

CHAPTER 18. EAGLE SEWER DISTRICT ANNEX

18.1. HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact

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18.2. JURISDICTION PROFILE

The Eagle Sewer District (District) receives its operating authority from Idaho State Code, Title 42, Chapter 32, Sections 43-3201 to 42-3238. The District was created on December 30, 1963 in response to a need for central sewer service and currently provides service for an area that generally coincides with the City of Eagle's impact area. A five-member elected Board of Directors governs the District.

Eagle Sewer District currently treats wastewater in lagoons and then pumps the treated effluent to the City of Boise's West Boise Wastewater Treatment Facility for further treatment and discharge to the Boise River. For this treatment, the Eagle Sewer District now purchases capacity in the West Boise Wastewater Treatment Facility and pays monthly charges that are based on the amount of flow, organic load, solids load and ammonia load.

Sewer lift stations serve as a central point of collection for gravity sewer lines. The raw sewage is conveyed by gravity to these collection points and the lift stations pressurize and lift the sewage either into other gravity collection lines or push the flow directly to the wastewater treatment plant. The District currently owns seven lift stations located on Conover Street, Mace Road, Old Valley Road, North Meridian Road, Lakemoore Subdivision, Legacy Subdivision and Palmer Lane.

Eagle Sewer District operates almost exclusively on user fees. A small amount is also levied on property taxes to pay for the District's operation and maintenance costs and the property and administrative liability insurance.

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

- **Population Served**—Approximately 22,000 as of 2008. Data for the 2010 Census has yet to be released for the State of Idaho.
- **Land Area Served**—Approximately 35 square miles in the North Western part of Ada County, bordered by the City of Boise to the East, the City of Star to the further to the West, the City of Meridian to the South and the Elmore County to the North.
- **Value of Area Served:**
 - Private residential property values vary within the District's service area, with the highest property values located along the North and South Forks of the Boise River.

- Commercial property corridors are located along State St. in old downtown Eagle, Highway 55 or Eagle Road, Highway 44, Highway 20 and Highway 16.
- The Total Market Value (including occupancy rolls) is \$1,616,206,347.
- **Land Area Owned**—The District owns the following property:
 - District Office ½ acre
 - Wastewater Treatment Facility 95 acres
 - Operations Facility 5 acres
 - Mace Road Lift Station ¼ acre easement
 - East Side Lift Station ¼ acre easement
 - Lakemoor Lift Station ¼ acre easement
 - Old Valley Lift Station 1 acre
 - Legacy Lift Station ¼ acre easement
 - Palmer Lane Lift Station 1 acre easement
 - North Meridian Lift Station ¼ acre easement
- List of Critical Infrastructure/Equipment Owned by the Jurisdiction:
 - Effluent Transmission Pipeline \$1,812,000
 - Approximately 110 miles of pipe throughout District \$25,815,300
 - Operations & Maintenance Vehicles \$528,600
- **Total Value of Critical Infrastructure/Equipment**—The total value of critical infrastructure and equipment owned by the jurisdiction is \$28,155,900
- List of Critical Facilities Owned by the Jurisdiction:
 - District Office \$500,000
 - Wastewater Treatment Facility \$13,246,200
 - Operations Facility \$252,000
 - Mace Road Lift Station \$729,900
 - East Side Lift Station \$243,700
 - Lakemoor Lift Station \$681,800
 - Old Valley Lift Station \$383,500
 - Legacy Lift Station \$450,00
 - Palmer Lane Lift Station \$4,549,500
 - North Meridian Lift Station \$350,000
- **Total Value of Critical Facilities**—The total value of critical facilities owned by the jurisdiction is \$21,385,700.
- **Current and Anticipated Service Trends**—Population trends used to estimate future population of the Eagle Sewer District service area can be approximated by utilizing existing population studies completed for the City of Eagle. From 1990 to 2007, the City of Eagle

experienced a six-fold increase in population. However, since 2008, the local residential housing market has experienced a significant downturn that continues to the present time. Because of the soft residential housing market, the District has noted a severe drop in the number of new customers. For example, in fiscal year 2005, the Eagle Sewer District registered 601 new sewer connections and more recently, in 2010, that number dropped to just over 100.

The Community Planning Association of South West Idaho (COMPASS) has projected the population of Eagle to increase by approximately 9,200 people by 2025 (2.0 percent increase) while the City of Eagle's own Comprehensive Plan predicts a much larger population increase and anticipates an additional 28,000 people living in Eagle by 2025 (4.9 percent increase). If the City of Eagle Comprehensive Plan growth percentage is used, the estimated population served by the Eagle Sewer District will be approximately 50,000 by 2025.

The District's current service area is bounded by Highway 16 on the West, Homer Road on the North, Highway 22 on the South and Highway 55 and Old Horseshoe Bend Road on the East. This service area essentially mirrors the City of Eagle's impact area, which is shown in the City of Eagle's land use map.

18.3. JURISDICTION-SPECIFIC NATURAL HAZARD EVENT HISTORY

Table 18-1 lists all past occurrences of natural hazards within the jurisdiction.

18.4. HAZARD RISK RANKING

Table 18-2 presents the ranking of the hazards of concern.

18.5. APPLICABLE REGULATIONS AND PLANS

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

- Clean Water Act
- Endangered Species Act
- Idaho Department of Environmental Quality
- U.S. Environmental Protection Agency
- Idaho Administrative Code
- Idaho Administrative Procedure Act
- Wastewater Treatment Plant Facility Plan (2008)
- Eagle Sewer District Master Plan (2002)
- Idaho Statewide Implementation Plan
- All other applicable laws, ordinances, codes and policies enforced by federal, state and local authorities with a sphere of influence over the District's service area.

18.6. CLASSIFICATION IN HAZARD MITIGATION PROGRAMS

The jurisdiction's classifications under various hazard mitigation programs are presented in Table 18-3.

18.7. HAZARD MITIGATION ACTION PLAN AND EVALUATION OF RECOMMENDED INITIATIVES

Table 18-4 lists the initiatives that make up the jurisdiction’s hazard mitigation plan. Table 18-5 identifies the priority for each initiative. Table 18-6 summarizes the mitigation initiatives by hazard of concern and the six mitigation types.

18.8. FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

Ongoing research to evaluate and implement new legislative or regulatory requirements affecting operations, facilities, or equipment located in areas exposed to natural hazards. Assess District facilities to determine their risk of damage due to flooding.

Type of Event	Date	Preliminary Damage Assessment
Wildfire (Foothills)	7/28/2010	-
Flooding	6/2-4/1998	-
Flooding	5/15-28/1998	-
Flooding	9/11/1997	\$60,000
Flooding	1/11/1997	-
Severe Weather	12/1/1994	\$1,136
Flash Flooding	6/25/1992	\$50,000
Drought	3/1/1992	\$18,519
Flooding	1/12/1991	\$7,143
Severe Weather	2/4/1989	\$125,000
Severe Weather	12/19/1988	\$6,250
Drought	10/31/1988	\$11,364
Flooding	2/1986	\$20,000
Flooding	6/10/1983	\$146,900
Flooding	1/12-16/1979	-
Severe Weather	11/10/1975	\$1,136

TABLE 18-2. HAZARD RISK RANKING		
Rank	Hazard Type	Risk Rating Score (Probability x Impact)
1	Flood	45
2	Severe Weather	33
3	Drought	24
4	Dam Failure	18
5	Earthquake	6
6	Landslide	6
7	Wildland Fire	6
8	Volcano (Ash Fall)	2
9	Avalanche	0

TABLE 18-3. COMMUNITY CLASSIFICATIONS			
	Participating?	Classification	Date Classified
Public Protection	No	N/A	N/A
Storm Ready	No	N/A	N/A
Firewise	No	N/A	N/A
Tsunami Ready	No	N/A	N/A

**TABLE 18-4.
HAZARD MITIGATION ACTION PLAN MATRIX**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
Initiative #1—Mace Road Lift Station Assessment and Flood Protection: Survey the Mace Road Lift Station and determine potential exposure to flooding. If survey reveals the lift station is susceptible to flooding, take measures to reduce flooding exposure such as berming or constructing dike walls.						
Existing	Flood, Severe Weather	1,3,10	District	<\$100,000	District Funds, HMGP, PDM, IDWR Flood Safe Initiative	Short term
Initiative #2—Lagoon Berm Evaluation and Stabilization: High flow velocities during flooding events could potentially cause erosion at the toe of the lagoon berms and, although unlikely, possibly cause structural failure. Perform hydraulic modeling of the river channel and estimate potential of erosion of the lagoon berm. If deemed necessary, the placement of rip-rap and/or other measures would be pursued to reduce lagoon dike erosion.						
Existing	Flood, Severe Weather	1,3,10	District	<\$1,000,000	District Funds, HMGP, PDM, IDWR Flood Safe Initiative	Short term
Initiative #3—Headworks Facility Decommission: A new Headworks Building has been built by the District, leaving the old headworks abandoned and unused. This structure would be removed and the surrounding small dike improved to reduce potential erosion during flooding events.						
Existing	Flood, Severe Weather, Earthquake	1,3,10	District	<\$100,000	District Funds, HMGP, PDM, IDWR Flood Safe Initiative	Short term
Initiative #4—Raise Portions of the Wastewater Treatment Plant Facility Access Road: Portion of the road leading to the wastewater treatment facility are below the 100-year and 500-year flood elevations. To ensure that District staff can access wastewater treatment facilities during a flooding event, low sections of access road should be raised.						
Existing	Flood, Severe Weather	1,10	District	<\$250,000	District Funds, HMGP, PDM, IDWR Flood Safe Initiative	Short term

TABLE 18-4. HAZARD MITIGATION ACTION PLAN MATRIX						
Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
Initiative #5—Control Building and Outbuilding Berm Option: To protect the Operations and several outbuildings at the wastewater treatment site against possible flooding, a small berm might be constructed around the perimeter of this area.						
New and Existing	All Hazards	All	District	<\$250,000	District, FEMA Mitigation Grant Funding for 5-year update	Short term
Initiative #6—Continue the implementation, monitoring, maintenance, and updating of this Plan						
New and Existing	All Hazards	All	District	Low	District, FEMA Mitigation Grant Funding for 5-year update	Short term, ongoing
Initiative #7—Support County-wide initiatives						
New and Existing	All Hazards	All	District	Low	District Funds, HMGP, PDM, IDWR Flood Safe Initiative	Short term, ongoing

TABLE 18-5. 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
1	3	High	Medium	Yes	Yes	No	High
2	3	High	Medium	Yes	Yes	No	High
3	3	Medium	Medium	Yes	Yes	No	Medium
4	2	Medium	Medium	Yes	Yes	No	Medium
5	6	High	High	Yes	Yes	No	Low
6	3	High	Medium	Yes	Yes	No	High
7	10	High	Low	Yes	Yes	Yes	High

a. See Section 1.3 for definitions of high, medium and low priorities.

**TABLE 18-6.
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
Flood	6	1,3	6, 7	2		2,3,5
Severe Weather	6	1,3	6, 7	2		2,3,5
Drought	6		6, 7			
Dam Failure	6	1,2,4	6, 7			3,5
Earthquake	6	3,5	6, 7			3,5
Landslide	6		6, 7			
Wildland Fire	6		6, 7			

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.