



PLUMAS COUNTY 2035 GENERAL PLAN WATER RESOURCES ELEMENT

Photo Credit: Lake Almanor with Mt. Lassen by Jan Davies

GOAL 9.1 Groundwater Management

To manage groundwater as a valuable and limited resource and to ensure its sustainability as a reliable water supply sufficient to meet the existing and future needs of Plumas County.

9.1.1 Groundwater Management + Implementation Measure #1, #10

The County shall support the development and implementation of a regional groundwater management plan and shall work with water resource agencies, such as the Sierra Valley Groundwater Management District, water users and other affected parties to develop basin-specific plans for high priority groundwater basins to ensure a sustainable, adequate, safe and economically viable groundwater supply for existing and future uses within the County. As appropriate, the groundwater management plans should include the following:

- Computer models of groundwater recharge, storage, flows, usage and sustainable yield for appropriate water years (both wet and dry years) and growth scenarios (existing and future year);
- Assessment of water quality contaminants;
- Analysis of resource limitations and relationships to other users for wells serving public supply systems and other large users;
- Opportunities for changing the sources of water used for various activities to better match the available resources and protect groundwater;
- Possible funding sources for monitoring, research, modeling and development of management options;
- Provisions for applicant fees and other funding of County costs.
- Groundwater elevation monitoring to address the requirements of the California Statewide Groundwater Elevation Monitoring Program (CASGEM); and
- Groundwater quality monitoring to address the requirement of the Irrigated Lands Regulatory Program.



GOAL 9.1 Groundwater Management cont.

To manage groundwater as a valuable and limited resource and to ensure its sustainability as a reliable water supply sufficient to meet the existing and future needs of Plumas County.

9.1.2 Groundwater Recharge Area Protection + Implementation Measure #1, #10

The County shall require that all projects be designed to maintain or increase the site's pre-development absorption of rainfall (minimize runoff), and to recharge groundwater where appropriate. Implementation would include standards that could regulate impervious surfaces, provide for water impoundments (retention/detention structures), protecting and planting vegetation, use of permeable paving materials, bioswales, water gardens, and cisterns, and other measures to increase runoff retention, protect water quality, and enhance groundwater recharge.

9.1.3 Groundwater Demand Reductions + Implementation Measure #1, #10

The County shall encourage the use of alternate sources of water supply as appropriate and to the maximum extent feasible in an effort to reduce demand on key groundwater resources in the county.



GOAL 9.2 Water Quality

To protect, restore and enhance the quality of surface and groundwater resources to meet the needs of all reasonable beneficial uses.

9.2.1 Participation in Water Quality Objectives + Implementation Measure #10

The County shall support and assist in the development of reasonable and prudent Total Maximum Daily Loads (TMDLs) for the impaired water bodies and pollutants of concern identified by the Central Valley Regional Water Quality Control Board (RWQCB) to achieve compliance with adopted Total Maximum Daily Loads. Work with the Central Valley Regional Water Quality Control Board to develop and implement measures consistent with the adopted TMDLs. The County shall also work closely with the Central Valley Regional Water Quality Control Board, the City of Portola, public water supply purveyors and other interested parties in the development and implementation of water quality plans and measures.

9.2.2 Background Water Quality + Implementation Measure #10

The County shall encourage the use of water management strategies, biological remediation and the best available technology to address naturally occurring water quality problems.



GOAL 9.2 Water Quality cont.

9.2.3 County Facilities + Implementation Measure #2, #10

The County shall design, construct and maintain County buildings, roads, bridges, drainage and other facilities to minimize sediment and other pollutants in stormwater flows.

9.2.4 Wildfire and Water Quality Controls + Implementation Measure #2, #10

The County shall, in cooperation with wildfire management agencies, such as Cal Fire, United States Forest Service and local fire protection agencies, develop a variety of land-use planning, site design and vegetation management techniques to reduce the risk of wildfires. This risk reduction shall also include post-fire erosion, sedimentation and water-quality conditions.

9.2.5 Wastewater Standards and National Pollutant Discharge Elimination System (NPDES) + Implementation Measure #2, #10

The County shall support wastewater agencies' efforts to meet applicable NPDES permit requirements and waste discharge requirements in compliance with the Federal Water Pollution Control Act and California's Porter-Cologne Water Quality Control Act.



GOAL 9.2 Water Quality cont.

9.2.6 Erosion and Sediment Control Measures + Implementation Measure #2, #10

The County shall ensure that Best Management Practices to control erosion and sediment will be incorporated into development design and improvements.

9.2.7 Wastewater Application Management + Implementation Measure #10

The County shall approach all wastewater applications, both individual on-site and community systems, in a manner that supports Federal, State and local wastewater regulations to ensure the protection of public health and the environment.



GOAL 9.3 Climate Change Adaptation

To ensure that the County proactively develops and supports programs and policies for forest and watershed management to counteract trends in declining snowpack storage, accelerated Spring runoff, and declining overall runoff that threaten both larger flood events and diminished late-season water supplies.

9.3.1 Water Resource Adaptation + Implementation Measure #4, #10

The County shall encourage water purveyors to develop plans for responding to potential changes in weather patterns resulting from climate change effects, the sharing of water resources to improve water supply reliability and the allocation of water supply to priority users. Climate patterns will also be monitored for their ability to affect existing drainage patterns and their resultant effects to flood-prone areas.

9.3.2 Forest Management + Implementation Measure #10

The County shall support plans and projects to improve the conditions of overstocked forestlands, especially around communities-at-risk, to reduce the potential adverse impacts from wildfires, to protect watersheds, habitats and reduce excessive evapotranspiration losses.



GOAL 9.4 Watershed Management and Water Exports

To maintain sound management of the water resources in Plumas County's diverse watersheds and assure that any proposals for surface and groundwater exports are stringently reviewed to ensure that they do not undermine the County's ability to sustain an adequate supply of high-quality water for all its water users and dependent natural resources.

9.4.1 Watershed Protection + Implementation Measure #5, #10

The County shall require new development projects to mitigate potential impacts on surface water, recreation areas, agriculture and wildlife habitat areas.

9.4.2 In-stream Flow Rate Management + Implementation Measure #5, #10

The County shall support reasonable in-stream flow standards to protect aquatic habitat and fisheries while balancing water supply needs and protecting water rights within the Feather River watershed.

9.4.3 Watershed and Community-Based Efforts + Implementation Measure #5, #10

The County shall support the efforts of local community-based watershed groups to protect water resources and work with local groups to ensure decisions and programs take into account local opinions, priorities and needs.



GOAL 9.4 Watershed Management and Water Exports cont.

9.4.4 Regional Water Management + Implementation Measure #5, #10

The County shall support regional efforts through the Upper Feather River Integrated Regional Water Management Plan (UFRIRWMP) to ensure coordination and adaptive management between statewide water resource planning efforts, regional priorities and local needs. The goals and objectives of the UFRIRWMP shall be considered in establishing County water resource priorities and policies.

9.4.5 Watershed Program Funding + Implementation Measure #5, #10

The County shall support efforts to obtain grant funding for locally sponsored watershed programs, and planning efforts and projects that enhance and protect the Feather River Watershed.



GOAL 9.4 Watershed Management and Water Exports cont.

9.4.6 Water Export Projects on Plumas County Watercourses + Implementation Measure #5, #10

The County, prior to giving its approval and support to export projects on county watercourses, will require the following information to demonstrate the export project's adherence to the requirements of California Water Code Section 10505 protecting development rights and Section 11460 protecting beneficial needs of the watersheds. The analysis of the export project shall include:

- Effects on in-stream flows, including flood events;
- Effects on fisheries and native wildlife habitat and restoration efforts;
- Assessment of the environmental impact of the proposed project using appropriate ecological studies by a team of independent experts qualified to conduct such studies, funded by the project sponsor and completed before project authorization;
- Analysis of the sustainability of any proposed fisheries and wildlife habitat mitigations;
- Impacts to Native American communities, including cultural and archaeological resources, economies, fisheries and water supplies;
- Water supplies necessary to meet the ultimate future development needs of residential, agricultural, municipal, industrial and recreational users, and to promote environmental protection and fisheries habitat restoration;
- Cost and benefits to recreation;
- Water quality impacts and provisions for enhancement of any impaired water bodies (Section 303(d) of the federal Clean Water Act);
- Property tax and other fiscal or economic losses to local entities;
- Public infrastructure and service demands and costs including roads and recreation facilities; and
- Public cost and benefits on statewide, regional, county and local scales including the monetized value of impacted ecological services.



GOAL 9.4 Watershed Management and Water Exports cont.

9.4.7 *Minimizing the Effects of Water Exports + Implementation Measure #5, #10*

The County shall require that exports not damage the County's environmental and economic setting by ensuring that "no unreasonable effect" occurs in the transfer and withdrawal of water resources pursuant to Section 1810 of the State Water Code. County standards for defining "no unreasonable effect" include actions that will not:

- Contribute to a decline in the population of any sensitive or protected plant, fish or wildlife species;
- Reduce water levels in any existing public or private groundwater wells to levels that preclude withdrawal by existing users or would substantially increase the costs of such withdrawal;
- Contribute to any impacts on water quality that reduces water quality below health standards or Federal or State water quality standards;
- Contribute to effects on water quality that would result in a deficiency by the water treatment agency's ability to treat water to appropriate standards;
- Reduce available groundwater or surface water resources to levels that would make access and/or use of these waters uneconomical for development planned in accordance with this General Plan; and
- Directly or indirectly discharge contaminants into surface or groundwater resources.



GOAL 9.4 Watershed Management and Water Exports cont.

9.4.8 Hydroelectric Project Relicensing + Implementation Measure #5, #10

The County shall encourage that dam relicensing projects effectively balance development values, such as electric power, flood control and water supply, with non-developmental values, such as environmental resource protection, recreation, habitat restoration and water quality, and other values that best reflect the public interest. Efforts to mitigate project impacts should not impose redirected impacts on other public or private resources.



GOAL 9.5 Public Water Supply

To encourage public water systems and their sources to provide an adequate supply to meet long-term needs and that is provided in a manner that maintains water resources for other water users while protecting the natural environment.

9.5.1 Adequate Water Supply Facilities and Services + Implementation Measure #6, #7, #10

The County shall support water purveyors' plans to develop new reliable future sources of supply, while promoting water conservation and water recycling/reuse. Additionally, through the development review process, the County shall ensure that public water facilities and services will be adequate and operational to serve new development and meet capacity demands when needed. Such needs shall include capacities necessary to comply with public safety.

9.5.2 Cooperative Planning for Water Supply + Implementation Measure #6, #7, #10

The County shall work with public water supply purveyors to disseminate and discuss information on the limits of available water supplies, how the supplies can be used efficiently, the possible effects of drought conditions, acceptable levels of risk of shortage for various water users, priorities for allocation of the available water supply, conditions for use of limited supplies, and limits of alternate sources that could be used or developed.



GOAL 9.5 Public Water Supply cont.

9.5.3 Urban Water Management Plans + Implementation Measure #7, #10

The County shall encourage and assist in the preparation of master facilities plans, and urban water management plans where required by State law, for all public water suppliers, to design and construct all facilities in accordance with sustainable yields and the planning documents of applicable jurisdictions.

9.5.4 Water Supply for New Development + Implementation Measure #7, #10

The County shall ensure a sufficient water supply for all new residential/non-residential development. To do this, the County shall comply with Water Code Section 10910 (Senate Bill 610) and Government Code Section 66473.7 (Senate Bill 221), or more current state code requirements. Where these codes do not apply (i.e., because the “projects” at issue do not meet the minimum size requirements for triggering duties under Senate Bill 610 or Senate Bill 221), the County shall impose conditions similar to those required by Water Code Section 10910 (Senate Bill 610) and Government Code Section 66473.7 (Senate Bill 221), or more current state code requirements, and suitable for the size and scale of the development. For projects requiring discretionary approvals from the County, the County shall identify the resultant significant environmental impacts associated with these projects, if any, along with available and feasible means to address these impacts.



GOAL 9.5 Public Water Supply cont.

9.5.5 Water Rights Protection + Implementation Measure #7, #10

The County shall support public agencies and private entities within Plumas County in their efforts to protect their water rights and water supply contracts.

9.5.6 Consistent Fire Protection Standards + Implementation Measure #6, #7, #10

The County, in coordination with local water service purveyors, wildfire protection agencies and local fire protection agencies, shall ensure consistent and adequate standards for fire flows and fire protection for new development, with the protection of human life and property as the primary objectives.

9.5.7 Community Water Systems + Implementation Measure #6, #7, #10

The County shall require any new community water system, in the unincorporated area of the county, serving residential, industrial or commercial development to be owned and operated by a public or private entity that can demonstrate to the County adequate financial, managerial and operational resources.



GOAL 9.5 Public Water Supply cont.

9.5.8 Level of Service Impacts + Implementation Measure #7, #10

The County shall ensure that any new development projects do not create significant adverse impacts on existing water and wastewater infrastructure.

9.5.9 Funding for Water Supply Improvements + Implementation Measure #7, #10

The County shall support water/wastewater purveyors use of all appropriate and equitable financing methods (e.g., grant funding, assessment districts and development fees) to finance public facility design, construction, operation and maintenance.



GOAL 9.6 Wastewater Management

To ensure that wastewater is managed to provide for the long-term protection of public health, safety and welfare of the environment, including support of the logical and progressive expansion of community wastewater systems within the County.

9.6.1 Adequate Facilities and Services + Implementation Measure #3, #7, #10

The County shall ensure, through the development review process, that wastewater facilities and services will be adequate and operational to serve new development and meet capacity.

9.6.2 Alternative Wastewater System Approval + Implementation Measure #3, #7, #10

The County may approve new development that can demonstrate to the County that sewer service will be provided from an alternative wastewater system with adequate financial, managerial and operational resources, where connection to an approved sewer system is not feasible.



GOAL 9.7 Stormwater Management

To manage stormwater from existing and future development in an efficient manner through methods that maintain natural water quality, enhance percolation for groundwater recharge, reduce potential flooding, support natural wetlands and provide opportunities for reuse.

9.7.1 Natural Stormwater Drainage Courses + Implementation Measure #8, #10

The County shall require that natural drainage courses, including ephemeral streams, be retained and protected from development impacts which would alter the natural drainage courses, increase erosion or sedimentation or have a significant adverse effect on flow rates or water quality. Natural vegetation within riparian and wetland protection zones shall be maintained to preserve natural drainage characteristics consistent with the policies provided in the Conservation Element. Storm-water discharges from outfalls, culverts, gutters and other drainage control facilities that discharge into natural drainage courses shall be dissipated so that they make no contribution to additional erosion and, where feasible, are filtered and cleaned of pollutants.



GOAL 9.7 Stormwater Management cont.

9.7.2 Downstream Peak Flows + Implementation Measure #8, #10

For new development, the County shall require that peak stormwater discharge not exceed the capacity limits of off-site drainage systems or cause downstream erosion, flooding, habitat destruction or impacts to wetlands and riparian areas.

9.7.3 Maintenance of Stormwater Runoff Systems + Implementation Measure #8, #10

The County shall maintain its existing stormwater runoff systems to the extent possible, to assure that these systems do not fall into a state of disrepair such that they are causing water quality degradation inconsistent with their original design function.

9.7.4 Runoff Quality + Implementation Measure #8, #10

The County shall require all drainage systems in new development and redevelopment to comply with applicable state and federal non-point source pollutant discharge requirements.



GOAL 9.7 Stormwater Management cont.

9.7.5 Best Management Practices + Implementation Measure #8, #10

The County shall require best management practices in new development and redevelopment to reduce pollutants from entering natural water bodies while allowing stormwater reuse.

9.7.6 Interagency Cooperation + Implementation Measure #8, #10

The County shall work with the Central Valley Regional Water Quality Control Board and local, state, and Federal flood control and water resources management agencies to adopt effective stormwater management measures.



GOAL 9.8 Water-Use Efficiency and Conservation

To increase the role of conservation and water-use efficiency to help meet domestic or municipal water supply needs.

9.8.1 Water Conservation + Implementation Measure #9, #10

The County shall work with local water purveyors and managers to implement a variety of water conservation measures appropriate for existing and future needs that comply with state and federal legislation and the California Urban Water Conservation Council. General water conservation measures may consist of the following:

- Increasing water conserving design and equipment in new construction, including the use of design and technologies based on green building principles;
- Educating water users on water conserving landscaping and other conservation measures;
- Encouraging retrofitting with water conserving devices;
- Designing wastewater collection systems to minimize inflow and infiltration; and
- Reducing impervious surfaces to minimize runoff and increase groundwater recharge.



GOAL 9.8 Water-Use Efficiency and Conservation cont.

9.8.2 Recycled Water Use + Implementation Measure #9, #10

The County shall encourage new development, redevelopment, and landscape and agricultural irrigators to use recycled water wherever practical and available; this includes striving for the highest possible quality of wastewater treatment to increase the potential use of recycled water for existing and future needs of the county.

9.8.3 Compact Development + Implementation Measure #9, #10

The County shall support and encourage compact forms of development and shall focus new growth within existing community plan areas to help reduce water demands, reduce landscape areas and reduce the costs of water and wastewater infrastructure.

9.8.4 Existing Development + Implementation Measure #9, #10

The County shall promote programs for retrofitting plumbing, providing cost rebates, identifying leaks, changing landscaping, irrigating efficiently and other methods of reducing water consumption by existing users. As appropriate, the County will assist existing users seeking grants or other funding opportunities for such water conservation projects.



GOAL 9.8 Water-Use Efficiency and Conservation cont.

9.8.5 County Buildings + Implementation Measure #9, #10

The County shall assess its water use in County buildings and facilities and reduce water consumption to the maximum extent possible.

9.8.6 Agricultural Water Use + Implementation Measure #9, #10

The County shall encourage and support water conservation for agricultural activities that increase the efficiency of water use for crop irrigation and livestock maintenance.

9.8.7 Sustainable Water Practices + Implementation Measure #9, #10

The County shall encourage the use of sustainable, affordable water management practices that meet state and local standards, such as greywater reuse, rainwater capture/harvest, watershed management and stormwater infiltration to reduce demands on potable supply.

9.8.8 County Codes + Implementation Measure #9, #10

The County shall establish a program to revise County Codes to increase, as appropriate, the use of recycled water for new commercial, residential, industrial and agricultural development.



GOAL 9.9 Interagency Coordination

To promote interagency communication and cooperation between land use and water, wastewater, and flood control entities, so that they may optimize utilization of their resources and provide the highest level of dependable, yet affordable, service, while respecting individual entities' water rights and interests.

9.9.1 Coordinated Infrastructure Planning + Implementation Measure #10

The County shall work with water/wastewater purveyors in the planning and development of future water, wastewater and flood control facilities needed to transmit, treat, store and distribute potable water supplies and to collect, convey, treat and dispose of wastewater pursuant to adopted General Plan policies, urban water management plans, water supply agreements and facility plans.

9.9.2 Interagency Coordination + Implementation Measure #10

The County shall support cooperative interregional planning efforts that prioritize the protection of existing water rights of local agencies and water users.



GOAL 9.9 Interagency Coordination cont.

9.9.3 Funding Source Procurement + Implementation Measure #10

The County shall support and work with local agencies and water/wastewater purveyors to pursue alternative funding sources that can be used for projects that improve water reliability and regional watershed opportunities.

9.9.4 Information Sharing + Implementation Measure #10

The County shall share relevant data and encourage water/wastewater purveyors and flood-control agencies to share data that assist in planning activities.



GOAL 9.10 Public Education

To increase public awareness of water resources and wastewater planning, water quality and water conservation through education and outreach.

9.10.1 Public Education Materials + Implementation Measure #10

The County shall encourage water/wastewater purveyors, flood control districts and other local organizations or individuals to develop and distribute educational material regarding water conservation and water quality protection measures and programs.

9.10.2 Water Planning and Public Involvement + Implementation Measure #10

The County shall encourage water/wastewater purveyors to involve the public in their water resource and wastewater planning activities.



Implementation Measures

Implementation	Implements What Policy	Who is Responsible
<p>1. The County shall work with local water agencies to develop a regional groundwater management plan and basin-specific plans for priority groundwater basins. The plan should include the following:</p> <ul style="list-style-type: none"> • Computer models of groundwater recharge, storage, flows, usage and sustainable yield. • Assessment of water quality contaminants. • Analysis of resource limitations and relationships to other users for wells serving public supply systems and other large users. • Opportunities for changing the sources of water used for various activities to better match the available resources and protect groundwater. • Possible funding sources for monitoring, research, modeling and development of management options. • Groundwater elevation monitoring to address the requirements of the California Statewide Groundwater Elevation Monitoring program. • Groundwater quality monitoring to address the requirement of the Irrigated Lands Regulatory Program. • Provisions for applicant fees and other funding of County costs. 	<p>9.1.1 9.1.2 9.1.3</p>	<p>Flood Control District, Water Districts and Regional Water Management Group</p>

Implementation Measures

Implementation	Implements What Policy	Who is Responsible
2. The County shall develop and maintain a grading ordinance that maintains existing terrain and channels vegetation to the extent feasible, in order to minimize the disruption of natural systems and soil erosion.	9.2.3 9.2.4 9.2.5 9.2.6	Planning
3. The County shall, in consultation with local water/wastewater agencies, develop standards for evaluating and approving the adequacy of financial, managerial and operational resources of proposed community water systems or alternative wastewater systems.	9.6.1 9.6.2	
4. The County shall develop and implement a monitoring system with appropriate water purveyors and other applicable parties to plan for possible changes to existing drainage patterns and water supply resulting from climate change.	9.3.1	Public Works, Environmental Health

Implementation Measures

Implementation	Implements What Policy	Who is Responsible
<p>5. The County shall actively participate in the decision-making process for any future projects that involve the additional export of water or affect flow rates from the Feather River Watershed. Any future project involving water exports should at the minimum evaluate the following:</p> <ul style="list-style-type: none"> • Effects on in-stream flows including flood events. • Assessment of the environmental impact of the proposed project using appropriate ecological studies by a team of independent experts, qualified to conduct such studies, funded by the project sponsor and completed before project authorization. • Effects on fisheries and native wildlife habitat and restoration efforts. Analysis of the sustainability of any proposed fisheries and wildlife habitat mitigations. • Impacts to Native American communities, including cultural and archaeological resources, economies, fisheries and water supplies. • Water supplies necessary to meet the ultimate future development needs of residential, agricultural, municipal, industrial and recreational users and to promote environmental protection and fisheries habitat restoration. • Cost and benefits to recreation. • Water quality impacts and provisions for enhancement of any impaired water bodies (Section 303(d) of the federal Clean Water Act. • Property tax and other fiscal or economic losses to local entities. • Public infrastructure and service demands and costs including roads and recreation facilities. • Public cost and benefits on statewide, regional, county and local scales including the monetized value of impacted ecological services. 	<p>9.4.1 9.4.2 9.4.3 9.4.4 9.4.5 9.4.6 9.4.7 9.4.8</p>	<p>Planning, Flood Control District</p>

Implementation Measures

Implementation	Implements What Policy	Who is Responsible
6. The County shall work with and encourage water agencies and fire protection agencies to conduct a county-wide assessment of fire-flow requirements as they relate to compliance with fire protection standards.	9.5.1 9.5.2 9.5.6 9.5.7	Board of Supervisors, Planning
7. As a condition of approval for discretionary developments, the County shall not issue approval of a final map until verification of payment of fees imposed for water and wastewater infrastructure capacity per the fee payment schedule provided by the appropriate water/wastewater purveyor.	9.5.1 9.5.2 9.5.3 9.5.4 9.5.5 9.5.6 9.5.7 9.5.8 9.5.9 9.6.1 9.6.2	Planning, Public Works, Environmental Health, Fire Protection Districts
8. The County shall develop and maintain a drainage ordinance that regulates stormwater drainage consistent with the goals and policies of the updated general plan.	9.7.1 9.7.2 9.7.3 9.7.4 9.7.5 9.7.6	Planning

Implementation Measures

Implementation	Implements What Policy	Who is Responsible
<p>9. The County shall work with interested groups, public agencies and water purveyors to conduct a county-wide water conservation and water-use efficiency study to develop a county-wide water conservation program for new development and to ensure consistency with water conservation efforts across the County.</p>	<p>9.8.1 9.8.2 9.8.3 9.8.4 9.8.5 9.8.6 9.8.7 9.8.8</p>	<p>Planning, Public Works, Regional Water Management Group</p>
<p>10. The County shall work with local agencies, nonprofit groups and other interested parties to develop a regional cooperative program to serve as a clearing house for data related to land use and water planning. Possible data categories may include hydrology, water quality, geology, habitat, hydrogeology, geography, land use, and other water/wastewater related information.</p>	<p>all policies</p>	<p>Planning, Public Works, Regional Water Management Group</p>