

SWANTOWN MARINA FUEL DOCK PROJECT

June 2, 2016

BACKGROUND

Swantown Marina was designed to include a fuel dock

When Swantown Marina was built in 1983, partial infrastructure was included in the construction for the eventual addition of a marine fueling station at the end of A-dock. The location was selected to provide convenient deep water, all weather location from which to fuel vessels up to 100 feet in length. The fuel dock portion of the dock float was widened for fueling operations and the float was strengthened. Extra pilings were installed and fuel line raceways were included in the design.

At the time, two other fuel docks were already located within the city limits of Olympia, and two additional fuel docks were located within Thurston County. Therefore, the Port decided to postpone the final installation of the remaining fuel dock infrastructure until the local market increased and the market could absorb the operation.

Number of local fuel docks decreased; local boaters increased

Since 1983, the local boating population has increased substantially. During this period, Swantown Marina built a boatyard to meet the growing demands of the boating public, and increased its number of marina slips by 28%. However, the planned fuel dock project was not completed.

In addition, over the last 30 years, the other two Olympia downtown boat fueling stations ceased operations, decreasing the number of available fuel docks in Thurston County by 50%, and leaving the hub of Thurston County's boating activities – Budd Inlet - without a fueling facility. The Olympia area is the largest market without a fuel dock in Washington State.

Boaters petition Port Commission for a fuel dock

The Port has received hundreds of requests from local, regional and visiting boaters to add a fueling dock to service Budd Inlet. In 2008, nearly 800 local citizens signed a petition and submitted it to the Port Commission asking the Port to construct and operate the long-planned fuel dock in Olympia. In support of the petition, the boaters pointed to limited dock space, insufficient water depth, long travel distances to fuel, slow pumps, the inability to fuel larger vessels locally, and generally poor environmental conditions at the remaining Thurston County fueling facilities.

Port engages in fuel dock feasibility study

In response to the petition, the Port engaged an engineering consultant to complete a Marine Fueling Station Feasibility Study. KPFF Consulting Engineers began the Feasibility Study in April 2012 and published the final document in December 2012. In the interim, staff presented an update on the project to the Commission at their public meeting on August 13, 2012. The Feasibility Study evaluated

fuel docks at four different Port-owned locations: Port Plaza, Swantown Boatworks, NorthPoint, and Swantown Marina. Two locations were eliminated from consideration for significant environmental and permitting issues, so the Study focused on evaluating the NorthPoint and Swantown Marina locations. The most feasible location identified for developing a marine fueling facility is the Swantown Marina A-dock site. As part of the feasibility evaluations, the consultants presented their findings to the community at two well-attended evening public meetings.

Commission seeks community input about fuel dock

In 2012, the Commission directed the Port of Olympia Citizens Advisory Committee to research and prepare a Port of Olympia Fuel Dock Public Participation Plan. A key recommendation of the plan was to hold well-promoted public meetings conducted by an external facilitator. The purpose of the public meetings was to present factual information about the proposed fuel dock to the community and to receive public input on the fuel dock proposal.

The public meetings occurred during the evenings of February 4, 2013, October 22, 2013, and April 8, 2015. Another meeting is scheduled for June 7, 2016. They were widely promoted and advertised and more than 100 people attended each meeting. The first meeting included a presentation on the initial Feasibility Study by KPFF Consulting Engineers. The second meeting included the updated Feasibility Study presented by the consultant and a Financial Analysis presented by the Port Staff. The meeting attendees overwhelmingly supported the Port's construction and operation of a fuel dock facility at Swantown Marina.

The Commission also received over 100 written comments and hundreds of other comments from citizens which overwhelmingly supported the Port's construction of a fuel dock at Swantown Marina.

Commission approves design and permitting funding, and requests market study

Based on the Feasibility Study, Financial Analysis and strong community support, by 2014 the Port Commission had approved a total budget of \$2,750,000 in the Port's Capital Investment Plan and commissioned a marine engineering firm to design the fueling facility and secure the necessary permits for the project.

In 2014, responding to citizens' requests for an independent volume study, the Commission asked for research about potential fuel sales volumes. The Port retained the Washington State University's Social and Economic Science Research Center to complete a marketing study to assess the viability of constructing and operating a marine fueling station at Swantown. In addition, the Port also reached out to operators of Thurston County marine fueling stations to assess their potential interest in establishing a public/private partnership with the Port for development of a fuel dock and did not receive any interested responses.

Other benefits:

The Port has identified several other benefits from the proposed fuel facility:

1. Environmental
 - a. The facility has the latest technology for spill protection. Using the facility reduced the need for fueling with portable fuel containers.
 - b. The facility would reduce emissions for Olympia area boater transiting to and from fuel docks which are miles away.
2. Safety
 - a. The facility has the latest fire protection technology
 - b. The facility is designed with ample boat tie-up space to reduce boat idling and queuing.
3. Commercial
 - a. The facility has high-speed pumps which serve large boats and commercial boats.
 - b. The facility would help retain existing tug company in Olympia
4. Community
 - a. The facility would increase tourism. Visiting overnight boats could refuel.
 - b. The facility would offer marine quality fuel for launch-ramp boats.

Business risks should be considered

Any organization building a new facility should consider the business risks associated with the project. Port staff prepared the following risk table:

Risks:		Risk Level:
Construction Price	KPFF Engineers estimated Construction costs and staff expects actual costs to be less. If costs are higher, the project may not be financially feasible.	Medium
Interest Rate	The Port has received a loan commitment which gives an indication of interest rate for this facility.	Low
Sales Volume	If the sales volume does not exceed minimum levels then the project will not be financially feasible. Marina fuel facilities in Puget Sound do not have sales volume growth. Staffs engaged WSU to survey and get the best estimate of fuel sales volume. Additionally, staff prepared alternative scenarios to understand the risks.	High
Operations	This is the risk that the operation of the facility would create unexpected costs. This risk is mitigated through insurance, policies and training.	Low

RESULTS OF THE MARKET STUDY

In 2014, the Social and Research Science Center at Washington State University completed a market study for the Port to gauge market interest and anticipated volume of fuel that would likely be sold at a new fueling facility if one were constructed at Swantown Marina. Key conclusions from the study are as follows:

- Estimated annual fuel usage for vessels that homeport in Olympia is 396,285 gallons (+ -13%).
- Estimated annual fuel sales at Swantown are estimated at 396,285 gallons (+ - 13%).
- Approximately 1/3 of fuel sales are for gasoline; 2/3 is for diesel fuel.
- Boston Harbor Marina services 50.2% of the downtown Olympia vessel's fuel demand.
- Zittel's Marina services approximately 3% of the downtown Olympia vessel's fuel demand.
- Approximately 45.2% of the Olympia fuel users purchase fuel outside Thurston County or carry fuel jugs to boats in order to fuel.
- 90% of survey respondents said they would purchase fuel at Swantown if a fueling facility was available.

The study considered only those sales to the in-water vessels that homeport in the downtown Olympia area. As a result, market demand projections do not include potential sales to other fuel users, including:

- Approximately 3000 boats launched from Swantown annually (not moored as homeport)
- Visiting boats in temporary moorage at local marinas
- Vessels that permanently berth at marinas within the county and outside of the downtown Olympia area
- Commercial fuel sales (examples include the local ship assist tug boat company, a log and towing operator, and a local marine construction firm tug and large private yachts that homeport at Swantown and travel extensively throughout the Pacific region). These commercial users have expressed support for a Port fuel dock facility and estimate fuel use of approximately 69,500 gallons annually.

REVISED MARKET STUDY

In the fall of 2015, the Port requested that the Social and Research Science Center at Washington State University (WSU) review its market study to consider comments received at the April 2015 public meeting. The primary concern raised was that boaters who did not respond to the survey are not like the boaters who did respond. These non-responding boaters may not use their boats and correspondingly will not use fuel. WSU issued a revised study to address these concerns WSU decreased their fuel sales estimate by less than 6,000 gallons in the revised study.

PORT STAFF ESTIMATE

Port staff understood public comments and prepared a separate estimate based on the Fuel Survey. The survey did have 622 boater responses (out of 1,438 boats) for a total of 200,118 gallons. Estimating that 30% of the total boats are not used ($1,438 \times 30\% = 431$) leaves 385 remaining boats that may use fuel. Those remaining 385 boats may use the median fuel sales of 120 gallons per year for an estimated total of

46,200 gallons. Adding the survey and the estimated gallons is an annual total of 246,318 gallons. See table below:

Scenario for 30% Inactive Boaters				
		Boats		Gallons
Total Boats		1,438		
Response		622		200,118
Estimate remainder		816		
<i>Less: Unused Boat Population</i>	(1,438 x 30%)	(431)		
Remaining Boats		385		
Multiply by Median fuel sales per boat		120		
Fuel sales per remaining population				46,200
Fuel Sales Volume where 30% are Inactive				246,318

COMPARISON OF FUEL SALES ESTIMATES

Description	Original (2009) Staff Estimate 2013	WSU Market Study 2014	WSU Market Study 2015	Port Staff Estimate 2016
Gas Sales in Gallons	75,000	159,296	157,023	78,539
Diesel Sales in Gallons	50,000	236,989	233,636	167,779
Totals:	125,000	396,285	390,659	246,318

Capital Investment Policy

In 2015, the Port Commission adopted implemented a Capital Investment Policy so that it would have a framework for making major capital investments (see attached). Capital Project Evaluation provides a basis for when an evaluation is prepared, the methodology, the measurements and the acceptance criteria. The Port used the following metrics to evaluate the crane:

- a) Net Present Value discounts future cash flows by the Port's "hurdle rate"¹ and compares that amount to the cost of the investment.
- b) Internal Rate of Return is the interest rate at which the present value of the cash flows equals the cost of the investment. A project's internal rate of return should be higher than the Port's "hurdle rate" to be accepted.

Since both of these metrics consider the time value of money, they are considered to be the best way to measure the return of a multi-year project or investment.

Financial Analysis

The financial viability of the fuel dock (investment) depends on two factors: (1) future cash flows; and (2) the required investment. The Port's financial analysis begins with assumptions, then estimates new

¹ "Hurdle rate" is a minimum rate of return on a project or investment required by the Port. In capital budgeting, projects are evaluated either by discounting future cash flows to the present by the hurdle rate, so as to ascertain the net present value of the project, or by computing the internal rate of return (IRR) on the project and comparing this to the hurdle rate. If the IRR exceeds the hurdle rate, the project could go ahead.

revenues and expenses so that it may estimate cash flows from the fuel dock (investment). The metrics compare these incremental cash flows to the cost of the investment.

Assumptions:

1. Borrowing cost estimated at 4.25% for a 30 year term loan from a local bank. The loan is based upon the full faith and credit of the Port.
2. Annual inflation rate 1.8% for revenue rates and expenses
3. Beginning gross margin per gallon is based on a survey of Puget Sound Ports Marina Fuel Docks
4. Consider five beginning volume scenarios shown in the table below
5. Fuel sales volumes grow at ½ of 1% annually subject a maximum based on the total slips in the Olympia area.
6. Fuel Volumes exclude:
 - a. Visiting boaters
 - b. Boats on trailers
 - c. Commercial boats
 - d. Moored Boats in Thurston County which are outside of the Olympia area
7. Annual operating and maintenance expense begins at \$89,600
 - a. 1 additional full-time employee
 - b. 1 additional summer-hire employee
8. The total cost of the fuel dock is \$2,518,000
9. The Port has a grant of \$425,000 which may be used to pay for project costs so that the net cost is \$2,093,000.
10. The fuel dock has an estimated useful life of 30 years
11. Discount (“hurdle rate”) rate of 6.0% used in the calculation of Net Present Value

Three steps are involved in evaluating an investment:

1. Estimate the relevant cash flows.
2. Calculate the investment’s economic worth.
3. Compare the investment’s economic worth to the Port’s acceptance criteria.

Evaluate Multiple Scenarios:

Since the future may be different than we imagine or estimate, the Port prepared five scenarios comprised of one investment cost scenario and five beginning volume scenarios. The volume scenarios grew the volume of business over time.

Scenario	Volume
30% Inactive Boaters	246,318
Goal based on a 6% Internal Rate of Return	277,500
WSU Survey:	
Low	336,733
Most Likely	390,659
High	444,941

Metrics: Net Present Value (NPV) & Internal Rate of Return (IRR):

Scenario	Volume	Net Present Value @ 6% Discount Rate	Internal Rate of Return
30% Inactive Boaters	246,318	(\$409,000)	4.1%
Goal based on a 6% IRR	277,500	\$4,000	6.0%
WSU Survey:			
Low	336,733	\$770,000	9.2%
Most Likely	390,659	\$1,467,000	11.9%
High	444,941	\$2,168,000	14.6%

Port staff also calculated Payback Period for stakeholders that find that measure helpful. Payback Period is the number of years that the project takes to pay back the initial investment without considering the time value of money. The Payback Period ranges from 20 to 9 years for the scenarios “30% Inactive Boaters” to “WSU Survey: High” respectively.

All the scenarios shown pay for the investment, operating, maintenance and interest costs over the 30 year life of the fuel facility.

Proforma Income Statement

The Proforma Income Statement below assumes building a \$2,518,000 fuel dock with a volume scenario of 277,500 annual gallons which is the Goal based on a 6% IRR. The important thing to note is that while the project earns the desired 6% IRR, the first ten years result in a net loss. This scenario indicates that net profits may start in year 12. This lag is typical for major capital projects, where interest expense is a higher in the first ten years.

Year #	Gross Profit	Cash Expenses	Depreciation	Contribution Margin	Interest Expense	Net Project Income (Loss)
1	\$196,710	(\$89,600)	(\$69,763)	\$37,347	(\$88,948)	(\$51,600)
5	\$215,093	(\$96,039)	(\$69,763)	\$49,292	(\$82,465)	(\$33,173)
10	\$240,509	(\$104,741)	(\$69,763)	\$66,004	(\$72,687)	(\$6,683)
15	\$268,925	(\$114,233)	(\$69,763)	\$84,930	(\$60,646)	\$24,283
20	\$300,700	(\$124,584)	(\$69,763)	\$106,354	(\$45,820)	\$60,533
25	\$336,229	(\$135,873)	(\$69,763)	\$130,593	(\$27,564)	\$103,029
30	\$375,958	(\$148,186)	(\$69,763)	\$158,009	(\$5,085)	\$152,924
Totals	\$8,311,688	(\$3,495,937)	(\$2,092,885)	\$2,722,866	(\$1,649,083)	\$1,073,783

Port Financial Reporting for the Proposed Fuel Facility

Port staff plans to show the fuel facility as a separate business at Swantown Marina so that the Port and its stakeholders may understand the financial results.

Summary

The Port appreciates your participation and observations. This letter tells some of the work which was performed in the background and informs the Commission's upcoming decision to build a fuel facility. This fuel facility has business risk especially for sales volumes which may change the financial results. Experienced financial professionals prepared several financial scenarios and used financial metrics as they estimated the results. This plan shows that in several scenarios a fuel dock has a strong likelihood of meeting the Port's financial metrics as well as its goal for economic growth in Thurston County.