

WHATCOM COUNTY COUNCIL AGENDA BILL

NO. 2006-320

CLEARANCES	Initial	Date	Date Received in Council Office	Agenda Date	Assigned to:
Originator:	JPR	7/13/2006	RECEIVED JUL 18 2006 WHATCOM COUNTY COUNCIL	7/25/2006	PW Committee/ Introduction
Division Head:	JPR	7/13/2006		8/8/2006	Public Hearing/ Adoption
Dept. Head:	APR	7/14/06			
Prosecutor:	IX	07/14/06			
Purchasing/Budget:	Dowdy	7/17/06			
Executive:	PR	7-18-06			

TITLE OF DOCUMENT:
Resolution in the matter of the Whatcom County Six-Year Transportation Improvement Program for the years 2007 through 2012

- ATTACHMENTS:**
1. *Memo to County Executive and Council*
 - Attachment "A" – 2007-2012 Capital Project Priority Order and Financial Distribution by Year*
 - Attachment "B1-B3" - Road Fund Balance, Revenue, and Expenditure Projections*
 - Attachment "C" – Roadway Priority Rating Program*
 - Attachment "D" – Bridge Report*
 2. *2007-2012 Six Year Transportation Improvement Program Resolution*
 - Exhibit "A" – 2007-2012 Six-Year Transportation Improvement Program*
 - Exhibit "B"- 2007-2020 Fourteen-Year Ferry Capital Program*

SEPA review required? () Yes (X) NO	Should Clerk schedule a hearing? (X) Yes () NO
SEPA review completed? () Yes (X) NO	Requested Date: 8/8/2006

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE: *(If this item is an ordinance or requires a public hearing, you must provide the language for use in the required public notice. Be specific and cite RCW or WCC as appropriate. Be clear in explaining the intent of the action.)*

Each year the County is required to update its Six-Year Transportation Improvement Program (STIP), per RCW 35.77.010 and RCW 36.81.121. The STIP includes the capital elements of the first six years of the Fourteen-Year Ferry Program. The STIP is intended as a planning tool for local, state and federally funded projects and is designed to identify projects for preliminary engineering, right-of-way purchase and/or construction.

COMMITTEE ACTION:
 7/25/06: Discussed, with public comment taken

COUNCIL ACTION:
 7/25/06: Introduced
 8/08/06: Council Amended and Approved 6-1,
 Brenner opposed Res. 2006-050

Related County Contract #:	Related File Numbers:	Ordinance or Resolution Number: Res. 2006-050
-----------------------------------	------------------------------	---

Please Note: *Once adopted and signed, ordinances and resolutions are available for viewing and printing on the County's website at: www.co.whatcom.wa.us/council.*

1 SPONSORED BY: Public Works

2 PROPOSED BY: Public Works

3 INTRODUCTION DATE: 7/25/06

4
5
6 RESOLUTION NO. 2006-050

7
8
9 A RESOLUTION IN THE MATTER OF THE WHATCOM COUNTY
10 SIX-YEAR TRANSPORTATION IMPROVEMENT PROGRAM
11 FOR THE YEARS 2007 THROUGH 2012
12

13
14 WHEREAS, pursuant to RCW 36.81.121, Whatcom County is required to prepare and adopt a six-
15 year transportation improvement program each year; and

16 WHEREAS, pursuant to RCW 36.54.015, Whatcom County is required to prepare a fourteen-year
17 ferry capital program each year; and

18 WHEREAS, following adoption of six-year transportation improvement program, the law requires an
19 annual review of the work accomplished under the program and a determination of current transportation
20 needs; and

21 WHEREAS, based upon the findings of the annual review, and after public hearing, a revised six-year
22 transportation improvement program shall be adopted; and

23 WHEREAS, pursuant to RCW 36.81.121, the six-year transportation improvement program and
24 fourteen-year ferry capital program must be consistent with the County comprehensive plan pursuant to RCW
25 36.70A; and

26 WHEREAS, the six-year transportation improvement program attached hereto as Exhibit "A" has been
27 reviewed and determined to be consistent with the County's comprehensive plan; and

28 WHEREAS, the fourteen-year ferry capital program attached hereto as Exhibit "B" has been reviewed
29 and determined to be consistent with the County's comprehensive plan;

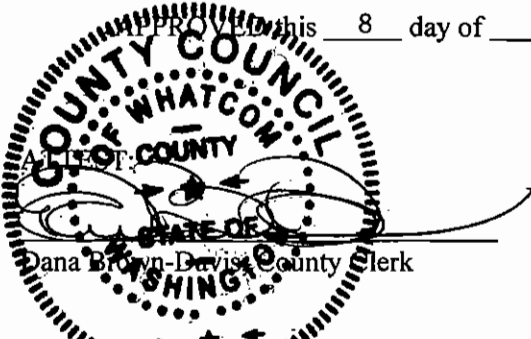
30 NOW, THEREFORE, BE IT RESOLVED by the Whatcom County Council as follows:

- 31 1. That the Whatcom County Six-Year Transportation Improvement Program for the years 2007
32 through 2012, which is attached hereto as Exhibit "A, including the capital elements of the first
33 six-years of the fourteen-year ferry capital program, which is attached hereto as Exhibit "B", is
34 hereby adopted.
- 35 2. That the County Engineer is directed to file a copy of the same with the County Road
36 Administration Board and the State Secretary of Transportation.

37

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

APPROVED this 8 day of August, 2006.



Dana Brown-Davis County Clerk

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

L. Caskey-Schreiber
Laurie Caskey-Schreiber, Council Chair

APPROVED AS TO FORM:

Daniel L. Libron
Senior Civil Deputy Prosecuting Attorney



Six Year Transportation Improvement Program

From 2007 to 2012

Washington State Department of Transportation

Agency: Whatcom County

Co. No.: 37 Co. Name: Whatcom Co.

City No.: 0000 MPO/RTPO: NON/WCCG

Hearing Date: 8/8/2006

Adoption Date: 8/8/2006

Amend Date:

Resolution No.: 2006-050

Functional Class	Priority Number	Project Identification		Improvement Type(s)	Status	Total Length	Utility Codes	Project Costs in Thousands of Dollars						Expenditure Schedule (Local Agency)				Federally Funded Projects Only						
		A. Federal Aid No.	B. Bridge No.					Fund Source Information		1st		2nd		3rd		4th Thru 6th		Environ. Type	Required Date (MM/YY)					
		C. Project Title	D. Street/Road Name or Number					Federal Funding	State Fund Code	Federal Fund Code	State Fund Code	Federal Fund Code	State Fund Code	Federal Fund Code	State Fund Code	Local Funds	Total Funds							
1	2		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
07	19	Haxton Way 12750 from: Kwina Road Structural overlay, paved shoulders, floodproofing	to: Slater Road	07 09	S	1.82	P T C	PE RW	1/1/2009					100	100				100			CE		
19	20	West Illinois / Timson Way from: West Illinois New roadway.	to: Marine Drive	01	P	0.30	P T S W G	Totals						200	200				100					
07	21	Tyee Drive 08620 from: Benson Road Reconstruction and non-motorized enhancements	to: Roosevelt Road	03	P	0.95	P T W C	Totals						20	20				20					
07	22	Portal Way / Dakota Creek Bridge #500 30410 from: Reconstruction	to:	09	P	0.20	P T C W	Totals	1/1/2007	BR	1200			150	150				150					
16	23	North Shore Road 47051 from: Bellingham City Limits Reconstruction, non-motorized enhancements	to: Y Road	03 12 13	S	2.87	P T	Totals	1/1/2007					170	170	20	50	100	100					
07	24	Slater Road Intersection 14760 from: Imhof Road Install turn lanes.	to:	05 12	P	0.30	P T C W	Totals						270	270	20	50	200	20					



Six Year Transportation Improvement Program

From **2007** to **2012**

Agency: Whatcom County
 Co. No.: 37 Co. Name: Whatcom Co.
 City No.: 0000 MPO/RTPO: NON/WCOG

Hearing Date: 8/8/2006 Adoption Date: 8/8/2006
 Amend Date: Resolution No.: 2006-050

Functional Class	Priority Number	Project Identification		Improvement Type(s)	Status	Total Length	Utility Codes	Project Costs in Thousands of Dollars						Expenditure Schedule (Local Agency)					Federally Funded Projects Only					
		A. Federal Aid No.	B. Bridge No.					Fund Source Information		Phase Start (mm/dd/yyyy)	Federal Fund Code	Federal Cost by Phase	State Fund Code	State Funds	Local Funds	Total Funds	1st	2nd	3rd	4th Thru 6th	Envir. Type	RW Required Date (MM/YY)		
		C. Project Title	D. Street/Road Name or Number					Federal Fund Code	Fund Code															
1	2	3		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
07	25	Grandview / Point Whitehorn 22210 from: Birch Bay Drive to: Jackson Road Reconstruction, non-motorized enhancements		03 32	P	1.48	P T C	PE RW CN	9	10	11	12	13	14	15	16	17	18	19	20	21			
09	26	Clearbrook Rd / Johnson Creek, Bridge #302 from: to: Bridge replacement		04	P	0.10		PE CN	1/1/2007	BR BR	84 500				84 500	44	20	20						
08	27	Siper Road 65410 from: SR 9 to: Hopewell Road Reconstruction		03	P	1.80		PE			584			20	20	44	20	20						
08	28	East Hemmi Road @ Tan Mile Creek 56320 from: to: Reconstruction		03	P	0.30	P T C	PE						20	20									
19	29	Hillsdale / Brownsville Culvert 46560 from: to: Culvert replacement and stormwater improvements.		03 06	S	0.10	P T C W S G	PE CN	1/1/2007					20 350	20 350	20								
07	30	Grandview Road / West Pole Road Connector from: Grandview Road to: West Pole Road New alignment and bridge		01 08	P	1.70		PE						370	370	20								
Totals								PE			584			400	50	450	44	20	20					
Totals								PE							20	20	584	44	20	20				
Totals								PE							20	20	20							
Totals								PE							20	20	20							
Totals								PE							20	20	20							
Totals								PE							370	370	20							
Totals								PE							20	20	20							

Agency: Whatcom County
Co. No.: 37 Co. Name: Whatcom Co.
City No.: 0000 MPO/RTPO: NON/WCCG

Hearing Date: 8/8/2006 Adoption Date: 8/8/2006
Amend Date: Resolution No.: 2006-050

Functional Class	Priority Number	Project Identification A. Federal Aid No. B. Bridge No. C. Project Title D. Street/Road Name or Number E. Beginning MP or Road - Ending MP or Road F. Describe Work to be Done	Improvement Type(s)	Status	Total Length	Utility Codes	Project Costs In Thousands of Dollars						Expenditure Schedule (Local Agency)				Federally Funded Projects Only				
							Phase Start (mm/dd/yyyy)	Federal Fund Code	Federal Cost by Phase	State Fund Code	State Funds	Local Funds	Total Funds	1st	2nd	3rd	4th Thru 6th	Envir. Type	R/W Required Date (MM/YY)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
	31	Replacement of the Whatcom Chief from: Replacement of the Gooseberry Point to Lummi Island ferry to:	06	P			CN	1/1/2008			PWTF	7000		7000		1500	5500				
	32	Ferry Dock Improvements from: Improvements to Lummi Island Ferry Docks to:	10	P		P	CN	1/1/2007			PWTF	2000	600	2600	450	1550	150	450			
	33	Parking Improvements on Lummi Island from: to:	06	S			CN	1/1/2007				2000	600	2600	450	1550	150	450			
	34	Various Ferry Parking and Staging from: to:	06	S			PE	1/1/2007				200	200	200	200						
	35	Gooseberry Point Ferry Dock Relocation from: Relocation feasibility study to:	06	S			PE	1/1/2007	80			710	710	710	100	310	100	200		CE	
00	36	Various Bridges Rehabilitation / Replacement from: As prioritized to:	09 10	P	0.50		PE	1/1/2007				20	300	300	50	50	50	150	150	150	600
							Totals			80		1350	1350	1350	200	200	200	200	750		

Six Year Transportation Improvement Program

From **2007** to **2012**

Agency: Whatcom County
 Co. No.: 37 Co. Name: Whatcom Co.
 City No.: 0000 MPO/RTPO: NON/WCCG

Hearing Date: 8/8/2006 Adoption Date: 8/8/2006
 Amend Date: _____ Resolution No.: 2006-050

Functional Class	Priority Number	Project Identification		Improvement Type(s)	Status	Total Length	Utility Codes	Project Costs in Thousands of Dollars				Expenditure Schedule (Local Agency)					Federally Funded Projects Only						
		A. Federal Aid No.	B. Bridge No.					Federal Funding	Federal Fund Code	Federal Cost by Phase	State Fund Code	State Funds	Local Funds	Total Funds	1st	2nd	3rd	4th Thru 6th	Environ. Type	R/W Required Date (MM/YY)			
1	2		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
00	43	Fish Passage Project		13	S			PE RW CN	3/1/2007					200	200	50	50	50	50				
		from: Various locations												700	700								
								Totals				950	950	50	50	50	50	50	800				
Grand Totals for Whatcom County								25345	14495	34288	74128	14184	21310	17984	20650								

EXHIBIT "B"



WHATCOM COUNTY 2007-2020 FOURTEEN-YEAR FERRY CAPITAL PROGRAM

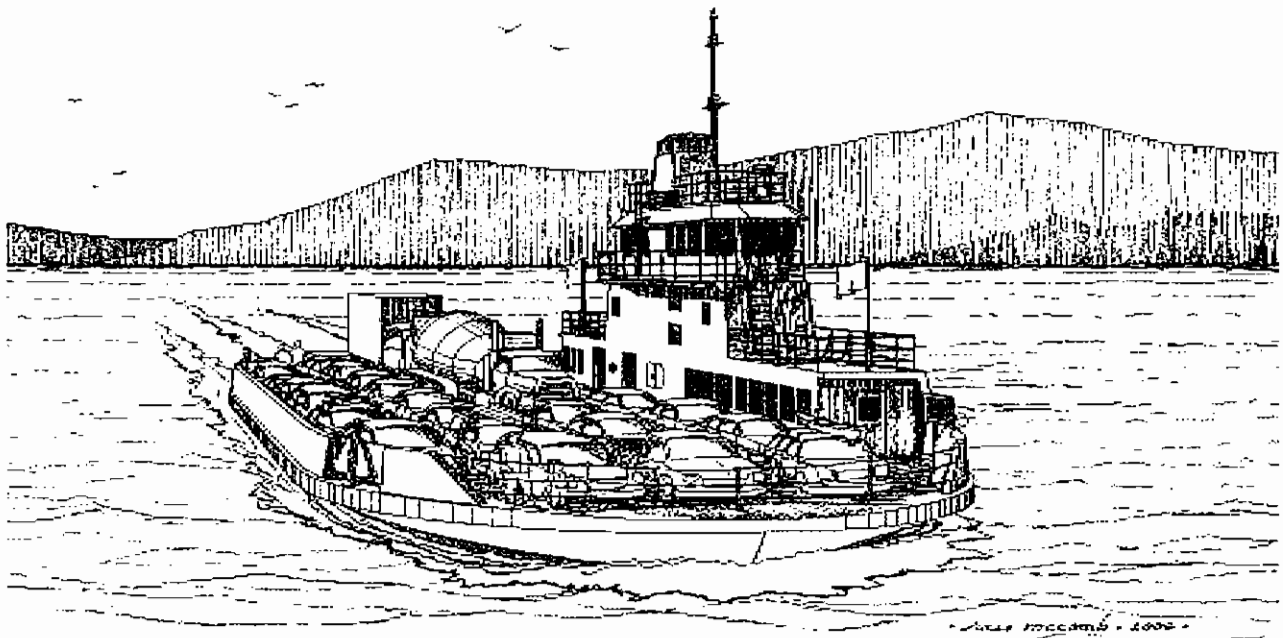


Table of Contents

Preface	B-3
WHAT HAS HAPPENED SINCE THE LAST REPORT	B-3
2005-2006 ACTIVITIES RELATED TO THE FERRY SYSTEM	B-3
THE NEW FERRY DECISION	B-3
THE NEED TO RAISE RATES	B-4
THE IMPACT OF A NEW VESSEL ON RATES	B-4
PUBLIC WORKS RECOMMENDATION	B-4
THE BASIS FOR THE REPORT	B-5
PURPOSE OF THE REPORT	B-5
ORGANIZATION OF THE REPORT	B-5
TABLE 1: FERRY SYSTEM CURRENT AND REPLACEMENT VALUES – 2007	B-5
TABLE 2: PROJECTED EXPENDITURES	B-5
TABLE 3: PROJECTED REVENUES	B-6
<u>MAJOR PROJECT ANALYSIS</u>	B-6
<u>MAJOR MAINTENANCE/RECONSTRUCTION</u>	B-6
<u>MINOR MAINTENANCE</u>	B-6
<u>HISTORY OF THE FERRY SYSTEM</u>	B-6
YEAR/EVENT	B-7
TABLE 1: FERRY SYSTEM CURRENT AND REPLACEMENT VALUES – 2007	B-8
TABLE 2: PROJECTED EXPENDITURES PAGE 1	B-9
TABLE 2: PROJECTED EXPENDITURES PAGE 2	B-10
TABLE 3: PROJECTED REVENUES	B-11

PREFACE

WHAT HAS HAPPENED SINCE THE LAST REPORT

2005-2006 ACTIVITIES RELATED TO THE FERRY SYSTEM

Since the beginning of 2005 the Whatcom County Public Works Ferry Division has been very active. Considerable effort has gone into a variety of issues, to include; planning for a new ferry, establishment of the ferry system fund (to make it easier to separately account for ferry system costs), the design of a new parking lot on Lummi Island, negotiating an extension of the parking lot lease on Gooseberry Point, conducting a feasibility study for “off-boat” ticketing, and the approval of new staff positions to ensure the dedication of resources to this effort. Public Works has also been actively involved in seeking financial assistance from a variety sources to augment County funds for the major capital investments envisioned over the next 2-5 years.

Additionally the staff has been reviewing the revenue and expenditure issues related to the operation of the ferry system, and has prepared the basis for the 2007 and 2008 budget, as well as the ground work for the 2007-2020 14 Year Plan. One of the outcomes of this analysis is the recommendation to adjust the fare structure to insure the required 55% user fee revenue. Other financial impacts reviewed include the costs of a variety of services and/or service levels. The following paragraphs discuss these major activities in more detail.

THE NEW FERRY DECISION

Over the course of the past 4-5 years, a thorough public process, including the Charette exercises, the 2004 and 2005 Ferry System Reports, and surveys of Lummi Islanders and Ferry users was undertaken. It was clear that the majority of the persons involved wanted to find ways to increase the capacity of the ferry system, particularly at peak usage times. Due to the fact that personnel cost and regular maintenance and operating cost are the major factors driving the cost of ferry service, the idea of simply adding a second boat (car ferry or just a passenger vessel) to the run was quickly put aside due to the magnitude of the additional operating cost.

In 2005, Elliot Bay Design Group (Marine Engineers), Art Anderson and Associates (Marine Engineers, Facilities) and Whatcom County Public Works did a detailed analysis of the ferry service, to determine the best size vessel for our service. Our present vessel is capable of sustained operations at a rate of 5 runs every 2 hours. This equates to a nominal capacity of 100 cars every 2 hours or 50 cars an hour on average. We also have the ability to carry up to 100 persons including drivers and passengers. Factors that effect vessel size constraints are; load and unload times for both vehicles and pedestrians, as well as vessel transit time. The larger the vessel the longer it takes to load and/or unload. Also, the more foot passengers the longer the load/unload time. Given the very short passage from Gooseberry Point to Lummi Island, virtually all of the options looked at would make the crossing in the same time.

The results of this analysis indicated that even a very small increment in capacity increase to a 25-30 car vessel made it unlikely that the 5 runs in two hours schedule could be maintained, it also was decided that the 40 car vessel would probably have a hard time maintaining a turnaround time that allowed 2 runs per hour due to the additional load/unload time. The 35-car design basis was agreed upon because it can make 2 trips an hour which equates to 70 cars an hour or a 40% increase in capacity. This vessel also provides for a total passenger load of 150 which increases the passenger capacity by 50%. The 35-car vessel with the car deck level passenger spaces also meets the Coast Guard criteria that allows it to be crewed with the same number of hands as the existing vessel, and is ADA compliant.

Based on this analysis, Elliot Bay Design Group was contracted to design a new 35 car ferry that would provide for the most increased capacity without using a second vessel, and could use our existing docking facilities with as little capital improvement as possible. At the same time Art Anderson and Associates was contracted to design the necessary structural improvements to the facilities to handle the increased size of the 35-car vessel. Both of these design efforts are underway, and the vessel design has been reviewed and is ready to go to bid at the appropriate time. The facilities upgrade proposals are being developed in phases to take advantage of dry-dock periods and “fish windows” for construction before the delivery of the new vessel. Work that needs to be done regardless of a change in vessels is progressing as quickly as possible.

With a new vessel there will be the requirement to modify the existing schedule. The most probable new schedule would be 2 runs per hour during the same hours as the ferry currently runs. Other options will be reviewed and such user groups as the schools will be asked for input. The impact of lines and waiting time at peak operating times should be positive at least at first due to the increased capacity. How long this remains the case will depend on if people shift their rider ship habits based on when deck space is available.

Other schedule issues that may be addressed in the future include the concept of Seasonal Scheduling, and Peak vs. Non-peak schedules.

THE NEED TO RAISE RATES

In addition to the work being undertaken as described above, Public Works has also been involved in an analysis of the operating costs of the Ferry System, and evaluating the user fee structure as it relates to the requirement that users pay for 55% of the system operating costs. It should be pointed out that none of the capital or financing costs related to the acquisition of the new ferry vessel or facilities upgrades impact the system operating costs. The same is true for the construction of the new parking lot on Lummi Island.

Items that are included in the operating cost for the system and are impacted by the system after a new vessel is in service are, the increased costs of maintenance, fuel and operating supplies, and any personnel costs due to the larger system. Also included will be the cost to maintain the existing vessel in a back-up mode (net of any potential revenue it may generate, or cost sharing with another ferry system).

In addition to the forces of inflation, which continue to push costs upward, there are other issues that affect the cost per user on the ferry system. The largest of these issues is the fact that at peak capacity the system simply cannot move more customers. With an inability to sell more tickets, and costs rising it is inevitable that the cost per user will increase.

The costs of operating the ferry system have been rising steadily, and the rate of increase has been increasing over the past 3-4 years. In 2005 the total cost of the ferry system was \$1,883,906 of which \$1,445,383 was operating cost. The total user fee revenue was \$639,000 which equated to 47% of the operating cost. With no changes to the system, the costs for 2006 are projected to be \$1,503,000 and revenues are budgeted at \$651,000 which is a recovery rate of 44%. Based on this information alone it is necessary to raise rates by about 20% if there are no changes in costs or services. However, for 2006 the addition of a full time ferry manager, the beginning of some type of continuous operations at peak periods, and setting up for "off-boat" ticketing are included in the budget. These additions, and the fact that any rate increase will be effective late in the year, result in a proposed rate increase of an average of 55%. All of this is before any of the impact of operating of a new vessel.

THE IMPACT OF A NEW VESSEL ON RATES

The actual impact of operating costs from the new vessel is currently projected at about \$230,000. This includes the additional cost of maintenance, fuel and operating supplies, and keeping the old vessel as a back up. This impact on rates is expected to require an increase in fare revenue of about 10%. Some of this cost may be shared with other ferry systems or offset by revenue opportunities, so this is a conservative estimate, or projected worst case.

The other impact on rates comes from the "off-boat" ticketing scenario. This is being seriously considered because the effort to sell tickets on the larger vessel would probably require additional crew on each shift and is estimated that would cost \$250,000 (3 pursers at \$69,000 per year, and an additional relief person at \$43,000 per year). It is planned to accomplish this thru a combination of clerical workers, and machine sales that would allow the price of this activity to be reduced to less than \$135,000 each year. This would be a savings of \$115,000 that would not have to be recovered in increased fares.

PUBLIC WORKS RECOMMENDATION

As a result of the analysis done by Public Works, the staff is recommending an immediate user fee rate increase of 55%. This will allow the ferry fund to get back to a 55% recovery rate despite the fact that more than one-half of 2006

will be over before the rate increase takes effect. This rate increase may also make it possible to operate the system without a fare box deficit until the new vessel is placed in service.

THE BASIS FOR THE REPORT

PURPOSE OF THE REPORT

This program is designed provides a blueprint for the effective, efficient, and continuing operation of the Whatcom County Ferry System. The projects listed are the result of input from County departments, governmental agencies, business organizations, citizen groups, and individuals. Capital improvements are scheduled based on 79 years experience operating and maintaining the system, while complying with applicable regulations.

Inevitably, priorities and available funds for the ferry system will change over the fourteen years projected in this program. Therefore, the intention of the program is to be a guide indicating long-range improvements and anticipated revenues and expenditures. Strict adherence is not required.

ORGANIZATION OF THE REPORT

The program information is presented in three tables. State and Federal requirements were established to assure counties have current plans for comprehensive transportation improvement efforts. Statutory requirements and a brief explanation of the tables and how they meet the requirements follow.

Enacted in 1975, Revised Code of Washington (RCW) 36.54.015 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.”

TABLE 1: FERRY SYSTEM CURRENT AND REPLACEMENT VALUES – 2007 meets these requirements, showing the current value, replacement cost, and amortization periods for the vessels and facilities. The current value of the *M/V Whatcom Chief* is the book value, calculated from the depreciated original construction cost and any depreciated improvements/major repairs. The facilities’ current value is book value; original cost less depreciation plus depreciated improvements.

RCW 36.81.121 (1) states “...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...and for those counties operating ferries shall also include a separate section showing proposed capital expenditures for ferries, docks, and related facilities. Copies of the program shall be filed with the county road administration board and the secretary of transportation not more than thirty days after its adoption by the legislative authority...” Subsection (2) requires expanded information on how a county will spend all its money on the various facets of the transportation program. This RCW Section was enacted in 1961. The capital expenditure portion of Subsection (1) is satisfied by:

TABLE 2: PROJECTED EXPENDITURES. TABLE 2 includes all other expenditures on the system that meet Subsection (2) requirements. Operational expenditures are delineated between vessel and non-vessel costs. U.S. Coast Guard regulations currently require the ferries to be dry-docked every two years, however to extend the life, improve reliability and protect our capital investment Whatcom County schedules dry-docking every year for its vessels. When the *M/V Whatcom Chief* goes into standby, this periodicity will be extended to once every two years. This is reflected in the table. The landings are inspected regularly as required by the National Bridge Inspection Standards administered through the Washington State Department of Transportation. The inspection report helps identify and time major maintenance and replacement of these facilities. The last section of the table lists loan payments.

This RCW section also provides the reporting requirement and timing of program submission, as well as establishing the annual update requirement.

Additionally, the Federal Highway Administration requires all agencies within a Metropolitan Planning Organization to develop and annually update the long range Transportation Improvement Plans and their Biennial Element. Whatcom

County will be updating this 14-Year plan each year and incorporating the results into the Six-Year Transportation Improvement Program.

TABLE 3: PROJECTED REVENUES, Defines the known and anticipated sources of funding for the 14 Year Plan.

MAJOR PROJECT ANALYSIS

The major capital improvement project listed in this program is the construction of a 35-vehicle ferry. The new ferry will replace the 1962 vintage, 20-vehicle ferry M/V *Whatcom Chief*. The design was initiated in 2005 and construction completion is anticipated to be in 2008. The new ferry will provide a 40% greater system capacity and improved safety. M/V *Whatcom Chief* is scheduled to be retained as a back-up boat for dry-docking periods and unexpected maintenance/repair periods. Strategies for sharing the M/V *Whatcom Chief* with another county (e.g. Skagit or Pierce) are being explored. The significant increase in overall system capacity is planned to serve the transportation needs of the Lummi Island for many years.

At the present time the County is pursuing the option of County Ferry Capital Improvement financing thru the CRAB. Assistance is being requested for the repayment of the principle on a loan for this project.

The other major capital improvements required for this project are the construction of new wing walls at both the Gooseberry Point and Lummi Island landings to accommodate the much larger berthing energies (four times that of the M/V *Whatcom Chief*). An extension to the wave break (80 ft) and replacement of one dolphin at the Lummi Island landing is also necessary to handle the new longer and slightly wider 35-vehicle ferry. Design is scheduled for completion in 2006 and construction in 2006 and 2007.

MAJOR MAINTENANCE/RECONSTRUCTION

Pile, dolphin & fender work:

Major pile dolphin and fender work replacement is scheduled at regular intervals, as shown in Table 2.

Waiting Area/Parking:

Improvements to passenger waiting areas and parking facilities on Lummi Island are also scheduled as shown in Table 2. These improvements are intended to encourage the use of mass transit to help reduce the peak vehicle demand on the system.

Vessel dry-docking:

US Coast Guard regulations require periodic inspections of all ferry vessels. In addition to quarterly inspections and yearly certifications, each vessel is required to be dry docked every two years. However, to protect our investments, Whatcom County schedules dry-docking every year. The Dry-docking periodicity for the M/V *Whatcom Chief* as back-up vessel will be extended to once every two years. The Engine overhaul, vessel painting, hull repairs, and other major and minor repairs occur during the dry-docking. The dry-docking periods for the new vessel and for the M/V *Whatcom Chief* will be scheduled to minimize the impacts/costs on the ferry system. The M/V *Whatcom Chief* will be used when the new 35-vehicle ferry is dry-docked.

MINOR MAINTENANCE

General minor maintenance is continual on the ferries, landings, aprons, and waiting facilities. The costs and extent of the work is unpredictable and frequently, problems must be repaired immediately upon detection. Routine maintenance such as building painting and roof cleaning is more predictable and scheduled in advance.

HISTORY OF THE FERRY SYSTEM

The ferry system is the lifeline for Lummi Island. It has seen a growth in annual total demand of 95,000 car & driver trips in 1990 to over 137,000 in 2004 the latest year for which statistics are available. Total annual passenger use has grown from 167,000 in 1990 to over 230,000 in 2004.

The following is a chronology of the Whatcom County Ferry System.

YEAR/EVENT

- 1926 Lummi Shore Road from Bellingham was completed and a ferry, the *Central*, owned by Whatcom County and large enough to hold six small Model-T Fords started making scheduled runs between Lummi Island and Gooseberry Point.
- 1929 The slightly larger Chief *Kwina* replaces the *Central*.
- 1950 Gooseberry Point terminal built.
- 1962 The M/V *Whatcom Chief* begins service.
- 1978 Lummi Island terminal is relocated.
- 1982 New lift mechanism installed on transfer span at Lummi Island. Gooseberry Point pier refurbished
- 1987 Gooseberry Point Transfer span, wing walls and dolphins replaced
- 1997 Major refurbishment of Gooseberry point landing accomplished
- 2002 20-Year Plan Phase 1 Charette Process and report completed.
- 2005 Major Status Report on Ferry System

TABLE 1: FERRY SYSTEM CURRENT AND REPLACEMENT VALUES - 2007 VESSELS

Current Statistics		<i>M/V Whatcom Chief</i>	
LENGTH (ft)		94	
BEAM (ft)		44	
DISPLACEMENT (tons)		78	
YEAR BUILT		1962	
CAPACITY -- Passengers		100	
CAPACITY -- Cars		20	
CURRENT INSURED VALUE - 2007		\$290,000	
TOTAL CURRENT VALUE - 2007⁽¹⁾			\$290,000
Replacement Statistics			
YEAR		2008	
CAPACITY -- Passengers		100	
CAPACITY -- Cars		20	
REPLACEMENT VALUE - 2007 ⁽²⁾		\$2,300,000	
TOTAL - REPLACEMENT VALUE - 2007			\$2,300,000

FACILITIES

LOCATION	YEAR BUILT	REPLACEMENT YEAR	CURRENT BOOK VALUE ⁽⁴⁾	REPLACEMENT VALUE - 2007 ⁽⁵⁾
Lummi Island Landing				
Transfer Span	1982	2022	\$155,000	\$1,870,000
Dock	1978	2018	\$23,000	\$213,000
Dolphins/Wingwall ⁽³⁾	1978	2018	\$163,000	\$1,016,000
Parking Lots	1978	2018	\$30,000	\$128,000
Passenger Waiting/Office	1978	2018	\$10,000	\$20,000
Subtotal - Lummi Island Landing			\$381,000	\$3,247,000
Gooseberry Point Landing				
Transfer Span	1987	2027	\$445,000	\$2,200,000
Dock	1997	2037	\$87,000	\$574,000
Dolphins/Wingwall ⁽³⁾	1997	2037	\$910,000	\$544,000
Subtotal - Gooseberry Point Landing			\$1,442,000	\$3,318,000
TOTAL FACILITIES VALUE			\$1,823,000	\$6,565,000
TOTAL VESSEL & FACILITIES VALUE			\$2,113,000	\$8,865,000

NOTES:

- (1) Depreciated Columbia Sentinel Engineers (1990) Value plus Depreciated Improvements
- (2) Estimate by Art Anderson Associates (2005)
- (3) Replace with Steel Pilings
- (4) Estimated using a 40-year life and straight-line depreciation (including depreciated improvements)
- (5) Replacement value based on original cost plus yearly escalations

Whatcom County Public Works 14-Year Ferry Capital Program									Inflation %
All \$ in 000's									
Table 2 Expenditures 2007-2020 Page 1.									
		2007	2008	2009	2010	2011	2012	2013	
Operations Expenses:									
Vessel Operations									
Whatcom Chief									
Personnel		\$ 850	\$ 100	\$ 102	\$ 104	\$ 106	\$ 108	\$ 110	2%
Fuel & Operating Supplies		\$ 200	\$ 50	\$ 52	\$ 54	\$ 56	\$ 58	\$ 61	4%
Insurance		\$ 43	\$ 35	\$ 36	\$ 37	\$ 38	\$ 39	\$ 41	3%
Other Operating Expenses		\$ 250	\$ 50	\$ 52	\$ 53	\$ 55	\$ 56	\$ 58	3%
New 35-Car Vessel									
Personnel			\$ 850	\$ 867	\$ 884	\$ 902	\$ 920	\$ 938	2%
Fuel & Operating Supplies			\$ 500	\$ 520	\$ 541	\$ 562	\$ 585	\$ 608	4%
Insurance			\$ 50	\$ 52	\$ 53	\$ 55	\$ 56	\$ 58	3%
Other Operating Expenses			\$ 200	\$ 206	\$ 212	\$ 219	\$ 225	\$ 232	3%
Total Vessel Operations		\$ 1,343	\$ 1,835	\$ 1,886	\$ 1,939	\$ 1,993	\$ 2,049	\$ 2,106	
Other Operations									
Administration		\$ 171	\$ 180	\$ 184	\$ 187	\$ 191	\$ 195	\$ 199	2%
Parking Lots									
	Lummi Island		\$ 10	\$ 10	\$ 11	\$ 11	\$ 11	\$ 12	3%
	Gooseberry Point	\$ 15	\$ 20	\$ 21	\$ 21	\$ 22	\$ 23	\$ 23	3%
Staging Areas									
	Lummi Island	\$ 10	\$ 10	\$ 10	\$ 11	\$ 11	\$ 11	\$ 12	3%
	Gooseberry Point	\$ 10	\$ 10	\$ 10	\$ 11	\$ 11	\$ 11	\$ 12	3%
Docks									
	Lummi Island	\$ 25	\$ 25	\$ 26	\$ 27	\$ 27	\$ 28	\$ 29	3%
	Gooseberry Point	\$ 25	\$ 25	\$ 26	\$ 27	\$ 27	\$ 28	\$ 29	3%
Total Operations Expense		\$ 1,599	\$ 2,115	\$ 2,173	\$ 2,232	\$ 2,293	\$ 2,356	\$ 2,421	
Other Expenditures									
	Vessel Depreciation		\$ 170	\$ 170	\$ 170	\$ 170	\$ 170	\$ 170	
	Facilities Depreciation	\$ 136	\$ 211	\$ 219	\$ 225	\$ 230	\$ 231	\$ 230	
	Financing Expense								
	Loan Principle		\$ 272	\$ 285	\$ 300	\$ 315	\$ 331	\$ 347	
	Loan Interest		\$ 450	\$ 438	\$ 422	\$ 407	\$ 391	\$ 376	
Capital Expenditures									
	Vessel Replacement		\$1,500	\$ 5,500					
	Gooseberry								
	Parking Lot		\$ 100						
	Staging Area		\$ 200	\$ 100		\$ 50		\$ 50	
	Dock	\$ 150	\$ 1,100		\$ 150		\$ 150		
	Lummi Island								
	Parking Lot	\$ 100	\$ 10			\$ 50			
	Staging Area				\$ 50		\$ 50		
	Dock	\$ 300	\$ 450	\$ 150		\$ 150		\$ 150	
Total Expenditures		\$2,285	\$6,578	\$9035	\$ 3,549	\$ 3,665	\$ 3,679	\$ 3,744	
User Fee @ 55% of Operations		\$ 879	\$ 1,163	\$ 1,195	\$ 1,228	\$ 1,261	\$ 1,296	\$ 1,332	

Whatcom County Public Works 14-Year Ferry Capital Program										Inflation %
All \$ in 000's										
Table 2 Expenditures 2007-2020 Page 2.										
			2014	2015	2016	2017	2018	2019	2020	
Operations Expenses:										
Vessel Operations										
Whatcom Chief										
Personnel			\$ 112	\$ 114	\$ 117	\$ 119	\$ 121	\$ 124	\$ 126	2%
Fuel & Operating Supplies			\$ 63	\$ 66	\$ 69	\$ 71	\$ 74	\$ 77	\$ 80	4%
Insurance			\$ 42	\$ 43	\$ 45	\$ 46	\$ 48	\$ 49	\$ 50	3%
Other Operating Expenses			\$ 60	\$ 62	\$ 63	\$ 65	\$ 67	\$ 69	\$ 71	3%
New 35-Car Vessel										
Personnel			\$ 957	\$ 976	\$ 995	\$ 1,015	\$ 1,036	\$ 1,056	\$ 1,077	2%
Fuel & Operating Supplies			\$ 632	\$ 658	\$ 684	\$ 711	\$ 740	\$ 769	\$ 800	4%
Insurance			\$ 60	\$ 62	\$ 63	\$ 65	\$ 67	\$ 69	\$ 71	3%
Other Operating Expenses			\$ 239	\$ 246	\$ 254	\$ 261	\$ 269	\$ 277	\$ 285	3%
Total Vessel Operations			\$ 2,165	\$ 2,227	\$ 2,290	\$ 2,355	\$ 2,422	\$ 2,491	\$ 2,563	
Other Operations										
Administration			\$ 203	\$ 207	\$ 211	\$ 215	\$ 220	\$ 224	\$ 229	2%
Parking Lots										
	Lummi Island		\$ 12	\$ 13	\$ 13	\$ 14	\$ 14	\$ 14	\$ 15	3%
	Gooseberry Point		\$ 24	\$ 24	\$ 25	\$ 26	\$ 27	\$ 27	\$ 28	3%
Staging Areas										
	Lummi Island		\$ 12	\$ 13	\$ 13	\$ 14	\$ 14	\$ 14	\$ 15	3%
	Gooseberry Point		\$ 12	\$ 13	\$ 13	\$ 14	\$ 14	\$ 14	\$ 15	3%
Docks										
	Lummi Island		\$ 12	\$ 13	\$ 13	\$ 14	\$ 14	\$ 14	\$ 15	3%
	Gooseberry Point		\$ 12	\$ 13	\$ 13	\$ 14	\$ 14	\$ 14	\$ 15	3%
Total Operations Expense			\$ 2,454	\$ 2,522	\$ 2,592	\$ 2,664	\$ 2,738	\$ 2,814	\$ 2,893	
Other Expenditures										
	Vessel Depreciation		\$ 170	\$ 170	\$ 170	\$ 170	\$ 170	\$ 170	\$ 170	
	Facilities Depreciation		\$ 240	\$ 243	\$ 300	\$ 301	\$ 290	\$ 303	\$ 300	
Financing Expense										
	Loan Principle		\$ 365	\$ 383	\$ 402	\$ 422	\$ 444	\$ 466	\$ 489	
	Loan Interest		\$ 357	\$ 339	\$ 320	\$ 301	\$ 279	\$ 257	\$ 233	
Capital Expenditures										
Vessel Replacement										
	Gooseberry									
	Parking Lot									
	Staging Area			\$ 50		\$ 50		\$ 50		
	Dock		\$ 150		\$ 150		\$ 150		\$ 150	
Lummi Island										
	Parking Lot									
	Staging Area		\$ 50		\$ 50		\$ 50		\$ 50	
	Dock			\$ 150		\$ 150		\$ 150		
Total Expenditures			\$ 3,786	\$ 3,857	\$ 3,984	\$ 4,058	\$ 4,121	\$ 4,210	\$ 4,285	
User Fee @55% of Operations			\$ 1,350	\$ 1,387	\$ 1,425	\$ 1,465	\$ 1,506	\$ 1,548	\$ 1,591	

Whatcom County Public Works 14-Year Ferry Capital Program

All \$ in 000's

Table 3 Revenues 2007-2020

CATEGORY			2007	2008	2009	2010	2011	2012	2013
Punch Card Fares	(1)		\$ 791	\$ 1,047	\$ 1,076	\$ 1,105	\$ 1,135	\$ 1,166	\$ 1,199
Cash Fares	(1)		\$ 88	\$ 116	\$ 120	\$ 123	\$ 126	\$ 130	\$ 133
(Memo 55% of Operating Cost)			\$ 879	\$ 1,163	\$ 1,195	\$ 1,228	\$ 1,261	\$ 1,296	\$ 1,332
MVFT Deficit Subsidy			\$ 160	\$ 160	\$ 160	\$ 160	\$ 160	\$ 160	\$ 160
County Road Fund Subsidy (2)			\$ 719	\$ 952	\$ 978	\$ 1,005	\$ 1,032	\$ 1,060	\$ 1,090
Ferry Loan Proceeds				\$ 9,000					
Loan Repayment Assistance CRAB				\$ 367	\$ 367	\$ 367	\$ 367	\$ 367	\$ 367
Unfunded			\$ 2,027	\$ (1,064)	\$ 835	\$ 789	\$ 845	\$ 792	\$ 795
TOTAL REVENUES			\$ 3,785	\$10,578	\$ 3,535	\$ 3,549	\$ 3,665	\$ 3,675	\$ 3,744
(Memo Total Cost)			\$ 3,785	\$ 10,578	\$ 3,535	\$ 3,549	\$ 3,665	\$ 3,675	\$ 3,744
CATEGORY			2014	2015	2016	2017	2018	2019	2020
Punch Card Fares	(1)		\$ 1,215	\$ 1,248	\$ 1,283	\$ 1,319	\$ 1,355	\$ 1,393	\$ 1,432
Cash Fares	(1)		\$ 135	\$ 139	\$ 143	\$ 147	\$ 151	\$ 155	\$ 159
(Memo 55% of Operating Cost)			\$ 1,350	\$ 1,387	\$ 1,425	\$ 1,465	\$ 1,506	\$ 1,548	\$ 1,591
MVFT Deficit Subsidy			\$ 160	\$ 160	\$ 160	\$ 160	\$ 160	\$ 160	\$ 160
County Road Fund Subsidy (2)			\$ 1,105	\$ 1,135	\$ 1,166	\$ 1,199	\$ 1,232	\$ 1,267	\$ 1,302
Ferry Loan Proceeds									
Loan Repayment Assistance CRAB			\$ 367	\$ 367	\$ 367	\$ 367	\$ 367	\$ 367	\$ 367
Unfunded			\$ 804	\$ 808	\$ 866	\$ 867	\$ 856	\$ 868	\$ 865
TOTAL REVENUES			\$ 3,786	\$ 3,857	\$ 3,984	\$ 4,058	\$ 4,121	\$ 4,210	\$ 4,285
(Memo Total Cost)			\$ 3,786	\$ 3,857	\$ 3,984	\$ 4,058	\$ 4,121	\$ 4,210	\$ 4,285
NOTES:									
(1) Sum is Projected as 55% of Operating Cost									
(2) Based on 45% of Operating Cost									