

# AMHS Reform Study

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## *Phase 2 Scope of Work*

### **Purpose**

The purpose of this Scope of Work is to describe the activities of the team during Phase 2 of the project. It is guided by the requirements and principles outlined in the MOU between the Office of the Governor of the State of Alaska and the Southeast Conference. This scope and the associated cost estimate will be the guiding documents for the project team to develop a schedule and a project charter.

Our tasks in Phase 2 will result in a clear description of how the Alaska Marine Highway could better serve Alaskans' transportation needs as a Public Corporation, and why it is imperative to do so. With the right suite of assets, leadership, and authorities – the system can make significant strides in enhancing revenue, aligning management and labor, and controlling expenses. Phase 2 will include a technical analysis of the financial implications and opportunities resulting from this transition.

This document outlines the objectives and scope of work for the six primary tasks that comprise Phase 2 of the AMHS Reform Study, including:

- Revenue Analysis
- Operations Analysis
- Operations Financial Model
- Structure and Benefits of Public Corporation Governance
- Transition Plan
- Public Process and Stakeholder Engagement

The Public Process and Stakeholder Engagement aspect of the project will be ongoing throughout the duration of Phase 2. Recognizing the importance of public and stakeholder involvement in the success of this project, the first deliverable will be a detailed Public Process and Stakeholder Engagement Plan, prepared in close consultation with the Steering Committee. Updating deliverables for a maximum of two stakeholder reviews for each deliverable are included in the effort.

The primary tasks in this SOW directly address specific requirements in the MOU between the Office of the Governor of the State of Alaska and the Southeast Conference, however there are two Optional items that would significantly contribute to the study results and help inform the process and future AMHS governance. The first is a comprehensive household and business survey, as part of the Public Process and Stakeholder Engagement task, to enable the public at large to contribute to the study for those that cannot attend outreach sessions and to provide more detailed input than can be obtained with a simple web-based comment system. The second is a capital needs assessment to more fully describe the funding needed for a future state vessel and terminal asset mix.

## Revenue Analysis

### Objective

- Identify mix of public funding and other revenues that will provide for the sustainability of AMHS over the next 25 years
- Explore possible changes to tariff rates and structure
- Consider potential partnerships with private, tribal, municipal and/or non-profit entities

### Deliverables

Long-Range Revenue Development Strategy Report. McDowell Group will lead this task.

### Scope of Work

#### Fare Box and Passenger Services Revenue Analysis

The project team will benchmark the system's annual revenue potential through examination of historical revenue data. As we distill and analyze AMHS's detailed traffic and revenue data, we will identify key revenue generators (in terms of routes and market segments). Measures of market characteristics and revenue potential will be by primary route, by port community, by customer type (local residents, non-local Alaska residents, non-Alaskans), and by fare type (passenger, vehicle, stateroom, and commercial/freight). We will establish revenue growth rates required to at least keep pace with inflation in general and with the expected increase in system operating costs in particular.

#### Fare and Rate Structure Assessment

The project requires consideration of possible changes to fares and the fare structure. We will examine current AMHS pricing strategy and consider possible changes/enhancements that might stimulate overall fare-box revenue growth. The analysis will focus at a high-level on potential strategies associated with seasonality, high-demand routes, commercial versus non-commercial, frequent traveler discounts, premium service pricing, cost-recovery pricing, etc.

#### Assessment of Traditional Public Funding Opportunities & Challenges

This analysis will consider threats and opportunities associated with traditional state and federal government ferry system funding mechanisms. The project team will consider how access to state General Funds might change under a Public Corporation model. The outlook for sources of operating and capital funds will be considered in this regard. Federal-aid highway funding sources available for ferry improvements, such as the National Highway Performance Program (NHPP), Surface Transportation Program (STP), Construction of Ferry Boat and Ferry Terminal Facilities Program (FBP) and others will be considered. The project team will assess how access to these federal funds might be affected by transition to a Public Corporation governance model.

#### Partnerships and Other New Revenue Opportunities

Traditionally, AMHS operating revenues have come from the fare box, passenger services, or the state General Fund. This analysis will consider potential new revenue mechanisms associated with private, tribal, municipal and/or non-profit entities, or new public streams such as gas tax dedication, etc. Can

municipalities support AMHS service to their communities? If so, how might that be structured? Is there opportunity to use tribal transportation funds to support or supplement AMHS service? What mutually beneficial relationships might be possible between for-profit businesses and AMHS, whether in the transportation sector, the visitor industry, or other industry?

#### **Analysis of Potential New Funding Mechanisms**

This analysis will examine structural funding mechanism that might supplement or partially replace state General Fund support of AMHS operations. This would include creation of a land trust or land endowment to generate revenue, including terminal management. The analysis will consider how the bond authority of the Public Corporation might be used support operations and investment.

#### **Assessment of Potential Market Development and Marketing Opportunities**

This analysis will consider potential opportunities to enhance ridership (and revenue) through product development (packages), development of high-potential markets, and targeted marketing efforts. This task will be closely tied with the Fare Box and Passenger Services Revenue Analysis and Fare and Rate Structure Assessment (described above) where we will be conducting market segment and pricing analyses.

# Operations Analysis

## Objective

- Identify the basic transportation and shipping needs for Alaskans
- Better match vessels to specific routes, both to inform the Transition Plan and enable development of different operational scenario options. It will also be valuable information in the short term for current AMHS management decisions.

## Deliverables

Vessel and Terminal Operations Report with strategic operational goals. Elliott Bay Design Group will lead this task.

## Scope of Work

### Assessment of Current Strengths and Weaknesses

The project team will review the current operations to benchmark aspects of the system. We will begin by meeting with key AMHS managers in Ketchikan, and the Department of Administration (DOA) and labor leaders in Juneau, to identify their concerns and to highlight strengths of the current operation. We will then review non-security sensitive documents regarding their safety management system, policies, and procedures.

### Vessel Crewing/Terminal Staffing Analysis

We will look at current crewing practices under the existing collective bargaining agreements. We will also meet with representatives of the different collective bargaining units to gather their insights on vessel manning, dispatching procedures, scheduling, and overtime compensation. We will compare AMHS practices with other ferry systems to identify best practices and potential improvements. Issues such as the impact of the high speed craft (HSC) code certification on labor costs and crew scheduling will be identified for consideration during planning for future operations with existing and new vessels.

On the terminal side we will examine the asset management reports for each terminal and review the Surface Transportation Improvement Plan to understand projected improvements, relocations, or additions to the system. We will look at maintenance requirements and enhancements, including increased standardization, to improve terminal utility and/or reduce maintenance.

### Fleet Standardization/Vessel Class Suitability Analysis

The largest cost centers for AMHS are labor, maintenance, and fuel. All three cost centers are a reflection of the fleet mix. We will evaluate the routes currently operated by AMHS to create a matrix of vessel requirements which will be organized into classes of vessels. Multiple key factors will be included, such as speed, passenger and vehicle capacities, requirements for crew cabins, dayboat vs mainliner, etc. We will also review past studies on the Alaska Class Ferry, the Shuttle Ferry, the Tustumena replacement, and the Fast Vehicle Ferry to ensure that prior work is incorporated into the analysis wherever possible. Minimizing vessel or port-unique attributes will positively influence cost effective fleet operation.

# Operations Financial Model

## Objective

- Identify the routing structure that is most viable for the AMHS
- Review opportunities for contracting for concessions, routes, or other aspects of operations

## Deliverables

The Deliverable for this task will be a Long-Range Financial Strategy report with the following three generic cost models. Elliott Bay Design Group will lead this task.

- 1) Cost model for each current vessel for a week of operation, calibrated to actual cost data. Major cost variables such as labor, fuel, provisions, and maintenance will be broken out. This baseline will be used for evaluating costs of the to-be-determined fleet of standardized vessels.
- 2) Cost model for three classes of terminals (small, medium, and major), calibrated to actual cost data
- 3) Cost model for overhead functions that support the fleet and terminals, calibrated to actual cost data

## Scope of Work

### Operations Cost Control Analysis

Modeling the financial operation of the AMHS system is challenging. There are currently 11 vessels serving 33 communities spanning 3,500 miles. One vessel is being sold, another in long-term layup, and two vessels are under construction. In FY 2015 the system provided 378 ship weeks of service and made 6,478 port calls. The FY 2016 operating plan reduced service to 351 ship weeks of service, and service is expected to reduce even further, as low as 325 weeks are proposed for FY 2018.

### Operations Cost and Earned Income Enhancement Analysis

The EBDG team will work with AMHS planning staff to develop three representative scenarios for projected costs. There may certainly be variations between these scenarios and the ultimately implemented operational plan, however these will bracket the discussion to highlight the benefits and costs to inform the different service decisions to be made:

- a) Baseline scenario with 11 vessels and 350 ship weeks of service (selected to align with historical data available)
- b) Standardized Fleet scenario
  - i) Three Mainline Vessels
  - ii) Five Day Boat Feeder Vessels
  - iii) One Ocean-going Vessel
- c) Minimal service scenario with eight vessels
  - i) Two Mainline Vessels (shifted southern terminus)
  - ii) Three Day Boat Feeder Vessels
  - iii) Two 24/7 Feeder Vessels
  - iv) One Ocean-going Vessel

For each of these scenarios we will develop a service schedule to capture number of visits to each port and total number of port calls. The service schedule will then be applied to the cost models to estimate the annual operating cost for the system. We will then analyze the sensitivity of the results for major variables such as fuel, labor, and shipyard. The three scenarios will be compared for operating cost, overall revenue potential, and service delivery. The strengths and weaknesses of each scenario will be identified to inform the approach to operational guidance and protocols. High level operating cost models require, as input, information on asset capital costs. Approval of the optional Capital Cost item will significantly improve the accuracy of these predictive models.

We will then develop a recommended operational plan with definition of vessel types, service levels, and operating costs. The potential revenue for the recommended plan will be estimated and associated risk factors will be identified. The impact of this plan on labor groups (shipboard, terminal, and overhead) will be evaluated. Similarly, the impact of the plan on communities served by the system will be evaluated.

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# Structure and Benefits of Public Corporation Governance

## Objective

- Describe in detail the governance structure that best enables and empowers the management team to operate the AMHS in an economically optimal way that meets user needs

## Deliverables

Profile and Case for the Public Corporation. McDowell Group will lead this task.

## Scope of Work

### Profile of the AMHS Corporation

This task will build on the descriptive material in Phase 1 and provide a detailed profile of the governance and management structure of the AMHS under the Public Corporation. This will include a Board of Directors profile (number of board seats, terms, representation, qualifications, appointment process, compensation, director and officer responsibilities and authorities). The management structure of AMHS will be determined by the Board of Directors. However, as a Public Corporation, management accountability and responsibilities will be different than is now the case in a line agency of state government. Those differences will be described. The cost of governance under the Public Corporation model will be addressed, in comparison to the current structure. Finally, this task will also describe how public interests are represented within the Public Corporation model, whether regarding specific concerns about ferry schedules or high-level concerns about AMHS policy.

### Benefits of Public Corporation Government

This concise “Case for Public Corporation” will include a summary of the rationale and support for the transition. Drawing from the results of other tasks in Phase 2, the Case will summarize anticipated near-term and long-term benefits resulting from the change. The Public Corporation’s advantageous approach to labor management, revenue generation, cost controls, and asset ownership will be summarized. Key performance measures will be developed to measure progress towards a sustainable transportation system. This information will be concisely summarized into a document suitable for broad distribution. This will serve as the primary public-facing document making the case for the Public Corporation model.

## Transition Plan

### Objective

- Provide a road map for creation of, and transition to, a Public Corporation

### Deliverable

Transition Plan. McDowell Group will lead this task.

### Scope of Work

#### Define Legislative Path

In this task the project team will describe the scope and sequence of legislative actions required to create and empower the Public Corporation. It will outline the necessary contents of the establishing legislation, including management powers and duties, administrative provisions, personnel and labor relations, asset ownership, bonding authority, and other provisions. This task does not include development of draft legislation. Rather it will provide examples of statutes and language that should be incorporated in the draft legislation and accompanying documents.

#### Outline the Transition Plan

The study team will provide a guide for transitioning AMHS from a line agency to a Public Corporation, which is expected to be a multiple-year process. This guide will ensure that AMHS, the Steering Committee, the Office of the Governor, Alaska Legislature, MTAB, AKDOTPF, DOA, and other key stakeholders remain coordinated throughout the process. The tactical strategy will include an overview of the legislative process, needed statutory authorities and exemptions, and critical transition milestones. The project team will ensure that the Plan incorporates the expertise of State agencies and Legislative advocates. The project team will examine transportation system transitions in other locations for valuable “lessons learned”, as well as Alaskan agencies that have experienced similar transitions.

A draft Transition Plan document will be prepared for review and input from key stakeholders. The draft plan will address needed funds to cover transition costs, sequence of tasks and timelines, and responsible parties throughout the transition to a Public Corporation. From our experience with the Phase 1 report, we anticipate that the transition plan will go through several revision cycles to ensure that it reflects the best thinking of the project team, the Steering Committee, and key stakeholders.

## Public Process and Stakeholder Engagement

### Objective

- Guide the steering committee through a robust stakeholder engagement and public process that is essential to gaining public and political support for the transition to a Public Corporation.

### Deliverables

Draft and Final Public Involvement Plans; press releases, presentations, and media briefings; and a record of public comments received throughout the project. If a survey is also conducted, then summary of resident and business survey findings. McDowell Group will lead this task.

### Scope of Work

#### Public Engagement Plan

The first task will be the preparation of a written Public Engagement Plan for Steering Committee review and input. To maximize project resources, communication efforts will utilize existing networks where possible including MTAB, trade organizations, ARDORS, and Alaska Municipal League. Municipal and Tribal leaders, businesses, and residents throughout Alaska will be included in project communications, reinforcing the statewide mission and benefits of the Alaska Marine Highway. The plan will include both an initial public engagement phase to understand the public's perception of essential service and benefit from AMHS. Following completion of the draft AMHS reform plan additional public input will be solicited. The final plan for conducting this initial and follow-up public engagement will depend on if survey research is included in the budgeted scope of work.

#### Key Stakeholder Engagement

Key stakeholder engagement (in addition to the Steering Committee) will include the following:

- Governor's Office
- MTAB
- Municipal, Tribal leaders, and AML
- Business community, including ATIA and key trade organizations
- ADOTPF/AMHS
- Labor union representatives
- Alaska Regional Development Organizations (ARDORs)

The budget for Stakeholder Engagement assumes a total of six meetings with the Steering Committee and/or MTAB over the full course of the project, plus meetings as needed with other key stakeholders. A minimum of two Steering Committee meetings will be in-person, including for project kick-off and final presentation, with others leveraging teleconference technology or limited in-person project team attendance to minimize travel expenses. Meetings with AMHS and DOA officials are critical, and will be conducted as needed to support other aspects of the strategic/transition planning. Similarly, meetings with labor union representatives will be critical for gathering the labor perspective on opportunities for enhancing operational efficiencies, customer service, and revenue potential.

## **Project Website Development and Maintenance**

We recommend development of a project website (independent of SEC), where project documents will be available, links to project surveys may be housed, and other project-related information is made available to the public. This new project website will help brand the project as a statewide initiative. The website will also include an opportunity for the public to submit comments to the project team, and be added to a project mailing list.

## **Public Meetings**

Events will be held to inform the public about the proposed changes to ferry system governance, how those changes might change service, how the transition might occur and its timeframe, and other issues. But most importantly, they will be key opportunities for direct input gathering, answering questions, and dispelling misrepresentations. The number of events and location will be determined once budgetary constraints are finalized. Options for these events include:

- SE Conference Mid-Session in Juneau, March 14 (an opportunity to provide an update on the project, and in parallel meet with other key stakeholders)
- Listening sessions in Anchorage and one other Southcentral/Southwest location (additional sessions may be scheduled with increased budget approval)
- SE Conference Annual Meeting in Haines, September 20-21, 2017

The team's scope of work includes preparing presentation materials and participating in the events. It does not include event planning or public notice tasks (other than press release development).

## **Media Outreach**

Strategic use of media will be required to fulfill the obligation to have a broad public process associated with the AMHS Reform project. The study team will prepare and distribute press releases and otherwise solicit statewide press coverage at key points in the project, to be sure that people are aware of opportunities to learn about and engage in the development of the AMHS Strategic Plan.

## **Public Involvement Information Management**

Formal documentation of public input will be important in demonstrating broad engagement and organizing the breadth of data and comments that will be collected. In addition to survey results, public input received via the website and during public events will be compiled and included in project documentation.

## **OPTIONAL - Surveys of Alaska Households and Businesses**

Online household and business surveys have the potential to be significant tools for gathering broad public input regarding the transition to a Public Corporation model. No other public involvement mechanism can provide this quality of a guided, interactive environment for all Alaskans to effectively engage in the process. The purpose of these open-access surveys would be to provide the public with an opportunity to weigh in on how to best define essential levels of service, perceived economic and other costs/benefits associated with changes in service levels, price sensitivity, perceptions about the Public Corporation governance model, and other issues. Analyzing the data through a regional demographics lens will also provide valuable information for the plan development and outreach approach. A final

survey could be conducted later in the project to measure support for the transition to the Public Corporation model (after the team can speak definitively about the benefits of the transition).

A substantial informational/educational campaign will be required to make Alaskans everywhere aware of the survey opportunity (and distribute the link to the online survey), inform people about the statewide benefits of the ferries, and explain the rationale for the proposed changes.

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## OPTIONAL - Capital Needs

### Objective

- Determine the mix of funding to meet the capital needs of the system for the next 25 years. Capital needs are defined as new vessel/terminal procurement and major improvements for asset improvement or lifecycle extension.

### Deliverable

The deliverable from this task would be a notional Capital Plan for Vessels, Terminals, and other Assets, projecting forward 40 years to cover the transition from the current fleet to a future fleet and to understand the level of on-going capital needs once a new vessel is in service. It will be based on the recommended strategic plan as approved by the Steering Committee. Costs for acquisition of new vessels, disposal of old vessels, major refurbishment of terminals, and acquisition and implementation of new management technologies will be included. The capital cost assumptions will be clearly identified along with estimates for managing the capital process.

Elliott Bay Design Group will lead this task. However, alternatives also include AK DOT&PF conducting the analysis with in-house resources in parallel to the SEC effort or as input to the same.

### Scope of Work

#### Fleet Condition Overview

We know that AMHS has comprehensive life cycle models and surveys for the current fleet. These will be used to gauge the condition of each vessel and remaining life for planning purposes. The team will look at how capital was allocated over the past 10 years and the sources of that capital.

#### Vessel Renewal & Replacement Strategy

The AMHS fleet is ageing and will need major capital investment over the next 10 to 20 years to replace the fleet, in addition to a robust vessel preservation plan. With the cost of replacing the TUSTUMENA estimated at \$244 million, it is conceivable the total cost could approach \$1 billion. The actual cost will depend upon how many vessels of different capacities will be purchased. We will examine the fleet configurations, as defined in the operational analysis above, to create a range of capital estimates.

#### Vessel Renewal/Replacement Cost Analysis

EBDG will use a proprietary tool, developed in-house, to estimate vessel capital costs using parametric formulas. This software has been calibrated with various ferry projects over the past 10 years, and is adjusted for inflation. It will include estimates for the overhead effort required to manage major capital efforts but will not include any cost of capital. We will compare the results to estimates developed by others as part of the fleet life cycle cost studies.

#### Terminal Condition Review and Investment Strategy

AMHS vessels use a wide variety of terminal facilities. The majority of the terminals are owned by the State of Alaska with buildings, mooring structures, and infrastructure that has been developed by DOT&PF. In Southwest Alaska, the majority of the terminals are privately owned and used by AMHS on a

lease arrangement or access agreement. On the terminal side, EBDG will use a subcontractor, KPFF Engineering, to examine the asset management reports for each terminal and review the Surface Transportation Improvement Plan to understand projected improvements, relocations, or additions to the system. KPFF will estimate terminal costs based on their extensive experience in ferry terminal design and construction.

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## Subcontractors

EBDG will use both the McDowell Group and KPFF Engineering as subcontractors on the second phase of this project. While McDowell is well known to Alaskans, KPFF Engineering may not be as familiar. EBDG has worked with KPFF on a number of ferry projects across the United States, including work for Staten Island Ferry Division (New York City), Fisher Island Community Association (Miami), Waterborne Emergency Transportation Authority (San Francisco), and Kitsap County (Washington). For this project EBDG will be using the specific skills of Mike Anderson who leads KPFF's Marine Transit Consulting Group. He brings extensive knowledge of ferry system management, long range planning, and inter-government relations as seen below.

## Mike Anderson

Mike Anderson is a 34-year veteran of Washington State Ferries (WSF) which is among the nation's largest and most complex ferry systems. In his 34 years with WSF, including service as Director of Operations, and ultimately as Chief Executive Officer, the post from which he retired in 2008, Mike successfully oversaw multiple ferry operations, vessel, and terminal projects including planning, design, feasibility studies, standards development, and construction.

Mike is not only a known leader in the State of Washington, but a nationwide leader in the waterborne transportation industry. Initiating collaboration and sharing of best practices among ferry system operators, Mike led the way with his role in the creation of the Public Ferries Coalition. Mike is active in industry organizations including the American Public Transportation Association, the Associate's Council of the Passenger Vessel Association, and as a member of Interferry, an international association of ferry operators. Some specific projects include:

### Economic Feasibility Study and Schedule Analysis for the Staten Island Ferry Fleet

Mike led the KPFF team in analyzing costs and benefits for increased ferry service alternatives including public and private service options. This study provided NYDOT with the information to determine the most effective and efficient service increase alternatives based on factors such as capital improvement costs, operating costs, and safety considerations. This analysis will assist Staten Island Ferries in their decisions for capital and operational modifications to continue to provide safe, efficient ferry service between Staten Island and Manhattan.

### Citywide Ferry Study for New York City Economic Development Corporation

The NYC EDC commissioned the 2013 Citywide Ferry Study to identify the opportunities for new ferry routes serving the five boroughs of New York City and to better understand the impacts of new ferry service and terminals on local economies and real estate values. The results of the study guided public and private investment in ferry services and infrastructure over the next five to ten years. KPFF was responsible for developing vessel operating cost models, identifying best operating practices, and documenting the existing NY harbor ferry fleet.

### Preliminary Design Investigation for the Staten Island Ferry Fleet

Mike was the Project Director for this \$2.4M effort, which shaped the design and configuration of the Staten Island Ferry's (SIF) next generation of vessels. Mike directed the efforts of the KPFF team, as well as those of three subcontractors. A full scale analysis of the SIF system comprised of determining the capacity needs over the next 20 years granulated as fine as day of week and hour of day, assessment of existing fleet's performance and condition, development of five vessel concept designs, analysis of overnight operations, and security analysis. KPFF's engineer's recommendations are being implemented, including approval to build three new vessels, resulting in a safer, more sustainable, and cost effective ferry fleet.

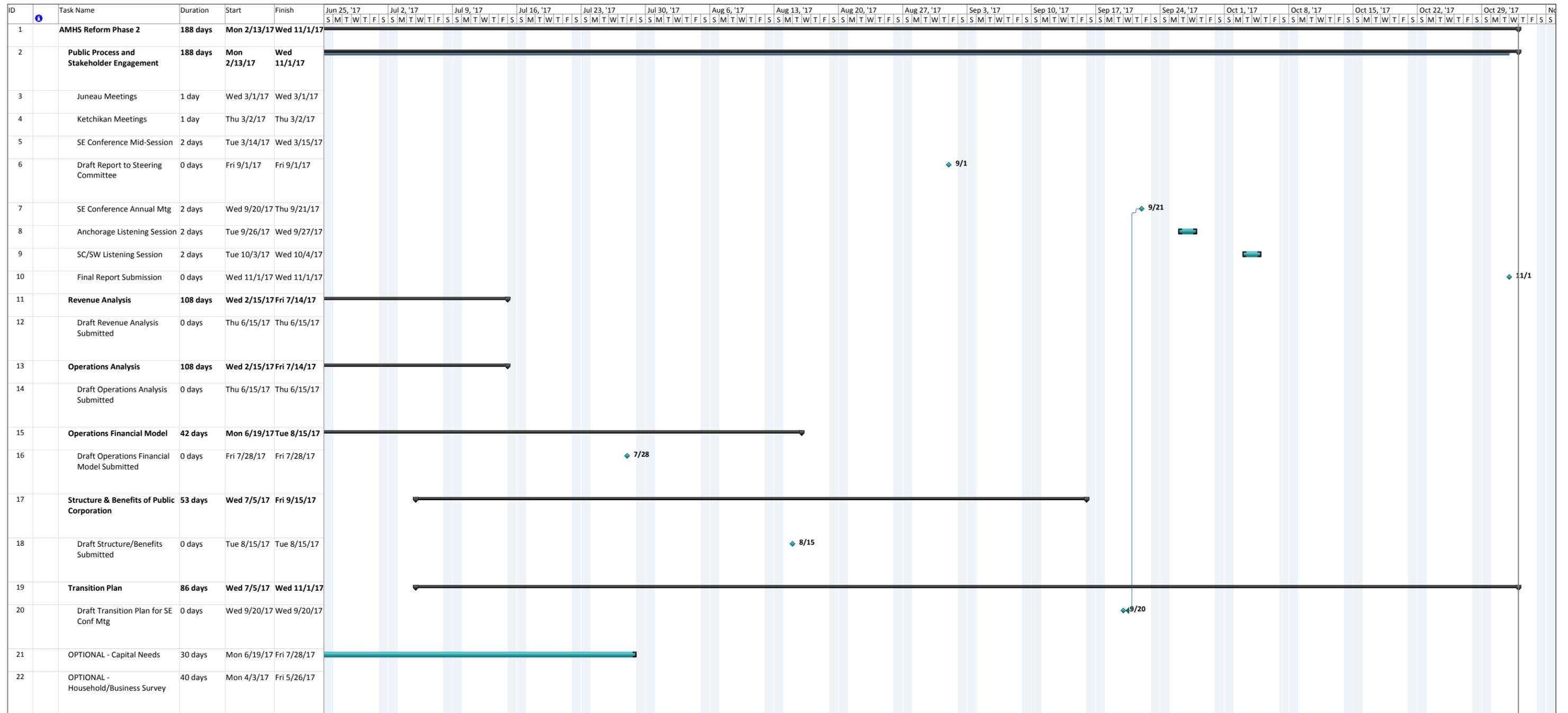
### Program Management Support – Marine Division, King County DOT

Mike leads the KPFF team (comprised of KPFF employees and subconsultants) to support King County with most aspects of the operating and capital program of the water taxi system. Mike has been instrumental in the inter-agency coordination and design development of the new passenger-only terminal hub facility at Colman Dock. He organized and facilitated the new vessel expert review panel that recommended the technical aspects and amenities for the new King County vessels, which have subsequently been designed, built, delivered, and placed in service.

### Kitsap Transit Passenger-Only Ferry Business Plan and Long Range Strategy

The comprehensive business and financial plan includes options and recommendations for governance and organizational structure; funding opportunities; route selection; service delivery modeling including sensitivity analysis; terminal and vessel infrastructure and maintenance requirements, and operating costs and revenue forecast.





Project: msproj11  
Date: Wed 2/1/17

Task		Milestone		Project Summary		External Milestone		Inactive Milestone		Manual Task		Manual Summary Rollup		Start-only		Deadline	
Split		Summary		External Tasks		Inactive Task		Inactive Summary		Duration-only		Manual Summary		Finish-only		Progress	