

June 26, 2012

Scott, Greenberg, AICP
Community Development Director
City of Burien
400 SW 152nd St., Ste. 300
Burien, WA 98166

**Re: Burien Comprehensive Plan Update, Best Available Science Review
Report Addendum**

The Watershed Company Reference Number: 110316

Dear Scott:

As you are aware, the Federal Emergency Management Agency (FEMA) revised their floodplain maps after *the City of Burien Comprehensive Plan Update Best Available Science Review* (The Watershed Company, October 2011) was issued. These changes are detailed in the enclosed FEMA issued Letter of Map Revision (LOMR), effective date November 4, 2011. Please reference this addendum to see revisions to the FEMA floodplain maps in Appendix C of the Best Available Science (BAS) Review report.

Map revisions are summarized as follows:

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Puget Sound	Zone VE	Zone VE	Yes	Yes
	Zone A	Zone AO	None	Yes
	Zone A	Zone X (unshaded)	None	Yes
	BFEs	BFEs	None	Yes

Zone A No base flood elevations determined.

Zone AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

Zone VE Coastal flood with velocity hazard (wave action); base flood elevations determined.

Zone X (unshaded) Areas of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level.

BFEs Base Flood Elevations

The increases and decreases listed in the summary table above refer to changes in elevation. Zone VE revisions resulted in both increases and decreases in BFE, likely based on a refined wind velocity model. Flood depths were determined for Zone A and the marked areas were assigned zones designations AO and X (unshaded). This refinement resulted in an overall decrease in elevation as reflected in the BFE decrease.

The Burien Critical Areas Map (updated January 2012) shows the revised FEMA mapping zones, which are primarily along the Puget Sound. The updated Burien Critical Areas Map replaces the prior version presented in Appendix A of the BAS Review.

Generally, the functions and values of these flood prone areas and potential protection measures described in Section 3 of the *Burien Comprehensive Plan Update Best Available Science Review* (The Watershed Company, October 2011) are consistent with the revised FEMA map.

Sincerely,



Nell Lund, PWS
Ecologist

Enclosures



Federal Emergency Management Agency

Washington, D.C. 20472

October 5, 2011

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Honorable Joan McGilton
Mayor, City of Burien
400 SW 152nd Street, Suite 300
Burien, WA 98166

IN REPLY REFER TO:

Case No.: 11-10-0033P
Community Name: City Of Burien, WA
Community No.: 530321
Effective Date of
This Revision: November 4, 2011

91 7199 9991 7030 3175 4507

Dear Mayor McGilton:

The Flood Insurance Study Report and Flood Insurance Rate Map for your community have been revised by this Letter of Map Revision (LOMR). Please use the enclosed annotated map panel(s) revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals issued in your community.

Additional documents are enclosed which provide information regarding this LOMR. Please see the List of Enclosures below to determine which documents are included. Other attachments specific to this request may be included as referenced in the Determination Document. If you have any questions regarding floodplain management regulations for your community or the National Flood Insurance Program (NFIP) in general, please contact the Consultation Coordination Officer for your community. If you have any technical questions regarding this LOMR, please contact the Director, Mitigation Division of the Department of Homeland Security's Federal Emergency Management Agency (FEMA) in Bothell, Washington, at (425) 487-4682, or the FEMA Map Assistance Center toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Sincerely,

Siamak Esfandiary, Ph.D., P.E.
Program Specialist
Engineering Management Branch
Federal Insurance and Mitigation Administration

For: Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

List of Enclosures:

Letter of Map Revision Determination Document
Annotated Flood Insurance Rate Map

cc: Ms. Jan Vogee
Building Official
400 SW 152nd Street, Suite 300
Burien, WA 98166-3066

Mr. David P Simpson
Coast & Harbor Engineering Inc
110 Main Street
Suite 103
Edmonds, WA 98020

Mr. Scott McKinney
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	City Of Burien King County Washington	NO PROJECT	COASTAL ANALYSIS NEW TOPOGRAPHIC DATA
	COMMUNITY NO.: 530321		
IDENTIFIER	City Of Burien Coastal Zone AE And AO Delineation	APPROXIMATE LATITUDE & LONGITUDE: 47.450, -122.380 SOURCE: USGS QUADRANGLE DATUM: NAD 27	
ANNOTATED MAPPING ENCLOSURES		ANNOTATED STUDY ENCLOSURES	
TYPE: FIRM* NO.: 53033C0953F DATE: May 16, 1995 TYPE: FIRM* NO.: 53033C0935F DATE: May 16, 1995 TYPE: FIRM* NO.: 53033C0955F DATE: May 16, 1995		NO REVISION TO THE FLOOD INSURANCE STUDY REPORT	

Enclosures reflect changes to flooding sources affected by this revision.

* FIRM - Flood Insurance Rate Map

FLOODING SOURCE & REVISED REACHES

Puget Sound - From just south of Seola Beach Drive to approximately 2,500 feet north of 140th Street and from approximately 500 feet north west of the intersection of 28th avenue SW and SW 149th place to approximately 1000 feet north west of the confluence with Miller Creek.

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Puget Sound	Zone VE	Zone VE	YES	YES
	Zone A	Zone AO	NONE	YES
	Zone A	Zone X (Unshaded)	NONE	YES
	BFEs	BFEs	NONE	YES

* BFEs - Base Flood Elevations

DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 6730 Santa Barbara Court, Elkridge, MD 21075. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Siamak Esfandiary, Ph.D., P.E., Program Specialist
Engineering Management Branch
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

COMMUNITY INFORMATION

APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

COMMUNITY REMINDERS

We based this determination on the 1-percent-annual-chance stillwater elevations computed in the FIS for your community. A comprehensive restudy of your community's flood hazards could establish greater flood hazards in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Mr. Mark Carey
Director, Mitigation Division
Federal Emergency Management Agency, Region X
Federal Regional Center
130 228th Street, Southwest
Bothell, WA 98021-8627
(425) 487-4682

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 6730 Santa Barbara Court, Elkridge, MD 21075. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

A handwritten signature in black ink, appearing to read "S. Esfandiary".

Siamak Esfandiary, Ph.D., P.E., Program Specialist
Engineering Management Branch
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency
Washington, D.C. 20472

**LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)**

STATUS OF THE COMMUNITY NFIP MAPS

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panels and FIS report warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 6730 Santa Barbara Court, Elkridge, MD 21075. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

A handwritten signature in black ink, appearing to read "S. Esfandiary".

Siamak Esfandiary, Ph.D., P.E., Program Specialist
Engineering Management Branch
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency
Washington, D.C. 20472

**LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)**

PUBLIC NOTIFICATION OF REVISION

PUBLIC NOTIFICATION

FLOODING SOURCE	LOCATION OF REFERENCED ELEVATION	BFE (FEET NGVD 29)		MAP PANEL NUMBER(S)
		EFFECTIVE	REVISED	
Puget Sound	Approximately 600 feet seaward of Marine View Drive SW	21	18	53033C0955F
	Approximately 250 feet seaward of SW 174 th Street	21	17	53033C0953F

Within 90 days of the second publication in the local newspaper, a citizen may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. This revision will become effective 30 days from the date of this letter. However, until the 90-day period has elapsed, the revised BFEs presented in this LOMR may be changed.

A notice of changes will be published in the *Federal Register*. This information also will be published in your local newspaper on or about the dates listed below.

LOCAL NEWSPAPER Name: *The Highland Times*
Dates: October 20, 2011 October 27, 2011

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 6730 Santa Barbara Court, Elkridge, MD 21075. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Siamak Esfandiary, Ph.D., P.E., Program Specialist
Engineering Management Branch
Federal Insurance and Mitigation Administration

Legend

-  1% annual chance (100-Year) Floodplain
-  1% annual chance (100-Year) Floodway
-  0.2% annual chance (500-Year) Floodplain



MAP SCALE 1" = 1000'



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

KING COUNTY,
WASHINGTON AND
INCORPORATED AREAS

PANEL 935 OF 1725
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:	NUMBER	PANEL	SUFFIX
COMMUNITY			

KING COUNTY:			
UNINCORPORATED AREAS	530071	0935	F
SEATTLE CITY OF	530089	0935	F
BURIEN CITY OF	530321	0935	F

**REVISED TO
REFLECT LOMR
EFFECTIVE:
NOVEMBER 4, 2011**

MAP NUMBER
53033C0935 F

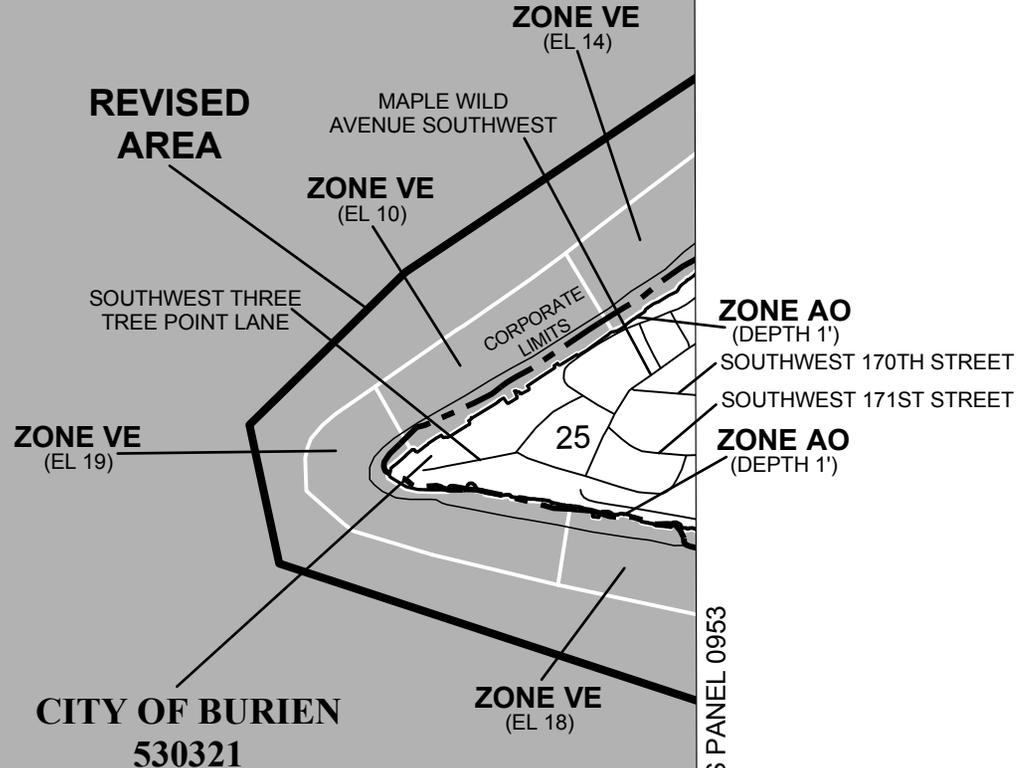
MAP REVISED:
MAY 16, 1995



Federal Emergency Management Agency

ZONE A

PUGET SOUND



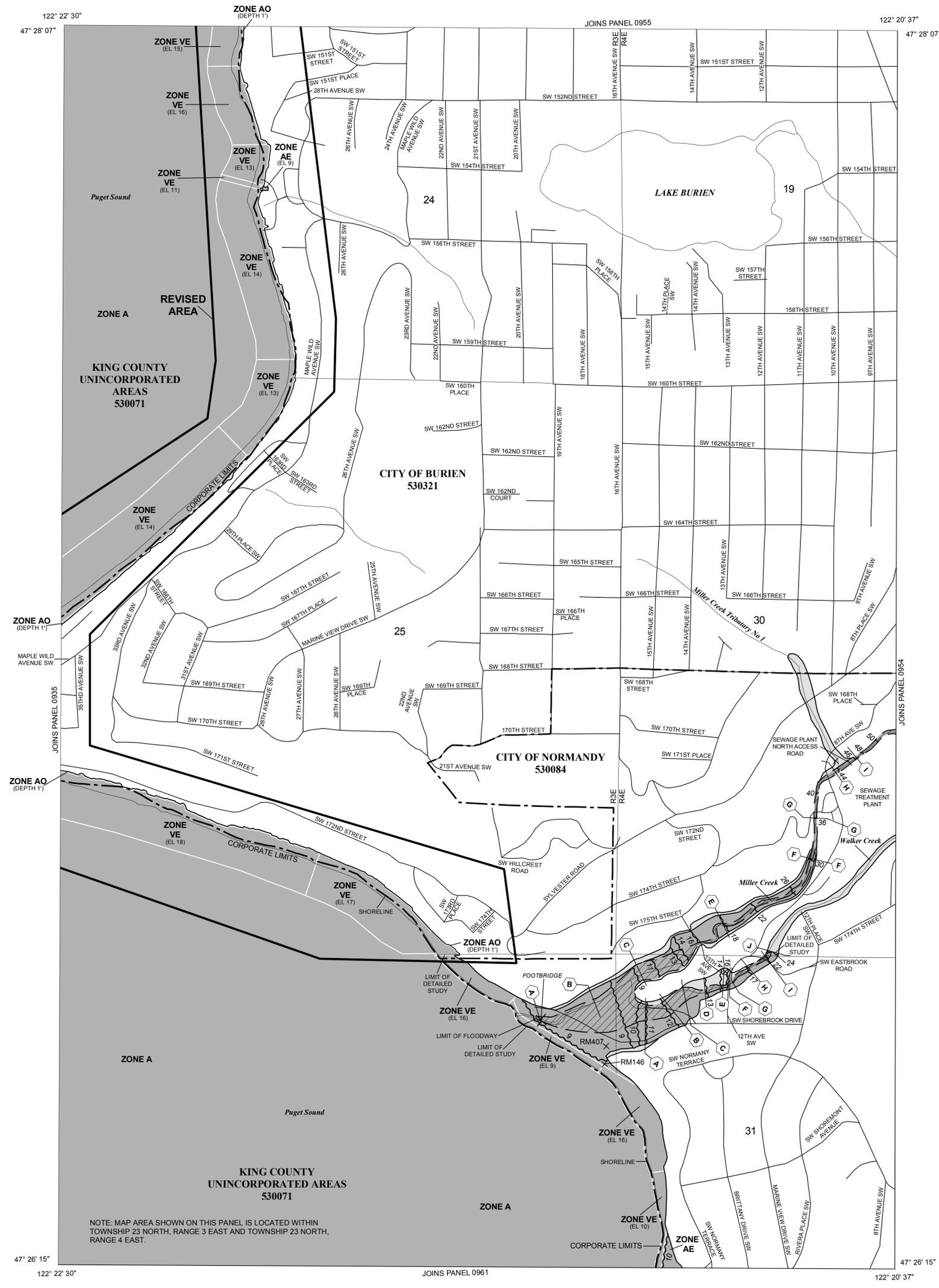
JOINS PANEL 0953

**KING COUNTY
UNINCORPORATED AREAS
530071**

ZONE A

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN
TOWNSHIP 23 NORTH, RANGE 3 EAST.

REFERENCE ELEVATION MARK (FEET NGVD)	ELEVATION	DESCRIPTION OF LOCATION
RM146	6.37	At Normandy Park in top of 2-inch iron pipe. Protruding 0.06 foot above concrete pipe is set 0.6 foot in from south edge and 8 feet from east edge in concrete boat launching ramp at Normandy Park Community Beach (HD65).
RM148	77.67	At Normandy Park, a square on edge of driveway entrance to the house on northwest corner of Shorebrook Drive and SW 174th Street. Square is near the east corner of drive SW 174th Street (HD13).
RM407	8.85	Spike 1 1/2' above ground in abandoned power pole north of gate to private Normandy Park beach park.
RM408	18.59	Top of fire hydrant located at the northeast corner of 12th Avenue SW and SW Eastbrook Road.
RM409	49.78	Square chiseled in southeast corner of concrete slab at east entrance to sewage treatment plant maintenance building.



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- ZONE A** No base flood elevations determined.
- ZONE AE** Base flood elevations determined.
- ZONE AH** Flood depths of 1 to 2 feet usually areas of ponding; base flood elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet usually sheet flow on sloping terrain; average depths determined. For areas of unusual fan flooding, velocities also determined.
- ZONE AV** To be protected from 100-year flood by Federal flood protection system, under construction; no base elevations determined.
- ZONE V** Coastal flood with velocity hazard wave actions; base flood elevations determined.
- ZONE VE** Coastal flood with velocity hazard wave actions; base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

- ZONE X** Areas of 500-year flood area of 100-year flood with a depth of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 100-year flood.

OTHER AREAS

- ZONE X** Areas determined to be outside 500-year floodplain.
- ZONE D** Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS

- Identified 1993 Coastal barrier areas normally located within or adjacent to Special Flood Hazard Areas.
- Identified 1993 Coastal barrier areas normally located within or adjacent to Special Flood Hazard Areas.
- Identified 1993 Coastal barrier areas normally located within or adjacent to Special Flood Hazard Areas.

Boundaries

- Flood Boundary
- Flowway Boundary
- Zone D Boundary
- Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

Other Symbols

- Base Flood Elevation Line, Elevation in Feet. See Map Index for Elevation Datum.
- Cross Section Line
- Base Flood Elevation in Feet Within Uniform Width Zone. See Map Index for Elevation Datum.
- Elevation Reference Mark
- River Mile

Horizontal Coordinates Based on North American Datum of 1977 (NAD 77) Projection.

NOTES

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size or all planning features outside Special Flood Hazard Areas.

Coastal base flood elevations apply only to landward of 0.0 NGVD, and include the effects of wave action; these elevations may also differ significantly from those developed by the National Weather Service for hurricane evacuation planning.

Areas of Special Flood Hazard (100-year Flood) include Zones A, AE, AH, AO, AV, V, and VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

This map may incorporate approximate boundaries of Coastal Barrier Resources System Units and/or Outermost Protected Areas established under the Coastal Barrier Improvement Act of 1980 (P.L. 96-350).

Corporate limits shown are current as of the date of this map. The user should contact appropriate community officials to determine if corporate limits have changed subsequent to the issuance of this map.

For community map review history prior to community mapping, see Section 6.0 of the Flood Insurance Study Report.

For adjoining map panels and base map section see separately printed Map Index.

MAP REPOSITORY
Refer to Repository Listing on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP:
SEPTEMBER 29, 1989

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL:
Revised May 16, 1995 to update map format.

To determine if flood insurance is available contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET
0 500 1000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

KING COUNTY, WASHINGTON AND INCORPORATED AREAS

PANEL 953 OF 1725
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:	COMMUNITY	NUMBER	PANEL	SUFFIX
BURIEN CITY OF		03021	0943	F
KING COUNTY UNINCORPORATED AREAS		03071	0948	F
NORMANDY PARK CITY OF		03084	0949	F

REVISED TO REFLECT LOMR EFFECTIVE: NOVEMBER 4, 2011

MAP NUMBER 53033C0953 F

MAP REVISED: MAY 16, 1995

Federal Emergency Management Agency

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 23 NORTH, RANGE 3 EAST AND TOWNSHIP 23 NORTH, RANGE 4 EAST.

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 113 NORTH, RANGE 43 WEST.

**KING COUNTY
UNINCORPORATED AREAS
530071**

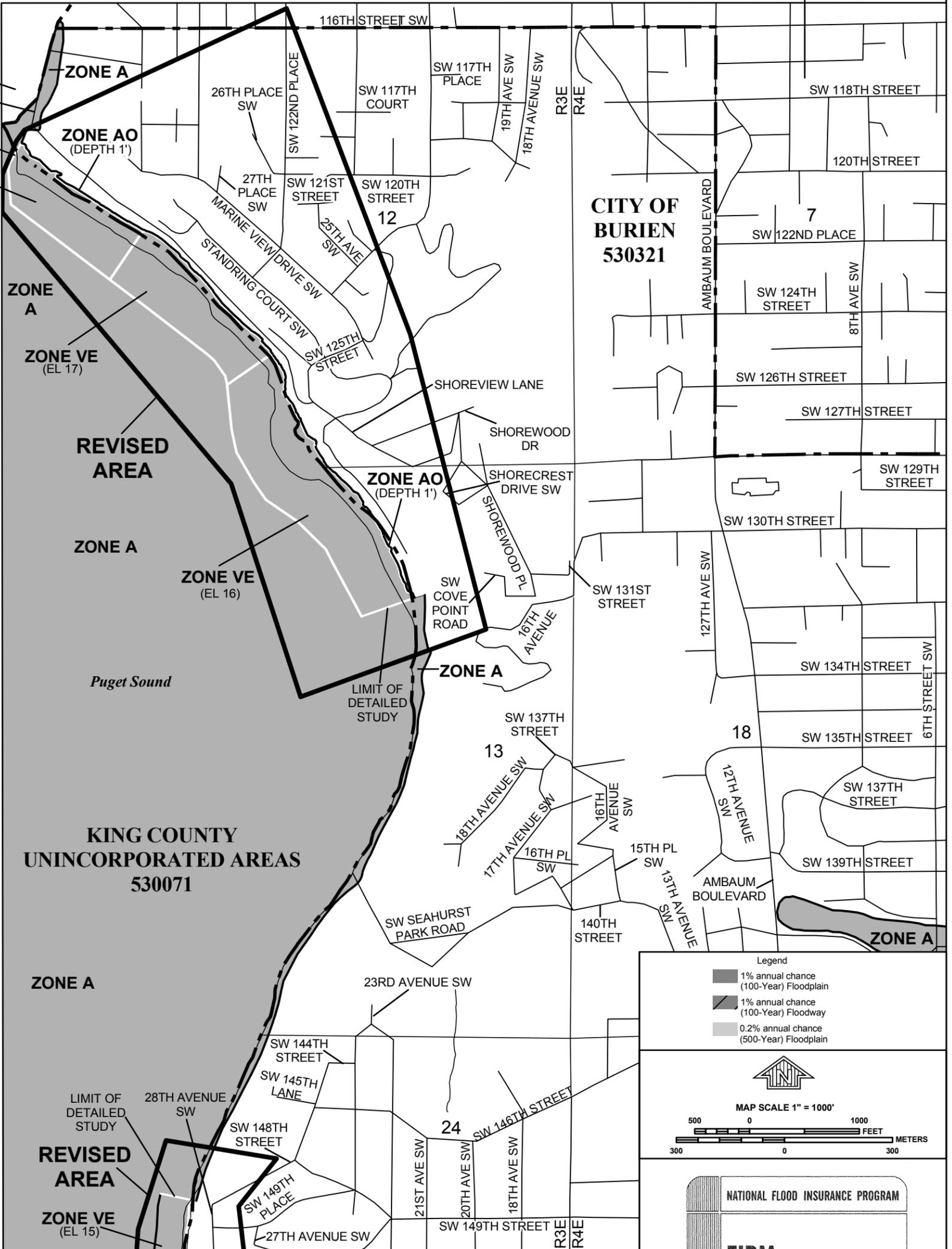
122° 22' 30"

JOINS PANEL 0638

47° 30' 00"

**CITY OF SEATTLE
530089**

SEOLA BEACH DRIVE
LIMIT OF DETAILED STUDY
**ZONE VE
(EL 18)**

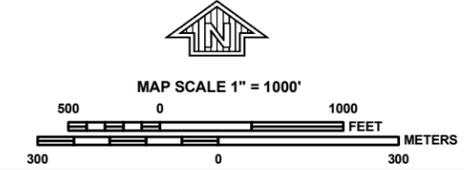


JOINS PANEL 0935

**KING COUNTY
UNINCORPORATED AREAS
530071**

**CITY OF
BURIEN
530321**

- Legend
- 1% annual chance (100-Year) Floodplain
 - 1% annual chance (100-Year) Floodway
 - 0.2% annual chance (500-Year) Floodplain



NATIONAL FLOOD INSURANCE PROGRAM

**FIRM
FLOOD INSURANCE RATE MAP**
KING COUNTY,
WASHINGTON AND
INCORPORATED AREAS

PANEL 955 OF 1725
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS: COMMUNITY	NUMBER	PANEL	SUFFIX
BURIEN CITY OF	530321	0955	F
KING COUNTY UNINCORPORATED AREAS	530071	0955	F
SEATTLE CITY OF	530329	0955	F
SEATTLE CITY OF	530089	0955	F

**REVISED TO
REFLECT LOMR
EFFECTIVE:
NOVEMBER 4, 2011**

**MAP NUMBER
53033C0955 F**

**MAP REVISED:
MAY 16, 1995**



Federal Emergency Management Agency

THIS AREA SHOWN ON MAP NUMBER 53033C0953