Item 5: CIP Items

Page	Project	Budget Program – Water Subprogram	SAP Code	Total $	Phase
5-1	NEW: Overlook Sewer Replacement	Distribution – Distribution Mains	W01658	1,130,000	040 Construction
5-2	NEW: SW Nevada E of Macadam	Distribution – Distribution Mains	W01665	690,000	030 Design
5-3	NEW: Eastmoreland-Woodstock Sewer Rehab	Distribution – Distribution Mains	W01694	640,000	030 Design
5-4	NEW: Tabor PS Improvements	Distribution – Distribution Mains	W01757	550,000	030 Design
5-5	NEW: Lusted Hill Operations Building	Treatment - Treatment	W01678	430,000	030 Design
5-6	CIP 101 Project Criteria				

Overlook Sewer Replacement

A. Scope	
Description / Purpose:	Relocate approximately 2,500 feet of water mains impacted by sewer improvements.
Rationale: Plans/Studies & Specifics	BES will be 1) installing new sanitary sewer lines that will encroach within the health regulations clearance requirement, 2) installing sewer lines via microtunneling and their bore pits will impact sections of water mains, 3) installing new manholes that will impact existing water services during construction, and 4) open trench constructing sewer lines which cross adjacent to existing fire hydrants or water services.
Major changes since start:	March 2013: BES scope and schedule changes.
Other info / Coordination:	BES will be cost-sharing on project. June 2013: This project is to be approved as part of the FY14-15 Budget process. It will be considered a “NEW” major project.

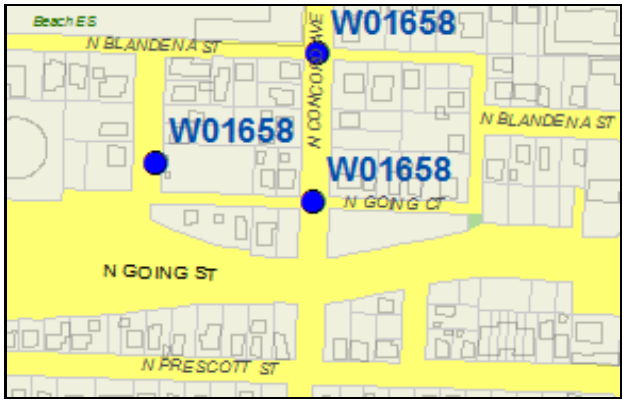
B. Schedule	
Initial mention:	August 2012
Initial planned comp:	May 2013
Current planned comp:	7/14/2014

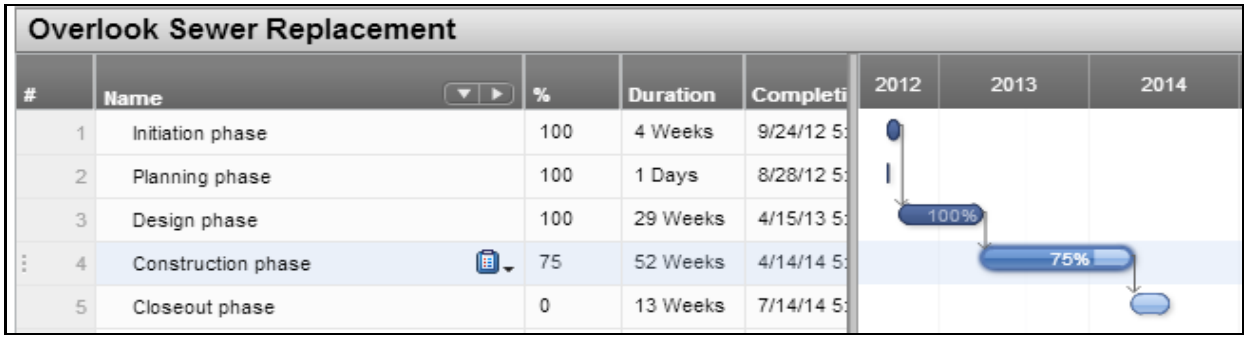
C. Cost Plan	
Initial total cost est:	$1,125,000
FY 12-13 plan on 10/2012:	$0
FY 12-13 plan on 4/2013:	$642,000
Overall rate impact %:	0.081
Debt service, FY 13-14 est:	$61,087
Lifecycle cost est:	No material change

D. Identification	
SAP #:	W01658
Program:	Distribution
Subprogram:	BES Adjustments
Nearest Address:	Various

E. Project Actual and FY Plans Breakout (numbers may not add up due to rounding)

	Project Total (actual+ all FY plans)	Past FY Actual (life to 6/30/2013)	FY 13-14 (FY0 Plan)	FY 14-15 (FY1 Plan)	FY 15-16 (FY2 Plan)	FY 16-17 (FY3 Plan)	FY 17-18 (FY4 Plan)	FY 18-19 (FY5 Plan)	All Following FYs
Planning		$0							
Design & Permitting		$82,101							
Construction & Land		$559,169							
Other (e.g. fees)		$0							
Sum	$1,130,000	$642,000	$482,000	$4,000	$0	$0	$0	$0	$0





040 Construction

Major Project - NEW

SW Nevada E of Macadam

A. Scope	
Description / Purpose:	This project will replace the 12-inch main in SW Nevada Street with 8-inch main from Macadam Avenue west to Fulton Pump Station. The existing 12-inch steel main was installed in 1942 and has been noted to be in poor condition. This replacement will be coordinated with project W01358 which will impact the existing distribution mains in Nevada Street. Work will also be required in Macadam Avenue in order to abandon the existing distribution mains in Nevada Street, and to limit the extent of customer water outages.
Rationale: Plans/Studies & Specifics	The existing 12-inch steel main is approaching the end of its useful life and must be replaced before the suction and discharge piping is installed for the Fulton PS Replacement project.
Major changes since start:	8/2013: schedule and cost increase due to more complete scope of work.
Other info / Coordination:	

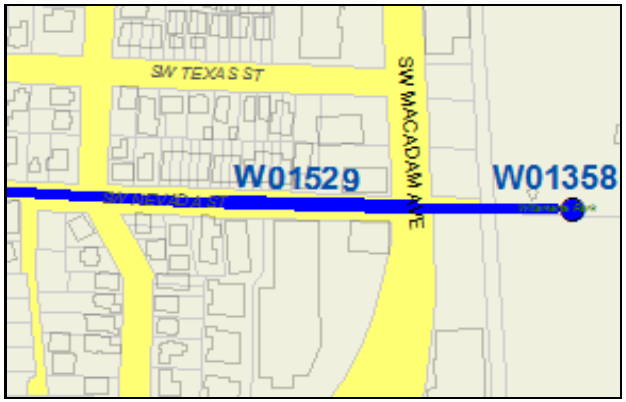
B. Schedule	
Initial mention:	September 2012
Initial planned comp:	December 2013
Current planned comp:	8/1/2015

C. Cost Plan	
Initial total cost est:	$684,341
FY 12-13 plan on 10/2012:	$7,000
FY 12-13 plan on 4/2013:	$7,000
Overall rate impact %:	0.049
Debt service, FY 13-14 est:	$37,301
Lifecycle cost est:	No material change

D. Identification	
SAP #:	W01665
Program:	Distribution
Subprogram:	Distribution Mains Program
Nearest Address:	SW Nevada St and Macadam Avenue

E. Project Actual and FY Plans Breakout (numbers may not add up due to rounding)

	Project Total (actual+ all FY plans)	Past FY Actual (life to 6/30/2013)	FY 13-14 (FY0 Plan)	FY 14-15 (FY1 Plan)	FY 15-16 (FY2 Plan)	FY 16-17 (FY3 Plan)	FY 17-18 (FY4 Plan)	FY 18-19 (FY5 Plan)	All Following FYs
Planning		$0							
Design & Permitting		$14,065							
Construction & Land		$0							
Other (e.g. fees)		$777							
Sum	$690,000	$15,000	$87,563	$381,986	$200,000	$0	$0	$0	$0



030 Design

Major Project - NEW

Eastmoreland-Woodstock Sewer Rehab

A. Scope	
Description / Purpose:	Replace 850 feet of existing water mains.
Rationale: Plans/Studies & Specifics	BES will be excavating bore pits that will cross existing CI water mains, and installing sanitary sewer lines and manholes that conflict with existing water mains.
Major changes since start:	
Other info / Coordination:	BES will pay the required cost share portion of this main replacement work. Scope will be revised in FY13-14 with design. June 2013: This project is to be approved as part of the FY14-15 Budget process. It will be considered a "NEW" major project.

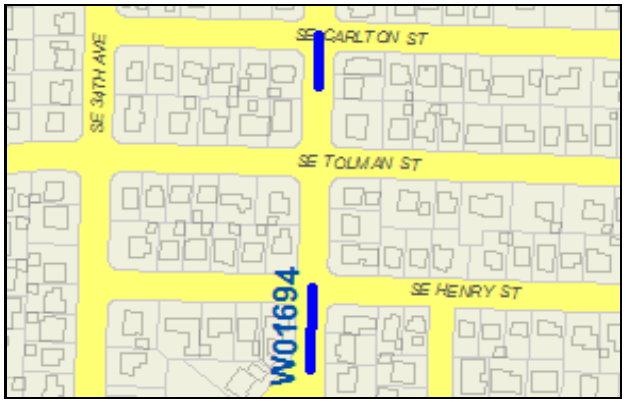
B. Schedule	
Initial mention:	April 2013
Initial planned comp:	December 2014
Current planned comp:	12/12/2014

C. Cost Plan	
Initial total cost est:	$634,000
FY 12-13 plan on 10/2012:	$0
FY 12-13 plan on 4/2013:	$10,000
Overall rate impact %:	0.046
Debt service, FY 13-14 est:	$34,598
Lifecycle cost est:	No material change

D. Identification	
SAP #:	W01694
Program:	Distribution
Subprogram:	BES Adjustments
Nearest Address:	Multiple SE locations

E. Project Actual and FY Plans Breakout (numbers may not add up due to rounding)

	Project Total (actual+ all FY plans)	Past FY Actual (life to 6/30/2013)	FY 13-14 (FY0 Plan)	FY 14-15 (FY1 Plan)	FY 15-16 (FY2 Plan)	FY 16-17 (FY3 Plan)	FY 17-18 (FY4 Plan)	FY 18-19 (FY5 Plan)	All Following FYs
Planning		$0							
Design & Permitting		$9,623							
Construction & Land		$0							
Other (e.g. fees)		$0							
Sum	$640,000	$10,000	$620,000	$4,000	$0	$0	$0	$0	$0



030 Design

Major Project - NEW

Tabor PS Improvements

A. Scope	
Description / Purpose:	Provide for the design and construction phase of improvements to Mt. Tabor Pump Station. Improvements will include installing a Variable Frequency Drive (VFD), new MCC and motor for the VFD pump, and provisions for a back-up generator to power the new VFD pump and other pump station instrumentation. Required Land Use Reviews for minor alterations to historic structures and surrounding land will be part of Tabor Reservoir Adjustments.
Rationale: Plans/Studies & Specifics	The Tabor 590 Service Area was classified as being deficient for one or more screening service goals, specifically fire, storage and outage. Improvements for the addition of the generator were recommended in the subsequent Tabor 590 PS Generator Technical Memorandum to address risks associated with electrical outages and prevention of potential boil water events. The VFD was recommended in the Tabor 590 PCR, and is to be used when the Mt Tabor Res 7 tank is bypassed for emergencies, structural repairs and cleaning.
Major changes since start:	
Other info / Coordination:	

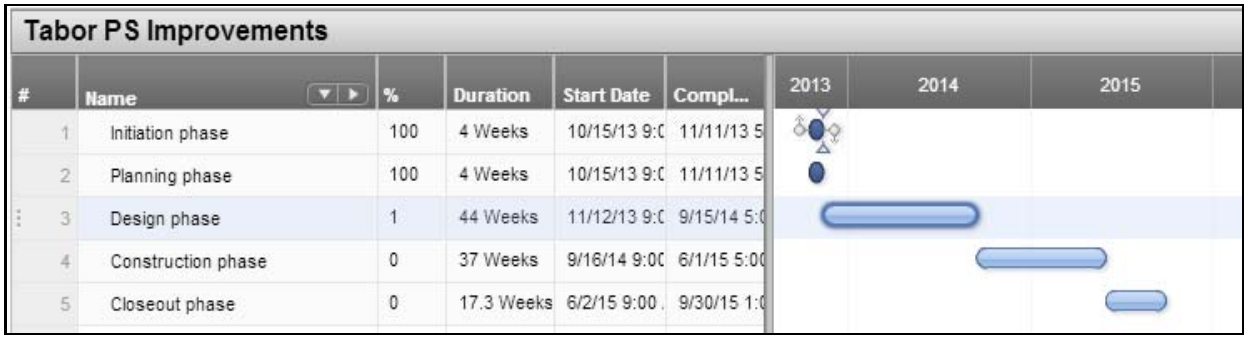
B. Schedule	
Initial mention:	Oct-13
Initial planned comp:	Sep-15
Current planned comp:	9/1/2015

C. Cost Plan	
Initial total cost est:	$550,000
FY 12-13 plan on 10/2012:	$0
FY 12-13 plan on 4/2013:	$0
Overall rate impact %:	0.039
Debt service, FY 13-14 est:	$29,732
Lifecycle cost est:	No material change

D. Identification	
SAP #:	W01757
Program:	Distribution
Subprogram:	Distribution Mains Program
Nearest Address:	Mt. Tabor Reservoir

E. Project Actual and FY Plans Breakout (numbers may not add up due to rounding)

	Project Total (actual+ all FY plans)	Past FY Actual (life to 6/30/2013)	FY 13-14 (FY0 Plan)	FY 14-15 (FY1 Plan)	FY 15-16 (FY2 Plan)	FY 16-17 (FY3 Plan)	FY 17-18 (FY4 Plan)	FY 18-19 (FY5 Plan)	All Following FYs
Planning		$0							
Design & Permitting		$0							
Construction & Land		$0							
Other (e.g. fees)		$0							
Sum	$550,000	$0	$120,000	$400,000	$30,000	$0	$0	$0	$0



030 Design

Major Project - NEW

Lusted Hill Operations Building

A. Scope	
Description / Purpose:	Design and construct a new Operations Building to relieve over-crowded conditions in the existing Lusted Hill WTP facility and provide an alternate location for disaster recovery operations.
Rationale: Plans/Studies & Specifics	Overcrowding of the Lusted Hill facility has developed gradually over the years due to changes in operation methods and equipment. The Operations Building is needed to relieve these overcrowded conditions and also enhance emergency preparedness by providing an alternative site for disaster response and recovery
Major changes since start:	7/2013: modified scope, schedule and budget.
Other info / Coordination:	$24K was spent previous years on permitting and not in the initial cost estimate. As part of the SCADA Project a new modular building was planned for SCADA improvements and disaster recovery operations. Due to the lengthy land use permitting process for the modular building and to prevent delay of the SCADA improvements, office space in the existing Lusted Hill WTP facility was used to house the SCADA improvements. In exchange for use of the existing office space, office space replaced the SCADA improvements space in the planned modular building.

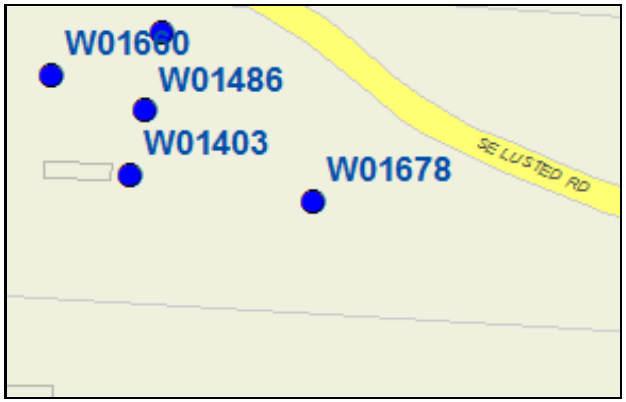
B. Schedule	
Initial mention:	July 2012
Initial planned comp:	December 2013
Current planned comp:	8/1/2015

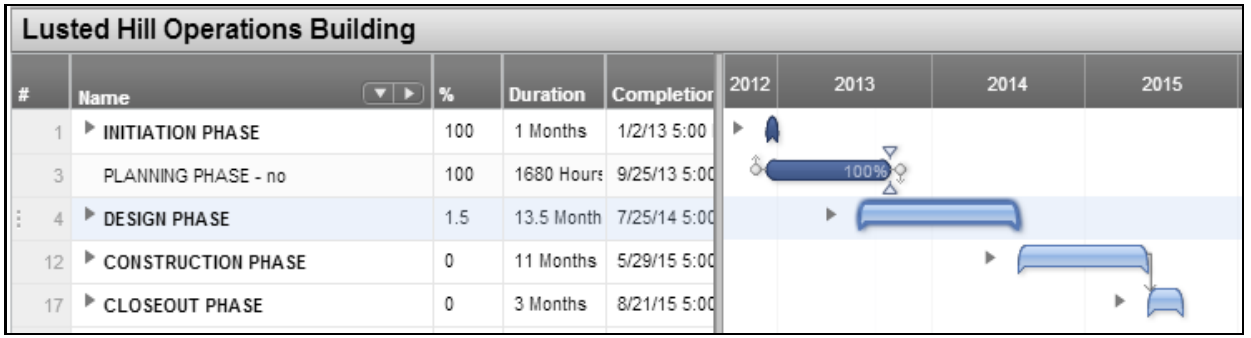
C. Cost Plan	
Initial total cost est:	$421,000
FY 12-13 plan on 10/2012:	$0
FY 12-13 plan on 4/2013:	$91,000
Overall rate impact %:	0.031
Debt service, FY 13-14 est:	$23,245
Lifecycle cost est:	No material change

D. Identification	
SAP #:	W01678
Program:	Treatment
Subprogram:	Treatment Process Improvements
Nearest Address:	6704 SE Cottrell road

E. Project Actual and FY Plans Breakout (numbers may not add up due to rounding)

	Project Total (actual+ all FY plans)	Past FY Actual (life to 6/30/2013)	FY 13-14 (FY0 Plan)	FY 14-15 (FY1 Plan)	FY 15-16 (FY2 Plan)	FY 16-17 (FY3 Plan)	FY 17-18 (FY4 Plan)	FY 18-19 (FY5 Plan)	All Following FYs
Planning		$0							
Design & Permitting		$48,900							
Construction & Land		$0							
Other (e.g. fees)		$41,316							
Sum	$430,000	$91,000	$55,000	$270,000	$5,000	$0	$0	$0	$0





030 Design

Major Project - NEW

CIP 101

Project Criteria

PWB's methodology and criteria for the selection and ranking of capital projects depends on the magnitude of the project and has several decision making points along the project's lifecycle. For major projects, an initial concept report is developed evaluating possible project alternatives and recommends those which need further capital undertaking. Senior management approves projects to continue with a larger planning effort to create a Basis of Design Report. To develop this report, PWB Planning section uses industry practices in cost benefit analysis and risk assessment to identify and weigh alternative solutions as well as a comparison with PWB service standards. PWB selects projects based on these quantitative analyses but also considers the logistics of rate increases, shared cost with interagency partners, revenue opportunities as well as regulatory requirements.

As part of the FY 2013-14 CIP Budget, the variety of criteria used for project selection is illustrated with the six new major projects. **Bertha** connects pressure zones to maintain adequate service standards for pressure and to minimize water outages. **Raymond** reduces operating cost by eliminating a pump station, qualifies for Energy Trust incentives and meets city Conservation and Sustainability service standards. **Carolina** provides supply redundancy and supports customer service standards and allows PWB to coordinate with BES projects. **Division St Piping** is one of the projects that will enables the disconnection of the Mt Tabor open reservoir required by LT2. Finally the Bull Run watershed roads projects **Road 10 and 1008** are to ensure PWB meets service levels for roadway conditions to important facilities.

CAPITAL PLANNING AND BUDGETING

PWB engages the public in developing its budget and the CIP. All Portland CIP projects that affect neighborhoods or that require city, state, and/or federal permit review processes include public involvement elements. The CIP is an annual planning process which allows a review of capital projects and programs.

PROJECT WORK RECEPTION

Engineering Services Group (ESG) receives requests and ideas for CIP projects from a number of sources, including internal Bureau stakeholders (Asset Management, Development Services, Design or Construction), Operations, Construction Management, and Resource Protection; projects generated from ESG CIP Planning Section in the form of Master Plans or Public Facility plans; and recommendations from the Asset Management Branch. In addition, notifications are received from other agencies or Bureaus planning or producing work that may impact the water system. Other external requests may come from citizens, wholesale customers, the Commissioner's office, and developer-instigated projects administered through ESG's Development Services Branch.

There are separate processes for each input depending on how the information is provided and who receives the request. Procedures and flowcharts for these processes are attached as exhibits, representing six categories:

- Work From Other Agencies/Bureaus – Publicly funded (i.e. not developer driven) projects from other City Bureaus and agencies external to the City are coordinated through the Interagency Liaison in the ESG Project Planning Branch.

- Commissioner/Citizen Requests – These projects typically are via e-mail and require an expedited response. There is currently no consistent process for dealing with these.

- Developer Projects – Developer driven projects both from other City Bureaus and from direct Water Bureau contact are handled by ESG's Development Services Branch and follow a fairly detailed procedure.

- Internal Requests – These are received in two ways: through the Maintenance Engineering Branch or the Project Planning Branch. The Operations and Construction Service Groups often have small scale projects of a maintenance nature that require some level of engineering work. These are communicated directly to the Maintenance Engineering Branch. A tracking process is in place for such projects that follow this path.

- Planning Generated Master Plans/Studies – Master planning work is generated by the Distribution Master Plan or additional specific studies as outlined in this Manual. Funding for the studies is included in CIP budget. Specific projects recommended by master plans and studies are typically included in the CIP upon approval of a Project Concept or Basis of Design report.

- Asset Management Recommendations – Replacement of key system assets is one of the most important areas of the CIP budget. The Asset Management approach uses business case analyses to evaluate the benefits and costs of alternatives before the bureau makes an investment. In addition to the CIP, the operating budget includes a preventive maintenance and repair funding to accomplish immediate and routine maintenance. The bureau's goals are to make criteria- and data-driven decisions to protect the public's investment in its drinking water system.

Portland Water Bureau CIP Planning Documents