141.8	141.8	141.8	0.0
K	6,327	33	48	7.0	157.0	157.0	157.0	0.0
L	6,951	27	46	7.4	170.4	170.4	170.4	0.0
M	7,723	17	39	8.6	186.8	186.8	186.8	0.0
N	7,836	46	88	3.9	190.5	190.5	190.5	0.0
O	8,955	17	39	8.6	205.1	205.1	205.1	0.0
P	9,563	18	40	8.5	215.6	215.6	215.6	0.0
Q	9,716	13	33	8.5	220.2	220.2	220.2	0.0
R	10,226	33	188	1.4	231.7	231.7	231.7	0.0
S	10,545	14	43	6.3	232.0	232.0	232.2	0.2

[1]Feet above confluence with Thornton Creek Mainstem

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA
AND INCORPORATED AREAS

FLOODWAY DATA

THORNTON CREEK SOUTH BRANCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
THORNTON CREEK SOUTH BRANCH (CONTINUED)								
T	11,154	10	66	4.1	238.8	238.8	239.6	0.8
U	11,565	10	32	8.4	240.7	240.7	241.3	0.6
V	12,074	17	34	8.0	246.3	246.3	246.4	0.1

[1]Feet above confluence with Thornton Creek Mainstem

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA
AND INCORPORATED AREAS

FLOODWAY DATA

THORNTON CREEK SOUTH BRANCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
TIBBETTS CREEK								
A	0.15	N/A	N/A	N/A	36.1	35.2[2]	N/A	N/A
B	0.29	23	88	5.4	36.2	36.2	37.2	1.0
C	0.49	39	122	3.5	41.7	41.7	41.7	0.0
D	0.60	36	99	4.3	42.5	42.5	42.5	0.0
E	0.73	93	164	2.6	50.2	50.2	50.7	0.5
F	0.85	29	99	4.3	54.7	54.7	55.3	0.6
G	0.95	19	79	5.4	57.2	57.2	57.4	0.2
H	1.05	19	61	7.0	60.2	60.2	60.3	0.1
I	1.09	22	82	5.2	61.4	61.4	62.0	0.6
J	1.19	39	135	3.1	67.4	67.4	67.6	0.2
K	1.27	11	39	10.9	72.6	72.6	72.6	0.0
L	1.34	27	174	1.9	81.3	81.3	81.3	0.0
M	1.42	36	155	2.1	81.4	81.4	81.5	0.1
N	1.44	17	88	3.7	81.6	81.6	81.7	0.1
O	1.55	30	46	7.1	88.8	88.8	88.8	0.0
P	1.66	85	91	3.6	98.9	98.9	98.9	0.0
Q	1.74	24	6	7.1	106.8	106.8	107.2	0.4
R	1.77	19	77	4.2	114.3	114.3	114.5	0.2
S	1.80	13	65	5.0	116.8	116.8	117.4	0.6
T	1.83	39	201	1.6	117.1	117.1	118.1	1.0
U	1.89	11	30	10.8	121.2	121.2	121.5	0.3
V	1.94	64	51	6.4	128.0	128.0	128.0	0.0
W	1.97	12	32	10.1	130.6	130.6	130.8	0.2
X	2.03	13	60	5.4	137.8	137.8	138.8	1.0
Y	2.09	11	36	8.0	141.0	141.0	141.7	0.7
Z	2.14	15	39	7.3	149.3	149.3	150.0	0.7

[1]Miles Above Mouth at Lake Sammamish

[2]Elevation Computed Without Consideration Of Backwater From Sammamish Lake

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

TIBBETTS CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
TIBBETTS CREEK								
AA	2.18	16	41	7.0	153.8	153.8	154.2	0.4
AB	2.24	8	22	9.4	164.1	164.1	164.5	0.4
AC	2.27	7	24	8.6	170.1	170.1	171.0	0.9
AD	2.30	14	50	4.1	172.7	172.7	173.5	0.8
AE	2.32	13	25	8.0	177.4	177.4	177.4	0.0
AF	2.36	34	37	5.5	186.6	186.6	186.6	0.0
AG	2.42	10	26	7.9	193.0	193.0	193.1	0.1
AH	2.46	17	28	7.3	200.9	200.9	200.9	0.0
AI	2.50	16	41	5.0	203.6	203.6	204.0	0.4
AJ	2.53	16	27	7.5	209.1	209.1	209.2	0.1

[1]Miles Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

TIBBETTS CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
TOLT RIVER								
A[2]								
B	2,350	2,170	8,231	2.7	76.9[3]	74.3[5]	75.0[5]	0.7
C	2,880	1,500	6,797	3.2	80.2	80.2	80.3	0.1
D	3,235	1,300	6,219	3.5	80.6	80.6	81.3	0.7
E	3,740	1,200	5,424	4.1	81.7	81.7	82.6	0.9
F	4,345	1,300	3,833	5.7	84.8	84.8	85.5	0.7
G	4,775	778	3,376	6.5	87.7	87.7	88.7	1.0
H	5,390	570	2,697	8.2	92.5	92.5	93.5	1.0
I	5,835	492	4,137	5.3	97.0/97.0/96.0[4]	97.0[6]	97.2[6]	0.2
J	6,355	1,000	6,880	3.2	99.2/99.5/98.2[4]	99.0[6]	99.4[6]	0.4
K	7,030	642	3,226	6.8	101.4/101.7/101.6[4]	101.2[6]	101.6[6]	0.4
L	7,690	650	3,324	6.6	104.4/106.0/105.9[4]	104.3[6]	105.1[6]	0.8
M	8,300	810	3,099	7.1	107.8/108.6/108.2[4]	107.3[6]	108.2[6]	0.9
N	9,055	900	4,302	5.1	112.0/113.9/112.5[4]	111.5[6]	112.3[6]	0.8
O	9,735	856	4,365	5.0	115.3/116.4/116.1[4]	115.2[6]	116.0[6]	0.8
P	10,595	1,272	4,853	4.5	119.9/119.8/119.8[4]	119.9[6]	120.8[6]	0.9
Q	11,185	902	4,355	5.1	123.1	123.1	123.9	0.8
R	12,365	707	3,515	6.3	129.8	129.8	130.4	0.6
S	13,160	693	3,321	6.6	136.3	136.3	136.7	0.4
T	13,920	1,068	4,487	4.9	141.8	141.8	142.7	0.9
U	14,860	287	2,059	10.7	148.9	148.9	149.6	0.7
V	15,385	1,100	5,144	4.3	153.5	153.5	154.5	1.0
W	16,255	724	3,447	6.4	157.5	157.5	158.5	1.0
X	16,855	826	4,011	5.5	161.4	161.4	162.4	1.0
Y	17,625	855	5,149	4.3	165.2	165.2	165.3	0.1
Z	18,235	279	1,601	13.7	170.8	170.8	171.4	0.6

[1]Feet Above Mouth [2]Cross Section Located Within Snoqualmie River Floodway [3]Backwater from Snoqualmie River

[4]Landward of Left Levee/Riverward of Levees/Landward of Right Levee [5]Elevations Calculated Without Consideration of Backwater from Snoqualmie River

[6]Elevations Computed Without Consideration of Levees

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

TOLT RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
TOLT RIVER								
AA	19,045	1,102	5,668	3.9	177.8	177.8	178.8	1.0
AB	19,690	750	3,606	6.1	180.9	180.9	181.2	0.3
AC	20,340	632	3,508	6.3	184.4	184.4	185.3	0.9
AD	20,795	435	2,553	8.6	187.9	187.9	188.2	0.3
AE	21,555	352	2,628	8.4	193.2	193.2	193.7	0.5
AF	22,135	752	4,552	4.8	196.1	196.1	197.0	0.9
AG	22,935	805	3,276	6.7	200.1	200.1	200.9	0.8
AH	23,920	790	4,929	4.5	205.4	205.4	206.4	1.0
AI	24,280	436	2,806	7.8	206.9	206.9	207.8	0.9
AJ	24,730	434	2,984	7.4	210.1	210.1	211.0	0.9
AK	25,515	604	3,236	6.8	215.3	215.3	216.3	1.0
AL	26,265	380	2,722	8.1	221.3	221.3	221.3	0.0
AM	26,755	363	3,138	7.0	223.9	223.9	224.3	0.4
AN	27,255	334	2,245	9.8	226.8	226.8	227.0	0.2
AO	27,795	371	3,194	6.9	230.1	230.1	231.0	0.9
AP	28,610	374	2,647	8.3	233.8	233.8	234.8	1.0
AQ	29,355	379	2,434	9.0	238.5	238.5	239.4	0.9
AR	30,150	230	2,046	10.8	244.5	244.5	245.5	1.0
AS	30,900	190	1,747	12.6	251.7	251.7	252.4	0.7
AT	31,365	235	2,050	10.7	257.7	257.7	258.0	0.3
AU	31,770	377	3,878	5.7	262.4	262.4	263.3	0.9

[1]Feet Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

TOLT RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
UPPER NORTH OVERFLOW								
A	300	161	783	2.7	444.9	444.9	445.6	0.7
B	475	161	819	2.6	445.0	445.0	445.8	0.8
C	2,000	130	280	7.7	449.7	449.7	449.9	0.2
D	2,526	170	769	2.8	451.9	451.9	452.9	1.0
E	2,980	180	1,342	1.6	455.0	455.0	455.9	0.9
F	3,319	112	821	2.6	456.4	456.4	456.5	0.1
G	3,739	92	263	8.2	458.5	458.5	458.7	0.2

[1]Feet Above Convergence with Upper South Overflow Along Profile Baseline

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

UPPER NORTH OVERFLOW

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
UPPER SOUTH OVERFLOW								
A	2,200	111	398	10.8	440.4	440.4	440.6	0.2
B	2,900	175	1,025	4.2	444.9	444.9	445.6	0.7
C	3,900	84	327	6.6	448.6	448.6	448.8	0.2
D	4,700	127	611	3.5	454.3	454.3	454.8	0.5
E	5,195	129	625	3.4	455.1	455.1	455.8	0.7
F	5,679	234	775	2.8	457.0	457.0	457.5	0.5
G	6,135	126	347	6.2	457.9	457.9	458.0	0.1
H	6,508	209	1,199	1.8	459.8	459.8	459.8	0.0

[1]Feet Above Confluence with South Fork Snoqualmie River Along Profile Baseline

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

UPPER SOUTH OVERFLOW

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
VASA CREEK (Also known as Lower Vasa Creek)								
A	97	16	11	4.7	36.8	36.8	36.8	0.0
B	494	8	8	5.8	48.6	48.6	48.6	0.0
C	957	8	8	5.9	59.5	59.5	59.5	0.0
D	1,379	11	11	4.5	69.2	69.2	69.2	0.0
E	1,583	16	10	4.6	74.9	74.9	74.9	0.0
F	1,948	13	10	4.9	87.3	87.3	87.3	0.0
G	2,139	13	10	4.9	96.1	96.1	96.1	0.0
H	2,574	11	11	4.4	112.9	112.9	112.9	0.0
I	2,624	11	8	1.8	113.1	113.1	113.1	0.0
J	2,748	6	3	4.4	117.9	117.9	117.9	0.0
K	3,002	4	3	5.0	128.1	128.1	128.1	0.0

[1]Feet Above Confluence with Lake Sammamish

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

VASA CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH[2] (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
WALKER CREEK								
A	290	132	217	5.0	14.5	14.5	14.9	0.4
B	510	134	482	2.2	15.7	15.7	16.6	0.9
C	710	254	809	1.3	16.1	16.1	16.9	0.8
D	920	35	98	4.7	16.4	16.4	17.1	0.7
E	1,100	34	106	4.3	17.7	17.7	18.2	0.5
F	1,160	7	35	9.0	19.6	19.6	20.6	1.0
G	1,200	20	97	3.2	19.8	19.8	20.8	1.0
H	1,410	20	49	5.8	20.6	20.6	21.5	0.9
I	1,600	20	37	7.7	25.4	25.4	25.5	0.1
J	1,720	15	50	5.7	27.2	27.2	28.1	0.9

[1]Feet above confluence with Miller Creek

[2]Because of Map Scale Limitations, All Floodway Widths Less Than 30 Feet Are Shown As 30 Feet

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

WALKER CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
WEST FORK ISSAQUAH CREEK								
A	130	21	74	7.5	234.7	234.7	235.7	1.0
B	230	10	45	12.4	238.2	238.2	238.2	0.0
C	404	24	181	3.0	243.8	243.8	243.8	0.0
D	1,304	35	69	8.0	259.2	259.2	259.3	0.1
E	2,204	22	59	9.3	276.8	276.8	276.8	0.0
F	3,384	24	59	8.9	308.6	308.6	308.6	0.0
G	4,214	30	70	7.6	316.8	316.8	316.9	0.1
H	4,394	22	76	7.0	318.5	318.5	318.7	0.2
I	4,508	39	214	2.5	321.9	321.9	322.8	0.9
J	4,708	88	468	1.1	321.9	321.9	322.9	1.0
K	4,917	156	703	0.8	322.0	322.0	323.0	1.0
L	5,267	167	467	1.1	322.0	322.0	323.0	1.0
M	5,570	139	278	1.2	322.2	322.2	323.2	1.0
N	6,570	26	48	6.9	323.8	323.8	323.8	0.0
O	7,740	27	108	1.9	326.2	326.2	327.0	0.8
P	7,966	26	93	2.1	327.5	327.5	328.4	0.9
Q	8,346	26	104	1.9	328.2	328.2	328.8	0.6
R	8,774	28	115	1.7	328.6	328.6	329.3	0.7
S	9,324	64	165	1.2	328.7	328.7	329.5	0.8
T	9,796	176	422	0.5	328.7	328.7	329.7	1.0
U	10,521	119	139	1.4	328.7	328.7	329.7	1.0
V	10,806	136	541	0.4	328.7	328.7	329.7	1.0
W	11,456	62	204	1.0	328.7	328.7	329.7	1.0

[1]Thousands of Feet Above Mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

WEST FORK ISSAQUAH CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
West Tributary of Kelsey Creek								
A	545	33	57	4.7	33.0	33.0	33.0	0.0
B	811	50	161	1.7	34.9	34.9	35.0	0.1
C	1,191	109	150	1.8	35.7	35.7	36.0	0.3
D	1,359	80	177	1.5	37.1	37.1	37.9	0.9
E	1,554	85	188	1.4	37.2	37.2	38.2	1.0
F	2,101	138	121	2.2	38.2	38.2	38.8	0.6
G	2,203	69	127	2.1	39.0	39.0	40.0	1.0
H	3,092	106	206	1.3	42.1	42.1	42.9	0.8
I	3,178	93	362	0.7	42.2	42.2	43.1	0.9
J	3,623	79	121	2.2	43.7	43.7	44.3	0.7
K	3,745	100	75	3.6	44.5	44.5	45.1	0.6
L	4,727	14	35	7.6	52.8	52.8	53.0	0.1
M-X[2]								

[1] Feet From Confluence With Kelsey Creek

[2] Floodway not computed

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

WEST TRIBUTARY KELSEY CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
WHITE RIVER								
A - D[2]								
E	6.47	448	2,831	6.5	93.6	93.6	93.6	0.0
F	6.69	380	1,498	12.3	96.3	96.3	96.3	0.0
G	6.84	329	1,444	12.7	102.5	102.5	102.5	0.0
H	7.04	295	1,327	13.9	109.6	109.6	109.6	0.0
I	7.27	189	1,258	14.6	116.2	116.2	116.2	0.0
J	7.43	215	1,400	13.1	121.8	121.8	121.8	0.0
K	7.51	223	1,276	14.4	124.0	124.0	124.0	0.0
L	7.63	242	1,768	10.4	128.6	128.6	128.6	0.0
M	7.79	314	1,937	9.5	132.1	132.1	132.1	0.0
N	8.01	334	1,938	9.5	138.0	138.0	138.0	0.0
O	8.19	240	1,274	14.4	144.7	144.7	145.1	0.4
P	8.59	300	2,298	8.0	159.1	159.1	159.5	0.4

[1]Miles from confluence with Puyallup River

[2]Floodway Not Applicable

* Data Not Available

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
WHITE RIVER								
AN	113,629	523/398[2]	2,068	7.5	587.9	587.9	587.9	0.0
AO	114,469	224/101[2]	1,457	10.6	594.0	594.0	594.0	0.0
AP	115,339	307/133[2]	1,641	9.5	601.8	601.8	601.9	0.1
AQ	116,229	198/119[2]	980	14.3	607.3	607.3	607.3	0.0
AR	117,617	454/362[2]	1,261	11.1	617.2	617.2	617.3	0.1
AS	119,439	192/85[2]	972	14.4	630.5	630.5	630.5	0.0
AT	121,076	225/91[2]	910	14.3	644.6	644.6	644.6	0.0
AU	122,818	235/87[2]	1,122	11.6	657.1	657.1	657.1	0.0
AV	124,339	242/138[2]	1,010	12.9	666.6	666.6	666.6	0.0
AW	126,535	184/58[2]	1,055	12.3	685.6	685.6	685.9	0.3
AX	128,906	259/44[2]	1,160	11.2	701.4	701.4	701.4	0.0
AY	132,840	752	1,965	6.6	729.9	729.9	730.0	0.1
AZ	136,013	248	1,524	8.5	750.6	750.6	751.2	0.6
BA	138,663	930/874[2]	1,937	7.6	771.3	771.3	771.4	0.1
BB	141,393	368/292[2]	1,922	6.8	793.2	793.2	793.2	0.0
BC	144,007	137/75[2]	1,268	9.7	810.4	810.4	810.8	0.4
BD	146,425	99/77[2]	856	14.4	827.1	827.1	828.1	1.0
BE	150,459	132/116[2]	802	15.4	872.6	872.6	872.6	0.0

[1]Feet from confluence with Puyallup River

[2]Total width/width within county

* Data Not Available

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

WHITE RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
WHITE RIVER								
BL	239,548	*	*	*	1669.0	*	*	*
BM	240,576	*	*	*	1679.8	*	*	*
BN	241,452	*	*	*	1686.5	*	*	*
BO	242,240	*	*	*	1693.1	*	*	*

[1]Feet from confluence with Puyallup River

* Data Not Available

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

FLOODWAY DATA

WHITE RIVER

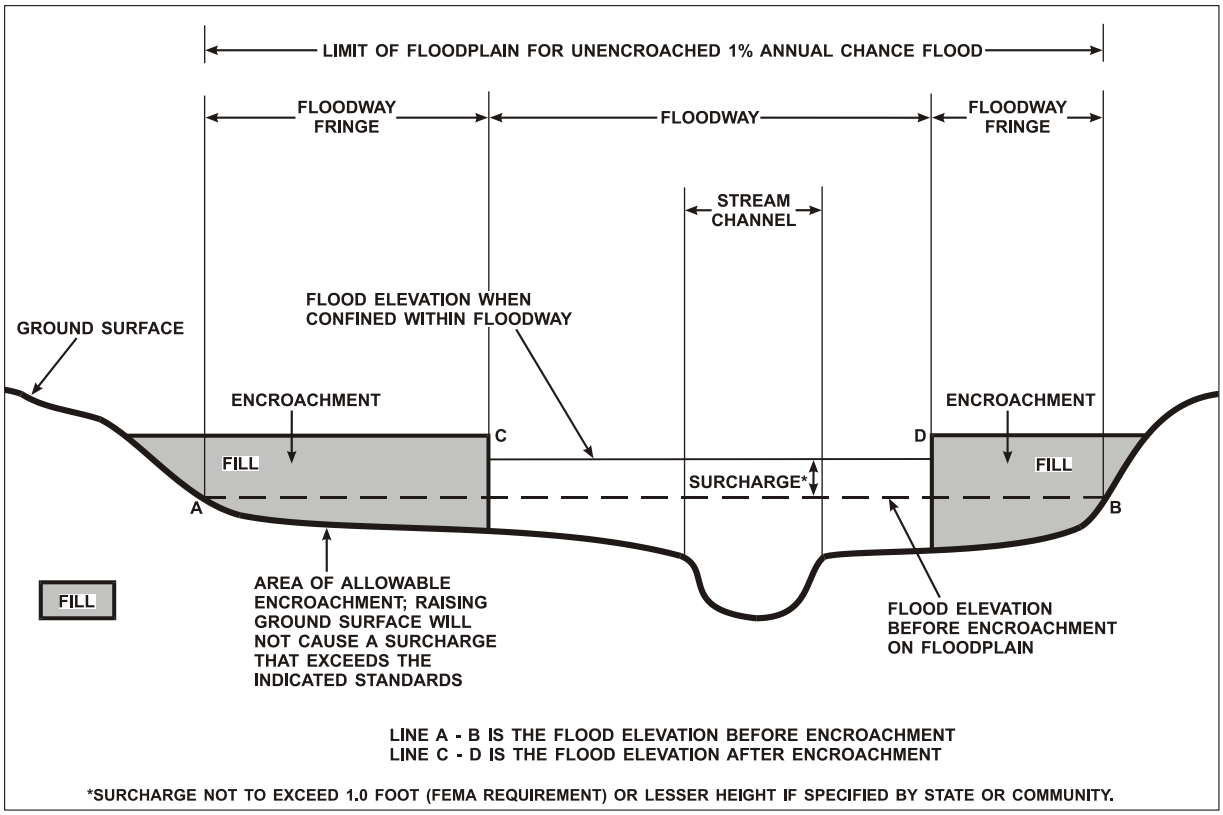


Figure 2. Floodway Schematic

4.3 Base Flood Elevations

Areas within the community studied by detailed engineering methods have BFEs established in AE and VE Zones. These are the elevations of the 1-percent-annual-chance (base flood) relative to NAVD. In coastal areas affected by wave action, BFEs are generally maximum at the normal open shoreline. These elevations generally decrease in a landward direction at a rate dependent on the presence of obstructions capable of dissipating the wave energy. Where possible, changes in BFEs have been shown in 1-foot increments on the FIRM. However, where the scale did not permit, 2- or 3-foot increments were sometimes used. BFEs shown in the wave action areas represent the average elevation within the zone. Current program regulations generally require that all new construction be elevated such that the first floor, including basement, is elevated to or above the BFE in AE and VE Zones.

4.4 Velocity Zones

The USACE has established the 3-foot wave height as the criterion for identifying coastal high hazard zones (Reference 191). This was based on a study of wave action effects on structures. This criterion has been adopted by FEMA for the determination of VE zones. Because of the additional hazards associated with high-energy waves, the NFIP regulations require much more stringent floodplain management

measures in these areas, such as elevating structures on piles or piers. In addition, insurance rates in VE zones are higher than those in AE zones.

The location of the VE zone is determined by the 3-foot wave as discussed previously. The detailed analysis of wave heights performed in this study allowed a much more accurate location of the VE zone to be established. The VE zone generally extends inland to the point where the 1-percent-annual-chance stillwater flood depth is insufficient to support a 3-foot wave.

5.0 INSURANCE APPLICATION

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

Zone A

Zone A is the flood insurance rate zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS report by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base (1-percent-annual-chance) flood elevations (BFEs) or depths are shown within this zone.

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS report by detailed methods. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AH

Zone AH is the flood insurance rate zone that corresponds to areas of 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AO

Zone AO is the flood insurance rate zone that corresponds to areas of 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the detailed hydraulic analyses are shown within this zone.

Zone VE

Zone VE is the flood insurance rate zone that corresponds to the 1-percent-annual-chance coastal floodplains that have additional hazards associated with storm waves. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 0.2-percent-annual-chance floodplain, areas within the 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance flooding where average depths are less than 1 foot, areas of 1-percent-annual-chance flooding where the contributing drainage area is less than 1 square mile (sq. mi.), and areas protected from the base flood by levees. No BFEs or depths are shown within this zone.

Zone D

Zone D is the flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.

6.0 FLOOD INSURANCE RATE MAP

The FIRM is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 1-percent-annual-chance floodplains that were studied be detailed methods, shows selected whole-foot BFEs or average depths. Insurance agents use zones and BFEs in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For flood management applications, the map shows by tints, screens, and symbols, the 1- and 0.2-percent-annual-chance floodplains, floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

The countywide DFIRM presents flooding information for the entire geographic area of King County. Previously, DFIRMs were prepared for each incorporated community and the unincorporated areas of the County identified as flood-prone. This countywide DFIRM also includes flood-hazard information that was presented separately on Flood Boundary and Floodway Maps (FBFMs), where applicable. Historical data relating to the

maps prepared for each community are presented in Table 7, "Community Map History."

Within this jurisdiction there are one or more levees that have not been demonstrated by the community or levee owner(s) to meet the requirements of 44CFR Part 65.10 of the NFIP regulations as it relates to the levee's capacity to provide 1 annual chance flood protection. Please refer to the Notice to Flood Insurance Study Users page at the front of this FIS report for more information on how this may affect the FIRM.

7.0 OTHER STUDIES

Due to its more detailed hydraulic analyses, this FIS supersedes all previous FISs/FIRMs covering King County and the incorporated areas (References 1-18, 90-92). The Town of Milton has individual effective FIS (Reference 93).

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting Federal Insurance and Mitigation Division, FEMA Region X, Federal Regional Center, 130 228th Street Southwest, Bothell, Washington 98021-8627.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISION DATE(S)	FLOOD INSURANCE RATE MAP EFFECTIVE DATE	FLOOD INSURANCE RATE MAP REVISION DATE(S)
Algona, City of[1,2]	NA	NA	NA	NA
Auburn, City of	May 24, 1974	September 19, 1975 February 18, 1977	June 1, 1981	None
Beaux Arts Village, Town of[1,2]	NA	NA	NA	NA
Bellevue, City of	August 2, 1974	August 13, 1976	December 1, 1978	February 23, 1982
Black Diamond, Town of[3]	July 25, 1975	February 13, 1976	NA	None
Bothell, City of	May 24, 1974	November 12, 1976	June 1, 1982	March 2, 1994
Burien, City of[2]	NA	None	NA	None
Carnation, City of	May 31, 1974	March 5, 1976	March 4, 1980	None
Clyde Hill, Town of[1,2]	NA	NA	NA	NA
Covington, City of[2]	NA	None	NA	None
Des Moines, City of	June 28, 1974	January 2, 1976	May 15, 1980	November 15, 1985
Duvall, Town of	August 20, 1976	None	June 4, 1980	None
Enumclaw, City of[2]	NA	None	NA	None
Federal Way, City of[2]	NA	None	NA	None
Hunts Point, Town of[1,2]	NA	NA	NA	NA
Issaquah, City of	February 8, 1974	February 25, 1977	May 1, 1980	None
Kenmore, City of[2]	NA	None	NA	None
Kent, City of	June 7, 1974	April 22, 1977	April 1, 1981	None
King County	January 17, 1975	None	September 29, 1978	None
Kirkland, City of	June 28, 1974	September 12, 1975	June 15, 1981	None
Lake Forest Park, City of	June 28, 1974	February 27, 1976	February 15, 1980	None
Maple Valley, City of[1,2]	None	None	None	None
Medina, City of[1,2]	NA	NA	NA	NA
Mercer Island, City of[1,2]	NA	NA	NA	NA
Muckleshoot Indian Tribe[2]	NA	None	NA	None
Newcastle, City of[2]	NA	None	None	None
Normandy Park, City of	June 28, 1974	October 31, 1975	November 2, 1977	August 5, 1980
North Bend, City of	May 17, 1974	May 7, 1976	August 1, 1984	None
Pacific, City of	June 28, 1974	December 26, 1975	December 2, 1980	None
Redmond, City of	March 22, 1974	July 9, 1976	February 1, 1979	January 19, 1982
Renton, City of	June 7, 1974	November 7, 1975	May 5, 1981	None
Sammamish, City of[2]	NA	None	NA	None
SeaTac, City of[2]	NA	None	NA	None
Seattle, City of	July 19, 1977	None	July 19, 1977	None
Shoreline, City of[2]	None	None	None	None
Skykomish, Town of	February 14, 1975	None	July 2, 1981	None
Snoqualmie, City of	December 21, 1973	None	July 5, 1984	None
Snoqualmie Indian Tribe[1,2]	NA	None	NA	None
Tukwila, City of	May 24, 1974	September 13, 1977	August 3, 1981	None
Woodinville, City of[2]	NA	None	NA	None
Yarrow Point, Town of[1,2]	NA	NA	NA	NA

[1] No Special Flood Hazard Areas Identified

[2] This community does not have map history prior to the first countywide mapping

[3] This community did not have a FIRM prior to countywide for King County

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

KING COUNTY, WA

AND INCORPORATED AREAS

COMMUNITY MAP HISTORY

9.0 BIBLIOGRAPHY AND REFERENCES

1. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, King County, Washington, (Unincorporated Areas), March 1978.

2. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Auburn, Washington, December 1980.

3. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Bellevue, Washington, February 23, 1982.

4. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Town of Carnation, Washington, September 1979.

5. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Des Moines, Washington, November 15, 1985.

6. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Town of Duvall, Washington, December 1979.

7. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Issaquah, Washington, November 1979.

8. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Kent, Washington, October 1980.

9. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Kirkland, Washington, December 15, 1980.

10. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Lake Forest Park, Washington, August 1979.

11. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Normandy Park, Washington, August 1980.

12. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of North Bend, Washington, February 1, 1984.

13. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Pacific, Washington, June 1980.

14. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Redmond, Washington, January 1982.

15. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Renton, Washington, November 1980.

16. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Town of Skykomish, Washington, January 2, 1981.

17. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Snoqualmie, Washington, January 5, 1984.

18. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Tukwila, Washington, February 3, 1981.

19. Puget Sound Council of Governments, "Puget Sound Trends No. 5 (Revised)," July 1986.

20. U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population, Number of Inhabitants, Washington.

21. U.S. Department of Interior, Geological Survey, Magnitude and Frequency in Washington, Open-File Report 74-336 by J.E. Cummans, M.R. Collings, and E.G. Nassar, Tacoma, Washington, 1975.

22. U.S. Department of Interior, Geological Survey, Tacoma, Washington, Personnel Communication, 1986.

23. U.S. Department of the Army, Corps of Engineers, "Green River Flood Reduction Study: Appendix E, Section 1—Hydrology," 1984.

24. U.S. Department of the Army, Corps of Engineers, Seattle District, "Maximum Annual Peak Frequency Curve, Green River Near Auburn," January, 1981; "Maximum Annual Peak Discharge Frequency Curve, Green River at Tukwila," January 14, 1986.

25. King County Department of Public Works, "Green River Management Agreement," 1985.

26. King County Department of Public Works, Surface Water Management, Operation and Maintenance Division "Personal Communication – P1 Pump Station Operation," September and December 1986.

27. U.S. Department of Interior, Geological Survey, "Peak Flows from Drainage Areas in Washington," by J.H. Bartells and G.T. Higgins, July 1966.

28. U.S. Department of the Army, Corps of Engineers, Seattle District, Flood Insurance Study-King County, Washington (Unincorporated Areas), Seattle, Washington, March 1978.

29. Issaquah Environmental Council, "Aerial Photographs and Videotape of November 24, 1986 Flood Event, Issaquah, Washington," January 6, 1986.

30. U.S. Department of Agriculture, Soil Conservation Service, Watershed Work Plan, Appendix A, Preliminary Plans Structural Measures East Side Green River Watershed King County, Washington," April 1965.

31. U.S. Water Resources Council, "A Uniform Technique for Determining Flood Flow Frequencies," Bulletin 15, December 1967.

32. U.S. Department of the Interior, Geological Survey, "Program G745: Flood Flow Frequency Analysis," Olympia, Washington, October 1985.

33. U.S. Department of the Interior, Geological Survey, Office of Water Data Coordination, Bulletin #17B, "Guidelines for Determining Flood Flow Frequency," Revised September 1982.

34. U.S. Department of the Interior, Geological Survey, "Evaluation and Design of a Streamflow-Data Network in Washington," Open-File Report 78-167, by M.E. Moass and W.L. Haushild, Tacoma, Washington, 1978.

35. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, "HEC-1 Hydrograph Package Users Manual," Computer Program 723-X6-12010, Revised January 1985.

36. Seattle Engineering Department, Office for Planning, Sewer and Drainage Planning – Rain Gaging Program, "Storm Summaries for Storm of January 17-18, 1986 and Hourly and Daily Rainfall Totals (Stations 1, 2, 4, 5, 14, 15, 17)," January 1986.

37. City of Kent, URS Engineers Matrix Management Group, "City of Kent Surface Drainage Utility Drainage Master Plan," February 1984.

38. U.S. Department of the Army, Corps of Engineers, Flood Plain Management Division, "Green River Interior Runoff Test File, HEC-1 Program Run for Basin E, 100-Year Event," September 1981.

39. U.S. Department of Agriculture, Soil Conservation Service, "Fast Side Green River Watershed: Design Discharges—P1 Channel," April 1980.

40. U.S. Department of the Army, Corps of Engineers, Backwater Channel Capacity Study, R.M. 0.0 to R.M. 28, White River, Auburn, Washington, November 25, 1974.

41. U.S. Department of Agriculture, Soil Conservation Service, Engineering Division, Technical Release No. 20, Computer Program for Project Formulation Hydrology, May 1965.

42. U.S. Department of Interior, Geological Survey, Open-File Report 74-336, Magnitude and Frequency of Floods in Washington, Tacoma, Washington, 1975.

43. Stevens, Thompson and Runyan, Inc., "Sea-Tac Communities Plan, Port of Seattle," August 1974.

44. CH2M HILL, Inc., Contour Maps, Scale 1:1,200, Contour Interval 2 feet, Normandy Park 1963.

45. King County Engineering Department, 1953 Aerial Topographic Survey (Sheets 1 and 2), Scale 1:4,800, Contour Interval 10 feet: Bothell, Washington (1953).

46. U.S. Department of the Army, Corps of Engineers, Topographic Maps, Scale 1:2,400, Contour Interval 2 feet: Auburn, Washington (1984).

47. U.S. Department of the Army, Corps of Engineers, Ortho-Photogrammetric Mapping, Snohomish River Basin, Washington, Scale 1:12,000: Seattle, Washington, June 7, 1975 (revised 1979).

48. CH2M HILL, Inc., Aerial Photographic Mosaic, North Bend, Washington, Scale 1:4,800, Washington, Photographed October 5, 1977.

49. CH2M HILL, Inc., Composite Mapping of North Bend, Washington, Scale 1:4,800, Contour Interval 2 feet, October 5, 1977.

50. U.S. Department of the Army, Corps of Engineers, "Topographic Maps of the Green River and Vicinity," Scale 1:1,200, Reduced to 1:4,800, Contour Interval 2 Feet, 1980.

51. Norman Associates, Inc., Topographic Maps, Scale 1:1,200, Contour Interval 2 feet, 1977.

52. U.S. Department of the Interior, Geological Survey, Geological Survey Open-File Report No. 76-499, Computer Applications for Step Backwater and Floodway Analysis, User's Manual No. 76-499, Reston, Virginia, 1976.

53. American Concrete Pipe Association, Concrete Pipe Design Manual, Arlington, Virginia, February 1974.

54. Portland Cement Association, Handbook of Concrete Culvert Pipe Hydraulics, Chicago, Illinois, 1964.

55. University of California at Berkeley, Street and Highway Drainage Volume 2 – Design Charts, Berkeley, California, November 1969.

56. Washington State Highway Commission, Department of Highways, Highway Hydraulics Manual, Olympia, Washington, 1972.

57. U.S. Department of the Army, Corps of Engineers, Seattle District, Computer Program G37322110, Backwater Curve Method II-With Floodway Analysis, Seattle, Washington.

58. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, "HEC-2 Water Surface Profiles, Users Manual," Davis, California, September 1982.

59. U.S. Department of the Army, Corps of Engineers, Coastal Engineering Research Center, "Shore Protection Manual," Fort Belvoir, Virginia, 1973.

60. U.S. Department of the Army, Corps of Engineers, Letter to FEMA, "Green River Levee Freeboard Recommendations," September 1986.

61. U.S. Department of the Army, Corps of Engineers, Coastal Engineering Research Center (CETA 78-2), Revised Wave Runup Curves for Smooth Slopes, July 1978.

62. U.S. Department of the Army, Corps of Engineers, Coastal Engineering Research Center (CETA 79-1), Wave Runup on Rough Slopes, July 1979.

63. Jones and Associates, Inc., "Renton Village Company—1981 Aerial Mapping," Scale 1:600, Reduced to 1:1,200, Contour Interval 1 Foot, September 1981.

64. U.S. Department of the Army, Corps of Engineers, "Topographic Maps of the Green River and Vicinity," Scale 1:1,200, Reduced to 1:4,800, Contour Interval 2 Feet, 1980.

65. CH2M HILL, Inc., "Topographic Maps" Scale 1:4,800, Contour Interval 4 Feet, Big Soos Creek (1986), Bear Creek (1986), Swamp Creek (1986), May Creek (1986), Little Bear Creek (1986), Issaquah Creek (1986), Raging River (1986), Thornton Creek (1986), Longfellow Creek (1986), Cedar River (1986).

66. Kings County Engineering Department, River Valley Topography, Scale 1:2,400, Contour Interval 10 feet, Flood Control Division, Seattle, Washington, December 1961.

67. U.S. Department of the Interior, Geological Survey, Topographic Photo Maps, Scale 1:2,400, Contour Interval 5 feet: City of Bellevue, Washington, 1970.

68. King County Engineering Department, Flood Control Division, River Valley Topography, Scale 1:2,400, Contour Interval 5 feet: Seattle, Washington, December 1961.

69. King County Department of Public Works, Division of Hydraulics, Topographic Maps, Southwestern King County, Washington, Scale 1:2,400, Contour Interval 5 feet, June 1974.

70. Harry P. Jones and Associates, Topographic Maps, Scale 1:2,400, Contour Interval 5 feet: Kirkland, Washington (1967).

71. King County Engineering Department, Aerial Photography, Scale 1:2,400, Contour Interval 5 feet: Sections 3, 4, 9, and 10. T26N, RAE, WM, King County, Washington (1958), Revised (1965).

72. CH2M HILL, Inc., Contour Maps, Scale 1:1,200, Contour Interval 2 feet, Normandy Park, 1963.

73. U.S. Department of the Army, Corps of Engineers, Topographic Mapping of North Bend, Washington, Scale 1:2,400, Contour Interval 2 feet: Seattle, Washington (1978).

74. U.S. Department of the Army, Corps of Engineers, Topographic Maps, Scale 1:4,800, Contour Interval 5 feet: Pacific, Washington (1974).

75. Aerial Mapping Company, Topographic Maps, 1:2,400, Contour Interval 5 feet: Renton, Washington (1968).

76. Harstad Associates, Inc., Topographic Maps, Scale 1:2,400, Contour Interval 5 feet: Town of Skykomish, Washington (June 1979).

77. U.S. Department of the Army, Corps of Engineers, Topographic Mapping, Scale 1:2,400, Contour Interval 2 feet: Snoqualmie, Washington (1978).

78. Walker and Associates, Topographic Map, Scale 1:2,400, Contour Interval 5 feet: Tukwila, Washington (1974).

79. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, King County, Washington, January 17, 1975.

80. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, City of Auburn, Washington, Scale 1:4,800, February 18, 1977.

81. Federal Emergency Management Agency, Federal Insurance Administration, Flood Hazard Boundary Map, City of Bellevue, King County, Washington, August 2, 1974; revised August 13, 1976.

82. Federal Emergency Management Agency, Federal Insurance Administration, Flood Hazard Boundary Map, City of Kent, King County, Washington, April 22, 1977.

83. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, City of Kirkland, Washington, September 12, 1975.

84. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, City of North Bend, Washington, Scale 1:9,600, May 7, 1976.

85. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, City of Pacific, King County, Washington, Scale 1:9,600, December 26, 1975.

86. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, City of Renton, King County, Washington, Scale 1:9,600, June 7, 1974.

87. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Skykomish, King County, Washington, Scale 1:6,000, February 14, 1975.

88. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, City of Snoqualmie, Washington, Scale 1:7,300, December 21, 1973.

89. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, City of Tukwila, Scale 1:12,000, May 24, 1974 (Revised September 13, 1977).

90. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Rate Map, City of Seattle, Washington, July 19, 1977.

91. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Rate Map, Town of Black Diamond, Washington, October 30, 1979.

92. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Bothell, Washington, unpublished.

93. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Town of Milton, Washington, February 17, 1982.

94. Federal Emergency Management Agency, Flood Insurance Study, King County and Incorporated Areas, revised September 29, 1989.

95. Northwest Hydraulic Consultants, Inc., Miller Creek Regional Stormwater Detention Facilities Design Hydrologic Modeling, Report for King County Division of Surface Water Management, Seattle, Washington, November 1990.

96. U.S. Environmental Protection Agency, Hydrologic Simulation Program – FORTRAN (HSPF), USEPA Environmental Research Laboratory, Athens, Georgia, 1988.

97. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water-Surface Profiles Generalized Computer Program, Davis, California, September 1990.

98. U.S. Department of the Interior, Geological Survey, Roughness Characteristics of Natural Channels, U.S. Geological Survey Water Supply Paper 1849, Denver, Colorado, 1987.

99. Chow, V.T., Open-Channel Hydraulics, McGraw-Hill Book Company, Inc., New York, 1959.

100. Harper Righellis, Inc., King County Flood Boundary Work Map, Scale 1:2,400, Contour Interval 2 feet, December 20, 1993.

101. Hugh G. Goldsmith & Associates, Inc., Klahanie South Final Master Drainage Plan Update, prepared for Lowe Enterprises Northwest, Inc., March 1992.

102. Dinacola, R.S., Characterization and Simulation of Rainfall-Runoff Relations for Headwater Basins in Western King and Snohomish Counties, Washington, U.S. Geological Survey, Water Resources Investigations Report 89-4052, Tacoma, Washington, 1990.

103. City of Issaquah, Draft Supplemental Environmental Impact Statement for the I-90 Corporate Center and Southeast 56th Street Road Improvements, December 1992.

104. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, HEC-2-Water-Surface Profiles, User's Manual, Davis, California, September 1990, Revised February 1991.

105. U.S. Department of the Interior, Geological Survey, Roughness Characteristics of Natural Channels, Water Supply Paper 1849, U.S. Geological Survey, Denver, Colorado, 1987, Williams, J.R., Pearson, H.E., and Wilson, J.D., Streamflow Statistics and Drainage-Basin Characteristics for the Puget Sound Regions, Washington, Volume II Eastern Puget Sound from Seattle to the Canadian Border, U.S. Geological Survey, Open-File Report 84-114-B, Tacoma, Washington, 1985.

106. U.S. Department of the Interior, Geological Survey, Guide for Selecting Manning's Roughness Coefficients for Natural Channels and Flood Plains, Water Supply Paper 2339, U.S. Government Printing Office, Washington, D.C., 1989.

107. Alpha Engineering Group, Inc., Avondale Road Improvement Project (Redmond City Limit to N.E. 132nd Street) Mitigation Plan for Floodplain Impacts, Report for King County Department of Public Works, Bothell, Washington, August 1992.

108. Entranco Engineers, Inc., Hydrologic Remodeling Report, Bear Creek, Report prepared for King County Surface Water Management Division, Bellevue, Washington, July 1993.

109. CH2M HILL, Supplemental Information for Request for Letter of Map Revision for Lower Bear Creek, in King County and the City of Redmond, Washington, submitted by the Washington Department of Transportation to King County Department of Public Works and City of Redmond Department of Public Works for their submittal to FEMA, Bellevue, Washington, August 1993.

110. Land Tech, Hydraulic Study, 100 Year Flood Elevations, Bear Creek, Hydraulic Analysis by G.R. Bob Parrott, Consulting Engineer, Topographic Survey by Jim Hart & Associates, 1986.

111. CH2M HILL, Analysis of Flood at Bear Creek Project 86-SD-25, Report to City of Redmond Public Works Department, Bellevue, Washington, July 1986.

112. CH2M HILL and Sajan, Inc., Hydraulic Report and Appendices A through F. SR 520, Old SR 901 Interchange to SR 202, Report for Washington State Department of Transportation, July 1993.

113. U.S. Department of the Interior, Geological Survey, Water Resources Data – Washington Water Year 1986, Water-Data Report WA-86-1, prepared by McGavock, E.H., Wiggins, W.D., Boucher, P.R., Blazs, R.L., Reed, L.L., and Smith, M.L., in cooperation with the State of Washington and other agencies, Water Resources Division, Pacific Northwest District, U.S. Geological Survey, Tacoma, Washington, 1988.

114. Chow, V.T., Open-Channel Hydraulics, McGraw-Hill Book Company, Inc., New York, 1959.

115. Montgomery Water Group, Inc., Letter of Map Revision for Lower Bear Creek at Redmond Town Center, City of Redmond, WA, Kirkland, Washington, July 1994, revised November 1994.

116. Montgomery Water Group, Inc., Redmond Town Center LOMR Supplemental Information, Report to City of Redmond Stormwater Division to satisfy the Appendix M requirements of the Community Development Guide, Kirkland, Washington, November 1994.

117. Montgomery Water Group, Inc., Letter of Map Revision and Conditional Letter of Map Revision for Lower Bear Creek at Redmond Town Center, City of Redmond, WA, Supplemental Information for City of Redmond Community Development Guide, Appendix M, Kirkland, Washington, November 1994, revised May 1994.

118. Federal Emergency Management Agency, Flood Insurance Study, Snohomish County, Washington and Incorporated Areas, Washington, D.C., November 8, 1999.

119. U.S. Environmental Protection Agency, Environmental Research Laboratory, Hydrologic Simulation Program-FORTRAN (HSPF); User's Manual for Release 8.0, EPA 600/3-84-066, Athens, Georgia, 1984.

120. City of Bothell, Department of Public Works, Topographic Map, Scale 1:4,800, Contour Interval 2 feet, Bothell, Washington, 1991.

121. Northwest Hydraulic Consultants, Inc., North Creek, Bothell, Washington, Limited Map Maintenance Study, Work Map, Scale 1:24,000, Contour Interval 2 feet, undated.

122. City of Bothell, Engineering Study, Horse Creek Drainage Area, May 1965.

123. Harper Righellis, Inc., King County Flood Boundary Work Map, Scale 1:2,400, Contour Interval 2 feet, October 17, 1996.

124. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, HEC-REGFRQ, Regional Frequency Computation, Computer Program, Davis, California, September 1989.

125. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, HEC-FFA, Flood Frequency Analysis, Computer Program, Version 3.1, Davis, California, February 1985.

126. Harper Righellis, Inc., King County Flood Boundary Work Map, Scale 1:2,400, Contour Interval 2 feet, March 31, 1997.

127. U.S. Department of the Army, Corps of Engineers, Seattle District, Draft Detailed Project Report and Environmental Assessment for the Snoqualmie River at Snoqualmie Flood Damage Reduction Study in King County, Washington, January 1999, (draft).

128. Harper Righellis, Inc., South Fork Snoqualmie River, Hydrology and Hydraulics Report, Prepared for King County, Surface Water Management Division, March 13, 1997.

129. Harper Houf Righellis Inc., Technical Support Data Notebook for the Cities of North Bend and Snoqualmie and King County, Washington, Upper Snoqualmie Flood Plain Flood Insurance Study, October 21, 2001.

130. URS Greiner Woodward Clyde, Tollgate Final Environmental Impact Statement Report, Vol. 1 and 2, June 1, 2000.

131. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, HEC-RAS, River Analysis System, Computer Program, Version 2.2, Davis California, September 1998.

132. Harper Houf Righellis Inc., Upper Snoqualmie Floodplain Flood Insurance Study Work Maps, Scale 1:2,400, October 2001.

133. U.S. Oceanic and Atmospheric Administration, National Geodetic Survey, Vertcon Conversion Program, Version 6.0.1, 2006.

134. Montgomery Water Group, Inc. Revisions to FEMA Flood Insurance Study, Issaquah Creek and East Fork Task 5 Memorandum – Hydrology Update to April 28, 2000, Memo to Kerry Ritland, City of Issaquah, May 24, 2001.

135. King County, City of Issaquah, and Washington State Department of Ecology, Issaquah Creek Basin Current/Future Condition and Source Identification Report, King County Surface Water Management Division Department of Public Works, City of Issaquah Department of Public Works, Washington State Department of Ecology Water Quality Financial Assistance Program. Seattle, Washington, October 1996.

136. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, FEC-FFA Version 3.1. Davis, California, February 1995.

137. U.S. Department of the Interior, Office of Water Data Coordination, Geological Survey, Guidelines for Determining flood Flow Frequency Bulletin 17 B, Revised September 1981.

138. U.S. Department of the Interior, Geological Survey, Magnitude and Frequency of Floods in Washington. Water-Resources Investigations Report 97-4277, 1998.

139. Montgomery Water Group, Inc., Issaquah Creek FIS Revisions-Lower Mainstem Overflow Analysis Summary, Update to April 20, 2001 Memo to Kerry Ritland, City of Issaquah, May 24, 2001.

140. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center. HEC-RAS, Version 3.0.1, Davis, California, March 2001.

141. Montgomery Water Group, Inc., Bridge and Channel Improvements and Status Update, March 20, 2001.

142. Montgomery Water Group, Inc., Issaquah Creek FIS revisions Draft Work Maps, Scale 1:4,800, August 2001.

143. Hydrologic Engineer Center (HEC), April 2004. HEC-RAS River Analysis System Computer Program, version 3.1.2.

144. U.S. Department of the Army, Corps of Engineers, 2004. Cedar River at Renton Flood Damage Reduction Operation and Maintenance Manual: Cedar River Section 205 (Renton, Washington).

145. King County, March 2000. Memorandum re: Flood Frequency Curve for Year 2000 Floodplain Mapping on the Cedar River. David Hartley, Senior Watershed Hydrologist.

146. U.S. Department of the Army, Corps of Engineers, June 1997. Final Detailed Project Report and Environmental Impact Statement: Cedar River Section 205 (Renton, Washington).

147. U.S. Department of the Interior, Geological Survey, 1987, Roughness Characteristics of Natural Channels, U.S. Geological Survey Water Supply Paper 1849, USGS, Denver, Colorado.

148. U.S. Department of Agriculture, Soil Conservation Service, Flood Hazard Analyses, Tolt River, King County, Washington.

149. U.S. Department of the Interior, Geological Survey, 7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet, Bothell, Washington, 1953 (Photorevised 1981); Kirkland, Washington, 1950 (Photorevised 1968 and 1973).

150. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, HEC-DSS, User's Guide and Utility Manuals, User's Manual, Davis, California, October 1994.

151. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, STATS, Statistical Analysis of Time-Series Data, Computer Program, Davis, California, May 1997.

152. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, STATS, Statistical Analysis of Time-Series Data, Input Description, Davis, California, May 1987.

153. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, HEC-FFA, Flood Frequency Analysis, User's Manual, Davis, California, May 1992.

154. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, Regional Frequency, User's Manual, Davis, California, July 1972.

155. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, UNET, One-Dimensional Unsteady Flow Through a Full Network of Open Channels, Computer Program, Version 3.2.0, Davis, California, August 1997.

156. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, HEC-RAS, River Analysis System, User's Manual, Version 2.0, Davis, California, April 1997.

157. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-RAS, River Analysis System, Hydraulic Reference Manual, Version 2.0, Davis, California, April 1997.

158. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center, HEC-RAS, River Analysis System, Application's Guide, Version 2.0, Davis, California, April 1997.

159. King County, Surface Water Management Division, Basin Planning Program Sediment Transport Along the South Fork and Mainstem of the Snoqualmie River, June 1991.

160. Converse Consultants, NW, Report on Geotechnical Services, Snoqualmie Falls Hydroelectric Project, Snoqualmie, Washington, Prepared for Puget Sound Power and Light Company, October 1991.

161. Horton Dennis and Associates, Inc., South Fork Snoqualmie River, Aerial Mapping and Flood Plain Analysis, King County Surface Water Management, Harper Righellis, Inc., Temporary Benchmarks, August 1995.

162. Northwest Hydraulics, Inc., Snoqualmie River Flood Control Project, Pre-Feasibility Investigation Final Report, Prepared for King County, Surface Water Management Division, March 1996.

163. King County, Surface Water Management Division, Environmental Assessment, Reif Road Project, FEMA DR-833-WA, May 24, 1996.

164. King County, Department of Public Works, Surface Water Management Division, River Management Section, Reif Road Flood Hazard Reduction Project, Design Report, Draft, July 31, 1995.

165. King County, Engineering Department, Flood Control Division, Snoqualmie River Valley Topography, Scale 1:2,400, Contour Interval 5 feet, December 1961.

166. U.S. Geological Survey, North Bend, Washington 7.5-Minute Quadrangle Map, Scale 1:24,000, Contour Interval 40 feet, 1993.

167. U.S. Department of the Interior, Geological Survey, Snoqualmie, Washington 7.5-Minute Quadrangle Map, Scale 1:24,000, Contour Interval 20 feet, 1953, Photorevised 1968.

168. Montgomery Water Group, Inc., Preliminary Review Draft, Tollgate EIS, Hydraulics Model Study of South Fork Snoqualmie River and Gardiner Creek, September 1997.

169. Montgomery Water Group, Inc., Appendix, Hydraulic Modeling Analysis of South Fork Snoqualmie River and Gardiner Creek, Tollgate Preliminary Draft EIS, December 1997.

170. Montgomery Water Group, Inc., Middle Fork Snoqualmie River Overflow Work Map, November 1997.

171. King County, Surface Management Division, Preliminary Work Maps for Middle Fork Snoqualmie River, Prepared by Harper Righellis, Inc.

172. U.S. Department of the Army, Corps of Engineers, Seattle District, Snoqualmie River Flood Insurance Study Drawings, 1971.

173. City of Issaquah. 2000. City of Issaquah Comprehensive Plan. Adopted 1995 and amended in 2000. City of Issaquah Planning Department, Issaquah, Washington.

174. Federal Emergency Management Agency. September 29, 1989. Flood Insurance Study for King County, Washington and Incorporated Areas. FEMA Region X.

175. King County and Issaquah/East Lake Sammamish Watershed Management Committee. December 1996. Final Issaquah Creek Basin and Nonpoint Action Plan. King County Department of Natural Resources, Seattle, Washington.

176. Montgomery Water Group, Inc. September 25, 2001. FEMA FIS Elevation and Discharge Comparison Memorandum.

177. Montgomery Water Group. April 30, 1996. Preliminary Hydraulic Modeling Analysis of Issaquah Creek for Proposed Basin Flood Control Program. Prepared for RH2 Engineering, Inc., and City of Issaquah Public Works Department. Kirkland, Washington.

178. Montgomery Water Group, Inc. (2003). "Kelsey Creek Center Redevelopment at Kelsey Creek Center". LOMR Case No. 03-10-0399P. Prepared for Franklin West L.P. November 5.

179. Federal Emergency Management Agency (1995) "Flood Insurance Study of King County and Unincorporated Areas"

180. Northwest Hydraulic Consultants, Inc., (2002). "Hydrologic Study of Kelsey Creek Basin". Prepared for City of Bellevue Utility Department. December.

181. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center. (2004) Corpscon, Version 6.0.1.

182. U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center. (2005) HEC-RAS River Analysis System Computer Program, Version 3.1.3.

183. U.S. Census Bureau, State and County Quickfacts, 2010 Population for King County, Washington. Retrieved August 9, 2012, from http://quickfacts.census.gov.

184. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Rate Map, Town of Blac Washington, October 30, 1979.

185. Delft University of Technology. 2004. SWAN User Manual. Delft University of Technology: Department of Civil Engineering. Delft, The Netherlands.

186. U.S. Army Corps of Engineers (2004). Mud Mountain Dam Water Control Manual. Seattle, Washington.

187. West Consultants, (2004). Sammamish River Transition Zone Hydrologic and Hydraulic Investigation, report prepared for King County Department of Natural Resources and Parks, Water and Land Resources Division.

188. HEC (Hydrologic Engineering Center), (2008). HEC-RAS, Version 4.0 [Computer Program], Davis, CA

189. U.S. Geological Survey, Peak Stream for the Nation, USGS 12125200 Sammamish River near Woodinville, Washington. Retrieved August 15, 2012 from http://nwis.waterdata.usgs.gov/nwis.

190. Federal Emergency Management Agency, Flood Insurance Study, Guidelines and Specifications for Flood Hazard Mapping Partners (2003).

191. U.S. Army Corps of Engineers, Guidelines for Identifying Coastal High Hazard Zones, Galveston District, Galveston, Texas, June 1975.

192. 3Di, Inc., Topographic Data, Contour Interval 2 feet, March 19, 2010.

193. ENTRANCO, Draft Thornton Creek Hydrologic and Hydraulic Modeling: Hydrologic and Hydraulic Model Plan, 2000.

194. Northwest Hydraulic Consultants, Inc., Flood Insurance Study for North Branch Thornton Creek – Ronald Bog to Interstate 5, Shoreline, WA. Prepared for the City of Shoreline, WA, 2009.

195. Northwest Hydraulic Consultants, Inc., Flood Insurance Study for Thornton Creek and its Tributaries – Lake Washington to Interstate 5. Prepared for Seattle Public Utilities, Drainage & Wastewater Division, Seattle, WA, 2010.

196. Northwest Hydraulic Consultants, Kramer Creek HSPF Modeling and Calibration and XP-SWMM Updates, Technical Memorandum, 2006.

197. Ritchie, Andy, Meadowbrook Flood – 3 December 2007 [Online Photo Album], Seattle, WA. Retrieved 2007 from http://picasaweb.google.com/andy.ritchie/MeadowbrookFlood3December2007.

198. Tetra-Tech/KCM, Inc., Thornton Creek and West Lake Washington Basins Characterization Report, 2004.

199. US Army Corps of Engineers, Northwestern Division, Dataquery. Retrieved 2009 from http://www.nwd-wc.usace.army.mil/perl/dataquery.pl.

200. U.S. Environmental Protection Agency, BASINS (Better Assessment Science Integrating point & Non-point Sources), Retrieved from http://www.epa.gov/waterscience/basins/bsnsdocs.html#hspf.

10.0 REVISION DESCRIPTIONS

This section has been added to provide information regarding significant revisions made since the original Flood Insurance Study was printed. Future revisions may be made that do not result in the republishing of the Flood Insurance Study report. To assure that any user is aware of all revisions, it is advisable to contact the community repository of flood hazard data located at the Department of Land and Water Resources, 201 South Jackson Street, Suite 600, Seattle, Washington 98104-3855 and at the Department and Environmental Services, 900 Oaksdale Avenue Southwest, Renton, Washington 98057.

10.1 First Revision

The purpose of this revision is to update the corporate limits of the City of Bothell and to add floodplain information for Miller Creek that affects the unincorporated areas of King County, Washington (Reference 94), and then incorporated Cities of Normandy Park (Reference 11) and SeaTac. Approximately 4 miles of Miller Creek were studied by detailed methods. The revised floodplain along North Creek shown within the City of Bothell is for information only.
For flood insurance purposes, refer to the separately published Flood Insurance Rate Map. Detailed information regarding this revision is presented throughout the main body of this FIS report.

The information for this restudy of Miller Creek supersedes the data presented in the previous Flood Insurance Study for King County, dated September 29, 1989 (Reference 94). The discharges used in this study of Miller Creek were revised to account for the effects of urbanization and operations of the newly constructed Lake Reba Detention Pond. This restudy was completed in September 1991.

10.2 Second Revision

This study was revised on May 16, 1995, to incorporate the results of an analysis of existing hydraulic studies that was performed for the Snoqualmie River in the vicinity of the City of Snoqualmie. The analysis was performed by nhc, the study contractor, for FEMA under Contract No. EMW-90-L-3134, as part of its Limited Map Maintenance Program, (LMMP).

In addition to the analysis for existing hydraulic studies that was performed for the Snoqualmie River, this revision also identifies that the mapping for King County has been prepared using digital data. Previously published Flood Insurance Rate Map data produced manually have been converted to vector digital data by a digitizing process. These vector data

were fit to raster digital images of the USGS quadrangle maps of the county area to provide horizontal positioning.

Road, highway names, and centerline data have been obtained from an enhanced TIGER (Topologically Integrated Geographic Encoding and Referencing) File, obtained through the King County Computer and Communications Services Division. For county areas outside of the City of Seattle, the centerlines were modified to the positional accuracy of the USGS quadrangle maps, and the roads, highways, and street names, if needed, were taken from the Flood Insurance Rate Map panels, where appropriate. The adjusted centerline data were then computer plotted with the digitized floodplain data to produce the countywide Digital Flood Insurance Rate Map panels.

Several additional incorporated areas have been identified in this update. They are the Cities of Algona, Burien, Bothell, Federal Way, Hunts Point, Medina, Mercer Island, Woodinville, and Yarrow Point and the Town of Clyde Hill and Beaux Arts Village.

The LOMR issued on December 18, 1990, for the City of North Bend, to show the effects of more detailed hydrologic/hydraulic information along the Snoqualmie River, was included in this update. As a result of more detailed hydrologic/hydraulic information, the floodway was revised along the Snoqualmie River throughout the corporate limits of the City of North Bend.

The LOMR issued on May 13, 1992, for the unincorporated areas of King County, to show the effects of more detailed topographic information adjacent to the Sammamish River, was included in this update. As a result of the more detailed topographic information, the 1-percent-annual-chance floodplain boundary was revised to exclude the K & S Business Park from the 1-percent-annual-chance floodplain.

The LOMRs issued on April 28, 1994, for the City of Redmond and the unincorporated areas of King County, to show the effects of more detailed hydrologic/hydraulic information along Bear Creek, were included in this update. As a result of the more detailed hydrologic/hydraulic information, the Flood Insurance Rate Map was revised to modify elevations, floodplain and floodway boundary delineations, and zone designations along Bear Creek from its confluence with the Sammamish River to State Highway 202 (Redmond Way). In addition, a Flood Profile Panel was included for the Bear Creek Overflow Channel.

10.3 Third Revision

This study was revised on May 20, 1996, to incorporate the results of detailed hydrologic and hydraulic analyses of the Raging River affecting King County, Washington. The revised analyses for the reach of the Raging River from its confluence with the Snoqualmie River to approximately 0.6 mile upstream of Interstate Highway 90 (I-90) (downstream reach) were performed by Harper Righellis, Inc., Portland, Oregon, for the King County Surface Water Management Division. The revised analyses for the reach from approximately 0.6 mile upstream of I-90 to approximately 0.3 mile upstream of the second Upper Preston Road bridge (upstream reach) were performed by FEMA. This work was completed in March 1995. Detailed information regarding this revision is presented throughout the main body of this FIS report.

10.4 Fourth Revision

This study was revised on March 30, 1998, to incorporate the results of detailed hydrologic and hydraulic analyses of North Fork Issaquah Creek in the City of Issaquah, Bear and Evans Creeks in the City of Redmond, South Fork Skykomish River in the Town of Skykomish and the unincorporated areas of King County, and the Middle and North Fork Snoqualmie Rivers in the unincorporated areas of King County.

This study also incorporates the results of an approximate analysis of Tate Creek in the unincorporated areas of King County. Detailed information regarding this revision is presented throughout the main body of this FIS report.

10.5 Fifth Revision

This study was revised on November 8, 1999, to incorporate the Flood Insurance Study information and data for the City of Bothell into the Flood Insurance Study report for King County, Washington and Incorporated Areas. The City of Bothell is located in the Puget Sound region of northwestern Washington, approximately 3.5 miles northeast of the City of Seattle. The City of Bothell is a bi-county community within King and Snohomish Counties. Because the Flood Insurance Rate Map and Flood Insurance Study report for Snohomish County, Washington and Incorporated Areas is being published in a countywide format (Reference 118), the portions of the City of Bothell that lie within King County are included on the Flood Insurance Rate Map for King County, and the portions of the City of Bothell that lie within King County are included on the Flood Insurance Rate Map for King County, and the portions of the City of Bothell that lie within Snohomish County are included on the Flood Insurance Rate Map for Snohomish County. Detailed information

regarding this revision is presented throughout the main body of this FIS report.

This study has also been revised to incorporate Letters of Map Revision (LOMRs) issued on March 3, 1995 (Case Nos. 94-10-053P and 94-10-067P), and July 5, 1995 (Case No. 95-10-41P). The March 3, 1995, LOMR revised Flood Insurance Rate Map Panel 0007 C, dated March 2, 1994, to show the effects of a private flood protection system along North Creek from just upstream of I-405 to just downstream of Monte Ville Parkway.

10.6 Sixth Revision

This study was revised on December 6, 2001, to incorporate the results of detailed hydrologic and hydraulic analyses of the Tolt River in the Town of Carnation and the unincorporated areas of King County; and the South Fork Snoqualmie River from I-90 to approximately 4,000 feet upstream of 468th Avenue. Detailed information regarding this revision is presented throughout the main body of this FIS report.

The restudy for the South Fork Snoqualmie River covers the mainstem of the Snoqualmie River from Meadowbrook Bridge to the confluence of the Middle and South Fork.

The hydraulic analysis of the South Fork Snoqualmie River upstream of I-90 was initially performed by Harper Righellis, Inc., Portland, Oregon, for the King County Surface Water Management Division. The data prepared by Harper Righellis were incorporated into the analysis performed by the USACE and revised where necessary.

The USACE restudy was requested because the USACE, Seattle District, determined that the levees on the South Fork do not meet FEMA's current standards for providing protection from the 1-percent-annual-chance flood.

10.7 Seventh Revision

This FIS was revised on April 19, 2005, to incorporate the results of revised hydraulic analysis of Snoqualmie River main stem, South Fork and Middle Fork of the Snoqualmie River, performed by Harper Houf Righellis Inc., completed in October 2001. This revision affects the Cities of North Bend and Snoqualmie, and the unincorporated areas of King County, Washington.

In addition, this revision will incorporate the results of a revised hydrologic and hydraulic analysis of Issaquah Creek, East Fork Issaquah

Creek, and Gilman Boulevard Overflow of Issaquah Creek, performed by Montgomery Water Group Inc., completed in August 2001. This revision affects the City of Issaquah, and the unincorporated areas of King County, Washington.

This revision will incorporate the results of a revised hydraulic analysis of Tibbetts Creek performed by Concept Engineering, Inc. This revision affects the City of Issaquah, and the unincorporated areas of King County, Washington. Detailed information regarding this revision is presented throughout the main body of this FIS report.

Tibbetts Creek LOMR

The LOMR issued on February 23, 2005, for the City of Issaquah and the unincorporated areas of King County, to show the hydraulic effects of the channel relocation and fill along Tibbetts Creek, was included in this update. As a result of the channel relocation, fill and more detailed topographic information, the Flood Insurance Rate Map, Flood profiles, and Floodway Data tables were revised to modify elevations, floodway data, and floodplain and floodway boundary delineations along Tibbetts Creek from approximately 150 feet upstream of I-90 (eastbound) to approximately 700 feet downstream of Newport Way Northwest.

10.8 Eighth Revision

This FIS was revised on August 19, 2020, to incorporate the results of revised hydraulic analysis of Cedar River, Paterson Creek, and Snoqualmie River.

In addition, this revision converts all NGVD29 elevations to NAVD88. All elevations shown on the Flood Insurance Rate Map, Flood Profiles, and Floodway Data tables are referenced to NAVD88. Refer to section 3.3 Vertical Datum for a more detailed explanation of the datum conversion including datum conversion factors used for King County.

Cedar River Study - The purpose of this revision is to prepare a flood study of Cedar River. The revised floodplain and floodway maps will reflect the current hydraulic and hydrologic conditions of the rivers and will replace the effective maps which were prepared prior to the 1980s.

The hydrologic and hydraulic analyses for this study were prepared by nhc for the City of Renton. Agencies contacted for information relevant to this study included: the City of Renton, King County Department of Natural Resources-Water and Land Resources Division, and the United States Army Corps of Engineers-Seattle District (USACE).

This report describes an investigation of riverine flooding along the Cedar River within the city of Renton, Washington. The study reach begins at the river outlet at Lake Washington and extends 5.36 miles upstream to the Renton City Limits at 149th Avenue Southeast and extends to Landsburg Road crossing in the unincorporated area of the King County. The purpose of this study is to update the existing FEMA Flood Insurance Study (FIS) for King County, Washington and Incorporated Areas (FEMA, November 1999*)* to reflect current hydraulic conditions along the Cedar River using higher revised peak discharges and updated geometry

Kelsey Creek - The upstream limit of the Kelsey Creek study reach begins just upstream of the culvert crossing of NE 6th Street, west of 148th Avenue NE at Cross Section AQ. The floodplain both upstream and downstream of this crossing consists of a wide, undeveloped wetland area. Floodplain widths range from approximately 200 to 600 feet Downstream, Kelsey Creek crosses NE 8th Street through a culvert into Kelsey Creek Regional Pond 133, located northeast of the corner of 148th Avenue NE and NE 8th Street. Pond elevation and discharge are controlled by a weir/culvert structure located just downstream of Cross Section AO. Overtopping of the control structure is not expected during the 1-percent-annual-chance event, and the floodplain is confined to the vegetated corridor both upstream and downstream. Downstream, the floodplain remains within the channel corridor with widths varying from 30 to 65 ft. Flooding of low-lying areas of a few residential parcels upstream of the 148th Avenue NE culverts is expected, but water levels do not reach buildings or other structures. Overtopping the 148th Avenue NE roadway is not expected as it is substantially elevated.

Downstream of the 148th Avenue NE culverts, Kelsey Creek enters a steep, forested ravine-like corridor. Flooding is contained within the banks of the narrow channel with widths varying from 15 to 45 feet. This reach continues downstream for approximately 0.5 mile until it encounters a series of culverts at the Illahee Apartment Complex. Here, backwater caused by the driveway embankment and culvert group is expected to flood the floor level units on the right bank. Downstream of the Illahee Apartments to 140th Avenue NE, flooding is contained within the vegetated channel corridor. The confluence with the first major tributary to Kelsey Creek is Valley Creek. Overtopping of the 140th Avenue NE Bridge is not expected.

Downstream of 140th Avenue NE, Kelsey Creek flows adjacent to Bel-Red Road and commercial properties. Along this reach the stream is confined within a channelized corridor and is crossed by several driveway bridges. These bridges are elevated well above the computed 1-percent-

annual-chance flood profile, thus they have no impact on flood levels. Floodplain widths range from 15 to 55 feet.

The Kelsey Creek diverges from Bel-Red Road, turns southwesterly, and enters a reach surrounded by office and apartment buildings. Several bridges and culverts located along the reach adequately convey flow with the exception of the office park driveway bridge; overtopping of this structure is expected during the 1-percent-annual-chance event. Flood levels are not expected to encroach on any structures in this reach as the floodplain remains relatively confined to the channel corridor with widths varying from 15 to 45 feet.

Continuing downstream, Kelsey Creek meanders through a winding, but still entrenched, vegetated corridor, flanked by residential parcels. The floodplain remains confined to the corridor with widths varying from 15 to 70 feet. Upstream of the NE 8th Street culvert, the floodplain expands over the right bank to inundate an adjacent pond area. Floodplain widths in this short reach range from 60 to 200 ft; however, nearby residential structures remain outside the inundation limits.

A grade control structure consisting of a series of concrete weirs is located immediately upstream of the NE 8th Street culvert (near 132nd Av NE). At this structure it was assumed flow would transition from sub-critical to super-critical, thus be critical, at the upstream crest of the structure.

Downstream of NE 8th Street, Kelsey Creek enters the Glendale Golf Course. Along the first 0.6 miles of this reach the channel is steep and entrenched. Several small pedestrian bridges cross the stream, but most are elevated above the computed flood profile thus they generally have no significant impact. In addition, there are several groups of concrete grade control structures located in the channel; these structures were modeled as inline weirs in the HEC-RAS model. Flooding along the Kelsey Creek golf course reach remains confined within the channel until where overtopping into the left bank floodplain begins as the channel gradient lessens and the channel becomes less entrenched. The floodplain expands over both the left and right banks with a floodplain width of approximately 200 feet.

Downstream of the Glendale Golf Course, Kelsey Creek enters the City of Bellevue's Kelsey Creek Park. Here, the floodplain abruptly transitions from well-manicured fairways to a densely vegetated channel corridor. Furthermore, the right floodplain of Kelsey Creek is confined and divided by a pathway and earthen embankment structure from the adjacent swale to the west. As discussed in the previous sections, because these structures are not certified by FEMA, they were not considered to provide flood protection. As a result, it is assumed the embankment does not exist and thus have allowed water to overtop the natural right bank of Kelsey Creek,

via lateral weirs, into the adjacent swale to the west. A separate flood profile was computed along the length of the swale feature. In addition, the area in between the swale and main channel of Kelsey Creek was designated as Zone X, because: 1) flooding depth is expected to be less than 1 foot; and 2) accurate BFE's could not be defined due to two-dimensional flow in the area.

Beyond the park, Kelsey Creek flows into an expansive wetland area that is confined by the Lake Hills Connector roadway embankment along the south and west boundaries. The confluence with the West Tributary is located about halfway into the wetland, and the confluence with Richards Creek occurs further downstream near. Flooding in this area is primarily controlled by a series of culvert/roadway embankments at the Lake Hills Connector and 121st Avenue SE. Overtopping is not expected along 121st Avenue SE or the southbound lanes of the Lake Hills Connector, but floodwaters are expected to overtop the northbound lanes of the Lake Hills Connector. The BFE of floodwaters upstream of the Lake Hills Connector are nearly constant at an elevation of approximately 32.5 ft, NAVD 88. At this elevation, overflow of SE 7th Place (north and east of Lake Hills Connector) into a wetland area to the north of SE 7th Place is expected, but does not contribute conveyance area to the system.

Shallow flooding of the northbound lanes of the Lake Hills Connector may also occur along the left bank. At the 1-percent-annual-chance level, flooding over the Lake Hills Connector may be on the order of 1 foot deep and overtopping flows will likely discharge over the roadway to the southwest into Richards Creek. A preliminary HEC-RAS model included lateral weirs to route flow into Richards Creek, but the resulting flow depths were not significantly changed. To accurately define the 1-percent-annual-chance hazard area and BFEs over this portion of the Lake Hills Connector, the effective FIS of Richards Creek, i.e. hydraulic model, may need to be reevaluated. At this time the 1-percent-annual-chance flood hazard area over the Lake Hills Connector has been designated a shaded Zone X (shallow flooding).

Downstream of the southbound lanes of Lake Hills Connector, flooding is confined to the wide, wetland corridor, with widths ranging from 200 to 740 f1. Further downstream, at the 121st Avenue SE culverts, Kelsey Creek again becomes entrenched. Flooding here is confined to a vegetated corridor as it passes under the Wilburton Railroad Trestle and finally to the I-405 culverts. Flooding on the order of 12 feet deep is computed upstream of the I-405 culvert, but is well confined by the elevated freeway and adjacent hillsides.

West Tributary of Kelsey Creek - The West Tributary study reach begins at the northernmost boundary of the Glendale Golf Course. Minor flooding of the left and right bank floodplains occurs along the upper

reach, but downstream of the flow expands significantly with widths up to 430 f1. Several small bridges located in the golf course reach of the West Tributary obstruct flow and thus contribute to flooding.

Downstream of the golf course, the West Tributary enters Kelsey Creek Park. Flooding in the upper portion of the park is related to the constriction caused by the north parking lot and bridge. Here, flooding is generally contained within the wetland to the north of the parking lot, but some shallow flooding of the lot itself is expected. Downstream of the parking lot, the West Tributary splits with a channel to the west, and a swale-like feature that flows directly south. Although at the l-percent-annual-chance level the area between the channels is expected to remain dry, it was modeled as single reach because the cross section density and orientations were sufficient to compute reasonable profiles.

Further downstream, the West Tributary crosses two pedestrian bridges and elevated pathways. Flood levels in this portion of the park are generally controlled by these structures with a uniform floodplain width of approximately 300 feet.

Downstream of Kelsey Creek Park, the West Tributary flows through a densely vegetated corridor and into the wetland and finally joins the main stem of Kelsey Creek. Flow in this area is likely very two-dimensional as the West Tributary expands overbank into the wetland.

The 1-percent-annual-chance floodway boundaries developed in this study were determined with the HEC-RAS model, with the general assumption of equal conveyance reduction from each side of the floodplain (HEC-RAS method 4). At a few locations, applying the automatic encroachment feature available in HEC-RAS produced flood elevation increases greater than 1 foot and resulted in an unusual floodway shape. As a result, the encroachments were manually adjusted (HEC-RAS method 1) until a reasonable floodway was established. At many cross sections the floodway boundaries coincide with the top of the channel banks, yet a 1-foot rise is not achieved at these sections. As required by FEMA, the floodway cannot encroach into the active channel; therefore, the rise is limited to something less than 1 foot. However, for mapping purposes, in locations where the floodplain is contained within the active channel banks the floodway is coincident with the floodplain boundary.

Floodway widths were computed at each cross section. Between sections, the floodway boundaries were estimated by first attempting to maintain a relatively uniform width, then adjusting the boundaries to include or exclude topographic features that have a significant effect on flow conveyance.

Patterson Creek - The purpose of this revision is to prepare a flood study of Patterson Creek. The revised floodplain and floodway maps will reflect the current hydraulic and hydrologic conditions of the rivers and will replace the effective maps which were prepared prior to the 1980s.

This study was completed by nhc under contract to King County Department of Natural Resources and Parks (KCDNRP). The County is a Cooperating Technical Partner (CTP) with the Federal Emergency Management Agency (FEMA) for purposes of conducting flood insurance studies. King County provided project management and technical review of all study products. The County also supplied relevant study data including hydrometric data for the Patterson Creek watershed and information on past watershed flooding.

Lower Snoqualmie River Study - The purpose of this revision is to update the lower Snoqualmie River. The revised floodplain and floodway maps will reflect the current hydraulic and hydrologic conditions of the rivers and will replace the effective maps which were prepared prior to the 1980s.

This study was completed for FEMA at the request of King County. The County served as Cooperating Technical Partners (CTP), providing relevant study data, first-hand information on the watersheds and associated flooding issues, and technical review of all study products. King County also served in the role of Project Manager and contracted with nhc to provide technical analyses for the FIS updates.

Springbrook Creek Study - The purpose of this revision is to update Springbrook Creek between the Black River Pump Station (BRPS) and SW 43rd Street (also referred to as South 180th Street). The revised floodplain and floodway maps will reflect the current hydraulic and hydrologic conditions of the rivers and will replace the effective maps which were prepared prior to the 1980's.

The hydraulic and hydrologic analyses for this study were conducted following the approach described in an earlier memorandum by nhc. This approach was reviewed and approved by the FEMA Map Coordination Contractor in a letter to the City of Renton, dated September 25, 2002. Continuous hydrologic simulation modeling for a 53 year period of record (October 1, 1948 through September 30, 2002) was used to identify and adjust storm inflow hydrographs to Springbrook that correspond to recurrence intervals required for unsteady flow hydraulic modeling and subsequent floodplain mapping. Two types of potential flood generating peak events were identified for hydraulic analysis: a Storage Scenario, which includes events that produce very high water surface elevation at the Black River Pump Station due to pumping restrictions caused by high

flows in the Green River, and a Conveyance Scenario which includes events that exhibit maximum peak flows into the pump station forebay. This study was completed in June 2006.

Green River Study – The Green River floodplain was redelineated from Cross Section N through just upstream of Cross Section CE based on the Green River (Without Levee) regulatory base flood water surface elevations in the King County FIS. The without levee flood water surface elevations were compared to the surrounding topography assuming that levees and levee-type structures would not prohibit water from leaving the river channel. One exception was that the Tukwila 205 levee was considered to provide protection from flooding. Topography data from 2006 was used to perform the comparison. In locations where the 1- and 0.2-percent-annual-chance boundaries coincide, only the 1-percent-annual-chance boundary has been delineated on the maps. This includes nearly the entire overbank area where the 1- and 0.2-percent-annual-chance floodplains would coincide since maximum water levels in the levee failure scenarios are controlled by the latter half of the flow hydrograph (in the modeling, these areas take several days to reach equilibrium conditions) and flows for this portion of the 1- and 0.2-percent-annual-chance hydrographs for the Lower Green River are the same due to the regulation provided at the USACE's Howard A Hanson Dam. In general, the floodway was developed to coincide with the effective Green River floodway to the greatest extent possible. The HEC-RAS model was run to determine if the effective floodway could fully contain the 1-percent-annual-chance flood without causing surcharges in excess of 1 foot relative to the "fail all levee" condition. In areas where the 1-foot surcharge could not be achieved, the overbank portions of the floodway were delineated using the FLO-2D model. Encroachments in the overbank areas were manually defined until a reasonable floodway boundary was established.

Floodway widths were computed at each cross section in the HEC-RAS model and the delineation between sections was drawn based on topographic information. At some cross sections, the floodway boundary coincides with the top of the channel banks. The floodway does not encroach into the channel and the floodway along the certified levee near Southcenter (i.e. the Tukwila 205 Levee) was delineated along the landward toe of the levee fill. Floodway data is not provided for portions of the floodway that were analyzed using FLO-2D.

In locations where the floodway and the 1-percent-annual-chance floodplain boundary coincide, only the floodway boundary is shown on the map.

Middle Green River –A Regulatory Floodway was delineated for the Middle Green River using the HEC-RAS model. In general, the floodway was developed using Encroachment Method 4 in HEC-RAS. In locations where the floodway and the 1-percent-annual-chance floodplain boundary coincide, only the floodway boundary is shown on the maps.

Method 4 automatically computes encroachment stations by attempting to achieve a predefined surcharge (1 foot) while targeting an equal loss of conveyance on each overbank, if possible. At some locations, applying the automated encroachment computation produced surcharges significantly different from 1 foot and/or resulted in an unreasonable floodway shape. As a result, encroachments in some locations were manually adjusted using HEC-RAS Method 1 until a reasonable floodway boundary was established. At some cross sections, the floodway boundary coincides with the top of the channel banks and the floodway does not encroach into the active channel.

Floodway widths were computed at each cross section. Between sections, the floodway boundary was interpolated based on topographic information and to reflect assumed flood flow characteristics.

The Mill Creek floodway and storage floodway were preserved and shown on the map. Additionally, the floodway from the Springbrook Creek restudy was shown on the map. Otherwise, Green River floodplain inundation of the Mill and Springbrook Creeks floodplains was shown. The Green River floodplain was shown as an AE-Zone with BFEs.

10.9 Ninth Revision

This FIS was revised on August 19, 2020, to incorporate the results of revised hydraulic analysis of Sammamish River, and White River and the coastal analysis from Puget Sound.

Puget Sound-The purpose of this project was to develop up-to-date and accurate coastal flood hazard analyses for incorporated areas of King County, Washington along the entire coastline of Puget Sound. This study was conducted using FEMA's Guidelines for Coastal Flood Hazard Analysis and Mapping for the Pacific Coast of the United States (Pacific Coast Guidelines (FEMA, 2005). As one of the first studies to use the new guidelines for the Pacific Coast, this project also serves as a case study for implementing the methods and recommendations outlined in the Pacific Coast Guidelines. The products of this study will be submitted to FEMA to be integrated into FEMA's County-wide DFIRM for King County.

Sammamish River-The purpose of this project was to prepare a flood study of the Sammamish River that can be submitted to FEMA to initiate

a revision to the published FIRMs and FIS for both Incorporated and Unincorporated Areas of King County in the State of Washington. The revised floodplain and floodway maps reflect the current hydraulic and hydrologic conditions of the Sammamish River and will replace the effective maps which were prepared in 1978.

White River - The purpose of this project was to prepare a flood study of the White River that can be submitted to FEMA to initiate a revision to the published FIRMs and FIS for Unincorporated Areas of King County in the State of Washington. The revised floodplain and floodway maps reflect the current hydraulic and hydrologic conditions of the White River and will replace the effective maps which were prepared in the 1980s.

10.10 Tenth Revision

This FIS was revised on August 19, 2020, to incorporate the results of the hydraulic analysis of the Thornton Creek study.

Thornton Creek - This floodplain mapping study comprises an investigation of riverine flooding on Thornton Creek within the City of Seattle. This study was performed using detailed hydrologic and both detailed and approximate hydraulic methods approved by FEMA. The detailed study reach covers approximately 6.8 miles of Thornton Creek and its two principal tributaries, the North Branch and South Branch. Beginning at Thornton Creek's mouth at Matthews Beach Park on the shores of Lake Washington, the study reach is continuous through the North Branch upstream to its crossing of Interstate 5. The South Branch study reach begins at its confluence with the mainstem and continues upstream to 5th Avenue Northeast, near the Northgate Mall.

This study also includes the analysis of five tributaries to Thornton Creek using approximate methods. These five tributaries are Littlebrook, Willow, Victory, Kramer, and Maple Creeks. The study limit for Littlebrook, Willow, and Victory Creeks was approximately three-quarters of a mile. The study limit for Kramer Creek and Maple Creek was less than 600 feet.

10.11 Eleventh Revision

The incorporation of the 316-PMR issued on January 14, 2015, for the Cities of Kent and Renton, and the unincorporated areas of King County, was included in this update. This PMR affects five FIRMs along Green River, Springbrook and Mill Creeks. The study limit along Green River was from 3rd Avenue S to approximately 600 feet upstream of Central Avenue; along Springbrook Creek, from approximately 200 feet

downstream of 84th Avenue to approximately 1600 feet upstream of 228th Street; and along Mill Creek, from approximately 550 feet downstream of 76th Avenue S. to approximately 400 feet upstream of Kennebeck Avenue.

This revision also includes the secluded areas along the Green River (except Horseshoe Bend, Fenster, Muellen, Potter, Neeley, and Hammakami) levees that have not been demonstrated by the community or levee owners to meet the requirements of Section 65.10 of the NFIP regulations in 44 CFR as it relates to the levee's capacity to provide 1-percent- annual -chance flood protection. The subject areas are identified on FIRM panels (with notes and bounding lines) and in the FIS report as potential areas of flood hazard data changes based on further review.