

**Southern Maine Regional  
Transit Development Plan  
Work Plan and Project  
Management Plan**



Prepared for:  
Greater Portland Council of  
Governments

Prepared by:  
Stantec Consulting Services, Inc

June 7, 2017

<b>Revision</b>	<b>Description</b>	<b>Author</b>		<b>Quality Check</b>		<b>Independent Review</b>	
V1	Project Management Plan	Adam Catherine	Senior Associate	Sasha Pejic	Senior Associate	Sasha Pejic	Senior Associate
V2	Project Management Plan	Adam Catherine	Senior Associate	Sasha Pejic	Senior Associate	Sasha Pejic	Senior Associate
V3	Project Management Plan	Adam Catherine	Senior Associate	Sasha Pejic	Senior Associate	Sasha Pejic	Senior Associate
V4	Project Management Plan	Adam Catherine	Senior Associate	Sasha Pejic	Senior Associate	Sasha Pejic	Senior Associate

## Sign-off Sheet

This document entitled Southern Maine Regional Transit Development Plan Work Plan and Project Management Plan was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Greater Portland Council of Governments (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by   
(signature)

**Adam Catherine, PE, PTOE, ENVSP**

Reviewed by   
(signature)

**Sasha Pejicic, PMP**

Approved by \_\_\_\_\_  
(signature)

**Stephanie Carver**

# SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN

## Table of Contents

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>1.1</b>
<b>2.0</b>	<b>PROJECT ORGANIZATION.....</b>	<b>2.1</b>
2.1	COMMUNICATIONS.....	2.1
2.2	ORGANIZATIONAL CHART/CONTACT INFORMATION .....	2.2
2.2.1	Organizational Chart .....	2.2
2.2.2	Roles and Responsibilities Matrix.....	2.3
2.2.3	Contact Information .....	2.4
<b>3.0</b>	<b>SCOPE OF WORK.....</b>	<b>3.1</b>
3.1	TASK 1: PROJECT MANAGEMENT PLAN.....	3.1
3.1.1	Project Management Plan.....	3.1
3.1.2	Continuous Dialogue .....	3.1
3.1.3	Monthly Progress Reports.....	3.1
3.2	TASK 2: STAKEHOLDER PARTICIPATION PLAN .....	3.1
3.3	TASK 3: STAKEHOLDER ENGAGEMENT .....	3.2
3.4	TASK 4: BACKGROUND ANALYSIS .....	3.3
3.5	TASK 6: NEEDS ASSESSMENT AND SERVICE CONCEPTS .....	3.7
3.6	TASK 7: SCENARIOS MODELING .....	3.8
3.7	TASK 8: RECOMMENDATIONS.....	3.10
3.8	TASK 9: IMPLEMENTATION PLAN .....	3.10
3.9	TASK 10: ONGOING EVALUATION CRITERIA .....	3.10
3.10	TASK 11: FINAL REPORT AND PRESENTATION .....	3.12
<b>4.0</b>	<b>MAJOR PROJECT DELIVERABLES.....</b>	<b>4.1</b>
<b>5.0</b>	<b>PROJECT ADMINISTRATION .....</b>	<b>5.1</b>
5.1	MEETINGS .....	5.1
5.1.1	Client .....	5.1
5.1.2	Internal .....	5.1
5.1.3	Agendas and Meeting Minutes.....	5.1
5.2	BUDGET CONTROL.....	5.1
5.2.1	Progress Reports.....	5.1
5.2.2	Invoices .....	5.1
<b>6.0</b>	<b>DOCUMENT CONTROL.....</b>	<b>6.1</b>
6.1	CORRESPONDENCE.....	6.1
6.1.1	Email .....	6.1
6.1.2	Letters .....	6.1
6.1.3	Fax .....	6.1
6.1.4	Transmittals .....	6.1
6.1.5	Reports .....	6.1
6.2	MAPPING .....	6.1

**SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT  
MANAGEMENT PLAN**

<b>7.0</b>	<b>QUALITY ASSURANCE.....</b>	<b>7.2</b>
7.1	INTERNAL QUALITY AUDITS .....	7.2
7.2	QA CHECKLIST .....	7.3
<b>8.0</b>	<b>PROJECT CLOSEOUT.....</b>	<b>8.3</b>

# **SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN**

Introduction  
June 7, 2017

## **1.0 INTRODUCTION**

The Portland Area Comprehensive Transportation System (PACTS) and the Greater Portland Council of Governments (GPCOG) have retained Stantec Consulting Services Inc. (Stantec), Morris Communications, and Gobis and Co, LLC to develop a short-range Regional Transit Development Plan (RTDP) for Southern Maine. The RTDP will include analysis of all public transit including rail, bus ferry, and ADA paratransit operations. The RTDP will guide investments aimed at maintaining and improving the existing transit system and enhancing mobility, safety, and accessibility for all in the region.

The short-range, six-year Regional Transit Development Plan (RTDP) offers a unique opportunity to take a first step back to recognize current challenges and future opportunities. As your consultant on this project, Stantec will analyze existing transit services and compare their performance against the regional vision and goals to better understand how to define the types and levels of services that would best meet the needs of the community. Once needs are understood, we will develop potential short-term strategies that will focus on enhancing existing services, proposing new services and technologies with the goal of enhancing mobility region-wide.

The plan must be actionable and grounded within the realities of the Southern Maine region. Stantec is keenly aware of the potential funding shortfalls our clients may experience under the new federal administration, and will work with GPCOG and the project partners to navigate these constraints. Our planning strategy for the project will be prudent because we only recommend those services and programs we are confident GPCOG and the project partners can develop, implement, and sustain financially. We will not plan to have more financial resources than we know are available. With that understanding, we believe there are opportunities for the development of new sources of funding (ECO and U-Passes, and others), as well as opportunities to control costs (regional fare payment system, interlining services, and elimination of duplicative services) which will be explored fully.



# **SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN**

Project Organization  
June 7, 2017

## **2.0 PROJECT ORGANIZATION**

### **2.1 COMMUNICATIONS**

Stantec will coordinate all work with the GPCOG Project Manager, Stephanie Carver. For ease of coordinating information between the sub-consultants, GPCOG set up a permanent ftp site, and provided the sub-consultants with the login name and password for access. Information provided on the FTP site to date includes previous studies, data, and mapping provided by GPCOG and the region's transit providers. The permanent ftp site and the information uploaded onto it will only be accessed by Stantec and their sub-consultants. All external communication to the Client shall be through the Project Manager (PM).

Stantec uses technology to resolve many of the typical issues associated with working on a project from a remote office. Our project team members have access to all the local project files, which reside on a server located in the local project office. Our team also uses Skype for Business to stay in contact. We can communicate more quickly and effectively through this informal process. Skype for Business also allows team members to share their computer screens with each other and give presentations to multiple team members at once. We can balance written correspondence and web-conferences / teleconferences with face-to-face meetings. This is effective for both team and client communications.

Our Project Manager is responsible to provide monthly progress reports to PACTS throughout all phases of the study. The progress reports will form a basis of discussion for our monthly check-in teleconferences and will include:

No documents shall be released without review and approval of the PM. In addition, no documents shall be released outside of the office (other than to the client) without the permission of the client.

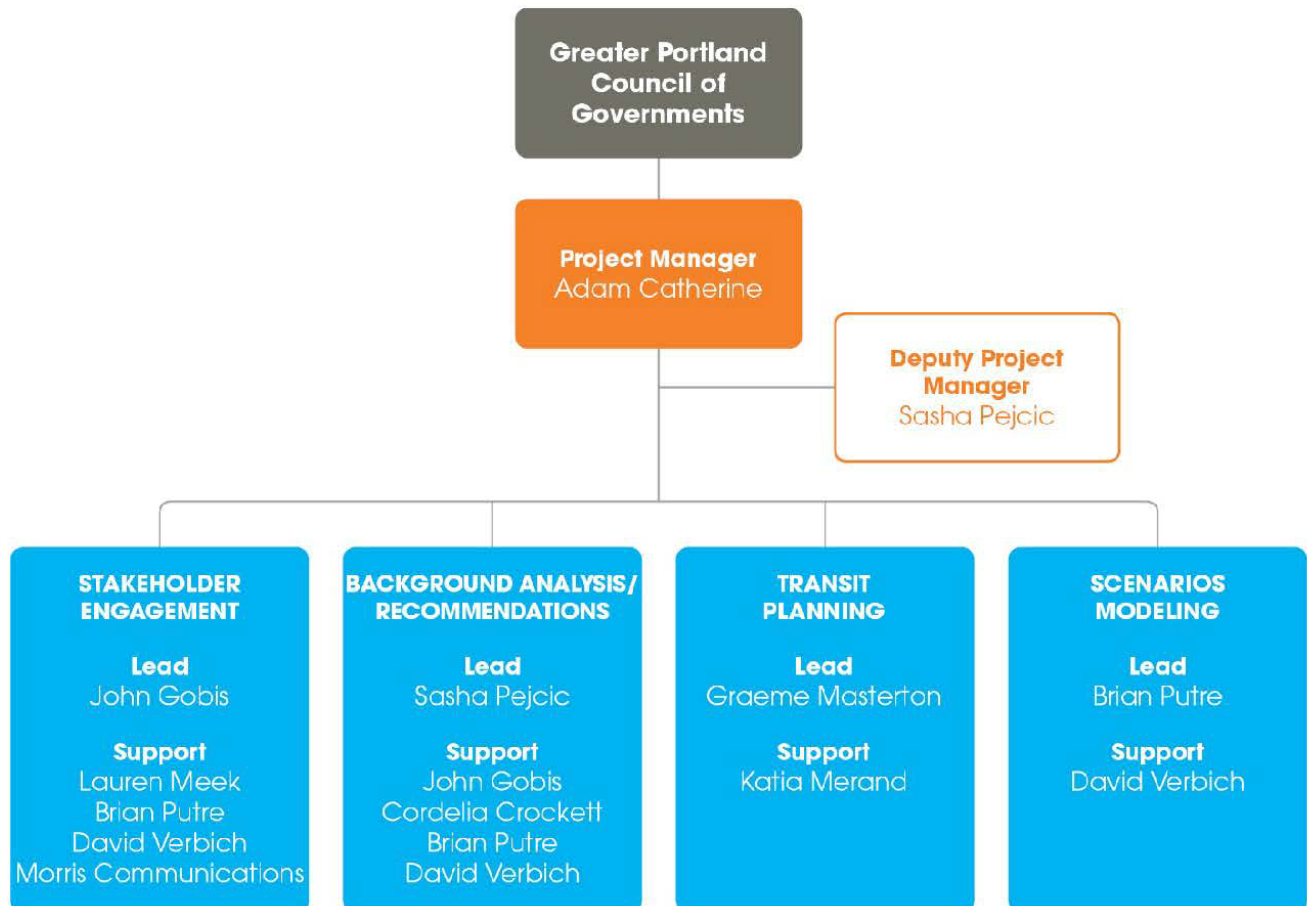


# SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN

Project Organization  
June 7, 2017

## 2.2 ORGANIZATIONAL CHART/CONTACT INFORMATION

### 2.2.1 Organizational Chart





## SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN

Project Organization  
June 7, 2017

### 2.2.2 Roles and Responsibilities Matrix

	Project Manager	Deputy Project Manager	Project Administrator	Task Manager(s)	Technical Advisor(s)	Quality Assurance Engineer
	Adam Catherine	Sasha Pejic	Deborah Munz	Sasha Pejic Graeme Masterton John Gobis Brian Putre Carol Morris	Cordelia Crockett	Graeme Masterton
Proposal / Scope of Work	R	S			S	
Negotiation / Agreement	S	R				
Client Maintenance	S	R			S	
Establish Budget	R			I		
Maintain Budget	R	S		S		
Identify Staffing Needs	R	S		I		
Obtain Staffing	R	S		S		
Billing	R		S	I		
Collection / Payments	R	S	S			
Record Keeping / Filing	R	S	S	S		S
Project Reviews		S			S	R
Production	S	R		S		
Subconsultant Management	R	S				
Project Close-Out	R	S		I		S
Evaluation	R	S				R

	LEGEND
I	Inform
R	Responsibility
S	Support



## SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN

Project Organization  
June 7, 2017

### 2.2.3 Contact Information

Firm	Contact Person	Telephone, Fax & E-mail
Greater Portland Council of Governments 970 Baxter Boulevard Suite 201 Portland, ME 04103	Stephanie Carver, AICP Project Manager	P: (207) 774-9891 x.222 <a href="mailto:scarver@gpcog.org">scarver@gpcog.org</a>
Stantec Consulting Services Inc. 482 Payne Road Scarborough, ME 04074	Adam Catherine, PE, PTOE, ENVSP – Project Manager  Sasha Pejic, PMP – Deputy Project Manager and Background Analysis Lead  Graeme Masterton – Deputy Transit Planning Lead  Brian Putre – Scenarios Modeling Lead  Lauren Meek, PE – Local Agency Coordination	P: (856) 234-0800 x6040 C: (856) 505-7511 <a href="mailto:Adam.Catherine@stantec.com">Adam.Catherine@stantec.com</a> P: (905) 385-3234 C: (416) 276-7057 <a href="mailto:Sasha.Pejic@stantec.com">Sasha.Pejic@stantec.com</a>  P: (250) 389-2374 C: (250) 217-3638 <a href="mailto:Graeme.Masterton@stantec.com">Graeme.Masterton@stantec.com</a>  P: (416) 507-3493 C: (437) 991-7213 <a href="mailto:Brian.Putre@stantec.com">Brian.Putre@stantec.com</a>  P: (207) 887-3440 <a href="mailto:Lauren.Meek@stantec.com">Lauren.Meek@stantec.com</a>
Gobis and Co, LLC 54 Prospect Hill St Newport, RI 02840	John Gobis	P: (401) 846-3463 <a href="mailto:jackgobis@me.com">jackgobis@me.com</a>
Morris Communications 2 High Tide Road Kennebunkport, ME 04046	Carol Morris	P: (207) 329-6502 <a href="mailto:cmorris@morriscomm.net">cmorris@morriscomm.net</a>



# SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN

Scope of Work  
June 7, 2017

## 3.0 SCOPE OF WORK

### 3.1 TASK 1: PROJECT MANAGEMENT PLAN

#### 3.1.1 Project Management Plan

A well-developed work plan will be developed in coordination with PACTS at the start of the project to refine the scope and identify critical milestones and dates. Working within those constraints, we will identify necessary tasks, project roles, staffing assignments, and other resources needed to meet the deadlines including stakeholder groups in PACTS and elsewhere in Southern Maine, along with contact details for individuals. Additionally, we will identify meeting dates and formats for our deliverables. Last, we will identify any potential risks and will offer measures to mitigate the risks.

#### 3.1.2 Continuous Dialogue

Our approach to this project will be collaborative and seek to achieve a continuous dialogue with the client project manager. Weekly conversations will provide for a clear understanding of progress, challenges, and next steps. We recognize that a project of this nature, involving many differing stakeholders, cannot be performed in a silo.

#### 3.1.3 Monthly Progress Reports

Meeting the scheduled milestones will be of high importance to gain consensus and buy-in from all stakeholders and approvers. We will develop a detailed project schedule that will be updated regularly and used as a tool to measure progress. Included in the report will be details of the project budget spent and budget projections, project status and meeting minutes. We will highlight any risks that threaten the completion of project milestones and recommended actions.

**Deliverables:** Detailed project management plan, monthly progress reports, and kick-off meeting

### 3.2 TASK 2: STAKEHOLDER PARTICIPATION PLAN

At the outset of the stakeholder engagement process, we will meet with PACTS/GPCOG to confirm the stakeholder lists and then prepare an outreach plan, including the purpose of involving each group of stakeholders, the message we are aiming to communicate, and the method of communication. After receiving PACTS feedback on the outreach plan, we will tweak our approach if needed, to ensure we are proceeding in the most effective and efficient manner. We will structure our outreach efforts in such a way as to obtain valuable input with respect to the issues, opportunities, and priorities within the community. Stakeholders include



# SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN

Scope of Work  
June 7, 2017

community representatives, local organizations, Southern Maine public transportation providers, public entities such as Maine DOT, and the general population.

**Deliverables:** Stakeholder participation plan including names and contact details of participants, as well as the proposed messaging and approach to outreach.

## 3.3 TASK 3: STAKEHOLDER ENGAGEMENT

Once the stakeholder participation plan has been finalized, Stantec, together with Morris Communications will work to develop a thoughtful and responsible engagement process that will see participation from a wide range of stakeholders. Together, Stantec and Morris Communications will formally prepare all materials to be used in the meetings and carry out other preparatory tasks such as scheduling, planning, and in the case of the public open-house, advertising. After all preparation is complete, we will engage with all groups of stakeholders.

Our focus is to develop a plan that retains the loyalty of existing riders through improving the rider experience – riders will be the focus of stakeholder engagement in phase 1 of this project. Stantec believes that we can expand the market for transit service year-round and especially during tourist season. Non-rider engagement is still very important to Stantec. Those who do not ride the service but support it with their tax dollars must be brought into the discussion. While not our primary focus, non-riders are certainly important to securing a dedicated, sustainable source of local funding.

To satisfy our stakeholder engagement plan, we envision carrying out the following tasks:

- Rider Engagement and Surveys. Stantec is a proponent of a multi-layered approach to outreach that includes on-board, off-board, and on-line engagement of riders and non-riders. Our multi-layered approach will include:
  - Ride-Alongs
  - Off-Board: To supplement the ride-alongs, Stantec will engage with riders and incidental nonriders at major transfer points and events, such as the Elm Street Hub, Portland High School, USM, SMMC, Riverton, Farmers' Markets, Public Housing, the Old Port Festival, and regional libraries.
  - Social Media: Morris Communications will develop a social media campaign that will create awareness of the survey, encourage participation, and ultimately, inform the public of the results. GPCOG, PACTS and stakeholder organizations' websites and email will help to broaden the reach. Social media platforms will include Facebook, Twitter, and Instagram. We will coordinate with GPCOG's communications manager to undertake these efforts.



## **SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN**

Scope of Work  
June 7, 2017

- Surveys: Using a combination of on-board/intercept surveys and online surveys, we will gather rider opinions on transit service, including but not limited to satisfaction with current offerings, desires for improvement, trip characteristics/travel behavior and demographic information
- Stakeholder Interviews. We will reach out to local organizations, service providers and municipalities through phone and in-person interviews to assess a range of ridership needs. For example, we will contact key regional employers, such as L.L. Bean, and through semi-structured interviews, learn about potential employee transit needs and gauge support for transit changes.
- Focus Groups. For more targeted stakeholder engagement, Stantec, Morris Communications, and PACTS, will hold focus groups to introduce stakeholders to the project purpose, objectives, process, timeline, and other stakeholders, as well as to build relationships and gather their feedback and inputs. Focus groups will include representatives across all service providers, demographics, and system users. We will also develop a plan to engage stakeholders that are traditionally difficult to reach and do not generally attend public meetings, such as transit-dependent groups like immigrant populations, public housing residents, job seekers, the elderly, and students. The team can reach these groups effectively by contacting community and local organizations, such as the West Bayside Muslim Community Center, neighborhood associations, housing authorities, the Southern Maine Area Agency on Aging, and area colleges.
- Transit Operator Workshops. During these workshops, Stantec will meet with transit operators and key frontline staff across the different services and explore service barriers and opportunities as well as best practices. Unlike the stakeholder focus groups which are more visionary, these transit operator workshops will get into the nuances and challenges for each service from an operations perspective.
- Public Forum. Following the rider, the stakeholder focus groups, and the transit operator workshops, Stantec and PACTS will have a high-level understanding of what opportunities exist to grow and develop public transit services in Southern Maine. The tasks that follow describe the analysis that Stantec will undertake to translate these high-level ideas into tangible initiatives for inclusion in the RTDP.
- Board/Council Meetings. The final piece of stakeholder engagement will involve Stantec's participation in board and council meetings.

### **3.4 TASK 4: BACKGROUND ANALYSIS**

Stantec will conduct a detailed evaluation of the current state of transit services in Southern Maine. This will consist of a review and analysis of all datasets provided by GPCOG and PACTS, as well as independent background research into sources such as the websites for METRO Bus



# **SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN**

Scope of Work  
June 7, 2017

and other service providers, as well as the National Transit Database. The purpose of the background analysis is to develop a strong base upon which to build the recommendations that will form the RTDP.

Stantec will review the datasets including, but not limited to, those that are described in the RFP. The following analyses will be conducted:

## **1. Operating Landscape**

Stantec will review regional characteristics such as population density, land use, industries/employment, demographics, and travel patterns across all modes of transportation, to establish a solid understanding of the environment in which the Southern Maine transit providers operate. At the same time, we will review the characteristics of the transit services themselves, including their hours of operation, service coverage and frequency, operating budgets, and funding sources. By comparing the transit services to the Southern Maine operating landscape, Stantec will identify how the regional transit system functions and will understand which parts of the region are benefiting most from the services, which parts are lacking service, and where there may be service overlap or duplication. Stantec will review not only the services delivered by PACTS members such as METRO and the Casco Bay Island Ferry Service, but also the services offered by non-PACTS members such as the innovative iTNPortland service which engages volunteer drivers to provide another transportation option for senior citizens and individuals with visual impairments.

## **2. Planning Information**

Stantec will review past planning efforts that are relevant, such as Destination 2040 and the Maine Strategic Transit Plan 2025, and evaluate all objectives, successes, failures, and key findings. We will endeavor to understand the goals and objectives for PACTS in the context of existing transit plans to determine overarching themes focused, as well as complementary considerations with respect to land use, economic development, social wellbeing, and relevant environmental objectives. In addition to reviewing each planning study, Stantec will evaluate the extent to which planning efforts have been coordinated at the regional level, along with how successful efforts have been to integrate and regionalize service. Service integration and regionalization is closely related to the marketing and branding efforts of Southern Maine's transit services. As such, Stantec will also review the approach and execution of past marketing and branding campaigns, focusing on the strengths and shortcomings of each brand.

## **3. Ridership and Productivity**

Stantec will identify historical ridership trends across Southern Maine's transit services. These trends will be reviewed at both the regional network level and the community level to determine not only how well Southern Maine's transit services are fulfilling the travel needs of its residents, but also to understand which individual communities have benefited most from recent mobility



# **SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN**

Scope of Work  
June 7, 2017

improvements. For services where ridership appears to be relatively high or low with respect to the size of the market (total residents in service area, number of persons with disabilities, etc.), Stantec will diagnose the underlying factors contributing to the service's productive or unproductive operation. In doing so, Stantec will review service characteristics such as the fare structure, average trip length, on-time performance, number of boardings at transfer hubs, and passenger amenities, to determine the extent to which each may be influencing the service's total ridership. These analyses will be conducted as data availability permits. In addition, Stantec will review externalities that may be influencing ridership, such as local economic growth or decline and shifting travel patterns and land use.

## **4. Stakeholder Engagement Results**

While a cursory review of the findings from Task 3 will be conducted immediately following the surveys, interviews, workshops, and focus groups, Stantec will analyze in detail the wealth of qualitative data but also quantitative data in the form of SurveyMonkey results. The survey data review will be supplemented with an in-depth review of the qualitative data obtained from the interviews, focus groups, and workshops. This data will be analyzed for keywords such as "fare", "late", "transfer", etc., and will filter the comments into different categories based on the keywords. Similarly, the categories will be assessed for relative importance, following which we will review individual comments. Combined with the survey results, the interview, focus group, and workshop data will provide a foundation for understanding the key objectives, and ultimately for developing the service concepts.

## **5. Transit Assets**

Stantec will review asset inventories and other asset management data to understand the physical resources available to Southern Maine for the provision of transit services throughout the region, and how they are deployed. This includes buses, ferries, rail vehicles, paratransit vehicles, shuttles, and trolleys, as well as non-revenue vehicles. Stantec will also review organizational structures to evaluate the human resources available for providing transit services and the amount of communication among the different agencies operating in Southern Maine. In addition, Stantec will review the extent to which the public is involved in providing public transportation through volunteer driver programs and ridesharing programs.

## **6. Systems Review**

Stantec will focus on technologies including scheduling and dispatch software, smart fare payment systems, intelligent transportation systems, and safety-related technologies such as bus collision warning systems. All systems will be reviewed regardless of whether they are currently deployed, are still in the planning phases, or have not yet been given much consideration. Emphasis will be placed on the interoperability between transit agencies and the extent to which each technology is being leveraged to enhance the provision of region-wide transit services. For technologies that have not been given much consideration, Stantec will analyze



## SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN

Scope of Work  
June 7, 2017

why they have not been pursued and whether they are appropriate in the local context. Stantec will also review processes in place, particularly as they relate to communication and collaboration among the different transit providers that are operating service in Southern Maine.

**Deliverables:** Report on the observations and analysis conducted on the six items described above

### Task 5: Goals, Objectives, and Performance Measures

Using information and data gathered from meetings with internal and external stakeholders as well as with the public, we will begin to develop a joint understanding of the system context. We will review our findings with you, sharing our insight and expertise, before working closely with stakeholders to develop short-term goals and objectives that align with the vision. This will involve consultation using the most current and effective approaches to draw out the true values of the community, as well as a process to identify and accommodate conflicts. Our team will identify and establish performance targets that are appropriate for the goals and a process to measure those targets. The planning process will use available research and data to make an evaluation of the transit market. We will make recommendations where there are gaps in data for future data collection processes or identify opportunities and project impacts to collect and use new data in the current process.

Some of the system performance measures that can be considered include:

- Effectiveness - Measuring progress toward the overall goals.
- Mode share – The proportion of trips in the service area that are by transit or by other modes, measuring overall progress to community development goals.
- Boardings per service hour – A standard measure of the value of the service in terms of attracting customers versus the amount of service provided.
- Boardings per service mile – This measure separates long routes from shorter urban routes and shows the effectiveness of the route.
- Average boardings per trip – A good indicator of how many people might be expected on any trip during the day. This helps determine the appropriate vehicle size, as well as use of the service throughout the day.
- Efficiency measures - measuring the amount of service available for each dollar spent and the operational performance.
- Passengers per capita – A relative measure of the overall level of demand.
- Maximum passenger load on route – This helps to show the fluctuations in a route throughout the day as well as determine the vehicle size required.
- Scheduled productivity – This measures the amount of time the route is in revenue service and is somewhat a function of where the service start location is relative to the storage facility and the amount of non- revenue time in the system.





## SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN

Scope of Work  
June 7, 2017

- Trip time variability – This measures the reliability of the service by monitoring the difference between the average minimum running time and the maximum running time. Variability impacts the scheduled running time and the reliability of the system if this number is high.
- Average speed – This is a good measure of how fast a bus travels on average compared to the system average and can be used to determine if a route is getting slower over the years. As congestion becomes a factor, vehicles may have to be added simply to maintain the existing schedule.
- System performance - Measuring key indicators that combine system effectiveness and efficiency and that arise out of deliberate policy decisions including on fares.
- Cost per boarding - A measure of how expensive a service is to operate relative to the volume of people using the service.
- Cost recovery - A measure of the cost of providing the service versus the revenues attributable to that service.

### *Performance Dashboard*

The final step in this task will be to provide samples of peer best-practice dashboards. GPCOG has expressed a desire to develop a dashboard to monitor system performance across the region based on the performance measures identified above. While dashboards are an excellent method to report and monitor performance, they can also be a cost driver to develop, implement and use. The problem is that most agencies collect and present their own data (which requires dedicated staff resourcing) and in the case of Southern Maine there are seven providers – we believe this context begs for an automated solution. For example, the City of Los Angeles utilizes a transit data consolidation software called TransTrack that takes data monthly from the multiple contractors that provide LADOT Transit services and distills it into a dashboard format for presentation and use by transit managers. Stantec believes a similar approach may be of advantage to GPCOG and its project partners. We will investigate the feasibility of implementing such a solution and the associated cost.

**Deliverables:** Meeting minutes; goals, objectives and performance measures reports with input for each bus route/service. Samples of peer best-practice performance dashboards as well as a recommendation for GPCOG and its project partners to identify a performance reporting solution that minimizes the associated costs.

## 3.5 TASK 6: NEEDS ASSESSMENT AND SERVICE CONCEPTS

Following the in-depth background review and the development of short-term goals, objectives, and key performance measures, Stantec will review any gaps in place which may be preventing the region's transit agencies from optimizing its performance and fulfilling its objectives. These gaps will form the needs assessment, which will summarize each need, a plan to solve or fulfill the need, and an indication of the urgency and the party responsible. The needs assessment will be provided to PACTS and the participating transit agencies in table format, which can be used going forward as a management tool.



## SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN

Scope of Work  
June 7, 2017

The needs assessment table will be comprehensive and will include items that may not necessarily be needs or issues today, but could become needs or issues in the future. As an example, the development of fare collection processes that accept forms of contactless open payments may not be a need today, but it could be in a few years' time, once this technology has been more widely adopted across the North American transit industry and people become increasingly reliant on these forms of open payment across all aspects of their lives.

Upon completion of the needs assessment table, two unique service concepts will be developed – one concept that is forward-thinking and far-reaching, and one concept that is less transformative, representing more manageable growth. This will provide the region's transit providers with clarity with respect to the best course of action to enhance and augment regional mobility in Southern Maine, regardless of its internal resources and capabilities at a given moment in time. The service concepts will be developed using a bottom-up approach, whereby first the action items from the needs assessment are packaged together, then the benefits to Southern Maine and its residents are listed, and finally the resulting "desired state" of regional transit can be described.

As identified in the introduction of this project management plan, we are cognizant of the fiscal realities Southern Maine is facing. At the same time, Stantec believes it is necessary to identify Southern Maine's needs for consideration in the future should circumstances change. Funding capacity is considered in the implementation plan of the project and will take the form of a prioritized list of action items (i.e. the more funding there is available, the more actions can be taken). Having said that, we review project revenues at current levels as well as reduced levels and variables such as higher fares (recovery ratios) and service efficiencies to see the impacts in the short term.

**Deliverables:** Needs assessment table, service concepts report, presentation to discuss needs and the service concepts.

### 3.6 TASK 7: SCENARIOS MODELING

Stantec will develop three financial modeling scenarios to understand which is most suitable for PACTS to put forward in its RTDP. The purpose of this financial modeling will be to illustrate:

1. the operational impacts of our recommendations, and
2. the financial impact of our recommendations.

This will allow us to iterate and improve upon our recommendations to ensure optimal value for money, and it will give you an idea of what might be financially feasible. The model will be broken into three sections: inputs, calculations, and outputs. It will be designed in such a way that only the inputs need to be updated in order to refresh the model in the future.



## SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN

Scope of Work  
June 7, 2017

The first financial scenario is the baseline scenario which assumes the existing transit services in Southern Maine continue to operate without modifications, while also considering any current and relevant transit initiatives already outlined in existing planning documents. The other two scenarios will represent the two service concepts developed in Task 6.

To perform the scenarios modeling, Stantec relies on Excel-based modeling tools that forecast measures such as trips, levels of service, and costs on an annual basis. Typically, we first provide a forecast of ridership under each scenario, which in turn drives the forecast for other operating variables such as the number of vehicles and the number of full-time equivalents. In turn, these operating variables may be translated into costs by understanding items such as salary rates and fuel consumption rates. Results will be presented in a format meaningful to PACTS and the exact outputs of the modeling exercise will depend on PACTS' principal objectives as well as the data availability. Emphasis will be placed on the costs in modeling exercises, as these forecasts may be used to calculate KPIs such as cost per trip, and these forecasts also act as a basis for policy makers to endorse the recommendations.

The scenarios modeling will be conducted in such a way as to allow for easy updating and a sensitivity analysis of the key variables. This analysis can be relied upon to instill confidence across multiple groups of stakeholders, including management, executive committees, and policy makers, as well as to monitor the health of transit projects throughout implementation and during operations and maintenance. Stantec will describe its modeling methodology in detail in the final report, providing a framework upon which PACTS may use to conduct future modeling exercises. Stantec will outline a modeling technology or approaches/recommendations for PACTS to consider that would allow the agency to have more capacity to assess the impacts of different land use scenarios for transit.

To ensure that Stantec creates a model that is of maximum compatibility with the current PACTS Travel Demand Model, Stantec will review the existing travel demand model in detail before creating the scenarios model. In our experience, scenarios models are most user-friendly and easy to understand when they are created as standalone models. As such, we will ensure compatibility by structuring the inputs and outputs in the same or a similar format as used in the Travel Demand Model, while developing the main "engine" of calculations in a format that is most efficient, user-friendly, and accurate in providing the desired outputs.

Please note: As the outcome of this work is a financial model, not a transportation demand model, scenario planning is only possible by changing the implementation year of various initiatives, and by altering assumptions to reflect the most up-to-date operating parameters, however it will not be suitable for testing completely new concepts that are not considered in the RTDP's recommendations.

**Deliverables:** Output tables copied and pasted from the Excel model are to be included in the final report; meeting with PACTS to discuss the results of the modeling and make any appropriate revisions; narrative of modeling methodology. Stantec will provide technology



## **SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN**

Scope of Work  
June 7, 2017

recommendations related to PACTS modeling approach, particularly as it pertains to techniques that assess the impact of different land use scenarios on our transit, particularly ridership impact.

### **3.7 TASK 8: RECOMMENDATIONS**

As an outcome of the needs assessment and the scenarios modeling, Stantec will determine which of the scenarios is ideal in the context of the RTDP for Southern Maine. The recommended scenario is, in most cases, the scenario which illustrates the most favorable KPIs and value for money as indicated in the scenarios modeling exercise. Stantec will provide a narrative describing each scenario in detail along with a rationale with respect to the recommended scenario. Our recommendation will be based not only on the Excel modeling, but also on qualitative considerations and the analysis conducted in previous tasks.

**Deliverables:** A narrative on recommendations, describing in detail each of the three scenarios and which scenario is ideal for Southern Maine, to be included in the final report.

### **3.8 TASK 9: IMPLEMENTATION PLAN**

Once the recommended service options have been finalized, we will develop and refine a service implementation plan. A strength of our team is that it includes project leaders that have decades of experience within transit agencies both developing plans and implementing them. From this experience, our recommendations will be approvable and implementable. We will also develop this plan in collaboration with PACTS's staff.

Stantec will provide you with a phasing for the implementation, together with a specific and accurate strategy to implement the plan. Our goal is to ensure a smooth implementation process. Learning from previous implementation experiences will help us in proposing an efficient implementation plan. The idea is to learn and benefit from your local expertise as some prior implementation strategies may have worked well in Southern Maine while others did not. Funding programs could also have an impact on the implementation plan, depending on their requirements and specifications. Reviewing available programs such as the Unified Planning Work Program- 5303, Urban Area Formula Grants - 5307, and Capital Improvement Program funds, we will provide a list of programs available, analyze their potential benefits and impacts on the implementation process, and adjust the implementation plan accordingly.

**Deliverables:** List of funding programs available, implementation plan narrative

### **3.9 TASK 10: ONGOING EVALUATION CRITERIA**

Working together with PACTS and local stakeholders, Stantec will develop tools to rank and prioritize investments and projects aimed at achieving the goals of the RTDP. An increasingly



## **SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN**

Scope of Work  
June 7, 2017

applied method to evaluate or rank strategies and policies in transportation planning is multicriteria decision making analysis. This method helps overcome limitations related to cost benefit analyses, such as the difficulty of ascribing economic impacts of ecological, spatial, or social aspects of a transit project. Moreover, this technique helps characterize and reconcile trade-offs and conflicts among multiple conflicting objectives from the perspective of multiple groups in society that are impacted differently by policy outcomes.

Multicriteria decision making analysis typically involves developing a set of criteria or objectives important to various stakeholders that can be operationalized and widely communicated. These objectives can then be used to build indicators aimed at evaluating each objective. Each indicator can then be weighted based on stakeholder preference, and summed into a final composite score to compare alternatives. With this approach, Stantec plans to develop indicators and stakeholder engagement strategies aimed at creating a tool that will help PACTS rank and prioritize investments and initiatives.

The first step in this process is to use the goals and objectives developed in the preceding tasks and develop quantifiable and objective indicators to evaluate these objectives. For instance, one high-level objective could be reducing car dependence, and one possible indicator to quantify this objective is vehicle miles traveled (VMT). Therefore, working side-by-side with PACTS, we will develop a set of rational and quantifiable (where possible) key performance indicators. These will help evaluate desired trends and performance targets, like those in Chapter 5 of Destination 2040, related to transit performance, equity, funding levels, land use patterns, financial sustainability, environmental sustainability, among others.

Next, Stantec will engage with relevant stakeholders, including transit riders, operators and agencies, and/or municipal staff, to solicit feedback on the importance of each objective to the various stakeholder groups. We will conduct a brief survey asking respondents to rank or state their preference for the different goals and objectives identified in previous tasks. Using stated preference, and focus groups, we plan to determine the importance of each goal and objective for the different stakeholder groups. With this method, weightings can be objectively determined to be subsequently applied in the multicriteria decision making analysis.

With a list of measurable indicators and associated weights that can capture multiple perspectives, Stantec will then develop a methodology to calculate the scores of alternative investment strategies and projects. In this manner, multiple perspectives and desired outcomes can be considered when ranking and evaluating projects and investments. In addition, this methodology can also be used to track the effectiveness of the initiatives in the Regional Transit Development Plan.

Last, Stantec with support GPCOG and the project partners to develop criteria for the SYCOP discussion among operators in May 2017.



## **SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN**

Scope of Work  
June 7, 2017

**Deliverables:** Narrative of ongoing evaluation criteria including output tables from the multicriteria decision making analysis

### **3.10 TASK 10: DESCRIPTION OF NEXT PROJECT PHASE (PHASE TWO)**

The collective workplan identified in this project management plan culminates into a single deliverable known as Phase One. The focus of this immediate plan is improving and exploiting operational efficiencies in the near- to short-term mainly for the benefit of our existing riders. Subsequent to Phase One, GPCOG will continue the study as a separate piece of work which will focus on longer-term recommendations and opportunities for improvement. In Phase Two, converting non-riders to riders becomes the focus, and the enhancements GPCOG and the project partners need to entice that modal-shift.

**Deliverables:** Description of Phase Two of the project in our report.

### **3.11 TASK 11: FINAL REPORT AND PRESENTATION**

As a culmination of all tasks, Stantec will prepare a final report for PACTS, which will consist of a narrative along with supporting tables and graphs. The report will integrate all analyses, findings, and recommendations described in the previous tasks. An executive summary will also be prepared which will focus primarily on the current state of transit services in Southern Maine as well as our recommendations for the future state. Stantec will also prepare and deliver a presentation summarizing all content. We are flexible as to the role we play going forward with respect to any further presentations to the board and council.

**Deliverables:** Final report, final presentation

## SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN

Major Project Deliverables and Proposed Timeline  
June 7, 2017

### 4.0 MAJOR PROJECT DELIVERABLES AND PROPOSED TIMELINE

Project deliverables and anticipated dates are as follows. Please note that dates are for draft documents. Final documents will be supplied within two weeks of receipt of comments.

Task	Start Date	End Date
<b>Project Kick-Off</b>	March 2, 2017	
<b>Project Management Plan</b>	Mid-March 2017	March 29, 2017 (Draft) Mid-April 2017 (Final)
<b>Monthly Status Report</b>	N/A	End of every month starting in April 2017
<b>Meeting Materials and Minutes</b>	N/A	Within two weeks of every meeting
<b>Stakeholder Participation Plan</b>	Mid-March 2017	Beginning of April 2017 (Draft) Mid-April 2017 (Final)
<b>Background Analysis Report</b>	Early-March 2017	End of May 2017
<b>Needs Assessment Table and Service Concepts Report</b>	End of May 2017	End of June 2017
<b>Scenario Modeling Output Tables</b>	Beginning July 2017	Beginning of August 2017
<b>Draft Report</b>	Ongoing throughout	Mid-September 2017
<b>Final Report</b>	Mid-October 2017	End of October 2017

# **SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN**

Project Administration  
June 7, 2017

## **5.0 PROJECT ADMINISTRATION**

### **5.1 MEETINGS**

#### **5.1.1 Client**

A kick-off meeting was held with the PACTS, GPCOG, and the transit advisory group on Thursday, March 2, 2017 at GPCOG offices. Monthly progress meetings will be held with GPCOG/PACTS in person or via conference call at a date mutually agreed by GPCOG and Stantec. These meetings will continue through the submission of the draft Final report.

#### **5.1.2 Internal**

Progress/status meeting will be held with project staff on a weekly to bi-weekly basis to assess progress, make planning decisions, and provide direction for submissions.

#### **5.1.3 Agendas and Meeting Minutes**

Agendas will be prepared for each meeting with GPCOG/PACTS. The agenda will be prepared by the Project Manager, Deputy Project Manager, and Task Leaders attending the meeting.

Minutes of meeting are prepared by the Project Manager or Deputy Project Manager with review and concurrence by all team attendees prior to sending to the client. The draft minutes are due to the client within one week of the meeting.

### **5.2 BUDGET CONTROL**

The authorized contract amount is \$146,762.52. The project budget will be monitored on a weekly basis by the PM and DPM. Additional/extra work will be tracked and the Authority will be notified immediately of any potential need for additional contract funds.

#### **5.2.1 Progress Reports**

Monthly progress reports are required for the Authority and are typically prepared inclusion in the project invoice to the Authority. The progress reports are initiated by the DPM and require updates from each task leader for work completed/performed for their respective assignment.

#### **5.2.2 Invoices**

Invoices will be prepared monthly with compensation amounts in accordance with the project agreement. Invoices are prepared by the PM and DPM. Sub-consultant invoices are reviewed and approved by the PM, with assistance from the DPM and task leaders.





# **SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN**

Document Control  
June 7, 2017

## **6.0 DOCUMENT CONTROL**

### **6.1 CORRESPONDENCE**

All correspondence shall be documented using Stantec templates for agendas, minutes of meeting, memorandums, telephone conferences, etc. All telephone and minutes of meeting memorandums shall be sent to all attendees for certification. All correspondence shall be routed to the PM in the draft form prior to finalizing and sending out of the office. A hard copy of all documentation shall be placed in the project file.

All originals are to be kept in the project file located in the project filing area at the Rochelle Park office. Working copies can be kept at other locations.

#### **6.1.1 Email**

Project email files shall be saved under the project directory on the server.

#### **6.1.2 Letters**

All letters shall be on Stantec letterhead. Electronic copies to be kept under the project directory on the server. Hard copies to be kept in the project file.

#### **6.1.3 Fax**

Scanned copies to be kept under the project directory on the server. Hard copies shall be placed in the project file.

#### **6.1.4 Transmittals**

Use Stantec standard forms. Electronic copies to be kept under the project directory on the server. Hard copies to be kept in the project file.

#### **6.1.5 Reports**

Electronic copies to be kept under the project directory on the server. Originals and copies to be placed in the project file.

### **6.2 MAPPING**

Stantec will utilize GPCOG and PACTS standards for GIS mapping. All maps are to be kept under the project number on the server. No project data is to be kept on an employee's hard drive.



# **SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN**

Quality Assurance  
June 7, 2017

## **7.0 QUALITY ASSURANCE**

In order to execute a quality, timely and cost-effective project, Stantec will adhere to our formal Quality Management System (QMS) that is in use across our organization and is registered to the ISO 9001:2008 quality management standard. The key aspects of our QMS from a project delivery perspective involve:

- An emphasis on project planning, including a strong focus on the management of risks and the achievement of quality on all of our major projects
- A focus on meeting the client's needs, with a formal process for gathering the client's requirements
- Structured quality assurance processes, which include formal quality reviews and internal independent peer reviews regarding project deliverables prior to their issuance
- A disciplined approach to conducting internal practice audits in order to monitor compliance with our QMS and identify best practices that can be shared during an independent peer review.

Graeme Masterton will be assigned as the Quality Assurance specialist for this assignment. Mr. Masterton has over twenty years of experience in transit operations and planning. He will be responsible for ensuring that all of the reviews are being systematically performed for each of the submissions to the GPCOG/PACTS, and he will call upon additional reviewers, as required, for work involving various disciplines. The review comments will be discussed in a review meeting with the project's staff. All of the comments will be documented within the QA project file, and all of the internal review comments will be addressed prior to their submission to the GPCOG/PACTS.

### **7.1 INTERNAL QUALITY AUDITS**

The QA specialist, Mr. Masterton, will hold kick-off, milestone and close-out review meetings. He will also document the reviews, which are independent of the normal day-to-day reviews, and he will progress the meetings throughout the duration of the project.

Internal quality audits will be conducted in three phases:

- Technical Review: Each deliverable will be peer-reviewed by the appropriate technical expert. Comments will be tracked and saved in a specific folder for review comments.
- Independent Review: Following the technical review, the deliverable will be sent to an independent reviewer. The independent reviewer is someone with relevant experience in the area of transit planning but not directly tied to the project. Their responsibility is to



## **SOUTHERN MAINE REGIONAL TRANSIT DEVELOPMENT PLAN WORK PLAN AND PROJECT MANAGEMENT PLAN**

Project Closeout  
June 7, 2017

ensure consistency and that the processes, methodology, and findings are documented in a manner that is thorough but understandable to the average reader. Comments will be tracked and saved in a specific folder for review comments.

- Final Review: Upon completion of the technical and independent reviews, each deliverable will be assessed by the project manager or deputy project manager, as well as Mr. Masterton.

### **7.2 QA CHECKLIST**

A checklist will be used during our internal audits in order to ensure that the work is performed accurately and that all of the major design items are considered. The checklist will document the components of each deliverable and verifies that the deliverables went through the internal quality audit procedures.

## **8.0 PROJECT CLOSEOUT**

Upon the completion of the project, Stantec will meet with the client project manager to review the project to determine lessons learned, recognize achievements, and ensure that all final invoices have been booked and paid. The project close-out will be documented and a copy of the document will be placed in the project record, as well as provided to GPCOG.

