Groundwater Study Group meeting notes

January 17, 2023

Douglas Morell, SWS class of 2022 with a PhD in hydrogeology and 30 years of experience in the field, will lead the Groundwater Study Group. Douglas presented information on topics he thought the study group could cover, including:

1. Principals of Hydrogeology: Basics for understanding groundwater aquifers specific to Island systems. How groundwater infiltrates and migrates. Types of aquifers, their recharge and discharge.

2. Island County Groundwater Supply: Groundwater available resources and well extraction impacts. Groundwater resource conservation.

3. Saltwater Intrusion and Groundwater Contamination: Basic Island groundwater chemistry. What saltwater intrusion is and how it occurs. How to evaluate whether saltwater intrusion is occurring. Potential Island contaminant sources and how to evaluate risks to well water. Potential groundwater treatment, if needed.

4. Island County Groundwater Well Data Base: Introduction to the Island County Well Database. Information contained on the database. Interactive access and use of it.

5. Alternative Water Sources: Potential rainwater and imported water resources.

Meeting participants introduced themselves and discussed their background and interest in this topic. The group was interested in hearing about all the topics proposed by Douglas in future meetings. Several members of the group are geologists or have some education in geology, and some are or have been members of their local water board or have private wells. General topics participants wanted to cover in future meetings include:

- Treatment to reduce concentrations of contaminants such as manganese, iron, and arsenic in home and community water systems.
- How to manage our properties to conserve and maximize infiltration of groundwater.
- Our island aquifers are limited – concern about the quality and quantity of available groundwater, including:
    - impacts of development on our water supply
    - what existing regulations are in place to limit development to not overtax our water supplies, and are they sufficient?
    - how to explain our limited water supply to island residents in simple terms.
    - how might climate change affect our water supply in the future.
- How often should you get your water tested? Can you trust the contaminant information provided by local water purveyors?
- Learn how to use the well database – questions about whether it is being updated now that Doug Kelly has left county government.

The group agreed to meet the **third Tuesday of the month at 2:30 pm on Zoom**. **Jeanie McElwain** and **Sue Salveson** will help Douglas plan and organize future meetings. Meeting notes, recordings and

presentations will be posted on the SWS website on the calendar page under the date for each meeting (use the back button on the calendar page to get to dates that have passed).

Links provided in chat:

Camano Island Nonpoint Pollution Prevention Plan: https://soundwaterstewards.org/wp-content/uploads/2022/04/Camano-Is-Nonpoint-Pollution-Prevention-Plan.pdf

Whidbey Water Systems – association of community water purveyors: http://www.whidbeywatersystems.org/

Article on sea level rise impacts to groundwater in California: http://www.whidbeywatersystems.org/2023/01/17/new-bay-area-maps-show-hidden-flood-risk-from-sea-level-rise-and-groundwater/

Article about an Arizona suburb's water supply being cut off: http://www.whidbeywatersystems.org/2023/01/17/skipped-showers-paper-plates-an-arizona-suburbs-water-is-cut-off/

Whidbey Environmental Action Network (WEAN) – advocates for sustainable development: https://www.whidbeyenvironment.org

Information on Island County surface water quality: https://www.islandcountywa.gov/Health/DNR/Surface-Water/Pages/Home.aspx

Meeting participants:

Douglas Morell
Joan Schrammeck
Allison Hiltner
Anne Tearse
Bruce Blakeslee and Bonney Greske
Cynthia Scaringe
Jeanie McElwain
Jeanne Amundsen
Jennifer Sand
Paul Belanger
PaulBen McElwain
Sue Salveson
Scott Chase
Tony and Pat Vivolo