



Seward-Bear Creek Flood Service Area



The mission of the Flood Service Area is to provide flood **planning, protection, and mitigation services**, in coordination with the appropriate agencies, to reduce the risk of flood damage to private and public property, through addressing issues that best reflect a fair use of the tax-levy for watershed-wide benefit.

*Seward Hwy, Airport & City of Seward
Salmon Creek & Resurrection River 2012*

PLANNING

Multijurisdictional Hazard Mitigation Plan

Table 4-3 Hazard Identification Matrix

Hazard	Probability	Magnitude / Severity
Erosion	3 – Likely Event is probable within the next three years. History of events is greater than 20 percent but less than or equal to 33 percent likely per year.	2 – Limited Complete shutdown of critical facilities for more than one week. More than 10 percent of property is severely damaged.
Flood	4 – Highly Likely Event has up to 1 in 1-year chance of occurring (1/1 =100 percent). History of events is greater than 33 percent likely per year. <i>[Future climate change influenced weather patterns could potentially increase the 100-year flood recurrence probability to a more frequent 50-year event equivalent by the year 2050.]</i>	2 – Limited Complete shutdown of critical facilities for more than one week. More than 10 percent of property is severely damaged.
Ground Failure (Avalanche, Landslide/ Debris Flow)	3 – Likely Event has up to 1 in 3 years chance of occurring (1/3=33 percent). History of events is greater than 20 percent but less than or equal to 33 percent likely per year.	3 - Critical Injuries and/or illnesses result in permanent disability. Complete shutdown of critical facilities for at least two weeks.
Tsunami & Seiche Coastal Storm Surge	4 - Highly Likely As it is not possible to predict when a tsunami will occur, an event is forecast to be highly likely to occur, though the recurrence interval is unknown.	4 - Catastrophic Multiple injuries and/or deaths. Complete shutdown of facilities for 30 or more days. More than 50 percent of property is severely damaged.

PLANNING

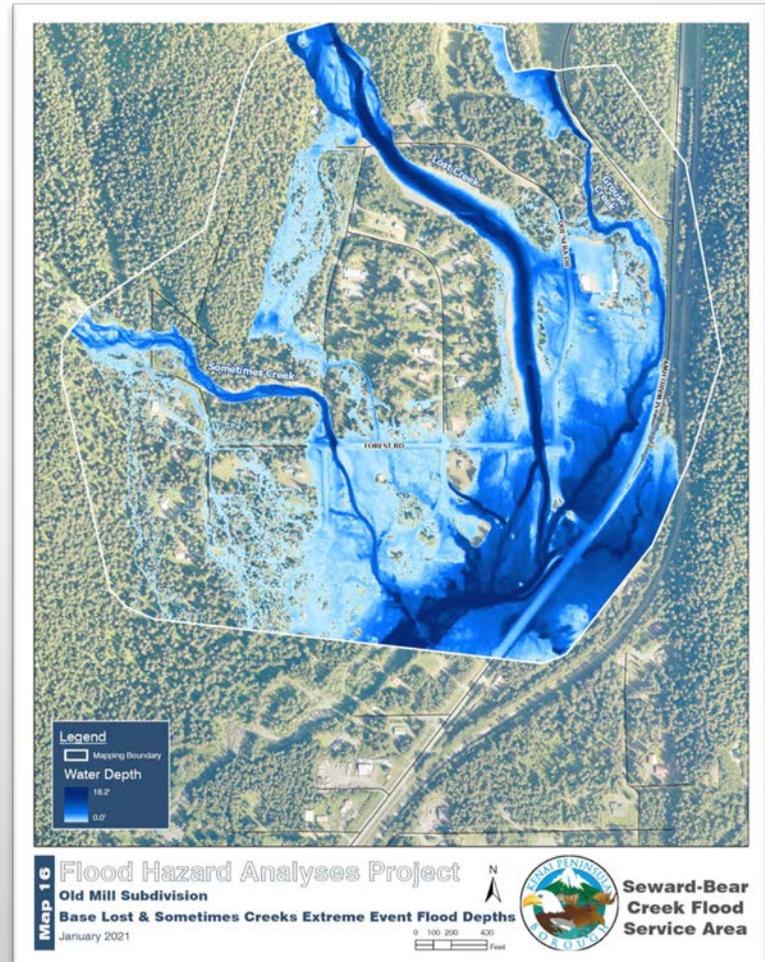
Annual Project Prioritization

Priority Rank	Project Description	Responsible Entity	Time frame	Potential Funding	Benefit-Cost Feasibility	Estimated Project Costs
1	<p>Japanese Creek Long-term Mitigation</p> <ul style="list-style-type: none"> • Contract Water Resource Engineer <ul style="list-style-type: none"> ○ Hazard Analysis, Sediment Change, Updated Maps ○ Dieckgraeff Road design plans ○ Alluvial fan drainage improvements ○ Sediment Management Catch Basin & Plan • Acquisition/ Easement of DNR Parcel 14424003 • Acquisition/ Easement of UA parcel(s) 14403078 - 14403079 • Seek funding for Construction - State Capital Project request 	KPB SBCFSA City	1 – 2 years	KPB/SBCFSA A/City Partnership Funding, Disaster Recovery	Technically feasible	Local Funds \$242,000
2	<p>Box Canyon Creek Project Planning (for Future Armoring of Water Diversion Structure)</p> <ul style="list-style-type: none"> • USACE Section 205 Federal Interest Determination • USDA Small Land Track Conveyance/ Easement • CIRI Easement/ Partnership Agreement 	KPB SBCFSA USDA CIRI	1 – 2 years	USACE Section 205, KPB & CIRI Co-sponsors or easement	BC undetermined (Costs higher than typical HMGP grant)	Minimal for Project Planning; Construction Undetermined
3	<p>Sediment Management & Maintenance Program</p> <ul style="list-style-type: none"> • Kwechak Creek – pilot project 2021 \$46,000, 10,000 cy • Sawmill Creek – pilot project 2020-21 \$89,000, 12,000 cy • Salmon Creek – pilot project Spring 2022 \$23,000, 8,500 cy • Lost Creek – benchmarks installed • Box Canyon Creek – ground control points installed • Japanese Creek – short-term mitigation until plan completed • Continued surveys – hydrologic/ meteorological data collection • Site planning: <ul style="list-style-type: none"> ○ Salmon Creek SC15 (new lidar collection 2022) ○ Salmon Creek KC4 revetment site ○ Japanese Creek ○ Lost Creek SC6 upstream Seward Hwy/ Railroad ○ Spruce Creek 	SBCFSA ADOT&PF KPB City AKRR Private Owners	1 year, ongoing	SBCFSA Contract Services, Partnership Funding	Technically & economically feasible	Surveys \$6-8,000 per site Maintenance \$25-90,000 per site

PROTECTION

Hazard Identification & Mapping Updates

- 2020-21 Seward Mapped Flood Data Area
 - Maps updated for three neighborhoods
 - Floodplain 21.06 code revisions
- 2022-23 LiDAR Acquisition & Processing
 - Partnership with FEMA & U.S. Geological Surveys
 - Service Area and Alpine Reaches
 - Landslide/ Erosion Analyses
 - Flood Hazard Updates
- Updated Tsunami Inundation Map
 - Alaska Earthquake Center, UAF Geophysical Institute & State of Alaska Dept. of Natural Resources, Division of Geological & Geophysical Surveys



PROTECTION

Permit Application Assistance & Project Review

<https://www.kpb.us/service-areas/sbcfsa>

Multi-Agency Permit Application

Click [here](#) to download the River Center Permit Application for any development within the special flood hazard area.

How to Apply for a Multi-Agency Permit



How to Use the SBCFSA Parcel Viewer



In Alaska, water resources are important to all of us!

Permitting & Agency Information Day

Agency representatives will be available to assist with your permit application, summer project and provide information on:

- ♦ Planning
- ♦ Permitting
- ♦ Flood Risk Prevention
- ♦ Updated Building Codes
- ♦ Floodplain Management
- ♦ National Flood Insurance Program
- ♦ Fisheries & Wildlife Management
- ♦ Habitat and Wetlands

APRIL 26th 10am - 2pm

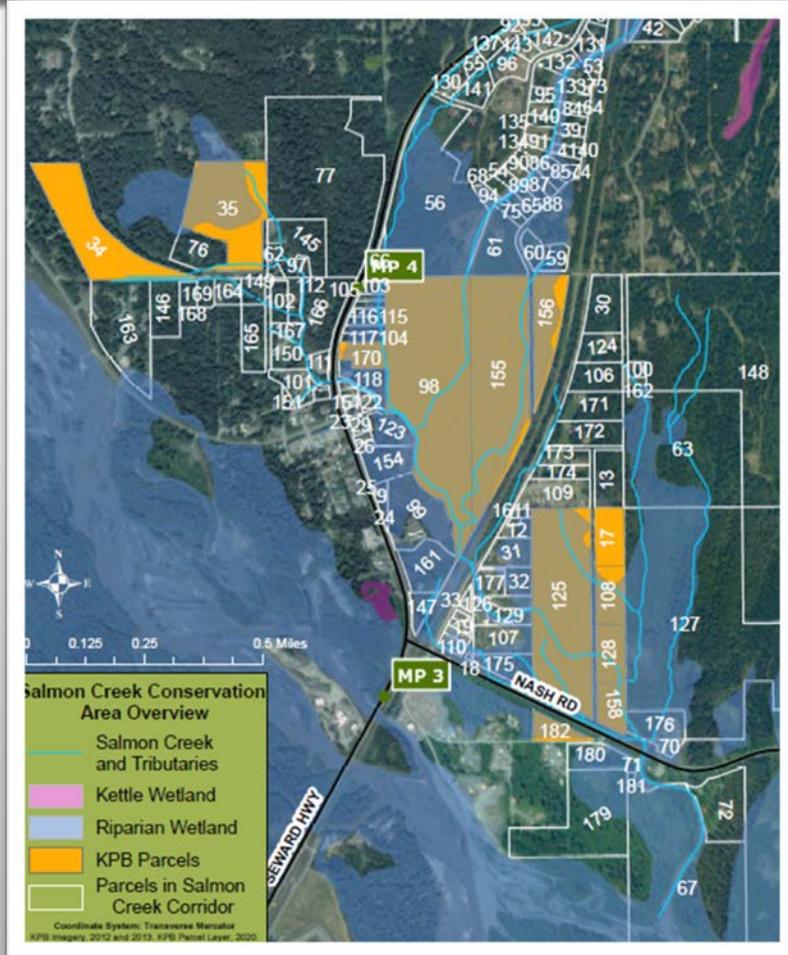
SEWARD LIBRARY COMMUNITY ROOM
239 SIXTH AVENUE

Sponsored by:



PROTECTION

Strategic Property Agreements, Easements & Acquisitions



- Salmon Creek Conservation Area
 - Education & Outreach
 - Protection of Floodplains/Wetlands
 - Acquisition & Restoration
- Box Canyon Creek Site Control
 - Cook Inlet Region, Inc. (CIRI)
 - Co-sponsor or Easement
 - U.S. Dept. of Agriculture Forest Service
 - Small Land Tract Conveyance
- Sediment Management Sites
 - Acquisition & Property Owner Agreements

SHORT TERM MITIGATION

Sediment Management

- Maintenance Program
 - Established Ground Control at Five Project Sites
 - Channel & Embankment Design Plans
 - Pilot Projects Completed
 - Future Site Planning



*Kwechak Creek
Maintenance Project
Oct. 2021*

LONG TERM MITIGATION

Funding Requests & Partnerships

- State Capital Improvement Project Requests
 - Japanese Creek Improvements & Dieckgraeff Road Modifications
 - Kwechak Creek Armoring & Bruno Road Drainage Improvements
- Grant Applications
 - Nash Road Culverts Optimization
 - Second Avenue Culvert Optimization
 - U.S. Fish & Wildlife Service, City of Seward & Trout Unlimited



*Japanese Creek overwhelms
Dieckgraeff Road culvert
Oct. 2018*

IMPLEMENTATION

Lowell Canyon Creek Diversion Tunnel Outlet Oct. 2018



<https://www.youtube.com/watch?v=hsNC0jTUwSA&authuser=0>