



# Skagit County Ferry Replacement Project

## Financial Plan

## Cash Flow and Amortization Schedules

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PFM Financial Advisors LLC  
1200 Fifth Avenue, Suite 1220  
Seattle, WA 98101  
[pfm.com](http://pfm.com)

Susan Musselman  
Director  
[musselmans@pfm.com](mailto:musselmans@pfm.com)  
360.445.02385

Duncan Brown  
Senior Managing Consultant  
[amanos@pfm.com](mailto:amanos@pfm.com)  
206.858.5367

Steven Amano  
Analyst  
[amanos@pfm.com](mailto:amanos@pfm.com)  
213.415.1639



## **Skagit County – Guemes Island Ferry Replacement**

### **Financial Plan**

As of December 18, 2017

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PFM has been asked to assist with development of a financial plan for utilization of funding for a proposed Ferry Replacement Project and cash flow schedules. The County, in conjunction with its engineering consultant, has identified five potential alternatives for replacement of the current vessel. The alternatives include a spectrum of propulsion systems, ranging from Geared Diesel to an All Electric System, including hybrid options. The engineering consultant has developed lifecycle cost estimates and other materials to assist the County in selecting a preferred alternative. We have separately developed pro forma financial models, including a capital funding plan, for each of these scenarios. PFM is an independent financial advisor, registered as a Municipal Advisor with the Securities and Exchange Commission and the Municipal Securities Rulemaking Board. PFM assists public and non-profit sector clients in development and execution of capital funding plans, including consideration of operating impacts.

Any of the ferry replacement alternatives will require additional funding, for capital and/or operating, which will depend on the amount of awarded capital and operating funding and policy decisions. This financial plan is not intended to be used for final feasibility review, but to demonstrate areas for further review and decision-making to refine and develop the ultimate replacement project.

The following provides an overview of approach and assumptions to the model and financial plan, which is attached hereto. It is separated into Capital Budget and Funding Assumptions and Pro Forma Operating Revenue and Expense Assumptions. The model identifies operating shortfalls in certain years, which will require additional funding sources, some of which are identified herein.

Following discussion of the approach and assumptions, you will find a Capital Budget (1 page) and 40 year Pro Forma (4 pages) for each of the five propulsion systems that are under review by the County.

Ferry Replacement Alternatives				
Geared Diesel	Diesel Electric	Series Hybrid	All Electric	Plug-in Hybrid



#### A. Capital Budget and Funding Assumptions

Initial capital expenditures for each scenario are taken from GUEMES ISLAND FERRY REPLACEMENT Engineer's Cost Estimate, provided by Glosten and dated November 30, 2017 (page 2)

<b>Table 1: Total Ferry Replacement Cost per Engineer's Cost Estimate</b>				
<u>Geared Diesel</u>	<u>Diesel Electric</u>	<u>Series Hybrid</u>	<u>All Electric</u>	<u>Plug-in Hybrid</u>
\$15,832,000	\$17,217,000	\$18,652,000	\$25,723,000	\$24,589,000

The estimates in Table 1 include the vessel, propulsion system and potential shore-side capital improvements. The capital costs are different from the Life Cycle Cost contained in the Concept Design Report prepared by Glosten, dated December 11, 2017, in which the relative efficiencies and maintenance and operating costs are compared.

<b>Table 2: Life Cycle Cost per Engineer's Concept Design Report (rounded)</b>				
<u>Geared Diesel</u>	<u>Diesel Electric</u>	<u>Series Hybrid</u>	<u>All Electric</u>	<u>Plug-in Hybrid</u>
\$14,881,000	\$15,822,000	\$15,773,000	\$20,857,000	\$17,375,000

Assumptions were made by PFM regarding timing of expenditure for capital costs, based on a Long Term Schedule contained in a Presentation to the Board of Commissioners, dated November 21, 2017 (page 26). We broke Total Project Costs into four categories (Construction; Terminal Improvements; Shore side electrical; and Design and Preliminary Work) and spread these costs over the number of months shown in the Long Term Schedule, based on equal monthly expenditures over the term of expenditures. Generally, costs are expended between 2017 and July 2020, when the vessel is shown to be placed in service, although design and preliminary work is assumed to be expended from 2017 through February 2019

As shown in this financial plan, we made assumptions about certain funding sources to be available to support up front capital costs, or ongoing debt service payments for borrowed money. These potential sources include those shown in Table 3 and described below.



**Table 3 - Assumed Funding Sources**

<u>Funding Source</u>	<u>Up Front Funds</u>	<u>Annual Ongoing</u>
VW Settlement Fund administered by DOE	Estimated at \$2.25 million	N/A
Ferry District Tax Levy	N/A	\$258,454 plus 1% annual growth
CFCIP Grant from CRAB	N/A	1/20 <sup>th</sup> of Grant Amount (See Table 4 below)
Ticket Surcharge	N/A	\$220,000 plus 2% annual growth
County Bond Issuance	See Table 4 below	N/A

1. Volkswagen Settlement Funds - These are administered by the State DOE - we assume that 2% of the \$112,700,000 of available funds is awarded to Skagit County for the Guemes Ferry.
2. County Ferry District – Based on a potential County Ferry District that would encompass all of Guemes Island, we assume a \$0.75 per \$1,000 property tax levy is assessed in the first year (estimated to be 2020) with revenue growing at the State property tax revenue limitation of 1% per year. The revenue estimate is based on the actual tax assessed value for Guemes Island for the 2018 tax year and assumed assessed value increase of 3% per year for 2019 and 2020.
3. CFCIP Grant – Assumes receipt of a CFCIP Grant from CRAB, with the amount of funding for each option tied to the statutory funding maximum, up to \$500,000 per year for 20 years. We have assumed that any such grant will be approved by the State legislature effective July 1, 2019, and will be received annually over 20 years. We are aware that the County is requesting the maximum amount for which it may be eligible; for purposes of the financial plan, PFM has estimated the potential amount of CFCIP Grant, based on the relevant WAC, in the amounts shown below. The annual amounts shown below are incorporated in the model for each of the five project alternatives.

**Table 4: Potential CFCIP Grant from CRAB, by Alternative**

	<u>Geared Diesel</u>	<u>Diesel Electric</u>	<u>Series Hybrid</u>	<u>All Electric</u>	<u>Plug-in Hybrid</u>
Total	\$7,916,000	\$8,608,500	\$9,326,000	\$10,000,000	\$10,000,000
Annual	\$ 395,800	\$ 430,425	\$ 466,300	\$ 500,000	\$ 500,000

4. Ticket Surcharge - A ticket surcharge to be charged on each one way and round trip fare, including monthly and multi-ticket fares. We assume revenue from this surcharge will be available for the project starting in 2020. Depending on the methodology for establishing the surcharge, this revenue may represent 220,000 fares at a \$1 surcharge or 110,000 fares at a \$2 surcharge, based on historical ridership counts.



## 5. Bond issuance

A condition of award of the grant is that the County demonstrate that it has applied for assistance from the State's Public Works Trust Fund (PWTF). As many readers may be aware, the State did not offer PWTF funding for the State's current fiscal year and did not accept applications. The County has indicated to the Public Works Board that it intends to submit an application for funding when the program becomes available. It should be noted that any funding provided by the PWTF will improve the financial plan and models shown herein, as the cost of interest for such loans is significantly lower than interest that is available in the public debt market.

We have assumed that the County will issue General Obligation Bonds in the public debt market for a term of 25 years based on estimated interest rates of 5% per annum to support project funding, with 1% costs of issuance. The amount of bonds required will differ by scenario. While interest rates in the current public bond market could be closer to 3.5 to 4.0%, interest rates have been very volatile over the past 13 months, and we are not able to project market rates at the time of expected bond issuance, which would be in 2019 and/or 2020. PWTF Loan rates range from 0.5% to 2.0%, depending on certain conditions. Each 1% of interest rate reduction saves approximately \$70-75,000 per year for a 25 year loan. A 3% difference between assumed market rates and potential PWTF rates could result in debt service savings of \$215,000 per year, and would support the pro forma and reduce pressure on road fund and other County funding sources.

Table 5: Potential County General Obligation Bond Issuance, by Alternative				
Geared Diesel	Diesel Electric	Series Hybrid	All Electric	Plug-in Hybrid
\$12,825,000	\$14,155,000	\$15,530,000	\$22,115,000	\$20,940,000

## B. Pro Forma Operating Revenue and Expense Assumptions

In order to prepare the financial plan and models, we made certain assumptions about operating revenues and expenses. For many operating expenses, such as staffing related costs, we used historical data, with the expectation that staffing needs would not change significantly with the new vessel, or among the five alternatives. We also used historical data as a basis for estimated maintenance and operation cost as well as internal service charges. Based on the engineer's reports and data, we included certain assumptions relating to the relative costs for the different propulsion systems (i.e., fuel, lube oil, engine replacement, battery replacement, etc.). As the plans are further refined and better estimates are developed, it will be appropriate to adjust these assumptions. Generally, estimates of operating costs were based on a five-year average of the 2012-2016 actual financial results, with a growth factor to 2020, with adjustments for the reduced maintenance costs (i.e., haul out, painting, etc.) for a new vessel versus the existing vessel and adjustment for the size of the vessel compared to the existing vessel.



For existing operating revenues (i.e., fare box revenue, motor vehicle fuel tax, WSDOT Deficit Reimbursement and Road Fund), we used the five-year average of the 2012-2016 actual financial results as a starting point and applied a growth factor to 2020, the first year of assumed operations. The Ferry District, Ticket Surcharge and CFCIP Grant revenue were based on assumptions described above. For three specific sources, we created a methodology to recognize a need for greater funds than would be provided by these sources, as well as a methodology to preserve road fund monies to the extent they are not fully needed to fund operations.

1. Road Fund – we used the five year historical average from 2012-2016 based on actual financial data, and grew by 2% per year to determine a 2020 estimate. The model assumes the road fund contribution is limited to 2% growth each year, but in any year there are sufficient funds to reduce the road fund contribution we have assumed that will be done.
2. Other Grants and Sources to be identified– In years in which operating revenues are not sufficient to pay operating expenses and debt service, we have split the shortfall into these two categories. Options for these sources are discussed below, and the County will be exploring sources during its continued work on development of ferry replacement and funding options.
3. Sources to be identified – For years in which major replacement is required – i.e., engine replacement in year 20 and battery replacement approximately every 8 years – we have shown the funding as “Source to be identified.” The County will need to decide whether it will use a funded replacement model (i.e., set aside funds annually), seek one-time funds, or otherwise allocate other County funds in those years.

Annual funding gaps could be funded from one or more of the following:

- a. Fare rate increases to support fare box revenue growth above the 2% assumed;
- b. Increased ticket surcharge above the \$220,000 that is assumed;
- c. Other transportation or environmental grants\*;
- d. Reduced interest cost from Public Works Trust Fund loan \*\*;
- e. Request for State capital dollars for direct appropriation\*;
- f. Additional funds from DOE’s VW Settlement Funds (i.e., in excess of the \$2.25 million already assumed) to reduce annual debt service requirements\*
- g. Strategic operating budget reductions; potential service changes
- h. Extension of proposed bond term from 25 years to 30 years (which could reduce the annual payment by approximately \$60,000 per year)
- i. County appropriations of additional Road Fund dollars
- j. County commitment of other funding sources, such as Real Estate Excise Tax, to the extent eligible

\* Based on public market bond rates, each \$1 million of borrowing will cost approximately \$65,000 per year for 25 years. Additional up-front funding will reduce bond amount.