

Draft Guemes Ferry Environmental Assessment Responses to Comments

Prepared by BERK Consulting, Inc. on behalf of Snohomish County Planning and Development Services | May 31, 2018

On April 13, 2018, Skagit County issued a Draft Environmental Assessment regarding the Guemes Ferry Replacement project, and provided a voluntary comment period through April 30, 2018. Two comment letters were received during the comment period. The comments and responses are addressed below.

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Comments and Responses

COMMENT 1. GUEMES ISLAND PLANNING ADVISORY COMMITTEE

From: Hal Rooks <hsredfield@frontier.com>
Sent: Monday, April 30, 2018 3:15 PM
To: PDS comments <pdscomments@co.skagit.wa.us>
Cc: Ryan Walters <rrwalters@co.skagit.wa.us>
Subject: Replacement Guemes Ferry Proposal

The following comments are submitted by the Guemes Island Planning Advisory Committee.

Hal Rooks
1219 10th St.
Anacortes, WA 98221

April 30, 2018

To: Skagit County Planning and Development Services
pdscomments@co.skagit.wa.us

Re: Replacement Guemes Ferry Proposal

From: The Guemes Island Planning Advisory Committee (GIPAC)

Thank you for the opportunity to comment on the Guemes Ferry Replacement Environmental Assessment (EA). As you know, the ferry project is of great interest and importance to our community, and we need to make sure that County decision-makers have the most complete and accurate information and analyses possible to support their choice among the alternatives presented.

Previously, GIPAC submitted comments on the scope of the EA, asking that key environmental concerns of the adopted Guemes Island Subarea Plan be given close consideration in the environmental review. In

particular, we quoted the plan: “In addition to seeking cost-effective ferry service, the goal of these policies is based on the GMA premise that the extension of public services and facilities to Rural areas like Guemes Island will not induce growth or adversely affect rural resources or rural character.” (p. 78)

Having now reviewed the draft EA, we believe additional analysis is needed to address these key concerns of the Guemes Island Subarea Plan. We ask that these concerns, particularly the proposal’s potential to induce growth and negatively affect the island’s already limited water resources, be addressed more completely in the final report. But we also want to be clear: GIPAC’s intent is not to suggest that sizing of the ferry should be used as a tool to control growth on the island; we have and will continue to work with the County to implement regulatory changes needed to appropriately protect our water and rural character. But to the extent that additional growth may be stimulated by a larger new ferry, we want to make sure this impact is documented and considered.

Key questions and concerns regarding the EA:

1. The EA concludes that the proposal will not affect growth on the island, based on an analysis of when the current ferry went into operation, compared to the number of building permits each year thereafter. Specifically, the EA Exhibit 14 shows that building permits did not increase right away when the current ferry (with expanded capacity) went into service in 1980, and the report therefore concludes there will be no induced growth impact from the current ferry proposal. But indirect impacts, by definition, are typically delayed in time. They do not always occur simultaneously with project construction, the way that direct impacts do. Therefore looking only at the years immediately after a larger ferry began operation in 1980 may not capture the full impact of ferry-induced growth.

Furthermore, the analysis does not take into full account the role of economic factors that could mask the effect of ferry capacity increases on growth. The sharp reduction in building permits at the start of the recession in 2008 certainly suggests that the primary factor influencing building permit activity may well be economic conditions. In the same vein, the sharp uptick in building permits which started in 1992 corresponds to a period of strong economic expansion in the U.S. Could the delayed impact of the new ferry introduced in 1980 also have played a role? Economic indicators must be factored into the analysis in order to isolate the possibility that there was additional impact from induced (delayed) growth.

In the big picture, we recognize that many factors come into play in determining growth on the island. There is a complex interplay among factors that, we acknowledge, may make it difficult to isolate and quantify ferry impacts. Nevertheless it’s important to try.

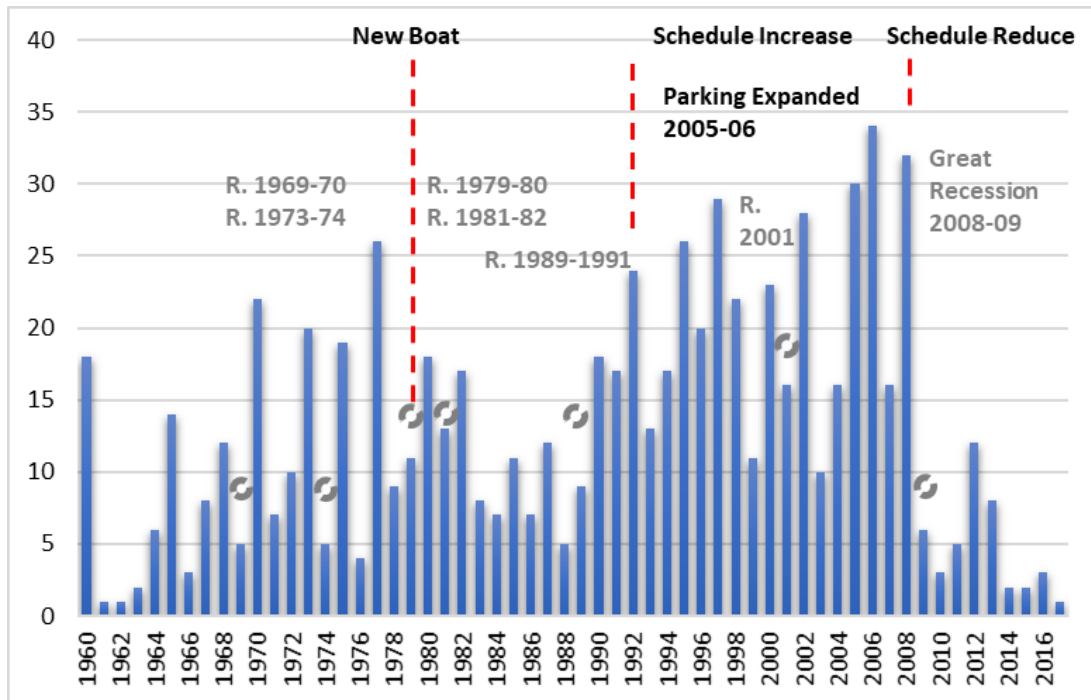
Response: Please see the Glostén Vehicle Capacity Study (December 2017) which incorporates analysis showing that population, parking and fares have a statistically significant relationship to ridership, whereas the housing market, unemployment, ferry schedule, and weather all have no statistically significant relationship to ridership.

*Glostén developed a ridership forecasting model that accounts for local population, fares, and parking at the terminals. Increasing population increases ridership, whereas increasing fares reduces ridership, and increasing parking reduces vehicle ridership. Glostén found that these three factors have statistically significant impacts on ridership. Glostén found no substantial correlation between ridership and the housing market, unemployment, ferry schedule, and weather. The ridership forecasting model had a correlation coefficient of 0.95 with the passenger dataset and 0.92 with the vehicle dataset, indicating a fairly close fit.
(Page 1)*

Reviewing the timing of several recessions and year-built data shown in Exhibit 1 below (similar to Exhibit 14 of the Environmental Assessment) it appears that construction decreases in some portions

of recessionary periods and increases in others, which may suggest the lack of a clear relationship. Per the Environmental Assessment, the zoning in place at the time of the 21-car Guemes Ferry in 1979 through 1992 allowed higher densities, and well rules were not as strict. Yet, the annual construction was not as high during this less strict regulatory period with a new ferry compared to later decades. See also Exhibit 15 of Environmental Assessment.

Exhibit 1. Number of Structures Built by Year 1960-2016 with Ferry Changes and Recessions



Legend: - - - = key ferry event R.=Recession ☉ = low activity portion of recession period

Source: Skagit County Assessor, 2017; Federal Reserve Economic Data 2018; BERK Consulting, Inc. 2018

- Again regarding Exhibit 14, we would appreciate clarification about how the “Number of Structures Built by Year 1960–2016” is calculated. Much of the growth now occurring on Guemes Island is in the form of existing homes being enlarged or replaced—so our question is whether these are taken into consideration, or are structures counted only as new buildings on vacant property? We would point out that the building cap proposed in the Guemes Island Subarea Plan relates to all new buildings **and** any expansion of 25 percent or more of existing homes. This should be the measure of building activity captured in the environmental assessment.

Response: Based on discussions with Assessor staff, the Year Built data is based on best available information about the date of construction and since the late 1970s is stable. The Year Built reflects the year of home construction. The Assessor tracks the Effective Year of a house in cases where there are significant home renovations. (Chief Deputy Assessor/Levy Officer, Annette M. DeVoe, May 7, 2018)

From 2010-2017 there were about 103 homes with an effective year built of 2010 or later. Twenty-six homes had an effective year built at least five years later than the constructed year; there were about fifty-six homes that had an effective year built at least three years later than the constructed year. These figures exclude about ten homes that have no information on year built to compare with the effective year built.

Out of 764 units on the island as a whole, three to seven percent of the homes have been significantly renovated as of 2010-2017 data.

While home renovations are a sign of investment, it would not indicate that there is a potential for growth inducement, nor would it change the range of ridership estimates which are based on per dwelling unit ridership applied to housing units that may be added over time considering different rates of historic growth projected forward.

3. In assessing the potential for growth on the island, GIPAC suggests that the propulsion system for the new boat may be a bigger factor than the size of the boat in stimulating visitors to the island and encouraging building activity. A cutting-edge electric ferry will attract national attention, raising awareness of Guemes Island and attracting both day visitation and, because visitors will like what they see, interest in long-term residence. While the environmental benefits of the electric ferry should be fully documented in the EA, so should its potential impact in bringing more people to the island.

Response: The Draft Environmental Assessment reports on the potential capacity for growth and varying rates of growth during very high, moderate, and low periods. It addresses the potential for induced growth. While there may be visitors interested in an electric propulsion system, given that WSF is interested in electric ferries¹ and the state ferries connect more known tourist destinations, if Guemes Island were to temporarily attract enthusiasts for electric ferries would probably not be long-lasting.

4. Shifting demographics on Guemes Island are a factor we suggest should be acknowledged in the EA, because they create a very sensitive situation with respect to ongoing and projected growth on the island. In 2006, the American Institute of Architects determined that 70 percent of all shoreline properties on Guemes were owned by people 65 years or older. (See *Guemes Island SDAT, Creating a Sustainable Guemes, June 20-22, 2006* at tinyurl.com/GISDAT.) As a result of this demographic factor, we are already in the middle of a significant transfer of property ownership from one generation to the next, and acceleration of property sales. The EA should note that the island is in a state of flux regarding demographics, and ongoing changes in the socio-economic makeup of the island may result in increased building activity.

Response: The Draft EIS addressing the Guemes Ferry (December 1977) indicated that the median age in 1970 was 40 years old with about 26% of area residents less than 18 years old and about 23% at over 65 years old (Census Division 8, 1970). The median age in Census Tract 9501 containing Guemes Island was about 58.8 in 2010. About 10% were children under 18 years old. While the Island's population has aged, when the current ferry was put into service, there was a younger demographic profile and more children. The Year Built data does not show that following the ferry's implementation in 1979 that there was growth inducement following.

5. The EA does not attempt to identify the extent to which access to the island would improve under the proposal, contrary to considerable literature describing how to assess the indirect impacts of transportation projects. That analysis always starts with quantification of the improved access that a transportation project provides. In the case of a new highway, the analysis starts with quantification of reduced travel times to an area. The ferry project EA needs to provide this type of analysis, without which there is no basis for analyzing indirect impacts. How many cars are

¹ See article: <http://kuow.org/post/washington-state-ferries-look-harder-diesel-electric-conversion>.

currently left behind at the dock, and how often? What is the average additional travel time these cars are subject to? How would these numbers change under the proposed ferry expansion and the alternatives? (Note that GIPAC recognizes, conversely, there could be significant economic benefits for contractors and other workers who lose time waiting in the ferry line when their planned ferry is full and they are left waiting at the dock.)

Response: Glosten's assessment of load size probabilities indicates that currently about 22% of vehicle loads are full per year, based on 2001 through 2017 ridership data (see Section 1.5.2.3 of the Vehicle Capacity Study). The proposed Ferry Size maximum of 32 cars, is meant to allow the County to retain its current schedule without significant increase to the percentage of full runs over the life of the vessel. With a constant capacity vessel and increasing ridership, the percentage of full runs will likely increase. (pers com Will Moon, Glosten, May 31, 2018)

6. Given this (quantified) reduction in travel time to the island, what is the reasonably expected increase in the rate of housing growth on the island? This impact may not be "significant" but that does not mean that we can know with certainty that no impact will occur, or that there will be no difference in impacts between the three alternative boat sizes.

Response: A larger vessel may decrease the number of vehicles left at the dock during times of full capacity runs but the average travel time to the island will not significantly change as the new vessel is not substantially faster nor is the schedule planned to change. (pers com Will Moon, Glosten, May 31, 2018)

The Draft Environmental Assessment reports on the potential capacity for growth and varying rates of growth during very high, moderate, and low periods based on Guemes Island historic trends, and notes that there does not appear to be any history of induced growth.

7. The EA needs to provide a more thorough discussion of water problems on the island that have been caused by growth occurring to date. In 1977, the federal Environmental Protection Agency designated all of Guemes Island a "sole source aquifer." However, there is no mention in the EA of wells that have failed since the early 1990s due to seawater intrusion. There is mention of the County PUD-operated reverse osmosis plant on West Beach, but no analysis of what caused the community wells in the Potlatch Development (where the PUD is located) to be condemned by the State Department of Ecology. To be complete, the EA needs to mention well failures in the context of the island's Sole Source Aquifer, and address the issue of how to prevent further growth-induced failures. The implication that measures currently in place to address seawater intrusion have "solved" the problem is not defensible.

GIPAC continues to push for tighter restrictions on new wells and additional research to better delineate key aquifer recharge areas which need protection. On the flip side, the work that GIPAC is doing to encourage rainwater catchment systems as an alternative to wells could eventually enable growth that would otherwise be restricted due to aquifer limitations.

Response: The Draft Environmental Assessment dated April 2018 summarizes the USGS study and Sole Source Aquifer status as well as the Potlatch system. Wells with chloride results are also shown. The revised Environmental Assessment in May 2018 includes the following more detailed description of the PUD system: "The Potlatch Beach water system on Guemes Island includes one mile of two and four-inch plastic water mains and has 30,000 gallons of distribution storage capacity. The system was experiencing saltwater intrusion in its groundwater well prior to District ownership, so the District replaced the source with a new reverse osmosis water treatment system, supplying the water system

with desalinated water from Guemes Channel in the Puget Sound. The system has capacity for up to 182 ERUs. The District accepted ownership of the system in 1998.”²

If water is available, the Environmental Assessment analysis of low, medium, and high rates of housing additions and low and high land capacity demonstrate what the potential for growth could be. The Draft Environmental Assessment identifies the Guemes Subarea Plan policies regarding aquifer protection and which have been implemented by code. Regardless of the Ferry Replacement, County regulations on zoning, critical areas, and water requirements would apply.

We recognize that indirect impacts can be difficult to assess. Data may be missing, and numerical analyses may not always be feasible. Nevertheless, the EA is not complete unless it at least attempts to undertake this analysis. At a minimum, the EA needs to be revised to:

— Identify economic indicators that have affected growth over time, in order to help isolate any additional growth (indirect impacts) that may have been stimulated by the larger M/V Guemes ferry going into service as a replacement for the Almar ferry.

Response: See Response to Comment 1.

— Provide quantification of how much the proposed larger ferry would improve access to the island. For example, what would be the average reduction in travel time for cars that would otherwise be left behind?

Response: See Responses to Comments 5 and 6.

— Acknowledge that some increase in the rate of growth may be induced by a 50% or 33% (reduced ferry size alternative) increase in ferry capacity and associated reductions in travel time, even if data and analysis limitations make it impossible to fully quantify.

Response: As described in Response to Comment 6, the Draft EIS provides an analysis of various rates of housing growth based on historic high and low trends. The Environmental Assessment projects ridership per dwelling unit accordingly. The Environmental Assessment describes that the Ferry Replacement proposal does not change the allowed density or critical area regulations, and the amount of growth would likely be in the range studied.

— Provide additional documentation of the well failures that have occurred on the island and the potential for increased water problems due to increased water withdrawals associated with possible ferry-induced growth.

Response: See Response to Comment 7.

— Address the additional questions and considerations identified in Items 2-4 above.

Response: See responses above.

Even if indirect impacts cannot be fully quantified or are deemed not significant, their potential still needs to be addressed. GIPAC asks for a more complete discussion of indirect impacts so that they can be taken into consideration by the decision makers responsible for determining the size and propulsion system for the new boat.

² Skagit County PUD, 2016, <http://www.skagitpud.org/resources/water-system/remote-systems/>.

Response: See responses above.

Thank you for your serious consideration of these comments.

Response: Thank you for your comments.

Guemes Island Planning Advisory Committee

Hal Rooks, Chair	Stephen Orsini
Michael Brown	Patty Rose
Allen Bush	Edith Walden
Nancy Fox	Gary Curtis, Emeritus

COMMENT 2. ORSINI

From: Stephen Orsini <sailingorsini@gmail.com>

Sent: Sunday, April 29, 2018 12:56 PM

To: PDS comments <pdscomments@co.skagit.wa.us>

Cc: Fox Nancy <nancy@nancyfox.com>; halsteadlisa67@yahoo.com

Subject: Please Use this Rev 3 in my comments to Replacement Guemes Ferry Proposal

My apologies but the previous comments sent contained not only grammatical errors but one mis-statement of fact. Please delete all previous versions and use only this Rev 3.

Re: Replacement Guemes Ferry Proposal

The Draft Environmental Assessment: April 13, 2018 (EA) is deficit on two major points and therefore draws incorrect conclusions.

First, on page 35, the EA states:

"The ferry replacement Proposal and Reduced Ferry Size Alternative would not create direct impacts to ground water resources on Guemes Island."

The report fails to state the number of wells that have failed on Guemes Island nor attempt to explain the cause of these failures. As proven over time, the addition of more wells, especially on the north end of the island, has resulted in 10 well failures due to seawater intrusion including the failure of the approximately 20 hookups in the Potlatch Subdivision only solved by installation of an expensive seawater reverse osmosis system. In 1998, the County received a letter from the Department of Ecology requesting a moratorium on new wells in this area of the island until a plan could be developed to insure a sustainable fresh water supply. This letter was ignored as have been requests from islanders for an island aquifer recharge area study to quantify the fresh water in the island's Sole Source Aquifers. Without analysis of the current well failures on the island, the conclusion stated above is invalid.

Secondly, the conclusion on page 29,

"Growth patterns illustrated in Exhibit 14 and Exhibit 15 appear to support the 1978 EIS conclusions that changes in ferry sizing would not have a significant effect on population, housing, ad land use."

Graphs 14 and 15 provide the narrow parameter of building permits issued in years following introduction of a larger vessel. This analysis ignores the literature on the proven phenomenon of induced demand. As a resident of the island I witnessed the transition from the 6 car *Guemes* to the 9 car *Almar* to the 21 car *Guemes*. There were no growth spurts with the introduction of the larger vessels but over the decades the island grew significantly and the increased capacity of the ferry and ease of access was part of that growth. One consideration in growth not addressed is the size of the dwellings, with their increased water utilization moving from say one to three bathrooms. Both the 6 car *Guemes* and the 9 car *Almar* were decked above their main car lanes. Large cement trucks could not be transported to the island. With the 21 car open-deck *Guemes*, large cement trucks are carried along with pumper trucks and large mobile cranes. Thus the larger open car deck vessel made it easier to build new structures on the island or increase the size of replacement houses. These are growth factors which the EA fails to include coming to the erroneous conclusion that a larger ferry has no "significant impact on population, housing, and land use."

Structuring the EA to say there are no water problems on Guemes Island and that a new larger vessel will have no growth impacts will misinform the ensuing Threshold Determination.

Stephen Orsini
4971 Guemes Island Rd
Anacortes, WA 98221

Response: Thank you for your comments. Please see Response to Comment 1 in the prior letter. Growth trends do not support the idea that a ferry size induces growth considering information on ferry system changes and construction trends. The Environmental Assessment does provide an analysis of growth capacity and growth rates at low, medium, and high levels. In any case, the ferry replacement does not change zoning or critical areas regulations. Regarding water effects, the Environmental Assessment describes the current situation and regulations that would apply if growth were to occur consistent with the Subarea Plan and County zoning. Additional information is proposed to be added regarding the Potlatch system as described in responses to Comment 1 and 7 in the prior letter.