

Skagit County Board of Commissioners Briefing
Oct. 20, 2016 2:30 pm
GIPAC Code Amendment Proposals for 2017

Intro:

- GIPAC submitted 3 code amendment proposals for 2017: 1) to encourage rainwater catchment systems as an alternative to wells on Guemes Island; 2) to require pre-drilling review and approval for new wells on Guemes Island; and 3) to permanently protect CaRD open space on Guemes Island.
- Focus of today's briefing is items #1 and #2; see handout for information on #3.

Overview of water issues on Guemes Island:

- First, Guemes Island gets its water from a designated "sole source aquifer." We all draw on the same source; we are all dependent on that water supply holding up.
- The island has long suffered from water quantity and quality issues; islanders' concerns are not new. DOE identified coastal seawater intrusion areas on Guemes Island in the late 1980s. Chloride levels in wells have been elevated at West Beach, North Beach, and other areas.
- More than 20 years ago DOE raised the red flag. In a May 1994 letter to the County Health Dept., DOE wrote of strong concerns: "We have concerns regarding how the County can make findings of adequacy of water in this part of Guemes Island [the north end] under Section 63 of the Growth Management Act. The Antidegradation Policy, as stated in the Water Quality Standards for Ground Waters, WAC 173.200.030, ensures the purity of the state's ground waters and protects the natural environment. Permitting saline intrusion into fresh water aquifers could be a violation of the state's Antidegradation Policy, and can cause adverse water quality effects in existing wells. For these reasons, we would recommend limiting new well construction on the north end of the island. . . . We would also recommend the county discourage wells completed within unconsolidated materials near the coast island-wide."
- That was over 20 years ago and there has been no limit on new wells drilled since then. Many existing wells have been affected – some going dry, others being contaminated with seawater. Wells have failed due to seawater intrusion on North Beach and a 30-lot division on West Beach had to build a reverse osmosis system, now operated by Skagit PUD, due to contamination of their wells.
- Senior water rights (pre-existing wells) have been seriously impacted, which violates state law. The aquifer cannot accommodate an unlimited number of new "straws" into the aquifer.
- The County code designates Guemes Island, in its entirety, a Seawater Intrusion Area.

2016 – 2017 Code changes:

- We note and appreciate that the County codified the Seawater Intrusion Policy (SIP) in 2016. This was a valuable first step.
- But it should also be noted that the SIP is aimed exclusively at designing new wells to be as safe from seawater intrusion as possible. It does little to address the impact of new wells on the aquifer itself, or on pre-existing wells nearby.
- Our 2017 proposals are intended to reduce the impact of new development on the aquifer, and protect senior water rights as required by state law. Our proposals will not solve the problem, but they will (belatedly) represent an important step in the right direction.
- We've done considerable research since making our original proposals and have shared it with County staff. We have a few refinements to offer today.

Proposal #1: Revise code standards and requirements to allow and encourage rainwater catchment systems for potable water on Guemes Island.

Original proposal:

- "Amend the Drinking Water Code (existing SCC 12.48.250) to encourage rainwater collection systems for potable water on Guemes Island. For Guemes Island, consider adopting San Juan County's regulations for potable rainwater catchment systems. . . ."
- "Revise/lower the definition of "adequate water supply" in existing SCC 12.48.030 from 350 gallons per day to 200 gallons per day for Guemes Island." Note that this 200 gal/day figure is further reduced in "Refinements" below.
- "Allow homeowners on Guemes Island the option of using a rainwater collection system designer or designing their own system, if for personal use."

Rationale:

- Skagit County code formally discourages alternative water catchment systems and creates significant barriers to rainwater collection systems for potable water. Rainwater catchment provides a proven alternative to wells and should be the preferred water source on Guemes.
- The code definition of "adequate water supply" requiring 350 gallons per day necessitates very large catchment and storage systems, making rainwater collection prohibitively expensive and infeasible on many sub-standard lots on Guemes.
- Another current Skagit County requirement—that rainwater collection systems be designed by one of a handful of licensed engineers—often does not improve the product, but does add considerably to the cost of such systems and has been deemed unnecessary by SJC.

New information:

- To further educate ourselves about rainwater catchment, several GIPAC members traveled to Friday Harbor in August to meet with Kyle Dodd, manager of the SJC drinking water program. SJC treats catchment as a full equal to drilled wells. Their approach has operated well for the past 15 years, according to Dodd.
- GIPAC also hired Tim Pope, a consultant and an Accredited Professional with ARCSA (American Rainwater Collection Systems Association) to meet with us in Friday Harbor. Pope has installed hundreds of catchment systems in SJC, and we arranged for him to meet with Ryan Walters and Kirk Johnson.
- We also spoke with Dr. Kurt Unger, an attorney and hydrologist who used to work for the WA DOE. Unger authored the WA State rule allowing rainwater catchment in Washington. He also authored a technical, and very interesting, study that, counterintuitively, demonstrates that rainwater catchment does not decrease the amount of water reaching groundwater reserves or streams, and actually has a positive impact. According to Unger's study, catchment has less impact on water resources than use of drilled wells or leaving the land forested and allowing natural evapotranspiration to occur.

Refinements to proposal:

- 110 gallons/day for a two person household should be the "adequate water supply" for a rainwater catchment system providing potable water for indoor use. This standard has been accepted widely by WA counties, according to consultant Pope. It is consistent with the 108 gpd per household reported by the largest public water system on Guemes, operated by the Holiday Hideaway community.
- Allow catchment systems to be designed by a water system engineer, ARSCA Accredited Professional, Master Plumber, or other water system designer with experience in designing

catchment systems, but not by the homeowner unless he/she can demonstrate comparable expertise. The County will need to have some kind of application process to get on the approved-designer list.

- Consider adopting the SJC approach of requiring a property covenant for alternative water systems to be filed with the County before system approval, to reduce County work and liability and put responsibility for the rainwater system fully on the homeowner.
- Water quality testing should be performed satisfactorily before final County approval and then should be the owner's responsibility, as with private wells.

Proposal #2: Pre-drilling review of well drilling plans

Original proposal:

- "Amend SCC 14.24.380 to require, prior to drilling, a permit application and County approval for any new well to be drilled in a Seawater Intrusion Area."

Rationale:

- At present, the County only sees plans for new wells when the property owner submits a development application. New wells can be drilled before any development is proposed.
- We ask the County to plug the enforcement gap in the newly-codified Seawater Intrusion Policy: make sure the policy is enforced at the front end, before new wells are drilled.
- This code change will help homeowners identify an appropriate location and design for a new well so that costly mistakes aren't made, with changes later required (and possible re-drilling) when the county reviews the well in the future as part of a development application.

New information:

- We understand that the state's water rights exemption for homeowner wells producing less than 5,000 gpd has raised questions about whether a County can regulate new wells on Guemes.
- A recent WA Supreme Court decision (earlier this month) suggests that not only does the County have the authority, but also the obligation to regulate new wells as necessary to protect groundwater resources. The State Supreme Court sent a case back to the Growth Management Hearings Board because it found that Whatcom Co. had not done enough to protect water supplies threatened by new wells and new development, as required by the GMA.
- The recent Whatcom decision references a number of other court decisions in WA State including, among others:
 - Kittitas 2011 ("... counties must regulate to ensure land use is not inconsistent with available water resources. Accordingly, a county's comprehensive plan must "provide for protection of the quality and quantity of groundwater used for public water supplies."");
 - Swinomish 2013 ("Recognizing that any withdrawal of water impacts the total availability of water, we have held that an appropriator's right to use water from a permit-exempt withdrawal is subject to senior water rights ..."), and
 - Fox 2016 ("Because the right to use a permit-exempt well is subject to the prior appropriation doctrine, the court held that a determination of water availability for purposes of issuing a building permit requires that the county consider whether the development would impair senior water rights ...")

- While the facts of the Whatcom case are different than the situation on Guemes Island (development was occurring in a water basin closed to new water rights because of the low stream flow rule) the decision appears to clarify that Counties have an obligation to protect water resources that trumps the exempt well rule.

Proposed refinements:

- In addition to requiring that plans for new wells be submitted to the County for review and approval prior to drilling, in areas of known seawater intrusion the applicant should be required to conduct a geohydrologic well-impact assessment.
- New wells that would negatively impact the aquifer and/or existing wells should not be permitted.

Proposal #3: Provide permanent protection for open space designated in a CaRD subdivision on Guemes Island.

Original Proposal:

- “Amend the code to require permanent protection of any open space designated through a CaRD subdivision on Guemes Island.”
- This could occur through the legal filing of a protective easement or covenant on the property.
- This requirement could be included in the Guemes Island Zoning Overlay or the CaRD provisions of the subdivision code.

Rationale:

- The CaRD subdivision process allows for clustering of residential development in exchange for designated open space. Recognizing the need to protect Guemes Island’s sole source aquifer, the County’s subdivision code does not allow for density bonuses on Guemes Island through the CaRD process. However, the code lacks a mechanism to ensure that the open space areas designated through a CaRD will not be further subdivided in the future.
- Given that Guemes Island is not within an Urban Growth Area and because density limits are needed to protect its sole source aquifer, the island is not an appropriate location to reserve open space for future urban development. The code should include a clear mechanism for permanent protection of open space areas designated in Guemes Island CaRDs.

New Information:

- None.
- This recommendation was included as Policy 4.21 in the Guemes Island Subarea Plan, adopted by the County in 2011, but was overlooked when implementing legislation was developed in 2016.

Proposed refinements:

- None.