

**COMPREHENSIVE PLAN**  
**SECTION B, ELEMENT 4**  
**WATER RESOURCES**

**December 20, 1998**

*"The drinking water supply is clean and adequate.... the water quality is excellent...."*



# ELEMENT 4

## WATER RESOURCES

### TABLE OF CONTENTS

#### 4.1 INTRODUCTION

4.1.A Purpose .....	1
---------------------	---

#### 4.2 GOALS AND POLICIES

4.2.A General Goals and Policies .....	1
4.2.B Land Use and Development Policies .....	2
4.2.C Well Siting, Construction and Operation Policies .....	3
4.2.D Water Supply Development Policies .....	3
4.2.E Water Allocation Policies .....	5
4.2.F Water Quality Policies .....	5
4.2.G Data Collection Policies .....	5



## 4.1 INTRODUCTION

### 4.1.A Purpose

This element contains goals and policies intended to guide the County and state agencies in the protection and allocation of ground and surface water resources in San Juan County.

San Juan County differs from most of the rest of the state and nation in that available fresh water results only from precipitation which falls on the islands. San Juan County lacks rivers fed by distant mountain runoff or snowmelt. In addition, the county's location in the Olympic Mountain rain shadow results in lower precipitation than most other parts of the Puget Sound basin.

The goals, policies, and implementation measures contained in this element are from the *Comprehensive Water Plan (CWP)* adopted in 1991. The CWP was developed with the participation of the Citizen Water Advisory Committee (CWAC) and was the result of a significant planning process, which was initiated in 1986 with the adoption of the *Water Assessment For San Juan County*. The fundamental purpose of the *Water Assessment* was to provide a basis for planning and management of San Juan County's water resources. In addition, the *Water Assessment* was intended to guide preparation of a comprehensive water plan and serve as the Preliminary Assessment for San Juan County under the provisions of the Public Water System Coordination Act (RCW 70.116), thereby setting the stage for preparation of a coordinated water system plan for San Juan Island.

In May of 1988, San Juan County hired consultants to conduct a technical evaluation of the county's water resources. The final results of the analyses were published in September, 1990, in a report titled *Water Resource Assessment Technical Report*. This data provided a foundation for the goals, objectives, policies, and implementation measures of the adopted CWP. This element reflects many of the comments and suggestions received as a result of the comprehensive planning process, as well as amendments to reflect changes in State law.

## 4.2 GOALS AND POLICIES

### 4.2.A General Goals and Policies

Goals:

1. To establish a reasonable approach to the use and protection of San Juan County's water resources in spite of a lack of precise data on the use and availability of water in the county.
2. To guide San Juan County's decisions on the use and protection of water resources.
3. To promote water conservation as a means to ensure the protection and availability of San Juan County's water resource.

Policies (4.2.A.1-9):

1. Establish countywide water conservation measures.
2. Maintain the *average demand* for water at the historical rate of 100-300 gallons per day per *equivalent residential unit*.
3. In order to help prevent water supply failure during periods of drought or other resource shortage, require conservative standards for water system design and approval.

4. Support a variety of water sources, supply options, and enhance storage capacity to ensure that citizens of San Juan County have adequate and reliable supplies of drinking water.
5. Provide for the protection and enhancement of the county's water resources by promoting the development of alternative sources of supply, enhanced storage capacity and rigorous conservation.
6. Allow the transfer of drinking water from one portion of an island to another.
7. Encourage the cooperation and/or merger of water systems where it will improve and/or supplement existing sources of supply and distribution, and ensure reliable service for water system customers.
8. For each new use of land that requires potable or nonpotable water, or any major new use of water unrelated to new land use, and for which the County has approval authority, require documented evidence of available and adequate water quantity and quality for the intended use. Rainwater catchment for individual water systems may qualify for available and adequate water quality and quantity, subject to SJCC 13.06.140 and .160.
9. Ensure that future *development* will not contaminate water supplies.

#### **4.2.B Land Use and Development Policies**

Policies (4.2.B.1-6):

1. New development should be contingent upon assurance that a proposed water supply is both available and adequate for the proposed use. Water supply is available and adequate when:
  - a. data are developed which show that the source meets the Source Approval requirements of the Public Services Code (SJCC §§13.06.140 and .150), or
  - b. a water facility provider makes the concurrency finding that it has sufficient capacity to provide the needs of the new use without lowering LOS standards below the minimum adequate level.
  - c. Note: a finding of concurrency by a non-County concurrency facility and service provider establishes that there is adequate capacity available. It does not necessarily reserve that capacity or guarantee that water will be delivered. Such reservations and guarantees may require the purchase of a membership or other action as defined by the service provider.
2. Any development requiring potable water should have either:
  - a. A valid water right permit from the Washington Department of Ecology pursuant to RCW 90.44; or,
  - b. Approval of the water source by the County.
3. Consider mechanisms, such as water service districts, overlay districts, and watershed management plans, which would provide additional protection to designated *critical water resource areas*, including selected watersheds, areas of high groundwater recharge, and critical aquifers as appropriate.
4. Land use, development and building regulations should be revised to encourage water conservation. Measures to encourage water conservation could include:

- a. Standards of construction and operation for water suppliers and purveyors, including point-of-use demand management and water meters; and
  - b. Water-efficient landscaping.
5. Water system providers should encourage, by incentive and education, retroactive installation of conservation measures by their members.
  6. Land use and development should be approved and conditioned based, in part, on the availability and adequacy of the water resource, the protection of water quality and control or avoidance of pollution, and the satisfactory management of sewage, greywater and stormwater runoff.

#### **4.2.C Well Siting, Construction and Operation Policies**

Policies (4.2.C.1-4):

1. All new wells should be reported to the County and data collected on ownership, location, elevation, driller, use, depth, size and construction (a properly completed driller's log), water quantity yield, and water quality. The County should work with property owners and other agencies to acquire locational and other data for existing wells.
2. The siting or construction of any well for potable water supply should protect against potential sources of contamination.
3. Consider a formal agreement with the Washington Departments of Ecology and Health to:
  - a. Expedite the sharing of data on new well construction;
  - b. Coordinate the inspection and regulation of new well development; and
  - c. Establish a communications system to improve enforcement of well siting and construction regulations.
4. Maintain the *Guidelines for the Preparation of Geohydrological Reports* to support implementation of well registration, well-siting and construction policies and regulations.

#### **4.2.D Water Supply Development Policies**

Policies (4.2.D.1-5):

1. Encourage a full range of alternatives for consumptive use, provided they meet standards of adequacy, reliability, and quality. Given current knowledge of water resources, supply and future demand, the County's priorities for water supply development should include the following which are considered to be the most feasible for implementation during the next ten years. They should be encouraged by the County, in cooperation with public water systems and other water users:
  - a. Long term water conservation which results in reducing long term water demand.
  - b. Development of regional ground and surface water sources, primarily through joint development agreements.
  - c. Intra-County water transfer, provided:

- (1) This alternative is demonstrated to be preferred in terms of environmental and economic impacts;
  - (2) The proponent demonstrates the transfer will not result in adverse impacts to the ground or surface water resource at the point of withdrawal;
  - (3) Development at the point of use, which is enabled by the transfer, is consistent with County land use policies and regulations; and
- d. Water supply development outside of San Juan County, provided this alternative be used only as an element of an adopted water shortage contingency plan.
2. Consumptive use includes both potable and non-potable uses.
- a. For potable uses, if none of the alternatives in Policy 1 is available or there is no reasonable opportunity for their development, other alternatives for providing potable water may be considered, *provided that*:
    - (1) Concerns regarding reliability, water quality, safety, and mitigation of environmental impacts can be adequately addressed;
    - (2) The owner assumes liability for maintenance and operation of such systems; and
    - (3) The following alternatives (development of small scale surface water sources and dug wells, rooftop collection, cistern storage, and desalination) may be considered for a new potable water supply, *provided*:
      - i. The system is developed only for individual *domestic use* on an existing, legally created residential parcel;
      - ii. A design meeting the standards of the Washington Department of Health and the County Department Health and Human Services is used;
      - iii. There is no cross-connection between potable and non-potable water supplies; and
      - iv. A disclaimer describing the potential limitations and health risks of the water supply is recorded with the deed to the affected property.
  - b. For non-potable water uses, allow the development of small scale surface water sources and dug wells, rooftop collection, cistern storage, and grey water systems.
3. In accordance with state law, any water supply source development should provide for the peak use in any given day. Unless otherwise justified by demand or use controls, new public water supply capacity, including new public water systems or expansion of existing systems, should be developed based on demonstrated peak day use or a minimum of 800 gallons per day (gpd) per residential unit.

New water supply sources which are designed based on a peak day demand lower than state requirements, should be approved only when the water system design has been approved by the Washington Department of Health, and either criterion a. or b., *below*, is satisfied:

- a. The supplier or purveyor presents documented records of water use which demonstrate a historical pattern of lower peak day demand; or

- b. The supplier or purveyor demonstrates that a comprehensive program of conservation or demand management including additional storage, if feasible, is being implemented;
4. Peak day use for an individual domestic well should be 400 gpd capacity unless the proposed use is provided with low water use fixtures, water-efficient landscaping, or other conservation measures approved by the County in which event a lower peak day use should be approved.
5. Water systems in San Juan County should encourage, through incentive and education, the installation of conservation measures by their members.

#### **4.2.E Water Allocation Policy**

The County should play an active role in the future allocation of water by the Washington Department of Ecology pursuant to R.C.W 90.54.130.

#### **4.2.F Water Quality Policies**

Policies (4.2.F.1-6):

1. Any programs developed by the County to protect the quality of ground and surface water resources should complement, not duplicate, state and federal laws.
2. Any programs developed by the County to protect the quality of ground and surface water resources should recognize other existing and pending programs at the local, state and federal levels as elements of an overall comprehensive approach to water quality protection.
3. Any programs developed by the County to protect the quality of ground and surface water resources should include appropriate emphasis on public education, voluntary compliance, regulation, watershed management planning, and long range management plans.
4. Based on current regulations and agency responsibilities, the County's high priority actions to protect ground and surface water quality should be implementation of nonpoint-source pollution prevention.
5. Stormwater should be managed in a manner consistent with the goals of the *Puget Sound Water Quality Management Plan* to protect natural drainages, habitats and wetlands; control and treat pollution at its source and to control erosion and sedimentation. A surface water management manual that reflects best management practices should be adopted.
6. Individual watershed management plans should be prepared and implemented for those watersheds which have been determined to be uniquely vulnerable to water quality impacts and/or provide a highly valued resource.

#### **4.2.G Data Collection Policies**

Policies (4.2.G.1-6):

1. Establish a local water resource data collection program in order to acquire, store, retrieve, and evaluate water resource information collected locally or by other agencies.
2. Identify and establish specific sites for ongoing water resource monitoring and data collection.
3. All water purveyors in the County should play a strong support role in the collection of water resource data.

4. Identify data collection programs which are mandated at the federal and state level and establish procedures to collect and utilize available data from those programs.
5. Identify opportunities for sponsoring joint data collection programs with federal and state agencies.
6. The County Health and Human Services Department should present periodic reports to the Board of Commissioners on the County's ground and surface water resources, and the status of the County data collection program.