



Health & Community Services
San Juan County

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MEMORANDUM

Date: July 5, 2019
To: Linda Kuller, Planning Manager
From: Kyle Dodd, Environmental Health Manager 
Subject: Water Element Draft dated July 2019

Attached is the current Water Element Draft. After receiving comments by the Planning Commission and Council, the following revisions were incorporated to the previous draft:

- General grammatical corrections and formatting throughout document.
- Pg. 13, line 19 – removed silvicultural
- Pg. 14, line 23 – changed from 'new water' to 'new water well and surface water'
- Removed Policy 20: Ensure that County Code related to alternative water sources and water availability is consistently applied.
- Removed Policy 21: County facilities will develop a "water budget" as part of their annual work plan.
- Filled in definitions that were listed in Appendix B.

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COMPREHENSIVE PLAN
SECTION B, ELEMENT 4
WATER RESOURCES

July 2019

ELEMENT 4 WATER RESOURCES

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DRAFT

1 **4.1 INTRODUCTION**

2 San Juan County strives to achieve integrated water resources management throughout its
3 jurisdiction. The County gained greater understanding of its water resources over the last 20
4 years through several plans and studies (Appendix A). These efforts focused on resource
5 protection through a common goal of non-degradation for all water types- including surface
6 and storm waters, groundwater, and marine receiving waters (see Appendix B for complete
7 definitions of water types). Managing for resiliency, in both water resources and our
8 community, is critical to minimizing the impacts of climate change on the hydrology and aquatic
9 habitats we and other species rely upon.

10 San Juan County relies on precipitation as the only source of freshwater. Precipitation that falls
11 on each island is the only source of recharge for surface and groundwater supplies. The
12 percentage of precipitation that actually becomes groundwater recharge is extremely low,
13 often less than 10%. The islands' geography is characterized by the rain shadow created by the
14 Olympic Mountains to the south and Vancouver Island to the west, by predominantly steep
15 terrain and bedrock geology, by small watershed catchment areas, and by extensive shoreline.
16 These conditions result in lower rainfall than other areas of Western Washington, limited
17 groundwater storage, and extensive runoff and drainage to the Salish Sea. The freshwater
18 available on each island is isolated by the surrounding marine waters, which make our
19 groundwater supplies near the shorelines at risk of seawater intrusion. Generally, water
20 systems with wells located away from the shoreline have good water quality. However, some
21 areas are experiencing seawater intrusion at this time. How we manage our water use for
22 domestic and agricultural purposes, as well as treat and manage our storm and surface waters,
23 is critical to ensuring all of our water resources are of the highest quality and quantity possible.

24 **4.2 PLANNING**

25 Since 2000, San Juan County has been active in water resource planning; adopting the
26 Watershed Management Action Plan. This plan contained specific recommendations for
27 addressing watershed contamination from several development, land use, and disposal related
28 practices. The plan also resulted in the integration of several local organizations like the Lead
29 Entity for Salmon Recovery and the Marine Resources Committee. These groups have
30 completed several studies and projects to further understanding and improve fish habitat. The
31 Water Resource Management Plan was adopted in 2004, addressing surface and groundwater
32 quality and quantity issues, water rights, and existing water systems capacity to serve projected
33 growth. Groundwater availability from exempt wells, alternative water supply options, and
34 water source approval were discussed in the plan. The Plan was a springboard for future
35 studies and research by the Water Resource Management Committee. The entire list of plans
36 can be viewed in Appendix A.

37

1 **4.2.1 Critical Aquifer Recharge Areas**

2 The entire County has been designated a critical aquifer recharge area due to the fact that the
3 County's aquifers are highly susceptible to contamination. The County has development
4 requirements to assure a safe and adequate water supply by protecting the quantity and
5 quality of water available for recharge.

6 **4.2.2 Coordinated Water System Planning**

7 With the goal of improving service and protecting a shared resource, the County worked with
8 water purveyors to develop coordinated water system plans in three areas.

- 9 • The *San Juan Island Critical Water Supply Service Area Coordinated Water System Plan*
10 was drafted in September 1990. The plan evaluated the existing water systems
11 constructed at that time, including: source capacity, storage, transmission, and shared
12 facility potential. In addition service areas for existing water systems were established
13 allowing for the water systems to become the exclusive water service providers within
14 those areas.
- 15 • In 2003, the *Lopez Village Abbreviated Coordinated Water System Plan* was adopted,
16 establishing design guidelines for new and expanding water systems and outlining a
17 process to direct new growth to existing public water systems in the area rather than
18 creating new water systems. This supports the ability of existing water systems to
19 continue to provide safe and reliable drinking water to their service areas. The
20 Coordinated Water System Plan was adopted in response to the establishment of the
21 Lopez Village Critical Water Supply Service Area in 2001. The Critical Water Supply
22 service area was designated due to questions about whether water quantity and quality
23 were adequate for the growth that was occurring in the area during that time.
- 24 • The *Eastsound Water Supply and Abbreviated Coordinated Water System Plan* was
25 adopted in 2008. This established Eastsound Water Users Association (EWUA) as the
26 sole water purveyor within their service area and set standards for timely and
27 reasonable service. This plan ensured that all new development within the EWUA
28 service area is served by that water system and not by individual or smaller water
29 systems in the area.

30
31 **4.2.3 Climate Change Considerations**

32 Based on the University of Washington report published in 2015, titled: *State of Knowledge,*
33 *Climate Change in Puget Sound*; the regional trend indicates that summer precipitation is likely
34 to slightly decrease over time, with warmer, drier summers expected. However, periods of
35 heavy rain may intensify during the spring months from March through May. The precipitation
36 during these spring months from 1895 – 2014 has increased 27 percent for the region.

37 With ground and surface water resources dependent solely on precipitation to recharge,
38 increasing periods of extended drought will require planning to ensure that adequate
39 water supplies are available. Water use efficiency and conservation are being

implemented by some large water systems in the County, and have shown to be able to serve more with less water. Implementation County wide has the potential to ease demand on County water resources.

4.3 WATER SOURCES AND WATER USE OVERVIEW (Summary of existing conditions, existing policies and past water resource planning efforts)

4.3.1 DRINKING WATER SOURCES

San Juan County’s potable water needs are served by a large variety of public water systems and private exempt wells. Approximately, forty percent of the County’s population is served by Group A water systems (more than 14 connections), forty percent are served by private exempt wells, and the remaining twenty percent are connected to Group B water systems (3 to 14 connections).

The predominant fresh water source in San Juan County is groundwater. There are over 5000 wells in the County. Between fifty-five and sixty percent of the county population is served by groundwater pumped from wells.

Approximately thirty-five percent of the County’s population relies upon surface water for their drinking water supply. The two largest community water systems in the County are the Town of Friday Harbor, which is supplied solely by surface water, and Eastsound Water Users Association, which utilizes a combination of surface and groundwater. A table listing the County’s largest water systems by connections is shown below.

	Water System	Island	Ownership	2018 Reported Connections
1	FRIDAY HARBOR, TOWN OF	San Juan	Town	1835
2	EASTSOUND WATER USERS ASSOCIATION	Orcas	Association	1127
3	ROCHE HARBOR WATER SYSTEM INC	San Juan	Investor	445
4	DOE BAY WATER USERS ASSOC	Orcas	Association	279
5	ROSARIO	Orcas	Investor	227
6	FISHERMAN BAY WATER ASSOCIATION	Lopez	Private	161
7	CAPE SAN JUAN WATER DISTRICT	San Juan	Special District	144
8	CENTER ISLAND WATER SYSTEM	Center	Private	140
9	OLGA WATER USERS INC	Orcas	Private	130
10	BLAKELY IS. MAINTENANCE COMMISSION	Blakley	Private	120
11	ORCAS HIGHLANDS ASSOCIATION, INC.	Orcas	Association	117
12	DECATUR NORTHWEST	Decatur	Private	88
13	The Oaks Mobile Home Park	San Juan	Private	80
14	Spring Point	Orcas	Association	70

*Source of data is WA Department of Health, Sentry Drinking Water Database

1 Besides the number of connections, water systems are also classified by the number of
2 temporary or transient users that are served. Notably, Mountain and Cascade Lakes together in
3 2017, supplied surface water for approximately 800,000 temporary users of the Moran State
4 Park, Rosario, and Doe Bay water systems.

5 There are over a dozen desalination facilities creating potable water in San Juan County, serving
6 approximately 500 connections. In addition, San Juan County has historically approved new
7 single family home development utilizing hauled water and rainwater catchment. Catchment
8 is commonly used to augment a groundwater source. Because of its heavy reliance on local
9 precipitation and infiltration for fresh water resources, the entire County is designated a Critical
10 Aquifer Recharge Area.

11 **4.3.1.1 Source Approval**

12 San Juan County Code (SJCC) Chapter 8.06, administered by Health & Community Services
13 (H&CS) contains minimum requirements for demonstrating a potable water source; as well as
14 groundwater resource protection. The code applies to all potable water systems proposed for
15 building permits and subdivisions. SJCC Chapter 8.06 complies with Growth Management Act
16 (GMA) requirements for verification of water availability for building permits (RCW 19.27) and
17 for subdivisions (RCW 58.17).

18 **4.3.1.2 Water Requirements for Building**

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

- 20 1. Community Water Systems - A written notice from the community water system
21 purveyor is required verifying that a water connection is available.
- 22 2. Individual Wells - For individual well approvals, a water well report verifying well
23 construction, water quality testing, and well yield testing are required. In addition, a
24 water meter is required at the wellhead, and a 100 foot radius around the well
25 establishing a sanitary control area.
 - 26 (a) A seawater intrusion risk assessment is required where location and/or
27 groundwater criteria indicate the potential for seawater intrusion. If necessary,
28 a Hydrogeologic site evaluation performed by a Licensed Hydrogeologist is
29 required.
- 30 3. Alternative water sources - Sources other than an individual well or connection to a
31 public water system are also approved for a single-family residential building permit.
32 Alternative sources require a recorded Operation and Maintenance covenant to be filed
33 with the County Auditor. Alternative sources include: shallow wells with unsatisfactory
34 bacteriological tests; water systems yielding less than 200 gallons/day; hauled water
35 systems; rainwater catchment; seawater treatment; and wells needing treatment for
36 arsenic, barium, or fluoride.

37

1 **4.3.1.3 Subdivision Requirements**

2 An adequate water source for each new parcel is required prior to subdivision approval.

3 Connection to Community Water System – A written notice from the community water
4 system purveyor is required verifying that a water connection is available. Water
5 services must be installed to the property line prior to subdivision approval.

6 New Community Water System or Individual Well - must demonstrate a minimum
7 capacity of 1,000 gallons per day/connection, current bacteriological sample and a
8 complete inorganic chemical analysis. Wells must be drilled and tested, ensuring that
9 water is available prior to the creation of new lots.

10 **4.3.1.4 Public water systems**

11 Public water systems are those that serve more than three residential connections. They
12 can also consist of water systems serving one connection if the public has access to water
13 (i.e. restaurant, store, or church). In order to protect water resources, the County has
14 established stringent minimum requirements when developing new water supplies to
15 serve new subdivisions.

16
17 The San Juan County Board of Health adopted the first local drinking water code in August
18 1996, establishing rules and regulations for individual water wells and public water systems.
19 There have been six revisions of the code since then, resulting in the current SJCC Chapter 8.06
20 *Water Wells and Water Systems*. This code adopts state drinking water and well construction
21 rules by reference establishing standards for resource protection, monitoring, and
22 management. Requirements for new public water systems are:

- 23 • Proposed sources of groundwater for public water systems within one-quarter mile of
24 an existing water system service area must apply to that system for service prior to
25 drilling;
- 26 • All new public water systems using groundwater must demonstrate a source capacity of
27 1,000 gallons per day (gpd)/connection, but can design the system based on 350 gallons
28 per day (gpd)/connection; and
- 29 • Water systems in areas designated as critical water resource areas, as part of their
30 water system plans, must include resource protection including:
 - 31 ○ Conservation plan, water shortage contingency plan, watershed control, and
32 management strategies such as: monthly meter readings, static level
33 measurements, comprehensive monitoring, and coordination of well pumping
34 with other water systems.

35

36

1 **4.3.2 OTHER WATER USE SOURCES**

2 Nationally, over seventy percent of water use is associated with agriculture irrigation. San Juan
3 County’s agricultural sector irrigates with surface water from ponds and groundwater. There is
4 no available data on the quantity of water resources being used for irrigation and agriculture in
5 the County.

6 Other Industrial water uses consist of gravel mining operations and concrete manufacturing. It
7 is presumed that the sources for these operations are groundwater. Similar to the agriculture
8 sector, there is not good data on the quantity of water resources being used for this
9 manufacturing sector in the County.

10 **4.3.2.1 Agriculture Water Use**

11 Forage production and livestock are the dominant agricultural practices in San Juan County.
12 Small farm production of both vegetable and fruit crops is increasing. Over 13,000 acres has
13 been designated as Agricultural Resource land. Without adequate water, this designation is
14 meaningless.

15
16 With proper management, our intensively managed farmland and pasturelands provide
17 ecosystem services such as water filtration and wildlife habitat. In light of these benefits, as
18 well as social assets including cultural history and open view corridors, agricultural water
19 usage must be factored into County water planning.
20

21 As the islands’ populations have increased, the demands on groundwater have increased and
22 will continue to do so with additional growth. The future of farming and food security in San
23 Juan County will depend upon the continued access to, and wise use of, water.
24

25 **4.3.3 WELL INVENTORY**

26 The County well inventory is quantified by the number of water well reports (well logs) on file.
27 Well logs are available at H&CS or through the Department of Ecology website. Ecology has a
28 record of approximately 5400 water well logs on file. All new wells must meet well site criteria
29 to ensure that they are not impacted by potential sources of contamination.

30 **4.4 GROUND AND SURFACE WATER PROTECTION**

31 **4.4.1 On-Site Sewage System permitting and Operation & Maintenance**

32 Health and Community Services (H&CS) implements SJCC Chapter 8.16 On-Site Sewage System
33 (OSS) Disposal to protect public health by minimizing exposure to untreated sewage. This
34 includes inadequately treated discharges from OSS that can affect surface and ground water.
35 Permitting requirements for on-site sewage systems include vertical separation to groundwater

1 and horizontal separation to surface water adopted by reference from WAC 246-272A. In
2 addition, H&CS administers an Operation and Maintenance (O&M) program that exceeds the
3 requirements outlined in WAC 246-272A by requiring ongoing O&M inspections county wide,
4 increasing the frequency at which inspections are required for food service establishments, and
5 requiring O&M upgrades to be installed at the time of property sale.

6 **4.4.2 Seawater Intrusion**

7 In 2007, the San Juan County Board of Health revised SJCC Chapter 8.06 to include a Seawater
8 Intrusion Protection section. This ensures that projects that have a potential to cause or
9 contribute to seawater intrusion are evaluated to determine their impacts on the groundwater
10 resource prior to a project decision being made. If the project is determined to have an impact
11 on groundwater, the Health Officer will approve with conditions designed to prevent
12 degradation. Projects that cannot mitigate the impact of seawater intrusion on the
13 groundwater resource may be modified or denied.

14 **4.4.3 Water Monitoring**

15 H&CS) established groundwater quality monitoring networks in high priority areas of North
16 Lopez and in Eastsound in 2008 utilizing grant funding. The network in Eastsound is managed
17 and maintained by Eastsound Water Users Association (EWUA). The monitoring network on
18 Lopez is monitored and maintained by H&CS staff at a low level with available staff and funding.
19 The monitoring networks consist of data loggers installed in multiple wells, which gather static
20 water level information. In addition, nitrate, chloride and conductivity parameters have been
21 analyzed periodically since 2008 to assess impacts from seawater intrusion and human related
22 nitrate loading to the aquifers.

23 Individual wells are required to monitor for water quality and submit that information to H&CS
24 in order to obtain water availability approval for a building permit. The water quality
25 information is entered and stored in a database maintained by H&CS.

26

27 **4.5 STORM AND SURFACE WATER MANAGEMENT**

28 The County established a Stormwater Utility in 2005 to administer programs and projects to
29 protect and improve water quality, water quantity management, and aquatic habitats. Storm
30 water from impervious surfaces must be pre-treated and retained before discharge to natural
31 surface waters (wetlands, streams, ponds). The County has incorporated by reference
32 development design standards for storm water that follow the Department of Ecology's latest
33 guidance. Watershed-scale system planning was completed in 2015 and is used, along with
34 other technical and scientific information, to guide the Utility's Capital Improvement Program
35 (CIP) for infrastructure upgrades to storm and surface waters. The projects are designed to
36 retain fresh water on the landscape for groundwater recharge, manage excessive runoff,

1 reduce bacteria and nutrient loading, and maintain cooler waters to buffer the impacts of
2 climate change on water quality and cold water habitat.

3 The County's Utility works to ensure the storm and surface water system is adequately
4 maintained and functional, in order to protect water quality, manage water quantity, and
5 preserve aquatic habitats. Storm water runoff from impervious surfaces picks up contaminants
6 that can impact our water quality if not properly treated. Protection and maintenance of the
7 storm and surface water system also helps to reduce the risk of flooding of structures and
8 roadways. Storm water infiltrates into groundwater, and drains to surface waters (streams,
9 wetlands, ponds and their associated riparian areas) before entering the marine environment.

10 Since 2005, the Utility has largely focused on drainage planning, monitoring, and conveyance
11 projects. In 2018, the County Council expanded the Utility beyond stormwater to fully address
12 the community need to maintain all water resources throughout the County. The Clean Water
13 Utility will add water availability, water quality monitoring, aquifer protection, and protection
14 of fish habitat to the existing stormwater planning, monitoring and conveyance programs.

15 **4.6 NATURAL RESOURCES**

16 **4.6.1 Fish, Wildlife and Native Habitat**

17 The complex geology of the San Juan Islands support a diverse land cover that, in
18 conjunction with our streams, wetlands and nearshore areas, supports a wide array of
19 plants and animals. Our habitats consist of many islands that are in some cases small,
20 disconnected, and often rocky, and for many of them protection is either recommended or
21 is required by State or Federal law.

22
23 A stated goal of previous planning efforts is to use Best Available Science to ensure there is
24 no net loss of the functions and values of wetlands and fish and wildlife habitat, giving
25 special consideration to anadromous (migratory) and native fish.

27 **4.6.2 Marine Waters – San Juan County Marine Stewardship Area**

28 The marine waters of San Juan County were designated a Marine Stewardship Area (MSA) in
29 2004. The designation is designed to protect the unique and valuable marine resources of the
30 islands, while allowing sustainable use to occur. A Marine Stewardship Area Plan, completed by
31 the Marine Resources Committee in 2007 and approved by County Council, assessed conditions
32 and recommended strategies to protect and improve resource conditions. The work is
33 consistent with some of the Shoreline Master Program development standards currently in
34 place.

35 The Marine Stewardship Area designation includes the Islands' uplands, shorelines and marine
36 waters throughout the County. The quality of the marine waters are influenced by the

1 freshwater runoff from the Islands as well as boating and vessel traffic, and activities of
2 neighboring jurisdictions.

3 The County's Salmon Recovery Program also leverages surface water management for habitat
4 benefits to aquatic species. Additional recovery planning for salmonid and native freshwater
5 fish is currently underway, and will guide habitat restoration measures in high priority
6 watersheds.

7

8 **4.7 GOALS AND POLICIES**

9

10 **Goals**

11

12 1. Protect and manage the quality and quantity of ground, surface, and marine waters
13 by monitoring, preserving and enhancing hydrologic systems.

14

15 2. Establish coordinated programs for monitoring water quality, water quantity and
16 associated habitats and species so that changes can be identified and protection
17 programs modified as necessary.

18

19 3. Work cooperatively with State & Federal agencies and coordinate protection and
20 management of water resources and fish and wildlife habitat in the County.

21

22 4. Establish publicly supported methods of funding the actions in this Element.

23

24 5. Assign the policies included in this element to specific County department heads,
25 who will establish a timeline and assign skilled staff to work on the development of
26 the policies included in this Element.

27

28 6. Manage water resources in San Juan County by monitoring and measuring the
29 amount of fresh water used for domestic, industrial and agricultural purposes and
30 characterize the amount of water available from ground water and surface water
31 sources.

32

33 7. Promote water conservation to ensure the availability of fresh water resources.
34 Encourage low impact development practices such as rainwater catchment, onsite
35 retention, water reuse and treatment of storm water.

36

37 8. Support existing water users and water uses that are compliant with Codes.

38

39 9. Develop community outreach to inform the public of the rights and responsibilities
40 associated with their use of water as a public resource.

41

42 10. Ensure new development has adequate water availability prior to permitting to
prevent impairment of existing users that include designated beneficial uses, and

1 fish and wildlife habitat that rely on fresh water.
2

3 11. Coordinate water planning and protection efforts among County departments with
4 authority over development, land use, drinking water, wastewater treatment,
5 stormwater management, road construction and maintenance, solid waste
6 management, and natural resource protection.
7

8 12. Ensure that development does not impact water available for Agricultural Resource
9 Lands to ensure their viability.
10

11 **Policies**

12
13 1. Develop an Advisory Committee web presence that the Clean Water Utility
14 Committee can utilize and maintain. The site will provide current information on
15 water resource issues, as well as adopted plans and data for use by the public and
16 County Departments.
17

18 2. Develop and maintain a County-wide water budget that tracks water use from
19 residential, agricultural, commercial and industrial uses.
20

21 3. Review and update codes as necessary to address seawater intrusion, new water
22 source approval, Group B system oversight and support, available alternative
23 water sources, and water resource data acquisition.
24

25 4. Fund, and maintain the staff position of County Hydrogeologist to provide
26 technical assistance to staff and property owners to protect ground and surface
27 water and associated fish and wildlife habitat. Position would also support long-
28 term monitoring, data collection, and trend analysis to ensure protection of water
29 resources.
30

31 5. Develop a plan to identify and protect property with particular value for impacting
32 water quality, quantity and recharge, in keeping with Land Bank's mission.
33

34 6. Develop and fund programs to a) reduce the use of harmful chemicals including
35 pesticides and petroleum based fertilizers; b) encourage safer use and disposal of
36 chemicals; and c) enhance hazardous waste disposal opportunities.
37

38 7. Encourage the retention of healthy native soils, vegetation and forest cover.
39

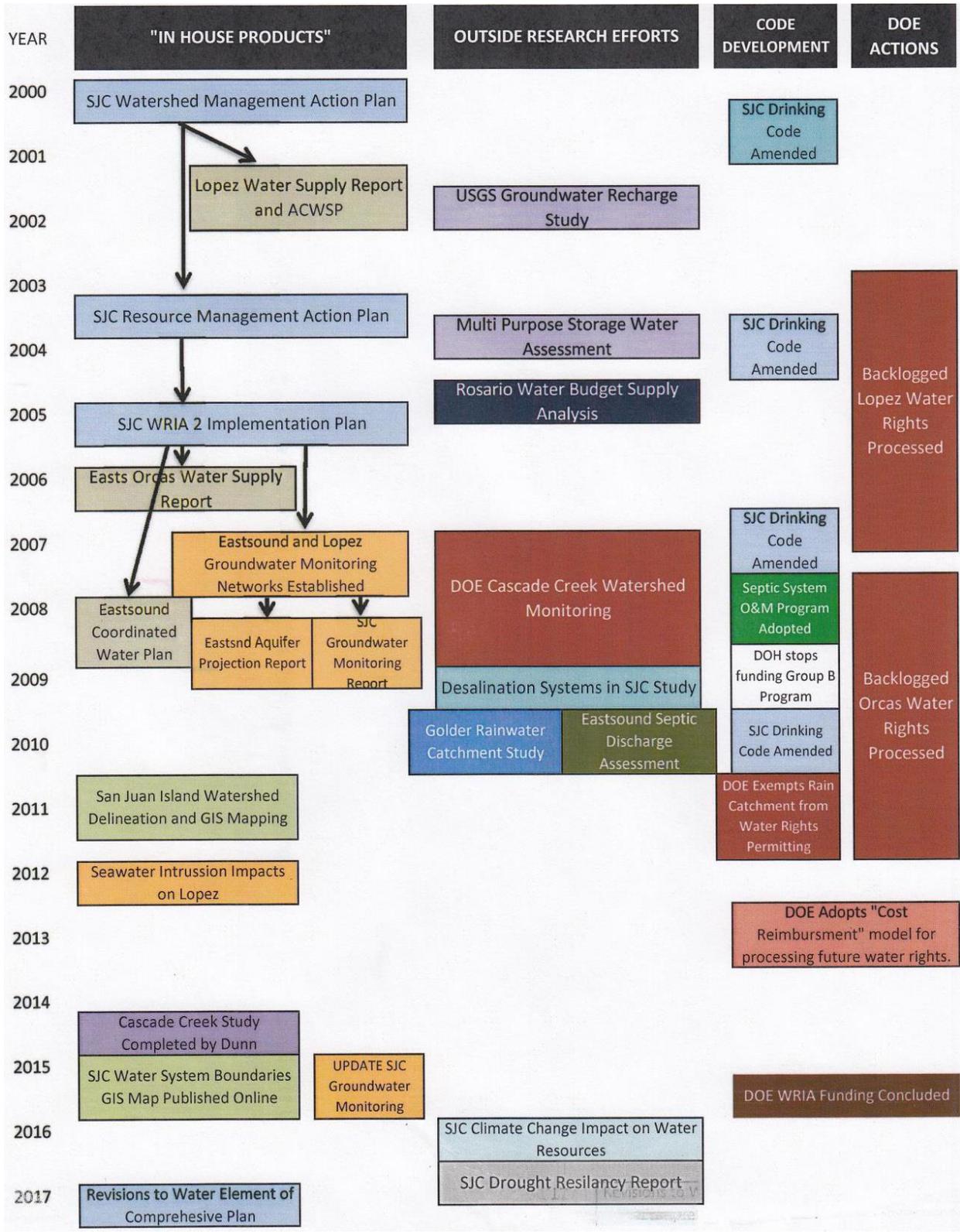
40 8. Ensure that stream, shoreline and wetland buffers and other mitigation measures are
41 adequate to remove contaminants and ensure good water quality and habitat.
42

43 9. Maintain or enhance the infiltration of runoff to ensure adequate recharge to

1 streams, wetlands, and aquifers and to preserve subsurface and stream flows to
2 nearshore waters.

- 3
- 4 10. Protect and enhance wetlands, streams and their associated buffers and
5 eliminate their conversion to other uses.
6
- 7 11. Establish and protect instream flows for anadromous and native fish to facilitate
8 native fish passage.
9
- 10 12. Ensure that existing and new man made ponds are properly permitted to
11 prevent: impediments to fish passage, increasing water temperatures, algal
12 blooms, or harbor non-native and invasive species that have negative impacts to
13 fish and wildlife.
14
- 15 13. Ensure adequate treatment of domestic wastewater from new and existing
16 development through the county's on-site sewage O&M program.
17
- 18 14. Develop a water use efficiency program for the County's Group B water systems.
19 This program will track annual water use, and efficiency and require water systems
20 to have a plan to achieve and maintain water use efficiency. The program will
21 recognize systems with lowest water loss.
22
- 23 15. Require all new water well and surface water uses to install a water meter that is
24 capable of electronically reporting water use data.
25
- 26 16. Create incentives for all existing water users to install a water meter that is capable
27 of electronically reporting water use data.
28
- 29 17. Require all water hauling permit holders to report volume of water trucked for
30 potable water use by month to the County annually.
31
- 32 18. Conduct a minimum of 20 Group B water system sanitary survey's per year.
33
- 34 19. Maintain a cooperative relationship with the water systems that supply the
35 County's Urban Growth Area to ensure that water system capacity is adequate to
36 support anticipated growth.
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Appendix A – San Juan County Water Resource Planning Chronology 2000-2017



1 Appendix B – Definitions

2 Gray Water - sewage from bathtubs, showers, bathroom sinks, washing machines,
3 dishwashers, and kitchen sinks. It includes sewage from any source in a residence or structure
4 that has not come into contact with toilet wastes.

5 Ground Water – water in a saturated zone or stratum beneath the surface of the ground.

6 Marine Waters – includes the waters of Puget Sound, including all water waterward of the
7 ordinary high water mark, and related bays and estuaries.

8 Potable Water – water safe for human consumption.

9 Reclaimed Water – water derived in any part from a wastewater that has been adequately and
10 reliably treated so that it can be used for beneficial purposes.

11 Storm Water – water runoff generated from rain and snowmelt events that flow over land or
12 impervious surfaces, such as paved streets, parking lots, and building rooftops, and does not
13 soak into the ground.

14 Surface Waters – any body of water, whether fresh or marine, flowing or contained in a natural
15 or artificial unlined depressions for significant periods of the year, including lakes, ponds,
16 springs, rivers, streams, swamps, marshes, and tidal waters.

17 Waste Water – wastewater is the water that leaves industries, businesses, farms, and homes.
18 This includes water from plumbing fixtures, industrial processes, and land use activities, which
19 contains contaminants and pollutants. These pollutants must be treated before it can be
20 released back into the water environment.

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23