Skagit County Comprehensive Plan

July 24, 2000

Skagit County
Planning and Permit Center
Skagit County, Washington

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6A-2.8 Isolated or unique rural areas (e.g., islands) should be allowed to develop without access to county roads provided rural character is maintained and ingress and egress issues are satisfactorily addressed.

OBJECTIVE 3

Assure that the provision of public facilities, services, roads and utilities are consistent with rural character and lifestyles.

Policies

6A-3.1 Public spending priorities for facilities, services, and utilities within rural areas shall be primarily to maintain or upgrade existing facilities, services, and utilities to serve existing development at rural service level standards. New facilities, services, roads, and utilities shall be allowed

which support planned rural growth at rural service level standards.

6A-3.2 Standards and plans for roads and utilities shall be consistent with rural densities and uses. Rural road standards shall minimize paving and right-of-way requirements. Utilities that serve urban growth areas but must be located in rural areas shall be designed and scaled to serve designated urban growth areas.

6A-3.3 In rural areas, the County should determine the location and causes of failing on-site septic treatment systems, and provide technical assistance and require property owners to improve those systems in order to avoid unhealthy conditions and the need for sewer extensions. The County should adopt operation and maintenance requirements for all septic system permits.

6A-3.4 On-site wastewater systems are preferred to treat and dispose of effluent from uses in rural areas. Community on-site systems or decentralized treatment systems may be used in Rural Villages and land divisions. The technical design and procedural requirements for obtaining approval of community on-site sewage systems are found in Skagit County Code 246-272 WAC (if more than 3,500 gallons of domestic sewage per day). The

9A-4.8 Standards and plans for roads and utilities shall be consistent with rural densities and uses. Rural road standards shall minimize paving and right-of-way requirements recognizing the need to maintain LOS and multi-modal use. Utilities that serve urban growth areas but must be located in rural areas shall be designed and scaled to serve designated urban growth areas.

9A-4.9 For individual road concurrency, the LOS standard for county road segments shall be C as calculated using a Highway Capacity Manual method selected and documented by the County Engineer.

9A-4.10 For individual road concurrency, the LOS standard for county road intersections shall be D as calculated using an LOS method selected and documented by the County Engineer.

PUBLIC TRANSPORTATION

OBJECTIVE 5

To promote a safe, coordinated and integrated public transportation system.

Policies

9A-5.1 The County supports the coordination of public and private transportation systems.

9A-5.2 An integrated regional transportation system should consider its impacts on air pollution and signal timing.

OBJECTIVE 6

To assist in promoting a coordinated and integrated public transportation system available to all people in the county.

Policies

9A-6.1 Skagit County supports expansion of public transportation service into the unincorporated areas only with public support.

9A-6.2 Programs that inform and educate citizens on public transportation shall be supported.

9A-6.3 The County shall encourage its employees and private business to use flexible work schedules that can be coordinated with transit schedules.

9A-6.4 Accessibility to public transportation in residential areas shall be encouraged.

9A-6.5 The Senior Citizen and Handicapped transportation system should be provided with an adequate budget to provide for those who, through age and/or disability, are unable to transport themselves.

9A-6.6 The County encourages public transit service in areas of the county when potential demand and public or private support justifies it.

9A-6.7 The County encourages the linkage of all cities, towns, and Rural Villages through public or private transit.

9A-6.8 The County encourages the eventual linkage of local public or private transit with the transit systems of neighboring counties.

9A-6.9 The County shall support public or private transit service links to the Guemes Ferry and the State Ferry in Anacortes.

9A-6.10 The County shall work with and encourage the private transit providers in the County to continue to provide services that public transit can not provide.

FERRY SERVICE

OBJECTIVE 8

To encourage adequate and cost effective ferry services.

Policies

9A-8.1 The County encourages the provision of adequate street, highway, and road facilities to accommodate traffic to the ferry terminals in Anacortes.

9A-8.2 To meet future increases in demand, the County shall increase service capacity of the Guemes Island Ferry by: (a) encouraging car-pooling and walk-on passengers; (b) increasing the frequency of ferry runs based on demand; and (c) considering additional ferry capacity if the aforementioned procedures fail to accommodate demand.

9A-8.3 In making all decisions related to the Guemes Island Ferry, the County shall balance the needs of the Island residents, the non-resident property owners, and the County citizenry as a whole.

9A-8.4 The County shall work with the city of Anacortes, property owners, and residents on Guemes Island to develop adequate parking areas.

9A-8.5 The County shall continue to provide safe and adequate ferry service between Anacortes and Guemes Island, and a fare structure designed to recover as much operating cost as practical from the users.

9A-8.6 The County supports the State's continued provision of ferry service to and from Anacortes- San Juan Islands-Vancouver Island, B.C.

9A-8.7 The Regional Transportation Planning Organization should establish level of service standards for ferry service.

GERALD STEEL, PE

ATTORNEY-AT-LAW

7303 YOUNG ROAD NW
OLYMPIA, WA 98502
Tel/fax (360) 867-1166

May 23, 2006

Skagit County BOCC
1800 Continental Place
Mount Vernon WA 98273

RE: Proposed Resolution Amending the Guemes Island Ferry Departure Schedule

Dear Chairman Dahlstedt and Board Members:

I write this letter on behalf of Friends of Guemes Island ("FGI"). The Resolution under review proposes extended weekday ferry hours. Friends of Guemes Island strongly opposes this extension for the following reasons:

1) The extension is opposed by a super majority of 2/3 of the respondents to the 2006

Ferry Survey discussed in your packet.

2) The revenues from the extended hours are grossly over-estimated.. Most of the projected extended-hour trips will not be new trips but just will be rescheduled trips. There is no new revenue from rescheduled trips. Your revenue analysis erroneously assumes otherwise. Revenue shortfalls will result in unwanted fare increases.

3) The proposed resolution is in conflict with prior resolutions that have not been rescinded. See FGI letters of June 19, and June 20, 2005.

4) CP Policy 4A-7.15 requires a community plan for Guemes to address sole-source aquifer issues and ferry service. There should be no extension of ferry service until there is a community plan. There is also conflict with Policies 9A-6.1 and 9A-8.2.

5) Attached is an email exchange indicating that there has not been a SEPA threshold determination. The attached planning report by Barbara Rudge shows that a EIS should be required before ferry hours are extended.

Respectfully,

Gerald Steel, PE, Attorney for FGI

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Gerald Steel

From: ChalMartin [chalm@co.skagit.wa.us]
Sent: Friday, May 19, 2006 8:57 AM
To: Gerald Steel
Subject: RE: Ferry Schedule Resolution

Gerald
I'll be glad to discuss this with Gary Christensen. Who is "bamboola@cablerocket.com? Thanks Chal

---

From: Gerald Steel [mailto:geraldsteel@yahoo.com]
Sent: Friday, May 19, 2006 9:48 AM
To: ChalMartin
Cc: bamboola@cablerocket.com
Subject: FW: Ferry Schedule Resolution

Chal,

Are you the SEPA Responsible Official for the Ferry Hour Extension resolution that you are presenting on Tuesday, May 23, 2006? If not who is? Also, if not, would you forward my request below to that person? If you are the SEPA Responsible Official, would you please tell me, by Monday May 22, 2006, what SEPA exception is being relied upon. Thank you.

Gerald Steel, PE
Attorney-at-Law
[illegible] Young Rd. NW

...Young Rd. NW
...npia, WA 98502
Ph/Fax 360.867.1166

-----Original Message-----
From: Gerald Steel [mailto:geraldsteel@yahoo.com]
Sent: Friday, May 19, 2006 8:17 AM
To: 'SteveCox'
Cc: 'bamboola@cablerocket.com'
Subject: RE: Ferry Schedule Resolution

Steve,

One more question about the ferry hour extension resolution that I would like answered by Monday. Who is the SEPA Responsible Official for this legislative action? SEPA states that all legislative actions require a SEPA threshold determination unless there is an exception. WAC 197-11-310; 197-11-305; 197-11-704; 197-11-910. If the SEPA Responsible Official is relying on an exception, what exception is being relied upon? Please forward this email to the SEPA Responsible Official.

Gerald Steel, PE
Attorney-at-Law
7303 Young Rd. NW
Olympia, WA 98502
Ph/Fax 360.867.1166

-----Original Message-----
From: SteveCox [mailto:scox@co.skagit.wa.us]
Sent: Thursday, May 18, 2006 1:16 PM
To: geraldsteel@yahoo.com; bamboola@cablerocket.com
Subject: Ferry Schedule Resolution

Barbara Rudge
7303 Young Rd. NW
Olympia WA, 98502

May 21, 2006

Friends of Guemes Island
c/o Gary Davis
7885 Guemes Island Road
No. 16
Anacortes, WA 98221

Re: Proposed Resolution Amending the Guemes Island Ferry Departure Schedule

Dear Mr. Davis:

You have asked me to review the proposed Resolution to extend the hours of operation of the Guemes Island Ferry ("Ferry") to identify issues of importance regarding the State Environmental Policy Act ("SEPA"). I am a planner by education and work experience and have often analyzed proposed actions for compliance with SEPA requirements. My resume is provided in A-19.

This letter is intended to provide a cursory examination of existing conditions on Guemes Island and preliminary review of the probable impacts of the proposed transportation capacity changes caused by extending hours of ferry operation. An Environmental Impact Statement on the proposal would be necessary for thorough assessment of the

direct and indirect, short and long term impacts.

SEPA requires a threshold determination for any proposal that meets the definition of action and that is not categorically exempt. WAC 197-11-310. The proposal to extend hours of operation of the Ferry is a legislative proposal that qualifies as an project action under WAC 197-11-704. This action is not categorically exempt pursuant to WAC 197-11-800 et seq. Therefore a theshold determination is required.

In the documents released for public review, and in the text of the proposed resolution itself, there is no mention of a threshold determination being made. If there has not been a threshold determination, then one should be made before the County considers adoption of the Resolution.

The process of making a threshold determination requires the Responsible Official at the County to review the environmental checklist and determine if the proposal is likely to have a probable significant adverse environmental impact. WAC 197-11-330(1)(a) and (b). Impacts include short-term and long-term effects. WAC 197-11-060(4)(c). Impacts include those that are likely to arise or exist over the lifetime of a proposal or longer. Id.

> "A proposal's effects include direct and indirect impacts caused by a proposal. Impacts include those effects resulting from growth caused by a proposal, as well as the likelihood that the present proposal would serve as a precedent for future actions. For example, adoption of a zoning ordinance would encourage or tend to cause particular types of projects or extension of

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sewer lines would tend to encourage development in previously unsewered areas."

WAC 197-11-060(4)(d). Impacts may be "direct, indirect, and cumulative." WAC 197-11-060(4)(e).

Existing Conditions

Guemes Island is currently developed a a very low density, typical of islands, with older small parcels in isolated areas along the shoreline and larger parcels up to 40 acres in the interior and on the northwest side of the island. The Skagit County Land Cover Map 7 in the June 24, 2000 Skagit County Comprehensive Plan (SCCP) Map Portfolio shows that the island is vegetated heavily with immature conifers and deciduous forests with much or the remainder in fields or pasture land. The shorelines surrounding Guemes Island and adjacent Fidalgo and Cypress Islands are identified in the SCCP Map11 as priority habitat for a variety of endangered or threatened priority species.

Approximately 490 acres is designated Rural Resource in the SCCP, with areas of more intense development designated as Rural Intermediate and the remainder in Rural Reserve. Rural Reserve allows development at one unit per 10 acres or 1 per 5 acres if clustered. There is no evidence in the record that Skagit County calculated the potential number of units that could be added to Guemes Island under the density allowed in the SCCP. A review of the existing parcel sizes, as identified in the Skagit County soil classification maps dated August 30, 1996, indicates there are dozens of 10-acre parcels, approximately 47 parcels of 20 or more acres and 14 40-acre parcels, designated for development at 1 unit per five acres, if clustered. Build-out would easily exceed 300 new

single family homes under the current density designation.

Transporation access to the island is limited to ferry service and private boat. Ferry service currently ends at 6 PM, Monday through Thursday. This ferry schedule has served to restrain the resident population to those willing to live with limited transporation access. Owners and visiters using vacation homes expand the population during summer months.

The island lies within the Olympic Mountain rain shadow and rainfall is low with an average rainfall of about 26 inches per year. Dry years can produce drought conditions[1] with rainfall of less than 19 inches. Aquifer recharge is also low due to the geology and soils of the island. The USGS survey of the San Juan Islands indicates that recharge in the San Juans ranges from 6 -9 % of annual rainfall compared to 28% on Whidbey Island. Ninety percent (90%) of precipitation is lost to runoff, evaporation and transpiration. Of the water that percolates into the aquifer, the general rule used for planning purposes is that 20-30% is available for withdrawal (A-2).[1]

The island was designated a sole source aquifer by the Dept. of Ecology and availability of potable water for human and livestock consumption has been a local issue for many years. The Guemes aquifer is under significant pressure with existing development conditions as evidenced by the salt water intrusion into wells in areas of denser development. Conditions become worse in years of low rainfall. The small Potlatch desalinization plant is available to some residents who pay for the service. There are

[1] See A-1 through A -18 attached.

currently 28 connections to the plant which produces a very small supply of water to each household (on average 62 gallons per day) (A-8 to A-9) .

Guemes Island is designated as part of Washington State watershed planning area WRIA 3. Skagit County began planning for the Samish sub-basin of WRIA 3 but according the Department of Ecology's 2005 Report to the Legislature (A-12), the planning process was terminated without being finalized or voted on by the Planning Unit. Skagit County WRIA 3 work gave no attention to water resource management planning for Guemes Island. There is no evidence in the record that Skagit County analysed the impact of the new housing allowed by the density designations for Guemes Island on the sustainability of the island water supply. While San Juan County has completed an extensive water resource management plan that offers some insight into the nature of the geology and water supply of the San Juan Islands and developed policies to shape development in the face of an overtaxed resource, Skagit County has apparently not even begun planning for Guemes.

In their 2002 ruling for Jefferson County, the Growth Hearings Board stipulated that the County

> "properly classify and designate vulnerable seawater intrusion areas as CARAs (critical aquifer recharge areas) using best available science, and develop and adopt protection standards to prevent further groundwater degradation from seawater intrusion". (A-4 to A-5).

While it is evident that Guemes Island should be classified as a CARA, Skagit County has not done so, nor has it attempted to develop protection standards against seawater intrusion.

Vehicle traffic on Guemes Island roads is generally light particularly after the last ferry at 6 PM. The limited ferry schedule tends to reduce traffic to those periods before and after a ferry sailing. Noise levels are very low, particularly when car traffic associated with the ferry has stopped. Cars line up and park at the south end of Guemes Island Road to take the ferry. A small commercial establishment was introduced at this location a few years ago, presumably to take advantage of the market provided by people waiting for the ferry.

The island has limited infrastructure, with no waste treatment or solid waste facilities, no schools, and limited roads sufficient to serve existing housing.

Impacts of Extended Ferry Schedule

Currently, the Guemes Island ferry only operates until 6 PM, Monday through Thursday. Those who wish to travel to and from the island after ferry hours must use a private boat. This limited transportation service discourages many people from year round living on the island. Ferry service, like any form of public transportation, influences growth and development. A comparison of Washington State Ferry San Juan Island route map and San Juan county road map (A-13 to A-14) shows the effects of a ferry on island development. Blakely Island is the sixth largest San Juan Island but it has no ferry service, no public roads and a population of 64. Shaw is nearly the same size but has ferry service,11 miles of road and over 200 residents; its development has been greatly influenced by monasteries who own much of the island. Lopez is larger, has ferry service and over two thousand residents.

Just as the existence of a ferry link increases development on an island, so too does increased service or capacity. By increasing trips and extending the hours of ferry service, the County would provide the existing residents with more opportunity to come and go from the island, however, it would also make living on the island more attractive to new home buyers and increase demand for development of additional homes. It would also create more demand among seasonal visitors.

The short-term impact of the proposed ferry schedule would be to extend the hours of traffic using island roads until after 10 PM and would increase the existing noise levels between 6 PM and 10 PM. Lights and activity at the ferry landing and any noise from the ferry itself would continue until after 10 PM. Long term, it may be expected that new residents and visitors attracted to the island by the longer ferry service hours would create more traffic on local roads, increasing noise and air pollution.

Additional homes would cause even further pressure on potable water supplies. Home builders are currently allowed to introduce new individual wells to supply the homes they build without obtaining a water right or a permit from the Department of Ecology. As there has been no watershed planning or analysis to determine how much water is available for withdrawal or any planning to prevent saltwater intrusion by limiting withdrawals to sustainable rates, it is reasonable to conclude that additional wells would have a negative impact on the Guemes aquifer.

Current vegetation levels are likely to be decreased by new development, causing additional runoff from lawns and pavement. Lawns act like an impervious surface, causing runoff of nearly 100% of rainfall after becoming saturated, and pavement seals the ground and creates runoff that is faster, more intense and erosive. Typical suburban

housing allows 90% less water to permeate into soils than existing forested vegetation (A16 toA-17). The combination of increased withdrawals and less permeation would further reduce the supply of potable water in the Guemes aquifer and cause more saltwater intrusion.

Ground water levels are directly connected with water levels in wetlands. If the ground water level is lowered by over-withdrawal, the impact to existing wetlands on Guemes, identified on Map 10 of the SCCP, might be a reduction in size or even total eradication. Species dependent on local wetlands would be impacted by a lack of drinking water and habitat. Threatened species identified as using this habitat in Map 11 of the SCCP would be directly impacted.

If the lack of potable water becomes a health issue, it may become a necessity to use other methods to provide water to residents. Possible local solutions would include expansion of the desalination plant, catchment, and hauling, all of which are expensive. Piped public water from Anacortes may be possible. The impact of the introduction of piped water would be to create intense demand for new housing and forever alter the rural nature of the island. Increased water supply would increase effluent entering on-site septic systems. The soils as identified on the Skagit County soils maps, function marginally for low density development but at higher densities are very likely to function poorly and eventually fail.

Failing septic systems are often not replaced with an appropriate system for waste treatment until the problem is a health hazard. In near shore locations, septic system

failure causes untreated effluent flows into the shore water directly impacting wildlife and their habitat. Commercial shellfish harvesting is often closed due to contaminants.

At present, residents must take the ferry to buy anything beyond that available at the small convenience store. Later hours of ferry operation would create a demand to extend hours of existing commercial operation. While existing zoning does not allow for major expansion of commercial service, additional housing would increase demand for more commercial services on the island and increase the likelihood of local decision-makers allowing new commercial zoning. If commercial services are expanded, traffic, lights and noise may be expected to increase in the vicinity of the commercial development. Commercial services may include restaurants, service stations and public bathrooms, with the potential to use large amounts of water and produce waste and vehicle pollutants.

New housing is would generate additional students. If 300 units were added to the island, approximately 225 students would be generated at .75 students per unit. This could create demand for a school on the island.

Conclusions

The Growth Management Act requires counties to develop concurrency strategies so that areas would not be developed without the availability of necessary services. Levels of service must be balanced for consistency between necessary services. Sensitive areas must not be supplied with services that attract unwanted or inappropriate development. In extending the service schedule for the ferry, local decision makers must understand the direct and indirect, short-term and long-term impacts this action would have on Guemes Island. In order to do so, they must complete the analysis for the subarea plan and water

resource management plan. Within this context they must designate Guemes island as a CARA and develop protection standards to avoid further saltwater intrusion. Without this planning and analysis, the complicated issues and impacts of further development in a sole source aquifer that appears to be nearing its maximum output cannot be fully understood.

It would be appropriate for Skagit County to issue a Determination of Significance for this action so that the necessary study of the impact can be thoroughly analyzed in an Environment Impact Statement.

San Juan County Water Resource Management Plan

WRIA 2

Final
as
Revised & Adopted by San Juan County
Board of County Commissioners
October, 2004

- Retain enough water in streams and wetlands to protect water quality and support diverse, healthy, and abundant plant and wildlife communities.
- Integrate water supply planning with growth management planning and determine the availability of water supplies in approved growth areas.
- Establish a county resource management program that addresses all water use, including exempt wells and alternative sources, and that includes decision-making based on long-term development and analysis of resource information.

Water resource conditions

Water resources in San Juan County vary dramatically from the high rainfall conditions of eastern Orcas (up to 45" of rainfall a year at Mt. Constitution) to the near-drought conditions of south Lopez (19" annual average).

Water resource planning in San Juan County is challenging due to geographic and geologic conditions. A county of islands, mostly bedrock, with 408 miles of shoreline, receiving fresh water from local rainfall only, creates many site-specific conditions for water supplies. Most of the concentrated population areas are served by surface water

systems. The rural interior and highly desirable shoreline areas are served by a combination of private and community wells. Aquifer conditions vary from a few high-producing wells (*50 gallons per minute*) to wells that go dry or experience seawater intrusion during peak summer use.

An estimate of recharge was developed in 2001 by USGS as part of the assessment for this watershed planning process. Recharge estimates for San Juan, Orcas, Shaw and Lopez islands

	Recharge in inches	Percent of total rainfall
San Juan	1.99	6%
Orcas	1.46	5%
Shaw	1.44	5%
Lopez	2.49	9%
Whidbey	7.36	28%
Camano	7.24	25%
Sequim/Dungeness	8.00	28%

Table 1.1, Recharge comparison

must be perfected by use and it's the amount water that's actually put to beneficial use that constitutes the final water right issued by Ecology, and 2) only part of recharge is available for withdrawal. Aquifer storage capacity, the amount lost by lateral flow to the sea, the amount returned through septic systems, seasonal variations, and drought conditions all contribute to the difficulties of estimating water availability. *A general rule used for planning purposes is that 20-30% of recharge is available for withdrawal.*[5]

The assessment indicates that large portions of the county are at a point where demand for groundwater exceeds local recharge. In some of the high-demand areas, adjacent low-density rural lands help to replenish the aquifer, which is the case at Lopez Village. Most of these areas, however, have limitations due to terrain and geography, such as bedrock, narrow spits or peninsulas, and proximity to shoreline. Future development and build-out of existing parcels will only exacerbate this situation. Areas designated for high-density growth in the county's comprehensive plan that may have limited groundwater include Eastsound, Orcas Landing and Deer Harbor. See Chapter 3, Groundwater Characteristics, for more information about well capacity.

Until an adjudication or similar evaluation of the status of existing water rights is conducted, *no new permitted groundwater rights are available in San Juan County*. This

leads to considerable pressure to develop exempt wells, which has been a trend in the county since the 1970s (see Figure 2.2, Water Right Allocations Over Time).

Exempt wells

Exempt wells must meet the four standards for a water right but are exempt from the requirement for a water right permit. However, exempt wells have fallen into a jurisdictional limbo throughout the state, with no regulation by Ecology (other than construction standards) and limited review by local jurisdictions during the building permit process. Exempt wells have been exploited in recent years as the only avenue to new development, since court cases and cuts to Ecology staff have stymied issuance of

[5] "The portion of groundwater withdrawn from the total natural recharge is termed the capture. No simple means exists for measuring the "available" capture and there are no adopted state-wide policies or criteria for its estimation. Normally it is no more than 50 percent of the total recharge. Carr (1983) estimates a ratio of 25 percent for Vashon Island in King County. It is possible that certain localities have little or no "available" capture. However, the probability is high that it falls between zero and 50 percent." Water Resource Assessment Technical Report, San Juan County Comprehensive Water Plan. Economic and Engineering Services, et al. 1990.

new water rights. Recent rulings by the State Supreme Court and the Western Washington Growth Management Hearings Board have addressed, in part, this gap in regulation.

In January 2002, the Western Washington Growth Management Hearings Board issued an order to Jefferson County which stated that: "The County has the overriding responsibility to protect its groundwater quality . . ."; and further, the County has authority to, "impose some form of conservation measures to reduce the withdrawal of groundwater from individual wells if that withdrawal would disrupt the seawater/freshwater balance and lead to greater seawater intrusion. The exemption of RCW 90.44.050 does not limit a local jurisdiction from complying with its mandate for protection of groundwater quality and quantity under the GMA." Jefferson County argued that exempt wells are the responsibility of Ecology and the county had no authority to regulate their development and use, other than through the building permit process. The Hearings Board found that Jefferson County failed to designate seawater intrusion areas as critical areas, failed to apply best available science, and failed to identify performance standards for protection.

In March, 2002, The State Supreme Court, in Ecology v. Campbell and Gwinn, ruled that

developers could not use multiple exempt wells whose total withdrawal exceeded the 5000 gallons per day allowed under the exemption. Multiple wells for a single development were determined to be a single withdrawal, and limited to a total of 5000 gallons per day.

In 1996, San Juan County adopted stringent review standards for the use of exempt wells for new building permits and division of land. As a result, considerable progress has been made in data collection and the education of well drillers, developers, and homeowners. However, the county review process only looks at wells on a case-by-case basis, with no overview of impacts on the aquifer. Since all new groundwater development in San Juan County is occurring with exempt wells, it is essential that this Plan address future development of exempt wells in a comprehensive, scientific manner, using the four standards that apply to all water rights. In some areas of the county, groundwater development is like sand running through an hourglass. It's only a matter

of time until these aquifers are depleted or the balance is tipped to allow seawater intrusion.

Seawater intrusion

In 1982, a USGS study of San Juan County found that seawater intrusion was strongly suspected in nine percent of the wells studied (26 of 279), with most of these wells located in the southern parts of Lopez and San Juan islands. A follow-up study in 2002 by USGS on Lopez Island concluded that statistical tests of chloride concentrations indicated an increase over time.[6] High chloride concentrations and chloride concentrations increasing over time are commonly used as an indicator of seawater intrusion (see Chapter 3, page 24, for a discussion of these studies).

Seawater intrusion policies developed by the state[7] and Island, Jefferson, and Skagit counties use chloride as an indicator to establish seawater intrusion risk or protection areas. In their 2002 ruling for Jefferson County, the Hearings Board stipulated that the County "properly classify and designate vulnerable seawater intrusion areas as CARAs (critical aquifer recharge areas) using best available science, and develop and adopt protection standards to prevent further groundwater degradation from seawater

intrusion". Until detailed analysis of aquifer capacity can be developed, using chloride as an indicator to define seawater intrusion risk areas is best available science.

Seawater intrusion is a condition that is not well addressed by current regulations. The maximum contaminant level for chloride as a health standard is 250 mg/L. Seawater intrusion is the replacement of fresh ground water by saline water, indicating depletion of the freshwater resource or degradation. By the time chloride levels reach 250 mg/L, a well or aquifer is already experiencing degradation. The real goal is to prevent intrusion by limiting withdrawals to sustainable rates. By starting with risk areas based on chloride levels, and requiring a combination of aquifer analysis and best management practices in order to develop new sources, a long-term management program can be established. New wells in areas at risk for seawater intrusion must be held to the

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[6] Occurrence, Quantity, and Use of Ground Water in Orcas, San Juan, Lopez, and Shaw Islands, San Juan County, Washington. USGS WRIR 83-4019, and
Is Seawater Intrusion Affecting Ground Water On Lopez Island, Washington? USGS Fact Sheet 057-00.

standards for a water right, including the questions: will this new use of water impair existing rights or be detrimental to the public interest?

The WRMC adopted a recommended seawater intrusion policy in February 2004. Using chloride levels to map areas susceptible to seawater intrusion, this policy recommends a long-term evaluation of the extent and impact of seawater intrusion, and requires a greater level of analysis for approval of new water sources in designated areas. (See Appendix A, Seawater Intrusion Policy, and Figure 3.1)

Surface water availability:

Community water systems using surface water

Approximately 40% of the county's population receive their drinking water from surface water systems. On the main islands these areas include the Town of Friday Harbor, Roche Harbor, Eastsound (54% surface water), Doe Bay, Olga, Rosario Resort, Rosario Highlands, and Spring Point. These water systems serve the majority of the high-density growth areas in the county.

The Town of Friday Harbor is the only municipality in the county and has a comprehensive plan and a water system plan that match growth projections to water

comprehensive plan and a water system plan that meets growth projections, water rights and source capacity. Roche Harbor and Rosario are privately owned systems that serve resort facilities as well as residential customers. Doe Bay, Olga, and Spring Point are private, homeowner associations. Eastsound Water Users Association (EWUA) is also a private, homeowner association but serves the urban growth area of Eastsound. The EWUA is currently struggling with growth demands that exceed its ability to provide service and is also struggling to plan for a projected build-out that exceeds both water supply and water rights. An assessment of potential storage sites was provided by consultants in the spring of 2004, with the conclusion that additional water can be provided from Cascade Creek for storage to meet Eastsound's needs[8], however, considerable time and expense will be needed to confirm and develop this potential new source.

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[7] Seawater Intrusion Control In Coastal Washington, Department of Ecology Policy and Practice. 1992 EPA 171-92-027

[8] Multi-purpose Surface Water Storage Assessment, WRIA 2. April 2004. Montgomery Water Group

and/or by diversions as part of irrigation or drinking water impoundments. Most of the county's streams, lakes, and ponds have been altered by ditching and dams for irrigation, drainage, drinking water, or hydroelectric plants.

Table 4.1

Water budget components (in inches)

Island	Water year	Precipitation	Interception loss	Simulated transpiration	Simulated direct runoff	Simulated deep percolation	Simulated change in soil moisture
Lopez	1997	30.65	6.73	14.22	5.59	3.03	0.68
	1998	21.05	5.86	12.2	2.15	1.94	-1.46
	avg	**25.85**	**6.29**	**13.21**	**3.87**	**2.49**	**-0.39**
San Juan	1997	34.99	8.24	13.4	9.77	2.24	0.48
	1998	23.59	6.73	11.65	4.1	1.75	-1.39
	avg	**29.29**	**7.49**	**12.52**	**6.93**	**1.99**	**-0.46**
Orcas	1997	40.37	9.64	13.48	14.5	1.6	0.59
	1998	25.53	7.62	11.61	6.08	1.33	-1.65
	avg	**32.95**	**8.6**	**12.54**	**10.29**	**1.46**	**-0.53**

Source: Estimates of Ground-Water Recharge, USGS WRIR 02-4114. This is a summary of annual water budget components using the deep percolation model for Lopez, San Juan, and Orcas, water years 1997-98.

Components may not exactly equal precipitation because of round-off errors.

Stored surface water is an important resource in the county, capturing winter rainfall for use during dry summer months. Over the years, studies have identified potential sites for additional storage and use. As the county has grown, however, the importance of wetland and recreational areas has increased as well as impacts on water quality in the watershed and many of these locations are no longer realistic. In order to provide water to meet growth projections, the Town of Friday Harbor, Roche Harbor and Eastsound water systems are planning to increase storage by raising the height of their respective dams. There also appears to be potential for additional diversions from the Mountain Lake/Cascade Lake system without impairing existing beneficial uses of water. See Appendices D and E for reports on stream gauge results and assessment of potential storage sites.

White Paper

The Hydrologic Impact of Rainwater Catchment Systems On the Groundwater of the San Juan Islands

April 21, 2004

By Ronald Mayo, PE
Lopez Island, WA 98261
fishguy@rockisland.com

Purpose - The purpose of this White Paper is to (1) consider the impact of residential rainwater catchment systems (RCS) on the groundwater of San Juan County; (2) compare this impact to exempt well systems; and (3) to demonstrate a spreadsheet model for planning catchment systems. The focus of this discussion is on systems that provide potable water to individual houses. However, this information also has application to catchment systems that provide non-potable water for stock watering or gardens. As a starting point we will consider the status and design of RCS's in San Juan County.

Choosing a Residential Catchment System - Those considering the use of a RCS should bear in mind that these systems are more participatory than a community water system. In town, the resident's job is to pay the bill, turn on the water and practice a

reasonable level of conservation. When one decides on a RCS, you have become the plumber, the guy that cleans gutters, the operator who monitors stuff, the sanitarian that makes sure the treatment system works, and the policeman who limits the kid's shower *time; and you still pay the bills.* RCS's seldom allow much outdoor watering and conservation must be considered at all times. In drought years you may need to buy water, an expensive possibility. You will have just gotten a new hobby.

Setting – San Juan County is made up of several hundred islands with the four larger being served by ferries from Anacortes, Washington. The total area of the county is 265 square miles, with the land area being 172 SM. The current permanent population is about 15,000 increasing significantly in the summer.

Domestic water is supplied primarily from wells and surface impoundments. Alternative sources include desalinization, rainwater catchments and hauling. The aquifers that supply water are typically glacial-deposit or bedrock.

Rainfall, which is the source of most domestic water, varies from about 18 inches per year in southern Lopez to 48" at the top of Mt. Constitution on Orcas.

Current Status –In the last 10 years, about 2,700 residential water supplies have been approved of which 70 (2.6%) are RCS's. Some are for summer homes but systems for

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Initial Costs - Each situation differs but after questioning several installers and owners we have defined a "typical basic system" for estimating. It would already have available 2,000 sf of roof area or more; it would have water tanks, with a combined effective storage volume of 8,000 gallons or more; and it would have all necessary treatment. The home would be for two people living full-time; they'd have a full compliment of "water saver" fixtures. Outside water use would be minimal in dry months and the owner would be conscious of the nature of the water supply. Most questioned said that an estimate of the initial costs in the range of $10,000 to $15,000 seems appropriate.

System Startup - An initial cost common to catchment systems is the need to buy "startup" water from suppliers. (The alternative being to wait for the rains to catch up.) Approved water haulers will supply water[1] to accessible sites in 2,000 gallon to 4,500-gallon loads for $0.04 to $0.20 per gallon.

Water Consumption – Predicting water consumption in catchment systems is difficult. There have been few direct measurements so we can only look at other systems for examples. The following table compares the single-family residential (SFR's) units of several systems in terms of size and consumption. It also illustrates the impact of water costs on consumption and the impact of meters.

Table 2 – Water System Examples

Water System	Eastsound	Frid. Har.	Harbor	Fish Bay	Cattle Pt	Potlatch
Island	Orcas	San Juan	Lopez	Lopez	San Juan	Guemes

Island	Orcas	San Juan	Lopez	Lopez	San Juan	Guemes
Type of Units	SFR	SFR	SFR	SFR eq.	SFR	SFR
Source of Water	Surface	Surface	Well	Wells	RO	RO
Timeframe	Yr 2000	Yr 2000	Current	Current	Current	Current
Annual Total-MG	35.57	40.17	3.13	9.30	0.96	0.62
Peak Month-MG	4.74	5.36	0.45	1.33	0.13	0.06
Average Month-Gal/Conn	5,156	4,133	5,325	6,858	2,424	1,845
Nominal Connections	575	810	49	113	33	28
Peak Month-GPD/Conn	266	213	296	381	125	69
Ave.Month-GPD/Conn	172	136	175	225	81	62
Metered?	Yes	Yes	Yes	Yes	Yes	Yes
Charges Based on Meters?	Yes	Yes	No	No	Yes	Yes
Monthly Ch-@Ave Use	$ 31	$ 44	NA	NA	$ 81	$ 75
Monthly Ch-@4,000 GPM	$ 28	$ 37	NA	NA	$ 120	$ 130

*SFR=Single Family Res.

Drought Issues – While our planning model attempts to deal with drought issues, it is to be expected that a RCS will need water brought in from another location. Water is now

[1] From your island, other islands, or Anacortes.

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hauled from class A systems in "approved" trucks to many islands on a routine basis. Presently Friday harbor sells large quantities of water to haulers, as does the city of Anacortes. The where the buyer is near the source the cost of a 3,500 gallon truckload is in the range of $0.04 to $0.06/gallon. On Lopez where there is currently no certified hauler or approved source, water from San Juan or Anacortes cost from $0.10 to $0.14/gallon in loads up to 4,500 gallons.

The larger question is will there by water for sale to catchments in an extreme drought year? Perhaps not but if we compare the plight of a catchment owner to the plight of one with an exempt well source, there may be little difference.

Distribution of Consumption – Lopez examples - We also have data available from 14 nominally full-time residential units (in two Lopez systems on community wells) over a two-year period. The meters are read monthly but charges aren't based on consumption. The meter readings are used primarily to locate leaks or unreasonable use. Both systems are well educated on the need for conservation. In general, the water isn't used for significant landscaping. The annual average consumption for these two systems is almost identical and averages 117 gallons/day. The monthly average distribution is shown on Table 3.

Table 3 – Comparison of *Consumption*

We can compare the "Lopez Examples" consumption to other systems in the County.

	Annual G/Day	Charge by Meters		Ch.for 4,000 g	Source
Eastsound-Orcas	172	Yes	$	28	Surface
Friday Harbor-SJ	136	Yes	$	37	Surface
Harbor-Lopez	175	No		LS	Wells
Fish Bay-Lopez	225	No		LS	Wells
Cattle Point-SJ	81	Yes	$	120	Desal.
Potlatch-Guemes	62	Yes	$	130	Desal.
Metered-Lopez-Table 2	117	No		LS	Wells

We'll compare these systems to a catchment system in these qualitative terms:

- The surface and well sources would be viewed as less limiting by homeowners than catchments.
- All sources would be viewed as more costly on a monthly basis than catchments.
- Catchment users might view desalinization users as models. If the desalinization systems get by on 60 to 90 gpd, that amount of water might be doable for a catchment user.

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2005 Report to the Legislature

Progress on Watershed Planning and Setting Instream Flows

WASHINGTON STATE
DEPARTMENT OF
ECOLOGY

December 2005

Publication # 05-11-038

A 11

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Instream Flow Status
The planning unit conducted an instream flow assessment, established a stream gauging network and collected data on seven streams of interest in the islands. Based on conclusions that most of these streams likely only provide food sources and/or shelter locations and little or no spawning activity, further instream flow work was discontinued by the planning unit. Ecology has done some preliminary instream flow analysis in support of processing pending surface water applications. Ecology is collecting more data and working with the applicants and planning unit to refine stream flow recommendations and identify ways to meet out-of-stream water needs.

Plan Web site: http://www.co.san-juan.wa.us/health/ehs.asp

WRIA 3/WRIA 4 - Lower Skagit-Samish/Upper Skagit

Watershed Planning Phase: *The planning process was terminated. A draft watershed plan was completed for the Samish Basin in December 2004, but was not finalized or voted on by the Planning Unit.*
Optional Elements: *Instream Flows*
Watershed Planning Grant funds awarded/spent through June 2005: *$1,038,554*
Instream Flow Progress

Watershed planning and instream flow efforts focused on the Samish sub-basin of WRIA 3. While the planning unit was able to complete a considerable amount of work on instream flow recommendations for the Samish sub-basin, it was unable to reach consensus and no final plan was

approved. As a result, Ecology proceeded with rule making to establish [illegible] with the Washington State Department of Fish and Wildlife, the tribes, and using the technical work completed by the planning unit, Ecology developed recommendations for instream flows and closures. In 2004 Ecology drafted rule language, and established instream flow levels and associated policies to guide the protection and management of surface and groundwater resources in the sub-watershed. The draft language also created a reservation of water for domestic use. Ecology consulted with the tribes, local governments, other state agencies, and conducted a public open house, with the intent of proposing a rule in early 2005. A pending lawsuit and subsequent negotiations on the adjacent Skagit instream flow rule proposal caused work to be delayed in the Samish, until resolution is reached on the Skagit project. Subsequently, a revised Skagit rule amendment was proposed in October 2005. Adoption is expected in April, 2006. Ecology's intention is to propose the Samish rule when the work in the Skagit is completed.

WRIA 4 Upper Skagit

Not working under 2514 Watershed Planning

Instream Flow Progress

Ecology adopted an Instream Resources Protection Program (chapter 173-503 WAC) in 2001. In response to a lawsuit, Ecology proposed an amendment to that rule in 2005, to set aside some water for future out-of-stream uses. That proposed amendment was withdrawn, and a second amendment proposed (Amendment to WAC 173-503 Instream Resources Protection Program – Lower and Upper Skagit Water Resources Inventory Area (WRIA 3 and 4)) on October 31, 2005.

MOST REQUESTED

- 2006 Fare Proposal
- Reservations to Sidney B.C.
- Traveling to Victoria
- WSF Security
- Visitors Center
- Fares
- Route Maps
- Find Terminals
- Ferry Cameras

CUSTOMER HELP DESK

- Fares
- **Route Maps**
- Find your Terminal
- Customer Feedback Form
- FAQ's

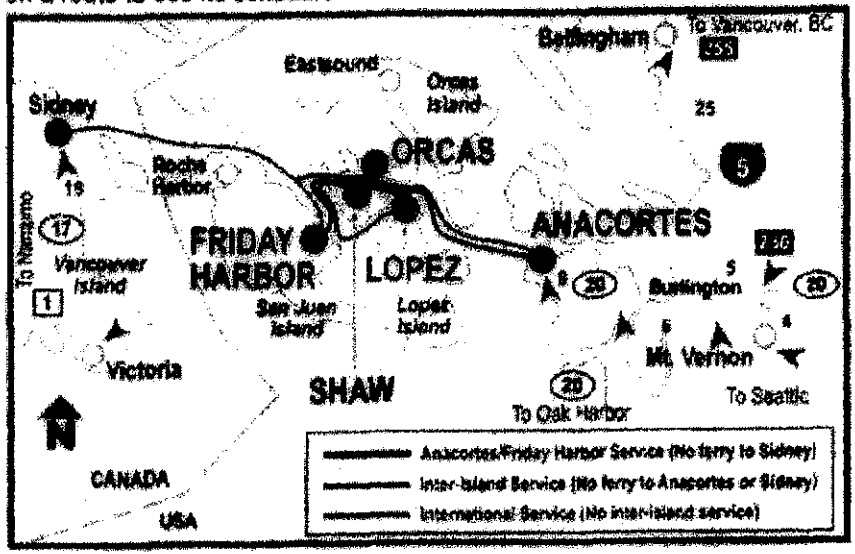
WSF ACCOUNT

- Update Your Account
- Sign Up for Email Alerts
- Buy a Monthly Pass

San Juan Islands Route Map

Anacortes / San Juan Islands Route Map

Click on a route to see its schedule



WSF Terminals related to Route Map
(click for directions, parking, wait times,...)
Anacortes

- Vanpool/Carpool Permits
- Bicycle Pass Program

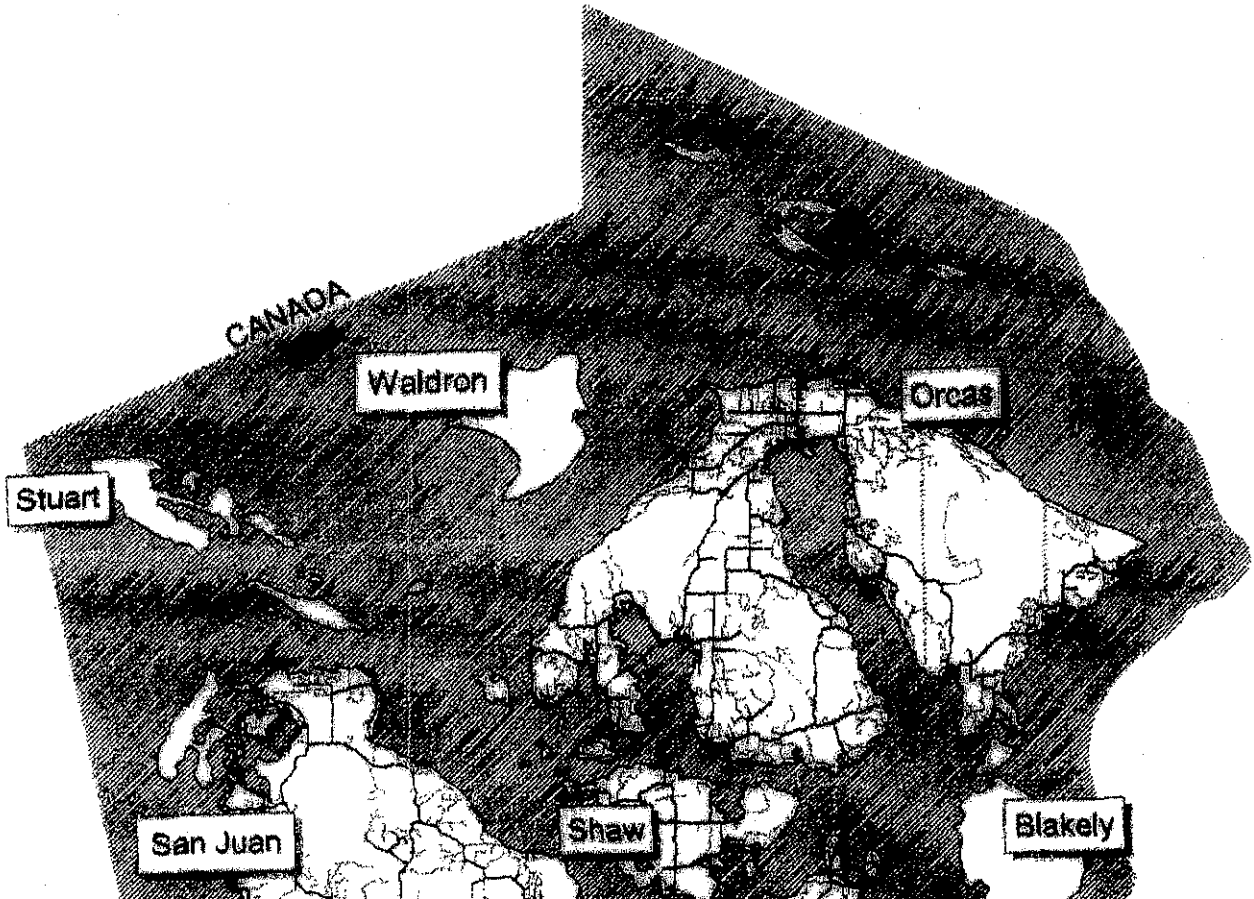
WSF Account Log-in:

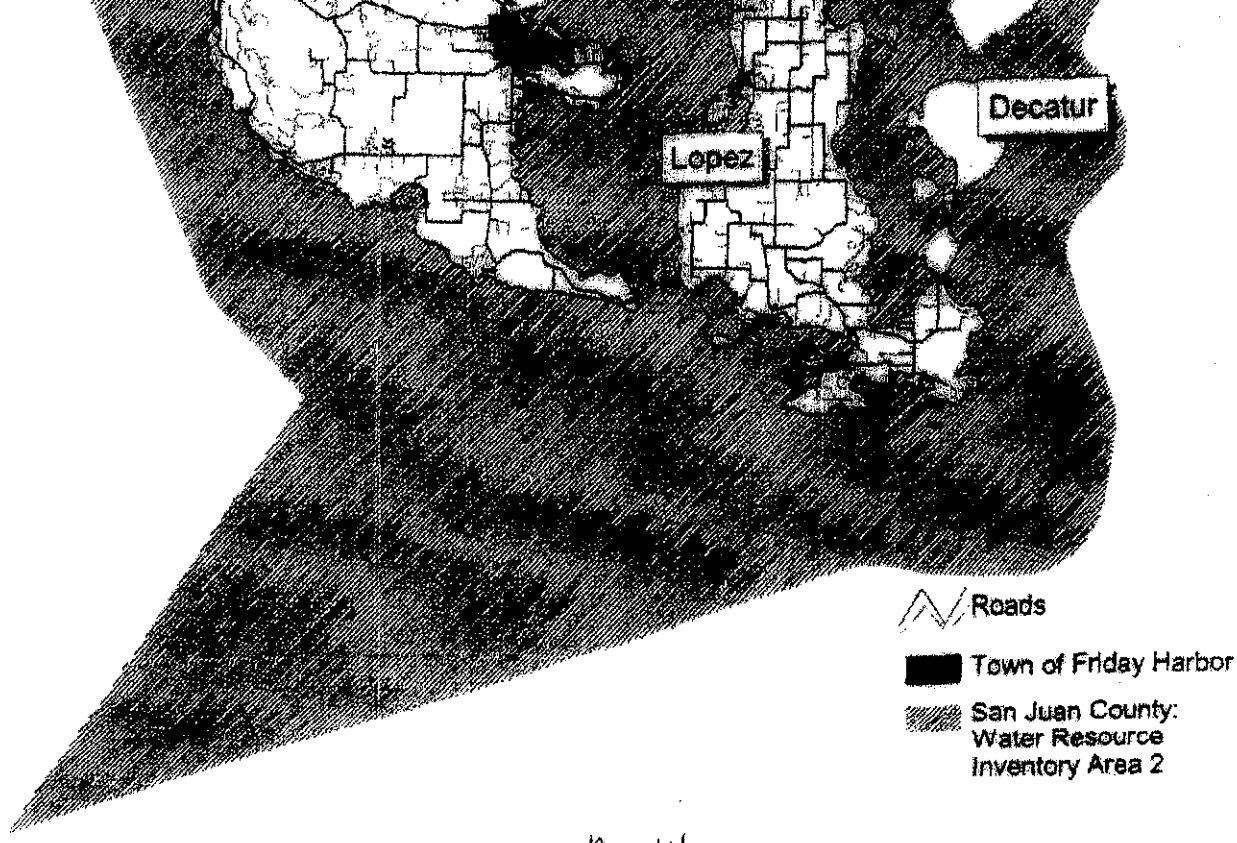
Email:

Password:

Lopez Island
Shaw Island
Orcas Island
Friday Harbor
Sidney B.C.

A -13


CANADA
Waldron
Orcas
Stuart
San Juan
Shaw
Blakely


Lopez
Decatur
Roads
Town of Friday Harbor
San Juan County:
Water Resource
Inventory Area 2

A-14

Taking its Toll:

ABOUT THE AUTHORS

Peter Newton is a senior research researcher for Climate Solutions, and has been engaged in ecological sustainability research for the area and national publications. Ellen Bassett is a Eugene, Oregon based public interest consulting planning consultant and author of *Better Not Bigger: How to Take Control of Urban Growth and Improve Your Community*. New Society Publishers, 1998.

ACKNOWLEDGMENTS

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(360) 943-4977 Fax

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SIERRA CLUB
Cascade Chapter

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8511 15th Ave. NE #201
Seattle, WA 98115-3101
(206) 523-8410

A-15

thin, are stripped and compacted. Underlying glacial till is exposed. In the place of absorbent vegetation and soft soils come a profusion of hard surfaces — roads and bridges, parking lots, driveways and roofs — off of which rainfall slushes almost immediately.

The loss of the forest effectively doubles rainfall because the huge evapo-transpiration engine is gone. Furthermore, the watershed is fundamentally altered to bring water flows to the surface. Pavement seals the ground thus removing the last vestige of storage that was provided by the forest floor. Runoff is speedier and more intense.

"The runoff from a one-acre mead-

changes, a forest converted to a Northwest suburb typically stores around 90% less water.[108]

Puget Sound receives around 40 inches of rainfall each year. While surface runoff from a forest is near nil, the annual total from a typical suburban subdivision is 9 inches. Runoff from the top few inches of ground, 68% greater in a subdivision than a forest, adds another 12 inches. The typical commercial development flushes out 29 inches of surface runoff each year, and another 2-3 inches near the surface.[109]

With reduced storage, water that might have gracefully seeped to streams over months instead arrives in hours. Two to five times more

deeper and wider, sluicing away pools and other salmon habitat. And there's a double whammy. Since water flows out instead of recharging groundwater, it is no longer available to fill those larger channels during the summer dry spell. That sets up salmon-killing conditions. For salmon one year of dry streambed is not a statistical blip but an extinction threat.

After urbanization, runoff is changed in character. Almost half of cars on the road leak oil and other hazardous fluids onto pavement.[111] The natural filtration system offered by plants and soils reduced or eliminated, auto drippings wash directly into streams along with lawn herbicides and other chemicals toxic to

ow during and after a one-inch rainstorm would fill a standard 8 x 10 office to a depth of 2'8". If the meadow were paved, the runoff from the rainstorm would fill nearly six entire offices from floor to ceiling," notes the Department of Natural Resources.[106]

Where vegetation is replaced it is commonly as lawns, their shallow roots far less able to draw up soil moisture than trees. Since soils stay saturated longer, they act like impervious surface and cause runoff of 100% of rainfall. In the two feet beneath a lawn, the net effect can be 2-4 inches of storage capacity lost each year.[107] Because of all these

water rolls off during peak rainfall runoffs. Flow magnitudes generally run five to 10 times longer. Flows powerful enough to carry sediment and disturb habitat come 10 times more frequently. When water flow shifts predominantly to the surface, "sediment load can increase by many orders of magnitude" and become much more finely grained, Booth says.[110] All this spells trouble for salmon.

Hydrological engineer Thomas Holz compares increased annual runoff and peak flows to a fire hose. Surging waters dig stream channels

fish. When impervious surfaces cover more than 50% of a watershed, pollution concentrations rise rapidly and can become a serious concern.[112]

Based on Washington State Department of Transportation estimates, the capital and operating expenses required to handle roadway runoff costs Puget Sound residents $46-115 million annually.[113]

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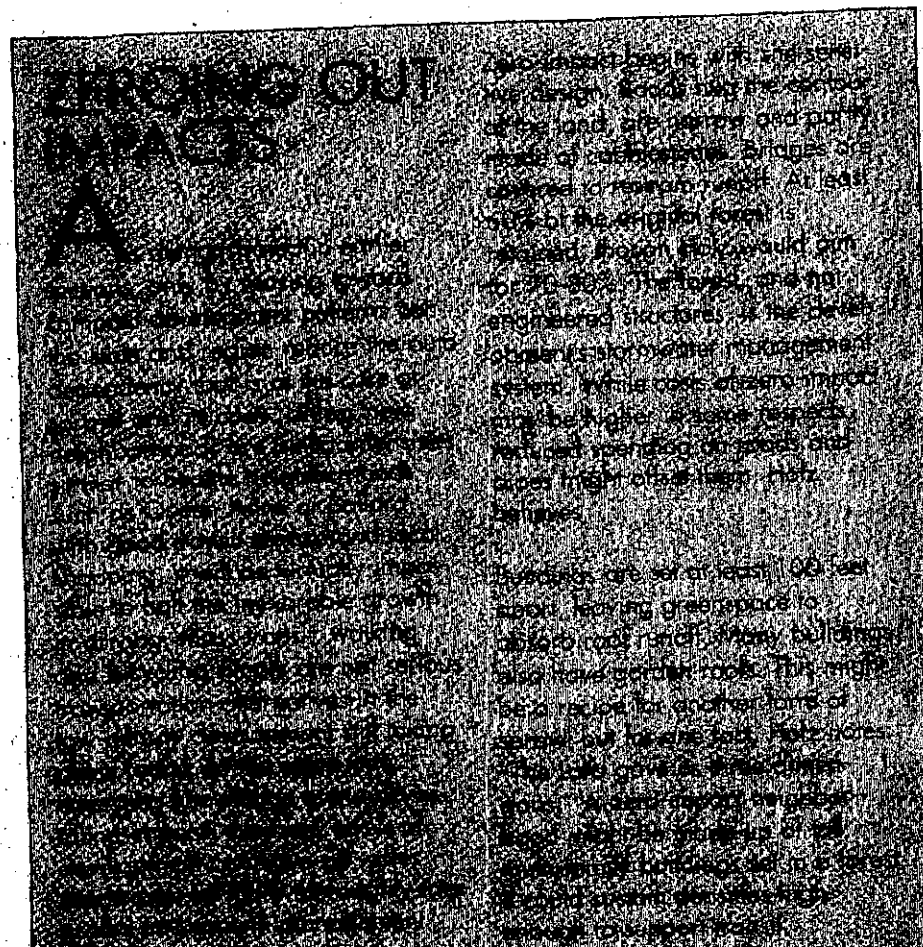
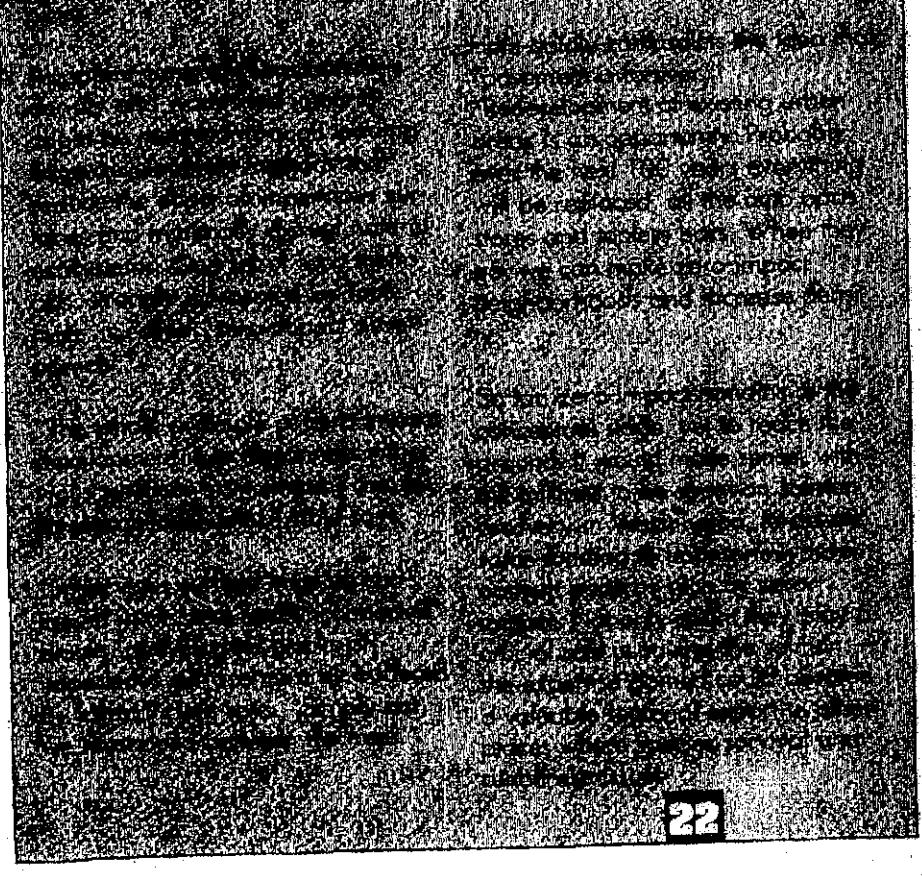


"Excellent stream quality requires a low level of development and a substantial amount of intact, high-quality riparian corridor," Horner and May conclude. "Poor stream quality is almost guaranteed in highly urbanized watersheds."[129] They recommend that natural forest cover be retained over at least 50% of watersheds, and 60% of riparian corridors.[130]

Subdividing land into larger homesites are no cure for the impervious surface problem. While they diminish rooftop surface, at the same time more spread-out development requires a more widespread road system. The transport network that laces through the Puget Sound sub-



urban areas typically accounts for 60% of impervious cover.[131] And runoff from roads and parking lots is far more toxic.[132]

"... large-lot subdivisions increase imperviousness by 10 to 50% compared to cluster and traditional town developments with the same number of households, and that they deliver up to three times more sediment into roadways."[133]

A-17

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71 personal communication

72 personal communication

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112 Horner, p35.

113 ***The Costs of Transportation***, p25.

114 Benfield, p81; Horner, p20.

115 ***Our Changing Nature***, p39.

116 Benfield, p81-2.

117 James Karr, personal communication.

118 Benfield, p82.

119 Horner, p33, graph.

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Professional experience

Feb 2001 – Nov 2005 Port of Seattle

- Senior Aviation Planner - Land Use – negotiator and project manager for land use agreements and variety of studies and projects.

Feb 2000 – Jan 2001 City of SeaTac

- Associate Planner - Long Range Planning: Comprehensive Plan Amendment process, develop Concurrency Management System & Accessory Dwelling Unit Code, presentations to Planning Commission and City Council, organize community meetings, research.

March 1998 –Dec 1999 Cascade Columbia Alliance, Seattle, WA

- Land Use planner- SEPA review, pipeline development application review; research & data collection; reports; testify at hearings; organize public meetings; presentations to government boards, organizations, and editorial boards; produce and narrate movie for public education.

1995 -1996 Friends of Skagit County, Mount Vernon, WA

- Planner /Coordinator - Technical analysis of all aspects of the Comprehensive Plan, represent organization to media, at hearings, on advisory committees, community presentations, prepare data and reports.

1987 - 1995 Planning Consultant, Anacortes, WA

- Consultant to Citizen groups and individuals for land use applications, appeals, road improvements, water line extensions, SEPA analysis, code interpretation, Boundary Review Board and Hearing Examiner hearings.

1975-1979 ECTO Associates, Los Gatos, CA

- Land Use Planner - Environmental Impact Reports for residential / commercial development. Capital Facilities Analysis

1970-1975 Center for Environmental Design, Fremont, CA

- Land Use Planner

Education

1966 - 1970 University of California, Davis, CA BA. Political Science / Environmental Design

H - 19

TO WHOM IT MAY CONCERN:

I, Linda Hammons, do hereby state that I am the Assistant Clerk of the Board for the Skagit County Board of Commissioners, and that I am the custodian of the records of the Office of the Skagit County Board of Commissioners

I further certify that the attached document is a true and correct copy of the May 23, 2006, letter from Gerald Steel to the Skagit Board of Commissioners, the original of which is retained on the Office of the Skagit County Board of Commissioners or has been archived.

Dated this 6th day of June, 2007.

Linda Hammons

Linda Hammons
Skagit County Board of Commissioners

GLEN VEAL

DRAFT ENVIRONMENTAL IMPACT STATEMENT

GUEMES ISLAND FERRY SYSTEM
SKAGIT COUNTY, WASHINGTON

Prepared by the Skagit County
Planning Department

December, 1977

504

0687

TABLE F

Guemes Island

Ferry Schedule

Mon. to Fri.	Friday	Saturday	** Sun. & Holidays
6:30 am	6:30 am	*6:30 am	–
7:00	7:00	7:00	–
7:30	7:30	–	9:00 am
8:00	8:00	8:00	10:15
9:00	9:00	9:00	11:30
10:00	10:00	10:00	12:30 pm
11:00	11:00	11:00	1:00
1:00 pm	1:00 pm	1:00 pm	2:30
2:30	2:30	2:00	3:00
3:30	3:30	3:00	4:00
4:00	4:00	4:00	5:00
5:05	5:05	5:00	–
5:30	5:30	–	6:00
6:00	6:00	6:00	7:00
–	7:00	7:00	* 8:30
–	8:00	8:00	–
–	10:00	9:00	–
–	11:00	10:30	–
–	12:00	–	–
–	–	12:00	–

*Summer Schedule: June 1 through Labor Day
**Labor Day, Christmas, New Year, 4th of July, Thanksgiving

3. Unscheduled Runs - However, due to the past and current demand and the size of the Almar (9 car maximum), the ferry makes an average of four plus extra runs per day, thirty (30) every week to take care of extra cars waiting on each side. Thus, there are over 25% more runs than those regularly scheduled. Following is a five year breakdown of extra crossings made by the Almar:

Year		Extra Trips	Averages
1972	-	1502	Total 7,744
1973	-	1618	Annual Average 1549
1974	-	1605	Monthly Average 129

1975	-	1637		Weekly Average	30
1976	-	1382*		Daily Average	4.3

*Ferry down time during mid-summer decreased the number of runs during 1976. The decrease was not due to decreased demand. This low year tended to skew the averages downward.

Despite the fact that the annual average of 1549 extra runs is low because of 1976, these runs still represent a 28% increase over the regularly scheduled runs of 5,440 per year.

Reason for Rate Structure & Schedule

Examining the figures for January, April, July and August of 1977, shows that the Almar has averaged 182 extra trips per month. At that rate, the annual total of extra runs is expected to reach or exceed 2,200, a 34% increase over 1975. County Engineer records indicate that many of these extra trips are made at less than half capacity.

4. Alternative Service - While the Almar is undergoing regular or unscheduled maintenance, the County utilizes the services of a 40 person capacity launch to transport people only, while limited vehicle service is provided by Island Ferry Charter.

RESOLUTION NO. _____

A Resolution Amending the Guemes Island Ferry Departure Schedule

Whereas, Skagit County operates the Guemes Island Ferry between Anacortes, Washington and Guemes Island; and

Whereas, the Skagit County Board of Commissioners has adopted Resolution No. R20040353, establishing the passage departure schedule for the Guemes Island Ferry; and

Whereas, The Board finds it appropriate to modify said departure schedule for a trial period.

Now, Therefore, Be It Resolved, that the Guemes Ferry departure schedule is hereby modified in accordance with Attachment "A" appended hereto.

Be It Further Resolved, that the trial period shall proceed as outlined in Attachment "B" appended hereto.

Be It Further Resolved, that the new ferry passage schedule shall be implemented no later than July 1, 2006.

WITNESS OUR HAND AND THE OFFICIAL SEAL OF OUR OFFICE, THIS

WITNESS my hand and official seal hereto affixed this 30th day of May 2006.

BOARD OF COUNTY COMMISSIONERS
SKAGIT COUNTY, WASHINGTON

SKAGIT COUNTY COMMISSIONERS SEAL COURT STATE OF WASHINGTON

Kenneth A. Dahlstedt, Chairman

Ted W. Anderson, Commissioner

Don Munks, Commissioner

ATTEST: Alissa Collins
Clerk of the Board Assistant

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ATTACHMENT A

New Schedule

Mon - Thurs	Friday	Saturday	Sun & Holidays
6:30 AM	6:30 AM	6:30 AM	7:00 AM
7:00 AM	7:00 AM	7:00 AM	8:00 AM
7:30 AM	7:30 AM		
8:15 AM	8:15 AM	8:15 AM	9:00 AM
8:45 AM	8:45 AM	8:45 AM	9:30 AM
9:15 AM	9:15 AM	9:15 AM	10:00 AM
9:45 AM	9:45 AM	9:45 AM	
10:30 AM	10:30 AM	10:30 AM	
11:00 AM	11:00 AM	11:00 AM	11:00 AM
11:30 AM	11:30 AM	11:30 AM	11:30 AM
1:00 PM	1:00 PM	1:00 PM	1:00 PM
1:30 PM	1:30 PM	1:30 PM	1:30 PM
2:00 PM	2:00 PM	2:00 PM	2:00 PM
2:30 PM	2:30 PM	2:30 PM	
3:15 PM	3:15 PM	3:15 PM	2:45 PM
3:45 PM	3:45 PM	3:45 PM	3:15 PM
4:15 PM	4:15 PM	4:15 PM	4:00 PM
4:45 PM	4:45 PM	5:00 PM	4:30 PM
5:15 PM	5:15 PM		5:00 PM
5:45 PM	5:45 PM	6:00 PM	
			6:00 PM

6:30 PM	6:30 PM	
7:00 PM	7:00 PM	7:00 PM
8:30 PM	8:30 PM	8:30 PM
9:00 PM	9:00 PM	9:00 PM
10:00 PM	10:00 PM	10:00 PM
	11:00 PM	11:00 PM
	12:00 AM	12:00 AM

7:00 PM
8:30 PM
9:00 PM
10:00 PM

ATTACHMENT B

Guemes Island Ferry Extended Service Passage Schedule - Phased Trial

- Phase I: Beginning 07/01/2006 implement the passage schedule as defined in Attachment "A", for an initial twelve month trial period. The 'last ferry of the day' policy is modified. The ferry will not continue after the final scheduled run. Any runs after that time will be charged at the Extended Run fare, Guemes Special or Charter Rate.

- Phase II: After an initial one year period (ending 06/30/2007), the Public Works Department shall, under the direction of the Board of Skagit County Commissioners, evaluate the results and make adjustments and continue the trial for an additional twelve months (through 06/30/2008).

- Phase III: Prior to 10/01/2008, Public Works shall summarize operational and financial results of the trial period for review and final action by the Board of County Commissioners.

- The Tuesday 9:15 AM and 2:00 PM scheduled runs are for hazardous materials only.

VEHICLE

		Price Per
Cash Fares	Driver & Vehicle 20 ft & under (including overhang)	$7.00
	Senior (65 yrs & over) / Disabled / Youth (age 6 thru 17)	$3.50
	Motorcycle	$4.00
	Motorcycle (with trailer)	$7.00
Frequent Use (20 ft & under including overhang)	10 Trip Vehicle & Driver Coupon Book (90 days)	$67.00
	20 Trip Vehicle & Driver Coupon Book (90 days)	$126.00
	10 Trip Motorcycle Coupon Book (90 days)	$38.00
	20 Trip Motorcycle Coupon Book (90 days)	$72.00
	Quarterly Senior / Disabled Vehicle & Driver (90 days)*	$210.00
	Semi-Annual Senior / Disabled Vehicle & Driver (180 days)*	$420.00
	Quarterly Vehicle & Driver (90 days)*	$357.00
	Semi-Annual Vehicle & Driver (180 days)*	$672.00
	Quarterly Motorcycle (90 days)*	$204.00
	Semi-Annual Motorcycle (180 days)*	$384.00

PASSENGER

Cash Fares	Adult Passenger	$2.00
	Senior (65 years & over) / Disabled / Youth (6-17 years)	$1.00
	Age 5 & under	No Charge
	Adult w/Bike	$3.00
	Youth/Senior w/Bike	$2.00
Frequent Use	25 Trip Passenger Pass (365 days)	$45.00
	Annual Disabled Passenger Pass	$25.00
	25 Trip Youth Pass (6-17 yrs, 365 days)	$23.00
	Quarterly Adult Commuter (90 days)*	$102.00
	Semi-Annual Adult Commuter (180 days)*	$192.00

OVERSIZE VEHICLE

Cash Fares	Vehicle over 20 ft to less than 25 ft	$9.00
	Vehicle over 25 ft to less than 30 ft	$14.00
	Vehicle over 30 ft to less than 35 ft	$19.00
	Vehicle over 35 ft to less than 40 ft	$25.00
	Vehicle over 40 ft to less than 45 ft	$32.00
	Vehicle over 45 ft to less than 50 ft	$40.00
	Vehicle over 50 ft to less than 55 ft	$49.00
Vehicles with trailers (including overhang)	Vehicle over 55 ft to less than 60 ft	$58.00
	Vehicle over 60 ft to less than 65 ft	$69.00
	Each 5 ft increment over 65 ft	$3.75
	Overwidth charge (over 8 ft, 6 in)	Double Length Charge

MISCELLANEOUS

Cash Fares	Extended Run (1 run at end of day) plus fare	$100.00
	Guemes Special (crew call out) plus fare	$315.00
	Charter rate (3 hr min) plus fare	$1,000.00
	$ per hr, each additional hr.	$325.00
	Bicycle surcharge	$1.00

*Available for purchase only from 16th thru end of the month.

GUEMES ISLAND FERRY SCHEDULE

PHONE: (360) 293-6356

Effective 1-1-06

Mon-Thurs.	Friday	Saturday	Sunday *Holidays except Fri. & Sat.
6:30 am	6:30 am	6:30 am	
7:00	7:00	7:00	7:00 am
7:30	7:30	8:00	8:00
7:55	7:55		
8:20	8:20	9:00	9:00
9:05	9:00	10:00	10:00
10:00	10:00	11:00	11:30
11:00	11:00	1:00 pm	12:30 pm
1:00 pm	1:00 pm		1:00
1:30	1:30	2:00	2:00
2:30	2:30	3:00	3:00
3:15	3:15		
3:45	3:45	4:00	4:00
4:10	4:10		
4:35	4:35	5:00	5:00
5:05	5:05		
5:30	5:30	6:00	6:00
6:00	6:00	7:00	7:00
	7:00	8:00	8:30
	8:00	9:30	9:00
	9:30	10:00	10:00
	10:00	11:00	
	11:00	12:00 am	
	12:00 am		

**New Year's Day, Memorial Day, 4th of July, Labor Day, Thanksgiving, Christmas

Schedule Subject to Change Without Notice

Ferry departs at Guemes approximately 8 minutes later than the above schedule.

Crossing time **approximately** five (5) minutes.

SKAGIT COUNTY DEPT. OF PUBLIC WORKS

Mount Vernon, Washington

Telephone: (360) 336-9400

Welcome to the Guemes Island Ferry, owned by Skagit County and operated by the Public Works Department. Information for the ferry may be obtained by calling 360.293.6856 or by visiting our website at www.skagitcounty.net.

There are numerous changes that have taken place to the terminal facility and the vessel. These changes will improve loading, unloading, and walk on passenger convenience.

TICKET SALES (U.S. FUNDS ONLY, PLEASE)

Coupon Books and 90 & 180 Day Passes are available only in the terminal office not in ferry line.

1. Tickets for vehicles less than 20 feet are sold in line. Quarterly (90 day) and Semi-Annual (180 days) passes are sold between the 16th and the last day of the month prior to going into effect. Walk-on and Bicycle tickets are sold at the terminal office prior to vehicle sales.

2. Tickets for vehicles over 20 feet or towing trailers may be purchased in advance in the office.

3. Boarding of the ferry will start approximately 15 minutes prior to sailing time.

4. Tickets may be paid by Cash, Check, Travelers Check, or Credit Cards. Credit Cards are only accepted in advance in the terminal office.

5. Sailing and fare schedules are available at the terminal office, in this booklet, and the Skagit County website, www.skagitcounty.net

SAFETY TIPS

In an effort to provide safe services to our passengers, we ask that you observe the following safety tips.

1. PLEASE RESPECT THE CLEAR ZONE AT THE ENDS OF THE FERRY DURING APPROACH TO THE DOCK. The crew needs room to open the gates, secure the vessel, and operate the ramps. Extra sets of feet and hands in this area during landing can result in undue hazards. CLEAR ZONES are designated in yellow on the deck.

2. PASSENGERS SHOULD NOT JUMP ON OR OFF THE FERRY BEFORE IT IS SECURED AND THE RAMP IS COMPLETELY DOWN. PLEASE WAIT UNTIL DIRECTED TO DISEMBARK. Any slip or movement of the ferry could result in injury.

3. PLEASE SET THE BRAKE IN YOUR VEHICLE AND MINIMIZE WALKING BETWEEN CARS, ESPECIALLY DURING LOADING, UNLOADING, AND LANDINGS. A hard landing or bump between cars could result in movement of cars, thus threatening possible to people walking or standing between vehicles.

Continued on Back

4. PLEASE DO NOT DRIVE ABOARD THE FERRY WITH CHILDREN ON THE DRIVER'S LAP. Even a slight misjudgment could result in damage or injury.

5. WHEN DRIVING ON THE FERRY AFTER DARK, PLEASE ONLY USE YOUR PARKING LIGHTS. Bright lights make the loading process difficult for the crew.

6. BICYCLES AND MOTORCYCLES OF LESS THAN 50cc's SHOULD BE PARKED IN THE SPACE PROVIDED NEXT TO THE PASSENGER CABIN. If the space does not permit, please park bicycles in the aft portion of the ferry or where directed by the crew.

7. WE RECOMMEND THAT YOUR CAR DOOR REMAIN CLOSED UNTIL VEHICLES ARE PARKED AROUND YOU. Opening of doors in a lane being loaded can result in delays and/or possible damage or injury.

8. WE ASK THAT WALK ON PASSENGERS WAIT FOR THE TRAFFIC SIGNAL OR THE CREW MEMBER'S SIGNAL AT THE HEAD OF THE DOCK. Boarding walk-on passengers should not be on the bridge structure while the ferry is landing or when the bridge is being raised or lowered. Further, by standing back and waiting for the "green" light, conflicts are minimized between boarding and disembarking passengers.

9. IN CASE OF EMERGENCY, PLEASE FOLLOW THE INSTRUCTIONS OF THE CREW MEMBERS. We provide training to our crew for anticipated emergencies. Your cooperation and assistance during such occurrence will be greatly appreciated. YOUR SAFETY IS OUR CONCERN! PLEASE READ THE EMERGENCY PROCEDURES POSTED IN THE PASSENGER COMPARTMENT.

10. PLEASE DO NOT USE CELLULAR PHONES DURING LOADING OR UNLOADING.

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IMPORTANT NOTICE

For the safety of motorists, pedestrians, passengers, and crew, Skagit County reserves the right to refuse passage to anyone operating a motor vehicle who is obviously intoxicated or otherwise impaired.

Passengers are reminded that State law prohibits open containers of alcohol in any motor vehicles.

We ask that you respect these standards for the safety and convenience of all concerned.

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If you have any questions, please ask the ferry or crew or contact Skagit County Public Works at 360.336.9400.

GUEMES FERRY GENERAL INFORMATION