

# SKAGIT COUNTY



## Fourteen-Year Ferry Capital Improvement Plan 2017 – 2030



Prepared by  
**Department of Public Works**

## OVERVIEW

The Fourteen-Year Ferry Capital Improvement Plan (the “Plan”) is a general guide for the effective, efficient and continuing operation of the Skagit County ferry system. This program will assist the County Engineer and ferry division management in planning for capital projects that pertain to replacement, maintenance and improvements for the Skagit County ferry system.

The Plan serves as a general guide for long-term planning, thus does not require strict adherence. As events unfold, future plans may change as the needs of the ferry system and the available financing become clearer. The Board of Skagit County Commissioners, with advice from the County Engineer, will ultimately decide capital improvements based on priority and available funds.

The capital projects listed in the Plan are the result of input from various County departments, governmental agencies, citizen groups, and approximately fifty years of experience operating and maintaining the ferry system, while complying with applicable state law.

## GOVERNING WASHINGTON STATE LEGISLATURE

The Revised Code of Washington (“RCW”) and the Washington Administrative Code (“WAC”) contain laws as they pertain to the Fourteen-Year Ferry Capital Improvement Plan and the Six-Year Transportation Improvement Plan (“TIP”), as follows:

**RCW 36.54.015:** “Ferries-Fourteen year long range improvement plan-Contents”, which states,

“The legislative authority of every county operating ferries shall prepare, with the advice and assistance of the county engineer, a fourteen year long range capital improvement plan embracing all major elements of the ferry system. Such plan shall include a listing of each major element of the system showing its estimated current value, its estimated replacement cost and its amortization period.”

**RCW 36.81.121:** “Perpetual advanced six-year plans for coordinated transportation program, expenditures-Nonmotorized transportation-Railroad right-of-way”, which states:

“(1) At any time before adoption of the budget, the legislative authority of each county, after one or more public hearings thereon, shall prepare and adopt a comprehensive transportation program for the ensuing six calendar years. If the county has adopted a comprehensive plan pursuant to chapter [35.63](#) or [36.70](#) RCW, the inherent authority of a charter county derived from its charter, or chapter [36.70A](#) RCW, the program shall be consistent with this comprehensive plan.

The program shall include proposed road and bridge construction work and other transportation facilities and programs deemed appropriate, and for those counties operating ferries shall also include a separate section showing proposed capital expenditures for ferries, docks, and related facilities. The program shall include any new or enhanced bicycle or pedestrian facilities identified pursuant to RCW [36.70A.070](#)(6) or other applicable changes that promote nonmotorized transit. Copies of the program shall be filed with the county road administration board and with the state secretary of transportation not more than thirty days after its adoption by the legislative authority. The purpose of this section is to assure that each county shall perpetually have available advanced plans looking to the future for not less than six years as a guide in carrying out a coordinated transportation program. The program may at any time be revised by a majority of the legislative authority but only after a public hearing thereon.

(2) Each six-year transportation program forwarded to the secretary in compliance with subsection (1) of this section shall contain information as to how a county will expend its moneys, including funds made available pursuant to chapter [47.30](#) RCW, for nonmotorized transportation purposes.

(3) Each six-year transportation program forwarded to the secretary in compliance with subsection (1) of this section shall contain information as to how a county shall act to preserve railroad right-of-way in the event the railroad ceases to operate in the county's jurisdiction.

(4) The six-year plan for each county shall specifically set forth those projects and programs of regional significance for inclusion in the transportation improvement program within that region.”

**WAC 136-400-040:** “Six-year transportation program and ferry system fourteen-year plan submittal”, which states:

“(1) Each county's six-year transportation program and ferry system fourteen-year long range capital improvement plan shall be prepared and adopted in accordance with RCW [36.81.121](#) and [36.54.015](#), respectively, and one copy shall be forwarded to the county road administration board no later than December 31 of each year.

(2) Any proposed county ferry capital improvement project must be included in both the county's six-year transportation program and ferry system fourteen-year capital improvement plan and must remain on both during all of the phases of the project including:

- (a) At the time a county requests a call for projects;
- (b) At the time the county submits a project funding application; and
- (c) Until the project is completed or the project is otherwise terminated.

(3) The county ferry capital improvement project cost estimates that are included in the county's six-year transportation programs and ferry system fourteen-year plans shall be considered preliminary and are not binding on actual county ferry capital improvement project applications.”

#### **HISTORICAL HIGHLIGHTS OF THE GUEMES ISLAND FERRY SYSTEM**

- Late 1800's, a private ferry system was established.
- Early 1900's, the first vehicle ferry carried 6 cars, was privately owned and subsidized by the County.
- 1958, the privately operated ferry expanded its service and purchased the M/V Almar with a capacity of 11 vehicles.
- 1962, Skagit County purchased the M/V Almar and all ferry facilities and began full management of the ferry system.
- 1978, Skagit County began planning for a larger ferry vessel and related dock improvements.
- 1979, Skagit County purchased the M/V Guemes, which currently serves Guemes Island with a capacity of approximately 21 vehicles and 99 passengers. The County also began to keep statistics regarding ferry ridership at this time.
- 2010, Skagit County replaced the creosote dolphins at the Guemes Island landing with steel pilings, and replaced the four wing walls at the Anacortes and Guemes landings.
- 2010, Skagit County built a new terminal building at the Anacortes landing.
- 2011, Skagit County replaced the girders on both the Anacortes and Guemes Island docks and completed an asphalt overlay at the Anacortes terminal.
- 2013, Skagit County hired Elliott Bay Design Group to prepare a ferry replacement plan for future replacement of the 37-year old M/V Guemes.
- 2014, Skagit County replaced the five remaining creosote dolphins at the Anacortes landing with steel pilings.
- 2016, Skagit County replaced the creosote timber breakwater with a new vertical plastic timber wave wall. As of the completion of this project, February 29, 2016, all creosote was eliminated from the Anacortes and Guemes Island ferry terminals.
- 2016, Skagit County began researching all-electric propulsion technology as an option for a new vessel to replace the M/V GUEMES. Art Anderson Associates, a Naval Architecture Firm, completed a propulsion study where it was determined that all-electric technology

would be feasible for the route. Skagit County is estimating a vessel replacement year of 2019 for the purposes of the Six-Year Transportation Improvement Plan (the TIP) and the Fourteen-Year Ferry Capital Improvement Plan.

## ELEMENTS OF THE PLAN

The following tables are updated annually:

### Table 1: Ferry System Current and Replacement Values

This table meets the requirement set forth in (RCW) 36.54.015 showing the current value, replacement cost, and amortization periods for the vessel and facilities. The current value of the vessel is the insured value, the closest approximation of true worth. The facilities current value is book value, original cost less depreciation.

### Table 2: Projected Expenditures

The expenditure portion of RCW 36.81.121, subsection (1) is satisfied by Table 2, showing all expenditures for the ferry system that meet subsection (2) requirements. In Table 2, projected expenditures are categorized as vessel operations, non-vessel operations and capital.

Projected vessel costs include wages and benefits, fuel, general maintenance, supplies, insurance, and dry-docking and shipyard expenditures. United States Coast Guard regulations require that the M/V Guemes be dry-docked every two years for inspection purposes. Skagit County has adopted an aggressive maintenance program which provides for an annual dry docking of the vessel when possible or necessary. This regular maintenance program improves reliability, lowers costs and protects our capital investment. The last dry-docking of the vessel took place in October, 2015. The ferry will be hauled out for dry dock again in March, 2017.

Projected non-vessel costs include terminal maintenance and repair, administration, supplies, external taxes and miscellaneous expenditures. Non-vessel costs also include the dock and bridge structures.

The dock and bridge structures are inspected regularly as required by the National Bridge Inspection Standards administered through the Washington State Department of Transportation. This inspection report helps us identify and schedule major maintenance and replacement of these facilities. The last routine bridge inspection was completed in October, 2016, and the last underwater inspection was performed in May, 2012.

Capital expenditures for 2017 are shown in Table 2 as follows:

- \$190,000 for a Design Study for a new replacement vessel for the M/V GUEMES,
- \$250,000 for Guemes Parking Lot Improvements, and
- \$10,000 for Improvements to the Passenger Shelter on Guemes Island.

Total capital expenditures for 2017 are estimated at \$450,000. Skagit County has not yet received, but has budgeted receiving, in 2017, \$540,000 federal allocations from the Ferry Boat Program for FY2015 and FY2016.

### Table 3: Capital Improvement Projects

This table is meant to provide general guidance for specific capital facility improvement projects for the Skagit County ferry system from 2017-2030.

### Table 4: Projected Revenue

This table includes ferry fare receipts, motor vehicle fuel tax attributed to ferry operations, ferry deficit reimbursement, county road fund subsidy and any grant funds anticipated.

**TABLE 1: FERRY SYSTEM CURRENT AND REPLACEMENT VALUES**

**VESSEL**

<i>CURRENT STATISTICS</i>		<i>M/V GUEMES</i>	<i>CURRENT BOOK VALUE</i>	<i>REPLACEMENT VALUE-2019</i>
Length		124'		
Beam		52'		
Displacement		91 GT		
Year Built		1979		
Capacity - Passengers		99		
Capacity - Cars		21		
Current Book Value		\$3,412,500		
<b>Total Vessel Current Value</b>		<b>\$3,412,500</b>	<b>\$3,412,500</b>	

  

<i>REPLACEMENT STATISTICS</i>		<i>M/V GUEMES</i>		
Year		2019		
Capacity - Passengers		125/150		
Capacity - Cars		30/35		
<b>Total Vessel Replacement Value</b>		<b>\$12,215,000</b>		<b>\$12,215,000</b>

**FACILITIES**

<i>LOCATION</i>	<i>YEAR BUILT</i>	<i>REPLACEMENT YEAR</i>	<i>CURRENT BOOK VALUE</i>	<i>REPLACEMENT VALUE-2017</i>
<b><i>Guemes Island Landing</i></b>				
Dock	2011	2041	\$1,424,008	\$1,566,409
Transfer Span/Machinery	1979	2024	\$1,317,000	\$2,000,000
Dolphins/Wingwalls	2010	2040	\$954,736	\$1,069,304
Head Frame and Towers	1979	2027	\$100,000	\$350,000
Passenger Shelter	1979	2017	\$1,000	\$10,000
Parking Lot	1979	2017	\$150,100	\$250,000
Subtotal of Guemes Landing			<b>\$3,946,844</b>	<b>\$5,245,713</b>
<b><i>Anacortes Landing</i></b>				
Dock	2011	2041	\$1,368,182	\$1,505,000
Transfer Span/Machinery	1979	2023	\$1,317,000	\$2,000,000
Breakwater	2016	2056	\$200,000	\$462,000
Dolphins/Wingwalls	2014	2054	\$1,100,000	\$1,144,000
Head Frame and Towers	1979	2026	\$100,000	\$350,000
Terminal Building(s)	2010	2050	\$778,316	\$871,714
Parking Lots	2004	2040	\$1,067,948	\$1,324,256
Walkway	2010	2040	\$68,481	\$76,699
Subtotal of Anacortes Landing			<b>\$5,999,927</b>	<b>\$7,733,668</b>
<b>Total Facilities Values</b>			<b>\$9,946,771</b>	<b>\$12,979,381</b>
<b>Total Vessl &amp; Facilities Values</b>			<b>\$13,359,271</b>	<b>\$25,194,381</b>

**TABLE 2: PROJECTED EXPENDITURES**

(in 1000's of dollars)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Operations: Vessel</b>														
Dry Docking-Shipyard <sup>(1)(2)</sup>	\$750	\$765	\$780	\$0	\$0	\$300	\$0	\$0	\$320	\$0	\$0	\$340	\$0	\$0
Wages & Benefits <sup>(1)</sup>	\$1,104	\$1,126	\$1,149	\$1,172	\$1,195	\$1,219	\$1,243	\$1,268	\$1,294	\$1,319	\$1,346	\$1,373	\$1,400	\$1,428
Fuel <sup>(1)</sup>	\$135	\$138	\$140	\$143	\$146	\$149	\$152	\$155	\$158	\$161	\$165	\$168	\$171	\$175
General Maintenance <sup>(1)</sup>	\$223	\$227	\$232	\$237	\$241	\$246	\$251	\$256	\$261	\$267	\$272	\$277	\$283	\$288
Supplies <sup>(1)</sup>	\$95	\$97	\$99	\$101	\$103	\$105	\$107	\$109	\$111	\$114	\$116	\$118	\$120	\$123
Insurance <sup>(1)</sup>	\$93	\$95	\$97	\$99	\$101	\$103	\$105	\$107	\$109	\$111	\$113	\$116	\$118	\$120
Misc. <sup>(1)(4)</sup>	\$100	\$100	\$0	\$0	\$0	\$100	\$0	\$0	\$100	\$0	\$0	\$100	\$0	\$0
<b>Subtotal - Vessel</b>	<b>\$2,500</b>	<b>\$2,548</b>	<b>\$2,497</b>	<b>\$1,751</b>	<b>\$1,786</b>	<b>\$2,222</b>	<b>\$1,858</b>	<b>\$1,895</b>	<b>\$2,353</b>	<b>\$1,972</b>	<b>\$2,011</b>	<b>\$2,492</b>	<b>\$2,093</b>	<b>\$2,134</b>
<b>Operations: Non-Vessel</b>														
Facility Maintenance / Repair <sup>(1)</sup>	\$15	\$15	\$16	\$16	\$16	\$17	\$17	\$17	\$18	\$18	\$18	\$19	\$19	\$19
Administration <sup>(1)</sup>	\$75	\$77	\$78	\$80	\$81	\$83	\$84	\$86	\$88	\$90	\$91	\$93	\$95	\$97
Supplies <sup>(1)</sup>	\$9	\$9	\$9	\$10	\$10	\$10	\$10	\$10	\$11	\$11	\$11	\$11	\$11	\$12
External Taxes <sup>(1)(3)</sup>	\$30	\$31	\$31	\$32	\$32	\$33	\$34	\$34	\$35	\$36	\$37	\$37	\$38	\$39
Misc. <sup>(1)(5)</sup>	\$138	\$141	\$144	\$146	\$149	\$152	\$155	\$159	\$162	\$165	\$168	\$172	\$175	\$179
<b>Subtotal - Non-Vessel</b>	<b>\$267</b>	<b>\$272</b>	<b>\$278</b>	<b>\$283</b>	<b>\$289</b>	<b>\$295</b>	<b>\$301</b>	<b>\$307</b>	<b>\$313</b>	<b>\$319</b>	<b>\$325</b>	<b>\$332</b>	<b>\$339</b>	<b>\$345</b>
<b>Capital Expenditures Vessel &amp; Non-Vessel</b>														
<b>(See Table 3 for details)</b>														
<b>Capital Expenditures (see Table 3)</b>	<b>\$450</b>	<b>\$1,825</b>	<b>\$10,200</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,500</b>	<b>\$2,000</b>	<b>\$2,000</b>	<b>\$0</b>	<b>\$350</b>	<b>\$350</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>TOTAL</b>	<b>\$3,217</b>	<b>\$4,645</b>	<b>\$12,975</b>	<b>\$2,034</b>	<b>\$2,075</b>	<b>\$6,017</b>	<b>\$4,159</b>	<b>\$4,202</b>	<b>\$2,666</b>	<b>\$2,641</b>	<b>\$2,687</b>	<b>\$2,824</b>	<b>\$2,431</b>	<b>\$2,480</b>

<sup>(1)</sup> 2017 cost based on projected budgeted amount for 2017, plus 0% growth, 2% inflation in years following

<sup>(2)</sup> Haul-out expenditures based on annual haul-out until 2019; at 2% inflation; beyond 2019, projections based on vessel replacement in 2019

<sup>(3)</sup> DNR lease, plus projected excise taxes

<sup>(4)</sup> Misc. for vessel is rentals for passenger-only service, and other haul-out associated costs

<sup>(5)</sup> Misc. for non-vessel is for professional services, small tools & minor equipment, communications, travel/training, advertising, utilities, contracted services, interfund payments

**TABLE 3: CAPITAL FACILITY IMPROVEMENT PROJECTS**

(in 1000's of dollars) Capital Projects

Capital Item	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Ferry replacement or modification/rebuild <sup>(1)(2)</sup>	\$190	\$1,825	\$10,200											
Guemes Island Parking Lot Improvements <sup>(1)(2)</sup>	\$250													
Passenger shelter Guemes Island <sup>(2)</sup>	\$10													
Re-Power Engine/Outdrive Packages <sup>(1)</sup>						\$3,500								
Transfer span/machinery-Anacortes <sup>(1)</sup>							\$2,000							
Transfer span/machinery-Guemes <sup>(1)</sup>								\$2,000						
Head frame and towers/Anacortes <sup>(1)</sup>										\$350				
Head frame and towers/Guemes <sup>(1)</sup>											\$350			
<b>Total Estimated Annual Costs</b>	<b>\$450</b>	<b>\$1,825</b>	<b>\$10,200</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,500</b>	<b>\$2,000</b>	<b>\$2,000</b>	<b>\$0</b>	<b>\$350</b>	<b>\$350</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<sup>(1)</sup> Federal allocations & federal or state grants (86.5%) & County funds (13.5% match)

<sup>(2)</sup> Included in Six-Year Transportation Improvement Plan

**TABLE 4: PROJECTED REVENUES**

(in 1000's of dollars)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Ferry Fare Receipts <sup>(1)</sup>	\$1,115	\$1,137	\$1,160	\$1,183	\$1,207	\$1,231	\$1,256	\$1,281	\$1,306	\$1,333	\$1,359	\$1,386	\$1,414	\$1,442
Motor Vehicle Fuel Tax (Ferry Portion)	\$138	\$138	\$138	\$138	\$138	\$138	\$138	\$138	\$138	\$138	\$138	\$138	\$138	\$138
Ferry Deficit Reimbursement	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200
County Road Fund Subsidy	\$1,224	\$2,206	\$2,654	\$513	\$530	\$4,447	\$835	\$853	\$1,022	\$668	\$687	\$1,099	\$679	\$699
Grant Funding <sup>(2)</sup>	\$540	\$964	\$8,823	\$0	\$0	\$0	\$1,730	\$1,730	\$0	\$303	\$303	\$0	\$0	\$0
<b>Total Revenue:</b>	<b>\$3,217</b>	<b>\$4,645</b>	<b>\$12,975</b>	<b>\$2,034</b>	<b>\$2,075</b>	<b>\$6,017</b>	<b>\$4,159</b>	<b>\$4,202</b>	<b>\$2,666</b>	<b>\$2,641</b>	<b>\$2,687</b>	<b>\$2,824</b>	<b>\$2,431</b>	<b>\$2,480</b>

<sup>(1)</sup> Based on 2017 Budgeted Fare Box Revenue; Projected 0% Growth; 2% Inflation

<sup>(2)</sup> For 2017, based on amount expected from federal allocations; for all other years, based on federal and/or state grants totaling 86.5% of total project cost