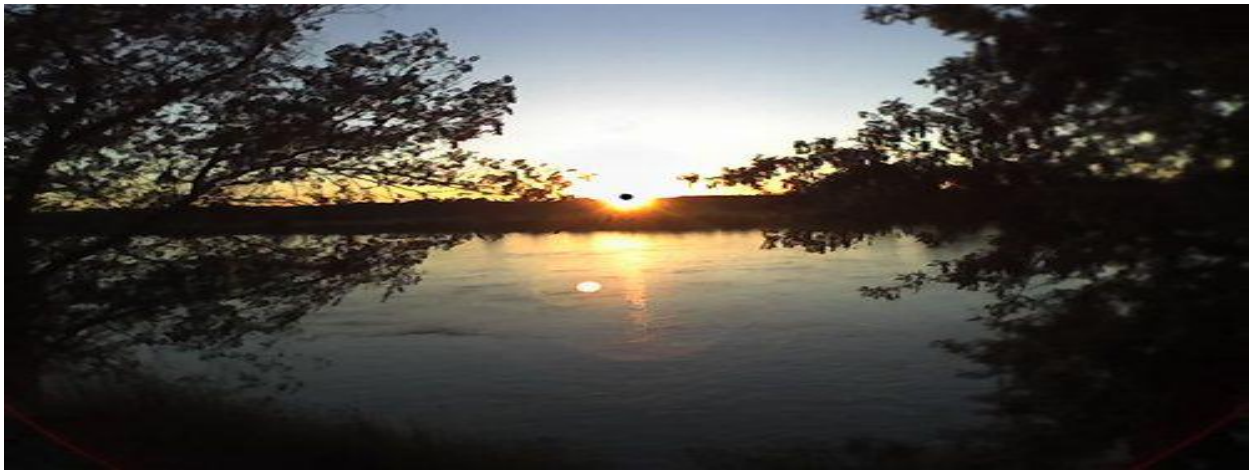
CHAPTER FIFTEEN: NATURAL RESOURCES



15.0 Introduction

The natural resources considered in this plan include climate, water, vegetation, soils, fish and wildlife. The combination of these components forms the landscape surrounding the city of Payette. The city of Payette sits on the high plains at the confluence of the Snake and Payette rivers in southwest Idaho. Many types of wildlife can be found in the proximity of the rivers. The city is surrounded by acres of agricultural, grazing and range land. The beauty of these natural resources is identified as one of the city's greatest assets.

15.1 Precipitation, Temperature and Climate

Payette County is in the lower valley of the Payette River. The elevation of the city of Payette is approximately 2,150 feet, while Payette County slopes upward to the northeast as high as 4,650 feet. The climate is generally mild, with a six-month growing season from the end of April to the beginning of October. The city of Payette sees sunshine on more than 80 percent of its days in the summer months and 67 percent during the winter months. Harsh weather mainly takes place around January, with the exception of infrequent high winds and hail showers. Thunderstorms occasionally occur during the spring and summer months. Exhibit 1 provides the monthly climate summary.

Exhibit 1: Period of Record Monthly Climate Summary

Payette Idaho (106891)

Period of Record: 07/01/1892 - 05/27/2016

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Average Max Temp (F)	36.7	44.6	56.2	66.3	75.0	82.8	92.9	91.2	80.7	67.6	50.8	39.0	65.3
Average Min Temp (F)	19.6	24.2	30.2	36.2	43.5	50.1	56.2	53.9	44.6	35.3	27.6	21.9	37.0
Average Total Precipitation	1.51	1.13	1.03	0.82	0.95	0.82	0.25	0.27	0.42	0.81	1.20	1.50	10.71
Average Total Snowfall (in.)	7.7	3.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.4	5.0	18.2
Average Snow Depth	3	1	0	0	0	0	0	0	0	0	0	1	0

Percent of possible observations for period of record:

Max Temp:	Min Temp:	Precipitation:	Snowfall:	Snow Depth: 89.9%
97.6%	97.5%	97.8%	94.3%	

Contact for more detail about data completeness: *Western Regional Climate Center.*

15.2 Water Quantity and Quality

The City of Payette provides approximately 1.5 million gallons per day of potable water to its water system users. The City has historically used groundwater as the sole source of its water supply. Projected growth in the area and corresponding water requirements suggest that the City should investigate potential water resources. The City elected to perform the City of Payette Water Study to identify water source alternatives that could provide potable water for the city over a 50-year horizon from 2005 - 2050.

15.3 Stormwater Drainage

The Payette stormwater sewer system is designed to carry rainfall and snow melt which could otherwise become problematic. As water travels over driveways, streets, lawns, and sidewalks it picks up debris, chemicals and other pollutants before washing into storm drains and moving directly into the Payette River. This is a concern of the City's Public Works Department. The

Public Works Department has been working to meet the needs of the community by developing best practices for the residents of Payette in order to reduce contaminants in the system. Residents must remember that anything which goes into the storm drain goes into the river. The City continues to improve the storm drainage systems at various street intersections.

15.4 Groundwater

Payette can draw adequate quantities of water from the ground via wells. Payette has a deep aquifer with moderate quantities of water. According to the 2005 City of Payette Source Water Study, groundwater has been proven to be a reliable and excellent source of domestic water for the city of Payette in 2005 and over the next 50 years.

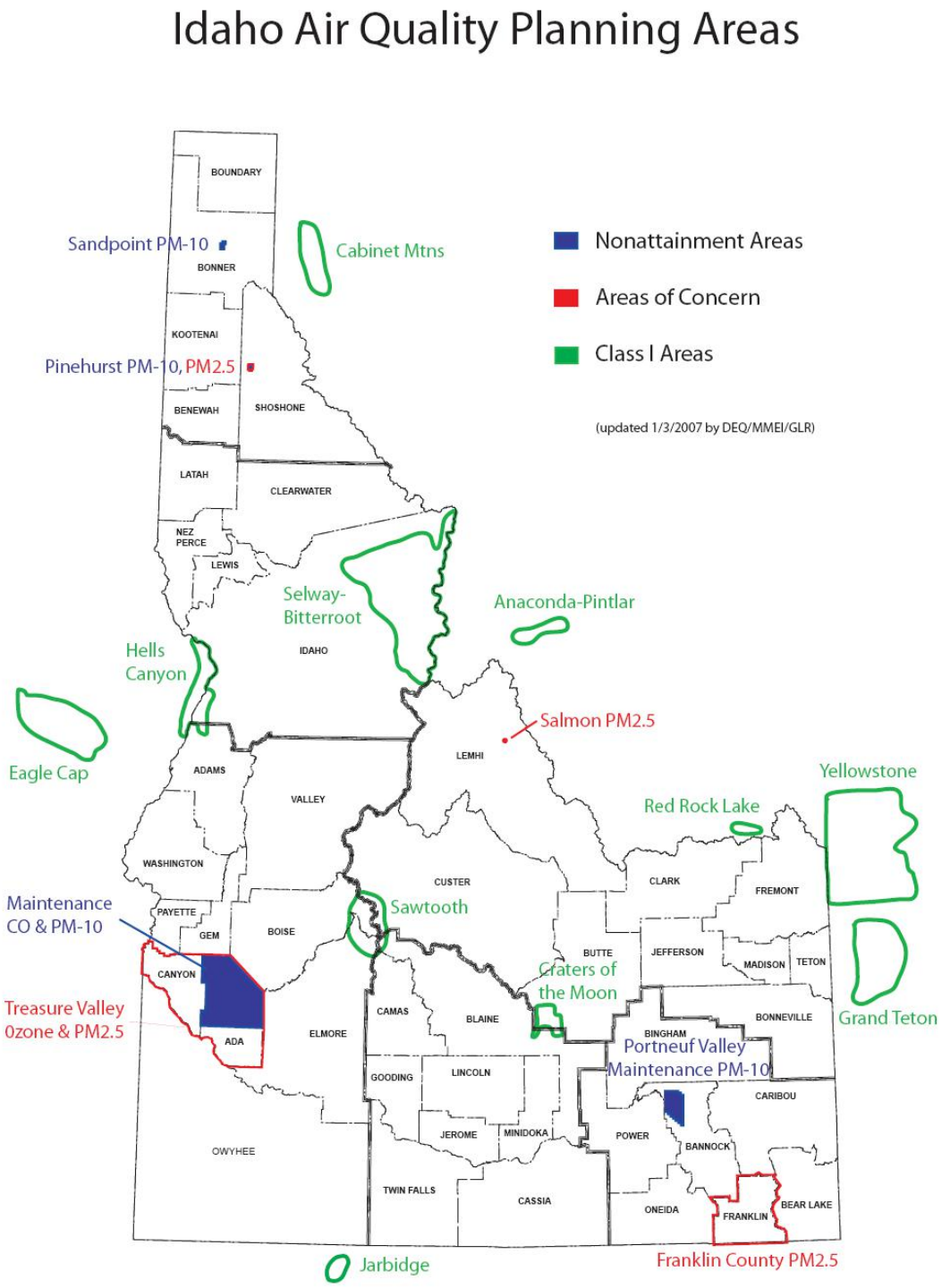
15.5 Air Quality

Air quality in any given location is based on the concentrations of various pollutants in the atmosphere. In general, air quality is affected by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, as well as meteorological conditions and prevailing climate. Federal standards for the criteria of air pollutants have been established by the EPA under the Clean Air Act's National Ambient Air Standards (NAAQS).

The pollutants for which ambient concentration limits have been set are the following:

1. tropospheric (lower atmosphere) ozone (O_3)
2. carbon monoxide (CO)
3. nitrogen dioxide (NO_2)
4. sulfur dioxide (SO_2)
5. particulate matter less than 10 microns (PM_{10})
6. particulate matter less than 2.5 microns ($PM_{2.5}$)
7. lead (Pb)

Exhibit 2: Idaho Air Quality Planning Areas



According to EPA regulations, an area with air quality better than the NAAQS is designated as "an attainment area," while an area with air quality worse than the NAAQS is classified as a "non-attainment area." An "unclassifiable" area is one in which insufficient air quality monitoring data has been collected to justify formal classification. Exhibit 2 shows that the city of Payette is not located in a non-attainment area and has no air quality issues other than those, during the winter months, due to households burning wood for heat.

15.6 Oil and Gas Reserves

The Idaho Oil and Gas Conservation Commission regulates the exploration, drilling and production of oil and gas resources to ensure the conservation of oil and gas and the protection of correlative rights and surface and groundwater. The Oil and Gas Division with the Idaho Department of Lands serves as the administrative arm of the Commission (Title 47, Chapter 3, Idaho Code.)

There are no active drill permits in the city of Payette, but there is one active drill permit in Payette County near New Plymouth. The City of Payette has adopted an Oil and Gas Operations Ordinance #1384 which states that this is a zoning and public nuisance ordinance enacted to protect and promote the health, safety, and general welfare of present and future residents of the city while at the same time providing for the responsible and economically viable extraction of oil and gas minerals. A new chapter, Oil and Gas Operations, has been adopted into the zoning ordinance. In addition, Payette County has adopted Chapter 20, Oil and Gas Drilling. The Payette County Zoning Ordinance 8-20-3, Zoning Classification, states that subject to the provisions of this chapter, an oil or gas well site shall be considered a permitted use within any zoning district(s), subject to the standards listed herein (Ordinance 2013-02, 8-5-2013). The County's Ordinance could have impact in the City's Area of Impact depending on where the parcel and or parcels are located.

Any active drill permits can be found on the Oil and Gas Conservation Commission website:
https://ogcc.**idaho**.gov/active-drill-**permits**/

15.7 Soils

A description of soil types can be found in Chapter 14, Agriculture.

15.8 Natural Greenways

In Payette, natural resources, especially the Payette River and islands, present wonderful opportunities for open space, pathways and development. The Parks and Recreation chapter (Chapter 12) provides insight on the various opportunities for the preservation and use of some of the natural green spaces of the area.

15.9 Wildlife and Habitat

The Idaho Fish and Game Department and the U.S. Fish and Wildlife Service proved a list of "Rare Elements," which includes sightings of rare birds, animals, and plant life. In Payette County, the bald eagle is included on this list.

Wildlife not listed as endangered but residing in the area include deer, antelope, coyote, pelican, upland game birds and waterfowl, fox, bass, wild turkey and trout. Areas near Payette where natural species can be observed include the Snake and Payette rivers, the Little Willow area, Nagake Island, and the low foothills east of town.

15.10 Partnerships

The City's interest in preserving the quality of natural resources extends beyond the city limits. This being so, it is important to meet and partner with other agencies to assist in local improvement efforts to conserve, sustain, and enhance the area's natural resources. The Payette Conservation District issued a Five-Year Resource Conservation Business Plan for the period of July 1, 2016 to June 30, 2021; this plan may be of assistance to the City.

15.11 Natural Resources Goals, Objectives and Strategies

GOAL 1: **Preserve and protect open space, unique natural areas, wetlands, water resources, scenic views, areas of natural beauty, and the rural character of the city of Payette.**

OBJECTIVE 1: Recognize that the City's interest in preserving the quality of natural resources extends beyond the city limits.

STRATEGY 1: Continue City partnerships with local agencies and organizations to assist with local improvement efforts to conserve, sustain, and enhance the area's natural resources.

STRATEGY 2: Preserve these areas by developing public/private partnerships.

STRATEGY 3: Review all development proposals and consider the development's impact on natural resources (i.e. hillsides, waterways, wildlife, vistas, etc.) and encourage their preservation and beneficial use. Work with the appropriate agencies to reduce impacts on wildlife habitats and open spaces.

GOAL 2: **Continue to meet Idaho high water quality standards.**

OBJECTIVE 1: Protect water quality and quantity in the city's rivers and groundwater.

STRATEGY 1: Encourage administration and proper management of the city's water resources.

STRATEGY 2: Protect the City's water rights.

GOAL 3: **Reduce the amount of water flow in city storm drains.**

OBJECTIVE 1: Protect water resources and protect natural drainage.

STRATEGY 1: Storm water and drainage on private properties shall remain on site.

STRATEGY 2: Continue to maintain, repair, improve and enhance the existing storm water system.

GOAL 4: Monitor the city's water resources for potential contaminants.

OBJECTIVE 1: Protect the city's surface and groundwater supply.

STRATEGY 1: Work with the Idaho Oil and Gas Conservation Commission, which regulates the exploration, drilling and production of oil and gas resources to ensure the conservation of oil and gas, and the correlative protection of surface water and groundwater.