



JOINT TRANSPORTATION COMMITTEE

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January 9, 2012

TO: Members of the House and Senate Transportation Committees

SUBJECT: Joint Transportation Committee, Activity Update

The Joint Transportation Committee has now completed its 2011 workplan. The Legislature directed us to undertake five studies, and all were completed within the identified project scope and budget. In addition, we conducted a number of tours to highlight state and local transportation needs, including projects funded from the 2003 and 2005 revenue packages, and projects still seeking funding.

Attached are summaries of the five 2011 studies. They include the following:

- Public-private partnerships (P3s) in transportation (p. 3)
- Stormwater cost recovery for local jurisdictions (p. 5)
- The use of liquefied natural gas (LNG) in Washington State ferries (p. 7)
- Evaluating fare media for Washington State ferries (p. 9)
- Evaluating the management organization structure of Washington State Ferries (p. 11)

In addition to meetings associated with specific studies, the JTC met six times this interim – April 21 in Olympia, July 13 in Seattle, October 19 in Aberdeen, November 16 in Bellevue in conjunction with the Washington State Association of Counties annual meeting, and in Olympia on December 7th and January 4th.

In June, JTC undertook a two-day tour of state, regional and local priority transportation projects in Yakima, the Tri Cities and Walla Walla. In September, we toured projects in northern King County, Monroe, Wenatchee and Moses Lake. At our October Aberdeen meeting, we toured the SR 520 pontoon construction site, and in November, we toured projects on I-405, SR 520, I-90 and SR 167.

Thanks to the more than 40 members of the House and Senate who have participated in one or more studies, meetings and tours this interim. Your participation is invaluable, and contributes to the richness of discussion and the thoroughness of our work.

The JTC website provides links to all current and past studies, including meeting presentations and reports. <http://www.leg.wa.gov/JTC/Pages/default.aspx>.

If you have any questions, please contact the JTC staff:

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Representative Judy Clibborn
Co-Chair



Senator Mary Margaret Haugen
Co-Chair



Representative Mike Armstrong



Senator Curtis King

Enclosures: JTC Studies

Summaries of 2011 Joint Transportation Committee Studies

January 9, 2012

Public-Private Partnerships (P3s) in Transportation

The Legislature directed the JTC to study public-private partnerships in transportation, and to identify the provisions in P3 agreements that best protect the public interest. The study evaluated five projects, using a screening tool and comparative finance model developed in the study and tailored to Washington State. The final report includes recommended statutory changes, and a conceptual P3 implementation plan.

The P3 study was primarily one of education, intended to educate legislators, the executive branch, and stakeholders about this alternative method of developing projects where project risks and rewards are shared by the public and private sector. Private capital helps to finance many P3 projects, and the private partner often plays a role in facility operations, maintenance, and preservation.

The consulting team conducting the study was headed by AECOM, and included the financial advisory firm KPMG, and the Nossaman law firm in Los Angeles, one of the nation's leading public sector advisors on P3s. They began work on July 1, 2011.

The study was guided by a Policy Workgroup of a dozen legislators, the Secretary of Transportation, the Chair of the Transportation Commission, the Assistant State Treasurer, and representatives from the construction trades and an association representing general contractors.

Key study themes and outcomes include the following:

Public interest protections are of paramount importance in considering P3s. Tools developed in the study to evaluate a project's potential suitability for P3 delivery were designed to include public interest protections. The study recommends the State adopt a policy framework of public interest protections that are binding on all P3 projects, including state ownership of assets; a requirement that P3 delivery provide better value to the public than traditional delivery; prevailing wage and apprenticeship requirements; and contract provisions ensuring long-term quality of service, with clear termination provisions for failure to deliver according to performance specifications.

Value for Money. In determining the cost of P3 vs. traditional delivery, it's necessary to assess more than the cost of capital. P3 delivery can sometimes provide better value to the public despite the higher cost of private capital, because significant cost savings can be gained by transferring construction and long-term operating, maintenance and preservation risks to the private sector. A Value for Money analysis evaluates the cost-benefit of P3 delivery compared with traditional public sector delivery.

Traditional public sector delivery is sometimes the better value, especially in fully-funded projects with no need for private capital; or where a project is not sufficiently complex to generate savings by transferring risks; or where the private sector considers the project too risky due to substantial regulatory hurdles or strong public opposition.

Analysis of the five projects. The study evaluated five projects for their potential P3 suitability. This was not an investment-grade analysis, but rather an illustrative analysis using the best-available data, designed to educate study participants about the elements considered in P3 vs. traditional delivery. The results illustrate that some of the projects may have potential as P3 projects, and may warrant further analysis.

- **I-405/SR 167 Express Toll Lanes.** P3 delivery provided a 15% reduction in construction costs, primarily due to more rapid project completion. P3 preservation costs were 10% lower. P3 operating and maintenance (O&M) costs were 34% lower primarily due to lower credit card fees and tolling costs per transaction. Initial analysis showed the project may generate an up-front payment of around \$1 billion by the private developer to the State.
- **SR 509 Extension.** P3 delivery provided a 4% reduction in construction costs due to more rapid project completion. P3 preservation costs were 25% lower, due to savings in tolling and ITS (tolling) equipment costs. P3 O&M costs were 45% lower due primarily to lower credit card fees and tolling costs per transaction. The analysis showed the project becomes viable as a P3, whereas a significant funding gap remains under traditional delivery.
- **SR 167 Extension.** While P3 delivery showed construction, preservation and O&M savings, the project has a significant funding gap under both P3 and traditional delivery, and as a result is not currently financially viable. The estimated \$1 billion project has \$157 million allocated to it to-date.
- **Columbia River Crossing.** This project has high funding gaps under all scenarios tested, which include two public finance options (GO bonds and toll revenue bonds) and two P3 options. The project is estimated to cost \$3.1 - \$3.5 billion, of which \$153 million has been allocated to-date. The analysis showed relatively little difference in the Value for Money analysis between P3 and traditional delivery.
- **Monroe Bypass.** This project failed the initial screening assessment, and therefore was not evaluated for P3 vs. traditional delivery. It suffered two critical flaws: it has no viable revenue stream, and no other funding sources have been identified. The assessment identified project elements that must be addressed if the project is to move forward under either delivery method.

Other study recommendations

- **Statutory changes.** The study includes recommendations on statutory changes needed to implement a viable P3 program that protects the public interest while encouraging private sector involvement.
- **Administrative structure.** The study recommends the State create a new P3 administrative structure, including new roles for a WSDOT P3 Office to uphold public interest protections in a viable P3 program. Recommendations also address roles for the Legislature, the State Treasurer and the Transportation Commission.
- **Screening tool.** The study recommends that the State use the screening tool developed for Washington in this study to evaluate if a project is suitable to be considered as a P3.
- **Comparative finance model.** The study recommends that the State use the financial model developed in this study to determine whether Value for Money is better for P3 or traditional delivery.

Study materials are available at <http://www.leg.wa.gov/JTC/Pages/PublicPrivatePartnershipsStudy.aspx>

Study origin:	2011-13 Transportation Budget, ESHB 1175, Sec. 204(4)
Report:	Draft final report expected in January, 2012
Appropriation:	\$425,000; contract was for \$399,994
Project Manager:	Mary Fleckenstein (360) 786-7312; Gene Baxstrom, back-up (360) 786-7398
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Stormwater: Improved Cost-Recovery for Cities and Management Efficiencies

The Legislature directed the JTC to identify ways to improve the process by which cities are reimbursed by WSDOT for managing stormwater runoff from state highways within city boundaries, as identified in RCW 90.03.525, and to make stormwater management of these facilities more efficient. This study:

- analyzed the cost recovery framework that municipalities use to charge WSDOT for stormwater management expenses related to highway runoff, and make recommendations for improvements;
- made recommendations for cost efficiencies between WSDOT and municipalities; and
- developed a model municipal stormwater fee ordinance.

On July 8, a consultant team led by the FCS Group began work. The team held a kick-off meeting on July 25 with the Staff Workgroup consisting of JTC and legislative staff, WSDOT, the Department of Ecology, Association of Washington Cities, and Washington State Association of Counties. The Staff Workgroup provided input and guidance to the consultant team.

During the early stages of the study, the consultant team analyzed federal and state laws and regulatory processes, and drafted a “Stormwater 101” guide. The team collected data and created an inventory of state highways regulated by the federal Clean Water Act. A survey of municipalities was conducted and results from the 45 participating jurisdictions were analyzed. The survey sought to determine what issues exist for cost reimbursement under existing law, and to identify successes and challenges in working with WSDOT to manage stormwater.

The consultant team and Staff Workgroup selected eight municipalities representing a cross-section of municipalities across Washington, to use as case studies. The consultant team profiled the experiences with stormwater management practices and cost recovery methods of the eight municipalities.

Among the key findings of the survey were the following:

- Local jurisdictions reported challenges in managing stormwater from limited access highways related to system capacity, cost, water quality and staff resources.
- Challenges in complying with RCW 90.03.525 included the factors upon which the fee is based, the definition of what is eligible for reimbursement, and limited staff resources.
- Major reasons for not charging WSDOT include burdensome work plan and reporting requirements, the fact they don’t charge their own city streets, and failure to track costs of runoff from state highways
- Working with WSDOT was OK, but improvements could be made in communication.

The final report includes two options for making the cost-recovery process more efficient.

Option A would modify the existing statutory framework, and includes the following provisions:

1. Retain requirement that to charge WSDOT, a jurisdiction must have a stormwater utility.
2. Eliminate the requirement that jurisdictions much charge their own streets.
3. Streamline the application and reporting requirements.
4. WSDOT should provide written guidance on what is eligible for cost recovery.
5. Conduct a study to calculate, justify and document an appropriate credit(s) for WSDOT.

Option B would create a new statutory framework, and includes the following provisions:

1. Retain the requirement that to charge WSDOT, a jurisdiction must have a stormwater utility.

2. Eliminate the requirement that jurisdictions must charge their own streets.
3. Conduct a study to establish a new, special uniform rate for limited access highways for inclusion in all stormwater utility rates structures statewide (a minimum of one for eastern Washington and one for western Washington).
4. Eliminate application and reporting requirements.

The report also includes a “Stormwater 101 Guide”, a primer for use by legislators, staff and the public; a model local ordinance; and proposed RCW amendments to enact Options A and B.

Opportunities for further study

During the course of the study, the consultants identified a number of issues that, if addressed, would likely lower overall costs for stormwater management. These include the following issues, which were outside the scope of this study:

1. Cost and liability concerns create barriers to cooperation on capital and M&O between WSDOT and jurisdictions.
2. Uneven funding cycles between WSDOT and jurisdictions impede collaboration.
3. Inconsistent relationships and implementation exists among WSDOT regions and jurisdictions.
4. Inadequate joint planning between jurisdictions and WSDOT reduces collaboration and/or produces inefficiencies.
5. Overlap in NPDES permits for non-limited access highways creates shared responsibilities; some highways are addressed in both WSDOT and jurisdictional permits.

The draft final report was accepted by JTC on January 4, 2012.

Study materials are available at <http://www.leg.wa.gov/JTC/Pages/Stormwater.aspx>

Study origin:	2011-13 Transportation Budget, ESHB 1175, Sec. 204(3)
Report:	Draft Final Report accepted by JTC January 4, 2012
Appropriation:	\$200,000; contract was for \$199,990
Project Manager:	Diane Schwickerath (360) 786-7327; Mary Fleckenstein back-up (360) 786-7312
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Using Liquefied Natural Gas (LNG) in Washington State Ferries

The Legislature directed the JTC to evaluate the use of liquefied natural gas (LNG) in Washington State ferries, both in the new 144-car ferries and in the Issaquah class vessels. Washington State Ferries (WSF) has already begun investigating its use in order to address the high price and price volatility of diesel fuel, and upcoming emissions-reductions requirements.

LNG is natural gas that has been cooled to -259 degrees Fahrenheit, at which point it is condensed into a liquid which is colorless, odorless, non-corrosive and non-toxic. LNG takes up about 1/600th of the volume of natural gas in the gaseous state.

Currently only Norway operates LNG-fueled passenger ferries, with the first built in 2000 and 12 currently in operation. In North America, BC Ferries and Staten Island Ferries are analyzing retrofitting vessels from diesel to LNG.

The consulting team headed by Cedar River Group began work on August 12, 2011. The team also included naval architect John Boylston, who contributed technical and operational experience with LNG vessels.

The study found that fuel cost savings from switching to LNG could be substantial. The consultants developed two LNG price forecasts, showing fuel savings of \$140 million to \$195 million for the Issaquah-class vessels; \$86 million to \$120 million for a new 144-car vessel; and up to \$500 million for the three Jumbo Mark IIs.

The consultants estimated capital costs to retrofit the six Issaquah class vessels at \$144 million, which is higher than WSF's \$103 million estimate. The additional cost to build a new 144-car vessel as LNG is \$18.9 million according to the consultants (\$14.5 million according to WSF).

The report recommends that the Legislature consider transitioning ferries from diesel to LNG, but that any vessel funding decisions should be made only after a thorough strategic analysis of LNG operations, development of a business plan, and development of a vessel deployment and acquisition plan.

The consultants recommended a strong focus on safety, security and operational planning, and public outreach, as critical to WSF's ability to operate an LNG-fueled vessel. This drove a number of recommendations related to early planning efforts, and vessel design, construction and operation.

Key findings and recommendations include the following:

1. **Security and operational planning** with its associated public outreach should be the next step in the consideration of LNG for WSF vessels. Therefore, the Legislature should provide \$1 million to WSF in the 2013 budget to conduct the necessary security and operational planning, and delay final decisions on LNG fuel until this planning is complete.
2. **The second new 144-car vessel, if funded, should be built as a diesel-fueled vessel** in order to improve service on the schedule anticipated in the WSF Long-Range Plan.
3. **A new 144-car LNG vessel should be designed from the ground-up as an LNG-fueled vessel**, rather than modifying the existing 144-car vessel design. This "purpose-built" design will result in safety improvements due to the engine room being designed specifically for LNG.
4. **The decision on whether to retrofit Issaquah class vessels should be considered only after completion of security and operational planning.** It's important to assess the impact of LNG on WSF's Alternative Security Plan, and on staffing for the ferry system and Washington State Patrol. It's also important to gauge public reaction to LNG-fueled ferries.

5. If the Legislature decides to retrofit Issaquah class vessels, it should be done in light of the following:
 - a. **Design should be done by an outside firm** with experience in LNG passenger vessel construction. WSF should not design the Issaquah-class retrofit in-house. Safety in the design and construction of LNG vessels is paramount, and other nations can help overcome the lack of U. S. experience.
 - b. **Consider amending the bid process** to require bidders to include an expert from a shipyard with LNG-fueled vessel construction experience that WSF could qualitatively evaluate.
 - c. **WSF should request a ruling from the Coast Guard** on whether a retrofit would constitute a “major conversion”, which could add significant costs to the project.
 - d. **The LNG fuel contract** should be in place before the shipyard contract is let.

6. **Operating an LNG-fueled vessel** will be more complex, especially fueling, but this should not pose a problem for WSF. Maintenance and staffing costs should be the same. The report recommends WSF maintain “classification services” for the first 10 years of LNG-fueled vessel operation, in order to help ensure safe operation.

7. **The Legislature should provide funding to WSF for pre-design and to develop a more refined business case**, in order to identify the most cost-effective scenario to introduce LNG-fueled vessels to the WSF fleet. The report concludes that:
 - a. The Issaquah class retrofit is not a sound economic investment as the project is now structured.
 - b. WSF should explore the potential retrofit of the Jumbo Mark IIs, because they use so much fuel and resulting fuel savings could be significant.
 - c. The investment in a new 144-car LNG vessel is economically viable, and if funded in FY 2014, could be delivered in 2017.

Study materials are available at <http://www.leg.wa.gov/JTC/Pages/LNGasFerryFuel.aspx>

Study origin:	2011-13 Transportation Budget, ESHB 1175, Sec. 204(5).
Report:	Draft Final Report accepted by JTC on January 4, 2012.
Appropriation:	\$100,000
Project Manager:	Mary Fleckenstein (360) 786-7312; Gene Baxstrom, back-up (360) 786-7398
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Ferry System Fare Media

The Legislature directed the JTC to evaluate the most appropriate fare media to use on Washington State ferries that could accommodate the new reservation system and demand management pricing. The objective includes a simpler fare structure and for the fare media to be interoperable with other regional payment methods. The study called for Transportation Commission involvement in the study.

The study approach included:

- Assessment of system ridership and customer base;
- Evaluation of fare structure including fare basis, historical context, and new fare initiatives;
- Examination of current fare media including the regional ORCA pass, *Wave2Go*, *Good to Go!*, and commercial accounts;
- Evaluation of alternative fare media approaches, taking into account compatibility with a reservation system, demand management initiatives, interoperability, and fare simplification; and
- Development of report recommendations regarding fare media approaches and costs.

Policy direction for the study was provided by a Policy Workgroup comprised of JTC members, Transportation Commissioners, a member of ferry user groups, and representatives from the Governor's Office and the Washington State Ferries. The firms of Cedar River Group/Scanlan Consulting, in conjunction with BERK and the IBI Group conducted the work which began in August. A Staff Workgroup comprised of staff from the Transportation Committees, the Transportation Commission, OFM, and Washington State Ferries provided support.

Report Recommendations

The report makes 10 recommendations broken into two implementation phases, short term and for 2018 and beyond. The principal goals of the recommendation are to provide more responsive and user-friendly fare approaches, integrate fare media with other regional fare collection methods, and bring fare policies into concert with other system goals. The recommendations are:

1. The WSF and Transportation Commission should continue to modify their fare policies to bring them into alignment with adaptive management policies (emphasis on desirable outcomes).
2. The Transportation Commission's annual market surveys should assess customer "households" and the effect of fare changes on customer households.
3. In the long term, fare collection should be adapted to the needs of travel sheds/routes:
 - a. Replace *Wave2Go* with an account-based system interoperable with *Good to Go!*, ORCA and emerging payment technologies;
 - b. For some routes, use *Good to Go!* as the only payment method.
4. WSF's vehicle fare structure should be based on a per foot charge.
5. Joint discounted passes with transit agencies on certain high commute routes should be reinstated.
6. WSF should streamline the Sidney fare by establishing a single Sidney-Anacortes fare and eliminating the separate commercial and RV fares.
7. To the extent possible, WSF should allow its multi-ride cards to be purchased and loaded onto ORCA cards.

8. WSF should implement *Good to Go!* as the payment method at vehicle toll booths, and the Legislature should appropriate funds to accomplish this in the 2013-15 biennium (estimated \$2.2 million in 2012 dollars).
9. After 2018, WSF should replace *Wave2Go* with an account-based system.
10. After 2018, WSF should consider *Good to Go!* as the exclusive payment option for fares on the Southworth-Vashon-Fauntleroy route.

The study identified roughly \$3.4 million in capital costs to implement the shorter term recommendations, with higher costs for the recommendations for 2018 and beyond. Some costs are mitigated by potential savings, improved customer service, and reductions in capital expenditures to replace existing systems.

The Draft Final Report is currently being circulated to the Fare Media Policy Workgroup for comments. Those responses are requested by January 10th, after which time the Draft Final Report will be submitted to the JTC Executive Committee for acceptance.

Study materials are available at <http://www.leg.wa.gov/JTC/Pages/FerriesFareMediaStudy.aspx>

Study origin:	2011-13 Transportation Budget, ESHB 1175, Sec. 204(1).
Report:	Draft Final Report, December 16, 2011
Appropriation:	\$200,000
Project Manager:	Gene Baxstrom (360) 786-7398; Mary Fleckenstein, back-up (360) 786-7312
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Ferry System Management Organization Structure

The Legislature directed the JTC to investigate the management organization structure of Washington State Ferries (WSF). ESHB 1175, Section 204(2) called for a study to recommend changes to the WSF organization structure for more efficient operations and a more balanced structure scaled to the workforce. This study proviso was vetoed by the Governor; however the JTC proceeded with more targeted study objectives related to WSF management and the changing operating environment.

The Matrix Consulting Group from Palo Alto, California, began work on this project on August 26th.

The study evaluated the current management and staffing structure of WSF to address the following issues:

- Appropriateness of management layers;
- Ensuring effective chain of command and spans of control;
- Efficient and effective allocation of management responsibilities;
- Ensuring appropriate accountability, and that appropriate vessel and terminal performance measures are in place; and
- Clarifying and enhancing the organizational relationship between management and staff.

The JTC Executive Committee oversaw the study. A Staff Workgroup comprised of staff from the Transportation Committees, the Governor's Office, OFM, and Washington State Ferries provided support.

The study began with a Staff Workgroup meeting in August. The consultants provided an update at JTC's October 19th meeting and presented their principal findings and recommendations on December 7th.

As part of the study process, the consultant team interviewed over 30 WSF staff and toured WSF facilities, and conducted numerous other interviews. The consultants also developed and conducted a WSF employee survey as part of the study. The survey dealt with the political working environment, management and leadership, operations and communications, organization and staffing and accountability and performance. The survey and interview results were summarized and presented to the JTC at its December 7th meeting.

Study findings related to WSF staff survey and interviews:

1. Key strengths include safety is high priority, working relationships among many units is good, policy clarity is good, duties are clear, and training and accountability are good.
2. Political environment: most disagreed with the statement that labor and management work well together and that the Legislature, Governor and WSF work well together.
3. A majority of respondents indicated opportunities for
 - defining a clear vision for the future, more consistent work direction and managerial team work;
 - improving business processes and working relationships, and better communication;
 - structure reorganization to promote more efficient use of staff and reduce managerial layers.

On some issues, there was a discrepancy between management and staff in interview and survey results.

Study recommendations related to several managerial and organizational issues:

1. **Spans of Control and Supervision**
 - Consolidation of certain managerial functions is viable.
 - Additional low level management supervision is needed.
 - All WSF operations should have an assigned supervisor who should be paid for that responsibility.

2. Performance Management

- Ensure annual performance evaluations for first-line supervisors.
- Improve accountability reporting for the organization and develop an annual work plan.

3. Contract Management

- Contract terms should be negotiated with terms that are equitable to staff while retaining appropriate management rights and flexibility to productively operate WSF.

4. Organization and Operations

- Improve staff/management relations through internal joint teams addressing major WSF issues.
- Governor’s Office, WSDOT and WSF should agree on clear performance standards to assess WSF.
- Enhance internal operations through internal staff/management teams.
- Reallocate administrative duties away from managers.
- Ensure all IT projects developed are consistent with WSF’s Information Technology Strategic Plan.

At the December 7th meeting, JTC members asked that WSF be given an opportunity to respond to the draft report’s content. The consultant team, and WSF and JTC staff met to review the initial draft report. WSF asked for clarifying information to be added to the report, including contextual background on several issues. Other discussion items related to survey reporting tables and survey result assessment, clarification of organizational tables, and staffing level reporting. For some issues, it was apparent that there would be a difference of opinion.

A preliminary final draft is currently being reviewed by the Staff Workgroup, after which WSF will develop their response. It is anticipated that a draft Final Report will be presented to the JTC later in January for acceptance.

Study materials are available at: <http://www.leg.wa.gov/JTC/Pages/FerriesManagementStudy.aspx>

Study origin:	2011-13 Transportation Budget, ESHB 1175, Section 204(2)
Report:	Final Report, January, 2012
Appropriation:	\$150,000, contract is for \$109,000
Project Manager:	Gene Baxstrom (360) 786-7398; Mary Fleckenstein, back-up (360) 786-7312
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