

Joint Transportation Committee

Capital Program Staffing and Administration Cost Final Report

Washington State Department of Transportation Ferries Division
Financing Study II



Prepared For:

Joint Transportation Committee
Washington State Legislature

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Executive Summary

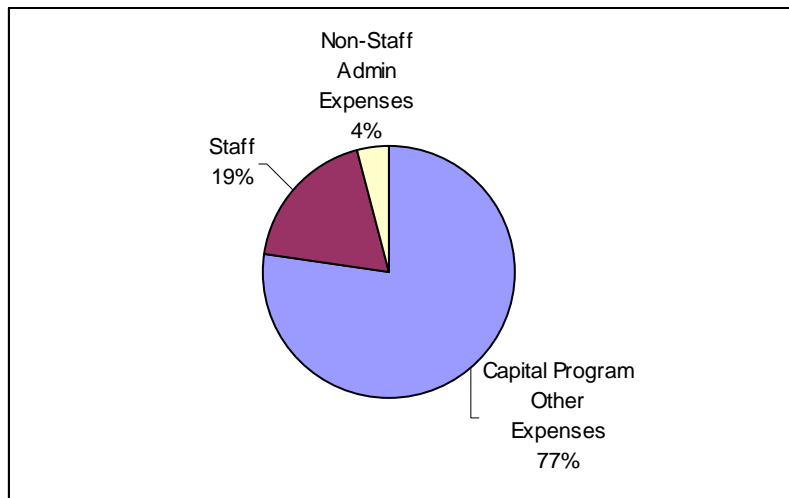
The 2007 Legislature directed the Joint Transportation Committee (JTC) to review the Washington State Department of Transportation (WSDOT) Ferries Division (Ferries) administrative and systemwide capital costs (ESHB 1094 §205(1)(b)(iii)). This report provides information on Ferries' capital program expenses that will inform development of a revised Long-Range Plan and associated capital budget, as required by ESHB 2358. In addition, this report provides information critical to the long-term financing studies being conducted at the direction of the legislature by the JTC and the Washington State Transportation Commission (WSTC) (ESHB 1094 §205(1)(b)(iii)).

A. Scope of Report

The Ferries budget is divided into an operating program, which maintains and operates the vessels and terminals, and a capital program, which preserves and improves the vessels and terminals. This report addresses only the capital program, focusing on two areas:

- **Staffing:** includes all Ferries' staff who charged their time to the capital program, and on-site consultants for the capital program. Staffing represents 19 percent of the total capital program costs in the 2005-07 biennium.
- **Non-staff administration costs:** includes administrative expenses for specific capital projects (such as scheduling systems, and legal and communications charges), and overhead charges to the capital program (such as leases, office equipment and training). These costs represent 4 percent of the total capital program costs in the 2005-07 biennium.

**Expense Areas Reviewed in Relation to Capital Program,
2005-07 Biennium**



Sources. The consultants used data from the most recent full biennium—2005-07. Data gathering began in October of 2007, so there were insufficient 2007-09 data to provide useful information. Because of this, the underlying data do not reflect organizational

changes made by Ferries since July 1, 2007. The text of this report notes those changes where appropriate.

Ferries' finance, human resources and contract management systems provided the information analyzed for this report. The consultants had to compare data across several systems. No one system tracks the data necessary to analyze Ferries' capital program staffing and administration costs adequately.

A standard way of analyzing expenses in a capital program is as a percentage of the total costs of that program, and comparing those percentages to pre-established baselines. Ferries has not established baselines or performance measures necessary to assess the reasonableness of capital staffing costs. This report documents the current baselines from which benchmark performance measures can be developed in the future.

Size of Capital Program. The Ferries capital program includes three areas: terminals, vessels, and emergency repairs. The size of the Ferries capital program is a determinant of capital staff and administration requirements. In the 2005-07 biennium, Ferries' capital expenses totaled \$183.1 million, with the terminal capital program accounting for \$102.0 million (56 percent of capital expenses), and the vessel capital program accounting for \$76.0 million (41 percent), and a small amount, \$5.1 million, for emergency repairs (3 percent).

Recommendations. As part of the ESHB 2358 implementation, Ferries is developing a revised Long-Range Plan and capital budget. Recognizing the potential for significant changes in the near future, the consultants categorized their recommendations as:

- Short-term – those that the legislature and/or Ferries could undertake immediately;
- Medium-term – for consideration as Ferries completes its Long-Range Plan, and as the JTC and WSTC complete long-term financing studies; and
- Long-term – for consideration following the adoption of the capital program in the 2009 session.

B. Capital Staffing Findings and Recommendations

This review of capital staffing looks at charges to the capital program from: (1) the capital program staff (141 positions shown in the Ferries organization chart); (2) operating staff billed to the capital budget; and (3) on-site consultants.

1. Staff Budgeted in the Capital Budget

Charges for the 141 capital staff in the 2005-07 biennium totaled \$17.3 million, or 10 percent of total capital program expenses.

Staffing levels and vacancies. Given the current re-analysis of Ferries' capital program, hiring of capital staff to fill existing vacancies should be carefully considered. With the exception of one position in Finance and Administration, this recommendation is consistent with actions Ferries is already taking to reduce costs. Future decisions on the

size of the capital program staff should focus on core competencies required to preserve Ferries terminals and vessels.

Recommendation 1 (Short-term): Current capital position vacancies should not be filled until the Draft Long-Range Plan is complete and decisions on staffing can be informed by the Plan.

Ferries should carefully review any other vacancies that occur between now and the completion of the 2009 legislative session. The consultants recommend that the most prudent course of action, given the uncertainties surrounding the size and sequencing of the Ferries capital program, would be to freeze hiring. However, the consultants also recognize that critical vacancies may occur that will require hiring despite the uncertainties.

Recommendation 2 (Medium-term): Future vacancies in capital staff positions should not be filled until the completion of the Long-Range Plan, unless absolutely critical to project delivery.

Administrative work order. Capital staff charge their time directly to specific capital projects through project work orders or across projects using an administrative work order. Given the level of charges to the administrative work order in 2005-07, it appears that the use of the administrative work order is not in conformance with established Ferries policy. The consultants note that it is not the intent of the administrative work order to be a primary charging center for capital staff. ESHB 2358 (Section 9) requires Ferries to identify separately the administrative charges in project budgets.

Recommendation 3 (Short-term): Ferries should distinguish administrative work order charges to projects from direct staff charges to projects in order to facilitate legislative and management understanding of capital project costs.

Currently 23 percent of Ferries' capital staff expenses are charged to the administrative work order. This apparently disproportionate use of the administrative work order makes it difficult to track actual administrative costs. An important consideration in determining the appropriate size of the capital program staff is to understand staffing required for administrative purposes, which cannot be done when almost all staff charge time to this work order.

Recommendation 4 (Short-term): Ferries should review staff authorized to charge to the administrative work order and fully implement the established procedures for authorizing such charges.

Of special concern are the charges to the administrative work order from the engineering divisions, which were particularly high. Terminal Engineering had 33 percent of all charges to the administrative work order (\$1.4 million) and 10 positions that charged 90 percent or more of their time to the administrative work order. In reviewing staffing,

Ferries should determine its headquarters structure, and project the costs anticipated to be charged to the administrative work order.

Recommendation 5 (Medium-term): Terminal Engineering should review its structure and anticipated ongoing charges to the administrative work order.

Project work orders. The consultants found that Terminal Engineering and Vessel Engineering charged less than half of their staff time to preservation project work orders. Staff time in these two divisions was spent primarily on vessel and terminal improvement/new vessel construction and systemwide projects. The *Auto-Passenger Vessel Preservation and Replacement Final Report of WSDOT Ferries Division Financing Study II*, January 2008, recommended a realignment of vessel staff to focus on improving vessel maintenance, and noted significant under-spending of the vessel preservation budget in the 2005-07 biennium.

Recommendation 6 (Medium-term): Ferries should review staffing in its engineering divisions to ensure core competency in, and a focus on, terminal and vessel preservation, with staffing sufficient to implement the preservation program proposed in the upcoming Long-Range Plan.

Recommendation 7 (Medium-term): Ferries should clearly distinguish responsibility for terminal improvement projects, and for vessel construction and systemwide vessel improvement projects, from its preservation responsibility in order to ensure a focus on preservation.

2. Operating Staff Charges to Capital Program

Operating budget staff—such as terminal, vessel and information agent staff—assist in the delivery of the capital program. Operating staff charged \$4.3 million to the capital program in the 2005-07 biennium, representing 2 percent of all capital program costs.

Operations construction support. One systemwide project alone, Terminal Operations Construction Support, cost \$1.0 million in operating staff time. The project is intended to mitigate disruption during construction. However, 20 percent of the staff time was for design projects.

Recommendation 8 (Short-term): Ferries should evaluate operating budget staff charges to the terminal operations construction support project to determine whether they are appropriate capital program expenses.

Other operating staff capital charges. Thirty-three (33) percent (\$1.4 million) of the operating budget staff charges to the capital budget cannot be traced to individual projects, which makes it difficult to understand whether these charges are justified.

Recommendation 9 (Short-term): Ferries should review and determine whether charges to the capital program from information agents, vessel engineering crews, vessel deck crews, and terminal staff are appropriate capital charges, and whether these charges should be separately identified in project budgets.

Recommendation 10 (Long-term): Ferries should develop and implement a policy on charges by information desk, terminal, vessel deck and vessel engineering staff to the capital program.

3. Use of On-Site Consultants

This review looks at Ferries' use of on-site consultants who have offices at Ferries headquarters, provide project management, engineering and support capacities, and are either identified in the accounting system as on-site or were so identified by Ferries staff. Ferries spent \$12.2 million in the 2005-07 biennium for on-site consultants, representing 7 percent of all capital program expenses during the biennium. That is, 36 percent of the capital program staffing costs are for on-site consultants. Most of these expenditures were from Terminal Engineering, with some from Vessel Engineering.

Terminal Engineering. While Terminal Engineering has reduced its reliance on on-site consultants in 2007-09, many Terminal Engineering Division on-site consultants have been under contract for a year or longer.

Recommendation 11 (Short-term): Terminal Engineering should continue to review and, where appropriate, reduce expenditures on on-site consultants.

Recommendation 12 (Short-term): Ferries should review its use of long-term on-site consultants.

Focus. In the future, Ferries should consider focusing its use of on-site consultants in the improvement program, while retaining a core staff capability to meet its preservation program requirements.

Recommendation 13 (Medium-term): The use of on-site consultants should be based on Ferries' decisions on the delivery method for and scheduling of preservation and terminal improvement/new vessel construction, and vessel systemwide improvement projects.

C. Non-Staff Capital Administration Expenses Findings and Recommendations

In the 2005-07 biennium, Ferries incurred costs of \$7.8 million to the capital program for non-staff capital administration expenses. This cost represents 4 percent of the total capital program costs, and approximately 21 percent of the total non-staff administration expenses for Ferries capital and operating budgets.

1. Administrative Expenses for Specific Capital Projects

Communications and legal expenses. Expenditures of \$1.2 million for legal and communications assistance appear to be a reasonable use of outside expertise and appropriate for the projects.

Scheduling system. In the 2005-07 biennium, Terminal Engineering invested \$2.3 million in the acquisition and development of a Primavera scheduling system and project controls, and plans to hire one FTE staff to support the system. A typical private

owner/developer would not themselves use such a complex system, relying instead on contractors for detailed scheduling. This system may integrate with WSDOT reporting as WSDOT develops its Primavera scheduling system.

Recommendation 14 (Long-term): WSDOT should review the cost-benefits of continued use of the Primavera scheduling system for Ferries.

2. Other Administrative Capital Services and Charges

Non-staff, general administration expenses in support of the capital program include rent and lease payments for office property, telephone and data lines, office related machinery and technology equipment, Attorney General charges¹, staff training, and travel. In the 2005-07 biennium, these expenses totaled \$5.1 million, or 3 percent of all capital program expenses.

These expenses seem reasonable. However, it is difficult to determine the total administrative services and charges in the capital budget presented by Ferries. ESHB 2358 requires Ferries to allocate systemwide services and charges to individual terminal and capital projects and to separately identify such costs within the project budgets.

Recommendation 15 (Long-term): Ferries should separately identify the capital administration services and charges for review by the legislature.

D. Management Communication and Oversight Findings and Recommendations

Organization chart. Ferries has provided an organization chart to the legislature showing 141 authorized capital positions for the 2005-07 biennium. The actual number of funded capital positions in the 2005-07 biennium was 131, but Ferries has not reconciled the 2005-07 biennium organization chart to these funded positions.² Since the organization chart can be used as a key communication tool, it is important that an organization chart be developed that clearly relates to the adopted capital budget.

Recommendation 16 (Short-term): Ferries should develop and present to the legislature an organization chart that shows only funded positions and denotes which legislatively adopted budget the chart represents.

Baselines and performance measures. Ferries does not aggregate and then track staffing or administration costs against the total cost of the capital budget. This makes it difficult to know on a consistent basis whether these costs are in line with the size of the capital program. This review has highlighted the need to establish a set of baselines and performance measures for future budget and staff resource decisions associated with each of the areas addressed by this study.

¹ Charges by the Attorney General are not the same as the legal expenses in specific projects, which were for outside counsel.

² Ferries did not exceed its funded positions because of vacancies.

Recommendation 17 (Long-term): Ferries should develop baseline information and performance measures for the percentage of the capital program and individual capital project budgets that should be devoted to capital staffing and administration expenses.

The chart below summarizes the consultant's recommendations and the Department's response.

WSDOT Response

We appreciate the opportunity to share comments on the Capital Administrative Staffing Report prepared for the JTC by the Cedar River Group.

As this report is reviewed there are three important factors that should be considered. First, this report is based on the 05/07 biennium expenditures and since that time we experienced a significant paradigm shift in the Ferries Division capital program. We went from legislative funding to plan and build improved and multimodal terminals, to pulling the Steel Electric Class vessels, daily service impacts of aging vessels without replacement, and building new vessels in a short period of time to maintain the current level of service. The capital administrative staffing has and will continue to reflect this shift. While several of the recommendations within this report address right sizing staffing and consulting levels of the capital program, these efforts will become easier when Ferries capital funding levels become more predictable.

Second, we made changes in Terminal Engineering use of on-site consultants at the end of 05/07 and during the first year of the current 07/09 biennium, resulting in a substantial reduction in consultant use.

Third, we recently combined Vessel Engineering unit with Vessel Maintenance and Preservation, resulting in more efficient administration.

Finally, as called for within ESHB 2878, we are in process of identifying core staff and competencies necessary to deliver the current capital program.

The Department agrees with all but one of the 17 recommendations. The Department does not concur with the draft recommendation of a hiring freeze and would suggest instead that the report reference the staffing proviso in the 2008 transportation budget bill (ESHB 2878), which requires WSF to maintain capital staffing levels at or below the level of staffing as of January 1, 2008.

Many of the remaining 16 recommendations are being addressed by strengthening business rules; and clarifying the processes, procedures, and oversight of capital administrative expenditures. Working with OFM and the Governor's Office, we will continue to review and improve our capital program reporting capabilities to the legislature.

Summary of Recommendations and Department Response

Area	Short-Term Recommendations	Medium-Term Recommendations	Long-Term Recommendations
Capital Staffing: Staff Budgeted in the Capital Budget			
Staffing levels and vacancies	<p>Recommendation 1. Current capital position vacancies should not be filled until the Draft Long-Range Plan is complete and decisions on staffing can be informed by the Plan.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Department Does Not Concur: Suggest instead that the report reference the staffing proviso in the 2008 transportation budget bill (ESHB 2878), which requires WSF to maintain capital staffing levels at or below the level of staffing as of January 1, 2008.</p> </div>	<p>Recommendation 2. Future vacancies in capital staff positions should not be filled until the completion of the Long-Range Plan, unless absolutely critical to project delivery.</p> <div style="border: 1px solid black; padding: 2px; margin-top: 10px;"> <p>Department Concur</p> </div>	
Administrative Work Order	<p>Recommendation 3. Ferries should distinguish administrative work order charges to projects from direct staff charges to projects in order to facilitate legislative and management understanding of capital project costs.</p> <div style="border: 1px solid black; padding: 2px; margin-top: 10px;"> <p>Department Concur</p> </div>	<p>Recommendation 5. Terminal Engineering should review its structure and anticipated ongoing charges to the administrative work order.</p> <div style="border: 1px solid black; padding: 2px; margin-top: 10px;"> <p>Department Concur</p> </div>	
	<p>Recommendation 4. Ferries should review staff authorized to charge to the administrative work order and fully implement the established procedures for authorizing such charges.</p> <div style="border: 1px solid black; padding: 2px; margin-top: 10px;"> <p>Department Concur</p> </div>		

Area	Short-Term Recommendations	Medium-Term Recommendations	Long-Term Recommendations
Project Work Orders		<p>Recommendation 6. Ferries should review staffing in its engineering divisions to ensure core competency in, and a focus on, terminal and vessel preservation, with staffing sufficient to implement the preservation program proposed in the upcoming Long-Range Plan.</p> <p>Department Concur</p>	
		<p>Recommendation 7. Ferries should clearly distinguish responsibility for terminal improvement projects, and for vessel construction and systemwide vessel improvement projects, from its preservation responsibility in order to ensure a focus on preservation.</p> <p>Department Concur</p>	
Capital Staffing: Operating Staff Charges to Capital Program			
Operations Construction Support capital charges	<p>Recommendation 8: Ferries should evaluate operating budget staff charges to the terminal operations construction support project to determine whether they are appropriate capital program expenses.</p> <p>Department Concur</p>		
Other operating staff capital charges	<p>Recommendation 9: Ferries should review and determine whether charges to the capital program from information agents, vessel engineering crews, vessel deck crews, and terminal staff are appropriate capital charges, and whether these charges should be</p>		<p>Recommendation 10: Ferries should develop and implement a policy on charges by information desk, terminal, vessel deck, and vessel engineering staff to the capital program.</p> <p>Department Concur</p>

Area	Short-Term Recommendations	Medium-Term Recommendations	Long-Term Recommendations
	separately identified in project budgets. Department Concur		
Capital Staffing: On-Site Consultants			
Use of on-site consultants	Recommendation 11: Terminal Engineering should continue to review and, where appropriate, reduce expenditures on on-site consultants. Department Concur	Recommendation 13: The use of on-site consultants should be based on Ferries' decisions on the delivery method for, and scheduling of, preservation and terminal improvement/new vessel construction, and vessel systemwide improvement projects. Department Concur	
	Recommendation 12: Ferries should review its use of long-term on-site consultants. Department Concur		
Non-Staff Capital Administration Expenses: Administrative Expenses for Specific Capital Projects			
Scheduling system cost			Recommendation 14: WSDOT should review the cost-benefits of continued use of the Primavera scheduling system for Ferries. Department Concur
Non-Staff Capital Administration Expenses: Other Administrative Capital Services and Charges			
Identifying administrative expenses			Recommendation 15: Ferries should separately identify the capital administration services and charges for review by the legislature. Department Concur

Area	Short-Term Recommendations	Medium-Term Recommendations	Long-Term Recommendations
Management Communication and Oversight			
Organization chart	<p>Recommendation 16. Ferries should develop and present to the legislature an organization chart that shows only funded positions and denotes which legislatively adopted budget the chart represents.</p> <p>Department Concur</p>		
Baselines and performance measures			<p>Recommendation 17. Ferries should develop baseline information and performance measures for the percentage of the capital program and individual capital project budgets that should be devoted to capital staffing and administration expenses.</p> <p>Department Concur</p>

Section I. Purpose and Scope of Review

A. Purpose

The 2007 Legislature directed the Joint Transportation Committee (JTC) to review the Washington State Department of Transportation (WSDOT) Ferries Division (Ferries) administrative and systemwide capital costs (ESHB 1094 §205(1)(b)(iii)). This review is particularly important in light of the recommendation in the *Washington State Ferries Financing Study Final Report*, January 2007, that future ferry planning should recognize a likely significant shortfall in long-term capital funding, the magnitude of which cannot be determined until the completion of ridership, level-of-service standard, and pricing and operation strategy reviews (p. 67).

This report provides information on Ferries' capital program expenses that will inform development of a revised Long-Range Plan and associated capital budget, as required by ESHB 2358. In addition, this report provides information critical to the long-term financing studies currently being conducted, at the direction of the legislature, by the JTC and the Washington State Transportation Commission (WSTC) (ESHB 1094 §206(2) & §205 (1)(c)(ii)).

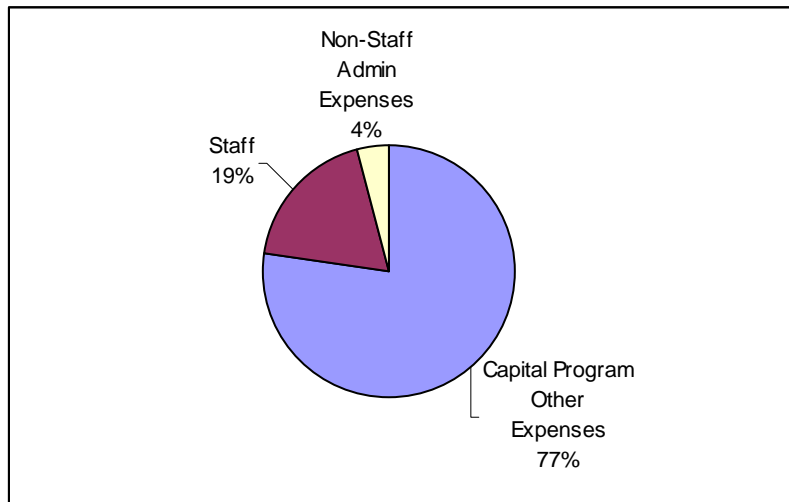
B. Scope of Report

The Ferries budget is divided into an operating program, which maintains and operates the vessels and terminals, and a capital program, which preserves and improves the vessels and terminals. This report addresses only the capital program. More specifically, to respond to the legislative direction and inform future ferry financing, this report focuses on two areas of the capital program:

- **Staffing:** includes all Ferries' staff who charged their time to the capital program, and on-site consultants for the capital program. Staffing represents 19 percent of the total capital program costs in the 2005-07 biennium.
- **Non-staff administration costs:** includes administrative expenses for specific capital projects (such as scheduling systems, and legal and communications charges), and overhead charges to the capital program (such as leases, office equipment and training). These costs represent 4 percent of the total capital program costs in the 2005-07 biennium.

Figure 1 below shows the relative size of these two "slices" of the total capital program in the 2005-07 biennium.

Figure 1
Expense Areas Reviewed in Relation to Capital Program,
2005-07 Biennium



Because Ferries is developing a revised Long-Range Plan and capital budget, the consultants' recommendations are identified as short-term, medium-term and long-term recommendations.

- *Short-term recommendations* are those that the legislature and/or Ferries could undertake immediately. Some of the short-term recommendations are in areas where Ferries has already taken strides to reduce costs during the 2007-09 biennium.
- *Medium-term recommendations* are for consideration as Ferries completes its Long-Range Plan, and as the JTC and WSTC complete long-term financing studies.
- *Long-term recommendations* are for consideration following the adoption of the capital program in the 2009 session.

C. Sources and Methods

The consultants used data from the most recent full biennium – 2005-07. Data gathering began in October of 2007, so there were insufficient 2007-09 data to provide useful information. Because of this, the underlying data do not reflect organizational changes made by Ferries since July 1, 2007. The text of this report notes those changes where appropriate.

Ferries has cooperated fully in the development of this report. The 2005-07 biennium staffing and administration costs information that the consultants analyzed for this report was provided by Ferries' finance, human resources and contract management systems.

The capital program expenditures in the 2005-07 biennium were spread throughout the Ferries divisions, with the only group not incurring capital expenses being the Office of

the Assistant Secretary/Executive Director. The reports Ferries provided³ and that consultants used included:

- 2005-07 biennium organization chart
- Capital program expenditures data (CPED) construction variance report for the 2005-07 biennium
- On-site consultants, 2005-07 biennium
- Overhead labor costs by staff position 2005-07 biennium – charges to the administrative work order
- Program W 2005-07 organization object direct cost distribution
- Expenditures by project for Vessel Engineering project positions 2005-07
- Expenditures by project for Terminal Engineering project positions 2005-07
- 2005-07 staff positions charging to systemwide projects
- Capital program vacancy list – Feb. 1, 2008

In addition, the consultants interviewed Ferries staff and used project information received in developing two prior reports: (i) *WSDOT Ferries Division Financing Study Final Report*, January 2007, *Appendix C. Capital Program Prioritization and Terminal and Repair Facility Capital Projects Review*, and (ii) *Auto-Passenger Vessel Preservation and Replacement Final Report of WSDOT Ferries Division Financing Study II*, January 2008.

D. Baseline Measures

Ferries has not established baselines or performance measures that provide a way to assess whether the costs analyzed in this report are reasonable. A standard way of analyzing expenses in a capital program is as a percentage of the total costs of that program. This report, therefore, uses Ferries' 2005-07 capital expenditure data to provide baseline percentages of capital program expenditures from which benchmark performance measures can be developed in the future.

³ This report is based on expenditure data. Ferries also provided labor hour information. Ferries notes, however, that there are discrepancies in the databases between the "FIRS" system, used to provide labor dollars and hours by PIN, and the "Labor Datamart" system, which provides individual Ferries staff hours charges to projects. The Labor Datamart system does not produce project-level roll-ups, whereas FIRS does. Ferries has concluded that the FIRS data are more accurate than the Labor Datamart data. The consultants have, therefore, relied on the FIRS project-level data and based the report on expenditure data available from that system.

Section II. Size of Capital Program

The Ferries capital program includes three areas: terminals, vessels, and emergency repairs. The size of the Ferries capital program is the key determinant of capital staff and administration requirements. For example, the terminal capital program will drive the requirements for Terminal Engineering staff and administration, while the vessel capital program will drive Vessel Engineering.

This report is based on expenditures in the 2005-07 biennium. As discussed in Section I, Ferries is developing a new Long-Range Plan and revised capital budget as required by ESHB 2358. The JTC and WSTC are conducting ferry financing studies that will also affect the future size of the capital program. The Long-Range Plan and recommendations from the ferry financing studies will be presented to the legislature in the 2009 session.

Capital expenditures in the 2005-07 biennium totaled \$183.1 million, of which 56 percent was on the terminal capital program, 41 percent on the vessel capital program and 3 percent for emergency repairs.

Table 1
Capital Budget Distribution 2005-07
By Major Project Categories
(\$ millions)

	\$	%
Terminals	102.0	56%
Vessels	76.0	41%
Emergency Repairs	5.1	3%
Total	183.1	

In the 2005-07 biennium, Ferries' expenditures of \$102 million on terminal capital projects were largely to support major new or improved terminals at Anacortes, Bainbridge Island, Edmonds, Keystone, Mukilteo, Port Townsend, and Seattle. These projects have been placed largely on hold by the Legislature for the 2007-09 biennium pending revisions to Ferries' Long-Range Plan as required by ESHB 2358.

Expenditures in the 2005-07 biennium on auto-passenger vessels were reviewed in the *Auto-Passenger Vessel Preservation and Replacement Final Report of WSDOT Ferries Division Financing Study II*, January 2008.

Section III. Capital Staffing: Findings and Recommendations

This section provides the consultants' findings, analysis and recommendations in three areas of capital staffing: staff budgeted in the capital budget; staff budgeted in the operating budget charging to the capital budget; and on-site consultants charging to the capital budget. Together in the 2005-07 biennium these staff costs were 19 percent of Ferries' total capital expenses.

An important finding in this section is that there are areas in which Ferries and the legislature should consider immediate cost reductions. The consultants also recommend a review of staff expenses in the development of Ferries' Long Range Plan and associated capital budget, with particular attention given to meeting the ongoing requirements of the vessel and terminal preservation programs. Over the long term, this section recommends developing performance measures for the percentage of the capital program and individual capital projects that Ferries should spend on staff.

A. Staffing Overview

Staff charges in the capital program include: (1) charges from staff whose positions are budgeted in the capital budget; (2) charges from staff whose positions are budgeted in the operating budget; and (3) charges from consultants who have offices at Ferries headquarters, provide project management, engineering and support capacities, and are either identified in the accounting system as on-site or were so identified by Ferries staff.

1. 2005-07 Ferries Total Staff Positions

This review is based on the 2005-07 Ferries organization chart. Ferries has a total staff of 1,629 full-time equivalent (FTE) positions. Of these positions, 320.25 FTEs are headquarters positions. Figure 2 below shows the relative size of Ferries headquarters staff compared to operating staff, and the breakout by budget category of the 320.25 FTE headquarters staff.

**Figure 2
Ferries Total Staff 2005-07**

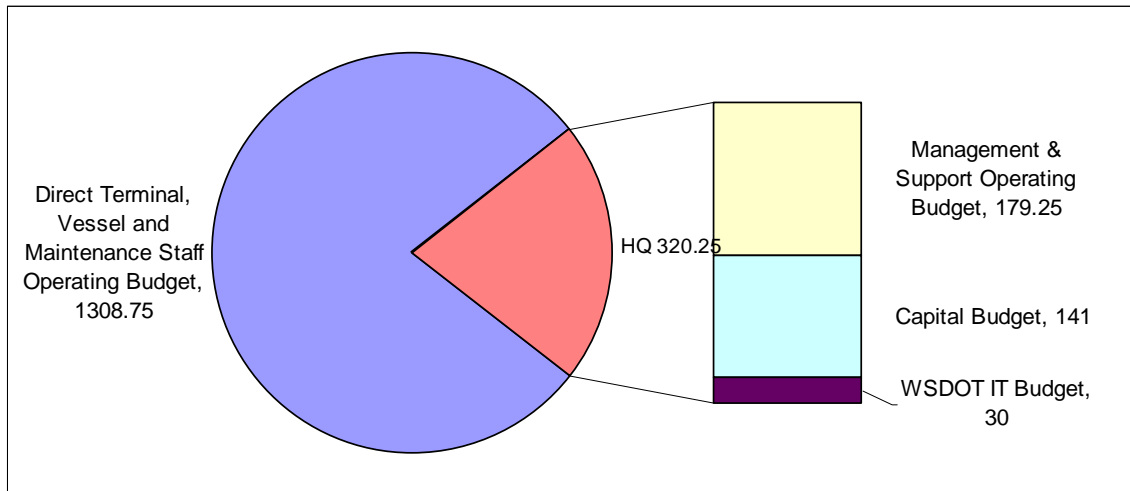
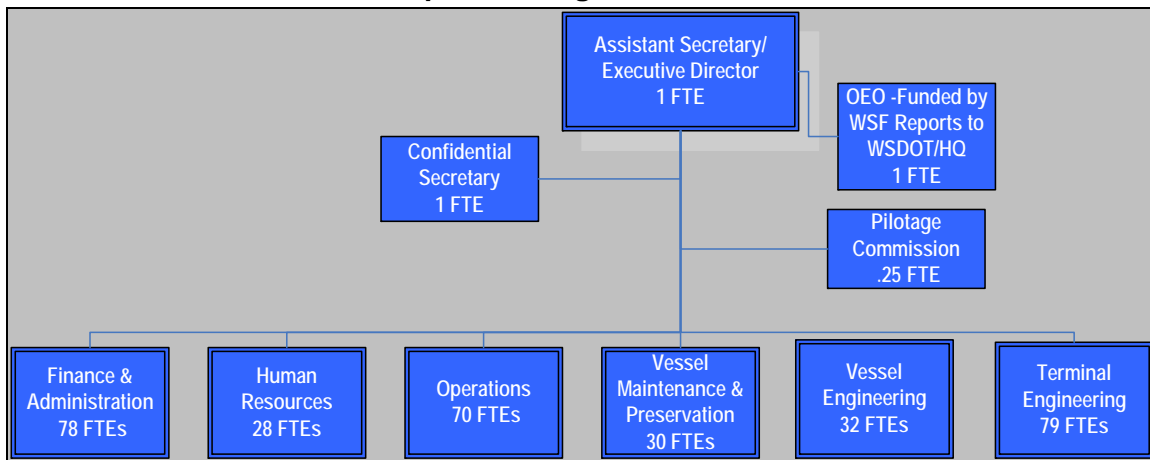


Figure 3 below shows the organization chart for the 320.25 headquarters positions.⁴ The other Ferries staff, not included in this chart, are terminal, vessel, and maintenance staff.

**Figure 3
Ferries Headquarters Organization Chart, 2005-07**



Of the 320.25 headquarters FTEs in 2005-07, a total of 141 were supported by the capital budget.⁵ These 141 positions represent 44 percent of the headquarters positions, and 3 percent of Ferries' total staff (the light blue breakout section in Figure 2 above).

⁴ Ferries re-organized in the 2007-09 biennium to create a Deputy Director position to which some sections of the 2005-07 Finance and Administration Division and the Operations Division now report. Ferries re-organized again in March 2008 to merge the Vessel Engineering and the Vessel Maintenance and Preservation Divisions.

⁵ The Office of Financial Management's approved allotment of capital positions to Ferries was 131. The Ferries organization chart has not been reconciled by Ferries to the OFM allotment.

This review looks at the 141 FTE positions budgeted in the capital budget.⁶ The table below shows the breakdown of these positions by Ferries division, compared to the total headquarters staff in each division.

**Table 2
Headquarters FTEs by Division 2005-07 Biennium**

Ferries Division	Total HQ Staff FTEs	Capital HQ Staff FTEs	Capital as % of Total HQ FTEs
Executive	2.25	0	0%
Funded by Ferries - Reports to WSDOT	1	0	0%
Finance & Administration	78	15	19%
Human Resources	28	4	14%
Operations	70	9	13%
Vessel Maintenance & Preservation	30	6	20%
Vessel Engineering	32	31	97%
Terminal Engineering	79	76	96%
Total FTEs	320.25	141	44%

* In the Ferries organization chart, 2 FTE of the Terminal Engineering capital project positions are supported by operating budget charges as are 3 FTE of the capital project positions in Vessel Engineering. These are accounted for by charges from numerous positions to the operating budget.

2. Staff Budgeted in the Capital Budget: Charging Time

Ferries uses a work order based system for staff time charged to the capital program. Staff budgeted in the capital budget can charge their time one of two ways to the capital budget and may also charge time to the operating budget:

- *Capital administrative work order:* This work order is used to charge for time devoted to the overall administration of the capital program. Charges are distributed by various formulas to individual capital projects.⁷
- *Capital project work orders:* These work orders reflect staff time charged directly to a specific capital project.
- *Operating budget (Program X):* Capital staff also charge to the operating budget when undertaking activities in support of operating budget activities.

3. Operating Budget Staff: Charging Time to the Capital Budget

Some of the staff whose positions are funded in the operating budget also charged time to the capital budget in 2005-07. These staff include vessel deck and engineering crews,

⁶ Ferries divides the capital program staff into “program” positions, which are not aligned to a particular capital project, and “project” positions, which support specific capital projects. However, the consultants found little practical difference between these two categories in terms of how their time was charged in the 2005-07 biennium.

⁷ Ferries’ cost allocation of the administrative work order charges is being revised in accordance with legislative direction in (ESHB 1094 §(section 225 (8)(d)). In the 2005-07 biennium, charges were distributed based on shared costs to benefiting projects. See *Washington State Ferries Implementation of ESHB 2358 Laws of 2007 Relating to Capital Cost Allocation Plan*, July 2007, for more information on the cost allocation formulas used in the 2005-07 biennium and planned modifications.

terminal staff, and information agents. The review does not include charges to the capital program by the Eagle Harbor Repair and Maintenance Facility staff.⁸

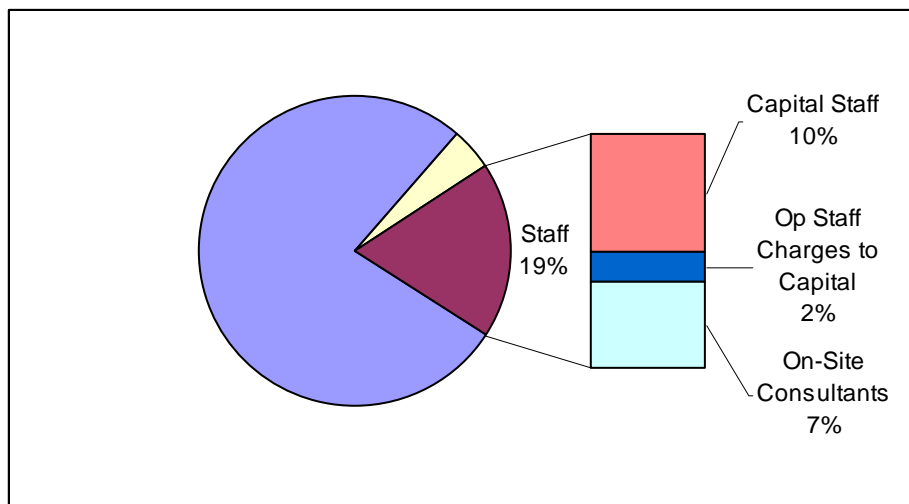
4. On-Site Consultants: Charging Time to the Capital Budget

This review looks at Ferries' use of on-site consultants. These are consultants who have offices at Ferries headquarters, provide project management, engineering and support capacities, and are either identified in the accounting system as on-site or were so identified by Ferries staff.

B. Total Capital Program Staffing Costs

In the 2005-07 biennium, Ferries incurred costs of \$33.8 million to the capital program for staff time and on-site consultants. This cost represents 19 percent of the total capital program costs of \$183.1 million for the biennium. Figure 4 below shows the relative size of the capital staffing costs within the 2005-07 capital program. Table 3 shows the breakdown of these costs by type and Ferries division.

Figure 4
2005-07 Capital Staff Charges by Staff Category



⁸ See *Washington State Ferries Financing Study II: Auto-Passenger Vessel Preservation and Replacement Final Report*, January 2008, for a discussion of Eagle Harbor capital expenses. Work at the Eagle Harbor Repair Facility in the capital program is construction in support of vessel and terminal improvements.

Table 3
Staffing Charges to Capital Budget by Division, 2005-07 Biennium
(\$ millions)

Staff Charges	\$ Terminal Eng.	\$ Vessel Eng.	\$ Vessel Maintenance & Pres.	\$ Admin. Divisions*	\$ Ops.	Total \$	% of Capital Program Cost
Capital staff charges to admin. work order	1.4	0.6	0.3	2.0		4.3	
Capital staff charges to project work orders	7.0	4.8	0.7		0.5	13.0	
<i>Sub-total capital staff charges</i>	<i>8.4</i>	<i>5.4</i>	<i>1.0</i>	<i>2.0</i>	<i>0.5</i>	<i>17.3</i>	<i>10%</i>
Operating staff charges to capital			1.1	0.3	2.9	4.3	2%
On-site consultants	8.7	2.1	0.2	0.2	1.0	12.2	7%
Total Capital Staffing Costs	17.1	7.5	2.3	2.5	4.4	33.8	
Ferries Capital Program Cost						183.1	19%

* Includes Finance and Administration, Human Resources and Communications

Using 2005-07 data, consultants identified the following baselines for future analyses of capital program staffing:

- Capital staff charges were 10 percent of total capital program expenses.
- Operating staff charges to the capital program were 2 percent of all capital program costs.
- On-site consultant charges to the capital program were 7 percent of all capital program costs.
- In total, capital program staffing accounted for 19 percent of capital program expenses.

For details of each division’s organizational structure and capital staffing costs in the 2005-07 biennium, see the Appendices (Appendix A. Terminal Engineering; Appendix B. Vessel Engineering, and Vessel Maintenance & Preservation; Appendix C. Administrative Divisions, including Finance & Administration, Human Resources, and the Communications Section of the Operations Division; and Appendix D. Operations).

C. Staff Budgeted in the Capital Budget

Core Questions: How were the 141 staff positions budgeted in the capital budget allocated in the 2005-07 biennium? On what basis should future staffing levels be set?

1. Findings and Recommendations: Staffing Level and Vacancies

Charges to the capital budget for the 141 capital staff were \$17.3 million, 10 percent of the \$183.1 million capital program expenses in the 2005-07 biennium, as shown in Table 3. Capital staff also charged \$1.2 million to the operating budget, for a total expense of \$18.5 million. The distribution of the 141 capital positions by Ferries division for 2005-07, and the amounts they charged to capital projects, the administrative work order, and the operating budget are shown in Table 4, below.

Table 4
Total Distribution of Capital Staff and Expenses Charged to Capital and Operating Budgets, 2005-07 Biennium
(\$ millions)

	# Capital FTEs	\$ Charged to Cap. Project	\$ Charged to ADM	\$ Charged to Operating	\$ Total	% of Capital Staff Expense by Ferries Division
Finance & Administration	15		1.6		1.6	9%
Human Resources	4		0.3		0.3	2%
Operations	5	0.5	0.0		0.5	3%
Communications	4		0.1		0.1	1%
Vessel Maintenance & Preservation**	6	0.7	0.3		1.0	5%
Vessel Engineering	31	4.8	0.6	0.7	6.1	33%
Terminal Engineering	76	7.0	1.4	0.5	8.9	48%
Total	141	13.0	4.3	1.2	18.5	
% of Capital Staff Expense by Budget Category		70%	23%	7%		

* ADM = Administrative Work Order

** Administrative work order charges include \$0.2 million charged in error by Vessel Chief Engineer staff.

While the tables above are for the 141 capital positions Ferries reported in the 2005-07 biennium, in the current biennium (2007-09), Ferries has 134 funded capital positions. Of these 134 positions, 13 are vacant (as of February 1, 2008). Eleven (11) of the vacancies are in Terminal Engineering, which has 69 funded capital positions in the 2007-09 biennium. Two (2) of the vacancies are in the Finance and Administration division, which has seven (7) funded positions.

Ferries does not plan to fill any of the vacant Terminal Engineering positions, recognizing that the reductions in the terminal program in the 2007-09 biennium and the uncertainty surrounding the long-term terminal capital program make hiring unwise. Ferries plans to fill one of the two vacant positions in the Finance and Administration division, specifically, a position designated to support the Primavera scheduling system used by Terminal Engineering. (For more on the Primavera system, see the discussion of Recommendation 14, in Section IV, below.)

Given the current re-analysis of Ferries' capital program, hiring of capital staff to fill existing vacancies should be carefully considered. With the exception of the one position in Finance and Administration, this recommendation is consistent with actions Ferries is already taking to reduce costs. Future decisions on the size of the capital program staff should focus on core competencies required to preserve Ferries' terminals and vessels.

Recommendation 1 (Short-term): *Current capital position vacancies should not be filled until the Draft Long-Range Plan is complete and decisions on staffing can be informed by the Plan.*

Department Response 1: The department recognizes the need to carefully consider hiring decisions prior to the completion of the Draft Long-Range Plan and has already taken steps to hold some vacant positions. It is important that the department's core staffing levels reflect the size and complexity of the capital program as determined by the enacted budget and ultimately the long-range plan. However, the department does not concur with the draft recommendation of a hiring freeze and would suggest instead that the report reference the staffing proviso in the 2008 transportation budget bill (ESHB 2878), which requires WSF to maintain capital staffing levels at or below the level of staffing as of January 1, 2008. This approach would allow for filling of the most critical permanent needs while deferring all less critical vacancies. The recommendation, as currently drafted, would preclude WSF ability to fill core program support positions and critical priority vacancies, instead requiring increased reliance on consultant support in order to deliver the 2007-2009 program.

Ferries should carefully review any other vacancies that occur between now and the completion of the 2009 legislative session. The consultants recommend that the most prudent course of action, given the uncertainties surrounding the size and sequencing of the Ferries capital program, would be to freeze hiring. However, the consultants also recognize that critical vacancies may occur that will require hiring despite the uncertainties.

Recommendation 2 (Medium-term): *Future vacancies in capital staff positions should not be filled until the completion of the Long-Range Plan, unless absolutely critical to project delivery.*

Department Response 2: We concur with the recommendation. The department will focus on ensuring the core staff and competencies required to deliver the capital program as enacted by legislature. Future staffing needs will be determined upon completion of the revised Long-Range Plan.

2. Findings and Recommendations: Administrative Work Orders

Capital staff can charge their time to: (1) specific capital projects, through the project work orders; (2) the general capital program, through the administrative work order; or (3) the operating budget. As shown in Table 4, above, of the \$18.5 million in capital position expenses, 23 percent (\$4.3 million) was charged to the administrative work order. The 141 capital staff charged the bulk of their time (70 percent) to specific capital projects, and a small amount (7 percent) to the operating budget.

That 23 percent of capital staff time was charged to the administrative work order warrants review. The administrative work order is intended by Ferries to represent overhead charges. The Ferries budget system distributes these charges across groups of

capital projects. As described by Ferries, staff charging to the administrative work order fall into two categories. The first is those positions in traditional overhead positions (e.g., accountants) who charge 100 percent of their time to the administrative work order. The second category is positions that would normally charge their time to projects but on an “exception basis” are allowed to charge to the administrative work order with approval of their Senior Manager and Program and Budget Development.⁹

However, in 2005-07, almost all staff budgeted in the capital budget charged at least some of their time to the administrative work order. Moreover, 18 percent of the 141 positions charged nearly all their time to the administrative work order. Table 5 below shows a breakdown by division of positions charging 90 percent or more of their time to the administrative work order. Of special note is the Terminal Engineering Division, which has nearly as many staff positions with high charges to the administrative work order (10 FTEs) as did the Finance and Administration Division (11 FTEs), where administrative charges would be expected. Consultants found that of the 76 capital positions in Terminal Engineering, a total of 41 charged at least some of their time to the administrative work order (see Appendix A, Table A-3).

Complicating the issue is the fact that in Ferries’ financial reporting systems, the administrative work order charges are intermingled with staff design (work group 70) and staff construction (work group 60) charges to projects. So consultants were not able to distinguish the amount allocated to individual projects from distributed administrative work order charges.

Table 5
Capital Staff Charging 90 Percent or More to Administrative Work Order,
2005-07 Biennium

	Capital FTEs	FTEs Charging 90%+ to ADM*	% FTEs Charging 90%+ ADM
Finance & Administration	15	11	73%
Human Resources	4	3	75%
Operations	5		0%
Communications	4	1	25%
Vessel Maintenance & Preservation	6	0	0%
Vessel Engineering	31	1	3%
Terminal Engineering	76	10	13%
Total	141	26	18%
% of Total Capital Staff Expense			

* ADM = Administrative Work Order

The consultants note that the administrative work order is intended to be an exceptions charging center for non-administrative capital staff. Given the level of charges to the

⁹ Source: Ferries Program Development and Management Response to Data Request 1e from the Cedar River Group: “Clarification of approval of administrative charges ‘State Labor Force’ to capital projects,” Oct. 2007.

administrative work order in the 2005-07 biennium, it appears that the use of the administrative work order is not in conformance with established Ferries policy. ESHB 2358 (Section 9) requires Ferries to identify separately the administrative charges in project budgets.

Recommendation 3 (Short-term): *Ferries should distinguish administrative work order charges to projects from direct staff charges to projects in order to facilitate legislative and management understanding of capital project costs.*

Department Response 3: We concur with the recommendation. We are in process of strengthening business rules that will formalize the distinction between administrative and project related direct staff charges.

An important consideration in determining the appropriate size of the capital program staff is to understand staffing required for administrative purposes, which cannot be done when almost all staff charge time to this work order.

Recommendation 4 (Short-term): *Ferries should review staff authorized to charge to the administrative work order and fully implement the established procedures for authorizing such charges.*

Department Response 4: We concur with the recommendation. We are in process of strengthening business rules that will formalize approval and oversight of administrative charges.

Of special concern are the charges to the administrative work order from the Terminal Engineering Division, where charges to the administrative work order were particularly high. Terminal Engineering had 33 percent of all charges to the administrative work order and 10 positions that charged 90 percent or more of their time to the administrative work order. In reviewing staffing, Ferries should determine its headquarters structure, then project the costs anticipated to be charged to the administrative work order.

Recommendation 5 (Medium-term): *Terminal Engineering should review its structure and anticipated ongoing charges to the administrative work order.*

Department Response 5: We concur with the recommendation, and are in process of developing and implementing procedures to formalize the process. The strengthened business rules will clarify the type of work that will be charged to the administrative work order, which should result in fewer terminal engineering staff charges to this work order.

3. Findings and Recommendations: Project Work Orders

Three Ferries divisions are responsible for preservation and improvement of the system's terminals and vessels. The Terminal Engineering division is responsible for the preservation and improvement of Ferries' 20 terminals, and the Eagle Harbor Repair and

Maintenance Facility. The Vessel Engineering Division and the Vessel Maintenance and Preservation Division are responsible for the preservation and improvement of Ferries' fleet, and for the design and construction of new vessels. In addition, the Operations Division's capital staff has responsibilities for one of the systemwide projects.

For the 2005-07 biennium, the consultants found the following staff charges to capital projects:¹⁰

- *Terminal Engineering* capital staff charged \$7 million to capital project work orders, representing 78 percent of the Division's total capital staff charges.
- *Vessel Engineering* capital staff charged \$4.8 million to capital projects, representing 79 percent of the Division's total capital staff charges.
- *Vessel Maintenance and Preservation* capital staff charged \$0.7 million to capital projects, representing 70 percent of the Division's total capital staff charges.
- *Operations* capital staff had a total of \$0.5 million in capital charges, all of which was to systemwide projects. The systemwide operations construction support project accounted for \$0.3 million of these charges.

Reviewing the individual capital projects, the consultants found that the Terminal Engineering and Vessel Engineering divisions charged less than half of their staff time on preservation projects. Staff time in these two divisions was charged primarily to vessel and terminal improvement, new vessel construction and systemwide projects. This follows the pattern of expenditures in the capital program, where for example, the *Auto-Passenger Vessel Preservation and Replacement Final Report of WSDOT Ferries Division Financing Study II* found that in the 2005-07 biennium, vessel preservation projects were underspent by 21 percent from that anticipated in the 2006 legislative session, while systemwide projects were overspent by 17 percent (pp. 54-56).

- *Terminal Engineering*: Of \$7 million in staff time charged to project work orders, only 35 percent was for terminal preservation projects. Fifty (50) percent was for major improvement projects at Mukilteo, Bainbridge, Anacortes, Keystone, Port Townsend, Edmonds and Seattle; and 15 percent was for systemwide projects.
- *Vessel Engineering*: Of \$4.8 million in staff time charged to project work orders, only 45 percent was for preservation projects. The rest of the staff charges were split among systemwide projects (31 percent), new vessel construction (20 percent), and terminal projects and emergency repairs (4 percent). In addition, the consultants note that some staff identified as "preservation" in the organizational chart did not charge to this activity. For example, there are three Project Engineers identified on the organization chart as Preservation and Improvement positions. As discussed in Appendix B, these three positions, along with the Vessel Project Secretary, charged only 32 percent of their time to vessel preservation projects in the 2005-07 biennium. In addition, the three Vessel

¹⁰ The percentages of time charged to projects are calculated as a percentage of total time charged to the capital budget and to the operation budget by staff within these divisions.

Engineering design sections charged less than 50 percent on vessel preservation projects, as discussed in Appendix B.

The Vessel Maintenance and Preservation Division was primarily focused on vessel preservation in the 2005-07 biennium. Of \$0.7 million in staff time charged to project work orders, 98 percent was for vessel preservation projects and 2 percent for systemwide projects.

The consultants have concerns about devoting considerable staff resources to improvement and systemwide projects which may be at the expense of preservation projects. The *Auto-Passenger Vessel Preservation and Replacement Final Report of WSDOT Ferries Division Financing Study II*, January 2008, recommended a realignment of vessel staff to focus on improving vessel maintenance, and noted significant under-spending of the vessel preservation budget in the 2005-07 biennium.

Recommendation 6 (Medium-term): *Ferries should review staffing in its engineering divisions to ensure core competency in, and a focus on, terminal and vessel preservation, with staffing sufficient to implement the preservation program proposed in the upcoming Long-Range Plan.*

The consultants suggest the following considerations for this review:

- *Terminal Engineering:* In Terminal Engineering less staff support is expected to be required for the preservation program given modifications to the terminal life-cycle cost model, which has reduced the preservation program by \$106 million in the 16-year financial plan (2007-23). The Ferries Long-Range Plan will include a projected terminal preservation program based on this revised life-cycle cost model and investments needed for scour prevention, regulatory compliance and seismic improvements. ESHB 2358 requires that the preservation program be based on the life-cycle cost model, as updated by condition assessments, and include pre-design studies for all preservation projects of more than \$5 million. Terminal Engineering staff should be consistent with these requirements and with the Long-Range Plan.
- *Vessel Engineering and Vessel Maintenance and Preservation:*¹¹ The consultants recommend that Ferries focus Vessel Engineering and Vessel Maintenance and Preservation on key vessel preservation program improvements recommended in the *Auto-Passenger Vessel Preservation and Replacement Final Report of WSDOT Ferries Division Financing Study II*, and on full implementation of the vessel preservation program in the Long-Range Plan. Focusing on preservation will require a realignment of staff resources, which was a recommendation of the *Auto-Passenger Vessel Preservation and Replacement Final Report*.

¹¹ In March 2008 Ferries re-organized and merged the Vessel Engineering and the Vessel Maintenance and Preservation divisions.

Recommendation 7 (Medium-term): *Ferries should clearly distinguish responsibility for terminal improvement projects, and for vessel construction and systemwide vessel improvement projects, from its preservation responsibility in order to ensure a focus on preservation.*

Department Response 6 and 7: We concur with the recommendations. Core competencies and staffing levels will align with the project list passed by the legislature and the Long-Range Capital Plan. Specific future staffing needs, including those associated with vessel construction, terminal improvement, and systemwide improvement projects, will be determined upon completion of the revised Long-Range Plan. For those projects where preservation work may be included within an improvement project, we are developing budget allocation methods that will improve our ability to clearly differentiate between preservation and improvement expenditures.

The consultants suggest the following considerations for this review:

- *Terminal improvements:* The Ferries Long-Range Plan will include a projection of the size, scope, cost and sequencing of major new and improved terminals. This information should be used by Terminal Engineering to determine the staff needed for improvement projects. The consultants recommend that Terminal Engineering consider approaching these projects as an owner-developer, managing the work of outside design and construction firms. Staffing per project under this approach should be based on a percentage of project costs and should not exceed 3.5 percent of project costs (based on private sector experience). Design should be accomplished by outside firms. Construction inspection and testing should be conducted by outside experts, with an anticipated cost in the range of 0.5 percent to 1 percent of construction costs.¹²
- *New vessel construction:* Ferries should consider creation of a section devoted to new vessel construction and to systemwide improvement projects as a way to prevent delays in the preservation program. New vessel construction will be reviewed by the JTC in its ongoing work in support of ESHB 2358. Streamlining new vessel planning and construction to ensure timely, appropriate and business-case based recommendations on vessel replacement will be crucial to the long-term stability of the ferry system. Concerns about the length of time it takes to make vessel decisions have risen in intensity since the closure of the auto ferry service on the Keystone-Port Townsend route, while the new 144-car vessel procurement project has been delayed by lawsuits and other problems.¹³
- *Vessel systemwide projects:* Vessel systemwide projects were reviewed in the *Auto-Passenger Ferry Preservation and Replacement Final Report*.¹⁴ These

¹² Source: R.L. Collier, "Typical in-house staff costs don't exceed 3.4% on a private project." Feb. 3, 2008 review.

¹³ See discussion in Appendix C of the *Auto-Passenger Vessel Preservation and Replacement Final Report of WSDOT Ferries Division Financing Study II*, January 2008.

¹⁴ See pages 50-53 for a discussion of Vessel Systemwide projects.

projects are largely improvements to existing vessels. The *Auto-Passenger Ferry Preservation and Replacement Final Report* recommends that, in conformance with ESHB 2358, vessel improvements be distinguished from vessel preservation and that vessel preservation be given priority over improvements.

D. Operating Staff Charges to Capital Program

Core questions: What is the level of operating budget staff charges to the capital program? Should these costs be reduced?

1. General Findings

Operating budget staff—such as terminal, vessel and information agent staff—assist in the delivery of the capital program. Operating staff charged \$4.3 million to the capital program in the 2005-07 biennium, representing 2 percent of all capital program costs. As shown in Table 3, these charges came from the following three groups:

- *Vessel Maintenance and Preservation Division* engineering room crews charged \$1.1 million of labor costs to the capital program.¹⁵ A breakdown of the charges by project is not available.
- *Operations Division* terminal staff and vessel deck staff charged a total of \$2.9 million to capital projects. Forty-two (42) percent of these charges were to two projects: systemwide terminal operations construction support project (\$1.0 million) and the systemwide terminal point of sale replacement project (\$0.2 million). No detail was available on the remainder of the charges (\$1.7 million).
- *Communications Section* information agents charged \$0.3 million to the capital program. There was no information on which particular projects within the capital project were charged.

2. Findings and Recommendations: Construction Support

One systemwide project alone, Terminal Operations Construction Support, cost \$1.0 million in operating staff time—\$0.8 million for terminal staff and \$0.2 million for vessel deck staff.¹⁶ This project is described in budget documents as: “Promotes government efficiency and effectiveness through mitigation of the impact of construction on terminal facilities so as to minimize inconvenience to ferry riders.”¹⁷

As described, the project is intended to mitigate disruption during construction. However, the consultants note that approximately 20 percent of the expenses in this project in 2005-07 were for design projects, such as Anacortes and Mukilteo. While it is possible that these charges may have been for designing mitigation, there is insufficient information to determine that. In the first six months of the 2007-09 biennium, Ferries has expended \$38,000 on operating budget labor in this project, which, if expenditures continue at this level, would be a much lower level of expenditure in this biennium.

¹⁵ The Ferries object code report shows total capital program charges of \$1.3 million for Vessel Engine Crews, of which \$0.2 million is accounted for in overhead.

¹⁶ The total cost of the Terminal Operations Construction Support project in the 2005-07 was \$1.6 biennium, which included \$.3 million in on-site consultant expense and \$.3 million in 2 staff budgeted in the capital budget.

¹⁷ Project Detail Report – Transportation Executive Information System

The consultants recommend the terminal and vessel deck staff charges to the terminal operations construction project be reviewed to determine whether all of these charges should be made to the capital budget and if these charges are a necessary expense.

***Recommendation 8 (Short-term):** Ferries should evaluate operating budget staff charges to the terminal operations construction support project to determine whether they are appropriate capital program expenses.*

3. Findings and Recommendations: Operating Staff Charges to Capital Budget

A significant portion (33 percent) of the operating budget staff charges to the capital budget cannot be traced to individual projects, which makes it difficult to understand whether these charges are justified. Charges to the Ferries capital program by these staff should be carefully scrutinized, justified and, where possible, reduced.

***Recommendation 9 (Short-term):** Ferries should review and determine whether charges to the capital program from information agents, vessel engineering crews, vessel deck crews, and terminal staff are appropriate capital charges, and whether these charges should be separately identified in project budgets.*

Department Response 8 and 9: We concur with the recommendation, and the department has already evaluated the operating budget staff charges to the Terminal Operations Construction Support budget and has determined they are appropriate capital program expenses. From its inception, the intent of the Terminal Operations Construction Support budget included constructability support during design, as well as field support during construction of terminal projects. This is critical in order to minimize the likelihood and magnitude of construction change orders. The information agents, vessel engineering crews, vessel deck crews, and terminal operations support staff mentioned within Recommendation 9 contributed information during planning, design and construction based on their intimate operations knowledge. These contributions have proven essential in ensuring that terminal designers and construction inspectors understand the operational challenges and impacts, and have provided adequate direction and mitigation within the project contracts. When applicable, the department will continue to evaluate future operating budget staff charges to the capital program, though this may be irrelevant if a decision is made to allocate the systemwide budget in question to specific projects, as is currently being considered.

Ferries needs to develop a clear protocol and policy regarding information agent, vessel and terminal staff charges to the capital program, based on the review of actual expenditures.

Recommendation 10 (Long-term): *Ferries should develop and implement a policy on charges by information desk, terminal, vessel deck and vessel engineering staff to the capital program.*

Department Response 10: We concur with the recommendation. We are in process of strengthening business rules to clarify the type of work that will be charged to the administrative work order.

E. On-Site Consultants

Core questions: How much is Ferries spending for on-site consultants? Should use of these consultants be refocused?

1. General Findings

Ferries uses on-site consultants at headquarters to provide project management, engineering and support capacities. These consultants are either identified in the accounting system as on-site or were so identified by Ferries staff. As shown in Table 3, Ferries spent \$12.2 million in the 2005-07 biennium for on-site consultants, representing 7 percent of all capital program expenses during the biennium. The majority of the expenditures for on-site consultants were incurred by Terminal Engineering, with some from Vessel Engineering. The other Ferries divisions made relatively limited use of on-site consultants. The details are as follows:

- *Terminal Engineering* made extensive use of on-site consultants, with expenditures of \$8.7 million, representing 71 percent of all on-site consultant expenses. Of this amount expended, 77 percent was in the Engineering Design section for project managers and engineers; 20 percent in the Project Controls section to manage the section and develop a scheduling system; and 3 percent in the Construction Maintenance Engineering section for engineers.
- *Vessel Engineering* made limited use of on-site consultants, with expenditures of \$2.3 million, representing 17 percent of all on-site consultant expenses. These expenses were for engineering, management services, staffing support and fuel conservation studies.
- *Finance and Administration* used an on-site consultant in the Information Technology section for electronic fare system training and supervision. The total contract expense was \$0.2 million for the biennium.
- *Operations* spent \$1.0 million for on-site consultants who provided security, operations construction coordination, and grant and product development services.

2. Findings and Recommendations: Terminal Engineering On-Site Consultants

It should be noted that Terminal Engineering has significantly reduced its reliance on on-site consultants as a result of improved management oversight. In the first six months of

the 2007-09 biennium, Terminal Engineering has spent \$0.9 million on on-site consultants. Terminal Engineering is projecting that they will expend a total of \$2.5 million for on-site consultants in the 2007-09 biennium, which represents a 71 percent reduction from the 2005-07 level of expenditure.

Recommendation 11 (Short-term): Terminal Engineering should continue to review and, where appropriate, reduce expenditures on on-site consultants.

Many Terminal Engineering Division on-site consultants have been under contract for a year or longer (50 percent of 36 on-site consultants in October 2007). Use of long-term consultants should be reviewed to determine if the uses are appropriate.

Recommendation 12 (Short-term): Ferries should review its use of long-term on-site consultants.

Department Response 11 and 12: The terminal program changes between 2005-07 and 2007-09 not only represent a significant downward budget and work plan adjustment from one biennium to the next, they represent a change in future priorities while working within a more constrained budget than was previously assumed. In the meantime, the vessels' needs have grown substantially. In light of these significant changes, terminal engineering has made great strides in reducing the amount of consultant use while ensuring that the types of consultant use are appropriate and complementary to core state staff competencies. This effort began late in the 2005-07 biennium and continues today. Related to appropriate types of consultant use, Ferries would like to clarify that over half of the reported 2005-07 terminal engineering consultant charges were related to traditional contracting in support of specific projects and deliverables, where the contract had required one or more staff to be present within the terminal engineering office in order to facilitate close staff coordination. Those project deliverable consultant charges should be differentiated from consultant charges related to administrative program support.

3. Findings and Recommendations: Focus for Use of On-Site Consultants

On-site consultants have charged their time to a variety of projects. Decisions made by Ferries on staffing its preservation and its terminal improvement/new vessel construction and vessel systemwide improvement projects should drive decisions on the use of on-site consultants to meet projected peak workloads. In the future, Ferries should consider focusing its use of on-site consultants in the improvement program, while retaining a core staff capability to meet its preservation program requirements.

Recommendation 13 (Medium-term): The use of on-site consultants should be based on Ferries' decisions on the delivery method for and scheduling of preservation and terminal improvement/new vessel construction, and vessel systemwide improvement projects.

Department Response 13: We concur with the recommendation. The level and type of future consultant use, both on-site and off-site, will be based upon the size and complexity of the capital program as determined by the enacted legislation and the Long-Range Capital Plan.

Section IV. Non-Staff Capital Administration Expenses: Findings and Recommendations

This section provides the consultants' findings, analysis and recommendations in two areas of non-staff capital administration expenses: (1) administrative expenses for specific projects, such as scheduling systems, and legal and communications project charges; and (2) other administration expenses typically thought of as overhead, such as rents, office expenses, and training costs. Together in the 2005-07 biennium, these non-staff administration costs were 4 percent of Ferries' total capital expenses.

An important finding in this section is that the majority of costs for non-staff capital administration expenses were reasonable. The consultants recommend that WSDOT review the use of the Primavera scheduling system for Terminal Engineering after the revised terminal capital program is adopted by the legislature in the 2009 session. The consultants also recommend that, in conformance with ESHB 2358, Ferries separately identify capital administration expenses for review by the legislature.

A. Total Non-Staff Administration Costs

To carry out the capital program, Ferries incurs non-staff administration expenses of two types: (1) administrative expenses for specific projects, such as scheduling systems, and legal and communications project charges, and (2) other administration expenses typically thought of as overhead, such as rents, office expenses, and training costs.

In the 2005-07 biennium, Ferries incurred costs of \$7.8 million to the capital program for non-staff capital administration expenses. This cost represents 4 percent of the total capital program costs of \$183.1 million for the biennium. It is approximately 21 percent of Ferries' total capital and operating budget non-staff administration expenses.¹⁸

Figure 5 below shows the relative size of the non-staff capital administration expenses within the 2005-07 capital program. Table 6 shows the breakdown of these costs by type and Ferries division.

¹⁸ Operating budget non-staff administration expenses were \$29.5 million in the 2005-07 biennium. The Operating Management and Support Cost Draft Report of the WSDOT Ferries Division Financing Study II will provide more information on these costs.

Figure 5
Non-Staff Administration Costs Charged to the Capital Program in 2005-07

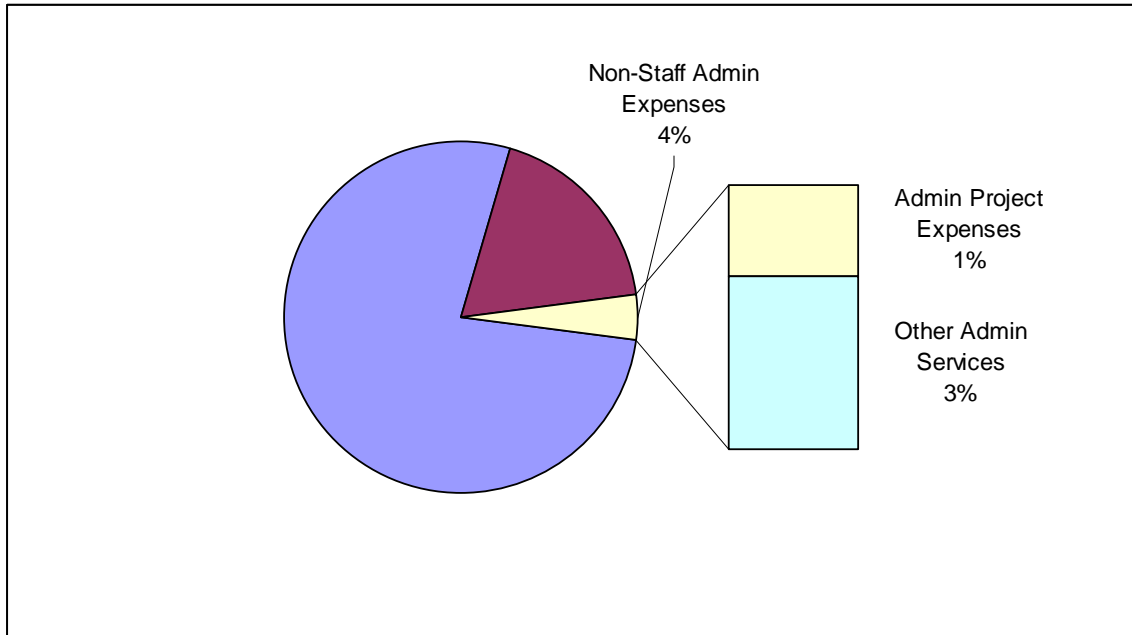


Table 6
Non-Staff Capital Administration Costs by Division, 2005-07 Biennium

(\$ millions)

	\$ Terminal Eng.	\$ Vessel Eng.	\$ Vessel Maintenance & Pres.	\$ Admin. Divisions*	\$ Ops.	Total \$	% of Capital Program Cost
Administrative project expenses	1.5			1.2		2.7	1%
Other administrative services & charges	2.8	1.1		1.1	0.1	5.1	3%
Total Cap Administration Costs	4.3	1.1	0.0	2.3	0.1	7.8	
Ferries Capital Program Costs						183.1	4%

* Includes Finance and Administration, Human Resources and Communications

Using 2005-07 data, the consultants identified the following baselines for future analyses of non-staff capital administration expenses:

- Non-staff administrative capital project costs were 1 percent of all capital program expenses.
- Expenses for rent and lease payments for office property, telephone and data lines, office related machinery and equipment, Attorney General charges, staff training, and travel were 3 percent of all capital program expenses.

B. Administrative Expenses for Specific Capital Projects

Core questions: How much is Ferries spending within capital project budgets that could be considered part of capital program administration? Should these costs be reduced?

1. General Findings

In the 2005-07 biennium, Ferries spent \$2.7 million on administrative capital project expenses, which represents 1 percent of all capital program expenses. As shown in Table 7, above, these expenses were incurred only in the Terminal Engineering and the Administrative divisions. The Terminal Engineering expenses were primarily for systemwide projects, while the Administrative divisions' expenses were to support specific capital projects.

- *Systemwide Projects:* As detailed in the table below, Ferries spent \$1.5 million on administrative systemwide projects, not including staff charges or on-site consultant charges. The largest expense was \$1.2 million to support the development of a scheduling system for Terminal Engineering.
- *Other Projects:* Ferries retains consultants to perform legal and communications functions related to projects when Ferries has insufficient in-house staff or expertise. In the 2005-07 biennium, Ferries spent \$1.2 million on these services, with \$1.1 million for communications consultants and \$0.1 million for legal services.

Table 7
Systemwide and Administrative Expenses for Capital Projects,
2005-07 Biennium
(\$ millions)

PIN	Project Title	Admin. \$	Description
<i>Systemwide Projects</i>			
989920X	Misc. Terminal Projects*	1.1	Terminal project scheduling system
966650B	Ferries Staff Relocation	0.3	Furniture & design costs for headquarters relocation
989930J	WSDOT Project Controls	0.1	Terminal portion of WSDOT Scheduling System
Total Systemwide Administrative		1.5	
<i>Other Projects</i>			
Various	Various	1.1	Communications
944460U	Construct 4 New 144 car Vessels	0.1	Legal
Total Other Administrative Projects		1.2	
Total Administrative Project Expenses		2.7	

*Net of on-site consultants and staff charges. Total cost \$2.3 million.

The consultants found that the expenditures for legal and communications assistance were a reasonable use of outside expertise and appropriate for the projects.

2. Finding and Recommendation: Systemwide Scheduling System

In the 2005-07 biennium, Terminal Engineering invested \$2.3 million¹⁹ in the acquisition and development of a Primavera scheduling system and project controls, including on-site consultants, staff and other charges. Through the first six months of the 2007-09 biennium, Ferries has expended \$0.3 million on the system and other project controls, and plans to hire one FTE staff in the Finance and Administration Division to support the system.

The consultants recognize that WSDOT has decided to use the Primavera scheduling system for department-wide scheduling. However, the consultants recommend that Terminal Engineering review its implementation of this system to determine the anticipated long-term costs and benefits. A typical private owner/developer would not themselves use such a complex system, relying instead on contractors for detailed scheduling. The Primavera system may be less appropriate for Ferries, given the relatively small scale of the terminal capital program as compared to the WSDOT highways capital program. This system may integrate with WSDOT reporting as WSDOT develops its Primavera scheduling system.

***Recommendation 14 (Long-term):** WSDOT should review the cost-benefits of continued use of the Primavera scheduling system for Ferries.*

Department Response 14: We concur with the recommendation and, per legislative direction, will include the review of the costs and benefits of continuing to use the Primavera scheduling system with our 2009-11 biennial budget submittal. The department would like to note, however, that the true Ferries Division cost of implementing the Primavera system (integrated cost and schedule management and reporting) was approximately \$850 thousand (37%) of the \$2.3 million systemwide budget referenced. The systemwide budget in question supports the many terminal engineering program management and project controls functions, which, in addition to the Primavera system, includes biennial and long-range scoping, life cycle cost model support, change management, work and task order development and processing, and monthly and quarterly performance reporting.

¹⁹ The total project cost \$2.3 million, including on-site consultants (\$1.1 million), capital staff (\$0.1 million) and other administration expenses (\$1.1 million). Also see Table 7.

C. Other Administrative Capital Services and Charges

Core questions: How much is the capital program being charged for other administrative costs such as leases, training, office equipment, and Attorney General charges? Should these costs be reduced?

1. General Findings

Ferries incurs non-staff, general administration expenses in support of the capital program. As shown in Table 6, these expenses totaled \$5.1 million in the 2005-07 biennium, or 3 percent of all capital program expenses.

These general administration expenses include rent and lease payments for office property, telephone and data lines, office related machinery and technology equipment, Attorney General charges, staff training, and travel. These were incurred by four areas, as follows:

- *Terminal Engineering* incurred \$2.8 million in other capital administration services and charges. Nearly all of these expenses (\$2.4 million) were for rent and lease of property. The remainder was for telephone, office and technology equipment, training courses and materials, and staff travel.
- *Vessel Engineering* incurred \$1.1 million in other capital administration services and charges. Of these expenses, \$0.7 million was for rent and lease of property. The remainder was for telephone, office and technology equipment, and staff travel.
- *Administrative divisions* (Finance and Administration, Human Resources and Communications) spent \$1.1 million on other capital administration services and charges. Of these expenses, \$0.6 million was for information technology, office machinery and associated software and supplies, and \$0.3 million was for Attorney General capital expenses.
- *Operations* had less than \$0.1 million in other capital administration services and charges in the 2005-07 biennium.

2. Findings and Recommendations: Identifying Administrative Expenses

The consultants note that these expenses seem reasonable. However, it is difficult to determine the total administrative services and charges in the capital budget presented by Ferries. ESHB 2358 requires Ferries to allocate systemwide services and charges to individual terminal and capital projects and to separately identify these allocated amounts within each project budget.

Recommendation 15 (Long-term): *Ferries should separately identify the capital administration services and charges for review by the legislature.*

<p>Department Response 15: We concur with the recommendation. We are in process of strengthening business rules that will separately identify the capital administrative services and charges.</p>

Section V. Management Communication and Oversight: Findings and Recommendations

Core questions: How does Ferries identify capital staff positions and staff charges to the capital budget? What baselines and performance measures should Ferries establish to track capital staffing and administration costs?

Ferries has cooperated fully in the development of this report, providing information from its financial, human resources and contract management systems. However, the review has been complicated by the fact that Ferries has not previously compiled a complete review of its capital staff and program administration costs. The consultants recommend the following improvements in data presentation that would facilitate legislative and management oversight.

1. Findings and Recommendations: Organization Chart

Ferries has provided an organization chart to the legislature showing 141 authorized capital positions, which were created through the human resources process. The actual number of funded capital positions in the 2005-07 biennium was 131, but Ferries has not reconciled the 2005-07 biennium organization chart to these funded positions. (Funded positions were not exceeded because of vacancies.) This report is, therefore, based on the original organization chart provided by Ferries showing 141 capital positions.

Since the organization chart can be used as a key communication tool with the legislature, legislative staff, and the Office of Financial Management, it is important that a chart be developed that clearly relates to the adopted capital budget. Ferries has recently provided the legislature with a revised organization chart for the 2007-09 biennium budget that matches the capital budget adopted by the 2007 legislature.

***Recommendation 16 (Short-term):** Ferries should develop and present to the legislature an organization chart that shows only funded positions and denotes which legislatively adopted budget the chart represents.*

Department Response 16: We concur with the recommendation. The organization chart is under revision to reflect the most recent enacted legislation.

2. Findings and Recommendations: Baselines/Performance Measures

Ferries does not aggregate and then track staffing or administration costs against the total cost of the capital budget. This makes it difficult to know on a consistent basis whether these costs are in line with the size of the capital program. This review has highlighted the need to establish baseline information and performance measures for future staff and administration budget decisions.

Recommendation 17 (Long-term): Ferries should develop baseline information and performance measures for the percentage of the capital program and individual capital project budgets that should be devoted to capital staffing and administration expenses.

Department Response 17: We concur with the recommendation. Ferries Division will develop staffing and administrative guidelines and performance standards specific to the categories and types of projects within the enacted legislation and Long-Range Capital Plan. Ferries Division will not be able to determine a comprehensive, balanced, capital program performance goal until greater clarity exists related to the size and complexity of the future capital program.

Washington State Joint Transportation Committee

Capital Program Staffing and Administration Cost Draft Report: Appendices Washington State Department of Transportation Ferries Division Financing Study II



Prepared For:

Joint Transportation Committee
Washington State Legislature

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Appendix A. Terminal Engineering

This Appendix reviews the Terminal Engineering Division's capital program staffing and administration. Terminal Engineering supported a \$102.0 million terminal capital program in the 2005-07 biennium and incurred \$21.4 million in administrative expenses, representing 21 percent of the total terminal capital expenditures.

**Table A-1
Summary
Terminal Engineering Division Capital Staff and Administration Expenses
2005-07 Biennium**
(\$ millions)

Staff and Administration Expense Categories	\$	% of Total Terminal capital
Staff Overhead Charges	1.4	1%
Staff Project Charges	7.0	7%
On Site Consultants	8.7	9%
Project Control Projects	1.5	1%
Other Services & Charges	2.8	3%
Total Terminal Engineering Staff & Admin. Expenses	21.4	
Terminal Capital Expenditures	102.0	
% Terminal Engineering Staff and Admin.	21%	21%

1. 2005-07 Biennium Terminal Capital Program

In the 2005-07 biennium, Ferries expended \$102.0 million for terminal projects (see table below). Fifty percent (50%) of the terminal capital expenditures were for projects at the Bainbridge Island, Mukilteo and Anacortes terminals, and the Eagle Harbor Repair and Maintenance Facility. An additional 20 percent of expenditures were for 18 systemwide projects, and 8 percent of expenditures were for Catch-Up Preservation projects at the Lopez and Anacortes terminals.

As discussed in more detail in the *Ferry Financing Study Technical Appendix 3: Capital Program Prioritization and Terminal and Repair Facility Capital Projects Review*, January 2007, major terminal improvement projects were anticipated at Anacortes, Bainbridge, Edmonds, Keystone, Mukilteo, Port Townsend and Seattle, with expenditures in the 2005-07 biennium on planning and design of these projects.

Table A-2
2005-07 Terminal Project Expenditures
(\$ millions)

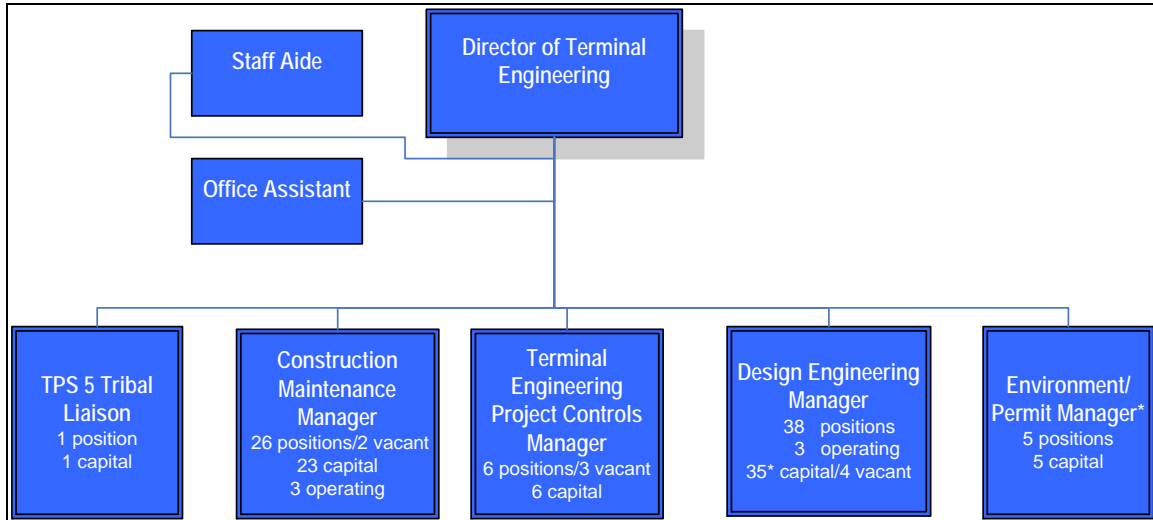
PIN	Project Title	\$	%
<i>Bainbridge</i>			
930513B	Bainbridge Island Terminal Preservation	10.7	
930513A	Bainbridge Island Trestle Improvement	5.1	
930513D	Bainbridge Terminal Food Service Improvements	0.1	
	<i>Bainbridge Total</i>	15.9	16%
<i>Eagle Harbor</i>			
900040N	Eagle Harbor Maintenance Facility Preservation	11.9	12%
<i>Mukilteo</i>			
952515K	Mukilteo Multimodal Terminal 03 MultiM	9.9	
952515J	Mukilteo Multimodal Terminal	1.5	
952515L	Mukilteo Terminal Preservation	0.0	
	<i>Mukilteo Total</i>	11.4	11%
<i>Anacortes</i>			
902019U	Anacortes Multimodal Terminal 03 Nickel	10.9	
902019Z	Anacortes Terminal Improvements	0.0	
902019V	Anacortes Terminal Preservation	0.0	
902019X	Anacortes Upland Parking Improvement	0.1	
	<i>Anacortes Total</i>	11.0	11%
<i>Catch-up Preservation</i>			
999940D	Catch-Up Preservation 03 Nickel	8.1	8%
<i>Friday Harbor</i>			
900028R	Friday Harbor Master Plan	0.1	
900028Q	Friday Harbor Terminal Preservation	7.4	
	<i>Friday Harbor Total</i>	7.5	7%
<i>Seattle</i>			
900010H	Colman Dock Interim Retail Development	1.1	
900010I	Seattle South Trestle Expansion	2.0	
900010G	Seattle Terminal Building Replacement - New Retail Space	0.1	
900010A	Seattle Terminal Preservation	1.9	
	<i>Seattle Total</i>	5.1	5%
<i>Keystone</i>			
902017J	Keystone Alternative	2.3	2%
<i>Point Townsend</i>			
900012D	Port Townsend Terminal Preservation	2.3	2%
<i>Southworth</i>			
916008N	Southworth Terminal Preservation	1.2	1%
<i>Fauntleroy</i>			
900005L	Fauntleroy Terminal Preservation	1.0	1%
<i>Kingston</i>			
910414N	Kingston Terminal Preservation	1.0	1%
<i>Vashon</i>			
900006N	Vashon Terminal Preservation	0.9	1%

PIN	Project Title	\$	%
<i>Edmonds</i>			
910413M	Edmonds Multimodal Terminal	0.6	1%
<i>Orcas</i>			
900026L	Orcas Terminal Preservation	0.6	1%
<i>Point Defiance</i>			
900001F	Point Defiance Terminal Preservation	0.3	0%
<i>Clinton</i>			
952516H	Clinton Terminal Preservation	0.2	0%
<i>Tahlequah</i>			
900002E	Tahlequah Terminal Preservation	0.2	0%
Total Terminal Projects and Eagle Harbor		81.6	
<i>Systemwide</i>			
989920X	Systemwide Miscellaneous Terminal Projects	5.7	
989930B	Systemwide Terminal Physical Security Infrastructure	4.8	
966640Q	Systemwide Pt of Sale Repl/Regional Fare	4.4	
966620E	Systemwide Operations Construction Support	1.7	
977730A	Systemwide Planning And Special Studies	1.5	
966640I	Systemwide Revenue Control System	0.3	
966640F	Systemwide Terminal Design Standards	0.3	
966650B	Systemwide Ferries Staff Relocation	0.3	
999976T	Systemwide Tml Work Orders By Auditors	0.2	
966650A	Systemwide Terminal Phone System Replacement	0.2	
989920M	X5 Terminal Reimbursable Contracts Using Caps	0.2	
989930E	Systemwide Emergency Management Communications	0.2	
989920K	Systemwide Movable Bridge Modifications	0.1	
989930J	WSDOT Project Controls Terminals	0.1	
900030C	Sidney Terminal Cruise Ship Dock Improvements	0.1	
966620D	Systemwide ADA Support	0.1	
999940C	Systemwide Terminal Planning/Design	0.1	
989930F	Systemwide Customer Travel Inquiry	0.1	
<i>Systemwide Total</i>		20.4	20%
TOTAL		102.0	

2. Terminal Engineering Organizational Structure

The Ferries organizational chart shows that Terminal Engineering had 79 authorized positions in the 2005-07 biennium. Terminal Engineering is divided into four major sections: Construction Maintenance, Terminal Engineering Project Controls, Design Engineering, and Environment/Permit (see Figure below). Of the 79 authorized positions, 74 are supported by the capital program (four in the capital budget and 70 project positions) and five positions by the operating program (three in the operating budget and two project positions). In the 2005-07 biennium, nine of the 74 positions (12%) supported by the capital program were vacant for the entire biennium. All of the positions supported by the operating budget were filled.

**Figure A-1
Terminal Engineering Division
2005-07 Biennium**



* Two FTE of the capital project positions charge to the operating budget. In FY 2005-07 terminal engineering project positions charged \$0.5 million to the operating budget.

Total labor expenses charged to the capital budget were \$8.4 million¹ in the 2005-07 biennium. Five hundred thousand dollars (\$0.5 million) were charged by project positions to the operating budget. The table below provides a summary of these charges.

**Table A-3
Summary 2005-07 Terminal Engineering
Staff Expense
(\$ millions)**

Program	\$	% Capital	% Total
Capital			
Administrative Work Order	1.4	17%	
Project	7.0	83%	
Total Capital	8.4		94%
Operating	0.5		6%
Total Charges Capital and Operating	8.9		

3. Staff Charges

a. Staff Charges to Administrative Work Order

Capital administrative work order charges from terminal engineering staff in the 2005-07 biennium were incurred by 41 of the 65 capital funded positions that were filled in the biennium, or by 63 percent of the staff. Ten (10) positions charged 90 percent or more of their time to the work order, eight (8) positions charged between 20 and 58 percent, six

¹ The object code report shows total terminal engineering labor expenses of \$8.6 million. The systems used to determine administrative work order and project totals do not correlate exactly with the object code report.

(6) positions between 11 and 16 percent, and 17 positions charged 9 percent or less of their time to this work order. Total administrative work order charges from Terminal Engineering were \$1.4 million, representing 17 percent of Terminal Engineering's total staff charges of \$8.4 million to the capital program.

Table A-4
Terminal Engineering Positions Charges
Capital Administrative Work Order
2005-07 Biennium

Position	Title	Section	Admin Amount	% charged to Admin
9W003	Director Terminal Engineering*	Office of the Director of TE	\$219,587	100%
9W031	Construction Maint/Mgr	Construction Maintenance Man	\$201,121	100%
A0403	Staff Aide*	Office of the Director of TE	\$134,500	100%
90800	Transportation Tech 1	Design Engineering	\$37,410	100%
90806	Library & Arch Prof 1	Construction Maintenance Man	\$8,605	100%
9W029	Design Engineering Manager	Design Engineering	\$184,086	99%
A0106	Secretary*	Construction Maintenance Man	\$49,187	98%
90156	Transportation Eng 3	Construction Maintenance Man	\$57,269	94%
A0214	Office Assistant*	Office of the Director of TE	\$38,934	93%
90803	Transportation Tech 1	Project Controls	\$47,808	90%
90055	Transportation Tech 1 Work Orders	Project Controls	\$53,446	58%
90035	Bridge Eng 4	Design Engineering	\$58,939	36%
9W032	Environment/Permit Manager	Environment/Permit	\$67,330	36%
90250	Transportation Planning Specialist 2	Environment/Permit	\$13,513	27%
90190	Marine Eng	Design Engineering	\$11,207	25%
90235	Transportation Eng 3	Project Controls	\$4,694	21%
90273	Marine Eng	Design Engineering	\$13,524	21%
90001	Bridge Eng 6	Design Engineering	\$51,933	20%
90063	Lead Plan Spec TPS4	Design Engineering	\$3,303	16%
90253	Marine Project Eng	Construction Maintenance Man	\$28,507	15%
90214	Asst Marine Eng	Design Engineering	\$10,592	14%
90060	Tribal Liaison	Office of the Director of TE	\$1,550	13%
90046	Tech 4 CADD Lead	Design Engineering	\$11,452	13%
90155	Transportation Tech 1	Construction Maintenance Man	\$528	11%
	17 positions		\$91,927	9% or less
TOTAL	41 Positions		\$1,400,952	17%
Total Terminal Engineering Capital Project Charges			\$6,957,461	83%
Total Terminal Engineering Admin and Project Charges			\$8,358,413	

*Position identified as a capital budget position. All others are project positions.

b. Staff Charges to Projects and Operating Budget

Terminal Engineering had 61 positions that were filled as project positions, two FTE of which are identified as supported by operating budget projects. Of the 59 capital funded project positions, six had 90 percent or more of their time charged to administration and did not charge, except in small amounts, directly to projects. The two operating budget project positions both charged to capital projects, while some of the capital budget project positions also charged time to the operating budget.

Table A-4 below shows the project and operating budget charges for 52 capital project positions that charged 42 percent or more of their time to capital projects and/or the operating budget, and for the two operating budget project positions.²

Terminal Engineering staff charged \$0.5 million or 7 percent of their time to the operating budget.

Of the \$7.0 million in project position charges to capital projects, \$3.5 million or 50 percent were for major projects at Mukilteo, Bainbridge, Anacortes, Keystone, Port Townsend, Edmonds and Seattle; \$1.0 million or 15 percent for systemwide projects; \$0.7 million (10 percent) for the Eagle Harbor Repair Facility; and \$0.7 million (9 percent) for the Catch-up Preservation project.

**Table A-5
Terminal Engineering Project Position Charges
2005-07 Biennium**

PIN	Project Name	\$	Sub-Total	% Total	% Capital
Terminal Projects					
952515K	Mukilteo Multimodal Terminal 03 Multi Modal	\$1,012,615			
952515L	Mukilteo Terminal Preservation	\$27,081			
	<i>Mukilteo Total</i>		\$1,039,696	14%	15%
930513B	Bainbridge Island Terminal Preservation	\$508,394			
930513A	Bainbridge Island Trestle Improvement	\$459,391			
930513D	Bainbridge Terminal Food Service Improvements	\$1,659			
	<i>Bainbridge Total</i>		\$969,443	13%	14%
900040N	Eagle Harbor Maintenance Facility Preservation	\$722,446		10%	10%
999940D	Catch-Up Preservation 03 Nickel	\$656,256		9%	9%
902019U	Anacortes Multimodal Terminal 03 Nickel	\$649,661			
902019X	Anacortes Upland Parking Improvement	\$3,878			
	<i>Anacortes Total</i>		\$653,539	9%	9%
902017J	Keystone Alternative	\$304,558			
	Keystone Terminal Preservation / Relocation	\$13,695			
	<i>Keystone Total</i>		\$318,253	4%	5%
900028R	Friday Harbor Master Plan	\$32,360			
900028Q	Friday Harbor Terminal Preservation	\$284,046			
	<i>Friday Harbor Total</i>		\$316,407	4%	5%
900012D	Port Townsend Terminal Preservation	\$227,090		3%	3%
900006N	Vashon Terminal Preservation	\$203,953		3%	3%
910413M	Edmonds Multimodal Terminal	\$164,986		2%	2%

² Ferries is not able to distinguish between charges to overhead in the project charges and time charged directly to projects, so Table A-4 eliminates all direct project charges for the positions that charged 90 percent or more of their time to administration. The table double counts the administrative overhead charges distributed to projects for those positions that charged 58 percent or less of their time to administration.

PIN	Project Name	\$	Sub-Total	% Total	% Capital
910414N	Kingston Terminal Preservation	\$129,529		2%	2%
900026L	Orcas Terminal Preservation	\$129,942		2%	2%
900010H	Colman Dock Interim Retail Development	\$57,991			
151902F	Seattle SR 519 P52 Access Improvement	\$1,563			
900010A	Seattle Terminal Preservation	\$69,227			
	<i>Seattle Total</i>		\$128,781	2%	2%
916008N	Southworth Terminal Preservation	\$164,723		2%	2%
900005L	Fauntleroy Terminal Preservation	\$69,504		1%	1%
930410R	Bremerton Terminal Preservation	\$2,680		0%	0%
952516H	Clinton Terminal Preservation	\$1,957		0%	0%
900002E	Tahlequah Terminal Preservation	\$2,345		0%	0%
	Systemwide Projects				
989920X	Systemwide Miscellaneous Terminal Projects	\$640,332			
989920K	Systemwide Movable Bridge Modifications	\$26,836			
966620E	Systemwide Operations Construction Support	\$1,193			
966640Q	Systemwide Pt of Sale Repl/Regional Fare	\$50,532			
966640I	Systemwide Revenue Control System	\$9,253			
999920A	Systemwide Steel Piling Inventory Account	\$14,951			
966640F	Systemwide Terminal Design Standards	\$52,391			
989930B	Systemwide Terminal Physical Security Infrastructure	\$127,619			
999940C	Systemwide Terminal Planning/Design	\$14,737			
999976T	Systemwide Tml Work Orders By Auditors	\$17,388			
989920M	X5 Terminal Reimbursable Contracts Using Caps	\$73,680			
	Systemwide Total	\$1,042,693		14%	15%
999910K	Systemwide Emergency Repairs 2005-2023	\$13,238			
	Operating Budget	\$536,998		7%	
	TOTAL Operating and Capital Project Charges	\$7,494,459			
	Total Capital Only Project Charges	\$6,957,461			

4. On-Site Consultants

In the 2005-07 biennium, Terminal Engineering spent \$8.7 million on on-site consultants who provided project management, project controls and other services (see Table A-below). Of the \$8.7 million in expenditures, \$6.7 million or 77 percent were in the Engineering Design section, \$1.7 million or 20 percent in the Project Controls section, and \$0.3 million or 3 percent in the Construction Maintenance Engineering section.

Table A-6
Terminal Engineering On-Site Consultants
(\$ millions)

Contractor	Project/Task	Section	\$	%
KPFF	Bainbridge -Project Management/Master Plan/Overhead Loading Design	Design	1.5	17%
Berger/Abam	Eagle Harbor Maintenance & Repair Facility - Design	Design	1.1	13%
Jacobs	Eagle Harbor Maintenance & Repair Facility - Phase II Report	Design	1.0	11%
CH2MHill	Project Controls Support	Project Controls	0.9	10%
KPFF	Program Management & Project Controls Support	Project Controls	0.7	8%
DCMS, Inc.	Colman Dock Long Range Plan - Project Management	Design	0.5	6%
Jacobs	Management and Engineering Services	Design	0.3	3%
Jacobs	Electrical Engineering Support	Design	0.3	3%
KPFF	Anacortes Project Management	Design	0.3	3%
SRI*	Anacortes Project Management	Design	0.3	3%
CH2MHill	Terminal Design Standards	Design	0.3	3%
SRI	Electrical Engineering Support	Design	0.2	2%
	4 small contracts	Design	0.2	2%
SRI	Operations Design and Construction Support	Design	0.2	2%
SRI	On-Site Personnel	Design	0.1	1%
SRI	Engineering Services	Construction	0.1	1%
SRI	Project Controls Support	Project Controls	0.1	1%
	2 small contracts	Construction	0.1	1%
KPFF	Electrical Engineering	Design	0.1	1%
KPFF	Seattle Project Management Services	Design	0.1	1%
SRI	Project Management	Design	0.1	1%
SRI	Systemwide Point of Sale	Design	0.1	1%
SRI	Construction Support	Construction	0.1	1%
	Total		8.7	

* SRI is a temporary employment service.

5. Project Administrative Expenses

a. Project Controls

Terminal Engineering expended \$2.3 million in 2005-07 to acquire a Primavera scheduling system³ and an additional \$0.1 million for Terminal Engineering's share of a WSDOT project control project. Of this \$2.4 million, \$1.2 million are expenses that are not duplicated in the on-site consultants and staff expenses noted above.

³ Primavera is a project scheduling system that was selected by FERRIES to manage its terminal projects. The system has been recommended for wider use with WSDOT.

Table A-7
Terminal Engineering Project Controls Expenses
2005-07 Biennium
(\$ millions)

Expense	\$
KPFF & CH2Hill On-Site Project Control Support*	1.2
Program Navigators Project Support	0.3
SRI - Project Controls	0.3
State Engineering	0.1
SRI- On-site Project Management	0.1
Scoping: Independent term contract	0.1
CH2M Hill - Program Scoping Documents	0.1
On Site Support Services	0.1
Total Terminal Primavera System	2.3
WSDOT Project Controls	0.1
Total Project Controls	2.4

* On-site consultant costs

b. Staff Relocation

In the 2005-07 biennium Terminal Engineering incurred \$0.3 million in design and furniture charges for the Ferries administrative staff relocation to a new headquarters. The bulk of expenditures on this project were in the preceding biennium.

6. Other Administrative Capital Services and Charges

Terminal Engineering incurred \$2.8 million in other capital program administrative services and charges, the largest of which was \$2.4 million for rent and lease of property (see Table A-7 below). Other administrative services and charges included telephone, office and information technology equipment, training courses and materials, and staff travel.

Table A-8
Terminal Engineering Other Services & Charges
2005-07 Biennium
(\$ millions)

Other Services and Charges	\$
Rent & Leases - Property	2.4
Telephone, data lines	0.1
Office machinery/IT Equipment/Furnishings	0.1
Training	0.1
Travel	0.1
Total	2.8

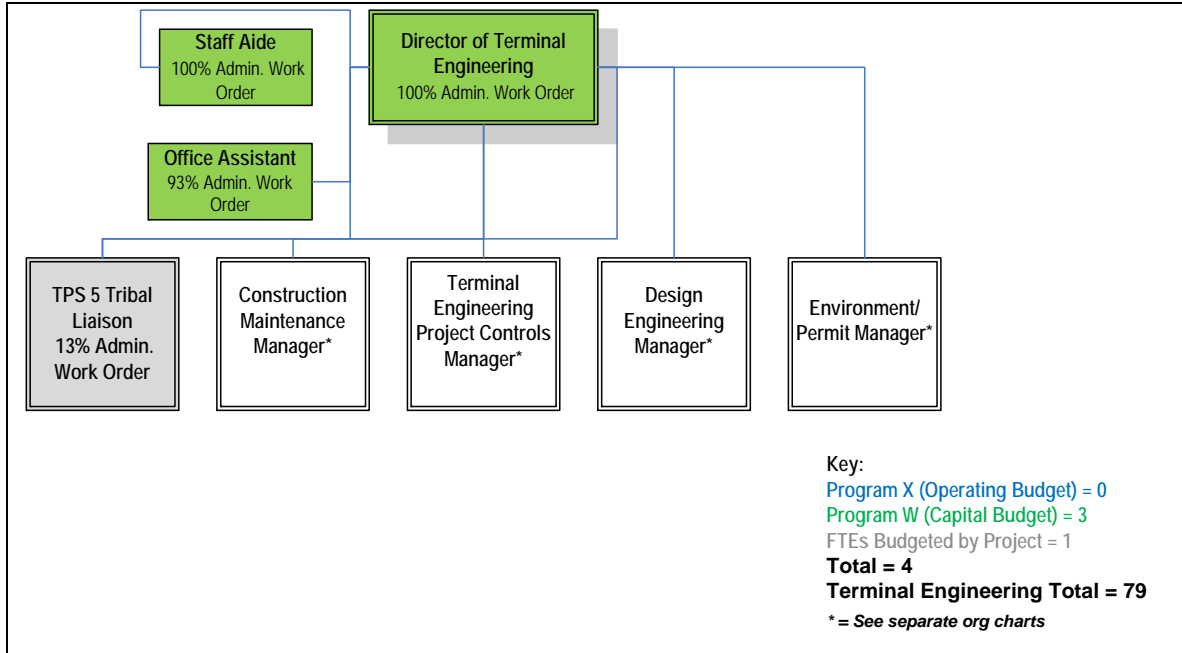
7. Office of the Director of Terminal Engineering

a. Administrative Work Order Charges

The Office of the Director includes four positions, three of which (the Director, Staff Aide and Office Assistant) are budgeted in the capital budget and charged 100 percent of their time (93 percent in the case of the Office Assistant) to the overhead work order in

the 2005-07 biennium. The fourth position, the Tribal Liaison, is a capital supported project position that charged 13 percent of its time to the Administrative Work Order.

Figure A-2
Office of the Director of Terminal Engineering



b. Project Charges

Total project charges from the Office of the Director were \$89,007 (see table below). Eighty percent (80%) of the Tribal Liaison’s time charged to projects was for new or expanded terminals at Mukilteo, Port Townsend, Bainbridge Island, Seattle, Keystone and Edmonds.

Table A-9
Office of the Director of Terminal Engineering
Project Charges 2005-07 Biennium

Pin	PIN Name	2005-2007 Exp	%
952515K	Mukilteo Multimodal Terminal 03 Multi Modal	\$19,051	21%
902019U	Anacortes Multimodal Terminal 03 Nickel	\$13,566	15%
989920X	Systemwide Miscellaneous Terminal Projects	\$10,918	13%
900012D	Port Townsend Terminal Preservation	\$10,633	12%
930513A	Bainbridge Island Trestle Improvement	\$9,298	10%
900010A	Seattle Terminal Preservation	\$8,159	9%
902017J	Keystone Alternative	\$7,296	8%
910413M	Edmonds Multimodal Terminal	\$5,967	7%
900040N	Eagle Harbor Maintenance Facility Pres.	\$2,387	3%
930513B	Bainbridge Island Terminal Preservation	\$1,322	2%
999940D	** Catch-Up Preservation 03 Nickel **	\$273	0%
900010I	Seattle South Trestle Expansion	\$137	0%
Total		\$89,007	

8. Construction Maintenance Section of Terminal Engineering

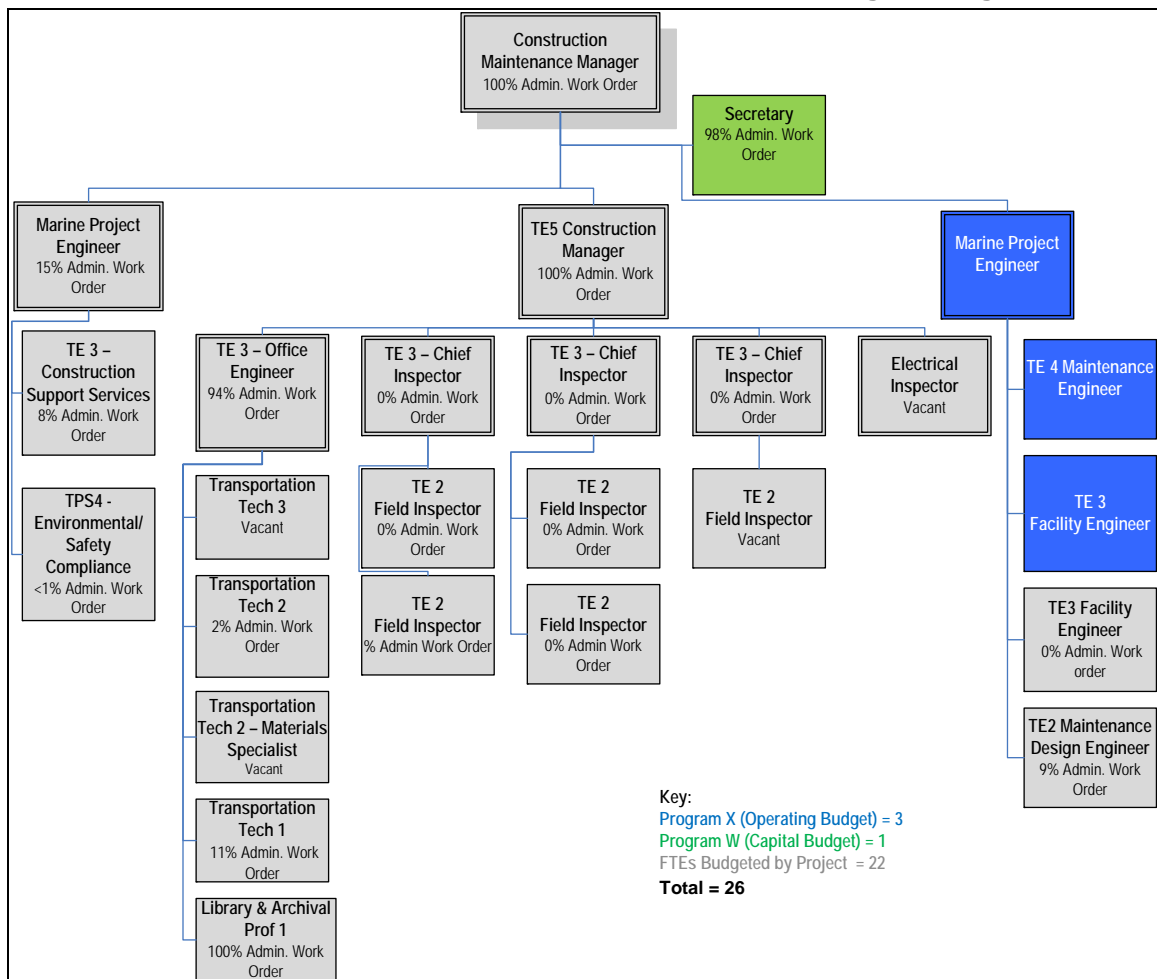
a. Overview

The Construction Maintenance Section includes 26 positions in three units: Construction Management, Construction Support, and Maintenance. Of the 26 positions, three (3) are supported by the operating budget, one (1) by the capital budget, and the remainder are project positions. Fourteen (14) of the 26 positions are in the Construction Management Section, which includes seven (7) inspector positions. Two Inspector positions were vacant throughout the 2005-07 biennium.

b. Administrative Work Order

Five (5) of the Section's positions—the Construction Maintenance Manager, Secretary, Office Engineer, Construction Manager and Librarian—charged 90 percent or more of their time to the administrative work order. The other positions charged 15 percent or less of their time to the administrative work order.

Figure A-3
Construction Maintenance Section of Terminal Engineering



c. Project Charges

Total project charges for the biennium from the Construction Maintenance Section were \$2.2 million in the 2005-07 Biennium, of which 42 percent was for construction projects including Catch-up Preservation, and preservation projects at Friday Harbor, Bainbridge Island and the Eagle Harbor Maintenance Facility. Fifteen percent (15%) of project charges were to the operating budget. (Note: Charges do not include expenses of the two operating budget supported positions in this section.)

Table A-10
Construction Maintenance Section Project Charges
2005-07 Biennium

PIN	PIN Name	\$	%
999940D	Catch-Up Preservation 03 Nickel	\$363,613	16%
No PIN	Program X	\$338,566	15%
900028Q	Friday Harbor Terminal Preservation	\$197,760	9%
930513B	Bainbridge Island Terminal Preservation	\$191,589	9%
900040N	Eagle Harbor Maintenance Facility Preservation	\$186,182	8%
989920X	Systemwide Miscellaneous Terminal Projects	\$177,011	8%
952515K	Mukilteo Multimodal Terminal 03 Multi Modal	\$127,255	6%
902019U	Anacortes Multimodal Terminal 03 Nickel	\$100,371	4%
989930B	Systemwide Terminal Physical Security Infrastructure	\$100,034	4%
916008N	Southworth Terminal Preservation	\$84,607	4%
910414N	Kingston Terminal Preservation	\$61,713	3%
900010H	Colman Dock Interim Retail Development	\$50,431	2%
900006N	Vashon Terminal Preservation	\$45,863	2%
966640F	Systemwide Terminal Design Standards	\$30,969	1%
900026L	Orcas Terminal Preservation	\$29,323	1%
966640Q	Systemwide Pt of Sale Repl/Regional Fare	\$24,414	1%
900028R	Friday Harbor Master Plan	\$22,596	1%
900005L	Fauntleroy Terminal Preservation	\$21,028	1%
930513A	Bainbridge Island Trestle Improvement	\$18,869	1%
989920M	X5 Terminal Reimbursable Contracts Using Caps	\$12,051	1%
966640I	Systemwide Revenue Control System	\$8,385	0%
900010A	Seattle Terminal Preservation	\$7,214	0%
999920A	Systemwide Steel Piling Inventory Account	\$6,188	0%
999910K	Systemwide Emergency Repairs 2005-2023	\$5,253	0%
910413M	Edmonds Multimodal Terminal	\$5,077	0%
952515L	Mukilteo Terminal Preservation	\$4,766	0%
900012D	Port Townsend Terminal Preservation	\$3,656	0%
902019X	Anacortes Upland Parking Improvement	\$2,775	0%
989920K	Systemwide Movable Bridge Modifications	\$2,350	0%
900002E	Tahlequah Terminal Preservation	\$2,333	0%
952516H	Clinton Terminal Preservation	\$1,910	0%
902017J	Keystone Alternative	\$1,691	0%
999940C	Systemwide Terminal Planning/Design	\$974	0%
999976T	Systemwide Tml Work Orders By Auditors	\$915	0%
977740A	Capital Program Development for Ferries Business Initiatives	\$822	0%

PIN	PIN Name	\$	%
151902F	Seattle SR 519 P52 Access Improvement	\$546	0%
989930G	Systemwide Terminal Physical Security Planning	\$369	0%
989930D	Systemwide SMS Enhancements	\$114	0%
Total		\$2,239,583	

9. Design Engineering Section of Terminal Engineering

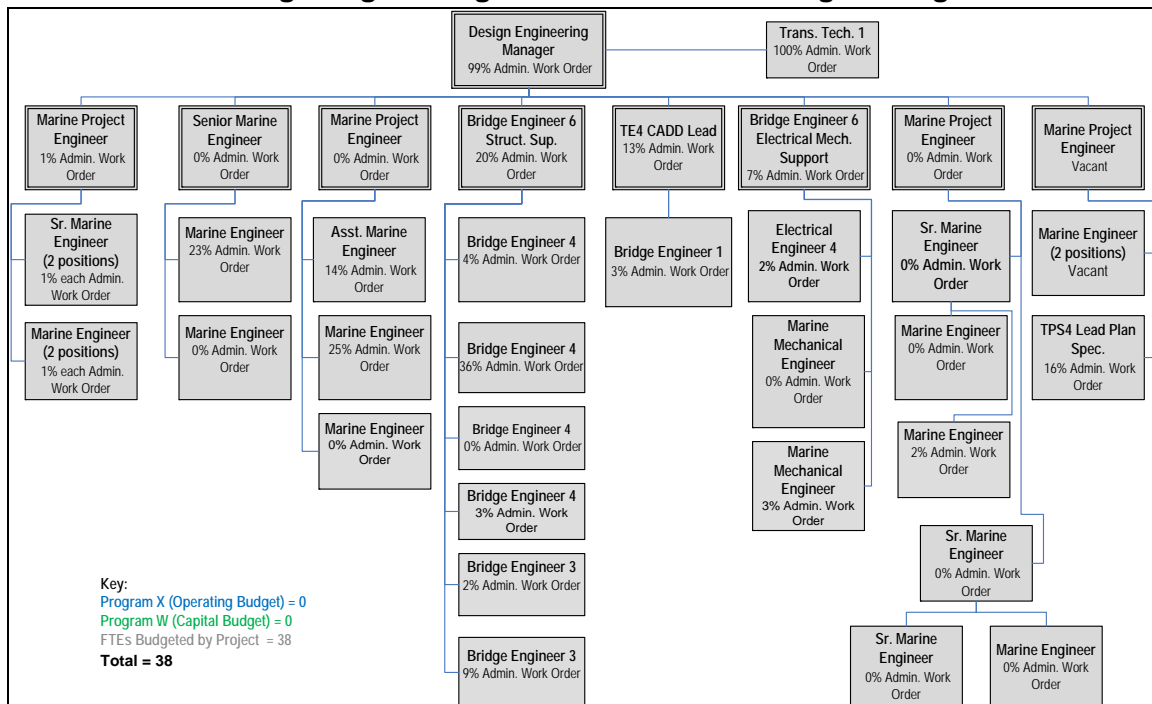
a. Overview

The Design Engineering section is the largest section of Terminal Engineering with 38 positions divided into eight (8) units, including four (4) project units, Structural Support, CADD and an Electrical Mechanical unit. Four (4) of the 38 positions were vacant throughout the biennium, including three out of four positions in one project management unit.

b. Administrative Work Order

Two (2) positions, the Design Engineering Manager and the Transportation Tech 1 assisting the Manager, charged more than 99 percent of their time to overhead. The remainder of the staff charged 36 percent or less of their to the administrative work order.

Figure A-4
Design Engineering Section of Terminal Engineering



c. Project Charges

Total biennium projects for the Design Engineering Section were \$4.4 million, of which \$2.1 million or 48 percent was for major improvements or new terminals at Mukilteo, Anacortes, Bainbridge, Keystone, Port Townsend and Edmonds. An additional \$0.5 million or 11 percent of the project charges were to the Eagle Harbor Maintenance Facility project and \$0.2 million or 5 percent of project charges were to the operating budget.

Table A-11
Design Engineering Section Project Charges
2005-07 Biennium

PIN	PIN Name	\$	%
952515K	Mukilteo Multimodal Terminal 03 Multi Modal	\$801,791	18%
900040N	Eagle Harbor Maintenance Facility Preservation	\$476,665	11%
902019U	Anacortes Multimodal Terminal 03 Nickel	\$402,287	9%
930513A	Bainbridge Island Trestle Improvement	\$349,038	8%
930513B	Bainbridge Island Terminal Preservation	\$282,205	6%
999940D	Catch-Up Preservation 03 Nickel	\$267,810	6%
989920X	Systemwide Miscellaneous Terminal Projects	\$262,628	6%
902017J	Keystone Alternative	\$247,612	6%
	Program X-Operating Budget	\$178,707	4%
900012D	Port Townsend Terminal Preservation	\$172,190	4%
900006N	Vashon Terminal Preservation	\$152,289	3%
910413M	Edmonds Multimodal Terminal	\$141,809	3%
900026L	Orcas Terminal Preservation	\$98,099	2%
900028Q	Friday Harbor Terminal Preservation	\$82,032	2%
916008N	Southworth Terminal Preservation	\$76,946	2%
910414N	Kingston Terminal Preservation	\$65,875	1%
989920M	X5 Terminal Reimbursable Contracts Using Caps	\$61,284	1%
900005L	Fauntleroy Terminal Preservation	\$47,034	1%
900010A	Seattle Terminal Preservation	\$41,168	1%
966640Q	Systemwide Pt of Sale Repl/Regional Fare	\$23,636	1%
989930B	Systemwide Terminal Physical Security Infrastructure	\$22,630	1%
989920K	Systemwide Movable Bridge Modifications	\$21,515	0%
966640F	Systemwide Terminal Design Standards	\$20,800	0%
999976T	Systemwide Tml Work Orders By Auditors	\$16,085	0%
902017F	Keystone Terminal Preservation / Relocation	\$13,572	0%
999940C	Systemwide Terminal Planning/Design	\$13,410	0%
977740A	Capital Program Development for Ferries Business Initiatives	\$12,784	0%
900028R	Friday Harbor Master Plan	\$9,207	0%
999920A	Systemwide Steel Piling Inventory Account	\$8,480	0%
999910K	Systemwide Emergency Repairs 2005-2023	\$7,365	0%
900010H	Colman Dock Interim Retail Development	\$6,558	0%
952515L	Mukilteo Terminal Preservation	\$3,091	0%
930410R	Bremerton Terminal Preservation	\$1,308	0%
930513D	Bainbridge Terminal Food Service Improvements	\$1,265	0%
966620E	Systemwide Operations Construction Support	\$1,155	0%
900010I	Seattle South Trestle Expansion	\$1,017	0%

PIN	PIN Name	\$	%
902019X	Anacortes Upland Parking Improvement	\$1,015	0%
No PIN	System Redistribution-No Direct Charges	\$1,008	0%
966640I	Systemwide Revenue Control System	\$744	0%
955540H	Systemwide Vessel Planning/Design	\$715	0%
Total		\$4,394,829	

10. Environmental Permits Section of Terminal Engineering

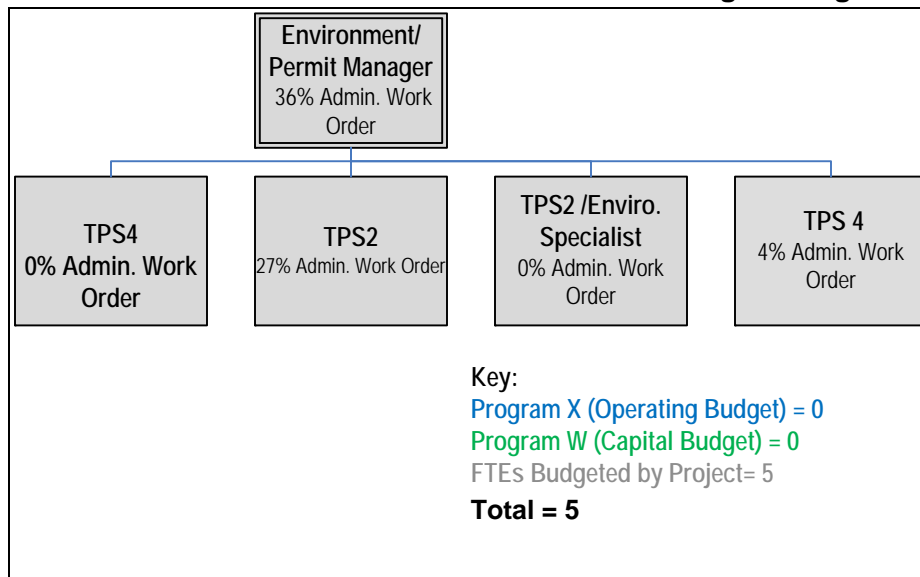
a. Overview

The Environmental Permits section includes five (5) positions, with one manager supervising four (4) Transportation Planning Specialists.

b. Administrative Work Order

None of the five positions in the Environmental Permits Section billed more than 36 percent of their time to the administrative work order.

**Figure A-5
Environmental/Permit Section of Terminal Engineering**



c. Project Charges

The Environmental Permits staff charged \$0.6 million to projects in the 2005-07 biennium, of which \$0.4 million or 57 percent was for major new or improved terminals at Anacortes, Mukilteo, Bainbridge, Keystone, Port Townsend, Seattle and Edmonds and \$0.1 million or 23 percent was to the Systemwide Miscellaneous Terminal Projects project, which includes scour monitoring. The Environmental/Permits section charged 3 percent (\$19,000) to the operating budget in the 2005-07 biennium.

**Table A-12
Environmental/Permit Section Project Charges
2005-07 Biennium**

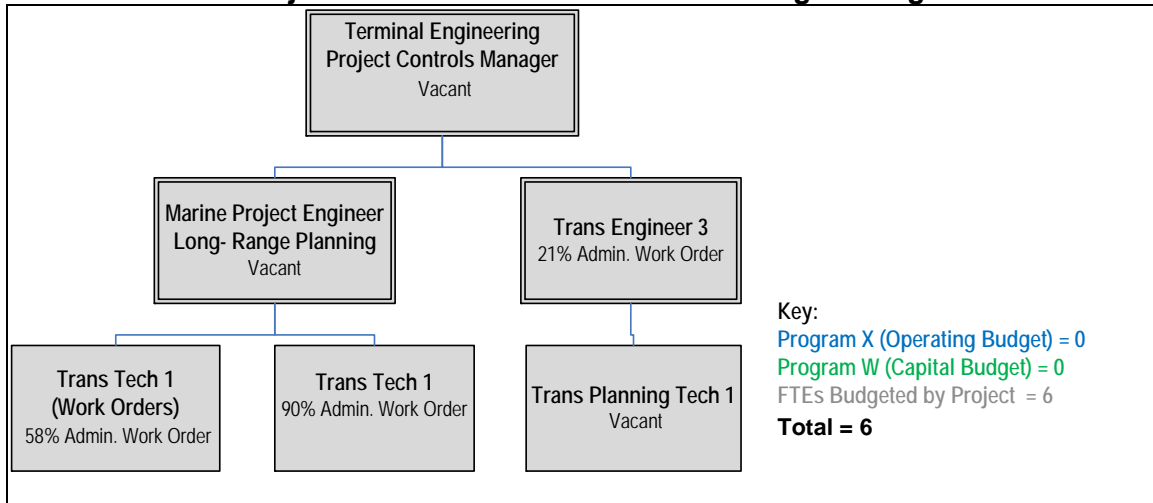
PIN	PIN Title	\$	%
989920X	Systemwide Miscellaneous Terminal Projects	\$145,635	23%
902019U	Anacortes Multimodal Terminal 03 Nickel	\$117,820	18%
952515K	Mukilteo Multimodal Terminal 03 Multi Modal	\$72,060	11%
930513A	Bainbridge Island Trestle Improvement	\$71,771	11%
900040N	Eagle Harbor Maintenance Facility Preservation	\$50,331	8%
902017J	Keystone Alternative	\$45,195	7%
900012D	Port Townsend Terminal Preservation	\$38,731	6%
930513B	Bainbridge Island Terminal Preservation	\$25,877	4%
No PIN	Program X – Operating Budget	\$19,317	3%
999940D	Catch-Up Preservation 03 Nickel	\$17,104	3%
900010A	Seattle Terminal Preservation	\$12,120	2%
910413M	Edmonds Multimodal Terminal	\$5,684	1%
900006N	Vashon Terminal Preservation	\$4,132	1%
989930B	Systemwide Terminal Physical Security Infrastructure	\$2,906	0%
989920K	Systemwide Movable Bridge Modifications	\$2,502	0%
916008N	Southworth Terminal Preservation	\$2,072	0%
966640Q	Systemwide Pt of Sale Repl/Regional Fare	\$1,903	0%
900028Q	Friday Harbor Terminal Preservation	\$1,720	0%
900026L	Orcas Terminal Preservation	\$1,688	0%
910414N	Kingston Terminal Preservation	\$1,253	0%
900005L	Fauntleroy Terminal Preservation	\$723	0%
966640F	Systemwide Terminal Design Standards	\$293	0%
955540I	Life Cycle Cost Model Update	\$249	0%
900028R	Friday Harbor Master Plan	\$219	0%
999910K	Systemwide Emergency Repairs 2005-2023	\$204	0%
999940C	Systemwide Terminal Planning/Design	\$160	0%
977740A	Capital Program Development for Ferries Business Initiatives	\$160	0%
999920A	Systemwide Steel Piling Inventory Account	\$138	0%
902017F	Keystone Terminal Preservation / Relocation	\$123	0%
930513D	Bainbridge Terminal Food Service Improvements	\$102	0%
	Total	\$642,190	

11. Project Controls Section

a. Administrative Work Order Charges

The Project Controls Section includes six (6) positions, three of which were vacant for the entire 2005-07 biennium: the Project Controls Manager, Transportation Planning Technician 1 and the Marine Project Engineer Long-Range Planning. One of the three filled positions, the Transportation Technician 1, charged 90 percent of its time to the administrative work order in the 2005-07 biennium.

**Figure A-6
Project Controls Section of Terminal Engineering**



b. Project Charges

This Project Controls section charged \$0.1 million to projects in the 2005-07 biennium, of which \$49,000 or 37 percent was for new or improved terminals planned for Anacortes, Mukilteo, Bainbridge Island, Edmonds, Keystone and Port Townsend, and \$44,000 or 33 percent was charged to the Systemwide Miscellaneous Terminal Projects project, which included the expenditures for the Primavera scheduling system.

**Table A-13
Project Controls Section Project Charges
2005-07 Biennium**

PIN	PIN Title	\$	%
989920X	Systemwide Miscellaneous Terminal Projects	\$44,141	33%
902019U	Anacortes Multimodal Terminal 03 Nickel	\$15,618	12%
952515K	Mukilteo Multimodal Terminal 03 Multi Modal	\$11,509	9%
930513A	Bainbridge Island Trestle Improvement	\$10,416	8%
930513B	Bainbridge Island Terminal Preservation	\$8,723	7%
999940D	Catch-Up Preservation 03 Nickel	\$7,133	5%
900040N	Eagle Harbor Maintenance Facility Preservation	\$6,880	5%
910413M	Edmonds Multimodal Terminal	\$6,448	5%
902017J	Keystone Alternative	\$2,764	2%
900028Q	Friday Harbor Terminal Preservation	\$2,534	2%
989930B	Terminal Physical Security Infrastructure	\$2,049	2%
900012D	Port Townsend Terminal Preservation	\$1,881	1%
No PIN	Program X Operating Budget	\$1,673	1%
900006N	Vashon Terminal Preservation	\$1,668	1%
916008N	Southworth Terminal Preservation	\$1,099	1%
900010H	Colman Dock Interim Retail Development	\$907	1%
900026L	Orcas Terminal Preservation	\$832	1%
900005L	Fauntleroy Terminal Preservation	\$719	1%
910414N	Kingston Terminal Preservation	\$688	1%

PIN	PIN Title	\$	%
966640Q	Systemwide Pt of Sale Repl/Regional Fare	\$580	0%
900010A	Seattle Terminal Preservation	\$566	0%
989920K	Systemwide Movable Bridge Modifications	\$468	0%
999910K	Systemwide Emergency Repairs 2005-2023	\$416	0%
900028R	Friday Harbor Master Plan	\$339	0%
966640F	Systemwide Terminal Design Standards	\$328	0%
989920M	X5 Terminal Reimbursable Contracts Using Caps	\$316	0%
999976T	Systemwide Tml Work Orders By Auditors	\$316	0%
930513D	Bainbridge Terminal Food Service Improvements	\$229	0%
999940D	** Catch-Up Preservation 03 Nickel **	\$220	0%
999940C	Systemwide Terminal Planning/Design	\$193	0%
952515L	Mukilteo Terminal Preservation	\$146	0%
999920A	Systemwide Steel Piling Inventory Account	\$145	0%
966640I	Systemwide Revenue Control System	\$118	0%
Total		\$132,059	

Appendix B. Vessel Engineering/Vessel Maintenance & Preservation

This Appendix reviews the vessel capital program, the Vessel Engineering Division, and the Vessel Maintenance & Preservation Division. These two divisions are responsible for the preservation of Ferries' fleet, and for the design and construction of new vessels.

These divisions supported a \$76.0 million vessel capital program in the 2005-07 biennium and incurred \$10.9 million in administrative expenses, representing 14 percent of the total vessel capital expenditures.

**Table B-1
Summary
Vessel Engineering and Vessel Maintenance & Preservation Divisions
Capital Staff and Administration Expenses, 2005-07 Biennium
(\$ millions)**

Expense	\$	% of Total Vessel Capital
Capital staff charges to admin. work order	0.9	1%
Capital staff charges to project work orders	5.5	8%
Operating staff charges to capital	1.1	1%
On-site consultants	2.3	3%
Other administrative services & charges	1.1	1%
Total Vessel Engineering/Vessel M&P Admin. Expenses	10.9	
Terminal Capital Expenditures	76.0	
% Vessel Engineering/Vessel M&P Administration	14%	14%

1. 2005-07 Biennium

In the 2005-07 biennium, Ferries expended \$183.1 million in capital funds from the Puget Sound Capital Construction Account, of which \$76.0 million or 41 percent was for vessel projects. Of the \$76.0 million expended on vessel projects, \$33.1 million or 43 percent was for vessel preservation projects, \$24.3 million or 32 percent was for new vessel acquisition, and \$18.6 million or 25 percent was for systemwide projects.

The table below shows the 2005-07 biennium vessel capital project expenditures.

Table B-2
2005-07 Vessel Project Expenditures
(\$ millions)

PIN	Project Title	\$	%
New Vessel Construction			
944460U	Four 144-Car Replacement Ferries	24.3	32%
Preservation Projects			
<i>Steel Electric Class Built in 1920s</i>			
944421B	Illahee	0.4	
944424B	Klickitat	0.2	
944422B	Nisqually	0.1	
944423B	Quinault		
Sub-Total		0.7	
<i>Misc. Built in 1940s</i>			
944452B	Rhododendron	0.5	
<i>Evergreen State Class Built in 1950s</i>			
944412C	Klahowya	0.9	
944413B	Tillikum	0.9	
Sub-total		1.8	
<i>Super Class Built in 1960s</i>			
944432G	Elwha	6.2	
944431D	Hyak	6.5	
944433D	Kaleetan	2.8	
944434D	Yakima	0.4	
Sub-total		15.9	
<i>Jumbo Mark I Class Built in 1970s</i>			
944442B	Spokane	0.2	
944441B	Walla Walla	6.4	
Sub-total		6.6	
<i>Issaquah Class Built in 1980s</i>			
944404D	Cathlamet	0.2	
944405D	Chelan	0.3	
944401D	Issaquah	1.0	
944403D	Kitsap	0.7	
944402D	Kittitas	0.2	
944406D	Sealth	4.6	
Sub-total		7.0	
<i>Jumbo Mark II Class Built in 1990s</i>			
944499D	Tacoma	0.4	
Sub-total		0.4	
<i>Passenger Only Ferries</i>		.2	
Total Vessel Preservation Projects		33.1	43%
Systemwide Projects			
955570B	Vessel Physical Security Infrastructure	7.2	
955560K	Commo/Navigation/Life Saving	3.3	
955560M	Vessel Communications (IT)	1.6	

PIN	Project Title	\$	%
985550B	Vessel Projects	1.6	
955540H	Vessel Planning/Design	1.0	
955540K	Vessel As-built Drawings Updates	0.6	
955560N	Wireless Over Water	0.5	
985550E	Vessel Contracts Using CAPS	0.5	
999976W	Vessel Noise Control (Abatement)	0.5	
955570A	Accessibility Modifications	0.5	
955570D	Vessel Physical Security Planning	0.3	
955560L	Wireless Connections	0.2	
955540M	Vessel Electrical Special Projects	0.2	
955540I	Vessel Life Cycle Cost Model Update	0.1	
955570C	Vessel Safety Mgmt Enhancements	0.1	
955560P	Wireless/Ferry Customers	0.1	
999976V	Vessel Work Orders by Auditor	0.1	
955540L	Vessel Environmental Studies	0.1	
Total Systemwide		18.6	25%
Total		76.0	

2. Vessel Maintenance & Preservation Organizational Structure

The Vessel Maintenance & Preservation Division's organizational structure is discussed in detail in the *Washington State Ferries Financing Study II: Auto-Passenger Vessel Preservation and Replacement Final Report*, January 2008.

The Division has six (6) positions supported by the capital budget: a Port Engineer for Vessel Preservation, three (3) Vessel Project Engineer positions, a Capital Project Engineer/Estimator and an Inventory Agent. As shown in the table below, total staff charges to the capital program in the 2005-07 biennium (including charges by Chief Engineers to the administration work order) totaled \$1.1 million.

Table B-3
Summary 2005-07 Vessel Maintenance & Preservation
Staff Expense
(\$ millions)

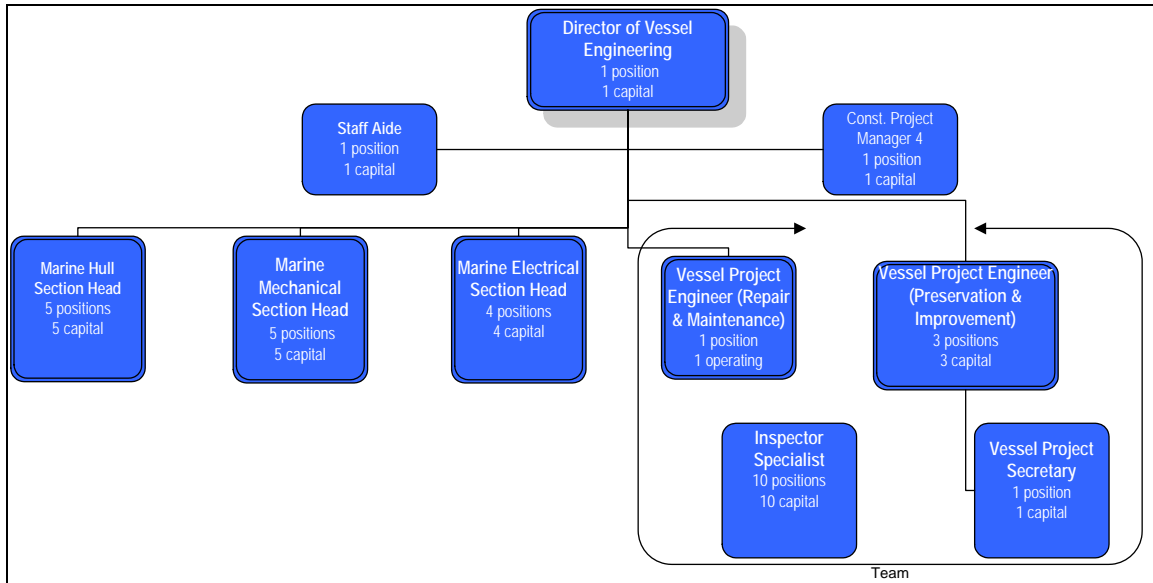
Expense	\$	% Capital
Administrative Work Order	0.3	27%
Project	0.8	73%
Total Capital	1.1	

3. Vessel Engineering Organizational Structure

The Vessel Engineering Division has 32 authorized positions (see Figure B-1 below). The division is divided into four sections: Marine Hull; Marine Mechanical; Marine Electrical; and a fourth section that includes four (4) Vessel Project Engineers and 10 vessel inspector positions for the vessel preservation program.

Of the 32 authorized positions, 28 are shown in the Ferries organization chart as supported by the capital program (six in the capital budget and 22 project positions), and four (4) positions by the operating program (one in the operating budget and three FTE project positions). In the 2005-07 biennium, all of the Vessel Engineering positions were filled for at least part of the biennium.

**Figure B-1
Vessel Engineering Division
2005-07 Biennium**



* Ferries's organization chart shows three (3) FTE of the capital organization chart supported by the operating budget. In the 2005-07 biennium, Vessel Engineering project staff charged \$0.7 million to the operating budget.

Total labor expenses charged to the capital budget were \$5.4 million in the 2005-07 biennium. Seven hundred thousand dollars (\$0.7 million) were charged by project positions to the operating budget. The table below provides a summary of these charges:

**Table B-4
Summary 2005-07 Vessel Engineering
Staff Expense
(\$ millions)**

Program	\$	% Capital	% Total
<i>Capital</i>			
Administrative Work Order	0.6	11%	
Project	4.8	89%	
Total Capital	5.4		94%
Operating	0.7		6%
Total Charges Capital and Operating	6.1		

4. Staff Charges

a. Staff Charges to Administrative Work Order

Capital overhead expenditures from the Vessel Maintenance & Preservation and Vessel Engineering divisions totaled \$0.9 million in the 2005-07 biennium, of which \$0.6 million or 67 percent was from Vessel Engineering, and \$0.3 million or 33 percent was from Vessel Maintenance & Preservation.

i. Vessel Engineering

In the 2005-07 biennium, administrative charges of \$0.6 million were incurred by 31 Vessel Engineering positions, with most charges a small percentage of total position costs. The Director charged 100 percent of time to overhead; the Vessel Project Secretary and Staff Aide charged 69 percent and 52 percent of their time to overhead; and the three section heads charged 22 percent, 21 percent and 10 percent, respectively, of their time to overhead. Administrative overhead charges represent 13 percent of the time Vessel Engineering charged to the capital program.

ii. Vessel Maintenance & Preservation

The Vessel Maintenance & Preservation Division charged \$0.3 million to the administrative overhead work order, of which \$0.2 million was for Chief Engineers not counted in the administrative positions.⁴ Administrative overhead charges represent 16 percent of the time Vessel Maintenance and Engineering charged to the capital program.

**Table B-5
Vessel Engineering and Vessel Maintenance & Preservation Position Charges to
Administrative Work Order**

Position Title	Number	Section	Admin Amount	% charged to Admin
Director	9W033*	Director	\$252,815	100%
Staff Aide	A0102*	Director	\$55,067	52%
Const Proj Manager 4	90205	Director	\$20,428	11%
Marine Hull Head	9W046	Hull	\$44,879	22%
Naval Arch 2	90104	Hull	\$16,949	10%
Marine Hull Designer	90026	Hull	\$10,628	7%
Marine Hull Designer	90211	Hull	\$4,041	2%
Naval Arch 1	90154	Hull	\$1,053	1%
Mechanical Head	9W047	Mechanical	\$46,334	21%
Marine Mech Engineer	90264	Mechanical	\$17,929	7%
Marine Mech Engineer	90263	Mechanical	\$10,332	5%
Marine Designer	90027	Mechanical	\$2,996	2%
Marine Mech Engineer	90136	Mechanical	\$2,986	2%
Marine Electrical Section Head	9W048	Electrical	\$20,798	10%
Electrical Engineer 4	90260	Electrical	\$8,811	2%
Marine Electrical Designer	90201	Electrical	\$3,818	4%

⁴ Expenses charged for the Chief Engineers to the overhead administrative work order were for a special project that FERRIES indicates should have been charged to the operating budget.

Position Title	Number	Section	Admin Amount	% charged to Admin
Electrical Engineer 4	90258	Electrical	\$116	0%
Vessel Project Secretary	A0103*	Project Eng	\$31,707	69%
Vessel Project Engineer	90179*	Project Eng	\$27,682	12%
Vessel Project Engineer	90174*	Project Eng	\$2,033	1%
Vessel Project Engineer	90300*	Project Eng	\$813	0%
Inspector Specialist	90023	Inspection	\$24,740	11%
Inspector Specialist	90202	Inspection	\$12,546	9%
Inspector Specialist	90125	Inspection	\$2,903	4%
7 Inspector Positions			\$5,396	1% or<
Total Vessel Engineering Charges to Administrative Work Order			\$627,799	
Vessel Engineering Charges to Capital Projects			\$4,222,892	
Total Vessel Engineering Capital Charges			\$4,850,691	
<i>Vessel Maintenance & Preservation</i>				
Chief Engineer	LP461**	Eng Room Crew	\$173,463	95%
Chief Engineer	LP098**	Eng Room Crew	\$19,378	72%
Vessel Project Engineer	90200*	Vessel Preservation	\$29,496	17%
Vessel Project Engineer	90290*	MPET	\$29,096	15%
Vessel Project Engineer	90291*	Vessel Preservation	\$32,958	19%
Vessel Project Engineer	90300	Eagle Harbor	\$4,379	1%
Total Vessel Maintenance & Preservation Charges to Admin Wk Order			\$288,770	
Total Vessel Maintenance & Preservation Charges to Capital Projects			\$699,818	
Total Vessel Maintenance & Preservation Capital Charges			\$988,588	
Total Both Divisions Charges to Administrative Work Order			\$916,569	
Total Both Divisions Charges to Capital Projects			\$4,922,710	
Total Both Divisions Capital Charges			\$5,839,279	

*Position identified as a capital budget position. All others are project positions. ** Not administrative positions.

b. Staff Charges to Projects and Operating Budget

i. Vessel Engineering

Vessel Engineering had 30 of its 32 positions charge directly to capital projects in the 2005-07 biennium. (The Director charged 100 percent of time to the administrative overhead work order; one position is funded by the operating fund.) Table B-5 below shows by project the capital project (\$4.8 million) and operating budget charges (\$0.7 million) from these 30 positions.

Of the \$4.8 million Vessel Engineering staff charged to capital projects, \$2.2 million or 45 percent were to preservation projects, \$1.5 million or 31 percent to systemwide projects, \$.9 million or 20 percent to the new vessel construction program, and \$0.2 million or 4 percent to emergency repair and terminal projects. Of the time charged to projects, Vessel Engineering staff charged 12 percent to the operating budget.

ii. Vessel Maintenance & Preservation

The six capital funded positions in the Vessel Maintenance & Preservation budget all charged directly to capital projects in the 2005-07 biennium. Table B-5 below shows by

project the capital project (\$0.7 million) and operating budget charges (\$50,000) from these six positions.

Of the \$0.7 million Vessel Maintenance & Preservation charged to capital projects, 98 percent was for preservation projects and 2 percent for systemwide projects. Vessel Maintenance & Preservation staff charged 7 percent of their project charges to the operating budget.

**Table B-6
Vessel Engineering and Vessel Maintenance & Preservation
Project Position Charges
2005-07 Biennium**

Pin	PIN Name	Vessel Eng.				Vessel M&P			
		\$	Sub-Total	%	% Cap	\$	Sub-Total	%	% Cap
<i>New Vessel Construction</i>			\$948,034	17%	20%				
944460L	Four 144-Car Replacement Ferries	\$948,034							
<i>Vessel Preservation</i>			\$2,171,210	39%	45%	\$685,361	91%	98%	
944432G	MV Elwha Preservation	\$485,520			\$3,343				
944406D	MV Sealth Preservation	\$283,591			\$151,303				
944431D	MV Hyak Preservation	\$305,448							
944441B	MV Walla Walla Preservation	\$198,950			\$15,626				
944433D	MV Kaleetan Preservation	\$156,119			\$132,596				
944401D	MV Issaquah Preservation	\$154,241			\$142,216				
944403D	MV Kitsap Preservation	\$87,355							
944404D	MV Cathlamet Preservation	\$68,543							
944452B	MV Rhododendron Preservation	\$69,352							
944424B	MV Klickitat Preservation	\$48,267							
944421B	MV Illahee Preservation	\$49,003							
944413B	MV Tillikum Preservation	\$46,058			\$80,296				
944412C	MV Klahowya Preservation	\$53,973			\$151,543				
944402D	MV Kittitas Preservation	\$55,663							
944405D	MV Chelan Preservation	\$33,939							
944499D	MV Tacoma Preservation	\$19,640							
944434D	MV Yakima Preservation	\$9,987							
944442B	MV Spokane Preservation	\$13,494			\$8,438				
944499C	MV Puyallup Preservation	\$8,024							
944422B	MV Nisqually Preservation	\$7,601							
944499E	MV Wenatchee Preservation	\$7,219							
944461A	Passenger Only Preservation	\$6,203							
944405E	MV Chelan SOLAS Modifications	\$2,124							
944410F	MV Evergreen State Preservation	\$895							
<i>Systemwide Projects</i>			\$1,512,747	27%	31%	\$13,356	2%	2%	
955570B	Vessel Physical Security Infrast.	\$438,520							
955540H	Vessel Planning/Design	\$215,721							
955560M	Vessel Communications (IT)	\$151,261							
999910K	Emergency Repairs	\$147,781							

Pin	PIN Name	Vessel Eng.			Vessel M&P		
955540K	Vessels As Built Drawings	\$92,936					
955540I	Vessel Life Cycle Cost Model Update	\$76,782					
955560K	Vessel Commu/Navig Equipment	\$68,832					
955570A	Vsl Accessibility Modifications	\$86,089					
955540L	Vessels Environmental Studies	\$39,178					
985550E	Prog X Vsl Contracts Using CAPS	\$73,313					
955540M	Vessels Electrical Special Project	\$35,635					
955560P	Wireless/Ferry Customers	\$33,071					
955570D	Vessel Physical Security Planning	\$22,495					
999976W	Vessel Noise Control (Abatement)	\$19,840					
985550B	Miscellaneous Vessel Projects	\$8,563					
955550B	*PB* Vessel Projects	\$1,375					
955570C	Vessel Safety Mgmt Enhancements	\$939					
999976V	Vessel Work Orders By Auditor	\$417			\$13,356		
Terminal Projects			\$118,251	2%	2%	\$1,102	0% 0%
902017J	Keystone Terminal 2009-2023	\$53,622					
952515K	Mukilteo Multimodal Terminal	\$2,177					
902017F	Keystone Terminal	\$1,404					
900040N	Eagle Harbor Maintenance Facility	\$61,049			\$1,102		
Emergency Repairs			\$80,272	1%	2%		
999910K	Emergency Repairs	\$74,101					
999910J	Emergency Repairs 03-05	\$6,170					
Operating Budget			\$674,302	12%		\$50,311	7%
Program X		\$674,302			\$50,311		
Total Capital and Operating		\$5,504,816			\$750,129		
Total Capital		\$4,830,514			\$699,818		

Vessel Engineering Crews: Vessel Engineering crews charged an additional \$1.1 million of labor costs to the capital program. A breakdown of the charges by project is not available.⁵

5. On-Site Consultants

In the 2005-07 biennium, Vessel Engineering spent \$2.1 million on on-site consultants who provided engineering and management services. The Vessel Maintenance & Preservation Division spent \$0.2 million on on-site consultants for fuel conservation studies and staffing support.

⁵ The object code report shows total capital program charges of \$1.3 million for Vessel Engine Crews, of which \$.2 million is accounted for in overhead.

Table B-7
Vessel Divisions' On-Site Consultants
(\$ millions)

Contractor	Project/Task	\$	%
<i>Vessel Engineering</i>			
Elliot Bay Design	On-Site Personnel - Electrical & Mechanical	0.6	29%
SRI	On-Site Support Personnel – Vessel Engineering	0.6	29%
Cadco	On-Site Electrical Marine Engineer	0.5	24%
Art Anderson	On-Site Senior Designer - As Built Hull	0.2	10%
Jensen Maritime	On-Site Support - Senior Manager	0.2	10%
<i>Total Vessel Engineering</i>		<i>2.1</i>	
<i>Vessel Maintenance & Preservation</i>			
Vessel Maint	Fuel Conservation Study	0.1	50%
Vessel Maint	On-site Staffing Support	0.1	50%
<i>Total Vessel Maintenance & Preservation</i>		<i>0.2</i>	

6. Other Administrative Capital Services and Charges

a. Vessel Maintenance & Preservation

The Vessel Maintenance & Preservation Division had less than \$100,000 in other capital services and charges in the 2005-07 biennium.

b. Vessel Engineering

Vessel Engineering incurred \$1.1 million in other capital program administrative services and charges, the largest of which was \$0.7 million for rent and lease of property. Other administrative services and charges included staff travel, telephone, office and information technology equipment.

Table B-8
Vessel Engineering Other Services & Charges
2005-07 Biennium
(\$ millions)

Other Services and Charges	\$
Rent & Leases - Property	0.7
Travel	0.2
Office machinery/IT Equipment/Furnishings	0.1
Telephone, data lines	0.1
Total	1.1

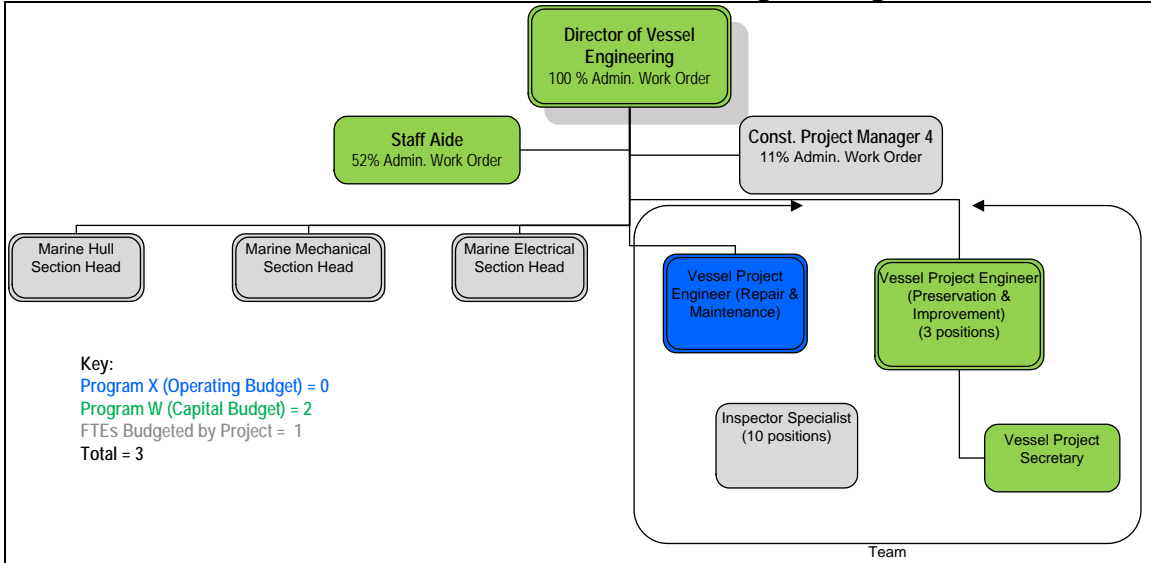
7. Office of the Director of Vessel Engineering

a. Administrative Work Order Charges

The Office of the Director includes two positions (the Director and Staff Aide), which are budgeted in the capital budget. A third position, a Construction Project Manager 4, is a capital supported project position that charged 11 percent of its time to the administrative

work order. The Director charged 100 percent of time to the administrative work order and the Staff Aide 52 percent.

**Figure B-2
Office of the Director of Vessel Engineering**



b. Project Charges

Total project charges from the Office of the Director were \$175,000 from the Construction Project Manager 4. (See Table B-8 below) Of these charges, \$97,000 or 55 percent were from vessel preservation projects, \$48,000 or 28 percent from the operating budget, and \$19,000 or 11 percent from the New 144-Car Vessel project.

**Table B-9
Office of the Director of Vessel Engineering
Project Charges 2005-07 Biennium**

Pin	PIN Name	\$	%
No PIN	Program X – Operating Budget	\$48,494	28%
944460L	Construct Four 144-Car Replacement Auto-Pass Ferry	\$19,467	11%
944431D	MV Hyak Preservation	\$15,766	9%
944406D	MV Sealth Preservation	\$12,609	7%
944432G	MV Elwha Preservation	\$10,186	6%
944433D	MV Kaleetan Preservation	\$7,770	4%
944401D	MV Issaquah Preservation	\$7,665	4%
944452B	MV Rhododendron Preservation	\$6,831	4%
944499C	MV Puyallup Preservation	\$6,823	4%
944441B	MV Walla Walla Preservation	\$4,502	3%
944499E	MV Wenatchee Preservation	\$4,448	3%
944403D	MV Kitsap Preservation	\$3,858	2%
955540H	Systemwide Vessel Planning/Design	\$2,904	2%
944442B	MV Spokane Preservation	\$2,678	2%
955570B	Systemwide Vessel Physical Security Infrastructure	\$2,622	1%

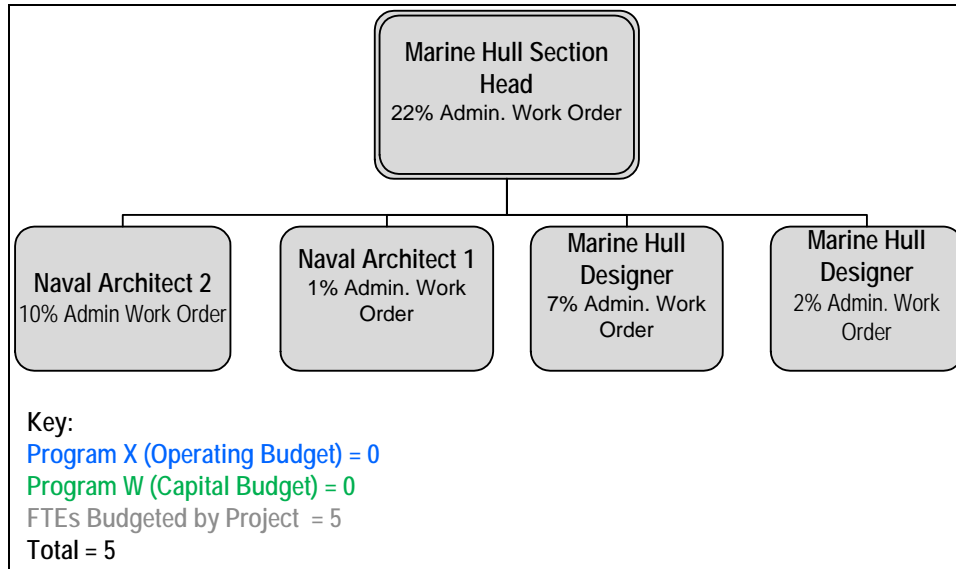
Pin	PIN Name	\$	%
944422B	MV Nisqually Preservation	\$2,365	1%
944434D	MV Yakima Preservation	\$2,253	1%
944404D	MV Cathlamet Preservation	\$2,252	1%
944405D	MV Chelan Preservation	\$1,991	1%
944413B	MV Tillikum Preservation	\$1,508	1%
999910K	Systemwide Emergency Repairs	\$1,272	1%
944424B	MV Klickitat Preservation	\$942	1%
985550E	Systemwide Prog X Vsl Contracts Using CAPS	\$908	1%
944421B	MV Illahee Preservation	\$775	0%
944499D	MV Tacoma Preservation	\$726	0%
955560M	Systemwide Vessel Communications (IT)	\$527	0%
955540I	Systemwide Vessel Life Cycle Cost Model Update	\$516	0%
955560K	Systemwide Vessel Commu/Navig Equipment	\$317	0%
944412C	MV Klahowya Preservation	\$296	0%
999976W	Systemwide Vessel Noise Control (Abatement)	\$291	0%
955570A	Systemwide Vsl Accessibility Modifications	\$279	0%
999910K	Systemwide Emergency Repairs	\$276	0%
955560P	Systemwide Wireless/Ferry Customers	\$215	0%
900040N	Eagle Harbor Maintenance Facility Preservation	\$204	0%
955540M	Systemwide Vessels Electrical Special Project	\$112	0%
	Total	\$175,017	100%

8. Marine Hull Section of Vessel Engineering

a. Administrative Work Order

The Marine Hull Section's five positions all charged less than 25 percent of their time to the administrative work order, with the section head charging 22 percent of time to the administrative work order, and the other four positions charging 10 percent or less of their time to the administrative work order.

**Figure B-3
Marine Hull Section of Vessel Engineering**



b. Project Charges

Total project charges for the biennium from the Marine Hull Section were \$0.8 million in the 2005-07 biennium, of which \$225,000 or 29 percent were for vessel preservation projects, \$102,000 or 13 percent were for operating budget projects, and \$82,000 or 11 percent for physical security infrastructure projects. The section charged \$66,000 or 9 percent of their charges to the New 144-Car Vessel project.

**Table B-10
Marine Hull Section Project Charges
2005-07 Biennium**

PIN	Project	\$	%
No PIN	Program X-Operating Budget	\$102,219	13%
955570B	Systemwide Vessel Physical Security Infrastructure	\$82,189	11%
955540H	Systemwide Vessel Planning/Design	\$70,884	9%
944460L	Construct Four 144-Car Replacement Auto-Pass Ferri	\$65,506	9%
955540K	Systemwide Vessels As Built Drawings	\$56,912	7%
944432G	MV Elwha Preservation	\$54,309	7%
902017J	Keystone Terminal 2009-2023	\$45,925	6%
955570A	Systemwide Vsl Accessibility Modifications	\$33,118	4%
955560K	Systemwide Vessel Commu/Navig Equipment	\$32,062	4%
944406D	MV Sealth Preservation	\$26,670	4%
944421B	MV Illahee Preservation	\$21,767	3%
944441B	MV Walla Walla Preservation	\$18,493	2%
955560M	Systemwide Vessel Communications (IT)	\$17,631	2%
944424B	MV Klickitat Preservation	\$17,323	2%
944401D	MV Issaquah Preservation	\$14,547	2%
944433D	MV Kaleetan Preservation	\$14,019	2%

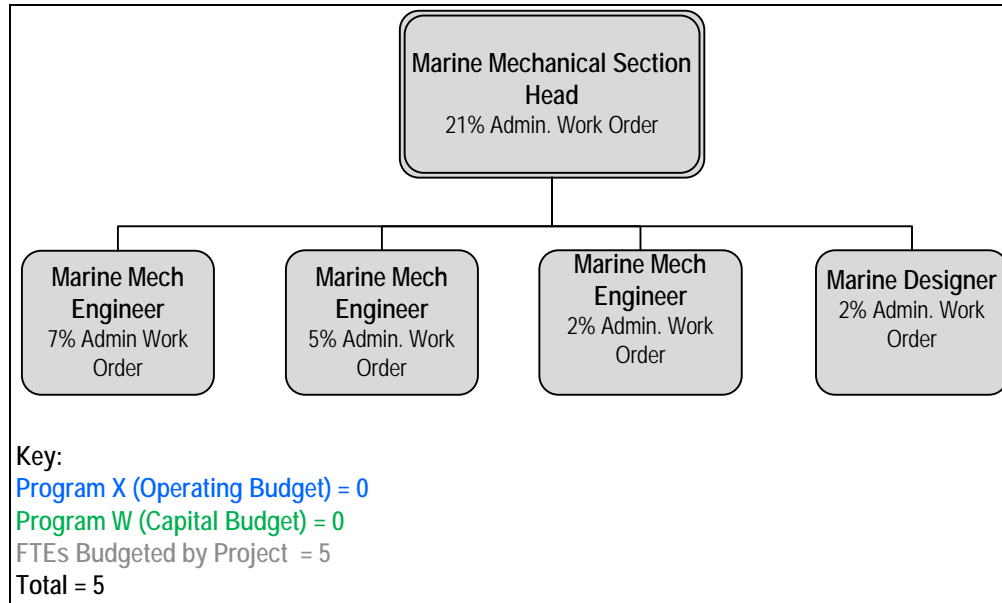
PIN	Project	\$	%
944431D	MV Hyak Preservation	\$11,063	1%
955540M	Systemwide Vessels Electrical Special Project	\$8,167	1%
944402D	MV Kittitas Preservation	\$8,120	1%
944452B	MV Rhododendron Preservation	\$7,242	1%
944412C	MV Klahowya Preservation	\$7,189	1%
944499D	MV Tacoma Preservation	\$5,152	1%
955560P	Systemwide Wireless/Ferry Customers	\$5,079	1%
944405D	MV Chelan Preservation	\$3,660	0%
944403D	MV Kitsap Preservation	\$3,453	0%
944413B	MV Tillikum Preservation	\$3,236	0%
999910K	Systemwide Emergency Repairs	\$3,034	0%
955540L	Systemwide Vessels Environmental Studies	\$2,540	0%
985550E	Systemwide Prog X Vsl Contracts Using CAPS	\$2,225	0%
944499E	MV Wenatchee Preservation	\$2,174	0%
952515K	Mukilteo Multimodal Terminal	\$2,041	0%
944404D	MV Cathlamet Preservation	\$1,593	0%
955570D	Systemwide Vessel Physical Security Planning	\$1,522	0%
902017F	Keystone Terminal Preservation / Relocation	\$1,317	0%
955540I	Systemwide Vessel Life Cycle Cost Model Update	\$1,270	0%
999910K	Systemwide Emergency Repairs	\$1,225	0%
944499C	MV Puyallup Preservation	\$1,043	0%
999976W	Systemwide Vessel Noise Control (Abatement)	\$924	0%
955570C	Systemwide Vessel Safety Mgmt Enhancements	\$897	0%
944442B	MV Spokane Preservation	\$847	0%
944410F	MV Evergreen State Preservation	\$820	0%
944422B	MV Nisqually Preservation	\$775	0%
944405E	MV Chelan SOLAS Modifications	\$724	0%
985550B	Systemwide Miscellaneous Vessel Projects	\$391	0%
No PIN	System Redistribution-No Direct Charges	\$252	0%
944434D	MV Yakima Preservation	\$101	0%
Total		\$761,738	

9. Marine Mechanical Section of Vessel Engineering

a. Administrative Work Order

The Marine Mechanical Section's five positions all charged some time to the administrative work order, with the Section Head charging 21 percent of its time, the three Marine Mechanical Engineers charged 7 percent, 5 percent and 2 percent, and the Marine Designer 2 percent.

**Figure B-4
Marine Mechanical Section of Vessel Engineering**



b. Project Charges

Total project charges for the 2005-07 biennium from the Marine Mechanical Section were \$1.0 million, of which \$357,000 or 37 percent was for the New 144-Car Vessel project, \$274,000 or 28 percent was for vessel preservation projects, \$102,000 was for the Systemwide Vessel Planning/Design project which included vessel planning and management, Jumbo Mark II cavitation studies and fuel conservation studies, and 11 percent was for operating budget projects.⁶

**Table B-11
Marine Mechanical Section Project Charges
2005-07 Biennium**

PIN	Project	\$	%
944460L	Construct Four 144-Car Auto-Passenger Ferries	\$357,266	37%
955540H	Systemwide Vessel Planning/Design	\$102,284	11%
No PIN	Program X - Operating Budget	\$101,533	11%
944432G	MV Elwha Preservation	\$66,394	7%
944406D	MV Sealth Preservation	\$44,899	5%
955540L	Systemwide Vessels Environmental Studies	\$36,159	4%
944401D	MV Issaquah Preservation	\$32,727	3%
955540I	Systemwide Vessel Life Cycle Cost Model Update	\$32,674	3%
944433D	MV Kaleetan Preservation	\$31,613	3%
944431D	MV Hyak Preservation	\$23,435	2%
944403D	MV Kitsap Preservation	\$20,569	2%
944405D	MV Chelan Preservation	\$14,680	2%

⁶ See *Washington State Ferries Financing Study II: Auto-Passenger Vessel Preservation and Replacement Final Report*, January 2008, p. 52 for further information.

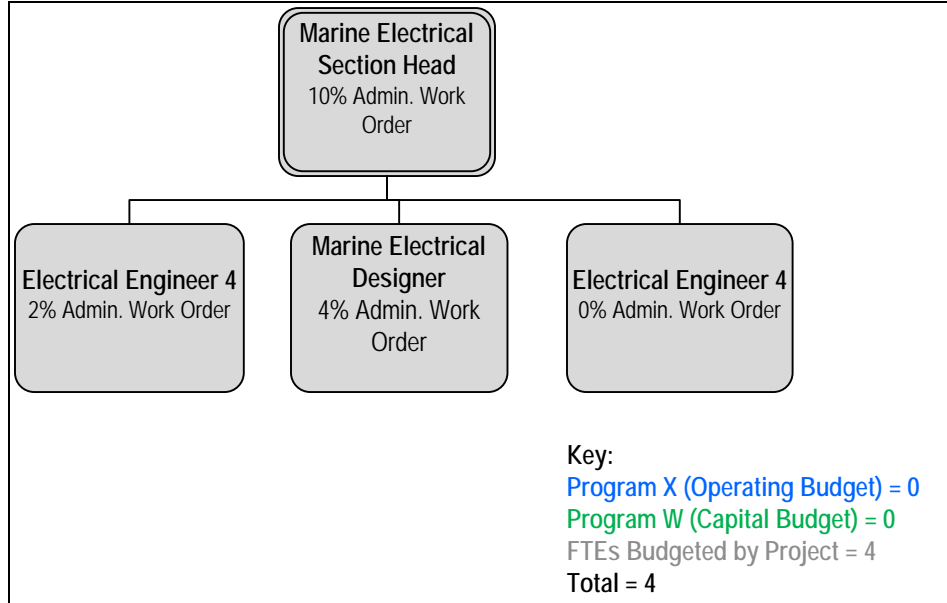
PIN	Project	\$	%
955570B	Systemwide Vessel Physical Security Infrastructure	\$13,230	1%
955560M	Systemwide Vessel Communications (IT)	\$12,456	1%
944441B	MV Walla Walla Preservation	\$10,234	1%
944404D	MV Cathlamet Preservation	\$8,418	1%
985550B	Systemwide Miscellaneous Vessel Projects	\$8,088	1%
944402D	MV Kittitas Preservation	\$8,005	1%
955540K	Systemwide Vessels As Built Drawings	\$7,345	1%
902017J	Keystone Terminal 2009-2023	\$6,538	1%
999910K	Systemwide Emergency Repairs	\$5,478	1%
944499D	MV Tacoma Preservation	\$3,887	0%
944434D	MV Yakima Preservation	\$3,319	0%
944421B	MV Illahee Preservation	\$2,997	0%
955560K	Systemwide Vessel Commu/Navig Equipment	\$1,969	0%
955570A	Systemwide Vsl Accessibility Modifications	\$1,487	0%
944424B	MV Klickitat Preservation	\$934	0%
955540M	Systemwide Vessels Electrical Special Project	\$785	0%
944413B	MV Tillikum Preservation	\$689	0%
985550E	Systemwide Prog X Vsl Contracts Using CAPS	\$584	0%
955560P	Systemwide Wireless/Ferry Customers	\$568	0%
944412C	MV Klahowya Preservation	\$460	0%
No PIN	System Redistribution-No Direct Charges	\$426	0%
955570D	Systemwide Vessel Physical Security Planning	\$424	0%
944452B	MV Rhododendron Preservation	\$251	0%
944442B	MV Spokane Preservation	\$242	0%
944405E	MV Chelan SOLAS Modifications	\$130	0%
944499E	MV Wenatchee Preservation	\$113	0%
Total		\$963,837	

10. Marine Electrical Section of Vessel Engineering

a. Administrative Work Order

Three of the four Marine Electrical Section's positions charged some time to the administrative work order, with the Section Head charging 10 percent of its time, the Electrical Engineer 4 charging 2 percent and the Marine Electrical Designer charging 4 percent.

**Figure B-5
Marine Electrical Section of Vessel Engineering**



b. Project Charges

Total project charges for the 2005-07 biennium from the Marine Electrical Section were \$0.8 million, of which \$388,000 or 47 percent was for vessel preservation projects, \$122,000 was for the Systemwide Vessel Physical Security Infrastructure project, \$50,000 or 6 percent was for operating budget projects, and \$42,000 or 5 percent was for the New 144-Car Vessel project.

**Table B-12
Marine Electrical Section Project Charges
2005-07 Biennium**

PIN	Project	\$	%
944432G	MV Elwha Preservation	\$130,404	16%
955570B	Systemwide Vessel Physical Security Infrastructure	\$122,266	15%
944406D	MV Sealth Preservation	\$64,442	8%
955560M	Systemwide Vessel Communications (IT)	\$59,933	7%
No PIN	Program X – Operating Budget	\$49,684	6%
944460L	Construct Four 144-Car Replacement Auto-Pass Ferri	\$42,139	5%
944404D	MV Cathlamet Preservation	\$39,955	5%
944401D	MV Issaquah Preservation	\$39,871	5%
944431D	MV Hyak Preservation	\$36,327	4%
955540H	Systemwide Vessel Planning/Design	\$28,558	3%
955540I	Systemwide Vessel Life Cycle Cost Model Update	\$23,569	3%
999976W	Systemwide Vessel Noise Control (Abatement)	\$23,484	3%
955540K	Systemwide Vessels As Built Drawings	\$23,189	3%
944402D	MV Kittitas Preservation	\$20,663	3%
944433D	MV Kaleetan Preservation	\$19,646	2%

PIN	Project	\$	%
955570D	Systemwide Vessel Physical Security Planning	\$12,686	2%
944403D	MV Kitsap Preservation	\$12,583	2%
999910K	Systemwide Emergency Repairs	\$12,329	2%
955540M	Systemwide Vessels Electrical Special Project	\$11,890	1%
955560P	Systemwide Wireless/Ferry Customers	\$8,110	1%
955560K	Systemwide Vessel Commu/Navig Equipment	\$6,363	1%
944441B	MV Walla Walla Preservation	\$4,325	1%
944499D	MV Tacoma Preservation	\$3,658	0%
944424B	MV Klickitat Preservation	\$3,642	0%
944452B	MV Rhododendron Preservation	\$2,812	0%
985550E	Systemwide Prog X Vsl Contracts Using CAPS	\$2,698	0%
944442B	MV Spokane Preservation	\$2,412	0%
955570A	Systemwide Vsl Accessibility Modifications	\$2,397	0%
944413B	MV Tillikum Preservation	\$2,258	0%
985550B	Systemwide Miscellaneous Vessel Projects	\$1,986	0%
944412C	MV Klahowya Preservation	\$1,655	0%
944405D	MV Chelan Preservation	\$1,567	0%
902017J	Keystone Terminal 2009-2023	\$1,077	0%
944421B	MV Illahee Preservation	\$788	0%
944434D	MV Yakima Preservation	\$614	0%
955540L	Systemwide Vessels Environmental Studies	\$478	0%
944499E	MV Wenatchee Preservation	\$319	0%
Total		\$821,110	

11. Project/Inspection Section of Vessel Engineering

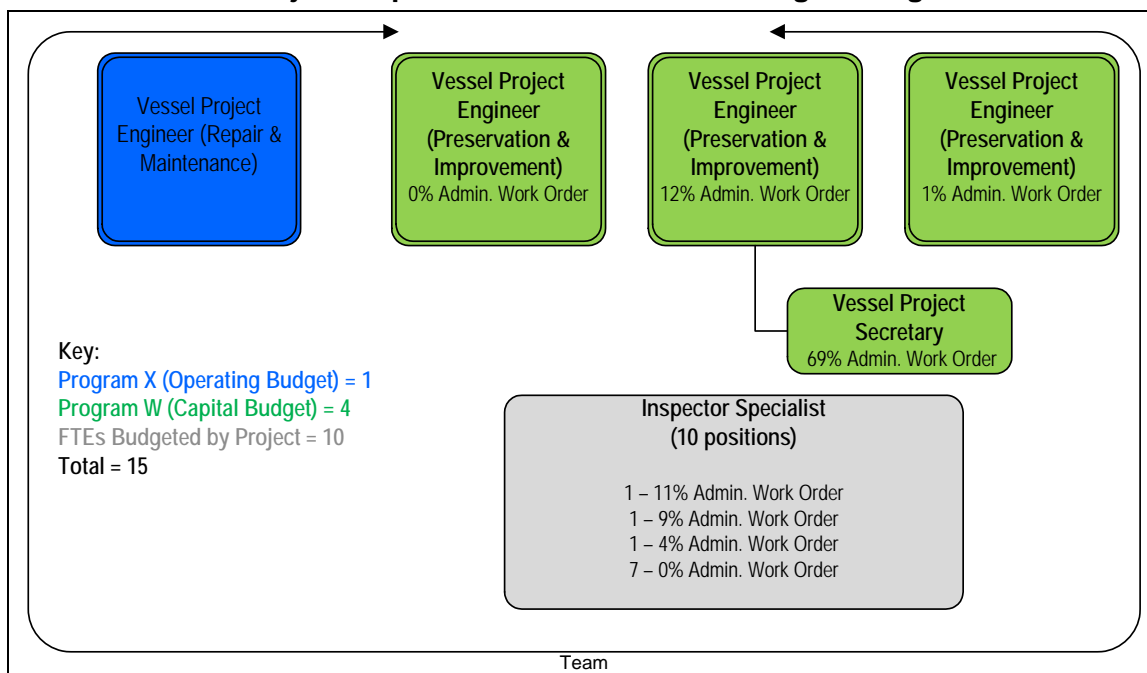
a. Overview

The Project/Inspection section of Vessel Engineering has 15 positions, including four (4) Vessel Project Engineers, one of which is funded by the Operating Budget and three funded by the capital budget, plus a Secretary funded by the capital budget, and 10 Inspector positions, which are funded through capital projects.

b. Administrative Work Order

Five (5) of the 14 Project/Inspection section positions charged more than 1 percent of their time to the administrative work order. The Vessel Project Secretary position charged 69 percent of its time to the administrative work order, one of the Vessel Project Engineers charged 12 percent and the one Vessel Project Engineer charge 1 percent. Seven of the Inspector Specialist positions charged none of their time to the administrative work order, one charged 11 percent of its time, one 9 percent and one 4 percent.

**Figure B-6
Project/Inspection Section of Vessel Engineering**



c. Project Charges

i. Overview

Total project charges for the 2005-07 biennium from the Project/Inspection Section were \$1.7 million, of which \$0.6 million or 33 percent was for the New 144-Car Vessel project, \$0.6 million or 33 percent was for vessel preservation projects, \$0.1 million was for the Systemwide Vessel Planning/Design project which included vessel planning and management, Jumbo Mark II cavitation studies and fuel conservation studies, and 15 percent was for operating budget projects.

ii. Inspectors

The 10 Inspector Specialist positions charged \$2.0 million to the vessel projects in the 2005-07 biennium of which \$0.9 million or 47 percent was to vessel preservation projects, \$0.3 million or 13 percent was to the New 144-Car Vessel project, and \$0.2 million or 9 percent to operating budget projects.

**Table B-13
Inspectors – Vessel Engineering Project Charges
2005-07 Biennium**

PIN	Project	\$	%
944460L	Construct Four 144-Car Replacement Auto-Pass Ferri	\$260,151	13%
944432G	MV Elwha Preservation	\$191,077	10%
955570B	Systemwide Vessel Physical Security Infrastructure	\$184,803	9%
No PIN	Program X	\$175,330	9%
944431D	MV Hyak Preservation	\$163,161	8%
944441B	MV Walla Walla Preservation	\$155,539	8%
999910K	Systemwide Emergency Repairs	\$124,905	6%
944406D	MV Sealth Preservation	\$102,355	5%
944433D	MV Kaleetan Preservation	\$59,824	3%
955560M	Systemwide Vessel Communications (IT)	\$58,357	3%
999910K	Systemwide Emergency Repairs	\$48,187	2%
955540I	Systemwide Vessel Life Cycle Cost Model Update	\$41,783	2%
944403D	MV Kitsap Preservation	\$38,554	2%
944413B	MV Tillikum Preservation	\$38,367	2%
985550E	Systemwide Prog X Vsl Contracts Using CAPS	\$34,780	2%
944452B	MV Rhododendron Preservation	\$34,206	2%
944401D	MV Issaquah Preservation	\$32,818	2%
944412C	MV Klahowya Preservation	\$30,827	2%
955560K	Systemwide Vessel Commu/Navig Equipment	\$25,507	1%
944424B	MV Klickitat Preservation	\$25,426	1%
955570A	Systemwide Vsl Accessibility Modifications	\$25,166	1%
944421B	MV Illahee Preservation	\$21,343	1%
999976W	Systemwide Vessel Noise Control (Abatement)	\$18,049	1%
955560P	Systemwide Wireless/Ferry Customers	\$16,083	1%
955540M	Systemwide Vessels Electrical Special Project	\$13,674	1%
944405D	MV Chelan Preservation	\$12,040	1%
955540H	Systemwide Vessel Planning/Design	\$9,959	1%
944404D	MV Cathlamet Preservation	\$8,349	0%
944461A	Passenger Only Preservation	\$6,124	0%
944422B	MV Nisqually Preservation	\$4,390	0%
999910J	Systemwide Emergency Repairs 2003-2005	\$4,187	0%
944402D	MV Kittitas Preservation	\$3,414	0%
944442B	MV Spokane Preservation	\$2,614	0%
944499D	MV Tacoma Preservation	\$2,503	0%
944434D	MV Yakima Preservation	\$2,446	0%
944405E	MV Chelan SOLAS Modifications	\$1,239	0%
955550B	*PB* Systemwide Vessel Projects	\$1,238	0%
900040N	Eagle Harbor Maintenance Facility Preservation	\$325	0%
944499E	MV Wenatchee Preservation	\$165	0%
944499C	MV Puyallup Preservation	\$45	0%
902017J	Keystone Terminal 2009-2023	\$5	0%
Total		\$1,979,313	

3. Project Engineers

The three Project Engineers and the Secretary position supported by the capital budget charged \$0.8 million directly to projects in the 2005-07 biennium, of which \$251,000 or 32 percent was to vessel preservation projects, \$0.2 million or 26 percent was to the New 144-Car Vessel project, \$0.2 million or 23 percent to Operating Budget and Operating Budget X5 Reimbursable contracts projects, and \$61,000 or 8 percent to the Eagle Harbor Maintenance Facility Preservation project.

Table B-14
Project Engineers – Vessel Engineering Project Charges
2005-07 Biennium

PIN	Project	\$	%
944460L	Construct Four 144-Car Replacement Auto-Pass Ferries	\$203,567	26%
999999A	Program X	\$146,823	19%
900040N	Eagle Harbor Maintenance Facility Preservation	\$60,520	8%
944431D	MV Hyak Preservation	\$55,697	7%
985550E	X5 Vessel Reimbursable Contracts Using Caps	\$34,488	4%
944432G	MV Elwha Preservation	\$33,151	4%
944406D	MV Sealth Preservation	\$32,617	4%
602110F	Program P (WSDOT Project)	\$31,236	4%
944401D	MV Issaquah Preservation	\$26,613	3%
999910K	Systemwide Emergency Repairs 2005-2023	\$25,055	3%
955570A	Systemwide Accessibility Modifications	\$23,642	3%
944433D	MV Kaleetan Preservation	\$23,248	3%
944452B	MV Rhododendron Preservation	\$18,009	2%
944402D	MV Kittitas Preservation	\$15,383	2%
944412C	MV Klahowya Preservation	\$13,546	2%
944403D	MV Kitsap Preservation	\$8,339	1%
944404D	MV Cathlamet Preservation	\$7,975	1%
944441B	MV Walla Walla Preservation	\$5,856	1%
944442B	MV Spokane Preservation	\$4,781	1%
944499D	MV Tacoma Preservation	\$3,634	0%
955560P	Systemwide Wireless/Ferry Customers	\$3,018	0%
999910J	Systemwide Emergency Repairs 2003-2005	\$1,887	0%
955570B	Systemwide Vessel Physical Security Infrastructure	\$1,877	0%
944421B	MV Illahee Preservation	\$1,334	0%
944434D	MV Yakima Preservation	\$1,253	0%
955540M	Systemwide Vessel Electrical Special Projects	\$1,007	0%
955560K	Systemwide Commo/Navigation/Life Saving	\$713	0%
999976V	Systemwide Vessel Work Orders By Auditor	\$412	0%
Total		\$785,681	

Appendix C. Administrative Divisions

This appendix reviews capital program charges from the Ferries Finance and Administration Division, the Human Resources Division, and the Communications section of the Operations Division.

In the 2005-07 biennium these divisions incurred \$4.8 million in capital administration expenses, which is 3 percent of the total capital program cost in the biennium.

**Table C-1
Summary
Finance & Administration, Human Resources, and Communications
Capital Staff and Administration Expenses, 2005-07 Biennium**
(\$ millions)

Expense	\$	% of Total Capital Program
Capital staff charges to admin. work order	2.0	1%
Operating staff charges to capital	0.3	0%
On-site consultants	0.2	0%
Systemwide/administrative projects	1.2	1%
Other administrative services & charges	1.1	1%
Total Finance & Admin., HR, Comm. Expenses	4.8	
Terminal Capital Expenditures	183.1	
% Finance & Admin., HR, Comm. Administration	3%	3%

1. Organizational Structure

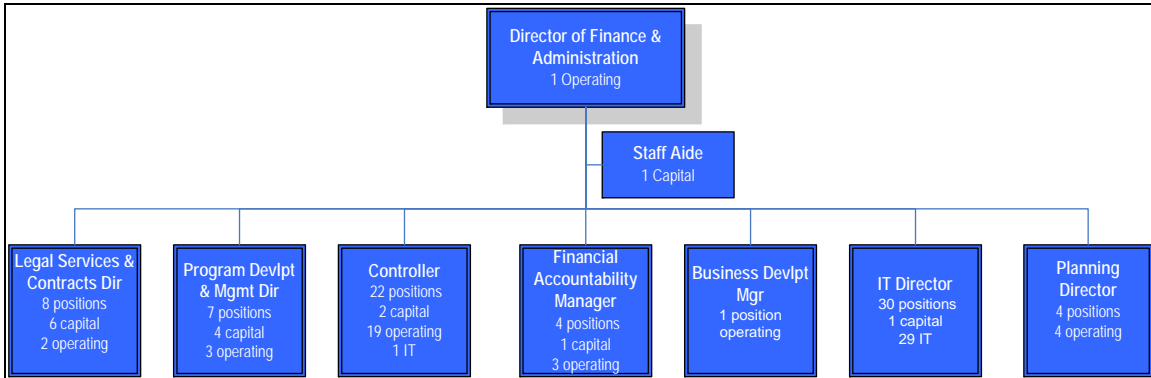
In the 2005-07 biennium Ferries had its administrative functions within three divisions: Finance & Administration, Human Resources, and Operations, which included the Communications Section.⁷

a. Finance & Administration

In the 2005-07 biennium, Finance & Administration had 78 FTE positions, of which 33 FTEs or 42 percent were supported by the operating budget, 30 FTEs or 38 percent by the information technology budget, and 15 FTEs or 20 percent by the capital budget.

⁷ In 2007 FERRIES re-organized these functions to place Planning, Program Development & Management, Legal Services & Contracts, Human Resources, and Communications under a newly created Deputy Director position, along with Safety Systems and Operations.

**Figure C-1
Finance & Administration Organization Chart
2005-07 Biennium**

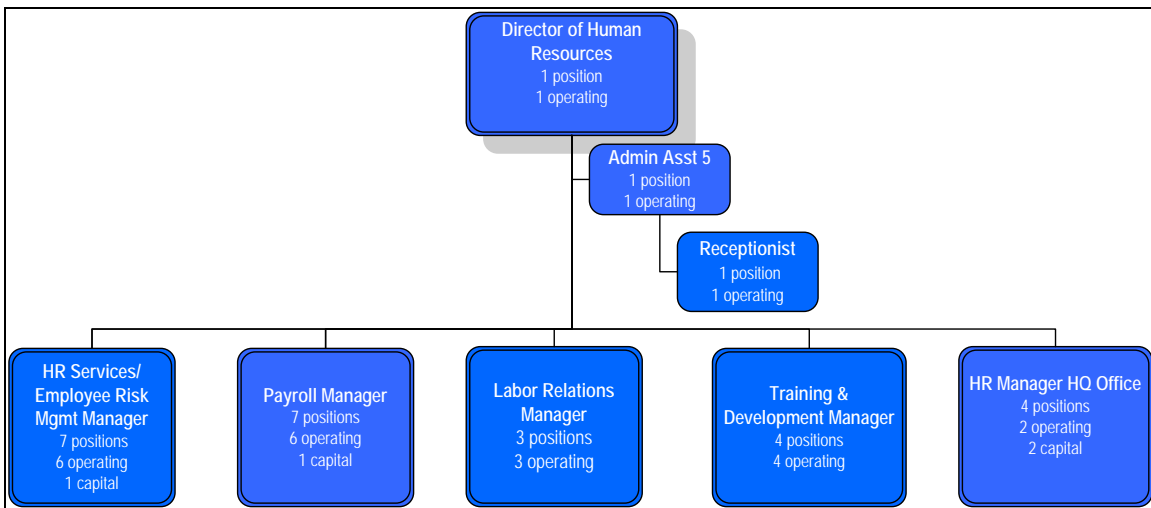


Labor charged to the capital budget from Finance & Administration in the 2005-07 biennium totaled \$1.6 million, all of which was charged to the administrative work order.

b. Human Resources

In the 2005-07 biennium, Human Resources had 28 FTE positions, of which 24 FTEs or 86 percent were supported by the operating budget, and 4 FTEs or 14 percent by the capital budget.

**Figure C-2
Human Resources Organization Chart
2005-07 Biennium**



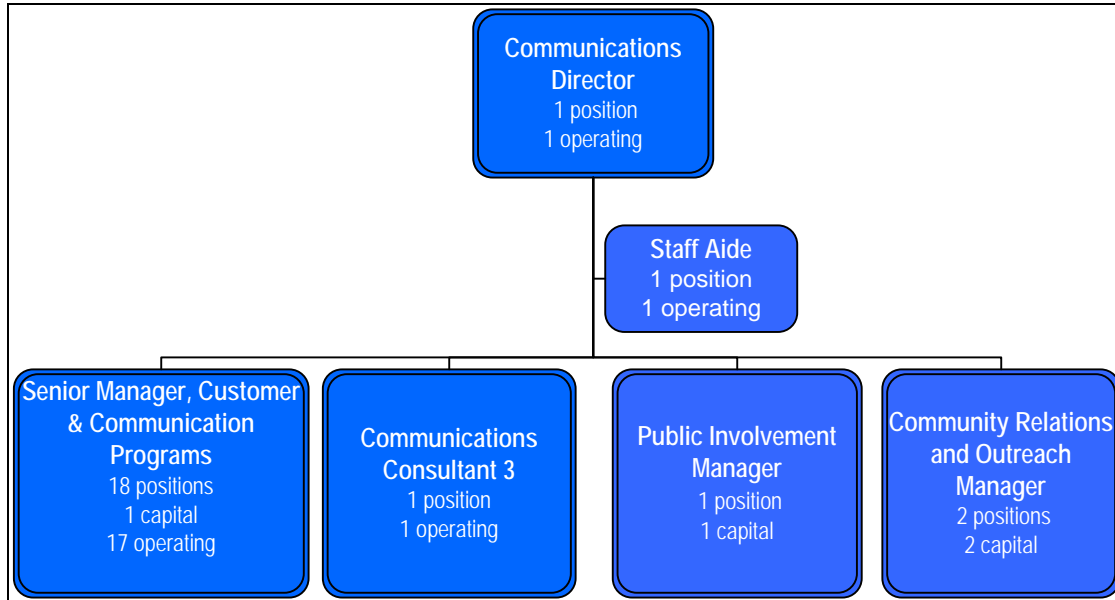
Labor charged to the capital budget from Human Resources in the 2005-07 biennium totaled \$0.3 million, all of which was charged to the administrative work order.

c. Communications

The Communications Section reported to the Operations Division in the 2005-07 biennium. In the 2005-07 biennium, Communications had 24 FTE positions, of which 20

FTEs or 83 percent were supported by the operating budget and 4 FTEs or 17 percent by the capital budget.

**Figure C-3
Communications Organization Chart
2005-07 Biennium**



Labor charged to the capital budget from Communications in the 2005-07 biennium totaled \$0.4 million, of which \$0.1 million was charged to the administrative work order. Additional project charges of \$0.3 million were made to projects by the Customer Information Agents.

2. Staff Charges

a. Staff Charges to Capital Administrative Work Order

Capital administrative overhead expenditures from Finance & Administration, Human Resources, and Communications totaled \$2.0 million in the 2005-07 biennium, of which \$1.6 million or 79 percent was from Finance & Administration, \$0.3 million or 15 percent from Human Resources, and \$0.1 million or 6 percent from Communications.

**Table C-2
Administrative Divisions Position Charges to
Administrative Work Order 2005-07**

Section	Position #	Title	Admin Amount	% Charged to Admin
Finance & Administration				
<i>Office of the Director</i>	A0215	Staff Aide	\$20,506	100%
Legal				
	9E148	EMS Band 1	\$168,410	100%
	A0334	Contract Coord. 1	\$90,377	100%

Section	Position #	Title	Admin Amount	% Charged to Admin
	A0341	Contract Coord. 2	\$132,431	100%
	A0338	Consultant Coord.	\$80,271	100%
	90017	Transp. Tech. 5	\$191,523	100%
	A0308	Acct. Asst. 3	\$2,741	100%
Sub-total Legal			\$665,753	
Program Development/Management				
	9W045	Washington Management Service Band 4	\$231,674	86%
	90142	Budget Analyst 3	\$18,888	100%
	90226	Budget Analyst 3	\$81,569	98%
	90244	Marine Engineer	\$133,572	99%
	9W044	Washington Management Service Band 2	\$174,031	94%
	9W043	Washington Management Service Band 2	\$4,611	100%
Sub-total Program Development/Management			\$644,346	
Controller				
	9W022	Washington Management Service Band 2	\$2,478	100%
	A0300	Accountant	\$117,307	100%
	A0311	Acct. Asst. 3	\$100,166	100%
	A0105	Secretary	\$31,291	52%
	A0403	Staff Aide	\$20,899	38%
Sub-total Controller			\$272,141	
Sub-Total Finance & Administration			\$1,602,747	
Human Resources				
	9W019	Washington Management Service Band 1	\$156,787	100%
	90275	Human Resources Consultant 3	\$36,837	95%
	A0319	Payroll Assistant 1	\$115,817	100%
	A0325	Inventory Agent	\$2,627	13%
Sub-total Human Resources			\$312,067	
Communications				
Public Affairs	A0301	Staff Aide	\$25,033	100%
Public Affairs	9W038	WMS Band 1 (Dir. Operations)	\$7,273	44%
Public Affairs	9W054	Washington Management Service Band 1	\$42,344	28%
Public Affairs	9W055	Washington Management Service Band 1	\$49,721	34%
Sub-Total Communications			\$124,371	
Total			\$2,039,185	

b. Staff Charges to Capital Projects

The only significant costs being charged directly to capital projects by the Administrative Division staff are for Customer Information Agent time totaling \$0.3 million in the 2005-07 biennium. A breakdown by project of these costs is not available.

3. On-Site Consultants

These divisions used one on-site consultant in the 2005-07 biennium in the Information Technology Division for electronic fare system training and supervision. The contract expense was \$0.2 million for the biennium.

4. Project Administrative Expenses

Ferries uses project budgets to retain consultants to perform legal and communications functions related to capital projects. These expenses in the 2005-07 biennium totaled \$1.2 million.

Table C-3
Project Administrative Expenses
(\$ millions)

Service	\$	Projects
Communications	1.1	Bainbridge, Anacortes, Colman Dock, Electronic Fare, New Vessel
Legal	0.1	New Vessel
Total	1.2	

5. Other Administration Capital Administrative Services and Charges

a. Ferries Expenses

The Administration Divisions incurred \$0.8 million in other capital program administrative services and charges, the largest of which was \$0.6 million for information technology, office machinery, and associated software and supplies.

b. Attorney General Expenses

Ferries incurred \$0.3 million in Attorney General capital expenses in the 2005-07 biennium.

Table C-4
Administration Other Services & Charges
2005-07 Biennium
(\$ millions)

Other Services and Charges	\$
Office machinery/IT/Equipment/Furnishings	0.6
Attorney General support	0.3
Telephone, data lines, supplies	0.1
Training & Travel	0.1
Total	1.1

Appendix D. Operations Division

This appendix reviews capital program administrative charges from the Ferries Operations Division. In the 2005-07 biennium the Operations Division incurred \$4.5 million in capital administrative expenses, which is 2 percent of the Ferries capital program expense in the biennium.

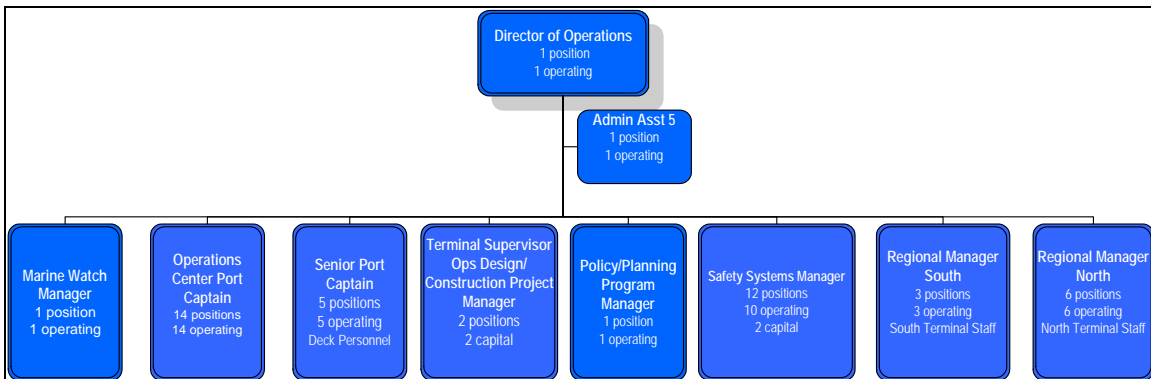
**Table D-1
Summary
Operations Capital Staff and Administration Expenses
2005-07 Biennium
(\$ millions)**

Expense	\$	% of Total Capital
Capital staff charges to admin. work order	0.5	0%
Operating staff charges to capital	2.9	2%
On-site consultants	1.0	0%
Other administrative services & charges	0.1	0%
Total Operations Expenses	4.5	
Terminal Capital Expenditures	183.1	
% Operations Administration	2%	2%

1. Organizational Structure

In the 2005-07 biennium, Ferries Operations Division, excluding Communications, included a total of 46 positions, of which 42 positions or 91 percent were supported by the operating budget, and four positions or 9 percent by the capital program.

**Figure D-1
Operations Division Organization Chart
2005-07 Biennium***



* Excluding Communications

Labor charged to capital from Operations in the 2005-07 biennium totaled \$3.4 million.

2. Staff Charges

a. Staff Charges to Administrative Work Order

None of the four positions supported by the capital program in the Operations Division charged time to the administrative work order.

b. Staff Charges to Capital Projects

i. Charges by Capital Positions

The four positions supported by the capital program in the Operations Division charged \$0.5 million to capital projects in the 2005-07 biennium.

Table D-2
Operations Division Administrative Staff Project Charges
2005-07 Biennium

PIN	Project Name	\$
966620E	Systemwide Operations Construction Support	\$317,442
989930D	Systemwide Terminal SMS Enhancements	\$54,704
989930B	Systemwide Terminal Physical Security Infrastructure	\$92,970
955570B	Systemwide Vessel Physical Security Infrastructure	\$65,930
	Total	\$531,046

c. Vessel Deck, Terminal and Regional Staff Charges to Capital

The Operations Division terminal staff and vessel deck staff charged \$2.9 million to the Systemwide Operations Construction Support project, the Point of Sale Replacement project and to other capital projects.

i. Systemwide Operations Construction Support Project: This project captures costs incurred by terminal and vessel deck staff working on capital projects. In the 2005-07 biennium the project expenses were \$1.7 million, of which \$0.8 million or 47 percent was for terminal staff, and \$0.2 million or 12 percent was for vessel staff.⁸ Expenses were incurred in support of projects at Anacortes, Bainbridge, Mukilteo, and for the Electronic Fare System (in addition to terminal staff time charged directly to the Point of Sale System Replacement project discussed below).

ii. Systemwide Point of Sale Replacement/Regional Fare Project: In the 2005-07 biennium Ferries implemented its new electronic fare system project and participated in a regional fare integration project. Terminal staff charges to these efforts totaled \$0.2 for terminal supervisors and staff.

⁸ An additional \$0.1 million or 7 percent was for management information system support. The remainder of the expenses were for the on-site consultants (\$0.3 million) to manage the operations support, \$0.1 million for a operations planning project manager state employee, and \$0.2 million in other expenses.

Table D-3
Operations Project Terminal, Vessel Deck and Regional Staff Charges
(\$ millions)

	Terminal	Vessel Deck	Regional Staff	Total
Operations Construction & Support	0.8	0.2		1.0
Point of Sale Replacement	0.2			0.2
Misc. Projects*	1.0	0.6	0.1	1.7
Total	2.0	0.8	0.1	2.9

* Object Code Expenditure Report Total Minus Operations Construction & Support/POS projects

3. On-Site Consultants

In the 2005-07 biennium, Operations spent \$1.0 million on on-site consultants who provided security, operations construction coordination, and grant and product development services.

Table D-4
Operations On-Site Consultants 2005-07 Biennium
(\$ millions)

Contractor	Project/Task	\$
On-Call Support	Security Office Manager/Credentialing	0.2
SRI	Operations Design & Construction Support (PIN 96620E*)	0.2
SRI	Environmental Program Manager (PIN 955570C**)	0.2
ATS Reliance	Operations Project Development - Project Manager	0.2
KPFF	Operations Design & Construction Support (PIN 96620E*)	0.1
Spectrum Design	Grants Planning, Administration and Management (PIN 97730A***)	0.1
Total		1.0

* Systemwide Operations Construction Support project

** Systemwide Vessel Safety Management Enhancements project

*** Systemwide Planning and Special Studies project

4. Operations Division Capital Other Services and Charges Expenses

The Operations Divisions incurred \$0.1 million in other services and charges capital expenses primarily for office equipment, training and telephone charges.