ISLAND COUNTY PLANNING COMMISSION AGENDA
June 5, 2024, at 6:00 p.m.
BOCC HEARING ROOM, ROOM 102B,1 NE 6TH ST COUPEVILLE, WA
ONLINE VIA ZOOM

Meeting to be held in the Board of Island County Commissioners Hearing Room, Room 102B, 1NE 6th St., Coupeville, WA and online. Interested parties can attend or join remotely at the link or via phone number listed below:

Join Zoom Meeting
https://zoom.us/j/93636892599?pwd=Y3NicFcrc203OVZBTjBUenJyc21MQT09

Meeting ID: 936 3689 2599
Passcode: 122086

+1 253 215 8782 US (Tacoma, WA)
Meeting ID: 936 3689 2599
Passcode: 122086

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF MINUTES –
4. PUBLIC COMMENT – *Submittal of written comments are encouraged prior to the day of the meeting. Public Comment may be submitted via email to PlanningCommission@IslandCountyWA.gov. Please state your name and address when giving public testimony. Public comments are limited to 3 minutes per person.*
5. DIRECTOR'S REPORT
6. WORKSHOP – Island County Hydrogeologist Presentation on Drinking Water and Groundwater
7. WORKSHOP – Comprehensive Plan Timeline Update
8. ADJOURN

Please visit our website for related documents: https://www.islandcountywa.gov/235/Planning-Commission
The public may submit comments in writing to Planning & Community Development at 1 NE 7th St., Coupeville, WA 98239 or PlanningCommission@IslandCountyWA.gov.

Island County Planning and Community Development
Mary Engle, Director

Physical Address: 1 NE 6th St, Coupeville, WA 98239 Mailing Address: 1 NE 7th St, Coupeville, WA 98239
Ph: Whidbey 360-679-7339 | Camano 360-387-3443 | Fax: 360-679-7306
Email: PlanningDept@islandcountywa.gov | https://www.islandcountywa.gov/207/Planning-Community-Development

~MEMORANDUM~

TO: **Island County Planning Commissioners**

FROM: **Emily Neff, Long Range Planning**
Island County Planning & Community Development

DATE: **May 24, 2024**

SUBJECT: **Planning Commission Meeting June 5, 2024**

The Planning Commission meeting on June 5, 2024, will include the following workshop:

Workshop: Island County Hydrogeologist, Chris Kelley Ph.D., will provide an overview of drinking water and groundwater. The presentation will cover roles and responsibilities for drinking water, consumption and infrastructure data, aquifer and groundwater protections, seawater intrusion protection, and more.

> *Objective: Provide information to the Planning Commissioners on the County's role in protecting drinking and groundwater.*

Workshop: Long Range Planning staff will provide a progress and timeline update on the 2025 Comprehensive Plan.

> *Objective: Provide information to the Planning Commissioners on what has been accomplished to date, and what lies ahead for the rest of 2024 and 2025 on the Comprehensive Plan Update.*

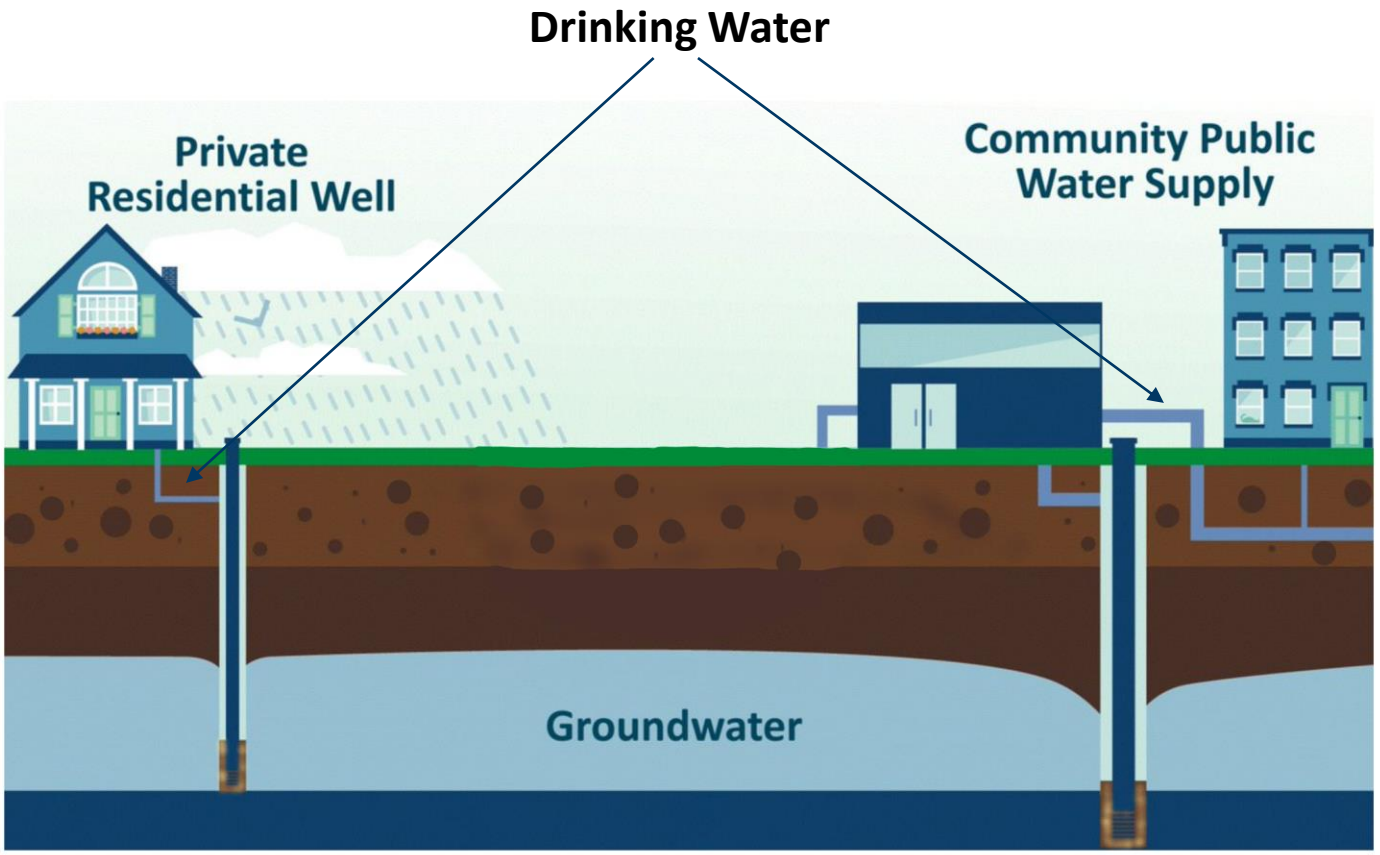
For more information, please contact:
Emily Neff (360) 678-7807 or e.neff@islandcountywa.gov

Drinking Water and Groundwater

Island County Environmental Health

June 5th, 2024

Drinking Water and Groundwater



- Groundwater is the resource
- Drinking water is the beneficial use

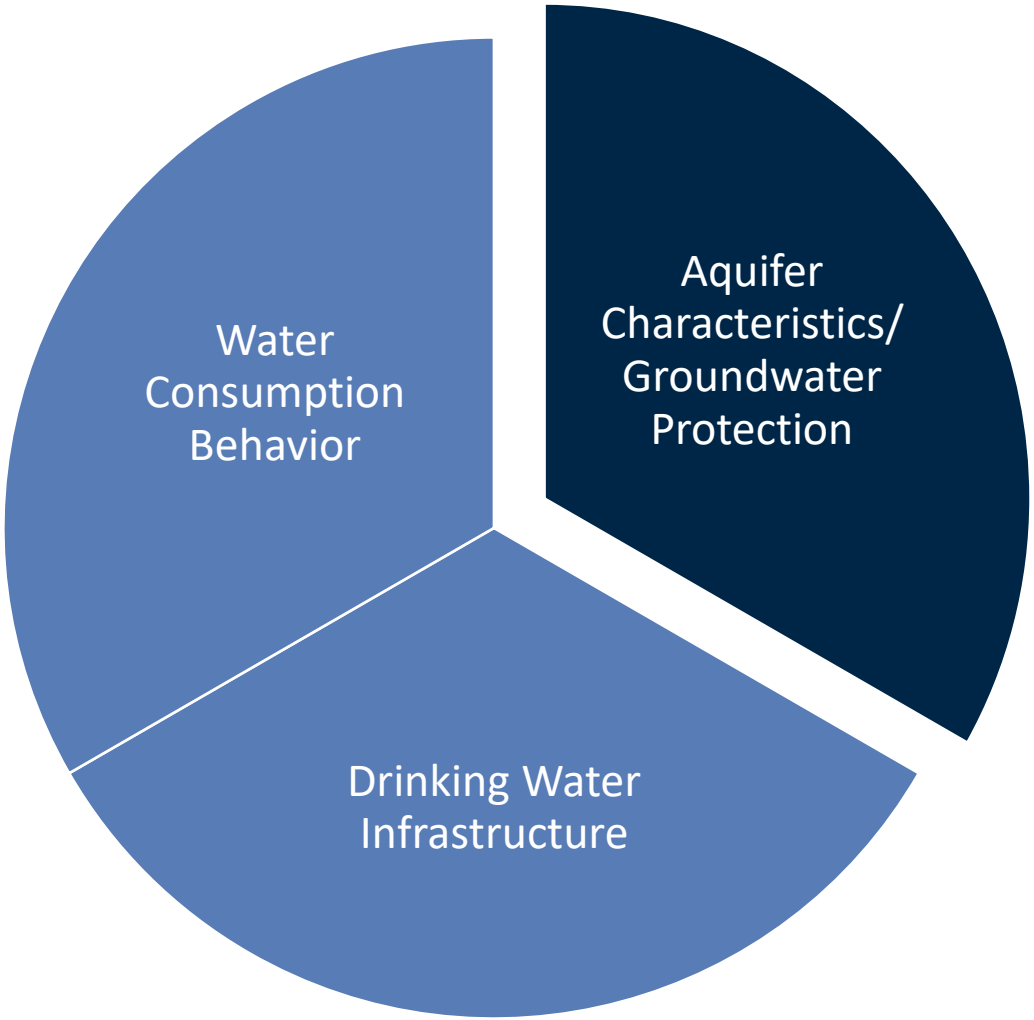
Drinking Water
Roles and Responsibilities Summary

- **Washington Department of Ecology**
  - Issue water rights which approve the beneficial use, volume, and location of the water right.
    - Groundwater permit exemption for small uses of groundwater as defined in RCW 90.44.050.
- **Washington Department of Health**
  - Regulates water quality and water system design requirements for Group A water systems in Washington State.
- **Island County**
  - Regulates water quality and water system design requirements for Group B, 2-Party, and individual drinking water wells in Island County (ICC 8.09 – Potable Water Source and Supply).
    - Island County has adopted State of Washington Minimum design and construction standards for Group B drinking water systems found in WAC 246-291 by reference.

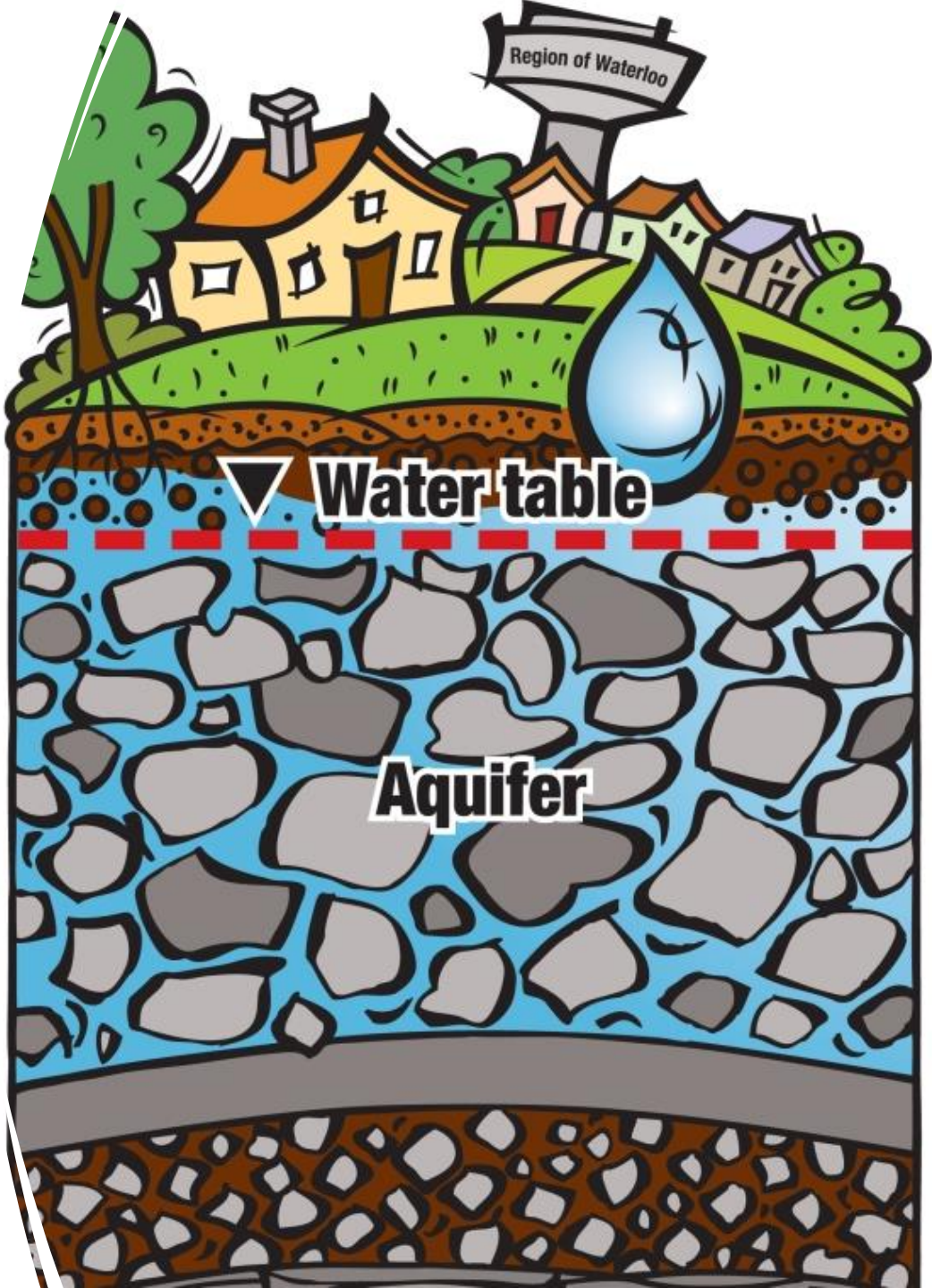
Drinking Water
Roles and Responsibilities Summary

- **Public Water Systems**
  - Provide an adequate quantity of water, delivered under proper pressure, and quality at all times.
  - Properly operate, maintain, and protect your water system from vandalism, damage, and contamination.
    - Wellhead protection/ source control protection area plans.
    - Emergency Response Plan
  - Complete required groundwater monitoring, drinking water quality analytical testing, and reporting.
  - Installation of water meters
  - Records retention.
- **Individual Well Owners**
  - Ongoing maintenance and repairs.
  - Install water meter (required for new wells).
  - Water quality analytical testing for new wells or for new residential dwellings on existing wells.

Sustainable Groundwater Management



Island County Aquifers

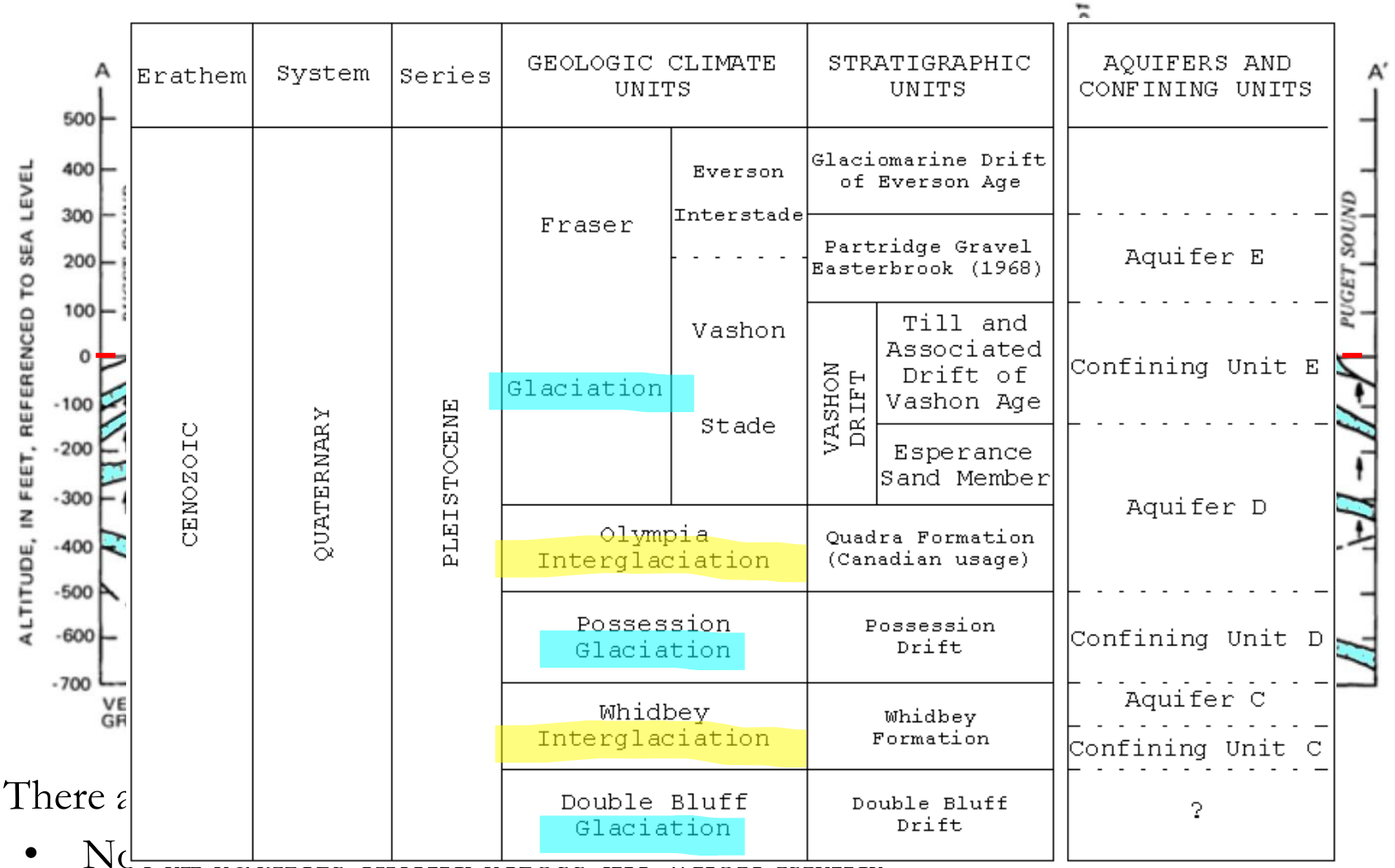


Sole Source Aquifer Status

- **EPA established Whidbey Island Aquifer Area SSA and Camano Island Aquifer Area SSA in 1982.**
- **EPA defines a sole source aquifer (SSA) as one where:**
  - Aquifer supplies at least 50 percent of the drinking water for its service area.
  - There are no reasonably available alternative drinking water sources should the aquifer become contaminated.
- **The SSA program enables EPA to designate an aquifer as a sole source of drinking water and establish a review area. EPA then reviews proposed projects that will both:**
  - Be located within the review area
  - Receive federal funding

- **Key points:**
  - The federal sole source statute only applies to federal review.
  - Some state laws and rules, as well as some local ordinances, list sole source aquifers as being subject to those laws, rules, or ordinances.
  - Does not mean there is only one aquifer.

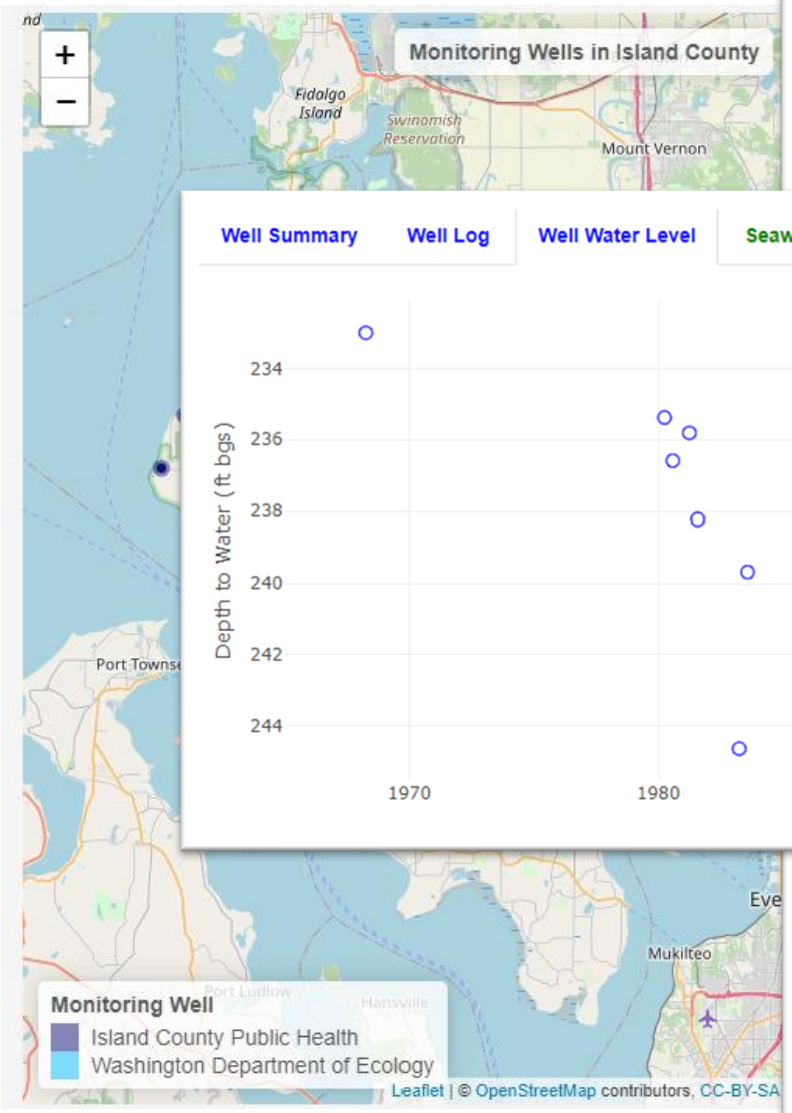
Island County Groundwater Aquifers

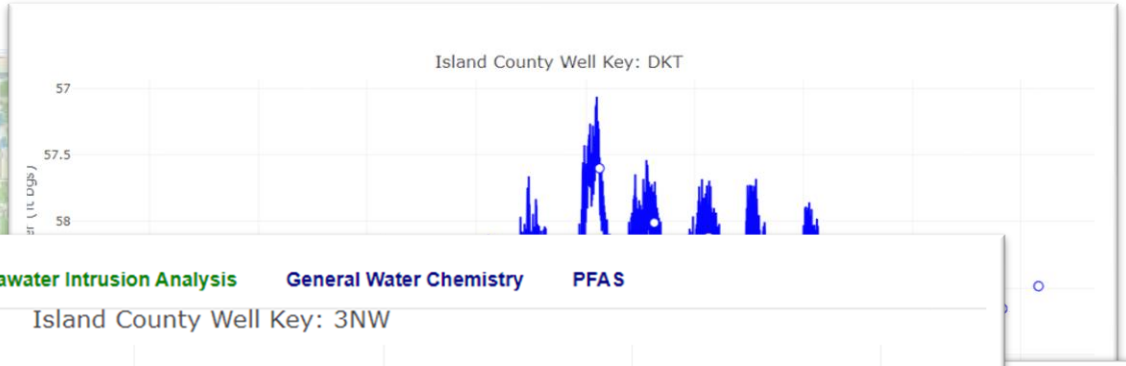


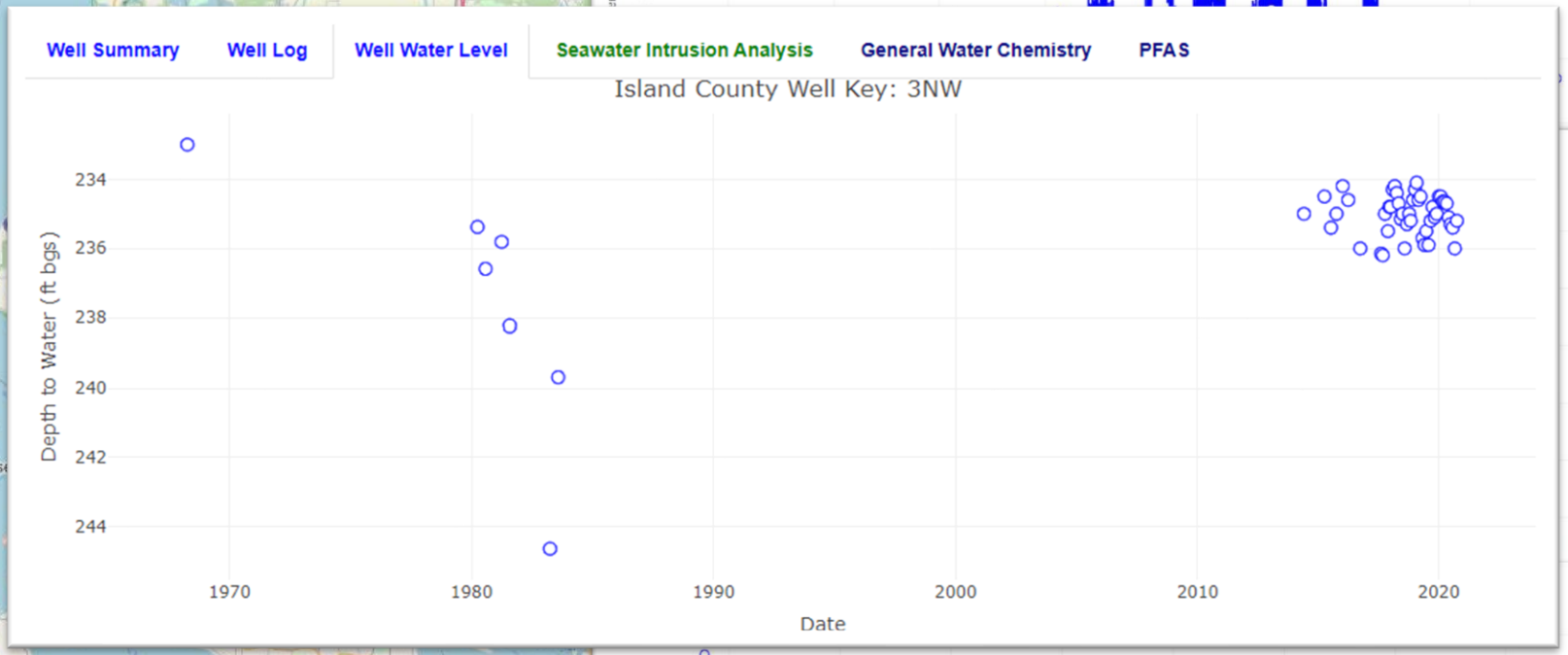
- There a
  - No

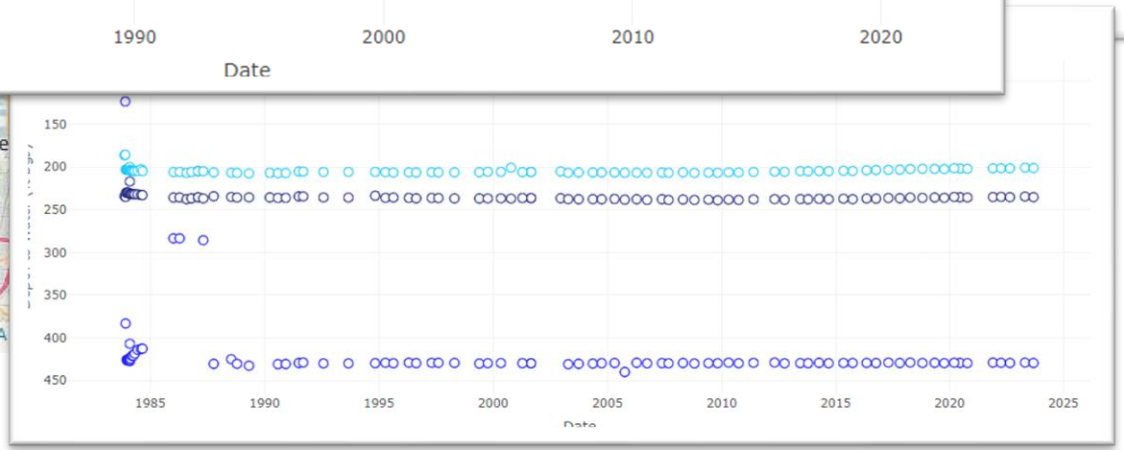
Island County Hydrogeology Dashboard

Static Water Levels









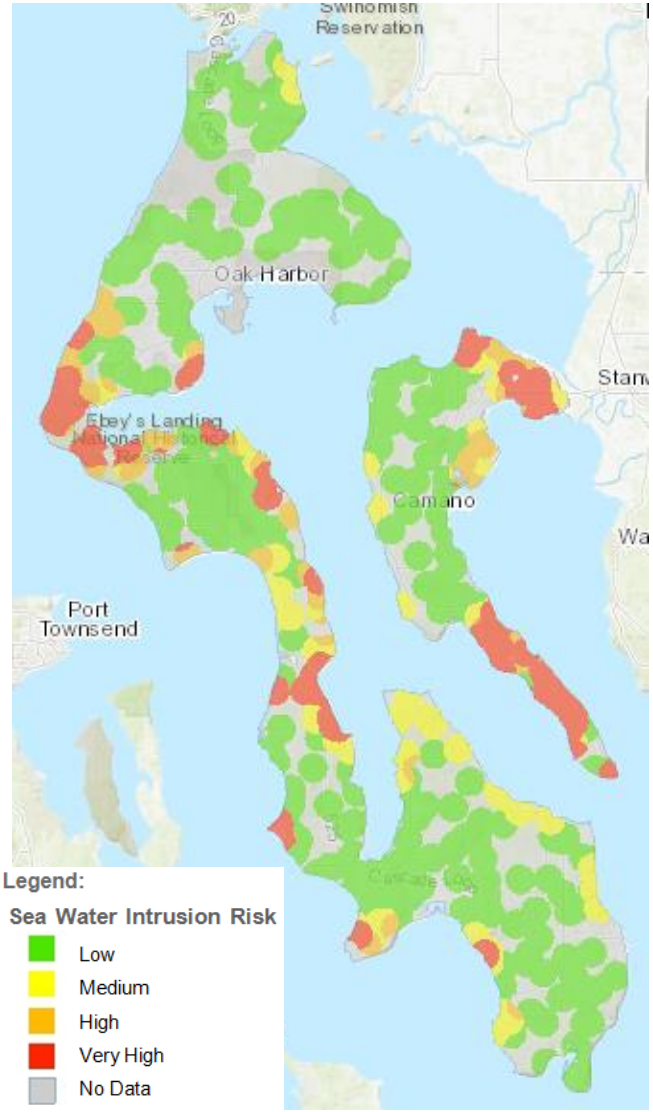
Seawater Intrusion (ICC 8.09.099)

Table 1: Seawater Intrusion Risk Categories

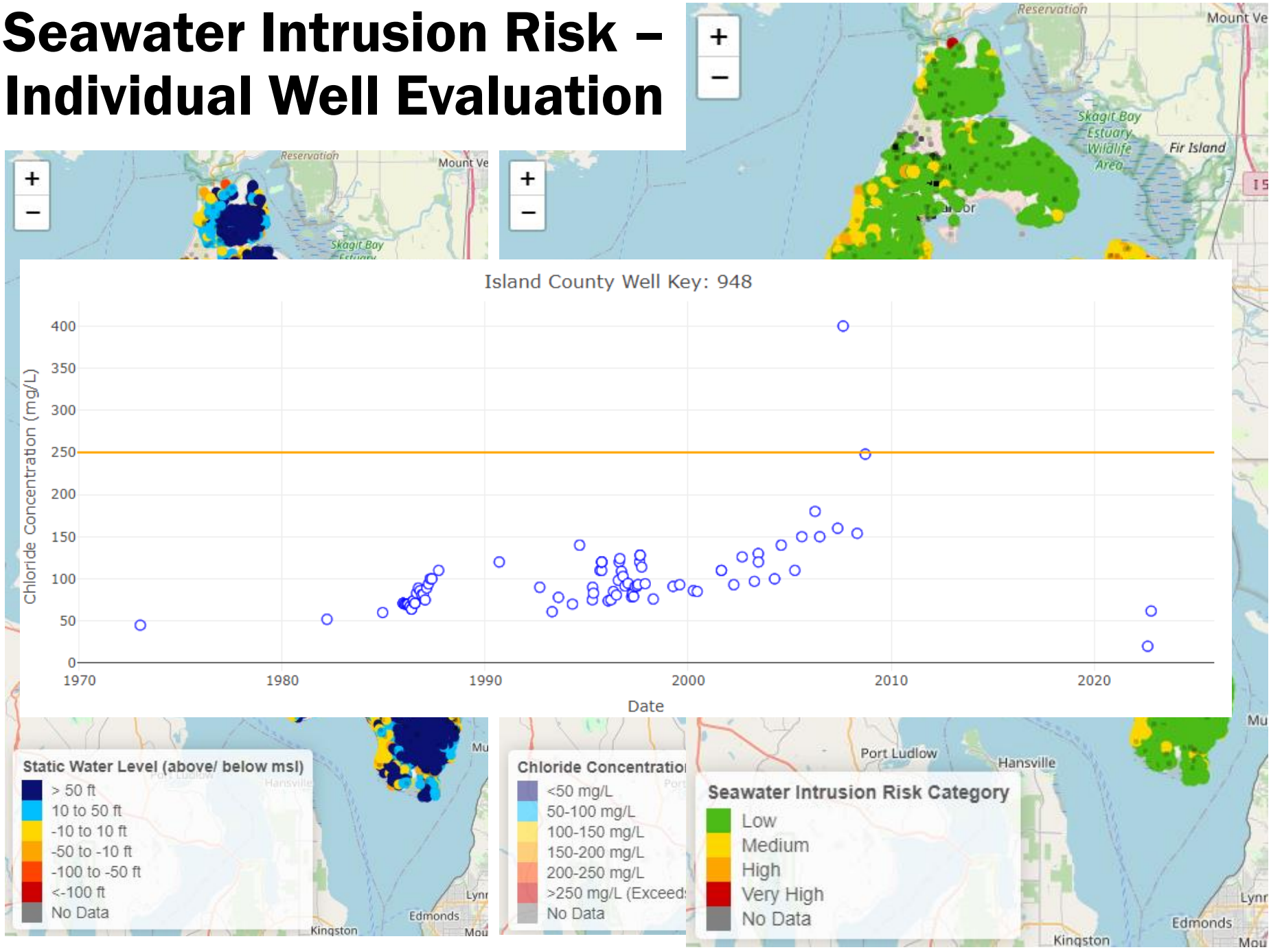
Risk Category	Water Level Elevation	Chloride Concentration
Low	Greater than 8.4	Any
Medium	Less than or equal to 8.4	Less than 100
High	Less than or equal to 8.4	Between 100 and 250
Very High	Less than or equal to 8.4	Greater than 250

Table 2: Projects Subject to Seawater Intrusion Risk Analysis

Risk Category	Land Subdivision	New or Expanding PWS	Individual Water System
Low	N/A	N/A	N/A
Medium	> 6 lots	> 6 connections/ year	N/A
High	All	> 1 connection/year (<=1.5 acre lot size)	<1.5 acre lot size
Very High	All	All	<5 acre lot size



Seawater Intrusion Risk – Individual Well Evaluation



Critical aquifer recharge area protection (ICC 8.09.097)

Project actions that have the potential for groundwater contamination:

1. **Commercial, industrial, institutional, or other facilities or activities**
2. **Petroleum transmission facilities and/or petroleum storage tanks.**
3. **Land and subsurface sewage disposal:**
   a) Residential sewage disposal systems designed to serve more than two (2) residences on an off-site drainfield or sewage disposal systems from more than two (2) residences on a single parcel, with a total design flow less than 3,500 gallons per day.
   b) Sewage disposal systems serving commercial and industrial projects, excluding home-based businesses or home occupations, with total design flows less than 3,500 gallons per day
   c) Any sewage disposal system with design flows of more than 3,500 gallons per day in any zone.
4. **Surface mining operations requiring a permit from the State Department of Natural Resources.**
5. **Other projects or activities as determined by the health officer.**

Critical Aquifer Recharge Areas

The goal of establishing critical aquifer recharge areas (CARA) is to protect a community's drinking water by preventing pollution and maintaining supply.

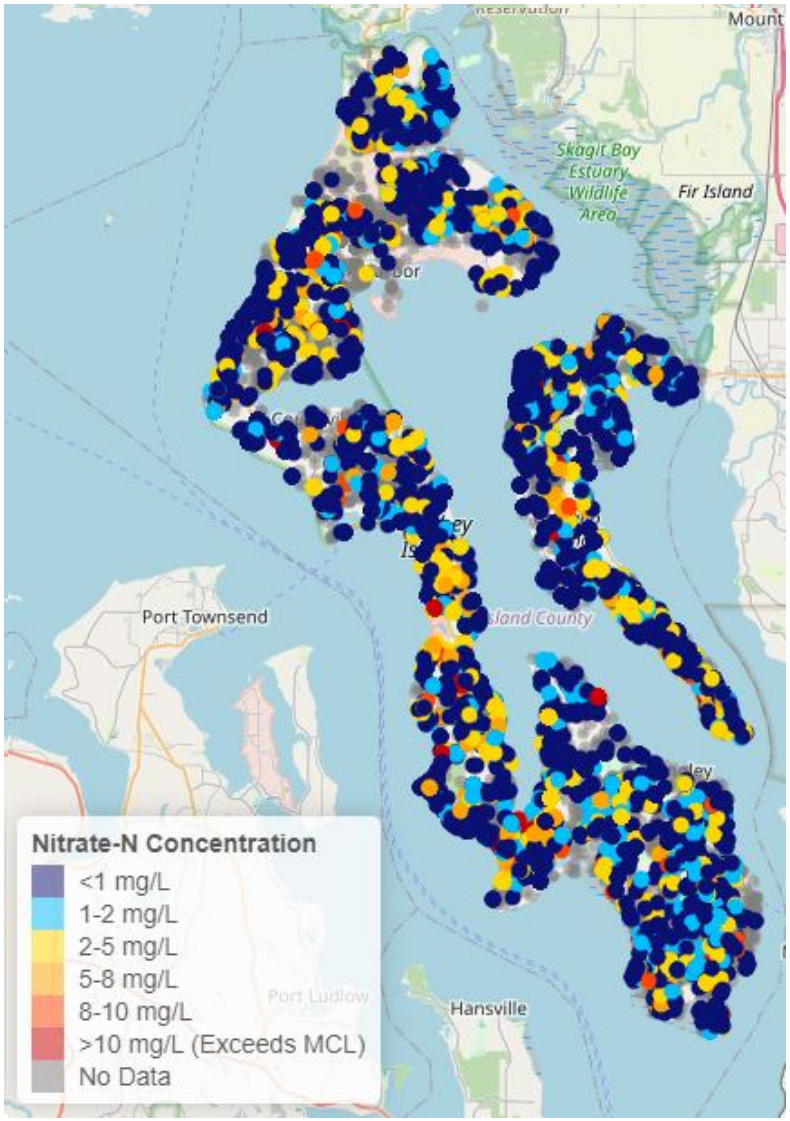
CARA Map based on 4 parameters as outlined in Ecology's CARA Guidance Document:

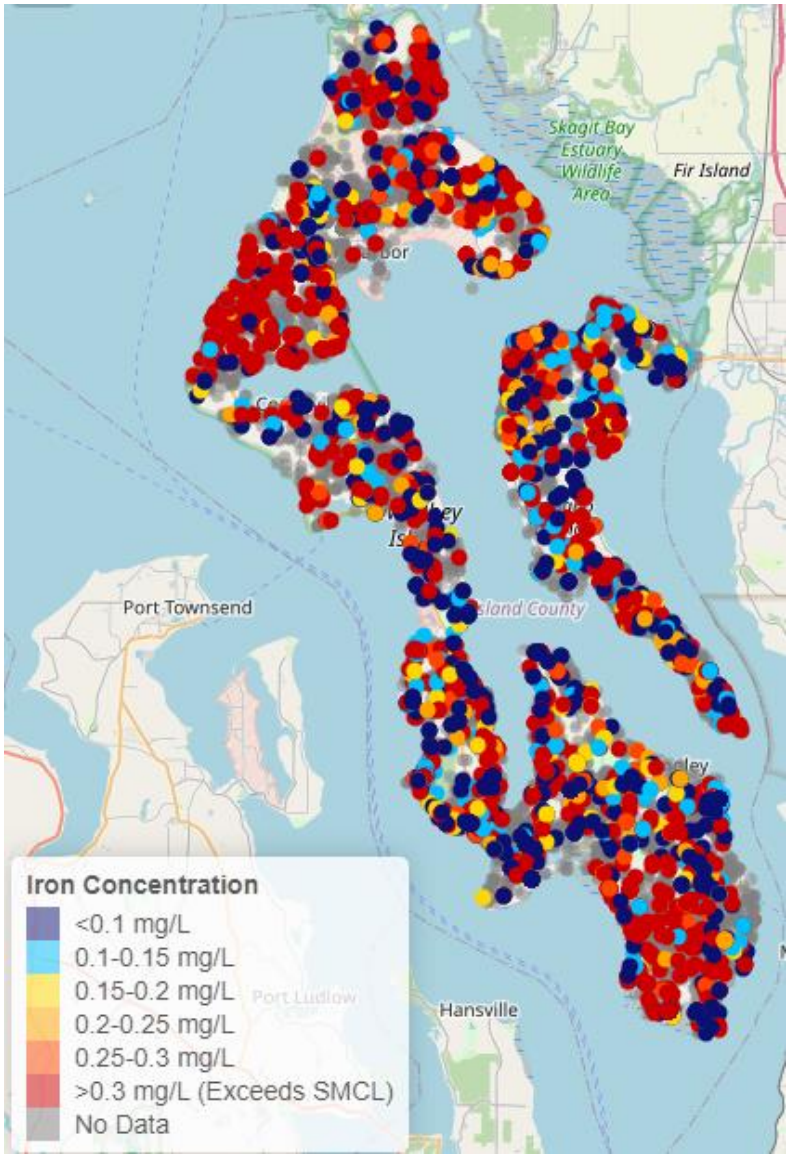
1. **Depth to Water Susceptibility Rating;**
2. **Groundwater Recharge Rate, using information from the USGS Deep Percolation Model and DOE Scoring Options;**
3. **Soil Percolation Rate; and**
4. **Surficial Geology Susceptibility Rating.**

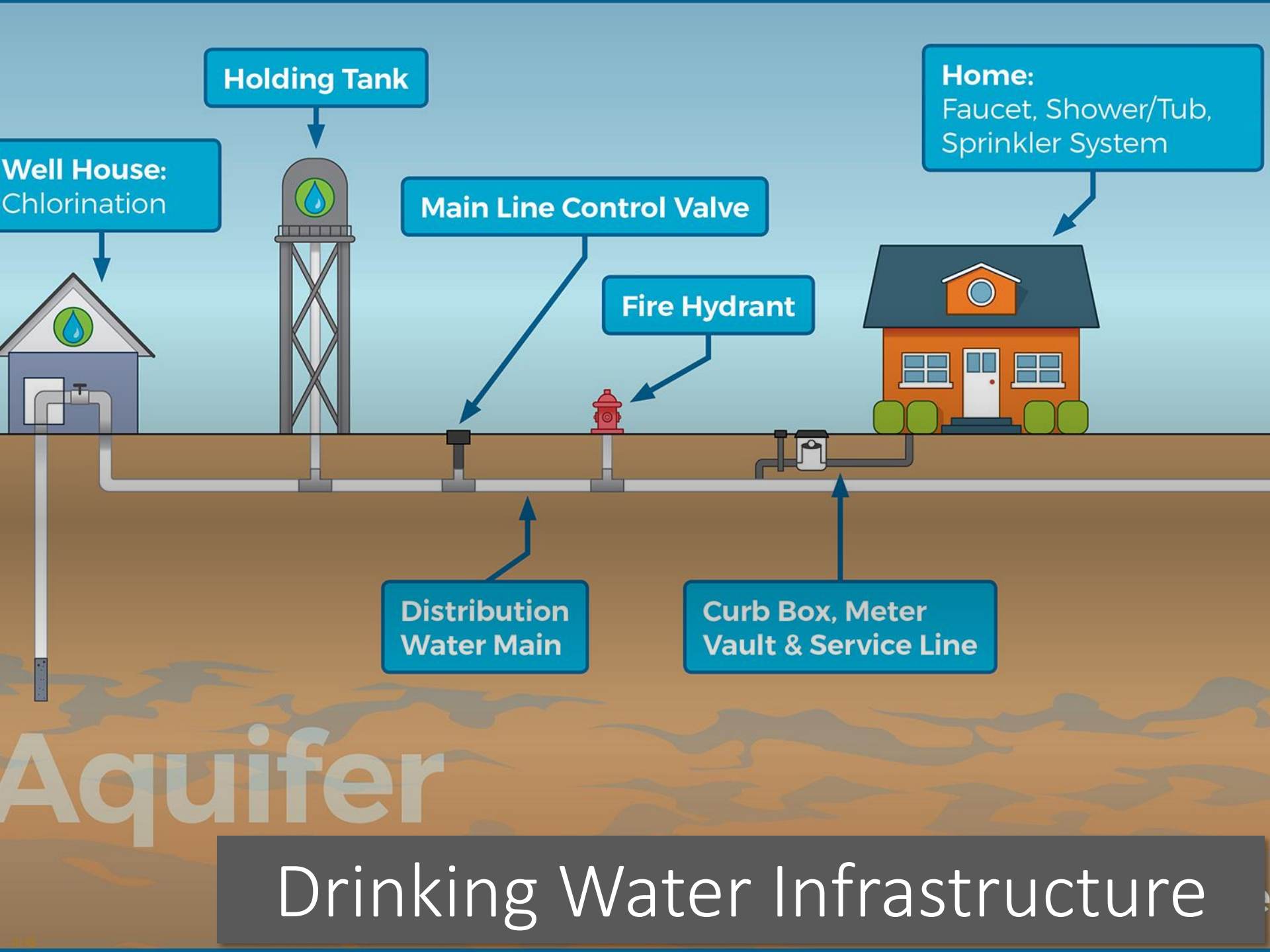
**Last update: Island County Water Resource Management Plan 2005 Groundwater Recharge Topic Paper.*

Island County Hydrogeology Dashboard

Water Quality







Drinking Water Infrastructure

Drinking Water in Island County

Drinking Water Systems Type	Number of Systems*	Number of Connections Served*	Number of Approved Connections*
Group A – Approved	248	20,532	24,329
Group A –Unapproved	44	14,981	-
Group B – Approved	442	2,029	2,540
Group B –Unapproved	144	672	-
2-Party – Approved	545	-	1,090
2-Party –Unapproved	54	-	-
Individual Well	7,615	7,615	-

***Best available information through 2023**

Drinking Water Infrastructure

- **Median water use was ~143 gallons per day (gpd) per connection for Group A systems in 2021.**

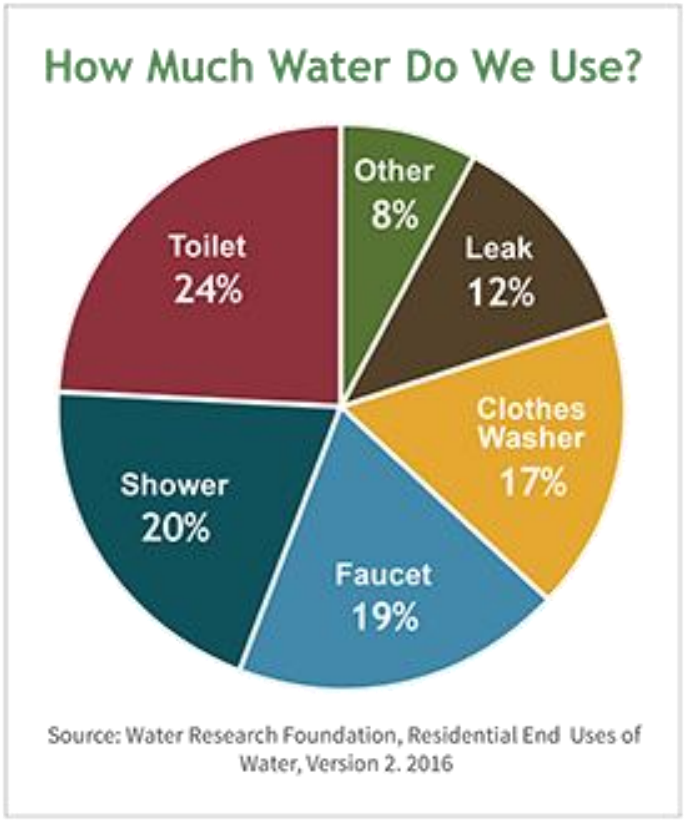
Number of Systems	Distribution System Leakage 3-Year Average (%)	Unnecessary groundwater withdrawal	New Connection Equivalent (assuming 143 gpd per connection)
30	Not Fully Metered	NA	NA
135	< 10 %	93,357,677	1,789
32	10 % to < 15%	52,063,258	997
23	15 % to < 30 %	28,718,268	550
3	> 30 %	16,099,808	308
TOTAL		**190,239,011**	**3,645**

- Distribution system leakage is water lost between well and customer's water meter.
- Water leaks after the customers water meter appears as water "used" by customer

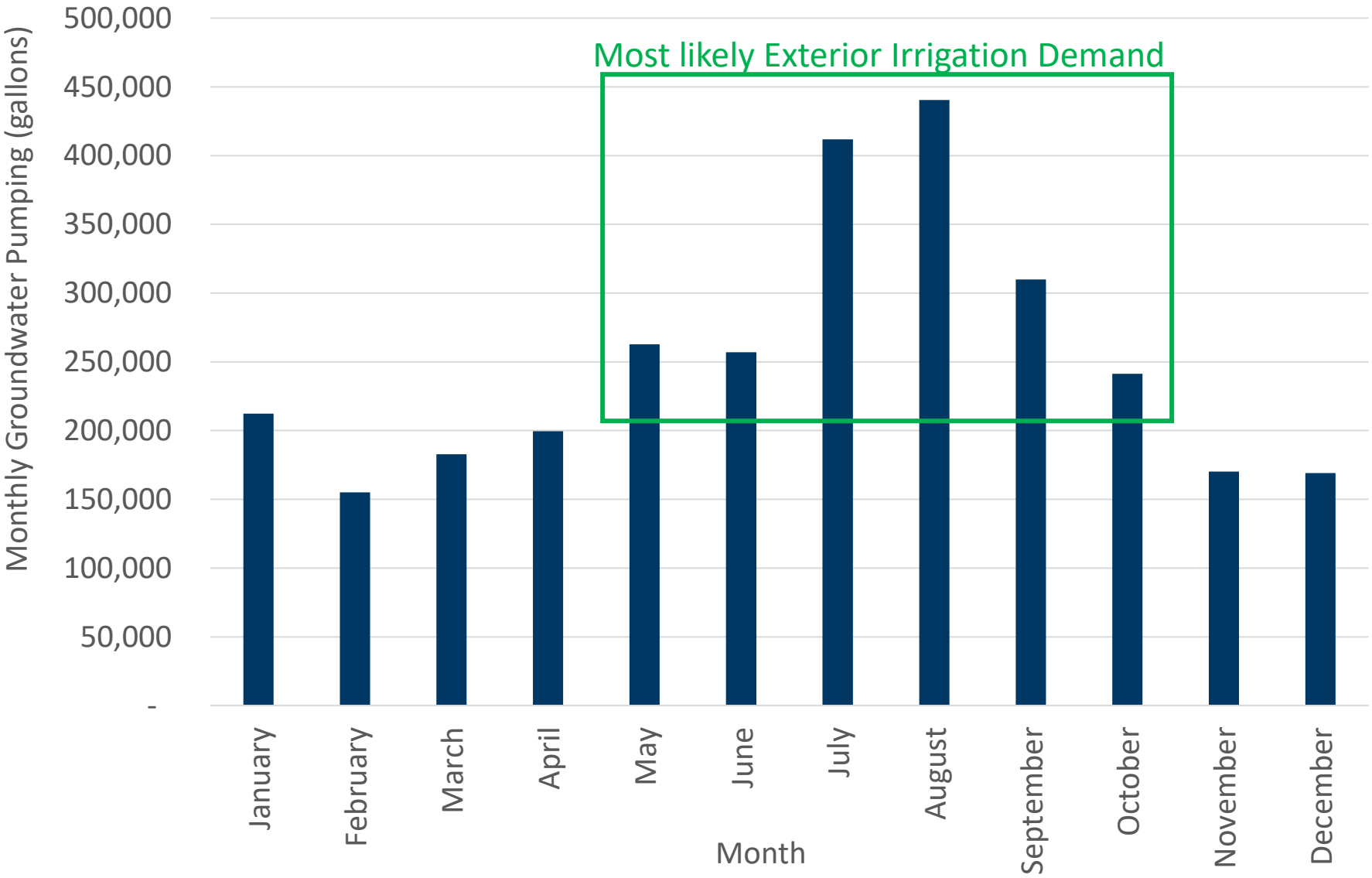
Water Consumption Behavior

Drinking Water Consumption (water use behavior)

- **2021 Group A PWS per connection**
  - Median – 143 gpd
  - 25th Percentile – 114 gpd
  - 75th Percentile – 177 gpd
  - Maximum – 494 gpd
- **Indoor Water Conservation**
  - Replace old toilets
  - Shorter showers and low-flow shower heads
  - Fix leaky or inefficient faucets
  - Upgrade to water efficient dishwasher and clothes washer
- **Outdoor Water Conservation**
  - Fix/ replace leaky spigots and water lines
  - Rainwater collection for outdoor irrigation
  - Reduce lawn size
  - Use soaker or drip irrigation for gardens



Drinking Water Consumption Example



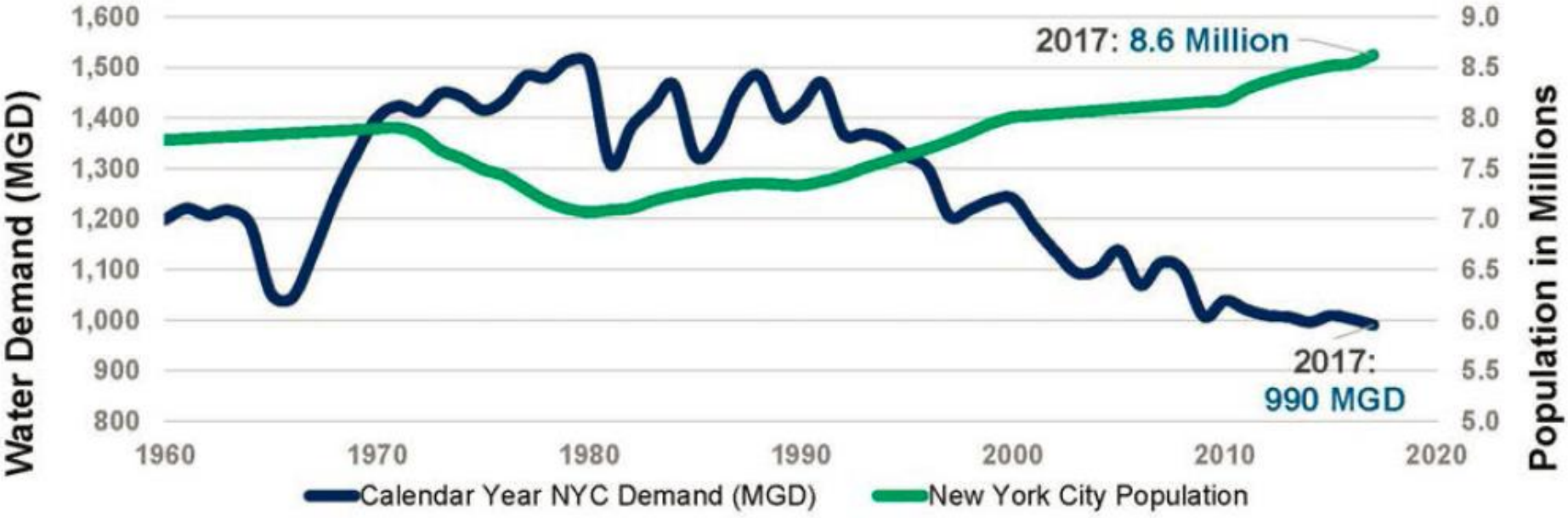
CARRYING CAPACITY

Growth without increased water consumption?

Historical Water Demand and Population in NYC

NYC Environmental Protection

NYC demand is lower than in at least 50 years, even as population hits record highs.



Source: LA Department of Water and Power, 2010

Water Capacity?

- **Aquifer**
  - Location
  - Static Water Level/ Seawater Intrusion Risk
  - Water Quality
- **Drinking Water Infrastructure**
  - Well Production
    - Well Size (diameter and depth)
    - Pump Size
  - Distribution System
    - Treatment system
    - Pipe Size
    - Storage
  - Maintenance to minimize leakage
- **Water consumption (user behavior)**
- **Water Right allocation**

Questions?

Chris Kelley, Environmental Health - Hydrogeology

c.kelley@islandcountywa.gov

360-678-7885

2025 COMPREHENSIVE PLAN PERIODIC UPDATE

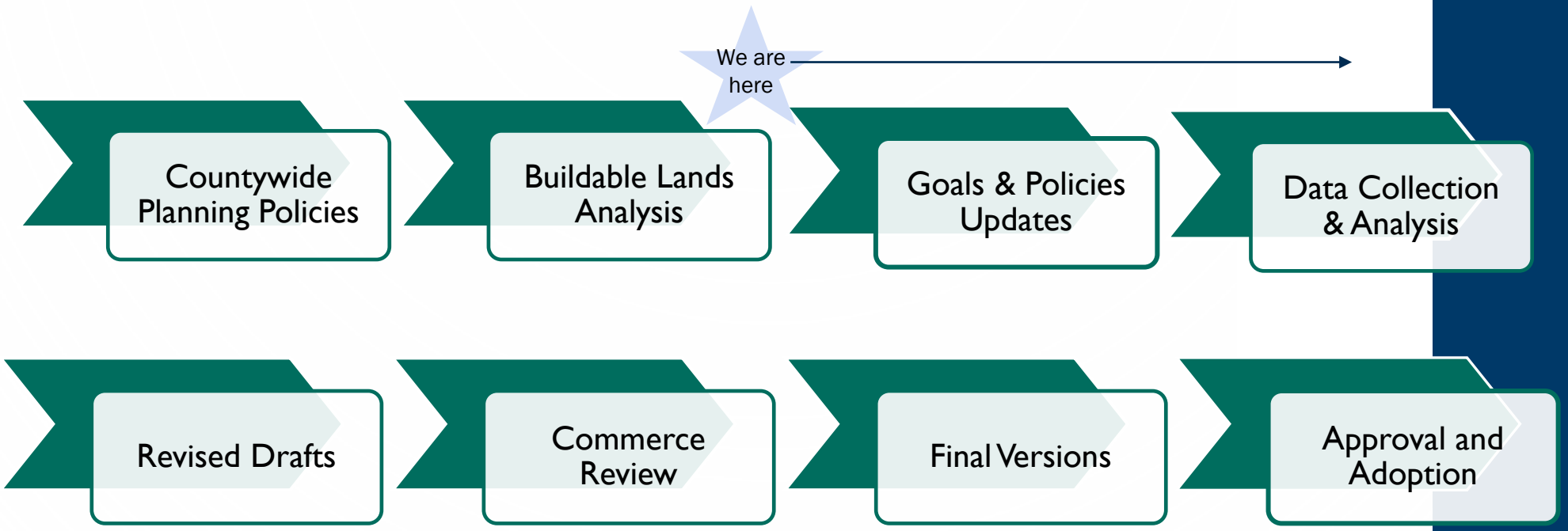
Timeline & Progress Update

June 5, 2024

Agenda

1. Review timeline & progress
2. Outline next steps and upcoming work
3. Public engagement opportunities

Steps of Updating a Comprehensive Plan

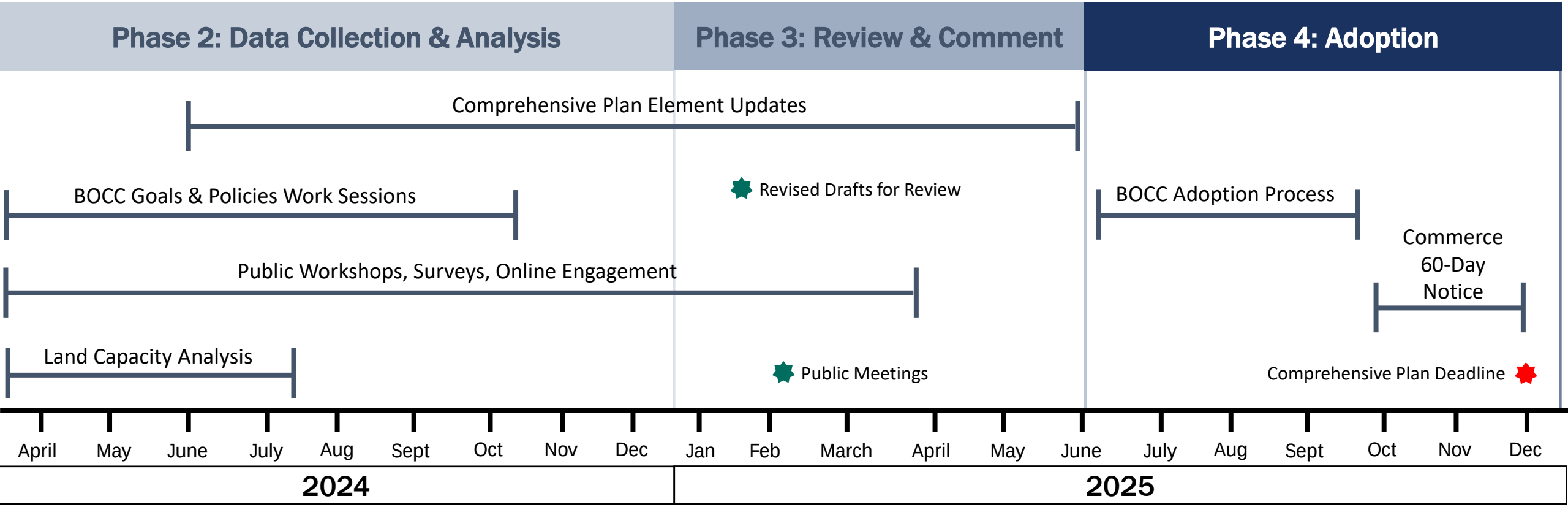


Phase 1	Phase 2	Phase 3	Phase 4
Direction Setting	**Data Collection & Analysis**	**Review & Comment**	**Adoption**
Countywide Planning Policies	Defining issues/topics for further conversation	Revised elements for review	Code updates after adoption
Reviewing existing (2016) documents	Looking at other jurisdictions for examples	Planning Commission & Board input	
Initial feedback	Research	Public comments	
Setting priorities	Fact finding	Revisions & finalizing elements for adoption	

Phase 1 Work Completed

- ✓ Countywide Planning Policies
  - ✓ Population Projection
  - ✓ Housing Allocations
- ✓ Initial goals and policies review of three major elements
- ✓ Confirming priorities of the Board

2024 - 2025 Timeline



Development Regulation Updates in 2026

Elements in the Comprehensive Plan

Reviewed in Phase 1

- Land Use & Rural
- Housing
- Natural Resources

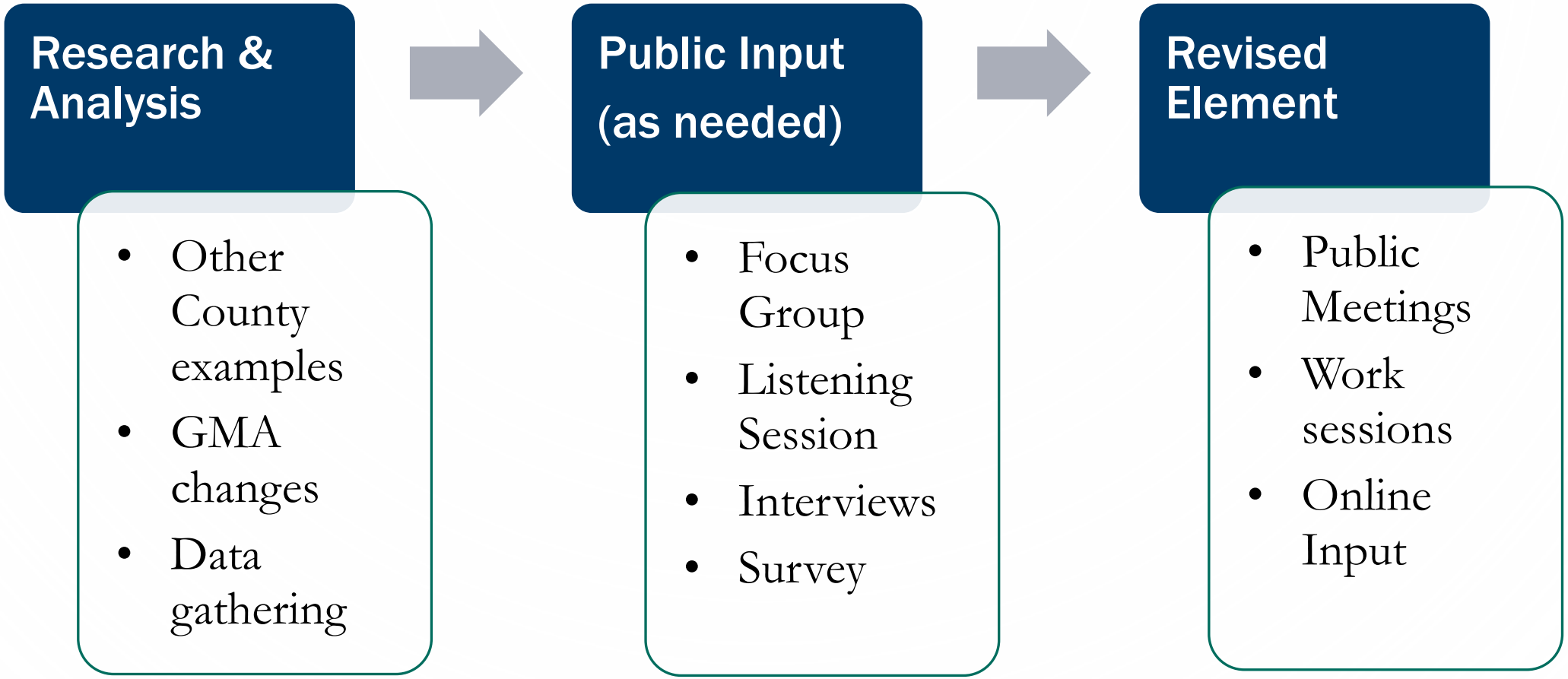
High Level Questions

- Capital Facilities
- Utilities
- Historic Preservation
- Economic Development
- Shoreline

Others Leading

- Transportation
- Parks and Recreation
- Climate Resiliency
- Sub Area Plans

Example Process for Elements



Data Collection & Analysis Topics	Element
UGA Changes	Land Use
Buildable Lands Analysis	Land Use
Airport Policies	Land Use
Affordable Housing	Housing
Accessory Dwelling Units	Housing
Planned Residential Developments	Housing
Short Term Rentals / Vacation Rentals	Housing
Water and Septic Solutions	Utilities
5G Cell Towers	Utilities
Land Conservation Policies	Natural Resources
Agriculture & Forestry Policies	Natural Resources
Groundwater & Stormwater Protections	Natural Resources

Engagement Opportunities

Phase 2 — Spring thru Winter '24

Menu of potential engagement tools

- Focus Groups
- Listening Sessions
- Surveys
- Interviews
- PC/Board Work Sessions

Staff will utilize different tools for different topics

Engagement Opportunities

Phase 3

Winter thru Summer ‘25

- Revised Elements for Review
- Surveys and Comment Forms
- Public Meetings
- Planning Commission
- Board Meetings

Next Steps & Reminders

- We have just scratched the surface – there is still much work ahead.
- Planning Commissioners and the public will have multiple opportunities to engage during the next phases of work.
- All engagement opportunities will be posted on our public engagement website and sent via Gov Delivery emails.

QUESTIONS?

SIGN UP TO RECEIVE COMP PLAN EMAILS:

CompPlan@islandcountywa.gov

COMMENT ON OUR WEBSITE:

Islandcounty2045.com