
Nevada County General Plan

Volume 1: Goals, Objectives, Policies, and Implementation Measures

Section 3: Resource Conservation and Development

Chapter 11: Water

Introduction and Setting

Nevada County is characterized by a large and diverse hydrologic system. Surface water drainage is comprised of three watersheds: the Truckee River basin in the eastern part of the County; and the Yuba River and Bear River basins in the western part of the County. These watersheds supply water to serve portions of both northern California and western Nevada, and many of the creeks and rivers produce hydroelectricity as well.

As would be expected, all of the hydrologic features are dependent on winter rain and snowfall, with the Sierra snowpack being the primary source of water for all of the watersheds. The seasonal as well as annual water flows are highly variable, with rainfall peaks typically occurring between November and February, and snowmelt-related peaks typically occurring between April and June.

Within all parts of the County, there is an extensive network of perennial (year round) and intermittent (seasonal) creeks, streams and rivers, ranging in size from the South Yuba River to small, unnamed seasonal drainages. Riparian corridors along these watercourses provide important year round and migratory wildlife habitats, and allow for movement and linkages across wider areas of the county. While riparian corridors in the County may have been disrupted in some areas as a result of agriculture, logging, hydroelectric facilities and land development, these disruptions do not negate the potential value of the corridors as wildlife habitat and linkages.

The quality of surface waters in Nevada County varies, typically with very good water quality in the more mountainous, less-developed areas, and more frequent water quality impacts as elevation decreases and development increases. Water quality is most affected in the upper elevations as a result of recreational and logging uses, while the lower elevations are affected by land development, mining, grazing and urban runoff. Soil erosion and sedimentation are closely tied to surface water quality. The smallest soil particles may be transported and deposited by water or air constituting the process of siltation. Sedimentation occurs when larger particles consolidate and are deposited on the beds of creeks, rivers or streams. Naturally occurring elements such as heavy metals, have also contributed to water quality degradation in a number of areas within the western county, while the Department of Water Resources is currently testing eastern Nevada County for radon.

Chapter 11: Water Element

Wetlands in Nevada County are generally small, isolated features dependent on riparian water, NID ditch leaks or overflows, diversions by agricultural operations or natural seeps or springs. Man-made or naturally occurring wetlands provide an important biological resource both through provision of localized habitat and habitat for migratory species and as a natural water filtration system. The wetlands of the County are not well mapped but are located throughout the area. The primary issues related to wetlands are loss due to filling as a result of land development; degradation or loss due to interruption of water supply from natural and man-made drainage systems; and degradation due to degraded water quality, resulting from increased pollution from urban runoff, sedimentation, pesticides and herbicides.

The ground water resources in the County are of two distinct types. Those in the western County are characterized as poorly defined and variable. The highly fractured characteristics of the subsurface geology, as well as a variety of other factors such as soil depth and percolation, combine to create a highly variable and inconsistent ground water characteristics. In eastern Nevada County, the Martis Valley aquifer is the primary subsurface hydrologic resource.

Areas susceptible to flood hazard are relatively limited in the County. In general, there are no significant wide flood plains as would be found in areas with less general slope. Squirrel Creek in Penn Valley has a wider flood potential area than other streams within the County; however, it is still not a wide, in comparison with other locations in the State, such as those in the Central Valley, which cover thousands of acres. The major flooding problems in Nevada County normally occur during the winter months from November through April. Localized flooding can be severe when the ground is already saturated or existing snow is melted by warmer rains.

Further discussion of the water resources of the county is contained in Section 4: Open Space/Conservation Inventory, of Volume 2 of the Nevada County General Plan; and in Section 4 of the Nevada County Master Environmental Inventory, which is part of Volume 2 of the Nevada County General Plan. Flood Hazard Zones within the county are identified and discussed in Section 4 of the Nevada County Master Environmental Inventory.

Goals, Objectives, and Policies

Nevada County possesses a large diverse hydrological system of surface and land ground water resources. The good water quality of the mountainous areas gives way to adverse impacts in the lower elevations due to land development, grazing, mining, and urban runoff.

Additional goals, policies and objectives generally related to water resources are located in Chapter 1: Land Use; Chapter 3: Public Facilities and Services; Chapter 5: Recreation; Chapter 6: Open Space; Chapter 10: Safety; Chapter 13: Wildlife and Vegetation; Chapter 16: Agriculture; and Chapter 17: Minerals Management.

Goal 11.1

Identify, protect and manage for sustainable water resources and riparian habitats.

Objective 11.1

Promote and provide for conservation of domestic and agricultural water.

Action Policy

Policy 11.1 Adopt water conservation standards, consistent with State guidelines, for multi-family, commercial and industrial development encouraging installation and use of low-flow plumbing fixtures, drip irrigation systems, and drought-tolerant landscape plantings.

Directive Policies

Policy 11.2 Encourage the protection of resources which produce water for domestic and agricultural consumption.

Also see: Chapter 13: Wildlife and Vegetation

Policy 13.1

Chapter 16: Agriculture

Policy 16.14

Policy 11.3 To promote protection of water quality where water is transported in open canals, the County shall support reasonable protective regulations adopted by public water purveyors in the processing of subdivision and discretionary permit applications.

Policy 11.3A The County shall provide for a comprehensive and organized system of well log data. Such data shall be generalized as necessary to protect confidentiality of individual wells. This information will be utilized by decision makers to assist in the making of land use decisions.

Objective 11.2

Preserve surface and sub-surface water quality and, where feasible, improve such quality.

Directive Policies

Policy 11.4 Cooperate with State and local agencies in efforts to identify and reduce to acceptable levels all sources of existing and potential point- and non-point-source pollution to ground and surface waters, including leaking fuel tanks, discharges from storm drains,

auto dismantling and dump sites, sanitary waste systems, parking lots, roadways, logging and mining operations.

Also see: Chapter 12: Soils

Policy 12.1

Chapter 17: Minerals Management

Policy 17.11; Policy 17.12; Policy 17.15

Policy 11.5 Maintain the operation of the Nevada County Water Agency Advisory Council in order to promote continuing communication and cooperation between public water purveyors and other public agencies in protecting and enhancing the County's water resources.

Policy 11.6 The County shall continue to enforce its regulations concerning the installation and operation of private sanitary waste disposal systems in order to protect the quality of surface and ground water. The location of septic tanks and leachfields and their appropriate setbacks from water courses shall be in accordance with the guidelines of the Lahontan Regional Water Quality Control Board (eastern County) and the Central Valley Regional Water Quality Control Board (western County).

Policy 11.6A New development shall minimize the discharge of pollutants into surface water drainages by providing the following improvements or similar methods which provide equal or greater runoff control: (a) include curbs and gutters on arterials, collectors, and local roads consistent with adopted urban street designs; and (b) oil, grease, and silt traps for subdivisions creating 5 or more parcels and commercial and industrial development of 1 acre or greater size. Maintenance of such facilities shall be assured through a legally-enforceable mechanism.

Policy 11.6B In order to determine the potential long-term effects of the continued use of septic tank/leachfield systems on groundwater quality, the County shall provide for a comprehensive and organized database of system failures based on current and updated data available in the Department of Environmental Health. Such information shall assist the County in determining existing and potential septic tank/leachfield system problem areas.

Also see: Chapter 3: Public Facilities and Services

Policy 3.19

Objective 11.3

Preserve and, where economically feasible, restore the density and diversity of water-dependent species and continuous riparian habitats based on sound ecological principles.

Action Policy

Policy 11.7 Through the development and application of Comprehensive Site Development Standards, and project environmental review, establish and enforce minimum building setback lines from perennial streams and significant wetlands that are adequate to protect stream and wetland resource values.

Also see: Chapter 1: Land Use

Policy 1.17

Chapter 13: Wildlife and Vegetation

Policy 13.1

Directive Policy

Policy 11.8 Utilize voluntary clustering of development to preserve stream corridors, riparian habitat, wetlands, and floodplains.

Also see: Chapter 1: Land Use

Policy 1.18

Chapter 13: Wildlife and Vegetation

Policy 13.1

Objective 11.4

Preserve the integrity and minimize the disruption of watersheds and identified critical water courses.

Directive Policy

Policy 11.9 Within *Rural Regions*, maintain the low densities of development allowed in the Rural and Forest General Plan Land Use Designations, in order to protect existing watersheds.

Policy 11.9A Approve only those grading applications and development proposals that are adequately protected from flood hazards and which do not add flood damage potential. This may include the requirement for foundation design which minimizes displacement of flood waters, as well as other mitigation measures.

Policy 11.9B Require new utilities, critical facilities and non-essential public structures to be located outside the 100-year flood plain unless such

facilities are necessary to serve existing uses, there is no other feasible location, and construction of these structures will not increase hazards to life or property within or adjacent to the floodplains.

Policy 11.9C

When constructed within a floodplain, require elevation of the habitable portions of residential structures to be above the 100-year flood level. Require flood-proofing or elevation of non-residential structures. Require that foundations do not cause floodwater displacement except where necessary for flood-proofing.

*Also see: Chapter 1: Land Use
Policy 1.22*

Objective 11.5

Support the acquisition, development, maintenance and restoration, where clearly consistent with General Plan policies, of habitat lands for wildlife enhancement.

Directive Policies

Policy 11.10

Cooperate with State and Federal agencies and public and quasi-public organizations and agencies in the acquisition, restoration, and maintenance of habitat lands.

*Also see: Chapter 13: Wildlife and Vegetation
Policy 13.1*

Policy 11.11

Cooperate with and encourage the USFS and BLM to restore/maintain habitat areas on existing owned lands.