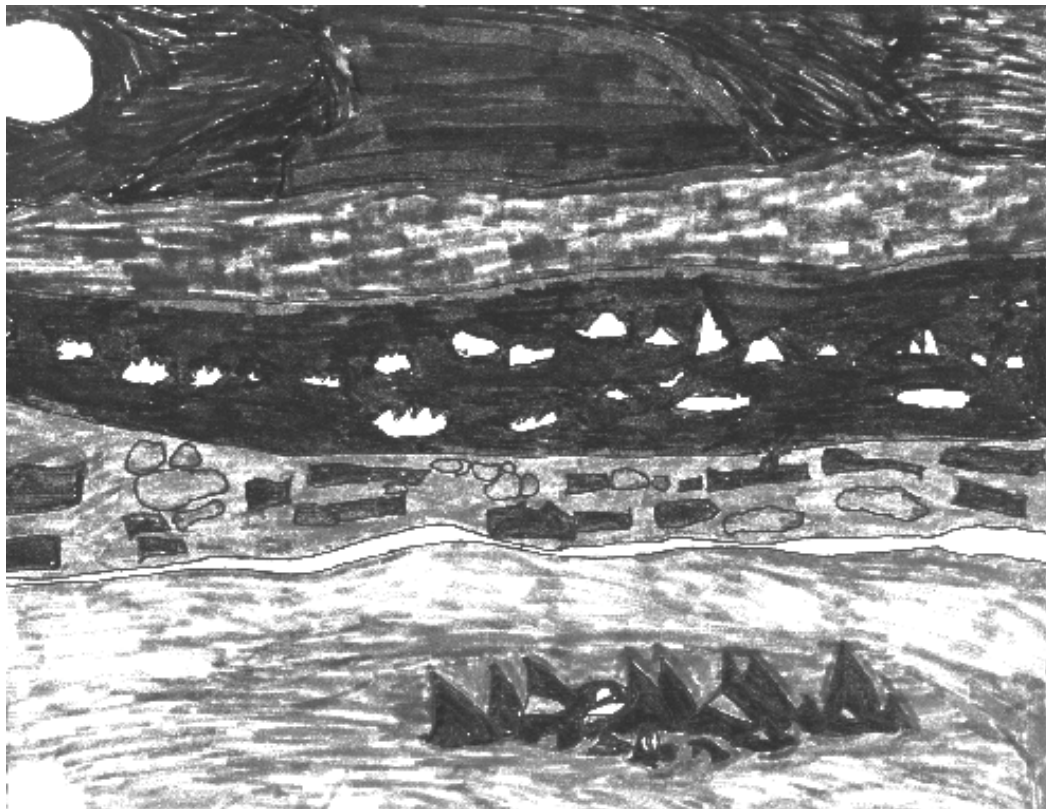


# *Island County Comprehensive Plan*

## **2. Water Resources Element**



*Katie Hall  
1st Grade  
Coupeville Elementary*

**Adopted  
September 28, 1998**



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1 ***ISLAND COUNTY WATER RESOURCES ELEMENT***

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2 ***INTRODUCTION***

3 Island County has proactively achieved a technical understanding of its water resource through  
4 numerous studies. Based on this knowledge, a number of water supply and groundwater  
5 resource protection and management plans and policies have been adopted and implemented.  
6 These elements manage adequacy and protection of the resource through a common goal of non-  
7 degradation. A summary of these efforts include:

- 6 1979–1983 USGS Water Resource Study.
- 7 1982 EPA Sole Source Aquifer Designation.
- 8 1985 Designation of Island County as a Critical Water Supply Service Area per  
9 70.116 RCW.
- 10 1989 Adoption of Island County Salt Water Intrusion Policy.
- 11 1990 Adoption of Island County Coordinated Water Plan (CWSP) per 70.116 RCW.
- 12 1990 Adoption of ICC 13.03A, Water System and Fire Flow Standards.
- 13 1990 Memorandum of Understanding between Island County and Department of Ecology  
14 on Water Resource Planning, Management, and Permitting Activities.
- 15 1990 September 18, 1990, ICC Chapter 8.09, Potable Water Source and Supply per GMA  
16 requirements 19.27 and 58.17 RCW.
- 17 1991 Adoption of Groundwater Management Program (GWMP) per 90.44 RCW.
- 18 1992 ICC 8.09 revised to include Critical Recharge Area Requirements pursuant to  
19 GMA.
- 20 1996 Hydrogeologist and data entry staff support hired for monitoring, database  
21 development and maintenance, resource management, groundwater evaluations, and  
22 development of groundwater flow and sea water intrusion models.
- 23 1997 Island County and the United States Geological Survey (USGS) cooperative four  
24 year Ground Water Recharge Study (1997–2001).

25 Island County has shown foresight in proactively managing the groundwater resource. In many  
26 cases, such as the Sea Water Intrusion Policy and aquifer testing requirements, Island County has  
27 lead the State in developing resource evaluation and management policies and has successfully  
28 worked to incorporate these policies into State approvals regarding Island County Resources.

29 The GMA water adequacy requirement for building permits and subdivisions was adopted in  
30 Island County a mere 11 weeks after GMA became effective and is one the most stringent in the  
31 State. Current programs are being implemented without grant funding thereby showing the

1 commitment of integration of resource management and protection in land use development  
review and decision making.

2 The existing water quality and water level monitoring program, comprehensive database, and  
3 construction of groundwater flow and sea water intrusion models provides the best available data  
4 for determining adequacy and detecting trends. All of these integrated programs provide the  
technical basis for determining future groundwater capacity and future land use development  
prior to project approval.

## 5 **WATER SUPPLY AND WATER RESOURCE MANAGEMENT REQUIREMENTS AND** 6 **ACTIVITIES**

### 7 **Water Supply Overview**

8 In 1979, Island County contracted with the USGS to conduct a water resource study. This  
9 four year study set out to: define the hydrogeology of the Islands; determine the chemical  
quality of groundwater; and identify areas of existing and potential sea water intrusion. This  
study has provided detailed information on the hydrogeology of Island County and has been  
utilized in numerous subsequent studies.

10 In 1982, the Environmental Protection Agency (“EPA”) declared Island County a Sole  
11 Source Aquifer. The designation acknowledged the County’s reliance on groundwater as a  
potable water source and requires federally funded projects be designed to ensure protection  
12 of groundwater resources. The County is in fact served by a multiple aquifer system. The  
sole source designation refers to the County’s reliance on groundwater for drinking water  
rather than a singular aquifer.

13 Island County’s “sole source” aquifer system is the critically important water supply for  
14 people living outside the general Oak Harbor area. Population growth in rural areas has  
increased groundwater demand proportionally; this is expected to continue in the future.  
15 Studies completed to date, including hydrogeologic investigations conducted by local, state  
and federal agencies, conclude that groundwater supplies are a finite resource in Island  
16 County.

17 Many of the developed coastal and peninsular regions of Island County are experiencing  
degrees of seawater intrusion. The Island County Health Department compiles water quality  
18 data to monitor seawater intrusion and periodically updates a map that delineates these  
intrusion regions.

19 The City of Oak Harbor operates the largest municipal water supply system in Island County.  
20 The primary source of supply for Oak Harbor is from Anacortes through two parallel pipe-  
lines. The pipelines are owned by Oak Harbor and supply the U.S. Naval Air Station as well  
21 as Oak Harbor. All other residents in the County are dependent upon groundawter for their  
source of water supply.

### 22 **Coordinated Water System Plan**

23 In 1985, the Board of Island County Commissioners declared Island County a Critical Water  
Supply Service Area, pursuant to RCW 70.116. This declaration was based on an assessment

1 that identified water supply problems related to uncoordinated planning, inadequate water  
2 quality, or unreliable service existing throughout the County. A Coordinated Water System  
3 Plan (CWSP) was completed in 1990, addressing water quantity/quality problems. This plan  
4 includes several management options to be implemented by the County's public water  
5 systems. The major elements of the plan include a Utility Service Review Procedure and  
6 Conservation and Minimum Design Standards. Highlights of these requirements are outlined  
7 below:

8 **Utility Service Review Procedure**

- 9 • Prior to new water system development, the applicant must attempt to obtain water  
10 service from neighboring purveyors.
- 11 • New and expanding systems must prepare a water plan that evaluates the existing  
12 system, needed improvements and future needs.

13 **Conservation**

14 Water conservation requirements for new water systems include:

- 15 • Installation of meters at individual connections and the well source.
- 16 • Implementation of rate structures that encourage water conservation.
- 17 • Development of a leak detection and repair programs.
- 18 • Development of water use restriction procedures for drought periods.

19 **Design Standards**

20 On July 9, 1990, the Board adopted Chapter 13.03A ICC, Water System and Fireflow  
21 Standards. Chapter 13.03A ICC establishes criteria for the design and construction of  
22 public water systems within Island County. The ordinance is supplemental to other  
23 federal, state, and local criteria governing the construction and operation of public water  
24 systems and also complies with design standards set forth in the CWSP. This code  
25 includes requirements for resource protection, monitoring and management such as:

- 26 • Metering at the well head.
- 27 • Metering individual connections.
- 28 • Water level device installed in the well for water level measurements.

29 To date, the CWSP has not prevented the proliferation of small, independent water  
30 systems. The inter-connection of water systems and development of larger water systems  
31 with superior technical expertise and facilities has met with marginal success. Due to  
32 Island County's rural nature and historical development patterns, many small, scattered  
33 developments do not fit the CWSP's goals to encourage the formation or expansion of  
34 fewer but larger, well-managed systems (rather than establish small, poorly staffed or

1 unmanaged systems). Implementing the anti-sprawl strategies of the Comprehensive  
Plan will greatly assist in coordinating management of water systems.

2 Development demands pose many challenges to available water supplies. Sufficient  
3 quantities of potable water are needed to support existing users and any increased  
4 population. There is a continuing need for improvements to domestic water systems and  
5 increased water conservation efforts. Many small water systems and community  
6 associations now provide most of the domestic water to Island County residents, while  
7 individual wells serve approximately 7% of the County's population. Often small water  
8 systems and community associations are not adequate to serve an expanding population.  
Many older systems were undersized to begin with, and some are inadequate for their  
existing service area. Extensive alterations will be required, including improvements to  
distribution systems, water supplies and storage capacities, and fire protection facilities.  
Federal requirements for water quality monitoring will place additional burdens on many  
small systems. Consolidation of water districts and associations is desirable to provide  
adequate improvements for delivering public water supplies at the least possible cost to  
consumers.

9 Avoiding additional seawater intrusion and other potential groundwater quantity and  
10 quality problems depends on careful management of existing finite groundwater  
11 resources. The County should encourage the development of alternative management  
strategies to make the adequate improvements for delivering safe and reliable public  
water supplies at the least possible cost to consumers.

12 The County should encourage development of alternative management strategies to make  
13 the most efficient use of limited groundwater supplies. Hydrogeologic investigation and  
14 data collection must continue to better predict groundwater availability, as should  
15 investigation of potential mainland water sources, when warranted. As indicated  
elsewhere, clustering and limiting impervious surfaces will maintain infiltration,  
recharging groundwater.

### 16 ***Groundwater Management Program***

17 In 1992, the Ground Water Management Program (GWMP) was completed, pursuant to  
18 RCW 90.44, and adopted as an element of the Island County Comprehensive Plan. This  
19 provides water resource management options to protect groundwater in Island County.  
Changes in health regulations (Chapter 8.09 ICC) to implement portions of the GWMP and  
implementation of non-regulatory programs followed adoption of the GWMP. Major  
elements implemented by the Island County Health Department include the following:

### 20 **Conservation Program Option Paper #3**

21 A number of conservation measures have been adopted and are implemented in design  
22 review and water supply approvals. Pursuant to ICC 13.03, and ICC 8.09, all new  
23 drinking water wells drilled in the county are required to be metered whether they are  
public water supplies or single family individual wells. For individual wells serving one  
single family residence, verification of metering is required prior to approval of a Water  
Availability Verification Form. For public systems, both source and individual

1 connection meters are required. Use-based rate structures promoting conservation and  
2 other conservation practices are implemented through the approval of the required water  
3 system operation and maintenance agreements. The Island County Salt Water Intrusion  
Policy also requires the adoption of additional conservation requirements in medium and  
high risk areas of sea water intrusion.

#### 4 **Ground Water Monitoring and Evaluation**

##### Data Collection and Management Program Option Paper #5

##### 5 1. Well Inventory.

6 100% of well logs for wells with available data on file with the Island County Health  
7 Department and Department of Ecology have been entered into the hydrogeologic  
8 database. All new public and individual wells are approved by the Health  
Department for siting criteria.

##### 9 2. Water Level Monitoring.

10 A. Water systems in high and medium risk areas require water level monitoring in  
11 April and August of each year and the results are sent to the Island County Health  
Department and/or Department of Ecology. The Island County Health  
Department is incorporating this data into their database.

12 B. Water levels are monitored biannually during water sample collection of the 60 +  
wells in the monitoring network managed by the County Hydrogeologist.

13 C. Water level measuring tapes are available to the public and can be checked out for  
14 use from the Island County Health Department Coupeville office.

##### 15 3. Water Quality Monitoring.

16 A. The eight well monitoring network started in 1986 by the Island County Health  
17 Department was expanded in 1992 to 20 wells and in 1993 to 40 wells. The wells  
18 are monitored in April and August of each year. The current well monitoring  
program managed by the County Hydrogeologist includes the 40 wells and  
variable area specific monitoring of up to 60 wells. The Island County Health  
Department is incorporating this data into their database.

19 B. Routine water quality sampling is required by public water systems. In addition,  
20 conditions of approval in medium and high risk areas for public wells include  
additional sampling for chloride and conductivity in April and August and  
reporting to the Island County Health Department.

21 C. Water quality results are currently entered into the database which is equipped  
with numerous geochemical analysis tools.

22 D. Single family individual wells are required to monitor for water quality prior to  
23 the approval of building permits (per ICC 8.09).

- 1 E. Thirteen wells are monitored on a quarterly basis by the Island County Health  
2 Department at closed Solid Waste Landfills. Results are entered into a database  
3 to identify any statistically significant trends in degradation of ground water  
4 quality.
- 5 F. The Island County Health Department recently completed a 1-year nitrate study  
6 to determine the aerial extent of nitrate contamination in nitrate in Island County.  
7 Eighty-three wells were sampled in 1996. A report was prepared discussing the  
8 extent of nitrate contamination and proposed remediation measures.
- 9 G. In 1996, the Island County Health Department worked closely with the  
10 Department of Ecology on a one year well monitoring program. Forty-six wells  
11 were sampled to understand the seasonal fluctuation of chloride concentrations in  
12 areas affected by sea water intrusion.
- 13 H. The Island County Health Department recently conducted the baseline water  
14 quality, water flow, and sediment sampling for the South Whidbey Watershed  
15 Water Quality Program. Six sites were selected and sampled. The final report  
16 completed in April 1998 will be used to identify and prioritize surface water  
17 quality problems for use in the watershed action plan.

18 **Ground Water-Availability. Criteria Option Paper #7**

19 ICC 8.09 was adopted in September 1990. The provisions of this code constitute  
20 minimum requirements of the Island County Health Department governing potable water  
21 source and supply and protection of groundwater resources. The elements of this code are  
22 outlined elsewhere in this section in more detail.

23 **Ground Water Recharge Option Papers #8 and #9**

24 Critical Recharge Area Protection was incorporated into ICC 8.09 in 1992. All projects  
25 with the potential for groundwater contamination shall be evaluated by the Island County  
26 Health Department to determine their impacts on the groundwater resource. Highlights  
27 of this code including Critical Recharge Area Protection are documented in more detail  
28 elsewhere in this section.

29 A four (4) year Groundwater Recharge Study was initiated in February 1997 through a  
30 cooperative agreement and funding of the Board of Island County Commissioners and  
31 the USGS. More detail on the study is provided in the Groundwater Recharge Section.

32 **Pollution Source Controls Option Paper #18**

33 The objective identified in the GWMP was to establish Best Management Practices  
34 (BMPs) to reduce the potential for groundwater contamination from specific activities or  
35 facilities. ICC 8.09.097, Critical Recharge Area Protection, establishes a method by  
36 which land use proposals are reviewed to determine the potential for groundwater  
37 contamination. The Island County Health Department has developed a list of accepted  
38 BMPs which are both disseminated to the public and applied as “conditions of approval”

1 on land use approvals. The Island County Health Officer has the discretion to impose  
2 conditions designed to prevent degradation of groundwater quality or quantity.

3 Other elements of the GWMP have been implemented by the Island County Health  
4 Department on an ongoing basis such as technical assistance and public education.

### 5 **ICC 8.09 Potable Water Source and Supply**

6 ICC 8.09 was adopted in September, 1990. The provisions of this Chapter constitute  
7 minimum requirements of the Island County Health Department governing potable water  
8 source and supply, and protection of groundwater resources. The regulations apply to all  
9 potable water supply systems proposed to be used for building permits and proposed  
10 subdivisions. ICC 8.09 complies with GMA requirements for verification of water  
11 availability and adequacy requirements for building permits and subdivisions (RCW  
12 19.27 and RCW 58.17). In 1992, this code was revised to include Groundwater Resource  
13 Protection measures and Critical Recharge Area Protection measures which also comply  
14 with GMA requirements.

15 The following provides a brief overview of the code.

#### 16 **Building Permit and Subdivision Requirements:**

17 Prior to building permit approval, evidence of an adequate water supply must be  
18 provided.

19 This code includes requirements for single family individual wells, including a meter at  
20 the well head and the establishment of a 100 foot pollution control radius. These  
21 requirements far exceed state requirements for individual water supply approvals. In  
22 addition, other requirements for individual well approvals include: drilling records, water  
23 quality testing and pump testing.

24 Requirements for public water supply approvals are also more stringent than state  
25 requirements. In addition to meeting WAC 246-290 and WAC 246-291, approvals in  
26 Island County require compliance with the Island County Coordinated Water System  
27 Plan, the Department of Health and Island County Seawater Intrusion Policy, metering,  
28 conservation and aquifer testing.

29 ICC 8.09 also includes requirements on proposed subdivisions assuring water availability  
30 prior to the creation of new lots or other land use approvals requiring potable water.  
31 These requirements include aquifer tests and other detailed hydrogeologic evaluations.

32 ICC 8.09.097 Critical Recharge Area Protection Requirements establish a method by  
33 which land use proposals are reviewed to determine the potential for groundwater  
34 contamination. Critical Recharge Areas include areas designated as a Sole Source  
35 Aquifer. Whidbey and Camano Islands have been designated as Sole Source Aquifer  
36 Areas.

37 A hydrogeologic site evaluation is required prior to preliminary approval of projects  
38 identified by the Health Officer as having the potential for groundwater contamination.  
39 Conditions may be imposed to prevent degradation of groundwater quality and quantity.

1 BMPs have been adopted for activities where accepted BMPs are available. Project  
2 approvals are based on the conditions and/or mitigation plan required by the Island  
County Health Department.

### 3 **Other Ground and Surface Water Protection Standards**

4 ICC 8.07C On-Site Sewage Systems The goal of groundwater and surface water quality  
5 protection is reflected throughout ICC 8.07C. Requirements for sewage system vertical  
separation to groundwater and horizontal separation to surface water exceeds the state  
standards outlined in WAC 246-272.

### 6 **Island County Hydrogeologist**

7 The Board of Island County Commissioners hired a Hydrogeologist and data entry  
8 person in January of 1996. The Hydrogeologist works in the Health Department and  
current Hydrogeologist activities are described below.

- 9 • Detailed data collection, analysis, and mapping of aquifer distribution, aquifer  
characteristics and geochemistry.
- 10 • Construction and calibration of numeric three dimensional groundwater flow /  
seawater intrusion models.

11 Groundwater flow models allow for development of an understanding of regional water  
12 balance issues and the impacts that land use, groundwater withdrawals, and climatic  
13 variations have on the groundwater system. The results of these efforts will be  
utilized for both application specific reviews, and long term planning efforts. Early  
14 on, modeling efforts will be concentrated in areas that are experiencing a combination  
of projected population growth and seawater intrusion problems. This is a long-term  
effort with individual studies and models expected to take several years each.

- 15 • Groundwater monitoring including a county-wide network of 40 wells which includes  
16 water sampling and water level monitoring. Up to 60 additional wells are monitored  
in area specific studies.

17 The network will be increased in size (number of wells) and detail (parameters tested) to  
18 better assess any trends in water levels or water quality with a projected maximum of  
100 wells (excluding area specific studies).

- 19 • Review of projects which may impact groundwater resources per ICC 8.09.097.

20 The decision making process will utilize data collected specific to the proposal, regional  
hydrogeologic and geochemical analysis, and regional groundwater flow models as  
21 they become available.

- 22 • Data management and development of a hydrogeologic database.

23 These tools greatly increase our ability to analyze regional and area-specific trends in  
water quantity or quality. Through these efforts it is possible to detect and mitigate  
problems related to resource management before these problems become critical.

- Public outreach and education.

### **Seawater Intrusion Policy**

The Island County Health Department and State Department of Health adopted a joint Seawater Intrusion policy in 1989. The purpose of the policy is to responsibly manage the approval of new public water systems (two or more connections) as well as classify and monitor existing or expanding public water systems with respect to sea water intrusion. Through this policy, it is hoped that the problems of degradation of drinking water quality or loss of water source due to sea water intrusion will be reduced or eliminated.

This policy establishes three (3) risk categories of saltwater intrusion risk for all public water systems that are existing, expanding or proposed which use or propose to use ground water as the water source. This policy further establishes standard requirements for water systems within each risk category.

The following is a general outline of the sea water intrusion evaluation process. The Island County Health Department initially classifies water systems into one of the three categories based on proximity to existing wells which exhibit elevated chloride levels. Specific pump tests, monitoring and design requirements are based on the risk categories.

A standard pump test is required of wells proposed in areas of low risk. If the system is rated as medium or high risk, the Island County Aquifer Test Procedure is required. The purpose of the standard pump test and the aquifer test is to determine whether the well and aquifer are capable of yielding water at the proposed pump rate without impacting the resource or existing users and to provide information necessary to determine proper pump settings in the well.

The Island County Aquifer Test requirements include not only design of the pump test specific to the test well but also the following:

- Drawdown and water quality measurements from nearby observation wells,
- Well source chloride and conductivity samples at intervals during pumping,
- Tidal influence on the pumping well,
- Aquifer transmissivity and storativity,
- The effect of the proposed ground water withdrawal on existing ground water users,
- Potential for seawater intrusion into this or seaward wells,
- Copy of laboratory results

Examples of requirements for medium risk areas include metering at the connection and well head, water conservation measures incorporated into the operation and maintenance agreement, appropriate design modifications (pump rate, intake elevation, etc.), annual reporting of chlorides sampled in April and August analyzed by a state-certified lab, a hydrogeologic evaluation, and phased development. In high risk areas the systems are

1 denied or modified unless an applicant can develop mitigating measures to reduce the  
2 risk of intrusion.

### 3 **Other Related Health Department Studies and Reports Nitrate Study**

4 The Island County Health Department recently completed a study of the extent of  
5 groundwater nitrate contamination in the County. Eighty-three wells were sampled in  
6 1986 and a report and recommendations for remediation were developed in 1997.

### 7 **Water Related Interested Parties**

8 The citizens in Island County have shown a great deal of interest and support in water  
9 related issues. The following organized groups actively support resource management  
10 efforts and advise the Board of Commissioners on water related matters:

- 11 • Ground Water Advisory Committee (GWAC)
- 12 • Central Whidbey Water Resource Forum (CWWRWF)
- 13 • Camano Community Water Association (CCWA)
- 14 • Community Health Advisory Board (CHAB)

## 15 ***AQUIFER RECHARGE AREAS***

### 16 ***Groundwater Resource and Recharge Protection***

17 The Growth Management Act (“GMA”) requires the designation and protection of critical  
18 areas, such as aquifer recharge areas. Included in the adopted GWMP are areas identified as  
19 having a greater potential for recharge based upon soil type and surficial hydrology.  
20 Subsequently, all of Island County is now considered a recharge area and specific protection  
21 measures are determined at the time of application and relate to project impacts.

22 Pursuant to GMA requirements and the adoption of the GWMP, the Island County Health  
23 Department amended Chapter 8.09 ICC to include provisions for the protection of  
24 groundwater resources and critical recharge areas, ICC 8.09.095, and ICC 8.09.097. Unlike  
25 the GWMP which identified specific areas for protection based upon recharge potential, the  
26 amendments to Chapter 8.09 ICC were based upon the entire county as a critical recharge  
27 area formulated from the sole source aquifer designation and adopted groundwater  
28 management areas pursuant to Chapter 90.44 RCW. The criteria established in Chapter 8.09  
29 ICC provide the basis for the protection of groundwater resources in critical recharge areas.  
30 This approach is more stringent than only applying protection measures in certain areas.

31 Per ICC 8.09.097 Critical Recharge Area Requirements, land-use proposals are reviewed for  
32 the potential to impact groundwater resource quantity or quality. Proposals are reviewed on  
33 the basis of site-specific, project specific impacts to groundwater resources.

34 Hydrogeologic evaluations are required prior to preliminary approval of projects identified  
35 by the Health Officer as having a potential for groundwater contamination. Appropriate

1 mitigation measures are imposed as conditions of approval for projects with a potential for  
impacts to groundwater resources.

2 Pursuant to the GWMP, Best Management Practices (“BMPs”) have been adopted as part of  
3 ICC 8.09.097.C, Critical Recharge Area Requirements, for projects which have a potential  
4 for groundwater contamination. BMPs are applied as conditions of approval for land-use  
projects in Island County.

5 Due to the complexity of the aquifer systems underlying Island County, it is difficult, if not  
6 impossible, to apply regional determinations of groundwater resource protection and water  
7 availability. Given these management limitations, site-specific, project specific evaluations  
are the best available option. As additional information is collected and analyzed,  
refinements can be made to the system of identifying critical areas for recharge and  
groundwater protection.

8 **Goals:**

9 **To manage and protect ground water withdrawals and provide for resource  
10 protection through a common goal of non-degradation for existing and future  
11 residents of Island County.**

12 **To protect aquifer recharge areas from contamination and insure long-term  
13 recharge potential.**

14 **Policies:**

15 A. Continue efforts to identify areas with ground water problems such as sea water  
16 intrusion, groundwater depletion, and contamination from surface activities.

- 17 1. Continue implementing data collection and analysis efforts as recommended in  
the Ground Water Management Program.
- 18 2. Work with the Island County Health Department, Washington Departments of  
19 Health and Ecology to make best use of available data and new technology.
- 20 3. Use site-specific data as it becomes available to determine locations of important  
21 recharge areas, areas of limited ground water availability, and areas of particular  
vulnerability to contamination from surface activities. Maintain, update, and  
coordinate this data to make the most effective use of the available information.  
The USGS is currently conducting a five-year study to estimate the distribution  
and quantity of recharge entering aquifers in Island County. When completed (in  
the year 2002) information gained will allow for the determination of those areas  
in the county that are most important from a groundwater recharge perspective.  
Additional safeguards will be established within those areas to protect the  
quantity and quality of waters recharging Island County aquifers.

22 B. Protect the quantity and quality of groundwater resources for existing and future  
23 residents of Island County.

- 1 1. Provide incentive programs to encourage participation in water conservation and  
2 aquifer recharge area protection programs.
  - 3 2. Consider acquisition of areas with particular value to ground water recharge.
  - 4 3. Continue participation with State agencies and with the public in developing,  
5 updating, and implementing tools to improve management of limited ground  
6 water resources such as the Sea Water Intrusion Policy, the Coordinated Water  
7 System Plan, and the Ground Water Management Program.
  - 8 4. Development must not be allowed to outstrip known water supplies.  
9 Consideration shall be given to the availability, susceptibility, and vulnerability of  
10 known ground water resources when siting new development and making land  
11 use decisions, per ICC 8.09 and related policies.
  - 12 5. No intensive development shall be allowed in areas of known ground water  
13 limitations as determined by the Health Department, unless it can be proven  
14 through objective well tests not to diminish water supplies or reduce water quality  
15 for existing users, per ICC 8.09 and related policies.
  - 16 6. Continue to provide for adequate groundwater analysis, commensurate to the  
17 scale and nature of the proposed development.
  - 18 7. Continue to carefully evaluate the hydrogeologic setting when making decisions  
19 on potentially contaminating land uses, and require use of Best Management  
20 Practices, hazardous material management plans, and other tools to help prevent  
21 contamination of ground water.
- 22 C. Maps, site-specific studies, and information collected by other agencies available for  
23 public review will be made readily accessible to potential and existing landowners,  
24 interested citizens, and development interests to aid in the protection of these areas.
- 25 D. Development regulations shall be implemented in addition to those associated with the  
26 underlying land use designation.
- 27 E. Existing regulations for areas with high aquifer recharge are contained in the Ground  
28 Water Management Program and Potable Water and Supply, Chapter 8.09 ICC.

## 29 **WATER PLANNING**

### 30 **Goal:**

31 **Ensure that Island County plans and develops in a manner that utilizes the best  
32 available information regarding water resources, so that the resource will be  
33 preserved for current and future use.**

### 34 **Policies:**

- 35 A. Island County will prohibit service overlaps for the expansion of existing water systems  
36 and the formation of new water systems per CWSP.

- 1 B. New water systems will be required to meter and document water usage at the source  
and impose conservation strategies and implementation measures per CWSP.
- 2 C. Water systems will be encouraged to upgrade facilities to provide adequate water  
3 distribution, pressure, storage, and treatment for domestic use and fire protection.
- 4 D. The County will promote the retention and reuse of stormwater when it is the best and  
5 environmentally correct option.
- 6 E. Watershed management planning will be initiated county-wide and will be cognizant of  
7 the need to preserve water supply while providing drainage facilities to protect the  
8 welfare and safety of the community.
- 9 F. Development plans will contain plans for facilities to mitigate the impacts of increased  
10 runoff , stormwater drainage and flooding.
- 11 G. Public education concerning water conservation will be a continuing high priority.
- 12 H. The location and design of development will be carefully guided in order to minimize  
13 potential adverse impacts on the quality of ground and surface waters.
- 14 I. Land use patterns and practices conserving the integrity of the natural watershed system  
15 will be encouraged.
- 16 J. Development will be restricted unless adequate water supplies are available per ICC 8.09  
17 and related policies.
- 18 K. Prior to any final plat approval, water availability must be reviewed and approved in  
19 accordance with ICC 8.09 and other related water policies.
- 20 L. Reuse of water, recharge of aquifers and alternative storage systems will be encouraged.
- 21 M. Incentives will be offered for the retrofit of existing fixtures with water conservation  
22 fixtures.
- 23
- 24