# PART 2—
# UNINCORPORATED COUNTY AND MUNICIPAL ANNEXES

# CHAPTER 2.
# UNINCORPORATED SNOHOMISH COUNTY ANNEX

## 2.1 HAZARD MITIGATION PLAN POINT OF CONTACT


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## 2.2 JURISDICTION PROFILE

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

- **Date of Incorporation—**January 14, 1861
- **Current Population—**328,285 (unincorporated Snohomish County) as of April 2009
- **Population Growth—**Between 2000 and 2007, Snohomish County's population increased by 13.2 percent. The total population of the county was confirmed by the 2000 census as 606,024, according to the U.S. Census Bureau. On April 1, 2008, the State of Washington Office of Financial Management estimated the population of Snohomish County's incorporated and unincorporated areas as 696,600. The unincorporated county population estimate was 324,320 and the incorporated (city) population estimate was 372,280.

  The population forecast for Snohomish County for 2025 is 938,434. This number represents the growth target that the county has planned for in the Snohomish County Growth Management Comprehensive Plan, which guides the county's growth and development through 2025. The employment forecast for 2025 is 358,355 jobs, an increase from the 2000 employment estimate of 127,917 jobs.
- **Location and Description—**Snohomish County is located in northwest Washington State, nestled between the waters of Puget Sound and the rugged, snow-capped peaks of the Cascade Mountains. Snohomish County covers 2,090 square miles of varied topography ranging from saltwater beaches, rolling hills and rich river bottom farmlands in the west, to dense forest and alpine wilderness in the mountainous east. It is bordered by Skagit County to the north, King County to the south, Chelan County to the east, and Island County to the west, across Puget Sound. Snohomish County lies 12 miles north of Seattle; almost 100 miles south of Vancouver, British Columbia; and a short ferry ride away from Whidbey Island. Over sixty percent of the county's land is in forest, with the Mt. Baker National Forest and 10,436-foot Glacier Peak within its boundaries. Two major river systems flow through the county: the Stillaguamish River, with its north and south forks, and the Snohomish River, formed from the Skykomish and Snoqualmie Rivers.
- **Brief History—**For thousands of years, the Snohomish, the Stillaguamish, the Skykomish, the Sauk-Suiattle, and the Snoqualmie tribes lived along the rivers in what is now Snohomish County. They followed a traditional cycle of fishing, hunting and gathering. In June, 1792,

Captain George Vancouver landed near the present site of Everett to claim the Pacific Northwest for Great Britain.

In 1855, Washington State Governor Isaac Stevens met with tribal leaders near Mukilteo to sign a treaty between the tribes and the U. S. Government. The tribes signed away their lands in exchange for cash, hunting and fishing rights and a reservation established at Tulalip Bay.

Just two years before, the land that would become Snohomish, Skagit, Whatcom, San Juan and Island Counties had been established as Island County. As the population grew, local settlers petitioned the territorial legislature to create a separate county. Snohomish County was created on January 14, 1861. Mukilteo became the temporary county seat until it was moved to Snohomish.

Rich farmland, easy water access and abundant forests attracted settlers, who clustered in the Lowell, Monroe, Stanwood and Edmonds areas. When Washington became a state in 1889, Snohomish was the county's most well-developed cultural and political center. During these years, the area that would become Everett was logged by timber companies who enjoyed the proximity to mills in Port Gamble and Utsaladdy. Lumber and shingle mills, shipbuilding, an iron works, brewery, flour mill and a cannery became established industries on Everett's waterfront.

The Great Northern Railway brought a major boom to Snohomish County and to the new industrial city of Everett in the early 1890s. Index, Gold Bar and Sultan became more fully established as towns along this railway route and adjacent to mining areas where many came in search of gold. A nationwide depression in 1893 put an end to this period of prosperity, but was followed by recovery to steadier growth based on timber and farming. Trade unions gained a solid base in Everett.

Between World War I and 1929, the timber industry in Snohomish County grew to 130 lumber and shingle mills. Dairies and egg farms were established in the Alderwood Manor area, south of Everett, and in Arlington, northeast of Everett.

The Depression hit Snohomish County residents hard – the county was listed as one of Washington State's neediest counties. Government aid helped build some major additions to the community, which are still enjoyed today. They include the expansion of Forest Park, a new public library, a civic auditorium in Everett; and major camps at Darrington, Sultan, Index, and Barlow Pass.

During World War II, the Everett Pacific Shipbuilding and Dry-Dock Company built ships for the Navy. The Arlington airport served as a Naval base and the Boeing Aircraft Company operated two airplane assembly plants in Everett. In 1943, Paine Field began operating as a military base.

Post-World War II growth spurred highway construction linking Stanwood, Snohomish and Monroe with Everett and Seattle. The communities of Edmonds, Brier, Woodway, Mountlake Terrace and Lynnwood expanded. In 1967, the Boeing Company began building the 747 plant at Snohomish County's Paine Field near Everett, beginning a long tenure as Snohomish County's largest employer. In the early 1990s, the city of Bothell completed a substantial annexation into Snohomish County, and the establishment of high technology industries along north Interstate 405 corridor began moving north. Also in the early 1990s, the Tulalip Tribes began developing their city, Quilceda Village. It is now home to a casino, hotel, outlet mall, and amphitheatre among other businesses; and the Tulalips are currently the fourth largest employer in the county.

During the last 30 years, Snohomish County's technology, aerospace and service-based businesses have grown, while the natural resource-based industries of farming, logging and paper production suffered long declines, challenging the economies and lifestyles of many of the county's natural-resource-based communities. Residents have endured significant changes and challenges through periods of recession and growth, yet still express a common support for the county's quality of life and natural beauty.

- **Climate—**Snohomish County enjoys a moderate year-round climate, with average temperatures ranging from about 75°F in July to about 33°F in January. The Olympic Mountains to the west, across Puget Sound, shelter the area from excessive precipitation coming off the Pacific Ocean. Annual precipitation in the western part of the county is 35 inches, but increases sharply as the elevation climbs into the Cascades Mountains (Index, 110"-120").

- **Governing Body Format—**The Snohomish County Council is the legislative authority for the County. The five members of the Council are elected to four-year terms and will assume the responsibility for the adoption and implementation of this plan. Each member represents a specific geographic district. The council's duties include identifying and articulating the needs of the citizens of Snohomish County, and providing a framework for the county's administration to carry out its work efficiently, ensuring that County government responds effectively to the community's needs. The County Council adopts and enacts ordinances, resolutions, and motions; levies taxes; appropriates revenue; and adopts budgets.

  The Snohomish County Executive supervises executive departments; enforces all ordinances and state statutes within the county; presents an annual statement of governmental affairs of the county to the Council; prepares and presents the proposed budget and budget message; prepares and presents to the Council comprehensive plans, including capital improvement plans for present and future development within the county; and nominates members of county boards and commissions. The County Executive is elected to a four-year term.

  Regional countywide services include prosecution, courts, jails, medical examiner services, voter registration, elections, recording, licensing, property assessment, tax collection, and coordination of human services and veteran assistance programs. Snohomish County also maintains regional facilities such as parks, the fairgrounds and the county airport. Local services provided in the unincorporated areas include law enforcement, animal control, road maintenance, land use regulation and permitting.

- **Development Trends—**Snohomish County is emerging from its historic role as a bedroom community of Seattle and center for natural resource- based industries. The local economy is diversifying. New types of businesses are establishing themselves and this is making for a more resilient economy.

  In the most recent decade, growth and development in the county was robust in the early-to-mid 2000s. A historic recession marked by bank failures and foreclosures ended this period of growth in 2007. Unemployment neared the 10 percent level during 2009-2010. The County's jurisdictional role also changed during this decade. A number of cities undertook large annexations. Between the annexations and the economy, County revenues declined at the end of the decade.

  In 2010, some fiscal markers began improving while others remain troubled. Signs of job growth are appearing in the service sector, particularly health care and life sciences. Traditional industries are stabilizing, notably aerospace. The aerospace industry eagerly anticipates the first commercial delivery of the new Boeing 787 in late 2010, as well as a decision on the air force refueling tanker contract. However, development of retail and

consumer services remain at depressed levels as access to consumer credit continues to decline. Similarly, unemployment persists at elevated levels.

Looking forward, Snohomish County has significant economic advantages and opportunities. These include a superior deep-water port, rail facilities, airports, and regional transportation nodes—all of which give the county access to national and international trade. In addition, it has abundant renewable resources, leading edge industries, an independent well-educated business management and labor force, and opportunities for high technology employers. The County is focusing policy decisions and actions on accelerating the economic recovery.

Perhaps the secret to Snohomish County's competitiveness is the quality of life: this has been a major part of the County's reputation and attractiveness over many business cycles and changes in the economy.

Washington State Law (RCW Chapter 36.70) requires counties that meet specified population criteria, and the cities within those counties, to prepare and adopt a comprehensive long-range plan for community development. The plan must consist of an integrated and internally consistent set of goals, policies, and implementation measures focusing on issues of the greatest concern to the community. County actions, such as those relating to land use allocations, annexations, zoning, subdivision and design review, redevelopment, and capital improvements, must be consistent with the plan. Snohomish County is in compliance with the provisions of RCW 36.70, having adopted its general plan in 1995 and amended it in 2009. The County will review and amend its Comprehensive Plan as necessary. Future growth and development will be managed as identified in the plan.

## 2.3 JURISDICTION-SPECIFIC NATURAL HAZARD EVENT HISTORY

Table 2-1 lists past occurrences of natural hazards within the jurisdiction. Repetitive loss records are as follows:

- Number of FEMA Identified Repetitive Flood Loss Properties: 146 (as of 2/28/2010)
- Number of Repetitive Flood Loss Properties that have been mitigated: 27 (as of 2/28/2010)

## 2.4 HAZARD RISK RANKING

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

## 2.5 CAPABILITY ASSESSMENT

The assessment of the jurisdiction's legal and regulatory capabilities is presented in Table 2-3. The assessment of the jurisdiction's administrative and technical capabilities is presented in Table 2-4. The assessment of the jurisdiction's fiscal capabilities is presented in Table 2-5. Classifications under various community mitigation programs are presented in Table 2-6.

## 2.6 HAZARD MITIGATION ACTION PLAN AND EVALUATION OF RECOMMENDED INITIATIVES

Table 2-7 lists the initiatives that make up the jurisdiction's hazard mitigation plan. Table 2-8 identifies the priority for each initiative. Table 2-9 summarizes the mitigation initiatives by hazard of concern and the six mitigation types.

## 2.7 STATUS OF PREVIOUS PLAN INITIATIVES

Table 2-10 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

## 2.8 FUTURE NEEDS TO BETTER UNDERSTAND RISK

The various Snohomish County departments have identified a number of data collection initiatives that would greatly enhance our understanding of the unincorporated county's risks and vulnerabilities. To assist in the former, we have identified three specific gaps in our risk data, which are the need for improved tsunami, wildfire, and landslide data sets. Regarding vulnerability, Snohomish County advocates the creation of a critical facilities database; a central repository of building footprints located within the floodplain; and, a comprehensive drainage system analysis.

## 2.9 HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps for unincorporated Snohomish County and are included in Volume 1 of this plan. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes.

**TABLE 2-1.**
**NATURAL HAZARD EVENTS**

| Type of Event | FEMA Disaster # (if applicable) | Date | Preliminary Damage Assessment |
|---|---|---|---|
| Severe Storm (Wind & Flood) | N/A | 11/2009 | $50,000 (estimate) |
| Flood | 1817-DR | 1/2009 | $3,284,412 |
| Severe Winter Storm (Record Snow) | 1825-DR | 12/2008 | $9,789,383 |
| Severe Winter Storm | N/A | 11/2008 | $325,000 (estimate) |
| Severe Winter Storm | 1734-DR | 12/2007 | $2,883,718 |
| Severe Winter Storm | N/A | 1/2007 | $1,200,000 (estimate) |
| Severe Winter Storm | 1682-DR | 12/2006 | $5,380,654 |
| Severe Storms (Flooding) | 1671-DR | 11/2006 | $18,772,675 |
| Severe Storms (Flooding) | 1641-DR | 2/2006 | $1,975,369 |
| Flood & Erosion | 1499-DR | 11/2003 | $18,000,000 |
| Earthquake (Nisqually) | 1361-DR | 2/2001 | $2,000,000 to $3,000,000 |
| Flood & Landslide | 1172-DR | 3/1997 | $30,000,000 to $35,000,000 |
| Severe Weather | 1159-DR | 12/1996 | $58,000,000 |
| Earthquake (Duvall) | N/A | 5/1996 | $1,000,000 (estimate) |
| Flood | 1100-DR | 1/-2/1996 | $1,250,000 |
| Flood | 1079-DR | 11/-12/1995 | $53,000 |
| Severe Storm (Wind) | 981-DR | 1/1993 | $130,000,000 (Western WA) |
| Flood | 896-DR | 12/1990 | $64,700 |
| Flood | 883-DR | 11/1990 | $5,000,000 |
| Flood | 784-DR | 11/1986 | $2,000,000 |

**TABLE 2-2.**
**HAZARD RISK RANKING**

| Rank | Hazard Type | Risk Rating Score (Probability x Impact) |
|---|---|---|
| 1 | Severe Storm | 48 |
| 2 | Flood | 45 |
| 3 | Earthquake | 32 |
| 4 | Wildland Fire | 21 |
| 5 | Landslide | 18 |
| 6 | Avalanche | 15 |
| 7 | Volcano/Lahar | 13 |
| 8 | Dam Failure | 9 |
| 9 | Tsunami | 6 |

**TABLE 2-3.**
**LEGAL AND REGULATORY CAPABILITY**

| | Local Authority | State or Federal Prohibitions | Other Jurisdictional Authority | State Mandated | Comments |
|---|---|---|---|---|---|
| **Codes, Ordinances & Requirements** | | | | | |
| Special Purpose (flood management, critical areas) | Y | Y | N | Y | Snohomish County Code (SCC) 30.65 , Flood Hazard Regulations, adopted 12/2002 ; last amended 02/2007.<br>SCC 30.62, 30.62A, 30.62B, 30.62C , Critical Areas Regulations, adopted 12/2002; updated 08/2007.<br>Note: State prohibits the construction/reconstruction of residential structures within a designated floodway. Frequently flooded areas are considered one of the critical areas, and critical areas regulations are mandated under the state Growth Management Act. |
| Zoning | Y | N | N | Y | SCC 30.2, adopted 12/02; latest amendment 10/2009. |
| Subdivisions | Y | N | N | Y | SCC 30.41A (Subdivisions), SCC 30.41B (Short Subdivisions) and SCC 30.41C (Rural Cluster Subdivisions); latest amendment 02/2009. |
| Shoreline Management Plan | Y | N | N | Y | SCC 30.44, adopted 02/2003, latest amendment 06/1993. Update to be completed 06/2010. |
| Stormwater Management | Y | N | N | Y | SCC 30.63A, adopted 12/02 and amended 08/07. Update to be completed in 2010. |
| Site Plan Review | Y | N | N | N | Chapter 30.41D, adopted 02/2003 and amended 12/2005; latest amendment 08/2007. |
| Building Code | Y | N | Y | Y | SCC 30.52A.010, adopted the 2006 International Building Code 09/07; latest amendment 2/2009. 2009 International Building Code will be adopted 08/2010. |

**TABLE 2-3 ( continued).**
**LEGAL AND REGULATORY CAPABILITY**

| | Local Authority | State or Federal Prohibitions | Other Jurisdictional Authority | State Mandated | Comments |
|---|---|---|---|---|---|
| **Planning Documents** | | | | | |
| General or Comprehensive Plan | Y | N | N | Y | The Snohomish County Comprehensive Plan was adopted in 06/1995. It is amended annually through the docketing process. The ten year update was adopted in 12/2005. The last amendment was 11/2009. The next update will be in 2015. |
| Floodplain or Basin Plan | Y | N | N | N | Snohomish River Comprehensive Flood Control Management Plan (1991), Stillaguamish River Comprehensive Flood Hazard Management Plan (2004), Sauk River Comprehensive Flood/ Erosion Control Management Plan (2009/2010). |
| Stormwater Plan | Y | N | N | Y | Drainage Needs Report, 2002, guides capital construction for drainage within southwest county urban areas. |
| Capital Improvement Plan | Y | N | N | N | The Capital Improvement Plan is a part of the Capital Facilities Plan, an element of the Snohomish County Comprehensive Plan. |
| Economic Development Plan | Y | N | N | N | The General Policy Plan, an element of the Comprehensive Plan, includes a chapter on Economic Development. |
| Shoreline Management Plan | Y | N | N | Y | Shoreline Management Plan is both policy and regulatory. SCC 30.44, adopted 02/03; latest amendment 06/1993; Update to be completed in 2010. |
| Emergency Response and Recovery Plan (Comprehensive Emergency Management Plan) | Y | N | N | Y | The Comprehensive Emergency Management Plan was adopted 08/2009. |

**TABLE 2-4.**
**ADMINISTRATIVE AND TECHNICAL CAPABILITY**

| Staff/Personnel Resources | Available? | Department/Agency/Position |
|---|---|---|
| Planners or engineers with knowledge of land development and land management practices | Y | Planning and Development Services (PDS) |
| Engineers or professionals trained in building or infrastructure construction practices | Y | PDS-Development Review and Construction, Inspection Services; Public Works (PW) - Infrastructure |
| Planners or engineers with an understanding of natural hazards | Y | PDS, PW, Department of Emergency Management (DEM), Parks & Recreation (P&R) |
| Staff with training in benefit/cost analysis | Y | PW has staff trained in the use of FEMA B/C analysis |
| Floodplain manager | Y | PW-Surface Water Management (SWM) Division |
| Surveyors | Y | PW-Engineering Services Survey Group |
| Personnel skilled or trained in GIS applications | Y | The Snohomish County Assessor's office maintains a GIS division and numerous other departments (PW, PDS, etc.) have dedicated GIS analysts on staff. |
| Scientist familiar with natural hazards in local area | Y | PDS, PW, P&R |
| Emergency manager | Y | DEM |
| Grant writers | Y | Numerous full-time grant writers throughout the County. PDS and PW in particular have staff with mitigation-related grant writing experience. |

**TABLE 2-5.**
**FISCAL CAPABILITY**

| Financial Resources | Accessible or Eligible to Use? |
|---|---|
| Community Development Block Grants | Y |
| Capital Improvements Project Funding | Y |
| Authority to Levy Taxes for Specific Purposes | Y |
| User Fees for Water, Sewer, Gas or Electric Service | Y |
| Incur Debt through General Obligation Bonds | Y |
| Incur Debt through Special Tax Bonds | Y |
| Incur Debt through Private Activity Bonds | Y |
| Withhold Public Expenditures in Hazard-Prone Areas | N |
| State Sponsored Grant Programs | Y |
| Development Impact Fees for Homebuyers or Developers | Y |
| Other – Real Estate Excise Tax (REET), Habitat-related grants, Conservation Futures | Y |

**TABLE 2-6.**
**COMMUNITY CLASSIFICATIONS**

| | Participating? | Classification | Date Classified |
|---|---|---|---|
| Community Rating System | Yes | 5[a] | 5/1/2006 |
| Building Code Effectiveness Grading Schedule | Yes | 3/3 | 5/1/2010 |
| Public Protection (Paine Field) | Yes | 6 | 5/1/2010 |
| Storm Ready | Yes | N/A | 2007 |
| Firewise[b] | No | N/A | N/A |
| Tsunami Ready | No | N/A | N/A |

a. Snohomish County anticipates receiving Class 4 rating as of 10/1/2010.
b. Snohomish County has taken measures to join the Firewise Program, the designation is expected in Fall, 2010.

**TABLE 2-7.**
**HAZARD MITIGATION ACTION PLAN MATRIX**

| Applies to New Assets, Existing Assets, or Both | Hazards Mitigated | Objectives Met | Lead Agency | Estimated Cost | Sources of Funding | Timeline | Included in Previous Plan? |
|---|---|---|---|---|---|---|---|
| **SC-1—**Implement recommendations identified in the Snohomish, Stillaguamish, and Sauk River plans, and other adopted comprehensive flood hazard management plans | | | | | | | |
| New and Existing | Flood | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14 | PW-SWM | Up to $1,000,000 per project | Grants, River Improvement Fund, Road Fund, REET | Short-term | Yes |
| **SC-2—**Conduct a seismic retrofit of the Snohomish County Courthouse complex (four buildings) | | | | | | | |
| Existing | Earthquake | 1, 2, 5, 14 | Facilities Management | $26,200,000 | FEMA Hazard Mitigation Grants, General Fund | Long-term | Yes |
| **SC-3—**Collect improved data (hydrologic, geologic, topographic, etc.) to assess risks and vulnerabilities. | | | | | | | |
| New and Existing | All Hazards | 1, 2, 4, 9 | PW-SWM | $150,000 | Grants, General Fund | Short-term | No |
| **SC-4—**Implement structural and non-structural mitigation measures to reduce risk to vulnerable buildings and critical facilities at Paine Field Airport. | | | | | | | |
| Existing | All Hazards | 1, 5, 14 | Airport | High | Airport Funds, FEMA Hazard Mitigation Grants | Long-term | Yes |

**TABLE 2-7 (continued).**
**HAZARD MITIGATION ACTION PLAN MATRIX**

| Applies to New Assets, Existing Assets, or Both | Hazards Mitigated | Objectives Met | Lead Agency | Estimated Cost | Sources of Funding | Timeline | Included in Previous Plan? |
|---|---|---|---|---|---|---|---|
| **SC-5—**Consider adoption of appropriate regulatory standards, through updates as needed and/or required, affecting critical areas regulations, flood hazard regulations, shoreline regulations, and to the county's growth management comprehensive plan | | | | | | | |
| New | Flood | 3, 4, 11 | PDS | $30,000 | General Fund | Short-term | Yes |
| **SC-6—**Continue participation and improve class rating in Community Rating System (CRS) | | | | | | | |
| New and Existing | Flood | 3, 5, 6, 7, 8, 9, 10, 11, 13, 14 | PW-SWM | $10,000 | General Fund | Short-term | No |
| **SC-7—**Enhance the County's tsunami warning capability by joining NOAA's "Tsunami Ready" program | | | | | | | |
| New and Existing | Tsunami | 2, 5, 8, 10 | DEM | $20,000 | Grants, General Fund | Short-term | Yes |
| **SC-8—**Inform and educate the public on hazard mitigation and preparedness via a County-operated website | | | | | | | |
| Existing | All Hazards | 1, 2, 4, 9, 10 | DEM | $5,000 | Grants, General Fund | Short-term | Yes |
| **SC-9—**Acquire, relocate, or retrofit repetitive flood loss properties and those at risk to channel migration | | | | | | | |
| Existing | Flood | 4, 14 | PW-SWM | $600,000/year | FEMA Hazard Mitigation Grants, River Improvement Fund, REET | Short-term | Yes |
| **SC-10—**Annually disseminate a floodplain informational brochure to all floodplain area households | | | | | | | |
| New and Existing | Flood | 4, 9, 10 | PW-SWM | $8000/year | General Fund, River Improvement Fund | Short-term | Yes |
| **SC-11—**Integrate goals, objectives and initiatives of the Snohomish County Natural Hazards Mitigation Plan into existing County regulations and programs where appropriate | | | | | | | |
| Existing | All Hazards | 1, 2, 3, 4, 7, 13 | All County regulatory agencies | Unknown | General Fund | Short-term | Yes |
| **SC-12—**Relocate County-owned critical facilities out of identified high hazard risk zones | | | | | | | |
| Existing | All Hazards | 1, 2, 11, 14 | Facilities Management | Unknown | FEMA Hazard Mitigation Grants, Bond | Long-term | Yes |
| **SC-13—**Enhance the Flood Warning System on major rivers within Snohomish County including strengthening the computer interface, and upgrading and increasing the number of weather stations | | | | | | | |
| Existing | Flood, Tsunami | 1, 2, 5, 8 | PW-SWM | $100,000 | River Improvement Fund, CIP, Grants | Long-term | Yes |

**TABLE 2-7 (continued).**
**HAZARD MITIGATION ACTION PLAN MATRIX**

| Applies to New Assets, Existing Assets, or Both | Hazards Mitigated | Objectives Met | Lead Agency | Estimated Cost | Sources of Funding | Timeline | Included in Previous Plan? |
|---|---|---|---|---|---|---|---|
| **SC-14—**Upgrade the North Creek stream gage and flood warning capability | | | | | | | |
| New and Existing | Flood | 1, 2, 5, 8 | PW-SWM | $2,500 | General Fund | Long-term | No |
| **SC-15—**Retrofit, Rehabilitate or Replace Vulnerable Road and Bridge Facilities and Infrastructure Throughout Snohomish County | | | | | | | |
| Existing | All Hazards | 1, 2, 4, 14 | PW-Roads | $21,300,000 | FEMA Hazard Mitigation Grants, Roads Fund, CIP | Long-term | Yes |
| **SC-16—**Update County Hazard Identification and Vulnerability Analysis Utilizing Enhanced Technologies | | | | | | | |
| Existing | All Natural Hazards | 1, 9, 10 | DEM | $100,000 | Grants, EMPG, General Fund | Short-term | Yes |
| **SC-17—**Develop Departmental Continuity of Operations Plans (COOP) | | | | | | | |
| New and Existing | All Natural Hazards | 1, 5 | DEM | $250,000 | Grants, EMPG, General Fund | Short-term | Yes |
| **SC-18—**Seek land acquisition opportunities for open space use and preservation in areas of high vulnerability due to multiple risk exposure | | | | | | | |
| Existing | All Hazards | 7, 13 | P&R | Varied; up to $500,000 per project | FEMA Hazard Mitigation Grants, River Improvement Plan, REET, CIP, Grants | Short-term | Yes |
| **SC-19—**Reduce repetitive loss to structures and infrastructure by sustaining the Master Drainage Program's goals of identifying and improving inadequate drainage systems | | | | | | | |
| Existing | Flood, Severe Weather, Landslide, Earthquake | 1, 2, 4, 6, 14 | PW-SWM | $14,000,000 | FEMA Hazard Mitigation Grants, General Fund, Stormwater impact fees | Short-term | No |
| **SC-20—**Lower the risk of isolating populations and reduce repetitive loss to roads by sustaining the Failing Infrastructure Program's objectives of identifying and replacing failing drainage piping | | | | | | | |
| Existing | Flood, Severe Weather | 1, 2, 4, 6, 14 | PW-SWM | $10,000,000 | Grants, General Fund, Stormwater impact fees | Short-term | No |
| **SC-21—**Design and construct drainage improvements in the Getchell Estates area east of Highway 9 to address repetitive damage from flooding on the adjacent roads and property. | | | | | | | |
| Existing | Flood, Severe Weather | 1, 2, 4, 6, 14 | PW-SWM | $650,000 | FEMA Hazard Mitigation Grants, General Fund, Stormwater impact fees | Short-term | No |

**TABLE 2-7 (continued).**
**HAZARD MITIGATION ACTION PLAN MATRIX**

| Applies to New Assets, Existing Assets, or Both | Hazards Mitigated | Objectives Met | Lead Agency | Estimated Cost | Sources of Funding | Timeline | Included in Previous Plan? |
|---|---|---|---|---|---|---|---|
| **SC-22—**Replace existing failed drainage system with adequately sized culvert at 21008 Woods Creek Road. | | | | | | | |
| Existing | Flood, Severe Weather | 1, 2, 4, 6, 14 | PW-SWM | $400,000 | Grants, General Fund, Stormwater impact fees | Short-term | No |
| **SC-23—**Replace existing failed drainage system with adequately sized culvert at 22510 Cherry Valley Road. | | | | | | | |
| Existing | Flood, Earthquake | 1, 2, 4 | PW-Roads | $200,000 | Grants, Road Fund, CIP | Long-term | No |
| **SC-24—**Replace/Retrofit vulnerable bridge at May Creek (#559) | | | | | | | |
| Existing | Flood, Earthquake | 1, 2, 4 | PW-Roads | $2,700,000 | Grants, Road Fund, CIP | Long-term | No |
| **SC-25—**Construct bridges to replace undersized culverts at Mann Rd (MP 1.53) and Mt. Loop (MP 13.620029 to reduce flood risk | | | | | | | |
| Existing | Flood, Severe Weather | 3, 11 | PW-Roads | $5,000,000 | Grants, Road Fund, CIP | Long-term | No |
| **SC-26—**Provide soil stabilization at Waldheim Slide (MP 20.6) and Marten Creek (MP 21) to reduce erosion risk | | | | | | | |
| Existing | Flood, Landslide | 1, 2, 4, 11 | PW-Roads | $3,300,000 | Grants, Road Fund, CIP | Long-term | No |
| **SC-27—**Through leadership and collaboration, support County-wide initiatives identified in Chapter 21 of Volume 1. | | | | | | | |
| New and Existing | All | All | All County Departments | Low | General Fund | Short term, ongoing | No |
| **SC-28—**Continue to maintain compliance and good standing under the National Flood Insurance Program (NFIP). | | | | | | | |
| New and existing | Flood | 1, 2, 9, 10, 11 | PW-SWM | Low | General Fund | Short term, ongoing | No |
| **SC-29—**Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority when applicable. | | | | | | | |
| Existing | All Hazards | 6, 7, 11, 14 | All County Departments | High | FEMA Hazard Mitigation Grant funding with local match provided by property owner contribution | Long term depends on funding | No |

**TABLE 2-7 (continued).**
**HAZARD MITIGATION ACTION PLAN MATRIX**

| Applies to New Assets, Existing Assets, or Both | Hazards Mitigated | Objectives Met | Lead Agency | Estimated Cost | Sources of Funding | Timeline | Included in Previous Plan? |
|---|---|---|---|---|---|---|---|
| **SC-30—**Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Chapter 7 of Volume 1. | | | | | | | |
| New and Existing | All Hazards | All | All County Departments | Low | General Fund, FEMA Mitigation Grant Funding for 5-year update | Short term, ongoing | No |
| **SC-31—**Integrate, where appropriate, risk assessment information from the Snohomish County Hazard Mitigation Plan into other planning mechanisms available to the County such as; the Capital Improvements Program, the Comprehensive planning process, and Shoreline Master planning. | | | | | | | |
| New and Existing | All Hazards | All | All County Departments | Low | General Fund | Short term, ongoing | No |
| **SC-32—**Support eligible non-profits and private entities, including home owners' associations, by providing technical expertise to, and when necessary sponsorship of, their mitigation endeavors. | | | | | | | |
| New and Existing | All | 4, 6, 9, 10, 11, 14 | DEM | Low | General Fund, Grants | Short term | No |

**TABLE 2-8.**
**MITIGATION STRATEGY PRIORITY SCHEDULE**

| Initiative # | #of Objectives Met | Benefits | Costs | Do Benefits Equal or Exceed Costs? | Is Project Grant-Eligible? | Can Project Be Funded Under Existing Programs/ Budgets? | Priority[a] |
|---|---|---|---|---|---|---|---|
| SC-1 | 13 | High | High | Yes | Yes | Yes | High |
| SC-2 | 4 | High | High | Yes | Yes | No | Medium |
| SC-3 | 4 | Medium | Medium | Yes | Yes | Yes | High |
| SC-4 | 3 | Medium | Medium | Yes | Yes | No | Medium |
| SC-5 | 3 | Medium | Low | Yes | No | Yes | High |
| SC-6 | 10 | Medium | Low | Yes | No | Yes | High |
| SC-7 | 4 | Medium | Low | Yes | No | Yes | High |
| SC-8 | 5 | Low | Low | Yes | No | Yes | High |
| SC-9 | 2 | High | High | Yes | Yes | Yes | High |
| SC-10 | 3 | Low | Low | Yes | Yes | Yes | High |
| SC-11 | 6 | Medium | Medium | Yes | No | Yes | Medium |
| SC-12 | 4 | High | High | Yes | Yes | No | Low |
| SC-13 | 4 | High | High | Yes | Yes | No | Medium |
| SC-14 | 4 | Medium | Low | Yes | Yes | Yes | Medium |
| SC-15 | 4 | Medium | Medium | Yes | Yes | Yes | Medium |
| SC-16 | 3 | Medium | Medium | Yes | No | Yes | Medium |
| SC-17 | 2 | Low | Low | Yes | No | Yes | High |
| SC-18 | 2 | High | Medium | Yes | Yes | Yes | High |
| SC-19 | 5 | Medium | Medium | Yes | Yes | Yes | High |
| SC-20 | 5 | Medium | Medium | Yes | Yes | Yes | High |
| SC-21 | 5 | Medium | Medium | Yes | Yes | Yes | High |
| SC-22 | 5 | Medium | Medium | Yes | Yes | Yes | High |
| SC-23 | 3 | Medium | Medium | Yes | Yes | Yes | High |
| SC-24 | 3 | Medium | Medium | Yes | No | Yes | Medium |
| SC-25 | 2 | Medium | Medium | Yes | Yes | Yes | High |
| SC-26 | 4 | Medium | Medium | Yes | Yes | Yes | Medium |
| SC-27 | 14 | Medium | Low | Yes | No | Yes | High |
| SC-28 | 5 | Medium | Low | Yes | No | Yes | High |
| SC-29 | 4 | High | High | Yes | Yes | No | Medium |
| SC-30 | 14 | Medium | Low | Yes | Yes | Yes | High |
| SC-31 | 14 | High | Low | Yes | No | Yes | High |
| SC-32 | 6 | Medium | Low | Yes | Yes | Yes | High |

a. Explanation of priorities
- High Priority: Project meets multiple plan objectives, benefits exceed cost, funding is secured under existing programs, or is grant eligible, and project can be completed in 1 to 5 years (i.e., short term project) once funded.
- Medium Priority: Project meets at least 1 plan objective, benefits exceed costs, requires special funding authorization under existing programs, grant eligibility is questionable, and project can be completed in 1 to 5 years once funded.
- Low Priority: Project will mitigate the risk of a hazard, benefits exceed costs, funding has not been secured, project is not grant eligible, and time line for completion is long term (5 to 10 years).

**TABLE 2-9.**
**ANALYSIS OF MITIGATION INITIATIVES**

| Hazard Type | Initiative Addressing Hazard, by Mitigation Type | | | | | |
|---|---|---|---|---|---|---|
| | 1. Prevention | 2. Property Protection | 3. Public Education and Awareness | 4. Natural Resource Protection | 5. Emergency Services | 6. Structural Projects |
| Severe Weather | SC-11, SC-27, SC-30, SC-31 | SC-4, SC-12, SC-15, SC-18, SC-27, SC-29, SC-32 | SC-3, SC-8, SC-16, SC-17, SC-27, SC-30 | SC-20, SC-21, SC-27 | SC-17, SC-27 | SC-15, SC-19, SC-20, SC-21, SC-22, SC-23, SC-25, SC-27 |
| Flood | SC-1, SC-5, SC-6, SC-11, SC-27, SC-28, SC-30, SC-31 | SC-1, SC-4, SC-9, SC-12, SC-14, SC-15, SC-18, SC-24, SC-27, SC-28, SC-29, SC-32 | SC-1, SC-3, SC-6, SC-8, SC-10, SC-13, SC-16, SC-17, SC-27, SC-28, SC-30 | SC-1, SC-20, SC-21, SC-26, SC-27, SC-28 | SC-1, SC-13, SC-14, SC-17, SC-27, SC-28 | SC-1, SC-15, SC-19, SC-20, SC-21, SC-22, SC-23, SC-25, SC-26, SC-27, SC-28 |
| Earthquake | SC-11, SC-27, SC-30, SC-31 | SC-4, SC-12, SC-15, SC-18, SC-24, SC-27, SC-29, SC-32 | SC-3, SC-8, SC-16, SC-17, SC-27, SC-30 | SC-26, SC-27 | SC-2, SC-4, SC-17, SC-27 | SC-2, SC-15, SC-19, SC-26, SC-27 |
| Wildland Fire | SC-11, SC-27, SC-30, SC-31 | SC-4, SC-12, SC-15, SC-18, SC-27, SC-29, SC-32 | SC-3, SC-8, SC-16, SC-17, SC-27, SC-30 | SC-27 | SC-17, SC-27 | SC-15, SC-27 |
| Landslide | SC-11, SC-27, SC-30, SC-31 | SC-4, SC-12, SC-15, SC-18, SC-27, SC-29, SC-32 | SC-3, SC-8, SC-16, SC-17, SC-27, SC-30 | SC-27 | SC-17, SC-27 | SC-15, SC-19, SC-27 |
| Avalanche | SC-11, SC-27, SC-30, SC-31 | SC-4, SC-12, SC-15, SC-18, SC-27, SC-29 | SC-3, SC-8, SC-16, SC-17, SC-27, SC-30 | SC-27 | SC-17, SC-27 | SC-15, SC-27 |
| Volcano/ Lahar | SC-11, SC-27, SC-30, SC-31 | SC-4, SC-12, SC-15, SC-18, SC-27, SC-29, SC-32 | SC-3, SC-8, SC-16, SC-17, SC-27, SC-30 | SC-27 | SC-17, SC-27 | SC-15, SC-27 |
| Dam Failure | SC-11, SC-27, SC-30, SC-31 | SC-4, SC-12, SC-15, SC-18, SC-27, SC-29, SC-32 | SC-3, SC-8, SC-16, SC-17, SC-27, SC-30 | SC-27 | SC-17, SC-27 | SC-15, SC-27 |
| Tsunami | SC-11, SC-27, SC-30, SC-31 | SC-4, SC-12, SC-15, SC-18, SC-27, SC-29, SC-32 | SC-3, SC-7, SC-8, SC-13, SC-16, SC-17, SC-27, SC-30 | SC-27 | SC-13, SC-17, SC-27 | SC-15, SC-27 |

Notes:
1. Prevention: Government, administrative or regulatory actions that influence the way land and buildings are developed to reduce hazard losses. Includes planning and zoning, floodplain laws, capital improvement programs, open space preservation, and stormwater management regulations.
2. Property Protection: Modification of buildings or structures to protect them from a hazard or removal of structures from a hazard area. Includes acquisition, elevation, relocation, structural retrofit, storm shutters, and shatter-resistant glass.
3. Public Education and Awareness: Actions to inform citizens and elected officials about hazards and ways to mitigate them. Includes outreach projects, real estate disclosure, hazard information centers, and school-age and adult education.
4. Natural Resource Protection: Actions that minimize hazard loss and preserve or restore the functions of natural systems. Includes sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
5. Emergency Services: Actions that protect people and property during and immediately after a hazard event. Includes warning systems, emergency response services, and the protection of essential facilities.
6. Structural Projects: Actions that involve the construction of structures to reduce the impact of a hazard. Includes dams, setback levees, floodwalls, retaining walls, and safe rooms.

**TABLE 2-10.**
**PREVIOUS ACTION PLAN IMPLEMENTATION STATUS**

| Action # | Action Status: Completed | Action Status: Carry Over to Plan Update | Action Status: Removed; No Longer Feasible | Comments |
|---|---|---|---|---|
| SC-1 | | X | | In progress; carried over as SC-1 |
| SC-2 | | X | | In progress; carried over as SC-2 |
| SC-3 | X | | | Completed in 2006. |
| SC-4 | | X | | In progress; carried over within updated SC-4 |
| SC-5 | | X | | In progress; carried over as SC-5 |
| SC-6 | X | | | Completed May 1, 2006 |
| SC-7 | | X | | Partially completed StormReady in 2007; TsunamiReady initiative carried over as SC-7 |
| SC-8 | | X | | Ongoing effort; carried over as SC-8 |
| SC-9 | | X | | Ongoing effort; carried over as SC-9 |
| SC-10 | X | | | Completed in 2007; recurring efforts will be included as SC-10 |
| SC-11 | | X | | Ongoing effort; carried over as SC-11 |
| SC-12 | | X | | Ongoing effort; carried over as SC-12 |
| SC-13 | | X | | Ongoing effort; carried over as SC-13 |
| SC-14 | X | | | Completed August 2009 by DEM |
| SC-15 | | X | | Ongoing effort; carried over as SC-15 |
| SC-16 | | X | | Ongoing effort; carried over as SC-16 |
| SC-17 | | X | | Partially completed; carried over as SC-17 |
| SC-18 | | X | | Ongoing effort; carried over as SC-18 |
| SC-19 | | | X | Removed; No longer programmatically feasible. |
| SC-20 | | | X | Removed; No longer programmatically feasible. |
| SC-21 | | | X | Removed; No longer programmatically feasible. |
| SC-22 | | X | | Ongoing effort; carried over as SC-22 |
| CW-1 | | X | | Ongoing effort; carried over as CW-1 |
| CW-2 | | X | | Not started; carried over as CW-2 |
| CW-3 | | X | | Ongoing effort; carried over as CW-3 |
| CW-4 | | X | | Ongoing effort; carried over as CW-4 |
| CW-5 | | X | | Ongoing effort; carried over as CW-5 |
| CW-6 | | X | | Ongoing effort; carried over as CW-6 |
| CW-7 | | X | | Ongoing effort; carried over as CW-7 |

# CHAPTER 3.
# CITY OF ARLINGTON ANNEX

## 3.1 HAZARD MITIGATION PLAN POINT OF CONTACT

**Primary Point of Contact**

Christine Badger, Emergency Management Coordinator
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Arlington, WA 98223
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e-mail Address: cbadger@arlingtonwa.gov

**Alternate Point of Contact**

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## 3.2 JURISDICTION PROFILE

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

- **Date of Incorporation—**1903
- **Current Population—**17,150 as of April 1, 2009 (WA State Office of Financial Management)
- **Population Growth—**The City had experienced continued growth the past twenty years, increasing population by over 450 percent since 1980. Arlington's current population is about 17,150. While the economy has significantly reduced the speed at which Arlington was growing, it is still expected to double by 2025. People and businesses are drawn to the area by the availability of suitable property and accessibility to water and sewer services.
- **Location and Description—**The City of Arlington is located in northern Snohomish County approximately 10 miles north of Everett and 40 miles north of Seattle. The City limits cover an area of approximately 9.2 square miles, and is roughly bounded by the Stillaguamish River and its flood plain on the north-northwest; I-5 on the west; 164th Street NE to 67th Avenue then 172nd Street on the south; and by SR-9 and the South Fork Stillaguamish flood plain on the east. The City of Marysville lies to the south, the Stillaguamish Indian Reservation to the north and the Tulalip Indian Reservation to the southwest. Further east up the Stillaguamish Valley is the City of Darrington.
- **Climate—**On average, the warmest month is August, the highest recorded temperature was 98°F in 1955. January is the average coolest month; the lowest recorded temperature was 0°F in 1993. The maximum average precipitation occurs in November.
- **Development Trends—**The City and the immediate area is primarily suburban and rural residential with supporting retail and commercial enterprises. Light industrial and manufacturing business are located in the central portions of the City around the City-owned Arlington Airport. Unlike many small towns, Arlington is an employment center with approximately 2.2 jobs per household.

  The local industrial, commercial and retail activities provide a significant portion of the area's economic base, which is supplemented by "commuter payrolls" in nearby Everett. Therefore, the economy of Arlington is influenced by the industry in the surrounding area,

the most significant of which is Boeing's manufacturing facilities, the Navy's carrier home base and the "Technology Corridor."

Over the years, the greater Arlington area has realized an increase in commercial and industrial growth. The most significant growth has occurred at the City's municipal airport. In addition to the many aviation related assets, the airport also provides benefits to local businesses and industries and encourages additional economic development and expansion throughout the City and surrounding communities. The Airport is also in the process of developing an additional 124 acres of business parks.

Smokey Point, annexed to the City in 1999, is a business community located in southwest Arlington that is a rapidly growing commercial and retail area that serves the City and the City of Marysville. Island Crossing was annexed into the City in 2009 and includes a large portion along the Stillaguamish River, commercial farming and a few retail stores near the I-5 interchange.

- **Governing Body Format—**The City of Arlington is a Mayor-Council form of government, with seven elected council members and a part-time mayor govern Arlington and will assume responsibility for adoption of this plan. The City Administrator oversees day-to-day operation of City-sponsored services, which include; administrative services, development services (includes planning, engineering, utilities, and natural resources), finance, airport operations, police and fire.

  Washington State Law (Revised Code of Washington (RCW) Chapter 36.70) requires that counties that meet specified population criteria, and the cities within those counties, to prepare and adopt a comprehensive long-range plan to serve as a guide for community development. The plan must consist of an integrated and internally consistent set of goals, policies, and implementation measures. In addition, the plan must focus on issues of the greatest concern to the community and be written in a clear and concise manner. City actions, such as those relating to land use allocations, annexations, zoning, subdivision and design review, redevelopment, and capital improvements, must be consistent with such a plan. The City of Arlington is in compliance and good standing with the provisions of RCW 36.70 and adopted its most recent general plan in 2005 and updated the plan in 2009. The City will review and amend its Comprehensive Plan as necessary. Future growth and development will be managed as identified in this plan.

## 3.3 JURISDICTION-SPECIFIC NATURAL HAZARD EVENT HISTORY

Table 3-1 lists all past occurrences of natural hazards within the jurisdiction. Repetitive loss records are as follows:

- Number of FEMA Identified Repetitive Flood Loss Properties: None
- Number of Repetitive Flood Loss Properties that have been mitigated: None

## 3.4 HAZARD RISK RANKING

Table 3-2 presents the ranking of the hazards of concern.

## 3.5 CAPABILITY ASSESSMENT

The assessment of the jurisdiction's legal and regulatory capabilities is presented in Table 3-3. The assessment of the jurisdiction's administrative and technical capabilities is presented in Table 3-4. The assessment of the jurisdiction's fiscal capabilities is presented in Table 3-5. Classifications under various community mitigation programs are presented in Table 3-6.

## 3.6 HAZARD MITIGATION ACTION PLAN AND EVALUATION OF RECOMMENDED INITIATIVES

Table 3-7 lists the initiatives that make up the jurisdiction's hazard mitigation plan. Table 3-8 identifies the priority for each initiative. Table 3-9 summarizes the mitigation initiatives by hazard of concern and the six mitigation types.

## 3.7 STATUS OF PREVIOUS PLAN INITIATIVES

Table 3-10 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

## 3.8 HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps have been generated for the City of Arlington and are included at the end of this chapter. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes.

**TABLE 3-1.**
**NATURAL HAZARD EVENTS**

| Type of Event | FEMA Disaster #(if applicable) | Date | Preliminary Damage Assessment |
|---|---|---|---|
| Severe Storm/Flood | 1817-DR | 1/2009 | $96,323 |
| Severe Winter Storm | 1825-DR | 12/2008 | $239,256 |
| Severe Storm | 1671-DR | 11/2006 | $2700 |
| Windstorm | N/A | 1/2003 | $30,000 |
| Flood/Landslide | 1172-DR | 3/1997 | $160,247 |
| Flood | 896-DR | 12/1990 | $168,948 |

**TABLE 3-2.**
**HAZARD RISK RANKING**

| Rank | Hazard Type | Risk Rating Score (Probability x Impact) |
|---|---|---|
| 1 | Flood | 39 |
| 2 | Severe Storm | 39 |
| 3 | Earthquake | 36 |
| 4 | Landslide | 18 |
| 5 | Volcano/Lahar | 9 |
| 6 | Tsunami | 6 |
| 7 | Wildland Fire | 6 |
| 8 | Avalanche | 3 |
| 9 | Dam Failure | 0 |

**TABLE 3-3.**
**LEGAL AND REGULATORY CAPABILITY**

| | Local Authority | State or Federal Prohibitions | Other Jurisdictional Authority | State Mandated | Comments |
|---|---|---|---|---|---|
| **Codes, Ordinances & Requirements** | | | | | |
| Building Code | Y | N | N | Y | AMC Title 16; International Bldg code adopted 7/19/04 by Ord. #1343<br>Ord. #1427 adopted 2007 |
| Zonings | Y | N | N | Y | AMC Title 20: Land Use Code Adopted 9/15/03 |
| Subdivisions | Y | N | N | Y | AMC Title 20: Land Use Code Adopted 9/15/03 |
| Stormwater Management | Y | N | N | Y | Ord. 1266 adopted Storm water Utility 9/4/2001 , AMC chapter 13.28 |
| Post Disaster Recovery | Y | N | N | N | Emergency Response Plan adopted in 2001 – Resolution #624 Emergency Operations Plan in place but not formally adopted as of this date, Comprehensive Emergency Management Plan also in final adoption phase expected adoption 9/2010 |
| Real Estate Disclosure | N | N | N | N | No adopted regulations |
| Growth Management | Y | N | N | Y | Growth Management Act-compliant Comprehensive plan 1995-2015. Adopted Dec. 2005 and last amended 2009. |
| Site Plan Review | Y | N | N | N | Title 14.02 (updated Aug. 1998 by Ord. 1867) |
| Special Purpose (flood management, critical areas) | N | N | N | N | AMC Title 20 (adopted 9/15/03) Chapter 20.64 Flooding, drainage & erosion.<br>AMC Chapter 13.28<br>AMC Title 20; Chapter 20.88 Environmentally critical areas |
| **Planning Documents** | | | | | |
| General or Comprehensive Plan | Y | N | N | Y | Updated 4/20/2009, Ord. 1466,1467, 1468 |
| Floodplain or Basin Plan | N | N | N | N | City adopted the Stillaguamish River flood Comprehensive Plan Sept. 2004 |
| Stormwater Plan | N | N | N | N | See Stormwater Utility Ord. 1266 |
| Capital Improvement Plan | Y | N | N | N | The city has drafted a CIP but it is not currently adopted. There is also a public services and facilities element in the comprehensive plan. |

**TABLE 3-3 (continued).**
**LEGAL AND REGULATORY CAPABILITY**

| | Local Authority | State or Federal Prohibitions | Other Jurisdictional Authority | State Mandated | Comments |
|---|---|---|---|---|---|
| **Planning Documents (continued)** | | | | | |
| Habitat Conservation Plan | N | N | N | N | The City has critical area regulations that's purpose is to protect critical habitat as mandated by State GMA. |
| Economic Development Plan | Y | N | N | Y | An element of the Comp Plan |
| Emergency Response Plan | Y | N | N | N | ERP adopted in 2001 – Resolution #624 EOP in place but not formally adopted as of this date, CEMP also in final adoption phase expected adoption 9/2010 |
| Shoreline Management Plan | Y | N | N | Y | Definitions found in Chapter 20.92.010, Follows WA State Shoreline Mgmt Act of 71 and County Mgmt Master Program of 74 |
| Post Disaster Recovery Plan | N | N | N | N | ERP adopted in 2001 – Resolution #624 EOP in place but not formally adopted as of this date, CEMP also in final adoption phase expected adoption 9/2010 |
| **Other** | | | | | |
| Salmon Recovery Plan | Y | N | N | Y | Arlington is part of the Stillaguamish Watershed Salmon Conservation planning effort (WRIA 5) June 2004. |

**TABLE 3-4.**
**ADMINISTRATIVE AND TECHNICAL CAPABILITY**

| Staff/Personnel Resources | Available? | Department/Agency/Position |
|---|---|---|
| Planners or engineers with knowledge of land development and land management practices | Y | 1 Community Development Director<br>1 City Engineers<br>1 Public Works Director<br>1 Natural Resources manager |
| Engineers or professionals trained in building or infrastructure construction practices | Y | 1 Community Development Director<br>1 City Engineers<br>1 Public Works Director<br>1 Assistant City Administrator<br>1 Building Official<br>1 Code Enforcement<br>1 Deputy Fire Chief |
| **Planners** or engineers with an understanding of natural hazards | Y | 1 Community Development Director<br>1 City Engineers<br>1 Public Works Director<br>1 Assistant City Administrator<br>1 Building Official<br>1 Fire Chief, 1 Deputy Chief<br>1 Emergency Manager<br>1 Police Chief |
| Staff with training in benefit/cost analysis | Y | 1 Public Works Director |
| Floodplain manager | Y | 1 Community Development Director<br>1 Natural Resources Manager<br>1 City Engineer<br>1 Public Works Director |
| Surveyors | N | |
| Personnel skilled or trained in GIS applications | Y | 1 Public Works Director<br>3 GIS Analysts |
| Scientist familiar with natural hazards in local area | Y | 1 Natural Resources Manager |
| Emergency manager | Y | 1 Emergency Management Coordinator |
| Grant writers | Y | 1 Community Development Director<br>1 City Engineers<br>1 Public Works Director<br>1 Assistant City Administrator<br>1 Building Official<br>1 Fire Chief, 1 Deputy Chief<br>1 Emergency Manager |

**TABLE 3-5.**
**FISCAL CAPABILITY**

| Financial Resources | Accessible or Eligible to Use? |
|---|---|
| Community Development Block Grants | Yes – limited |
| Capital Improvements Project Funding | Yes – limited |
| Authority to Levy Taxes for Specific Purposes | Yes - limited |
| User Fees for Water, Sewer, Gas or Electric Service | Yes – W & S |
| Incur Debt through General Obligation Bonds | Yes |
| Incur Debt through Special Tax Bonds | Yes – limited |
| Incur Debt through Private Activity Bonds | Yes – not likely |
| Withhold Public Expenditures in Hazard-Prone Areas | No |
| State Sponsored Grant Programs | Yes |
| Development Impact Fees for Homebuyers or Developers | Y |

**TABLE 3-6.**
**COMMUNITY CLASSIFICATIONS**

| | Participating? | Classification | Date Classified |
|---|---|---|---|
| Community Rating System | No | N/A | N/A |
| Building Code Effectiveness Grading Schedule | Yes | 3/3 | 5/2010 |
| Public Protection | Yes | 5 | 5/2010 |
| Storm Ready | No | N/A | N/A |
| Firewise | No | N/A | N/A |
| Tsunami Ready | No | N/A | N/A |

**TABLE 3-7.**
**HAZARD MITIGATION ACTION PLAN MATRIX**

| Applies to new or existing assets | Hazards Mitigated | Objectives Met | Lead Agency | Estimated Cost | Sources of Funding | Timeline | Included in Previous Plan? |
|---|---|---|---|---|---|---|---|
| **A-1—**Seismic Retrofit of Fire Station 46 Apparatus Bay | | | | | | | |
| Existing | Earthquake | 1,2,5 | City | $650,000 | CIP Funding, FEMA Hazard Mitigation Grants, CDBG | Long term | Yes |
| **A-2—**Acquisition and relocation of Arlington food bank outside of flood zone | | | | | | | |
| Existing | Flood | 2,3,5,14 | City | $1.2 M | CIP Funding, FEMA Hazard Mitigation Grants, CDBG | Short term | No |
| **A-3—**Create interactive web site with mapping capabilities to assist residents when flooding and road conditions are treacherous, information site during disasters for Arlington residents | | | | | | | |
| New | All Hazards | 2,4,8,10 | City (IT/PW/GIS) | $15,000 | GIS grants, Public Warning grants, State Grants | Short term | No |
| **A-4—**Replace Glen Eagle Reservoir Roof, which is the City's main potable water reservoir | | | | | | | |
| New & Existing | Earthquake | 1,2,5,14 | City | $526,561 | CIP Funding, FEMA Hazard Mitigation Grants, CDBG | Short term | No |
| **A-5—**Develop and implement planning and land use development use and regulations, specifically for newly annexed Island Crossing area | | | | | | | |
| New | All Hazards | 3,4,7,9,11, 12,13 | Natural Resources | $120,000 | General Fund, State Grant | Short term | No |
| **A-6—**Mitigate risk to lift Station 11 which is in the flood zone by either relocating or placing armored barriers | | | | | | | |
| New | Flood | 2,6,11,14 | City | Medium | State Grant, Utility Grant, FEMA Hazard Mitigation Grants | Long term | No |
| **A-7—**Purchase Stand alone generator for Arlington Municipal Airport run way lights, improving the ability to respond to a disaster with continuity of operations for Washington Department of Transportation Aviation, Snohomish County Sheriff's Helicopter Staging | | | | | | | |
| New | All Hazards | 1,2,5,8 | City | $150,000 | General Fund, State Grant | Short term | No |

**TABLE 3-7 (continued).**
**HAZARD MITIGATION ACTION PLAN MATRIX**

| Applies to new or existing assets | Hazards Mitigated | Objectives Met | Lead Agency | Estimated Cost | Sources of Funding | Timeline | Included in Previous Plan? |
|---|---|---|---|---|---|---|---|
| **A-8—**Enlarge and Modify Jensen Business Park culverts between 71st - 74th streets to 204th for better water flow and reducing risk of flooding to a major commerce area | | | | | | | |
| New | Flood | 2,4,6,11 | City | $520,000 | State Grant, FEMA Hazard Mitigation Grants | Long term | Yes |
| **A-9—**Support County-wide initiatives identified in Chapter 21 of Volume 1 | | | | | | | |
| New and Existing | All Hazards | All | City | Low | General Fund | Short term, ongoing | No |
| **A-10—**Continue to maintain compliance and good standing under the National Flood Insurance Program (NFIP). | | | | | | | |
| New and existing | Flooding | 1,2,9,10,11 | City | Low | General Fund | Short term, ongoing | No |
| **A-11—**Consider participation in the Community Rating System (CRS) | | | | | | | |
| New | Flooding | 3, 5, 6, 7, 9, 10, 11, 13, 14 | City | Low | General Fund | Short term, ongoing | Yes |
| **A-12—**Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority when applicable. | | | | | | | |
| Existing | All Hazards | 6, 7, 11, 14 | City | High | FEMA Hazard Mitigation Grant funding with local match provided by property owner contribution | Long term depends on funding | No |

**TABLE 3-7 (continued).**
**HAZARD MITIGATION ACTION PLAN MATRIX**

| Applies to new or existing assets | Hazards Mitigated | Objectives Met | Lead Agency | Estimated Cost | Sources of Funding | Timeline | Included in Previous Plan? |
|---|---|---|---|---|---|---|---|
| **A-13—**Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Chapter 7 of Volume 1. | | | | | | | |
| New and Existing | All Hazards | All | City | Low | General Fund, FEMA Mitigation Grant Funding for 5-year update | Short term, ongoing | No |
| **A-14—**Integrate, where appropriate, risk assessment information from the Snohomish County Hazard Mitigation Plan into other planning mechanisms available to the City such as; the Capital Improvements Program, the Comprehensive planning process, and Shoreline Master planning. | | | | | | | |
| New and Existing | All Hazards | All | City | Low | General Fund | Short term, ongoing | No |
| **A-15**—Enhance gauges on the Stillaguamish River to improve flood hazard warning system. | | | | | | | |
| New and Existing | Flooding, Severe Weather | 1, 2, 5, 8 | City, County | Medium | General Fund, Possible USGS assistance | Long term | No |

**TABLE 3-8.**
**MITIGATION STRATEGY PRIORITY SCHEDULE**

| Initiative # | #of Objectives Met | Benefits | Costs | Do Benefits Equal or Exceed Costs? | Is Project Grant-Eligible? | Can Project Be Funded Under Existing Programs/ Budgets? | Priority[a] |
|---|---|---|---|---|---|---|---|
| A-1 | 3 | High | High | Yes | Yes | No | High |
| A-2 | 4 | Medium | High | No | Yes | No | Medium |
| A-3 | 4 | High | Low | Yes | Yes | No | High |
| A-4 | 4 | Medium | Medium | Yes | Yes | No | High |
| A-5 | 7 | Medium | Medium | Yes | Yes | No | High |
| A-6 | 4 | Medium | High | No | Yes | No | Medium |
| A-7 | 4 | High | Medium | Yes | Yes | No | High |
| A-8 | 4 | Medium | Medium | Yes | Yes | No | Medium |
| A-9 | 14 | Medium | Low | Yes | No | Yes | High |
| A-10 | 5 | Medium | Low | Yes | No | Yes | High |
| A-11 | 9 | Medium | Low | Yes | No | Yes | High |
| A-12 | 4 | High | High | Yes | Yes | No | Medium |
| A-13 | 14 | Medium | Low | Yes | Yes | Yes | High |
| A-14 | 14 | High | Low | Yes | No | Yes | High |
| A-15 | 4 | Medium | Medium | Yes | No | No | Medium |

a. Explanation of priorities
- High Priority: Project meets multiple plan objectives, benefits exceed cost, funding is secured under existing programs, or is grant eligible, and project can be completed in 1 to 5 years (i.e., short term project) once funded.
- Medium Priority: Project meets at least 1 plan objective, benefits exceed costs, requires special funding authorization under existing programs, grant eligibility is questionable, and project can be completed in 1 to 5 years once funded.
- Low Priority: Project will mitigate the risk of a hazard, benefits exceed costs, funding has not been secured, project is not grant eligible, and time line for completion is long term (5 to 10 years).

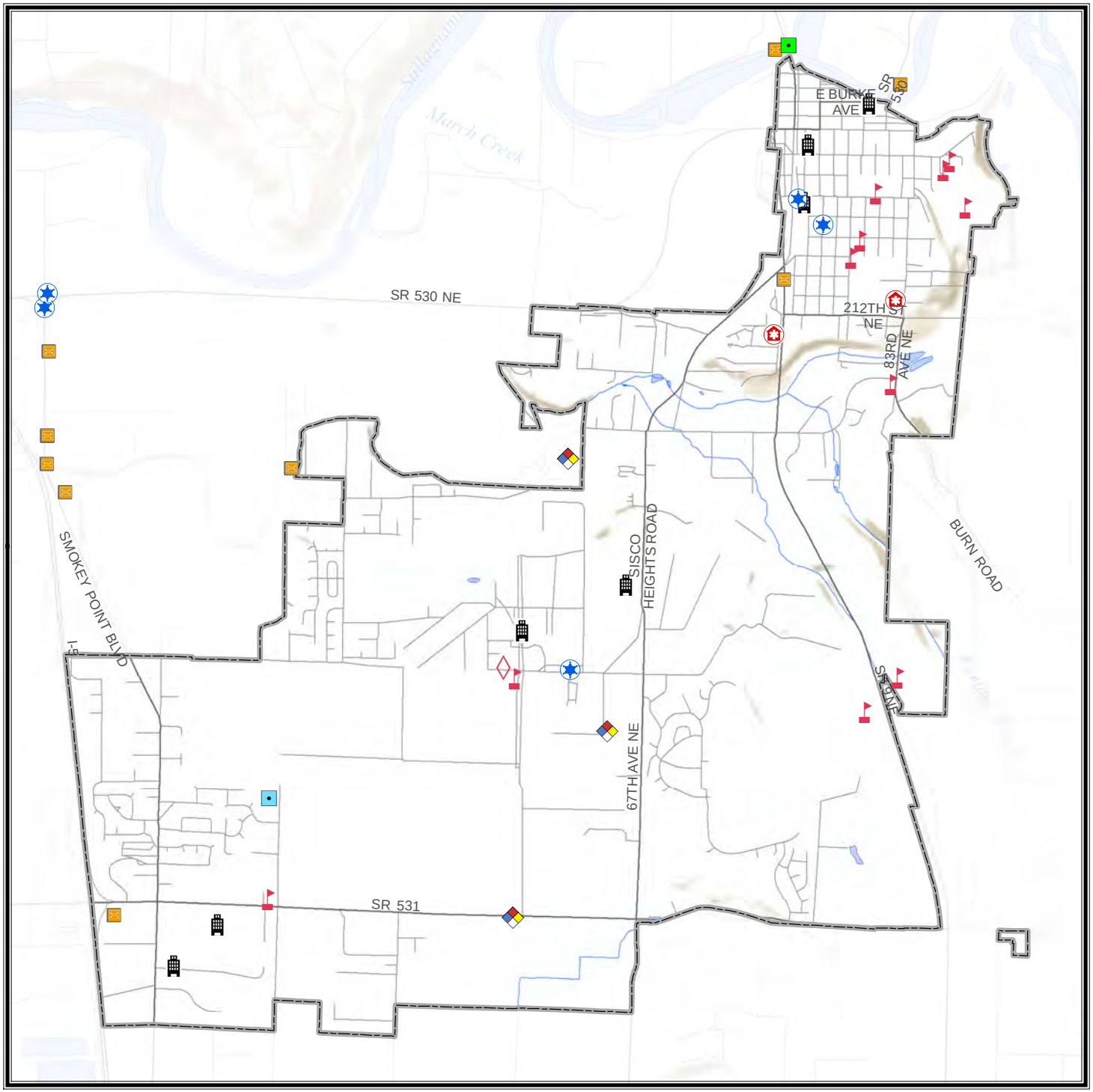
**TABLE 3-9.**
**ANALYSIS OF MITIGATION INITIATIVES**

| | Initiative Addressing Hazard, by Mitigation Type | | | | | |
|---|---|---|---|---|---|---|
| Hazard Type | 1. Prevention | 2. Property Protection | 3. Public Education and Awareness | 4. Natural Resource Protection | 5. Emergency Services | 6. Structural Projects |
| Avalanche | A-5, A-9, A-13, A-14 | A-9, A-12 | A-3, A-9, A-13 | A-9 | A-7, A-9 | A-9 |
| Dam Failure | | | | | | |
| Earthquake | A-5, A-9, A-13, A-14 | A-1, A-4, A-9, A-12 | A-3, A-9, A-13 | A-9 | A-7, A-9 | A-9 |
| Flood | A-5, A-9, A-10, A-11, A-13, A-14 | A-2, A-6, A-9, A-10, A-11, A-12 | A-3, A-9, A-10, A-11, A-13, A-15 | A-2, A-9, A-10, A-11 | A-7, A-9, A-10, A-11, A-15 | A-6, A-8, A-9, A-10, A-11 |
| Landslide | A-5, A-9, A-13, A-14 | A-9, A-12 | A-3, A-9, A-13 | A-9 | A-7, A-9 | A-9 |
| Severe Weather | A-5, A-9, A-13, A-14 | A-9, A-12 | A-3, A-9, A-13 | A-9 | A-7, A-9 | A-9 |
| Tsunami | A-5, A-9, A-13, A-14 | A-9, A-12 | A-3, A-9, A-13 | A-9 | A-7, A-9 | A-9 |
| Volcano/Lahar | A-5, A-9, A-13, A-14 | A-9, A-12 | A-3, A-9, A-13 | A-9 | A-7, A-9 | A-9 |
| Wildfire | A-5, A-9, A-13, A-14 | A-9, A-12 | A-3, A-9, A-13 | A-9 | A-7, A-9 | A-9 |

Notes:
1. Prevention: Government, administrative or regulatory actions that influence the way land and buildings are developed to reduce hazard losses. Includes planning and zoning, floodplain laws, capital improvement programs, open space preservation, and stormwater management regulations.
2. Property Protection: Modification of buildings or structures to protect them from a hazard or removal of structures from a hazard area. Includes acquisition, elevation, relocation, structural retrofit, storm shutters, and shatter-resistant glass.
3. Public Education and Awareness: Actions to inform citizens and elected officials about hazards and ways to mitigate them. Includes outreach projects, real estate disclosure, hazard information centers, and school-age and adult education.
4. Natural Resource Protection: Actions that minimize hazard loss and preserve or restore the functions of natural systems. Includes sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
5. Emergency Services: Actions that protect people and property during and immediately after a hazard event. Includes warning systems, emergency response services, and the protection of essential facilities.
6. Structural Projects: Actions that involve the construction of structures to reduce the impact of a hazard. Includes dams, setback levees, floodwalls, retaining walls, and safe rooms.

**TABLE 3-10.**
**PREVIOUS ACTION PLAN IMPLEMENTATION STATUS**

| Action # | Action Status: Completed | Action Status: Carry Over to Plan Update | Action Status: Removed; No Longer Feasible | Comments |
|---|---|---|---|---|
| 1 | | **X** | | No action completed on this initiative during initial performance period. Act has been carried over to updated action plan (A-1) |
| 2 | **X** | | | Stormwater plan currently under review for adoption. |
| 3 | | **X** | | No action completed on this initiative during initial performance period. Act has been carried over to updated action plan (A-8). Awaiting funding |
| 4 | | | **X** | Action removed as city will only be working on City of Arlington HIVA. |
| 5 | **X** | | | Action completed. City has purchased two portable generators for fire stations and one for communications system. Fitted new council chambers/police dept with large generator upon construction. |
| 6 | | | **X** | Action not feasible without homeowner interest in retrofits. |
| 7 | | | **X** | Action not feasible at this time. |
| 8 | | **X** | | No action completed on this initiative during initial performance period. Act has been carried over to updated action plan (A-11). Should the city decide to do this, it will be handled by the emergency management coordinator. |




# CITY OF ARLINGTON

## Map 3-1

## Critical Facilities

- Bridge
- Communication
- Dam
- Government
- Hazmat
- Medical
- Power
- Protective
- School
- Wastewater
- Water
- Other

**Snohomish County**

Tetra Tech, Inc.
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*Data Sources:*
*Snohomish County*
*Project Planning Partners*
*Washington State Department of Natural Resources, Division of Geology and Earth Resources*

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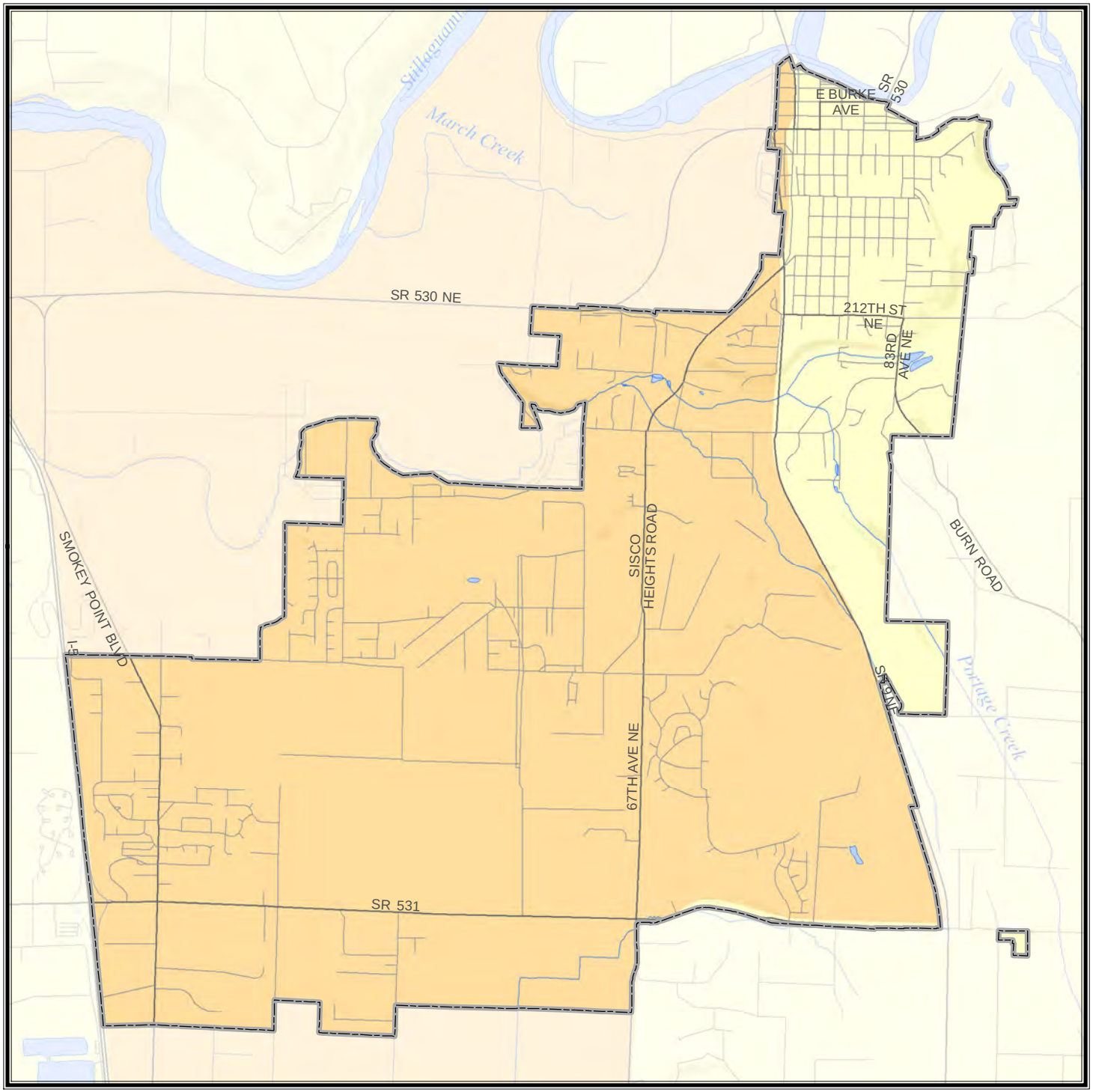


# CITY OF ARLINGTON

## Map 3-2

Earthquake
Peak Ground Acceleration
100-year Probabilistic
Scenario

Mercalli Scale, Potential Damage

- IV, None
- V, Very Light
- VI, Light
- VII, Moderate
- VIII, Moderate-Heavy
- IX, Heavy

**Snohomish County**

Tetra Tech, Inc.
May 2010

*Data Sources:*
*Snohomish County*
*HAZUS-MH MR4 Output,*
*US Geological Survey*
*Washington State Department of*
*Natural Resources, Division of Geology*
*and Earth Resources*

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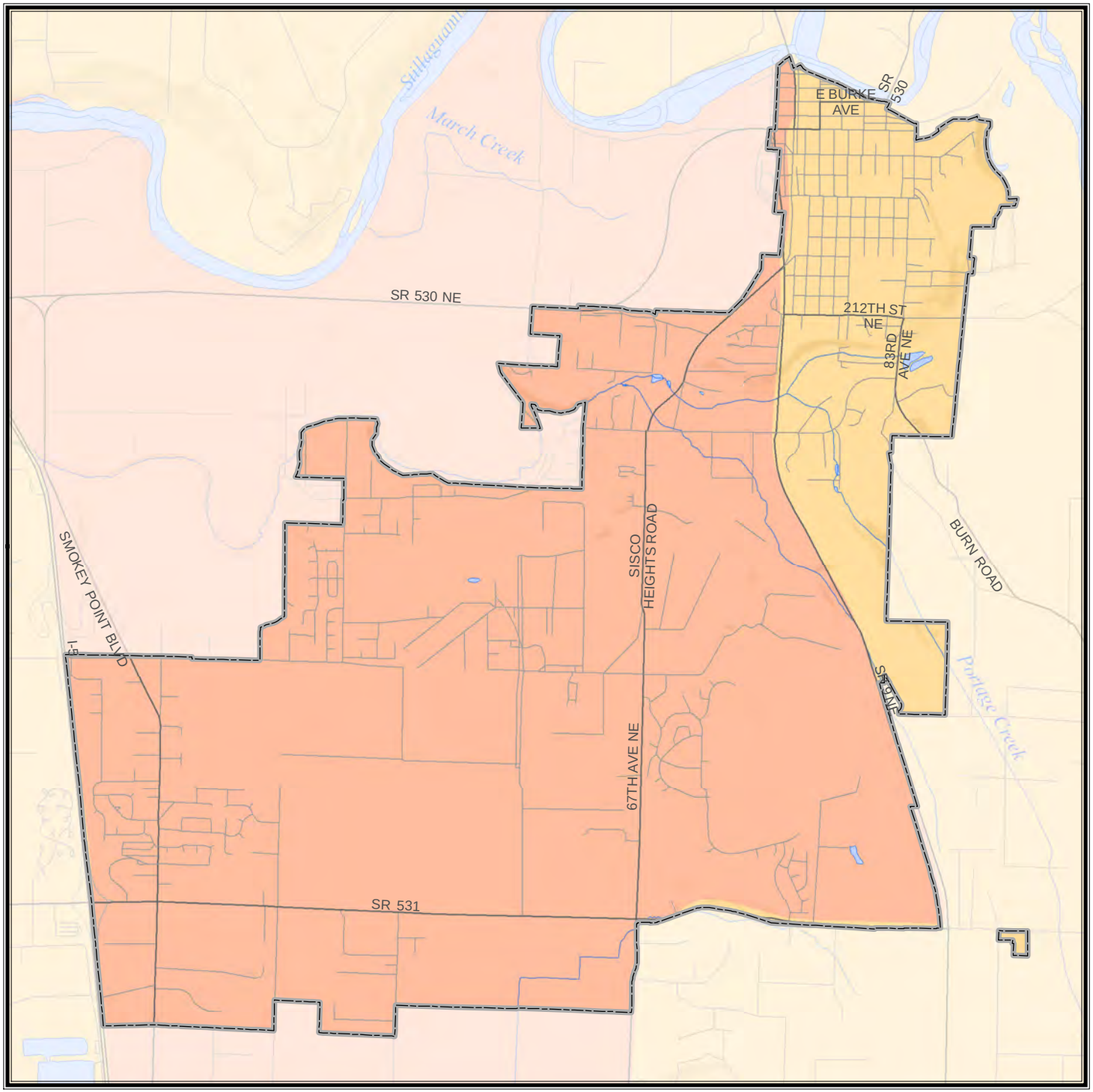


# CITY OF ARLINGTON

## Map 3-3

## Earthquake Peak Ground Acceleration 500-year Probabilistic Scenario

Mercalli Scale, Potential Damage

- IV, None
- V, Very Light
- VI, Light
- VII, Moderate
- VIII, Moderate-Heavy
- IX, Heavy

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May 2010

*Data Sources:*
*Snohomish County*
*HAZUS-MH MR4 Output,*
*US Geological Survey*
*Washington State Department of Natural Resources, Division of Geology and Earth Resources*

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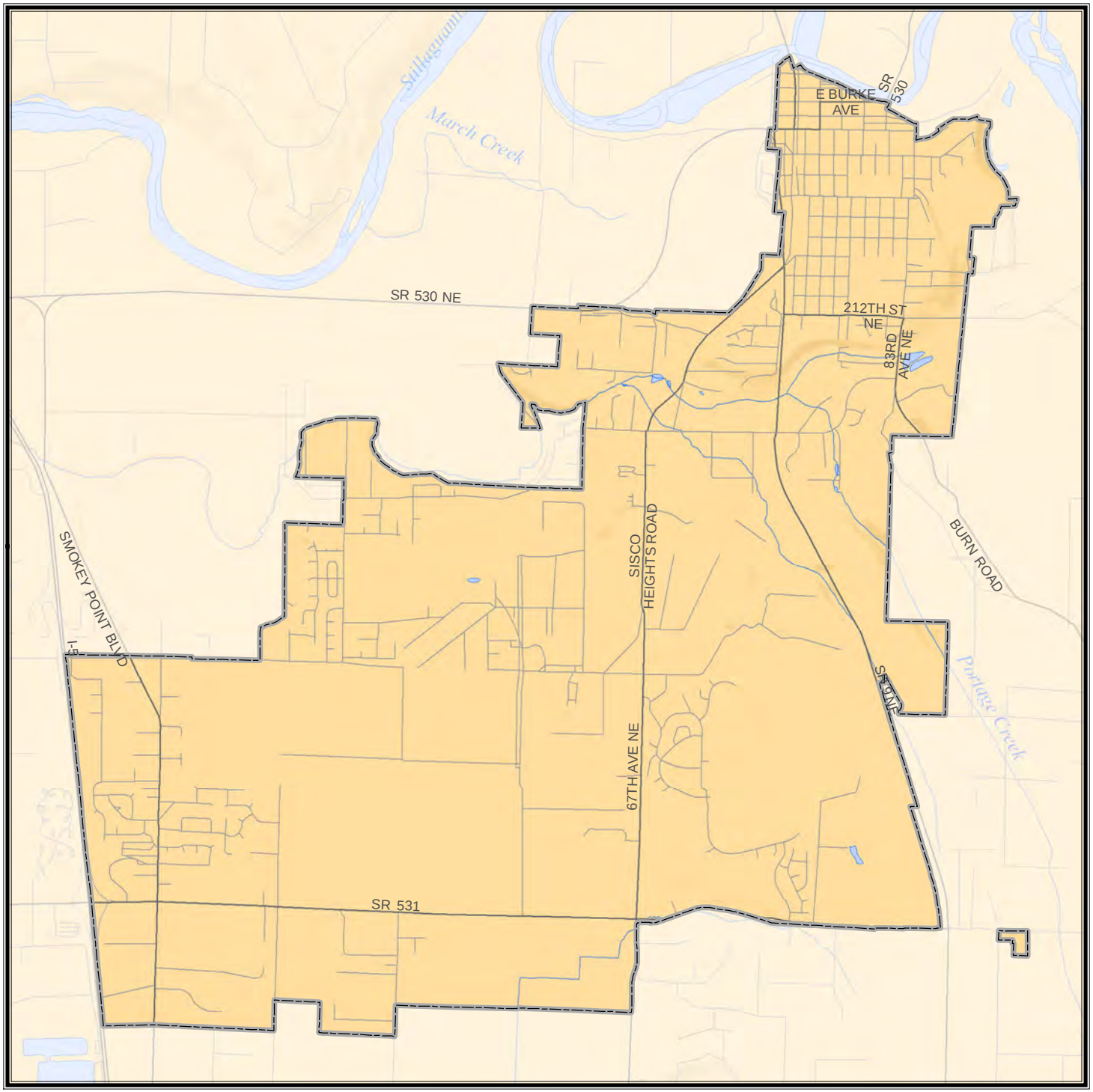


# CITY OF ARLINGTON

## Map 3-4

Devil's Mountain Fault
Peak Ground Acceleration
7.1-Magnitude Scenario
Shake Map

Mercalli Scale, Potential Damage

- IV, None
- V, Very Light
- VI, Light
- VII, Moderate
- VIII, Moderate-Heavy
- IX, Heavy

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*Data Sources:*
*Snohomish County*
*US Geological Survey*
*Washington State Department of Natural Resources, Division of Geology and Earth Resources*

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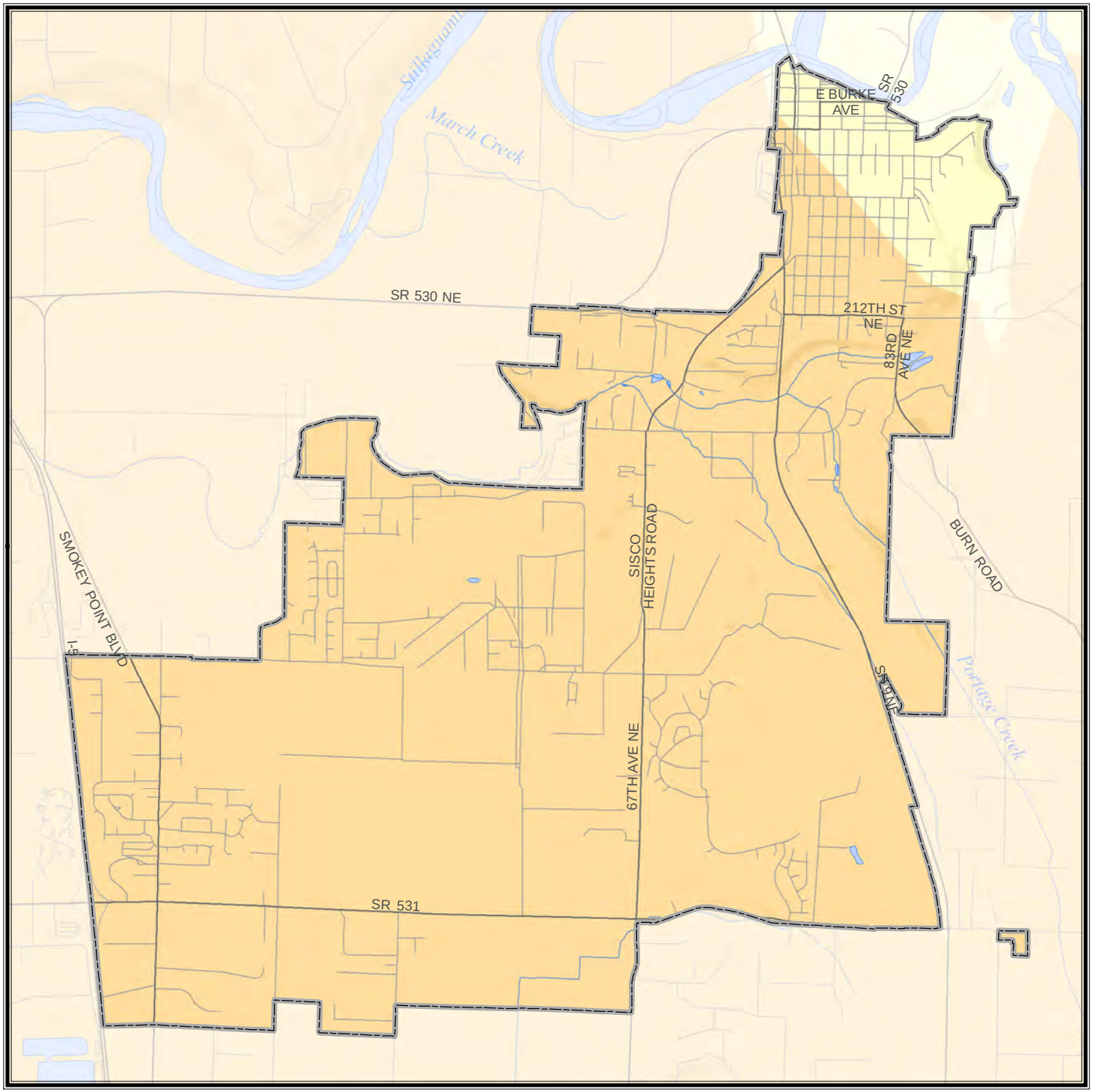


# CITY OF ARLINGTON

## Map 3-5

South Whidbey Fault
Peak Ground Acceleration
7.4-Magnitude Scenario
Shake Map

Mercalli Scale, Potential Damage

- IV, None
- V, Very Light
- VI, Light
- VII, Moderate
- VIII, Moderate-Heavy
- IX, Heavy

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*Data Sources:*
*Snohomish County*
*US Geological Survey*
*Washington State Department of Natural Resources, Division of Geology and Earth Resources*

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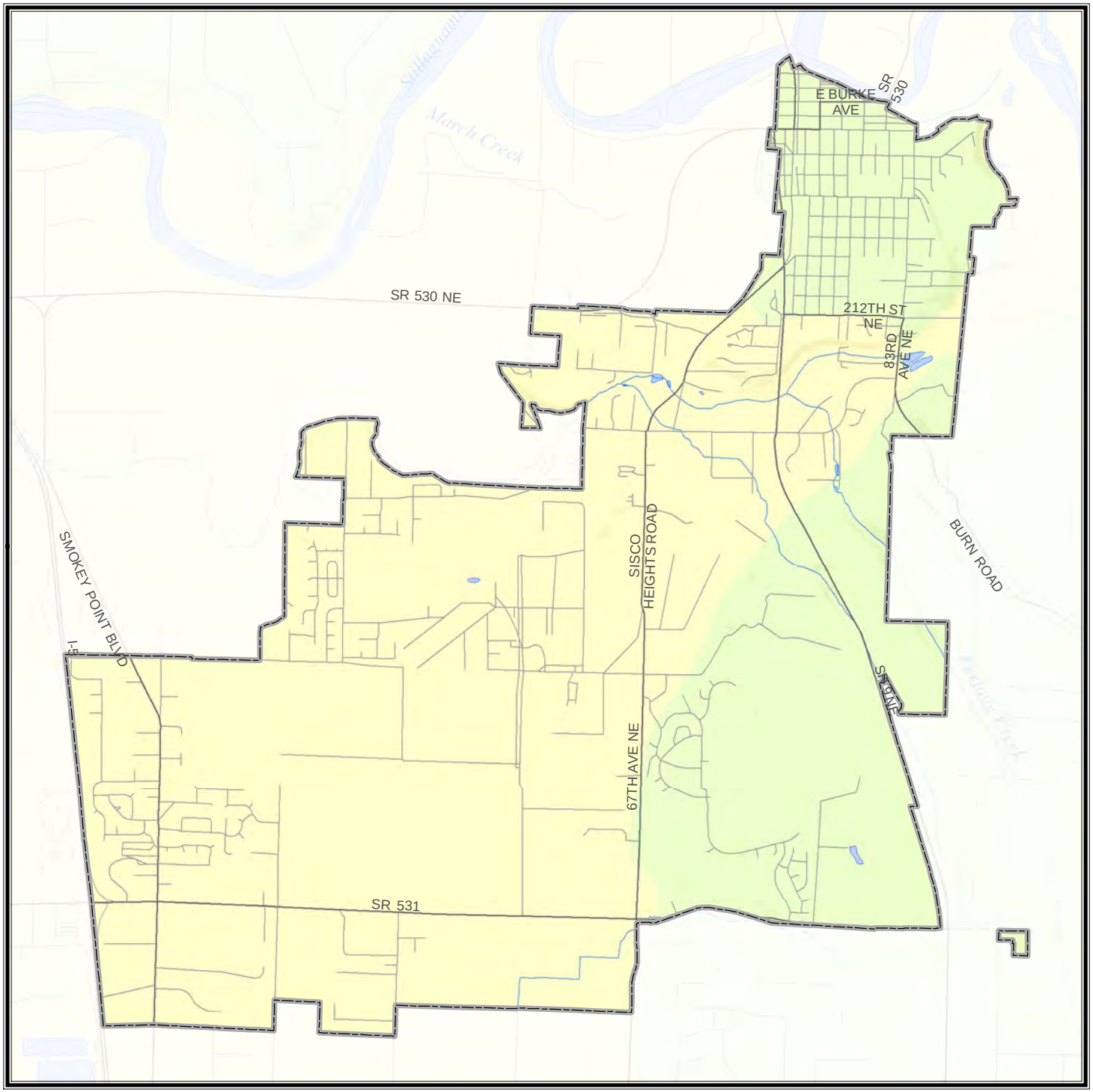


# CITY OF ARLINGTON

## Map 3-6

National Earthquake Hazard Reduction Program (NEHRP) Soil Site Classes

- Site Class F - Requires site-specific investigation
- Site Class E - Soft Soil
- Site Class D - Stiff Soil
- Site Class C - Very Dense Soil and Soft Rock
- Site Class B - Rock
- Water
- Ice

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*Data Sources:*
*Snohomish County*
*US Geological Survey*
*Washington State Department of Natural Resources, Division of Geology and Earth Resources*

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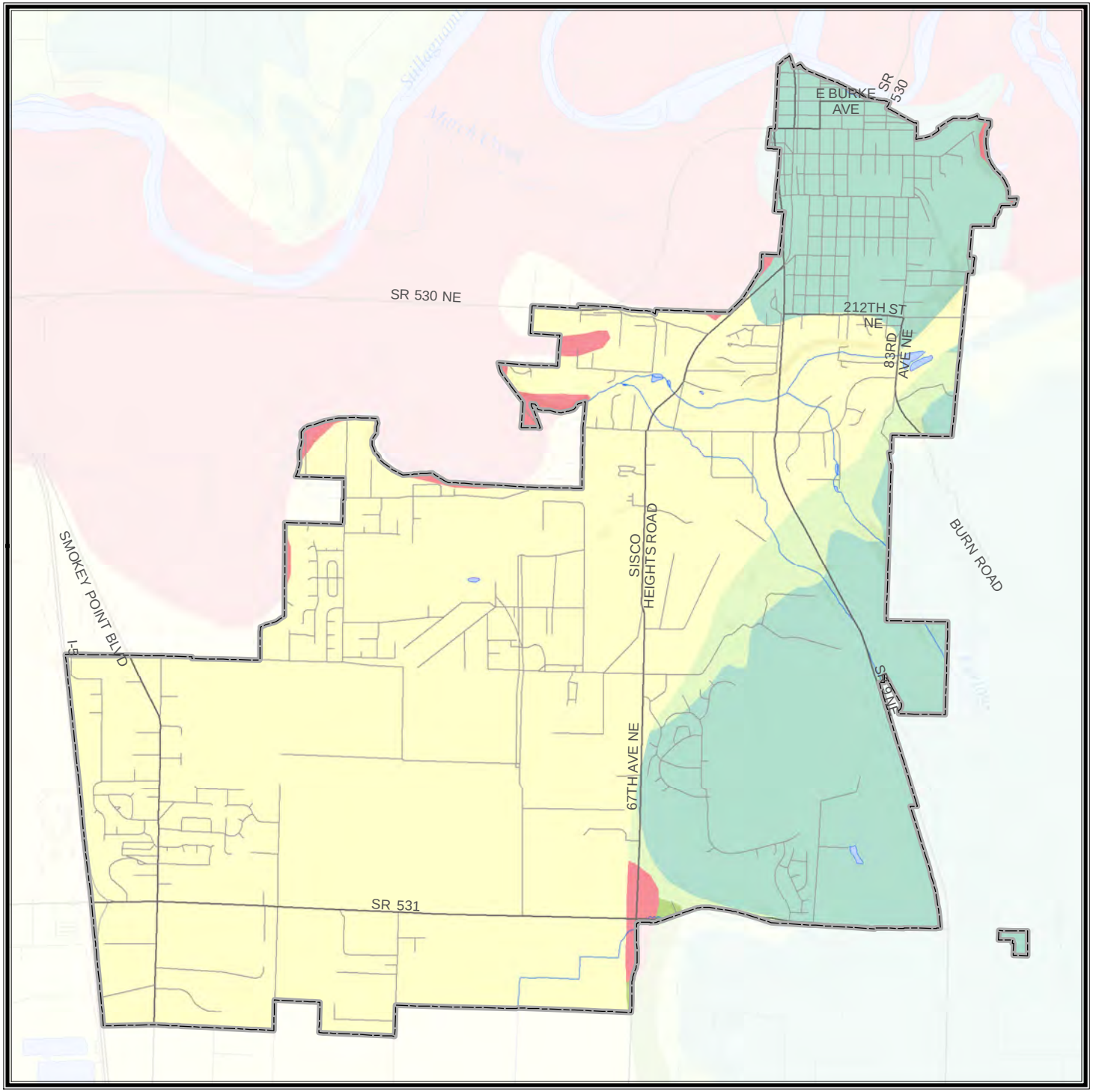


# CITY OF ARLINGTON

## Map 3-7

## Liquefaction Susceptibility

Liquefaction Susceptibility
- High
- Moderate to High
- Moderate
- Low to Moderate
- Low
- Very Low to Low
- Very Low

Not Susceptible to Liquefaction
- Bedrock
- Peat
- Water
- Ice

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*Data Sources:*
*Snohomish County*
*US Geological Survey*
*Washington State Department of Natural Resources, Division of Geology and Earth Resources*

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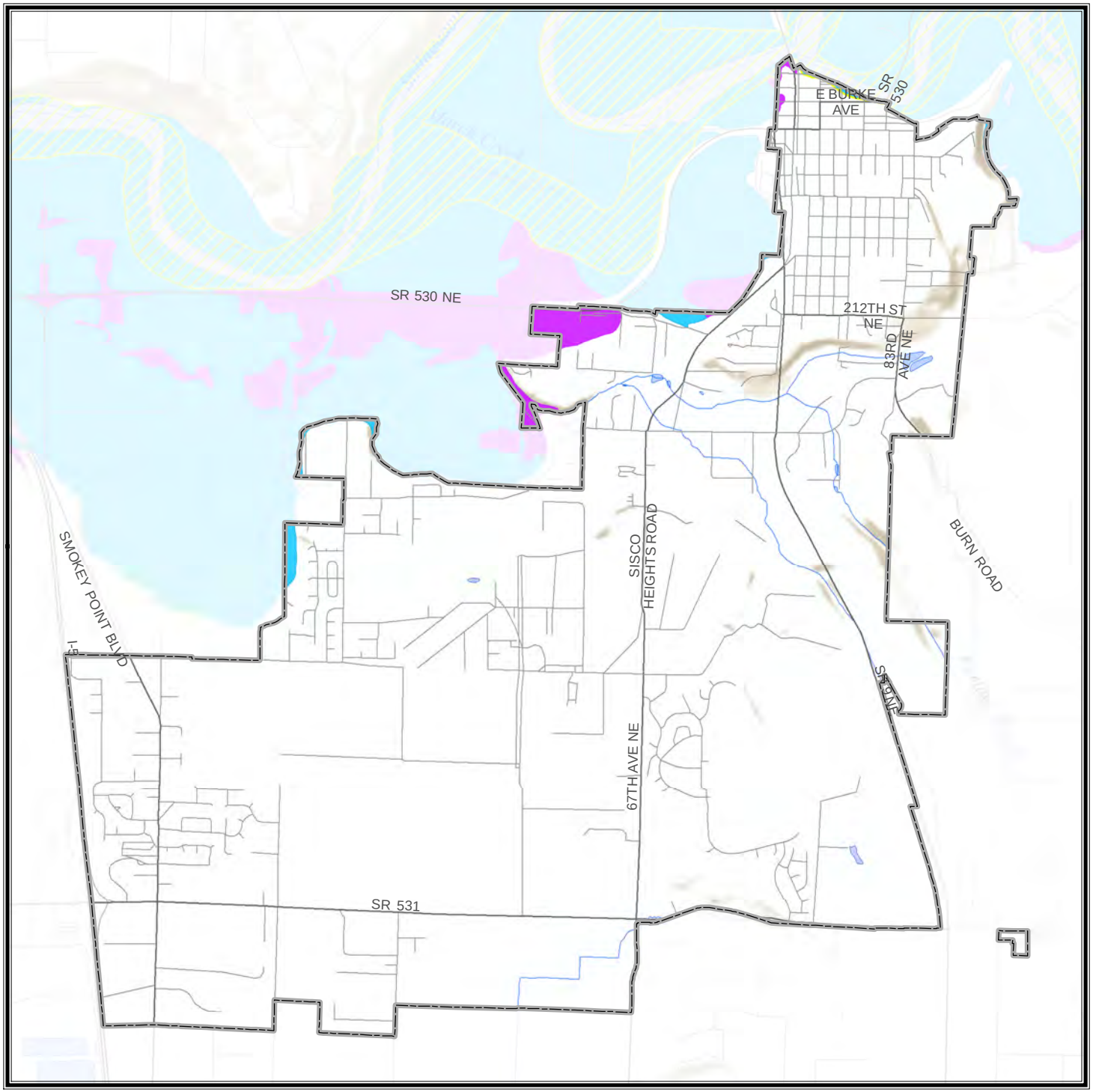


# CITY OF ARLINGTON

## Map 3-8

## Flood Hazard Areas

Special Flood Hazard Area (100 Year)

Special Flood Hazard Area (500 Year)

Special Flood Hazard Area (Floodway)

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*Data Sources:*
*Snohomish County*
*FEMA Digital Flood Insurance Rate Maps*
*Washington State Department of Natural Resources, Division of Geology and Earth Resources*

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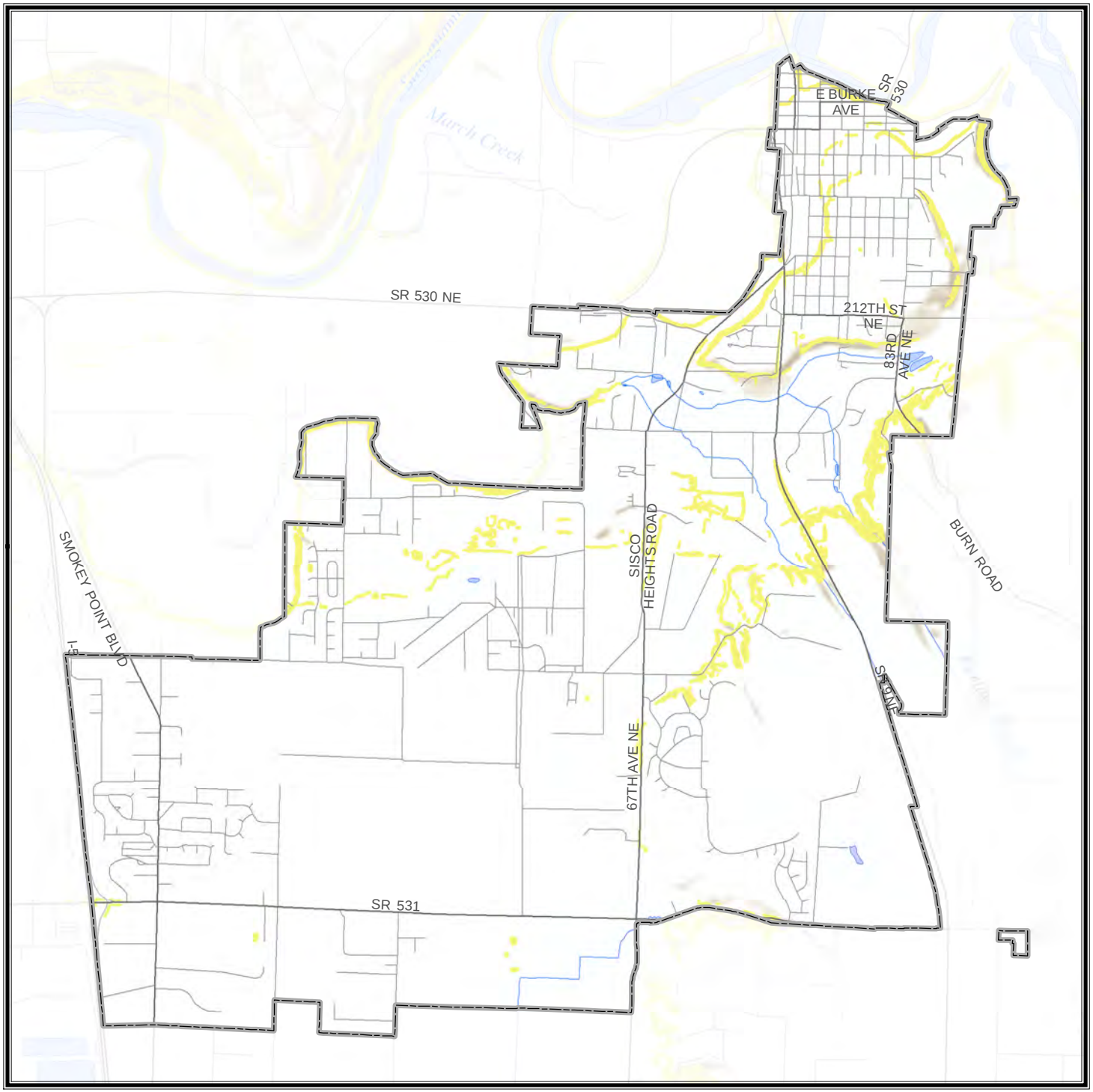


# CITY OF ARLINGTON

## Map 3-9

## Landslide Hazard Areas

Landslide Potential Areas

Slope Greater than 33% and elevation change greater than or equal to 10 feet, intersecting soft and stiff soils.

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*Data Sources:*
*Snohomish County*
*US Geological Survey*
*Washington State Department of Natural Resources, Division of Geology and Earth Resources*

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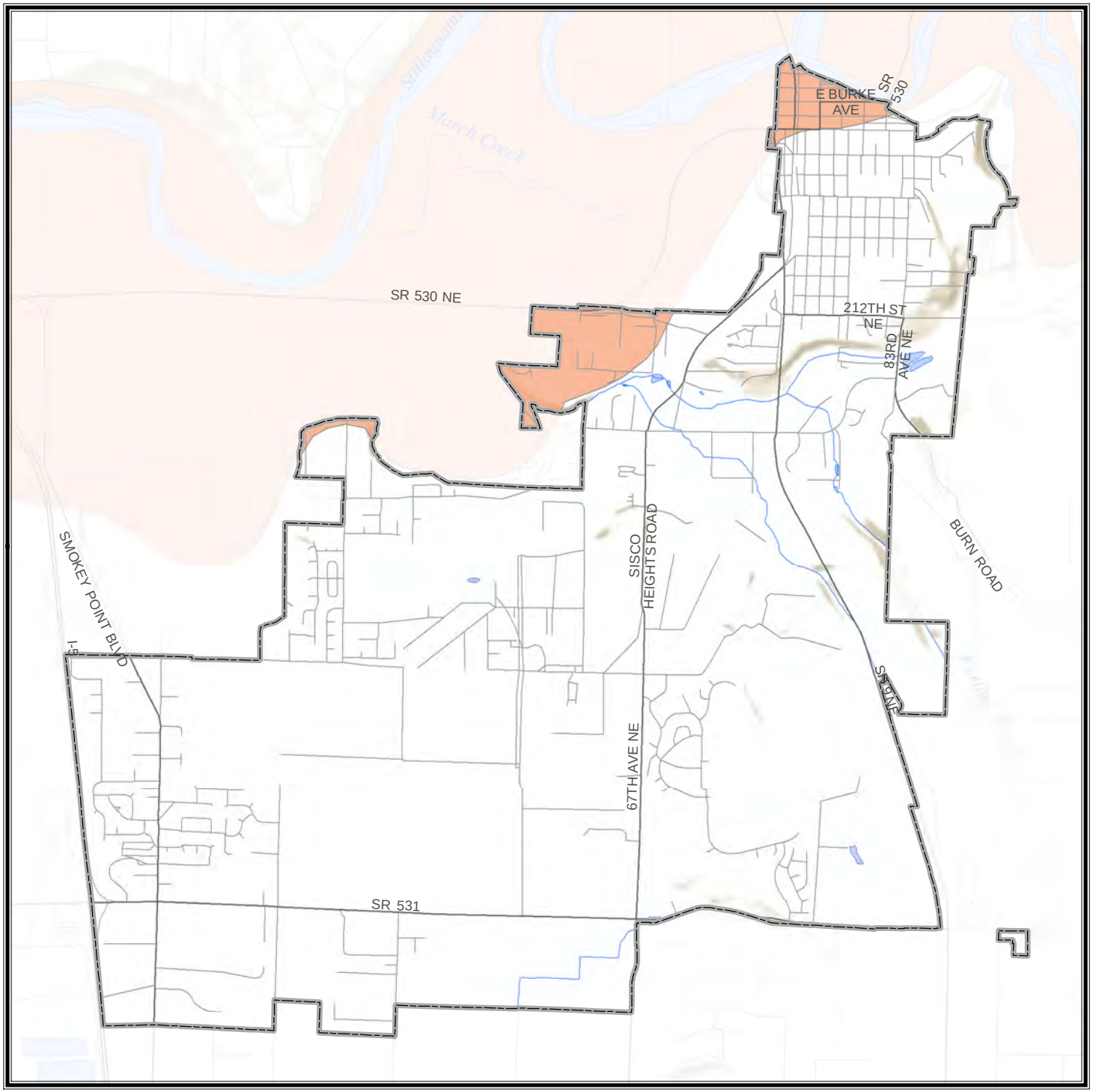


# CITY OF ARLINGTON

## Map 3-10

## Lahar Inundation Zone

Lahar Inundation Zone

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*Data Sources:*
*Snohomish County*
*US Geological Survey*
*Washington State Department of Natural Resources, Division of Geology and Earth Resources*

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