5 OPEN SPACE, CONSERVATION, AND RECREATION ELEMENT

5.1 Introduction and Purpose

The Open Space, Conservation, and Recreation Element combines two of the seven required elements of a General Plan: the Conservation Element, which addresses the conservation, development, and utilization of natural resources; and the Open Space Element, which addresses open space lands used for a variety of purposes.

The Open Space, Conservation, and Recreation Element establishes goals and policies for the conservation of natural resources in Marysville, including parks, floodplains, surface water and groundwater, water quality, natural habitats, wildlife, archaeological and paleontological resources, tribal cultural resources, minerals, agricultural resources and soil, energy, and air quality. These resources directly contribute to the quality of life of Marysville residents. The General Plan seeks to balance planned growth and redevelopment with conservation and enhancement of the city's natural resources.

5.2 Related Documents and Plans

The Land Use and Community Development Element and the Safety Element address topics that are closely related to topics included in this Open Space, Conservation, and Recreation Element. For example, the Land Use and Community Development Element designates most of the undeveloped land around the perimeter of the city (outside the Marysville Ring Levee) for Open Space. The type of allowable uses for the Open Space land use designations will help to conserve land and water resources and protect natural resources, consistent with the policies in this Element.

The Safety Element addresses open space from the perspective of public health and safety. For example, the Safety Element addresses flooding issues associated with the Feather and Yuba Rivers and Jack Slough, which border the city on the west, south, and north sides, respectively. The same areas identified for open space preservation in this Element also

require open space preservation to provide public health and safety benefits identified in the Safety Element.

The City's Parks and Recreation Master Plan provides policy direction for new park and facility standards, implementation of capital improvements, and non-capital projects and initiatives, based on City and nearby community resources, demographic trends, and community needs (City of Marysville 2019). The most recent Master Plan, adopted in 2019, provides guidance related to park land facilities through the year 2035. The Master Plan includes updated parkland standards, which are reflected in this Open Space, Conservation, and Recreation Element. The Master Plan also describes recreational facility upgrades and new facility projects needed to meet the needs of the community and the new parkland level of service standards. The City of Marysville incorporates by reference the most current Parks and Recreation Master Plan as part of this Open Space, Conservation, and Recreation Element to the General Plan, which should be consulted when addressing specific parks and recreational facilities, needs, and funding.

The City is also improving water quality at Ellis Lake and preparing the Ellis Lake Master Plan, which could include new benches and picnic tables, railings, pedestrian and multi-use pathways, and solid waste receptacles, among other changes.

5.3 Parks and Recreation

5.3.1 Existing Recreational Opportunities in Marysville

Marysville is a compact and walkable community with a well-connected transportation network, mostly on a grid system, making access to its parks and open spaces relatively easy. Currently, city residents have access to approximately 375 acres of public recreation land (shown in Figure 5-1), of which approximately 283 acres are developed parks and trails and approximately 92 acres are public open space. The City's recreational facilities consist of regional, community, neighborhood, and mini parks; public open space; and a Class I shared bicycle/pedestrian trail on top of the Marysville Ring Levee. Currently, the City does not offer recreation programs, but such programs are offered by other regional recreation providers such as Yuba City and the Marysville Little League. Refer to Table 5-1 for a list of the existing developed City parks and the acreage of associated recreational space.¹

Public areas outside the Marysville Ring Levee to the north, west, and south—adjacent to the Jack Slough, Feather River, and Yuba River floodplains, respectively—are well suited for, and designated as Open Space, which includes both active and passive recreational uses. For example, the 207-acre Beckwourth Riverfront Park, west of the Marysville Ring Levee and adjacent to the Feather River, offers a variety and passive and active recreational opportunities.

¹ City of Marysville. 2019. Parks and Open Space Master Plan. Marysville, CA.



Figure 5-1. Public Parks and Open Space

Park Name	Park Type	Location	Acres
Beckwourth Riverfront Park	Regional	Biz Johnson Drive	207.05
Bryant Field	Community	B and 14 th Streets	4.12
East Lake	Community	Yuba Street between East 15 th and 16 th	8.75
Ellis Lake	Community	Bounded by B Street to the west, D Street to the east, 9 th street to the south and 14 th Street to the north	39.40
Stephen J. Field Park (Circle Park)	Neighborhood	Rideout Way between Greely Drive and Boulton Way	0.83
Gavin Memorial Park	Neighborhood	Johnson Avenue and Val Drive	2.75
Miner Park	Neighborhood	Between East 14 th and 15 th Streets and Sampson and Swezy Streets	2.60
Market Square (formerly Motor Park)	Neighborhood	14 th Street between G and H	3.42
Triplett Park	Neighborhood	Rideout Way between Covillaud and Ahem Streets	2.25
Veterans Park	Neighborhood	Between 5 th and 6 th Streets and G and H Streets	2.50
Yuba Park	Neighborhood	10 th Street between Yuba Street and Simpson Lane	4.25
Basin Park	Mini	Harris Street between Hall and East 17 th	2.12
Plaza Park	Mini	1 st and D Streets	1.00
Washington Square	Mini	State Route 20 and E Street	2.10

Table 5-1. Existing City Parks

Note: Park acreage in this table has been confirmed, and is correct, though parts of the City's Parks and Open Space Master Plan list different acreage totals. In parts of the Parks and Open Space Master Plan that identify a total of 375 acres of parks, this includes other areas that are available for recreation, such as the Marysville Ring Levee trail area, in addition to City parks.



The developed areas of the city are surrounded by the Marysville Ring Levee, which protects Marysville from flooding. The top of the Levee includes a shared bicycle/pedestrian trail, as shown here.

In addition to the parks listed in Table 5-1, there is an existing Class I shared use bicycle/pedestrian trail on top of the Marysville Ring Levee that surrounds the city. The trail is managed and maintained by the Marysville Levee Commission. This trail is used for bicycle access around the city, including access to the City's developed parks and to passive public open space land. It is also used for its recreational value as a walking path. The Yuba Sutter Blue Zones Built Environment Discovery Report identifies the need to enhance access to this important recreational asset through additional radial trail spurs that connect the levee trails to adjacent residential and commercial areas.

The City also owns and operates a community garden on the south side of 2nd Street between Oak and C Streets, across from the Yuba County Library. The community garden is owned by the City and is managed by the Community Development Department but is not zoned as open space. Plots within the community garden are available for the public to rent.

Ellis Lake is a popular draw in Marysville – it is a 32-acre, man-made lake surrounded by a 7.5-acre green space in the center of the city. The park surrounding Ellis Lake features walking trails, picnic tables, benches, and a gazebo.



Marysville has approximately 375 acres of public recreation and open space. Ellis Lake (pictured above) and the walking paths around it are one of many popular recreation destinations for citizens and visitors alike within the City's limits.

State aid is received annually to exclusively fund the After-School Education and Safety (ASES) and STARS programs operated by the Marysville Joint Unified School District. Both are free, after school programs which offer activities including sports and recreation on school properties.

Marysville Little League is an independent youth baseball organization that serves the Marysville community. Currently, the league serves various age groups ranging from T-ball leagues (ages 4 to 7) through and including a Senior league for ages 15 to 16. Marysville Little League owns and manages Earle Yorton Little League Field on the corner of East 17th Street and East Lake Court, adjacent to East Lake Park.

The Marysville Drakes are a professional baseball team in the Pecos League of Professional Baseball Clubs. Bryant Field, at the corner of B and 14th Streets, is the home stadium for the Marysville Drakes. The Pecos League is an independent baseball league which operates in cities in desert and mountain regions throughout California, New Mexico, Oklahoma, Southern Arizona, Kansas, West Texas, and Colorado. Pecos League teams play in cities that do not have Major or Minor League Baseball teams.

5.3.2 City Parkland Acreage Standards

The City's 1985 General Plan established a standard of 10 acres of public recreation per 1,000 residents in three categories: regional, community, and neighborhood parks. At that time, considering the existing park space, the City found that existing parkland exceeded the City's relatively high standard by almost threefold; the same situation is still true today. Per the City's 2019 Parks and Open Space Master Plan, City residents have access to approximately 375 acres of public recreation land owned or operated by the City. Considering the city's population in 2023 of 12,606, the City is exceeding its relatively high standard of 10 acres per 1,000 persons at a current ratio of approximately 30 acres per 1,000 persons. As a point of reference, state standards (Quimby Act) typically require 3-5acres per 1,000 persons and sets up a mechanism to charge developers in lieu fees, instead of providing park dedication. Maintaining parks requires funding and staff resources that can be a challenge considering the City's limited General Fund. This Open Space, Conservation, and Recreation Element - below in the Goals, Policies, and Implementation Strategies – establishes the overall park acreage standard for the City. Open space and parkland acquisitions, improvements, and management activities would continue to be directed through such efforts as maintaining and implementing the Parks and Open Space Master Plan.

In addition, the City recently partnered with the Yuba County Office of Education which will lease a building in Washington Square to provide recreation services for the City

5.3.3 Nearby Public Parks Outside of Marysville

Several parks are just outside, but very close to the city. Marysville residents may be drawn to use these other parks because they are close, more convenient, or offer different recreation opportunities than are provided by City facilities.

Feather River Parkway. This approximately 150-acre parkway is situated along the west bank of the Feather River in Yuba City. The parkway includes natural open space (including wetlands and riparian woodlands), public pedestrian and cycling trails, interpretive signage, parking, a pavilion, picnic areas, field sport areas, a boardwalk, a beach landing, and an elevated viewing structure overlooking the Feather River.

Feather River Bike Trail. The approximately 5-mile-long Feather River Bike Trail runs along the top of the west bank Feather River Levee in Yuba City from Northgate Drive to Shanghai Bend Park. It is accessible from Marysville via the 5th Street and 10th Street bridges. The trail is owned and managed by the Sutter Butte Flood Control Agency, with assistance by Yuba City's Public Works and Parks and Recreation Departments for trail maintenance, sweeping, and trash collection.

Yuba City Boat Ramp. The Yuba City Boat Launch is accessible from Second Street, on the west side of the Feather River immediately upstream from the Yuba River confluence. The facility has a parking area with spaces for 40 vehicles with trailers, boat ramp, fish cleaning

station, campground, restrooms, showers, and a swimming area. The boat ramp is owned and managed by Sutter County.

Peach Bowl Little League Field. The Peach Bowl Little League Field is across from the Yuba City Boat Ramp, on the west side of Second Avenue. There are two baseball diamonds with outfields and a third without an outfield. The complex includes bleacher seating, batting cages, concession stand, restrooms, and parking facilities. The complex is owned by Yuba City but leased to the Peach Bowl League, which maintains the space, except for the parking areas.

5.4 Watersheds and Floodplains

Watersheds are areas that channel rainfall and snowmelt to creeks, streams, and rivers. Watersheds offer recreational opportunities, provide habitat, and serve as wildlife movement corridors. Floodplains are generally flat areas next to rivers and streams. In their natural state, floodplains allow floodwaters to temporarily spread out and store excess water, recharging groundwater.

Marysville is situated in a floodplain within the Sacramento Valley, in the Lower Sacramento River Hydrologic Basin.² The Feather and Yuba Rivers border the city on the west and south sides, respectively. Jack Slough, which is a tributary to the Feather River, borders a portion of the northern side of the city. These rivers and streams discharge into the Sacramento River, then into the Sacramento-San Joaquin Delta, and ultimately into the Pacific Ocean. The amount of water in these rivers and streams is dependent on rainfall, melting snowpack in the Sierra Nevada to the east, and water releases from various reservoirs operated as part of the Central Valley Project and State Water Project systems.

The natural floodplains associated with these rivers and streams have been altered over the last 150 years as a result of mining activities and the need for flood control levees to protect development and farmland. However, the floodplains still provide floodwater storage and groundwater recharge, filter sediment and contaminants carried in surface water, transport nutrients that are important for aquatic life, and support riparian habitat.

² For agricultural water purposes, this area is known as the Butte-Yuba-Sutter Watershed.) Most of the City limits are within the Lower Feather River watershed. The southeastern and northeastern portions of the City limits (outside the Marysville Ring Levee) are within the Upper Yuba River watershed.



Floodplains associated with rivers and streams, such as the Feather River floodplain shown here, provide floodwater storage, groundwater recharge, habitat, and recreational opportunities.

The Feather and Yuba River and Jack Slough floodplain areas are not appropriate for residences or businesses since these areas are prone to flooding and are outside the existing flood control levees. (Please see the Safety Element for detail on managing flood risk.) However, the city's location between these bodies of water, along with Ellis Lake in the center of the city, offers important recreational opportunities and scenic vistas for Marysville residents and visitors.

5.5 Water Supply and Quality

5.5.1 Water Supply

Unlike some other parts of California, development in Marysville is not constrained by water supply. Marysville's water is provided by the California Water Service Company (Cal Water). Planning for long-term water use is addressed through the preparation of Urban Water Management Plans, which describe management strategies over the long term, considering drought conditions and climate change, to ensure that water supply meets current and future demand. Cal Water expects that—for normal, dry, and multiple-dry years—groundwater supply for Marysville will fully meet future demands.³

³ California Water Service Company. 2021. 2020 Urban Water Management Plan, Marysville District. Available: https://www.calwater.com/conservation/uwmp2020/. Accessed October 3, 2023.

5.5.2 Groundwater Supply

All of the city's water supply comes from groundwater. The Sustainable Groundwater Management Act of 2014 required the formation of local Groundwater Sustainability Agencies to oversee the implementation of Groundwater Sustainability Plans for each basin, subject to approval by the California Department of Water Resources (DWR). Marysville overlies the southern end of the North Yuba Groundwater Subbasin. A Groundwater Sustainability Plan for the combined North Yuba and South Yuba Subbasins was approved by DWR in 2020.⁴

Groundwater levels in the North Yuba Subbasin have been generally stable for at least 70 years.⁵ Similar to most groundwater basins in the state, groundwater levels typically decline in summer and recover in the fall and winter following typical patterns of use and recharge. More groundwater use occurs in the summer to irrigate agricultural fields and urban landscaping, and more recharge occurs in the winter from rainfall and higher streamflow. The North Yuba Subbasin is not in a state of overdraft, meaning that the amount of groundwater extraction does not exceed the subbasin's sustainable yield.

The Feather River, Yuba River, and Jack Slough channels and associated floodplains are important areas for groundwater recharge in the Marysville area.

5.5.3 Surface Water and Groundwater Quality

Surface water and groundwater quality can be degraded when sediment and other pollutants are transported in stormwater runoff during construction activities. In addition, pollutants such as oil, grease, fertilizers, and pesticides can be carried by stormwater runoff in the drainage system and discharged into Jack Slough and the Feather and Yuba Rivers and into their floodplain systems, which are connected to the underlying groundwater aquifer.

Water quality in the region is regulated by the City and by Yuba County at a local level, and by the Central Valley Regional Water Quality Control Board (RWQCB) through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) at a regional level. Water quality at the state level is regulated by the State Water Resources Control Board through issuance of National Pollutant Discharge and Elimination System

⁴ Yuba Water Agency, Cordua Irrigation District, and City of Marysville. 2019. Yuba Subbasins Water Management Plan: A Groundwater Sustainability Plan. Available: https://www.yubawater.org/198/Groundwater-Management. Accessed February 27, 2023.

⁵ Yuba Water Agency, Cordua Irrigation District, and City of Marysville. 2019. Yuba Subbasins Water Management Plan: A Groundwater Sustainability Plan. Available: https://www.yubawater.org/198/Groundwater-Management. Accessed February 27, 2023.

permits, which control stormwater discharge and set pollutant thresholds during construction and operation under the federal Clean Water Act.⁶

The State Water Resources Control Board also administers National Pollutant Discharge and Elimination System General Permits for Small Municipal Separate Storm Sewer Systems, called MS4 Permits. The MS4 Permits regulate the day-to-day operational discharges.⁷ The City's Urban Stormwater Quality Management and Discharge Control Ordinance (Marysville Municipal Code Chapter 6.20) regulates stormwater management to achieve compliance with the City's MS4 Permit, and includes requirements for development projects to reduce stormwater pollution and erosion during the operational phase using retention basins, vegetated swale, permeable pavement, or other features that infiltrate or treat stormwater.⁸

Low Impact Development is a practice that benefits for water supply, groundwater recharge, and water quality. Unlike traditional stormwater management, which collects and conveys stormwater runoff solely through storm drains, pipes, or other conveyances to a centralized storm water facility, Low Impact Development uses site design techniques that infiltrate, filter, store, evaporate, and detain stormwater runoff.⁹

Marysville Municipal Code Chapter 21.04 regulates surface mining and reclamation activities within the City limits, requiring a permit application and approval of a Reclamation Plan. The Reclamation Plan must include a grading and erosion control plan, provisions for the conservation and protection of quality and quantity of groundwater and streams, and methods to control contaminants during active mining operations and appropriately dispose of mining waste.¹⁰

⁶ Projects that disturb one acre or more of land are required to control construction-related erosion and pollutant transport and implement spill prevention techniques. Marysville Municipal Code Section 6.20.170(4) requires that any person performing construction work within the city must prevent the discharge of soil or construction wastes or debris, including contaminants from construction materials, tools, and equipment to the stormwater drainage system.

⁷ The MS4 Permit specifies the actions necessary to reduce the discharge of pollutants in stormwater to the "maximum extent practicable," in a manner designed to achieve compliance with Clean Water Act and Basin Plan water quality standards and objectives and requires municipalities to effectively prohibit non-stormwater discharges into municipal storm drain systems and watercourses.

⁸ As part of compliance with the City's MS4 Permit, new development and redevelopment projects are required to comply with the provisions of the City's Post-Construction Standards Plan with regards to operational site design requirements.

⁹ Hydromodification of waterbodies can occur when the amount (volume) and force (rate) of moving water in stormwater runoff alters the natural pathways of creeks, streams, and rivers. Hydromodification can reduce floodplain storage, reduce groundwater recharge, erode streambanks, and destroy riparian habitat. Hydromodification techniques are used to design development sites so that post-construction runoff flow rates do not exceed those of the pre-construction conditions. The City's Post-Construction Standards Plan requires site-specific projects to incorporate Low Impact Development standards and hydromodification management techniques as part of each project.

¹⁰ Under the Surface Mining and Reclamation Act (SMARA), Reclamation Plans must be approved by the City and then submitted to the California Department of Conservation for review and approval prior to the start



Low Impact Development features such as those shown above provide important water quality pretreatment measures and slow the rate of stormwater runoff. Bottom Photo Credit: US EPA 2018 <u>https://www.epa.gov/sites/default/files/2018-08/documents/bbfs11space508.pdf</u>.

of mining activities. SMARA requires that the documentation be provided to the California Department of Conservation demonstrating that surface and groundwater will be protected in accordance with the Porter-Cologne and Clean Water Acts, and Central Valley Regional Water Quality Control Board requirements.

5.6 Biological Resources

Most of the lands within the city provide low habitat values to most wildlife and generally do not support special-status plant species. However, the city is adjacent to the Feather River and Yuba River. The waterways, lakes, and riparian areas in the vicinity support a wide range of fish, birds, and other native and non-native species.

5.7 Cultural and Tribal Cultural Resources

Built environment cultural resources include historic districts, buildings, structures, objects, or sites generally older than 50 years and considered to be important to history, a culture or subculture, or community. Archaeological resources are locations where human activity has measurably altered the earth or left deposits of precontact or historic-period physical remains (e.g., stone tools, bottles, former roads, house foundations). Tribal Cultural Resources include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to California Native American tribes. Tribal cultural resources may contain physical cultural remains or may be places within a landscape such as gathering places, sacred sites, landscape features, plants, or other locations that help maintain religious and cultural practices, traditions, beliefs, lifeways, arts, crafts, or social institution of a living tribal community.¹¹

Marysville is within the lands occupied and traditionally used by the Nisenan – sometimes referred to as the Southern Maidu. Several major Nisenan villages were located near the confluence of the Feather and Bear rivers, near the site of present-day Marysville, with villages ranging from three houses to up to 40 or 50.

Please see the Land Use and Community Development Element for information about historic districts, buildings, structures, objects, and sites.

5.8 Paleontological Resources

Paleontological resources are the fossilized remains of plants and animals that lived prior to the Holocene epoch (i.e., prior to the last 11,700 years). Intact vertebrate fossils are particularly valuable, since they are relatively rare. The recovery and preservation (generally in museum storage) of paleontological resources provides opportunities for further scientific study, which in turn enriches our understanding of life on Earth.

¹¹ The City obtained a comprehensive set of information regarding the location and nature of known cultural resources through a records search of the California Historic Resources Information System at the North Central Information Center Please see the 2050 General Plan and Specific Plan EIR for more details about known cultural resources. This Element also includes policies and implementation strategies that are protective of undiscovered resources.

The geologic formations in Marysville consist of younger (Holocene-age) natural levee and channel deposits, and the Pleistocene-age Riverbank and Modesto Formations.¹² The Riverbank and Modesto Formations are considered to be of high paleontological sensitivity because numerous vertebrate fossil specimens have been recovered from these formations throughout the Sacramento and San Joaquin Valleys.¹³ These formations are present both at and beneath the surface within the City limits but outside of the Marysville Ring Levee. Native deposits within the Marysville Ring Levee consist of the Riverbank Formation. However, the area within the Marysville Ring Levee is highly urbanized and the existing development and redevelopment over the last 100 years has resulted in excavation and grading activities throughout the area, and likely imported fill material, such that any fossil resources that may have originally been present in near-surface soils would have been long since destroyed. Therefore, development in areas that are within the Marysville Ring Levee would only encounter intact unique paleontological resources in native, undisturbed materials at depths greater than six feet below the ground surface. Areas composed of the Riverbank or Modesto Formations outside of the Marysville Ring Levee could encounter unique paleontological resources at any depth, including on top of the ground surface.

5.9 Mineral Resources

Marysville incorporated as a City in 1851, during the gold rush days, when the City served as the northernmost port of access for goods and materials headed to the hundreds of gold mining claims in the western Sierra Nevada mountains and foothills. Active gold and construction aggregate (i.e., sand and gravel) production areas in the region are currently located along the Yuba River, east of the City limits. The Yuba Goldfields, along the south side of the Yuba River approximately two miles east of the northeastern City limits (east of Dantoni), were formed by dredging hydraulic mining debris in the search for gold from the Yuba River floodplain, which began in the early 1900s.¹⁴ The remnant mounds of mixed sand, gravel, and cobbles (in places up to 90 feet tall) were deposited along the active riverbank and interior floodplain, generating irregular gravel/cobble hills and an undulating terrain interspersed with ponds. In more recent years, the Yuba Goldfields have been used to produce aggregate. Current operations in the Yuba Goldfields include gold mining and aggregate production. Active aggregate production is also ongoing in this area on the north side of the Yuba River.

Marysville is within the Yuba City–Marysville and Greater Sacramento Area Production-Consumption Regions for Portland cement concrete-grade aggregate, as designated by the

¹² Saucedo, G.L. and D.L. Wagner. 1992. Geologic Map of the Chico Quadrangle, California, 1:250,000 Scale. Regional Geologic Map Series, Map No. 7A. California Division of Mines and Geology. Sacramento, CA.

¹³ University of California Museum of Paleontology. 2023. Paleontological Collections Database. Available: https://ucmp.berkeley.edu/collections/databases/. Accessed March 16, 2023.

¹⁴ The dredging of hydraulic mining debris started in 1903.

State Mining and Geology Board.¹⁵ The California Geological Survey has established a classification system for Mineral Resource Zones (MRZs). The classification of an area as "MRZ-2" means that regionally important known deposits of mineral resources are present. The City has determined that the areas classified by the State as MRZ-2 should also be considered locally important mineral resource areas.

The southeastern and northeastern portions of the City limits are part of a larger MRZ-2 classification that extends along the Yuba River floodplain from the confluence with the Feather River eastward into the Sierra Nevada.¹⁶

The City has adopted a surface mining ordinance (Marysville Municipal Code Title 21, Chapter 21.04), which regulates surface mining and reclamation activities consistent with SMARA. At the present time, there are no surface mining activities within the City limits. However, mining activities could occur in the future in the undeveloped areas outside the Marysville Ring Levee in the areas that are classified as MRZ-2.

5.10 Agricultural Resources and Soils

Based on farmland classification maps for Yuba County prepared under the California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program, there are 36.5 acres of land within the City limits that are classified as, and in active use as farmland. These areas are situated north and west of the Marysville Cemetery, along with an orchard area between Simpson Lane and the Levee Road on the south side of the City.¹⁷

Yuba County does not participate in the Williamson Act program.

Most of the developed area of the City is enclosed within the Marysville Ring Levee. Soil within the Ring Levee has been mapped by the Natural Resources Conservation Service as primarily "Urban Land." The "Urban Land" classification indicates that the native soil materials have been heavily disturbed due to grading and non-native soil that was imported for construction and development. A variety of native soils are present outside the Marysville Ring Levee. Because most of the area outside the Marysville Ring Levee is designated for Open Space uses, native soil around the perimeter of the city would generally be preserved.

¹⁵ O'Neal, M.D. and F.W. Gius. 2018. Mineral Land Classification: Concrete Aggregate in the Greater Sacramento Area Production-Consumption Region. Special Report 245. California Geological Survey. Sacramento, CA.

¹⁶ Habel, R.S. and L.F. Campion. 1988. Mineral Land Classification: Portland Cement Concrete-Grade Aggregate in the Yuba City-Marysville Production-Consumption Region. Special Report 132. California Division of Mines and Geology. Sacramento, CA.

¹⁷ California Department of Conservation. 2018. Important Farmland Mapping, Yuba County. Available: <u>https://maps.conservation.ca.gov/DLRP/CIFF/</u>. Accessed October 5, 2023.

5.11 Energy

Transportation is the top user of energy in California.¹⁸ Other users of energy include industrial, residential, and commercial uses. Land use and transportation strategies that make walking, bicycling, and transit more practical and convenient have the effect not only of reducing air pollutant emissions, improving public health, and reducing household transportation costs, but also reducing energy demand. In addition, energy efficiency measures in building and construction can reduce energy demand and costs for residents, businesses, and civic uses in Marysville. Pacific Gas & Electric Company (PG&E) currently provides electrical and natural gas services within Marysville and the surrounding area. PG&E, like other electric utility providers, is shifting to renewable and greenhouse gas-free sources, in response to State law requirements.

5.12 Greenhouse Gas Emissions

Certain gases in the Earth's atmosphere, known as greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. The primary GHGs of concern include carbon dioxide, methane, and nitrous oxide. As solar radiation enters the Earth's atmosphere from space, the Earth's surface absorbs a portion of the radiation, and a smaller portion of this radiation is reflected back toward space through the atmosphere. However, infrared radiation is selectively absorbed by GHGs in the atmosphere. As a result, infrared radiation released from the Earth that otherwise would have escaped back into space is "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the "greenhouse effect," is responsible for maintaining a habitable climate on Earth. Anthropogenic (e.g., human-caused) emissions of GHGs lead to atmospheric levels above natural ambient concentrations, leading to global climate change.

Climate change is predicted to have impacts related to flooding and other natural disasters, agriculture, habitats, water supply, and the global economy. Local impacts include extreme heat, flooding, wildfires, and poor air quality from wildfires. Please see the Safety Element for more information on the impacts of climate change and strategies to improve resiliency.

Local governments have taken various approaches to reducing greenhouse gas (GHG) emissions and making communities more resilient to existing and future changes to the climate. Since transportation is the largest source of GHGs in California and in most communities, land use and transportation planning that reduces the need for vehicular travel is the most important way to reduce GHG emissions. As discussed in the Circulation Element, Marysville has several features that help to reduce the need to drive, at least to certain destinations. Marysville has a relatively large number of local jobs, a grid street

¹⁸ U.S. Energy Information Administration. California State Energy Profile. Available: <u>https://www.eia.gov/state/print.php?sid=CA</u>. Accessed May 6, 2024.

network that is pedestrian and bicycle friendly, and a relatively compact development pattern where destinations are close to homes. While some cities are adjusting policies and regulations to provide more freedom for residents in choosing the type of transportation used for different trips (driving, walking, bicycling, transit), Marysville already enjoys a development pattern where it is possible to walk, bicycle, and use transit to reach destinations. With actions that reduce barriers to travel, such as the state highways, and that facilitate additional housing and employment development that accommodates a better match between residents' occupations and local jobs, Marysville could become even more transportation efficient in the future, and GHG-efficient, as well.

5.13 Air Quality

Yuba County is an area that does not meet state and federal air quality standards for ozone and particulate matter.¹⁹ Ozone is a common component of smog and is formed through reactions involving reactive organic gases (ROG) and nitrogen oxides (NO_X) in the presence of sunlight.²⁰ Vulnerable groups, such as individuals with lung diseases, are susceptible to short-term exposure effects of ozone. Recent improvements in air quality related to ozone are attributable to stricter motor vehicle standards and cleaner fuels. Particulate matter is a mixture of small solid particles and fine droplets containing acids, organic chemicals, metals, and soil or dust. Major sources of particulate matter include fugitive dust from roadways, agriculture, construction, and combustion from vehicles, power plants, and wood burning.

Addressing the public and environmental health issues related to air quality requires conservation policies and coordination between land use, circulation, health and safety, and community design policies. Since transportation is the region's largest source of ozone precursors, land use and transportation planning to reduce the need for driving are fundamental focuses for jurisdictions with air quality goals and policies.²¹ The location of highways, railroads, and industrial sources compared to houses, schools, and other sensitive land uses is essential in land use planning.

The Feather River Air Quality Management District (FRAQMD) oversees monitoring and regulation of air quality in Yuba and Sutter Counties. FRAQMD responsibilities include

¹⁹ Yuba County is a nonattainment area for the state and federal ozone standards and the state standards relating to particulate matter smaller than or equal to 10 microns in diameter (PM₁₀). Given the status of state and federal standards, ozone and PM₁₀ are the primary focus of air quality efforts in the region.

²⁰ Emissions of ROG and NOX are critical to ozone formation, with different areas being either NOX-limited or ROG-limited. Meteorology and terrain significantly influence ozone formation, and it is considered a regional pollutant that affects large areas, particularly during the summer.

²¹ Please refer to the California Air Resources Board Web sites for more information on sources of air pollution: <u>https://ww2.arb.ca.gov/capp-resource-center/data-portal/carb-emission-inventory-activity</u> and <u>https://ww2.arb.ca.gov/our-work/programs/almanac-emissions-air-quality</u>.

monitoring air pollution and implementing programs to lower pollution levels, ensuring they comply with the health-based standards set by state and federal authorities.

5.14 Key Issues and Opportunities

Maryville's geography is defined by the Feather and Yuba Rivers and the levees that contain the rivers. These rivers and levees are recreational resources and are a part of the unique character of Marysville and the adjacent areas. The Marysville Ring Levee has historically constrained expansive development within the city, and places additional focus on the efficiency of development within the current footprint. The Marysville Ring Levee also represents a valuable asset and holds additional potential with improvements to be an even more valuable recreational amenity for Marysville and the region, as well as practical means for reaching destinations on foot or with a bicycle – for all of Marysville's residents.

Ellis Lake is a strong central focal point for Marysville and can host expanded recreational opportunities and programming that could complement water quality, landscaping, access, and aesthetic improvements. The City's Bounce Back Vision & Implementation Plan recommends the following features to enhance recreation across Marysville:

- Levee Beautification. Work with the Levee District to enhance the appearance of levees where they are not vegetated and can be easily seen. Consider establishing vegetation across visible slopes, where such vegetation would not compromise the levee stability.
- Waterfront Dining. Encourage waterfront dining near Bryant Field and near the commercial center at B and 9th Streets. Allow food concessions and construction dining terraces. Work in partnership with businesses who might finance these in exchange for an advantageous lease.
- Lakeside Promenade and Lights. Maintain and enhance a continuous sidewalk around Ellis Lake. Address trail users' needs. Create a continuous "necklace of lights" lights along the promenade to encourage use and create a strong visual identity as seen from B Street, 9th Street, and other prominent locations. Provide seating and amenities along the promenade.
- **Pavilions.** Highlight Ellis Lake Park's existing temple-like pavilions with lighting and new paint. Consider replacing pavilions in poor repair with architecturally interesting, and enhanced maintenance.
- **Signature Play Areas.** Construct a large signature play structure in a location that will encourage high levels of activity, such as near Bryant Field.
- **Boating.** Allow and encourage boating and boating concessions, such as paddle boats and water taxis (for recreation and provide connectivity with Bryant Field). Provide facilities to launch watercraft.

5.15 Goals, Policies, and Implementation Strategies

Goal OS-1: **Diverse opportunities for recreation for** residents and visitors. Policy OS-1.1: Continue to provide high-quality, inviting parks that fulfill the diverse recreation interests of all age groups and abilities among Marysville residents. Policy OS-1.2: Ensure access to a variety of parks, trails, and plazas at a ratio of 7.5 acres per 1,000 residents. Policy OS-1.3: The City shall continue to explore sustainable funding for the upkeep and maintenance of its existing parks. With this in mind, consider development of surplus parkland where such development would not substantially affect access to parkland for Marysville residents. Policy OS-1.4: Encourage compatible recreational uses in floodplains of the Feather and Yuba Rivers and Jack Slough that will enhance access to scenic vistas. Policy OS-1.5: Improve the recreational spaces and facilities surrounding Ellis Lake consistent with the Ellis Lake Master Plan and continue to explore funding opportunities to complete improvements. Policy OS-1.6: Incorporate flood control, habitat preservation, and habitat restoration objectives, as appropriate for improvements to recreational open space along rivers and sloughs. Policy OS-1.7: Take into consideration the location and design of active portions of parks that may generate light and noise, to ensure compatibility with the surrounding neighborhood. Policy OS-1.8: Engage in planning with local and regional agencies such as Yuba County and the Sacramento Area Council of Governments to explore grant and other funding opportunities for new trails and improved connections to existing trails. Policy OS-1.9: Collaborate with public agencies, businesses, and nonprofit organizations serving Marysville residents to maximize opportunities for recreational facility joint use and cost sharing. Policy OS-1.10: Pursue funding and partnerships with other agencies that could provide new recreational programs to meet the needs of Marysville citizens.

Policy OS-1.11: Encourage compatible uses to locate near existing recreational assets, including private recreational operations, such as trails and campgrounds and ensure that these uses are designed to avoid any adverse habitat and water quality impact.

Implementation Strategy OS 1.1-1

Maintain, renovate, and improve existing parks so that they serve the diverse recreation needs of Marysville residents by providing safe, accessible, functional, and secure recreational spaces. Renovate existing park facilities so that they are compliant with the Americans with Disabilities Act (ADA] and AB 1881 Water Efficient Landscape Ordinance.

Implementation Strategy OS 1.1-2

Consider a Joint Use Agreement with the Marysville Joint Unified School District for after-hours use of outdoor sports facilities to meet present and future community recreational needs.

Implementation Strategy OS 1.1-3

Seek funding and partnerships to improve the surface of the Marysville Ring Levee, add amenities such as landscaping and bench seating, construct safe access points from different locations in the community, and develop connections to other existing and planned trails and bicycle/pedestrian facilities.

Implementation Strategy OS 1.1-4

Consistent with the Ellis Lake Master Plan, implement plans to improve water quality, increase regular and special event programming, enhance aesthetics, add public facilities and public art, and construct pedestrian and bicycle improvements in and around Ellis Lake, including improvements that change the overall size of the Lake while preserving adequate capacity for stormwater management.

Goal OS-2: Conserve and protect water supply, groundwater sustainability, and water quality.

- Policy OS-2.1: Participate in ongoing water supply and groundwater sustainability planning with the California Water Service Company, Yuba Water Agency, and the Cordua Irrigation District.
- Policy OS-2.2: Implement applicable water efficiency requirements for both indoor and outdoor water use in new development.

- Policy OS-2.3: Provide public educational materials related to water conservation and water quality on the City's website.
- Policy OS-2.4: Preserve the Feather River, Yuba River, and Jack Slough floodplains for continued groundwater recharge.
- Policy OS-2.5: Require any new water wells drilled near existing watercourses in areas designated Open Space to be set back from the watercourse to avoid an impact to stream hydrology.
- Policy OS-2.6: Facilitate a flexible approach for stormwater treatment and management systems that implements low impact development methods in new development and recognizes constraints for infill development.
- Policy OS-2.7: Discourage grading activities during the rainy season and require activities that are conducted during the rainy season to implement measures that will avoid erosion, pollutant transport, and sedimentation of water bodies.
- Policy OS-2.8: Design, construct, and maintain development projects to prevent the discharge of untreated sediment and other pollutants carried by urban runoff into local streams, to the maximum extent feasible.
- Policy OS-2.9: Minimize the land area covered with driveways, loading areas, and parking lots in site planning for new development in order to reduce stormwater flows, reduce pollutants in urban runoff, and reduce flooding.
- Policy OS-2.10: New development in the northeastern corner of the city designated Fabrication and Services shall be designed and operated to avoid discharge of untreated process water or stormwater into the Yuba River.
- Policy OS-2.11: Require all new commercial and industrial development to implement water quality treatment measures consistent with the California Stormwater Quality Association's Industrial and Commercial Best Management Practices Handbook and the City's Post-Construction Standards Plan.
- Policy OS-2.12: Development adjacent to the Feather River, Yuba River, and Jack Slough shall be designed to avoid significant adverse impacts on wetland and riparian vegetation, stream bank stability, and stream water quality.

Implementation Strategy OS 2.1-1

The City will implement and update the Urban Stormwater Quality Management and Discharge Control Ordinance, as necessary, to control grading, reduce erosion, and protect water quality and sensitive habitat from the effects of pollutant transport, with appropriate exemptions.

Implementation Strategy OS 2.1-2

Periodically update the City's Storm Drainage Master Plan to identify needs for maintenance and new facilities.

Goal OS-3: Protected wildlife and plant habitat and movement corridors.

- Policy OS-3.1: Preserve and, where necessary, mitigate for the impacts of development to vegetation communities that provide habitat for sensitive plant and wildlife species.
- Policy OS-3.2: Protect natural watercourses, drainage channels, floodplains, and lakes designated for Open Space to provide wildlife movement corridors.
- Policy OS-3.3: Design development adjacent to the Feather River, Yuba River, and Jack Slough to avoid significant adverse impacts on wetland and riparian vegetation, stream bank stability, and stream water quality.
- Policy OS-3.4: Require biological resources investigations for proposed discretionary development that could adversely affect wildlife and plant species or habitat, and/or sensitive natural community habitat.
- Policy OS-3.5: Set back the perimeter of all surface mining activities at least 100 feet from the edge of the stream bed (i.e., the physical confine of the normal water flow in the channel) to protect the habitat in areas where sensitive riparian habitat is present immediately adjacent to the Yuba River.

Implementation Strategy OS 3.1-1

The City will require a biological resources analysis for new private developments and public facilities projects that could adversely affect potential special-status species habitat. If, after examining all feasible means to avoid impacts to potential special-status species habitat through project site planning and design, adverse effects cannot be avoided, then impacts shall be mitigated in accordance with guidance from the appropriate agency charged with the protection of the subject species, including surveys conducted according to applicable standards and protocols, where necessary, implementation of impact minimization measures based on accepted standards and guidelines and best available

science, and compensatory mitigation for unavoidable loss of sensitive and special-status species habitats.

Goal OS-4: Preserve archaeological, tribal cultural, and unique paleontological resources.

- Policy OS-4.1: Consult with local Native American Tribes that are traditionally and culturally affiliated with local resources, identify areas that may be of cultural or tribal cultural significance, and determine appropriate strategies to avoid adverse effects to these resources.
- Policy OS-4.2: Coordinate with the appropriate federal, state, local agencies, and Native American Tribes upon discovery of indigenous belongings and cultural site materials to determine the appropriate treatment.
- Policy OS-4.3: Where recreational improvements in parks and open spaces could affect significant cultural or tribal cultural resources, projects should be redesigned to avoid impacts.
- Policy OS-4.4: Avoid damage to unique paleontological resources and preserve intact fossil specimens if discovered.

Implementation Strategy OS 4.1-1

For discretionary projects that could have significant adverse impacts to potentially significant archaeological resources, including those which are tribal cultural resources, or are associated with a tribal cultural resource, require tribal consultation, preparation of cultural resource analysis, monitoring and other steps consistent with the General Plan EIR.

Implementation Strategy OS 4.1-2

For discretionary projects that are subject to CEQA within the City limits but outside of the Marysville Ring Levee, and where earthmoving activities will occur in either the Riverbank or Modesto Formations, the project applicant shall arrange for a qualified paleontologist or archaeologist to present construction worker personnel training prior to the start of construction activities. The training shall include the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered.

Implementation Strategy OS 4.1-3

For all discretionary projects that are subject to CEQA within the Marysville Ring Levee, if earthmoving activities would occur to a depth greater than six feet below the ground surface, the project applicant shall

arrange for a qualified paleontologist or archaeologist to present construction worker personnel training prior to the start of construction activities. The training shall include the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered.

Implementation Strategy OS 4.1-4

If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work in the vicinity of the find and notify the project applicant and the City. The project applicant shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan. The recovery plan may include, but is not limited to a field survey, construction monitoring, sampling and data recovery procedures, museum curation for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the applicant and the City to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resource was discovered.

Goal OS-5: Orderly extraction of minerals while protecting sensitive environmental resources.

- Policy OS-5.1: Facilitate the production, conservation, and protection of mineral resources within State-designated mineral resource sectors, balanced with the need for environmental stewardship.
- Policy OS-5.2: In areas where sensitive riparian habitat is present immediately adjacent to the Yuba River, the perimeter of all surface mining activities shall be set back 100 feet from the edge of the stream bed (i.e., the physical confine of the normal water flow in the channel) to protect the habitat.
- Policy OS-5.3: Allow uses such as plant nurseries, recreational open space, and other temporary uses in State-designated mineral resource sectors prior to and pending their use for mineral extraction.

Implementation Strategy OS 5.1-1

Proposed surface mining activities shall comply with the requirements set forth in Municipal Code Chapter 21.04, including preparation of a Reclamation Plan that includes provisions to control contaminants and erosion and protect water quality during active mining operations, and avoid impacts to floodplain functions and values along with riparian and wildlife habitat for the City's review, revision, and consideration for approval.

Goal OS-6: Improved energy and greenhouse gas efficiency that reduces household and business energy and transportation costs.

- Policy OS-6.1: Encourage the retrofitting of existing buildings with energy efficient systems, energy-efficient appliances, insulation, energy-efficient doors and windows, including the flexible application of historic building codes that encourage renewable energy systems and energy efficiency retrofits.
- Policy OS-6.2: Preserve to the extent feasible, existing trees and plant new trees along streetscapes in locations that shade existing and future buildings from the hot afternoon summer sun.
- Policy OS-6.3: Improve energy efficiency and increase renewable energy generation at City buildings and properties.
- Policy OS-6.4: Collaborate with other agencies on a local expansion of electric vehicle charging infrastructure.

Implementation Strategy OS 6.1-1

The City will seek partnerships with other public agencies or nonprofits to develop and implement a plan that maintains and expands the City's urban forest, with a focus on areas where shade would improve the energy efficiency of buildings and enhance comfort in public gathering spaces.

Implementation Strategy OS 6.1-2

The City will participate in available financing and other incentive programs for property owners that encourage energy efficiency improvements. The City will explore possible funding opportunities, including low-interest financing, grants, and other programs and funding mechanisms that could be used for energy efficiency retrofits in existing residential, commercial, civic, and industrial buildings. The City will identify methods to encourage the retrofitting of existing buildings with energy efficient systems, energy-efficient appliances, insulation, energyefficient doors and windows, and other elements that conserve resources, as well as installation of renewable energy facilities. The City will provide information on available programs to residents and business owners.

Implementation Strategy OS 6.1-3

The City will seek funding to reduce ongoing City energy costs by installing renewable energy systems on City buildings and properties,

making improvements that improve energy efficiency in City buildings, transitioning the City's vehicle fleet to more energy efficient fuel sources, converting to LED streetlights, and making other improvements that increase renewable energy generation and use or improve energy efficiency.

Goal OS-7: Reduced exposure to harmful and hazardous air pollutants and objectionable odors.

- Policy OS-7.1: Require new development to implement applicable standard emission control measures recommended by the Feather River Air Quality Management District for construction, grading, excavation, and demolition.
- Policy OS-7.2: Review projects that involve substantial stationary sources of emissions and condition such projects to avoid significant impacts to nearby sensitive receptor land uses, such as residences, schools, and the hospital.
- Policy OS-7.3: Use the lowest commercially available volatile organic compound emitting architectural coatings (e.g., paints, stains, industrial maintenance coatings, traffic coatings, and many other products) for City buildings and structures.
- Policy OS-7.4: Increase the use of low-maintenance, climate-appropriate landscaping and low-emissions landscape maintenance equipment in parks and other City-maintained landscaped areas and open space.
- Policy OS-7.5: Install odor controls on new and existing sources, as feasible, to reduce exposure for existing and future residents.
- Policy OS-7.6: Coordinate during the application process with the Feather River Air Quality Management District to identify sources of toxic air contaminants and determine the need for health risk assessments for proposed development.

Implementation Strategy OS 7.1-1

During the development review process for projects subject to the California Environmental Quality Act, and that could result in a potentially significant impact, the City will require the implementation of applicable and feasible mitigation measures, including those recommended by Feather River Air Quality Management District or otherwise demonstrated

to achieve reductions, in order to avoid, reduce, or offset construction and operational emissions.

Implementation Strategy OS 7.1-2

Construction equipment over 50 brake horsepower (bhp) used in locations within 300 feet of an existing sensitive receptor shall meet Tier 4 or cleaner engine emission standards. Alternatively, a project applicant may prepare a site-specific estimate of diesel PM emissions associated with total construction activities and evaluate for health risk impact on existing sensitive receptors in order to demonstrate that applicable Feather River Air Quality Management District-recommended thresholds for toxic air contaminants would not be exceeded or that applicable thresholds would not be exceeded with the application of alternative mitigation techniques approved by the Feather River Air Quality Management District.

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