

Road Map Item #: 5.5

Product Name: COST CONTROL PLAN

PMP Appendix: APPENDIX B

Submittal Date: May 1, 2013

ABSTRACT: This deliverable provides an overview as to the approach and methods for

performing cost control. This document describes how cost control functions, and includes organizational information, methods and tools utilized by the Cost Management Group to produce timely, accurate cost and budgetary information.

FFGA SUBMITTAL MAY 2013

COST CONTROL PLAN

Draft Report





Title VI

The Columbia River Crossing project team ensures full compliance with Title VI of the Civil Rights Act of 1964 by prohibiting discrimination against any person on the basis of race, color, national origin or sex in the provision of benefits and services resulting from its federally assisted programs and activities. For questions regarding WSDOT's Title VI Program, you may contact the Department's Title VI Coordinator at (360) 705-7098. For questions regarding ODOT's Title VI Program, you may contact the Department's Civil Rights Office at (503) 986-4350.

Americans with Disabilities Act (ADA) Information

If you would like copies of this document in an alternative format, please call the Columbia River Crossing (CRC) project office at (360) 737-2726 or (503) 256-2726. Persons who are deaf or hard of hearing may contact the CRC project through the Telecommunications Relay Service by dialing 7-1-1.

¿Habla usted español? La informacion en esta publicación se puede traducir para usted. Para solicitar los servicios de traducción favor de llamar al (503) 731-4128.

TABLE OF CONTENTS

1.	INT	RODUCTION	1-1
	1.1	Purpose	1-1
	1.2	Goals and Objectives	1-1
2.	Cos	DST MANAGEMENT	2-1
	2.1	Cost Control	2-1
	2.2	Cost Management	2-1
	2.3	Project Reporting Policies	2-2
	2.4	Cost Management Group Organization	2-2
	2.5	Roles and Responsibilities	2-2
3.	Cos	OST DATA ORGANIZATION	3-1
	3.1	Cost Control Functions	3-1
	3.2	Program Organization (Work Breakdown Structure)	3-1
	3.	3.2.1 Level I - Program	
	3.	3.2.2 Level II – Project (Major Element)	3-2
	3.	3.2.3 Level III – Work Package (Project Work Item)	3-2
	3.	3.2.4 Level IV – Phase	3-2
	3.3	Cost Account	3-3
	3.4	Functional Organization	3-3
	3.	3.4.1 Funds Management	
	3.	3.4.2 Program Cost	3-4
	3.5	Software	3-6
4.	lмР	4-1	
	4.1	Approach	4-1
	4.	l.1.1 Setup	4-1
	4.	l.1.2 Progressing	4-1
5.	RE	PORTING	5-1
	5.1	Internal CRC Reporting	5-1
	5.2	External CRC Reporting	5-1
	5.3 FTA Project Status Reports		5-1
	5.4	Project Status Reports	
6.	CL	AIMS	6-1
	6.1	Engineering Phase	6-1
	6.2	WSDOT Language in Master Consultant Agreements	6-1
	6.3	Construction Phase	
7.	Qu.	JALITY ASSURANCE / QUALITY CONTROL	7-1
	7 1	Quality Assurance	7-1

ii Cost Control Plan Draft Report

7.2	2	Quality Control	.1
8.	REFER	RENCES8-	1

This page left blank intentionally.

ACRONYMS

CA Cost Account

CPMS Capital Program Management System

CRC Columbia River Crossing

EAC Estimate at Complete

EPC Enterprise Program Control

ETC Estimate to Complete

EVM Earned Value Methods

FFGA Full Funding Grant Agreement

FTA Federal Transit Administration

IGA Interagency Agreement

NTP Notice to Proceed

ODOT Oregon Department of Transportation

TEAMS Transportation Environment Accounting and Management System

TRAINS Transportation Reporting and Accounting Information System

WBS Work Breakdown Structure

WSDOT Washington Department of Transportation

This page left blank intentionally.

1. Introduction

1.1 Purpose

This Cost Control Plan was created by the Columbia River Crossing Project (CRC) to provide an overview as to the approach and methods for performing cost control. This document describes how cost control functions, and includes organizational information, methods and tools utilized by the Cost Management Group to produce timely, accurate cost and budgetary information.

1.2 Goals and Objectives

The objectives of the Cost Management Group are to establish and define the cost of the work; quantify and measure variances from the baseline; and identify areas for budget management strategy change and corrective actions for the CRC Program.

The Cost Management Group has established goals to ensure the success of the cost control system. These goals include:

- Provide management with a cost briefing by the 27th of each month;
- Support project reporting; and
- Maintain the cost system with integrity.

2. Cost Management

2.1 Cost Control

Cost control is a broad set of cost accounting methods and management techniques with the common goal of improving cost-efficiency by reducing costs, or at least providing options for managing and/or controlling the rate of growth. Project managers utilize cost control methods to monitor, evaluate and enhance the efficiency of specific areas within the project.

Cost control is a continuous process that begins with the proposed budget. The budget helps to organize and coordinate production and administrative functions, and helps to take maximum advantage of available opportunities that may arise with efficient use of funds. As the project progresses, management compares actual costs with those projected in the budget. Then, lessons learned from the evaluation of current operations are incorporated into plan updates.

A complex project such as the CRC Program requires regular information updates regarding project operations in order to plan for the future, control present activities and evaluate the past performance of managers and related business segments.

2.2 Cost Management

Cost management is a two-phased process: *planning* refers to the way that management plans to implement a project, while *control* refers to the procedures employed to determine whether actual performance complies with the implementation plan and provides feedback to enable corrective action in time to effect change.

Through the budget process and accounting control, management establishes overall project objectives, defines the areas of responsibility, and designs procedures and standards for reporting and evaluation. A budget also sets standards to indicate the deliverable expected from each project and the amount of financial resources available to the responsible team for completing the deliverable.

The planning process provides two types of control mechanisms:

Feed Forward: Provides a basis for control at the point of action (the decision point); and

Feedback: Provides a basis for measuring the effectiveness of control after implementation.

Management's role is to *feed forward* a futuristic vision of where the project is going and how it is to get there, and to make clear decisions coordinating and directing team's activities. Management also oversees the development of procedures to collect, record and evaluate *feedback*.

2.3 Project Reporting Policies

The following is a list of policies that have been implemented on the CRC Project to ensure consistency in project reporting:

- Estimate at Completion (EAC) costs and cost aging shall be provided to the participating Agencies on a timely basis as approved by CRC Management.
- Actual Costs shall come from the ODOT-TEAMS and WSDOT-TRAINS accounting systems.
- Updates and reporting shall be performed on a monthly basis for each project.

2.4 Cost Management Group Organization

The cost management group consists of the Budget Manager supported by project controls technicians and cost/budget analysts. The Budget Manager reports to the Project Controls Manager.

Additional project controls technicians and cost/budget analysts will be added as construction contracts are issued to support the project engineers and contract administrative staff.

2.5 Roles and Responsibilities

The **Lead Cost/Budget Analyst** has the responsibility for work definition and effective management of the resources to accomplish the authorized work. The lead cost/budget analyst will ensure that the means and methods utilized for performing the cost control functions will be implemented within CRC established policies and procedures.

The **Cost/Budget Analyst** is responsible for performing project cost analysis to understand performance trends, generate statistical estimates at completion, and adheres to the recognized earned value standards for projects.

3. Cost Data Organization

The prime directive for the Cost Control Group is to implement CRC's business policies and practices utilizing the processes that provide timely cost information for the project. The established processes and cost forecasting are keys to the success of the project.

Cost control coordinates with the project teams to create a cost conscious environment. Through this collaborative process, realistic forecasts are developed and incorporated into the cost tool.

3.1 Cost Control Functions

Accurate and timely cost information is the foundation of cost control and detailed cost information is essential to successfully controlling project costs. The four key components of the cost control function are gathering, organizing, analyzing and reporting of cost information.

Gathering Cost Information - Cost information is gathered from various resources, including:

- Agencies
- Purchasing Department
- Contracts Department
- Accounting Department
- Project Team

Organizing Cost Information - Cost information obtained from various resources is organized by the Work Breakdown Structure, and maintained in EcoSys – EPC databases.

Analyzing Cost Information - A process to measure cost behavior according to what costs should be, not by what costs have been. It entails a systematic review of materials, labor, support services, and facilities. The standardized processes that have been developed and implemented on the project ensure a quality product month after month.

Reporting Cost Information - See Section 5.0, Reporting.

3.2 Program Organization (Work Breakdown Structure)

The program has developed a Work Breakdown Structure (WBS) that allows for the day-to-day management of the program and meet the program's reporting requirements. The WBS is defined as a deliverable-oriented grouping of program elements, which organizes and defines the

structure of the entire program. Each descending level represents an increasingly detailed definition of a program component.

The significance of the WBS in project control is twofold. The first is its classifying mechanism, which decomposes the program elements into a manageable level. The second is its integrating mechanism, which provides a common perspective to relevant construction business functions. The CRC Work Breakdown Structure (WBS) provides consistent treatment of similar project costs and schedule tasks. The WBS decomposes project package elements and tracks all program costs and each project package using a codification convention while accommodating agreements, tasks and subtasks and providing powerful reporting capabilities.

3.2.1 Level I - Program

The Program level is the entire CRC Program and is the summary of all lower-level WBS components. This level is equivalent to the WSDOT Budget Item Number (BIN)

The BIN will be linked back to the program level numbers used by the various funding partners to assure a direct connection of the CRC Program with the WBS formats each uses.

3.2.2 Level II – Project (Major Element)

The Project level includes work elements that are naturally grouped together and will likely be managed by similar or complementary teams. These program elements include CRC Highway & Bridge, CRC High Capacity Transit, CRC Program Management and the EIS. All elements combine to form the entire CRC Program. This level is the equivalent of the WSDOT Project Item Number (PIN).

3.2.3 Level III – Work Package (Project Work Item)

The Work Package level breaks the Major Elements into specific scopes of work that would be sequenced (for procurement purposes) to meet projected cash flow and will have a designated project manager, budget, and contract. This level is the equivalent of the WSDOT Work Item Number (WIN).

The Work Package level represents a cost control element describing how and when the planned work is to be executed on a project. This level serves as a central collection point (or cost center) for recording all expenditures associated with a particular project or activity, commonly referred to as a Project. A Project will typically include any or all of three Phases – Program Engineering (PE), Right of Way (RW), and Construction (CN).

3.2.4 Level IV - Phase

Each work package is divided into three phases.

Engineering Phase

The Engineering (PE) Phase is described as all work on a project from the inception through the Notice to Proceed (NTP) date.

Right of Way Phase

The Right of Way (RW) Phase is described as all work associated with the procurement of a piece of property. This scope does not include the engineering required to describe the property. The management of the RW phase is unique compared to the traditional design and construction phases.

Construction Phase

The Construction (CN) Phase is described as all work on a project from the Notice to Proceed through Substantial Completion.

3.3 Cost Account

The cost account (CA) acts as a management control point at which budgets and actual costs are accumulated and compared. The CA has been described as a common denominator where functional responsibility is assigned. The basic role of the CA is the common denominator and focal point for the integration of scope, cost and schedule.

The level of detail directly influences the manageability of a work package. The number of work packages is rapidly increased as a WBS is decomposed one or two more levels downward, because one work package includes various types of work items. It is obvious that having smaller (lower-level) CAs can provide more minute information for detailed analysis, but requires more extensive data administration. Thus, the level of detail for CAs will be defined by the project characteristics, including project delivery system, contract type, subcontracting, and management policy of an organization.

For the CRC Program's use, CAs must relate to certain existing business processes, systems and codes. All CAs will be linked to an attribute in EPC that facilitates reporting.

3.4 Functional Organization

The CRC Program has a multitude of stakeholders. Developing a cost tool that will meet the needs for reporting is a challenge. Our approach to meeting those needs is to have three primary categories: Funds Management, Program Cost Management, and Project Cost Management. This approach will provide CRC with the capability to manage their cost against the funding sources.

3.4.1 Funds Management

There are two categories of funds that will be managed and reported against for the Program: Legislative and Authorized.

1. Legislative Funds

The program is funded through legislative action and appropriations by both the Oregon and Washington legislatures. Depending on the normal practices in each of the states the funds are appropriated on an annual, biennial or project basis. In addition to the funding from the respective states the Federal Transit Administration (FTA) will also be

providing a large share of the funding for this program. These funds will flow through the WSDOT system since WSDOT is the grantee for the transit components of this program. Each agency will identify the funds appropriated as to the actual funding source (color of money) and the dollars available, i.e.:

- WSDOT
 - \circ AZ State TPA
 - GS SAFETEA-LU
- ODOT
 - OTIAH OTIA
 - o ODOTJASH ODOTJTA State

All changes that are made to any of the legislative funds will be administered and tracked through the program Change Management process.

1.1 Funds from Interagency Agreements

On occasion partner agencies/stakeholders may request the program to include local improvements and/or other construction work as part of the program work. Such work will be negotiated and finding provided through interagency agreements (IGA). Such funds will be clearly identified within the EcoSys-EPC system as a funding source and tracked and reported on accordingly

2. Authorized Funds

After funds have been appropriated to the program funds are authorized by work order to the respective program elements in coordination with the project engineers/delivery team. The Project Team will be responsible for defining the scope of work and the split between Highway and Transit elements to assure that funds are sourced correctly for the specific project elements.

The cost tool will track all the authorizations, and all changes that are made will go through Change Management.

3.4.2 Program Cost

The Program cost and budget management will be maintained in EcoSys – EPC, and will reflect the latest information available. The data will be organized as discussed in Section 3.2 – Program Organization and detail provided by fund source.

1. Program Budget

The Program Budget will be established from the cost estimate developed for the Full Funding Grant Agreement (FFGA) application with additional elements that may be required/added through the legislative process and any additional work that may be requested and funded by partner agencies/stakeholders. Upon the baselining of the estimate the Original Project Budget will be established in the EPC.

1.1 Project Budget

The project budgets developed out of the program cost estimate will be also be identified and established within EPC.

2. Commitments

Commitments are defined as amounts, which are contractually pledged to be expended. Commitments can only be made once funding has been approved by the respective state DOTs, following on from appropriate legislative funding approvals or funding is established via agreement with any other program stakeholders. There are basically four sources of commitments;

- Timesheets agency direct expenses
- Purchase Orders
- Contracts
- Agreements

Each of these is a commitment and a project obligation to reimburse approved expenditures. Dollar values of commitments will serve to predict the actual dollar requirements from several months to several years into the future depending on the contract duration. Commitments will distributed (aged) to reflect monthly expenditure projections for the agreement/commitment duration.

3. Actual Costs

Actual cost for the program will be tracked, managed and reported on within the EcoSys –EPC cost and budget management software. With the involvement of two states it will be essential to assure that the program costs are reconciled regularly with the respective states' cost and budget management systems, Transportation Reporting and Accounting Information System (TRAINS) – WSDOT and Transportation Environment Accounting and Management System (TEAMS) - ODOT.

4. Estimate at Completion

Estimate at Completion (EAC) costs represent the final expected costs based on the most recent data and past trends. The EAC is a forecast of the estimated cost at completion for each project/account at the project completion. By totaling the EAC for each project an estimated final project, and by extension program, cost can be provided.

At the beginning of any project, the Estimate at Completion values will be equal to the project estimate values. As the project progresses the EAC will be updated to reflect progress and variations in budget to meet the defined deliverable objectives and as the project nears completion, the Estimate at Completion will approach the actual cost values (regardless of whether they are above or below the estimated cost). When a project is complete the Estimate at Completion data will equal the actual data.

5. Contingency

A program contingency is established with the baseline program estimate. This program contingency provides an allowance for unforeseen cost impacts caused by quantity changes or field changes during construction, for potential risks identified in the program risk register and to allow for mitigation of unforeseen risks and changes that go beyond the normal construction changes. All these contingencies roll up to the program level to form the program contingency reserve.

Program contingency is managed at the program level and the CRC Director(s) (or designees) shall approve all budget transfers between contingency and individual project packages approved for procurement as described in the Program Delivery and Procurement Plan. Budget transfers between line items within individual project packages may be requested by the CRC Program discipline managers and made with the approval of the CRC Director(s) (or designees).

Project contingencies that are not required at the completion of individual projects are transferred through the change management process into the program contingency reserve. When a project requires additional unbudgeted funds these funds are transferred to the requesting program through the change management process as defined in the Configuration and change Management Plan.

3.5 Software

The CRC Program has adopted EcoSys EPC software as its current standard cost control application. Reference the CRC EPC Configuration and Users Manual for additional information.

4. IMPLEMENTATION OF COST CONTROL

Cost Control provides the project manager with the tools and information for making decisions. The implementation of cost control tools helps to focus the team on executing the project's strategic plan successfully.

The objective of Cost Control implementation is to:

- Ensure transparency in reporting project cost information;
- Provide a system of accountability at the project level;
- Ensure that senior management has the latest and unbiased cost information as a basis for decisions;
- Develop an efficient mechanism to summarize and report on the overall CRC program health; and
- Provide the ability to create multiple levels of reporting for CRC projects within the larger program.

4.1 Approach

The approach for the successful implementation and execution of cost control within the program is to integrate as a support function into each of the delivery teams. A Cost/Budget Analyst will be assigned to each project team. It is the responsibility of the Cost/Budget Analyst to perform all the cost functions, and report out to the project manager.

4.1.1 Setup

The setup will follow all the parameters as described in the previous sections.

4.1.2 Progressing

1. Design

During the Design Phase Earned Value Methods (EVM) will be utilized by the design teams for each design package to progress work and to develop EAC estimates. The information provided will be incorporated into the Program Level to support the combined progress EAC for the Program.

2. Construction

During the Construction Phase cost and budget tracking will be performed in accordance with the specific contract specification and managing agency practices. Earned Value Methods (EVM) offers an option that can be used by the respective project managers to

progress work and to develop EAC estimates. . The information provided will be incorporated into the Program Level to support the combined progress EAC for the Program.

3. Analysis

The most critical function of Cost Control is the analysis of the cost data. Each month the Cost/Budget Analyst will review and analyze each project and the program as a whole. The steps of this review include:

- Review of all change orders and ensure all the approved change orders been entered into EcoSys-EPC and the project specific EAC.
- Ensure that all commitments have been entered into the EcoSys-EPC system.
- Load the period actuals into the system. The process for accomplishing this task
 will be an import of TRAINS and TEAMS data followed by a manual verification
 of the imported data to ensure the data imported balances to each of the respective
 agencies' accounting systems.
- Evaluate the estimate to complete. This process determines the completed
 percentage of work for each project/account and the work remaining to complete.
 A key responsibility of the Cost/Budget Analyst is the regular and ongoing review
 of findings with the Project Team. The result of the review is to establish/update
 the estimate to complete which is then added to the cumulative actual to date to
 provide an estimate at completion.
- The last step is to evaluate the project as a whole after each project/ account has been analyzed to ensure the project performance is within the budget parameters and identify actions to address potential cost over/under runs should this not be the case.

4. Reporting

Reporting has the following goals:

- Timely
- Accurate
- Easy to Read

Project Controls will work with the Project Directors and project managers to establish the reporting cycle and criteria.

The reports as a minimum will show the following data:

Period Actuals

- Cumulative Actuals
- Commitments
- Estimate at Completion
- Approved Budgets
- Baseline Budgets

A narrative will be included with the tabular reports discussing the analysis and any recommended actions that may be required to keep the project within budget.

4-4

5. REPORTING

CRC reports on its activities and program delivery performance to the Legislature, the Office of Financial Management (OFM), the Governor's Office and other stakeholders through its system of quarterly reviews and reporting.

A critical aspect of cost control is continuous monitoring, tracking and reporting of both program performance and program status which facilitates the early identification of baseline variances.

The fundamental concepts and policies that drive CRC program delivery are monitoring and reporting processes that include the following:

- **Delivery is reported timely, clearly and transparently:** Reports are to be written in common lay terms with a "plain talk" approach.
- Maintenance of the most current and accurate data: Those persons responsible
 for inputting and maintaining project data will make sure it is accurate in order to
 support decision making, accurate performance analyses, and ultimately, the delivery
 of the capital construction programs.
- A "no surprises," early warning approach: Communicating program delivery issues early is critical to CRC's ability to proactively prevent or minimize changes in program scope, schedule, or budget.

Reporting is an output of the overall program and project management effort to deliver the CRC capital construction program. While many aspects of reporting are driven by statute or written requirement, a significant part is based on providing program data and informational materials upon request to those (internal and external to CRC) who, in turn, can use this information to satisfy the needs of their department or organization.

5.1 Internal CRC Reporting

Internal reports will be developed in coordination with project team members to provide information in formats needed to effectively manage projects. Report refinement will continue as the EcoSys EPC system is implemented.

5.2 External CRC Reporting

5.3 FTA Project Status Reports

CRC will prepare and transmit the following stipulated reports on Project status in accordance with FTA's "Project and Construction Management Guidelines", including:

- Quarterly Progress Reports
- Quarterly Financial Reports

- Quarterly DBE Progress Reports
- Reports of Significant Events
- Final Financial Status Report (close out)
- Other close out reports

5.4 Project Status Reports

In addition to the reports noted above additional status reports will be developed at the request of Senior Management to meet their needs and provide tools to effectively manage the program.

6. CLAIMS

Construction change and varying conditions are inevitable on most, if not all, construction projects. These changes are typically addressed via change orders. At times a contractor may feel that the process has not adequately addressed its incurred costs and may choose to file a claim. A claim should not be viewed as adversarial but rather as a request for additional review of perceived unreimbursed costs. In support of project managers claims avoidance reviews will be performed on select site-specific CRC projects. Performing claims avoidance reviews during design has been found to be a highly effective means of minimizing claims and change orders during construction, and in turn minimizing construction contract costs and optimizing construction contract schedules. Effective claims avoidance reviews will identify specific areas within the project contract documents that are prone to construction change orders and claims, and provide specific recommendations on how to mitigate that exposure. The potential cost and schedule savings from an effective claims avoidance review far outweighs the cost of performing the review.

CRC Claims Avoidance is addressed in the Construction Management and Administration Plan, Appendix D, chapter 1.10 - Claims Avoidance. Claims against CRC are to be expected from CRC contractors, although there is also the possibility of impacted third parties making claims under their third party agreements. Special attention will be given to the avoidance of claims related particularly to:

- Comprehensive design standards,
- Adequate field surveys,
- Detailed and unambiguous contract drawings and specifications issued to contractors
 and the handling of site conditions which may be revealed as differing materially
 from those described or defined in the bidding contract documents.

6.1 Engineering Phase

6.2 WSDOT Language in Master Consultant Agreements

During the Engineering Phase of the Program, all the design will be administered through the WSDOT Agency.

1. Changes of Work

The CONSULTANT shall make such changes and revisions in the complete work of this AGREEMENT as necessary to correct errors appearing therein, when required to do so by the STATE, without additional compensation thereof. Should the STATE find it desirable for its own purposes to have previously satisfactorily completed work or parts thereof changed or revised, the CONSULTANT shall make such revisions as directed by

the STATE. This work shall be considered as Extra Work and will be paid for as herein provided under Section XIV.

2. Disputes

Any dispute concerning questions of fact in connection with the work not disposed of by AGREEMENT between the CONSULTANT and the STATE shall be referred for determination to the Secretary of Transportation of the Washington State Department of Transportation, whose decision in the matter shall be final and binding on the parties of this AGREEMENT; provided, however, that if an action is brought challenging the Secretary's decision, that decision shall be subject to de novo judicial review. If the parties to this AGREEMENT mutually agree, disputes concerning alleged design errors will be conducted under the procedures found in the Washington State Department of Transportation "Consultant Service's Procedures Manual" M27-50 and revisions thereto.

6.3 Construction Phase

During the Construction Phase of the Program, the construction and procurement contracts will be administered through the ODOT, TriMet, and WSDOT Agencies.

When a claim is identified the merits of the costs associated with such a claim will be reviewed with the relevant project manager. If the claim is deemed to have any merit the associated costs will be entered into the EcoSys EPC system as a potential change to provide an early warning of possible cost and contingency allocation impacts. The value of this potential claim will be updated regularly until its resolution at which time the costs will be addressed through the change management process.

7. QUALITY ASSURANCE / QUALITY CONTROL

The cost control team has implemented a Quality Assurance / Quality Control process to assure that the data being gathered and analyzed is the best available, and is being reconciled with existing WSDOT and ODOT legacy systems regularly.

7.1 Quality Assurance

Quality Assurance (QA) is the planned and systematic actions necessary to provide adequate confidence that a product or service will satisfy given requirements for quality, and quality control processes are being followed.

The cost team has implemented an informal QA process that involves the entire team. This process is as follows:

- Each project has a cost/budget analyst who is responsible for data integrity.
- Each month, the lead cost/budget analyst reviews the project information as summary reports are compiled.
- Each month, the cost team presents findings via a cost briefing to management for review.
- Each month, the cost team presents findings to program management for review and incorporation into the WSDOT CPMS.
- Continuous communication with data generators to ensure that checks and balances exist.

7.2 Quality Control

Quality Control (QC) is the process of monitoring specific project procedures to establish whether they comply with relevant quality standards, and identifying ways to eliminate causes of unsatisfactory performance.

EcoSys-EPC is the cost management software being utilized on the program. It allows for the collection of a multitude of data from various resources from the CRC Stakeholders.

Data integrity checks are performed on a monthly basis by the responsible cost/ budget analyst, and random verification is performed by the lead cost/ budget analyst.

The cost team has implemented informal QC processes that are an integral part of the daily business practice. Examples of some of the practices that have been established for collection and incorporation of project data are:

Period Actual:

One cost/budget analyst downloads actuals from the WSDOT/ODOT Accounting data marts and uploads this information into EcoSys.

Cost/budget analyst will review period expenditures to ensure all charges received on the program are appropriate and charged to the proper account and will provide a summary of all labor, materials and equipment charges from other DOT office to the appropriate project managers for their review and concurrence.. If inappropriate charges are identified they will be transferred to the correct account using the journal voucher process.

Responses from project managers will be submitted in PDF format to the designated agency, ODOT, WSDOT and TriMet, reviewers for sign-off. Completed documents will be scanned and filed in Document Control

Each cost/budget analyst then validates their respective project data with the Accounting data mart.

Commitments:

Each cost/budget analyst validates their respective project data with the Contracts/Agreements/Task Orders that are issued by the Business Services Group

EcoSys EPC will have an attribute that will maintain the Fund Codes with a description as to how those funds can be utilized. The software has a feature that will pop up a box with the noted restrictions for each funding source when the mouse pointer is moved over the funding source screen. This will allow the user to reference the description prior to applying the funds to a commitment.

The project controls team will do a regular, every 6 months, review of funds as applied and associated restrictions to assure funds are being used correctly.

Changes:

Each cost/budget analyst validates their respective project data with the Change Log.

Monthly, the EcoSys Changes are reconciled with Change Coordinator's master list.

Invoices:

The latest version of CRC Procedure 3.3.7 - Invoice Review/Approval described in the *CRC Procedures Manual* describes in detail the review, approval, and signature process of consultant and agency invoices for work completed. Invoices will be verified in EcoSys EPC as outlined in this plan.

8. REFERENCES

Project Control and Reporting Manual, M 3026.02, WSDOT, September 2008.

Project Management Online Guide,

http://www.wsdot.wa.gov/Projects/ProjectMgmt/PMOG.htm

Secretary's Executive Order Number E 1032.01, Project Management, WSDOT, July 1, 2008.

Secretary's Executive Order Number E 1042.00, Project Management and Reporting System, WSDOT, July 1, 2008.

EcoSys – EPC Configuration Document, Dated: (In Progress)

EcoSys – EPC User's Manual, Dated: (In Progress)

This page left blank intentionally.