

November 5, 2018

GIPAC Code Amendments for 2019: Rainwater Catchment and Wells on Guemes Island

Good morning Commissioners, Mr. Hart, Ms. Pratschner.

My name is Hal Rooks and I'm here with two colleagues—Nancy Fox and Allen Bush—from the Guemes Island Planning Advisory Committee to discuss two proposed code amendments we have submitted for the 2019 cycle. The two amendments address rainwater catchment and the drilling of new wells.

Before getting into specifics, I'd like to set the context for these two proposals. First, we are proposing they apply only to Guemes Island. This is important because, unlike the rest of Skagit County, the vast majority of residents on Guemes depend on two aquifers located under the island for potable water. These aquifers have no connection to the Skagit River basin and have no relationship or impact on water availability in the rest of the County.

Second, we are flexible about how we accomplish the goals of our two proposals. These two proposals before you are very similar in intent to two code amendments we submitted to the County in 2016 but which were never acted on. To put it mildly, we are frustrated by this state of affairs. We have resubmitted our proposals as code amendments for 2019 because we frankly don't know how else to bring them to the attention of the County, but we believe they could be implemented faster and more easily by administrative action by the Planning Department.

Why are we so focused on our water supply? As you know, Guemes Island is a federally-designated "Sole Source Aquifer," the only one in Skagit County. Virtually all Islanders are dependent on groundwater for their potable water supply.

- The island has long suffered from water quantity and quality issues; islanders' concerns are not new. The State's Department of Ecology identified coastal seawater intrusion areas on Guemes Island in the late 1980s. Chloride levels in wells—a bellwether of seawater intrusion—have been elevated on West Shore, North Beach, and other areas.
- The County code designates Guemes Island, in its entirety, a Seawater Intrusion Area.
- More than 25 years ago DOE raised the red flag. In a May 1994 letter to the County Health Dept., DOE wrote of strong concerns

"regarding how the County can make findings of adequacy of water in this part [the north end] of Guemes Island 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 25 years ago and the County has placed 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 Shore had to build a very expensive 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” drilled into it.

It is in this context that we come back to you asking for help on two fronts:

1. Making rainwater catchment a welcome and viable alternative to drilled wells; and
2. Making sure that new wells are subject to full impact assessment before drilling.

These code amendments go hand-in-hand; they are two sides of the same coin.

We admit to feeling some frustration, because these issues have been presented repeatedly over the past few years. At various times and from various County representatives, we have received positive assurances – we’ve been told by Planning Dept. staff, the Planning Commission and/or BOC members that County policy has changed, that rainwater catchment is now accepted as a viable water source on Guemes, that new wells are indeed subject to review before drilling ... that essentially our problems are solved.

Despite this, we now find ourselves exactly where we were 3 years ago with wells being drilled without county review, and rainwater catchment systems being actively discouraged by county code and staff.

Code Proposal #1: Rainwater Catchment

Our goal is make rainwater catchment an economical and viable source of potable water for Guemes Island. To do this, we want to see catchment as easily permitted by the County as drilled wells and as inexpensive as possible. This goal is completely feasible if Skagit County commits to making it so but, based on experience over the past 2 1/2 years, is not likely to occur unless the Board of Commissioners insists it happen.

Brief history: GIPAC filed a similar proposed code amendment in 2016. It was put on the PDS work program and, in 2017, a contract was signed with WWU to produce a 'template' of a potable rainwater catchment system. The template was finished in mid-2018, but appears to have been disowned by PDS upon receipt.

As an example of how a neighboring county handles the issue, San Juan County has allowed rainwater catchment for potable use for two decades. Members of GIPAC traveled to Friday Harbor in mid-2016 to talk with San Juan County officials in charge of their Drinking Water program about their experience with rainwater catchment. They reported that they were happy with the program and its results, and were very willing to share results of their experience with Skagit County. In a phone conversation in August, 2018, the current head of their drinking water program reiterated that they are happy with the program and its results. Other counties have rainwater catchment programs as well; Skagit does not need to “reinvent the wheel” to come up with a simple template. System designers have told us repeatedly that this is a fairly simple plumbing issue; "it is NOT rocket science."

SJ Co. made a conscious decision not to use water as a growth management tool and we want to emphasize that GIPAC is similarly not promoting rainwater catchment as a means to try to limit growth on Guemes. Let me be clear: GIPAC is absolutely NOT undertaking these code

amendments to deny anyone the right to build on their property. Our work to facilitate rainwater catchment should send a clear message that we are committed to helping islanders use and develop their properties in a sustainable manner.

The problem with current Skagit practice is that, lacking an accepted template, each catchment system is treated as unique and requires a separate engineer's approval. A recent example of consequences of this is that a property owner on Guemes Island hired Rainbank, a leading member of the American Rainwater Catchment Systems Association (ARCSEA), to design a rainwater catchment system for their property. Rainbank had a qualified engineer fully involved in the design of the system, but when it came time for the County to issue its permit, the County insisted that the Rainbank engineer wasn't sufficient and that one of the 4 engineers on its "approved list" (who are not rainwater catchment specialists, as Rainbank is) had to be involved. This additional—and in our view unnecessary—permitting burden added \$5,000 to the property owner's bill for the catchment permit.

- In contrast, San Juan County gives homeowners the choice of who can design their system; a property covenant relieves the County of liability.

Another example of why we believe there needs to be a standardized permitting process involves the issue of "adequate water supply" or the minimum amount of water needed to be produced by a catchment system.

This is a critically important issue because the requirement for "adequate water supply" directly relates to the size—and therefore expense—of a catchment system. Too large a requirement for "adequate water supply" will make catchment systems either too expensive or too large to be practical on small Guemes property lots. In the interests of time, I'll pass over details of this issue but would be happy to address them if you have questions.

One of the reasons we are filing our proposed code amendment is to get the County to define the standards for a rainwater catchment system, which hasn't been done to date. The lack of a simple set of standards for rainwater catchment creates uncertainty for homeowners and discourages adoption of catchment. The arbitrary requirements imposed by County staff (required engineering stamp from one of 4 firms, excessive requirements for required maintenance far beyond what is required of wells, insistence on negative language in the property deed about not meeting an imaginary standard of 400 gpd, etc.) have no basis in code and create unnecessary obstacles for adoption of rainwater catchment.

We have heard Skagit elected officials speak positively of rainwater catchment for Guemes, but observe that current County practice does not match these words. We believe that County staff have the authority needed under existing code to establish a simple set of guidelines that would facilitate and encourage rainwater catchment systems like other counties in Washington already do. We (GIPAC) are willing to create the outline of a template, drawing on the experience of San Juan and other counties, if staff is too busy.

In summary, we felt compelled to submit a code amendment setting a firm deadline of no more than one year, to formally shine a spotlight on this issue. We ask the BoC to make their position on rainwater catchment clear, and demand timely action from its Planning Department.

Thank you and I now turn our presentation over to Nancy Fox, who was an urban planner in King County for many years and is the previous Chair of GIPAC.

Code proposal #2: Pre-drilling well approval

I (Nancy Fox) am going to address the well drilling issue and summarize GIPAC's current code amendment proposals. As with rainwater catchment, we are focusing exclusively on Guemes Island because it is unique in the County owing to its designation as a Sole Source Aquifer and, in addition, it faces particular challenges as a seawater intrusion area.

Our second code amendment proposal would do three things:

- It would require County review and approval of all new wells PRIOR to drilling, not just new wells that are linked to a development permit—as is currently the practice;
- It would require assessment of hydrogeologic impacts of any new well as part of that review process; and
- It would clarify that, on Guemes Island, rainwater catchment systems can be built without first drilling an expensive test well to prove that a well is not feasible.

First, some history: Two years ago we proposed a code amendment to clarify that well-drillers must get County approval prior to drilling a new well. While the seawater intrusion code seemed to already establish such a requirement, we were aware that this wasn't being enforced and so we asked for clearer language in the code. We understand that well issues are complex in Skagit County and the State, so we considered it reasonable in 2016 when the Planning Department added our issue to its 2017 work program, rather than endorsing our specific code language. However, we later learned that staff decided this requirement was, in fact, already a code requirement, and therefore no more work was necessary. We ended up right back where we started.

We then took a step back to look more closely at ALL of the existing code requirements relating to well drilling, to make sure we understood what the code currently says. As you probably know, there are many overlapping codes affecting water and critical areas, so it was something of a project untangling these requirements. Our analysis shows that there are indeed many protections for Guemes Island groundwater already built into the code, but key requirements are not being enforced or implemented. We provided a copy of our analysis to the Planning Department, and will share it with the BoC at the end of this session.

Our code analysis shows that:

1. An application for well review and approval must be submitted to the County before well drilling. (SCC 14.24.380) What we see on the ground, however, is that this is not always happening. Two new wells have recently been drilled on the north end of Guemes Island, an area where the aquifer is most vulnerable, without any prior notice to or approval from the County as far as we can tell. There may be more, but these are two recent examples.
2. The Critical Areas Ordinance (see SCC 14.24.310 and .330) specifies hydrogeologic review for any development action (including wells) in a Sole Source Aquifer and in Seawater Intrusion Areas (Guemes is both). Yet this review does not occur – partly because some wells are drilled with no notice to the county at all – and partly because County permit reviews simply do not comply with the Critical Areas Ordinance.
3. A new code provision added in 2017 (SCC 14.24.380) states that “where a known seawater intrusion problem exists, alternative sources of water [such as rainwater catchment] are encouraged” According to Planning Dept. staff at the time, this provision was supposed to supersede an older provision in the Public Drinking Water

code (SCC 12.48.250) that discourages rainwater catchment as an alternative water source and requires an applicant to demonstrate why a well is not feasible. Nevertheless, County staff earlier this year told one Guemes property owner that, even though his property already had a rudimentary rainwater catchment system that he sought to upgrade, he would have to drill a test well (at a cost of over \$10K) to prove that potable water could not be provided by a well before he would be allowed to upgrade his rainwater system.

We have stated repeatedly that our focus is on protecting Guemes' groundwater supplies and making sure that existing wells and senior water rights are not undermined by new withdrawals of water from the aquifer.

We do not want to place onerous requirements on people who want to drill new wells; in conversation with the County's Critical Areas staff, we have learned that many or even most new wells could be screened from more in-depth hydrogeologic review based on what is already known of geology in the area and the condition of existing wells nearby. But where there is history of well failures and the potential for further impacts to existing wells, we do not see how the County can simply look the other way.

Ultimately more research is needed on our aquifer and how it is recharged, and it would make much more sense to do this research island-wide rather than case-by-case. For that reason, GIPAC is partnering with the USGS on a proposal for a new hydrogeologic study of the Guemes aquifers, to identify recharge areas and estimated rates of recharge. GIPAC and USGS will be looking for additional funding partners for this work, and hope that the County will see the benefit in providing some support. In the meantime, existing County code legally requires the County to undertake a hydrogeologic impact assessment, on a case-by-case basis, on any new well on Guemes.

Upshot:

We would love to have the County simply enforce its existing code, and not have to go through the lengthy code amendment process again. But given the reality of current County practice, we felt we had no choice but to ask for the code to be made even more explicit on these matters.

Thank you for your time and attention. We would be happy to answer questions if you any.