

BRIGHTWATER OVERSIGHT REPORT - QUARTERS ENDING MARCH 31 AND JUNE 30, 2012

CURRENT RISK RATING ▼ Although nearing completion, attention will continue to focus on cost containment and schedule management on remaining work, and managing redesign and construction to correct identified defects.



PROJECT STATUS ● = No Current Concerns ▼ = Attention Needed ◆ = Corrective Action Needed

● **Scope** There were no scope changes these two quarters.

▼ **Schedule** Conveyance System commissioning delayed from previously reported date.

Milestone	Baseline Schedule	Current Forecast	Comment
Treatment Plant substantial completion	Jan. 2011	Aug. 2011 (actual)	8-month delay due to weather and Conveyance System issues.
Accept wastewater for treatment	Mar. 2011	Sept. 2011 (actual)	6-month delay due to work to prepare for startup without Conveyance System.
Conveyance System commissioning start	Jan. 2011	October 2012	21-month delay due to Central Tunnel mining delay. Additional delay due to East Tunnel defect repair; as of 8/16/12, revision of Conveyance System commissioning date in progress.
Influent Pump Station (IPS) remedial construction	n/a	Late 2013	Corrective work to address the hydraulic surge at high flows.
Remaining ancillary and unanticipated contract work	New or various dates	Through 2013	Odor control at Ballinger and North Kenmore (NK) portals, wetland restoration at NK, East Tunnel defect repair, and IPS and treatment plant conversion for full commissioning.

▼ **Budget**¹ 2012 cost estimates show increase of approximately \$10 million from 2011 estimates.

Project	Adopted 2004 Baseline		WTD 2012 Cost Update ²	OMC 2012 Estimate ²	LTD Expenses Thru Jun. 2012 ³	% of WTD Cost Update Expended
	3% Inflation	5% Inflation				
Conveyance	1,020.6	1,105.5	963.6	964.8	1,024.6	106%
Treatment Plant	639.6	684.4	896.3	898.1	888.7	99%
Total	\$1,660.2	\$1,789.9	\$1,859.9	\$1,862.9	\$1,913.3	103%

¹ All numbers are in \$ millions.

² Estimates do not include known disputed costs associated with Central Tunnel delay.

³ Lifetime to Date (LTD) expenses include disputed costs and are covered by appropriations totaling \$1,971.6 million.

▼ **Current Issues:** As previously reported, these items could impact schedule and/or cost outcomes:

- The outcome of disputed Central Tunnel delay costs.
- Repair of 180 feet of a 66-inch diameter influent pipe on the treatment plant site. See picture above.
- Remediation of design and installation of new motors and flywheels at the Influent Pump Station for surge control during high flow events.
- Correction of defects in the East Tunnel piping.
- Recovering County-incurred costs associated with correcting design and construction defects.

King County Auditor's Office – Cheryle Broom, County Auditor

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Capital Projects Oversight Program – Tina Rogers, Manager

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INTRODUCTION

Attached is the fifteenth quarterly *Brightwater Project Construction Phase Oversight Monitoring Consultant Report* prepared by the Oversight Monitoring Consultant (OMC), SAIC. This is prepared and issued under the Council-mandated Capital Projects Oversight (CPO) Program in the King County Auditor's Office. This transmittal to the Metropolitan King County Council (Council) Government Accountability, Oversight and Financial Performance Committee is to provide timely information on the status of the scope, schedule, budget, and risk for the Brightwater project.

We continue to show the risk level for the Brightwater project as yellow, indicating that attention will focus on cost containment and schedule management for the remaining work, and managing redesign and remedial construction work to correct identified defects. Project costs to date, including paid but disputed items, exceed the most recent cost estimate updates due to disputed costs incurred because of the Central Tunnel delay. Recovering County-incurred costs associated with the Central Tunnel delay and correction of design and construction defects is important to project cost outcomes. The next major milestone is the Conveyance System commissioning, which has been delayed from its previously scheduled date of September 24, 2012. This delay is associated with a revised repair plan for East Tunnel pipe defects. After Conveyance System commissioning, some work will continue through 2013.

This report and the attached OMC report cover the first and second quarters of 2012, ending June 30. Where more current information is available, it has been included.

PROJECT STATUS UPDATE WITH CURRENT ISSUES

Scope

The scope of the final project has not changed. Wastewater Treatment Division (WTD) implemented the startup of the treatment plant prior to the completion of the Conveyance System, according to a revised project plan, to mitigate risks and costs associated with having the plant sit idle for a period of time before full testing and commissioning.

Schedule

Commissioning of the Conveyance System was previously projected to occur on September 24, 2012, 21 months later than originally scheduled. WTD has recently revised its repair plan to address needed repairs on the 84-inch effluent pipe in the East Tunnel, and completion of these repairs will delay Conveyance System commissioning. This change is an emerging issue, and a revised date in late October for Conveyance System commissioning is not available as of the publication of this report. The attached OMC report identifies work under six different contracts that need to be finished in order to meet the commissioning milestone. Schedules for some of this work have slipped since the previous report; however, the critical path to Conveyance System commissioning is the East Tunnel pipe repair. Conveyance System commissioning also requires completion of unanticipated work to correct deformed pipe in 180 feet of a 66-inch diameter influent pipe on the treatment plant site. This work is nearing completion. Construction of the changes to the IPS to fix hydraulic surge at high flows and work on other minor contracts is planned for 2013.

Budget

The OMC reviewed WTD's updated cost estimate and provided an updated independent cost estimate transmitted to Council in June. The most recent cost estimate updates exceed the baseline cost estimates with inflation between four and twelve percent. These estimates do not include known disputed costs associated with Central Tunnel delay.

Attachment A summarizes the appropriations and expenditures on the project through June 2012. WTD has \$58 million remaining in budget authorization to cover expenditures through 2012. The Executive's 2012 budget request showed approximately \$1.1 million additional appropriation needed in 2013 for remaining planned project expenditures. The Executive's 2013 budget request will be available for Council consideration in September.

The OMC reports that King County claims of known disputed costs related to the delays in mining of the Central Tunnel are \$158 million, and that the Central Tunnel contractor has made counterclaims of \$66.7 million. The disputed costs will change over time as information becomes available; the full extent of and ultimate responsibility for these disputed costs may not be known for several years. Jury selection in the trial to resolve this dispute is currently scheduled to begin on September 7, 2012.

Current Issues

The OMC report discusses the remaining risks on the Brightwater project. The outcome of the disputed costs related to the Central Tunnel delay represents the greatest potential impact to the total project cost.

Ongoing items of concern reported previously that could potentially impact project cost and schedule include:

- Repair of 180 feet of a 66-inch diameter force main pipe located on the treatment plant site. This pipe segment showed unacceptable deformation. Repair of the pipe is nearing completion. WTD reports that this work is the responsibility of the Treatment Plant Site Development and Liquids contractor.
- The IPS design engineers are working closely with WTD to remediate the design which resulted in unacceptable hydraulic surges during testing of the 66-inch diameter influent pipeline. The design engineers are performing the remediation under their existing contract and have undertaken the first phase of the remediation at no cost to the County. Modified control systems for the IPS are in place that do not impact the final Conveyance System commissioning schedule and maximize the flows that can be handled until the corrective work of installing new motors and flywheels at the IPS can be done in 2013.
- Defects in piping within the East Tunnel need correction. Retainage funds associated with the East Tunnel contract are being withheld under the warranty provisions of that contract. Given WTD's recently revised repair plan, WTD is assessing whether held retainage will be sufficient to cover the cost of the repairs. The East Tunnel contractor has initiated a lawsuit regarding the retained funds. The cost of the repairs is a disputed issue that will be addressed in that litigation. Work to correct these defects is under contract, along with conversion work for full commissioning at both the treatment plant and the IPS, and is being coordinated with the yard pipe repairs.

- Recovering County-incurred costs and managing schedules associated with correction of the above-mentioned design and construction defects will continue to be an important focus for WTD's management as the project nears completion.

ACKNOWLEDGEMENTS

We appreciate the collaborative efforts of WTD, Department of Natural Resources and Parks, King County Executive Office, Prosecuting Attorney Office, and Office of Performance, Strategy and Budget in providing for effective oversight of the Brightwater Treatment System consistent with Council intent. This report was prepared by a team from the King County Auditor's Office, including Tina Rogers, Susan Baugh, and Cheryle Broom. The attached report was prepared by SAIC who is under contract with the Auditor's Office to provide oversight monitoring consulting services.

No formal presentation of this quarterly report is planned. Should you have questions or comments on the report, please contact Tina Rogers, Capital Projects Oversight Manager, or Cheryle Broom, County Auditor.

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ATTACHMENTS

Attachment A - Brightwater Budget Summary through June 2012

Brightwater Project Construction Phase Oversight Monitoring Consultant Report –Quarterly Report for Quarters Ending March 31, 2012 and June 30, 2012

ATTACHMENT A

BRIGHTWATER APPROPRIATION AND EXPENDITURE SUMMARY THROUGH JUNE 2012

Year	Appropriation	Expenditures			Cumulative Balance
		Conveyance System ¹	Treatment Plant ²	Total	
1998	\$195,842	\$122,611	\$73,231	\$195,842	-
1999	1,521,938	996,094	525,844	1,521,938	-
2000	3,672,816	1,657,382	2,015,434	3,672,816	-
2001	8,422,017	2,739,756	5,440,754	8,180,510	\$241,507
2002	38,266,455	1,762,691	9,674,916	11,437,608	27,070,354
2003	80,834,249	15,928,950	46,818,655	62,747,605	45,156,998
2004	178,569,564	40,922,914	33,118,446	74,041,360	149,685,202
2005	432,633,315	36,971,596	63,257,313	100,228,909	482,089,608
2006	298,704,845	74,651,114	94,683,302	169,334,416	611,460,037
2007	528,410,201	153,321,358	62,339,610	215,660,969	924,209,269
2008	117,988,737	204,232,705	165,534,653	369,767,358	672,430,648
2009	70,669,725	158,880,957	201,690,664	360,571,621	382,528,752
2010	28,044,005	181,520,062	139,085,374	320,605,437	89,967,321
2011	143,216,836	120,479,792	54,172,243	174,652,035	58,532,121
2012	40,408,226	30,432,118	10,248,317	40,680,435	58,259,912
Life-To-Date	\$1,971,558,771	\$1,024,620,101	\$888,678,758	\$1,913,298,858	\$58,259,912
2013-2017 CIP	1,137,864				
Appropriations to date plus CIP	\$1,972,696,635				

¹ Includes expenditure information for the following project numbers: 423575/1037546 and 423457/1047989. The first number is from the IBIS legacy financial system used through December 31, 2011 and the second number is from the new EBS financial system used in 2012.

² Includes expenditure information for the following project numbers: 423484/1037813. The first number is from the IBIS legacy financial system used through December 31, 2011 and the second number is from the new EBS financial system used in 2012.

Brightwater Project Construction Phase

Oversight Monitoring Consultant Report

Quarterly Report for Quarters

Ending March 31, 2012 and June 30, 2012

King County

Brightwater Project Oversight Services

Contract No. P43024

August 2012



In association with:



Brightwater Project Construction Phase

Oversight Monitoring Consultant Report

Quarterly Report for Quarters

Ending March 31, 2012 and June 30, 2012

King County

Brightwater Project Oversight Services

Contract No. P43024

August 2012



In association with:



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Brightwater Project Construction Phase Oversight Monitoring Consultant Report

Quarterly Report for Quarters Ending March 31, 2012 and June 30, 2012

Table of Contents

Executive Summary	1
Key Findings	1
Cost	1
Schedule.....	2
Risk	2
Oversight Monitoring Consultant Report	3
Introduction	3
Project Progress	3
Conveyance Construction	3
Treatment Plant Construction	5
Analysis and Findings	6
Cost	6
Schedule.....	11
Risk and Issues.....	12

List of Tables

Table ES-1: Estimated Project Costs (nominal \$million)	1
Table 1: Major Conveyance Construction Contract Status.....	4
Table 2: Summary of Central Tunnel Activities Since January 1, 2012.....	4
Table 3: Summary of JDC Activities Since January 1, 2012.....	5
Table 4: Influent Pump Station Activities Since January 1, 2012	5
Table 5: Liquids Contract Activities Since January 1, 2012.....	5
Table 6: Estimated Costs at Project Completion (nominal \$million)	6
Table 7: Invoiced JDC Contract Costs as of June 30, 2012, \$M	7
Table 8: Incentive Status.....	8
Table 9: Construction Progress and Change Order Summary by Contract as of June 30, 2012.....	9
Table 10: Engineering, Planning & Management, and Staff Labor Costs.....	10

Executive Summary

This Executive Summary presents highlights of the Oversight Monitoring Consultant's (OMC's) quarterly briefing on the Brightwater Project. This report covers the quarters ending March 31, 2012 and June 30, 2012, and is supplemented by more recent information where available.

Key Findings

Cost

The OMC estimate of the lifetime cost of the Brightwater Program is shown in Table ES-1, unchanged from the OMC June 2012 Trend Report Review¹. Trend report and OMC estimates are updated annually in the second quarter of the year.

Table ES-1: Estimated Project Costs (nominal \$million)

Project Component	WTD Baseline Budget	WTD 2012 Trend Report	OMC 2012 Estimate
	3% Infl. - 5% Infl		
Conveyance	\$1,020.6 - \$1,105.5	\$963.6	\$964.8
Treatment Plant	\$639.6 - \$684.4	\$896.3	\$898.1
Subtotal	\$1,660.2 - \$1,789.9	\$1,859.9	\$1,862.9

WTD's 2012 Trend Report and the OMC 2012 Estimate are the lifetime costs of the Brightwater Program, and exclude Known Disputed Costs.

Consistent with previous reports, Known Disputed Costs related to the delay in performance of the Central Tunnel are characterized as King County Claims or VPFK Counterclaims. WTD's 2012 Trend Report indicates that Known Disputed Costs include approximately \$158 million for which King County will seek reimbursement, and approximately \$66.7 million in counterclaims on the Central Tunnel Contract for which King County denies the obligation to pay.

Through June 30, 2012, construction work overall is 97.9 percent complete, with the East Tunnel contract, West Tunnel contract, and three of the four Ancillary Facilities contracts completed.

¹ Oversight Monitoring Consultant Report – Review of Brightwater Cost Update, Current Conditions and Trends, January 2012. Published June 26, 2012.

Schedule

Key aspects of the schedule are:

- JDC completed the BT-3 Completion (BT-3C) scope of work in January, and is now performing the West Tunnel work added by Change Order (CO) 8.
- The following construction activities need to be completed prior to Full Commissioning (discharge of wastewater through the marine outfall into Puget Sound).
 - JDC's work at the Ballinger Way Portal
 - VPFK's work at the North Kenmore Portal.
 - Portions of the Odor Control Facilities at the Ballinger Way and North Kenmore Portals that are being built by Prospect Construction.
 - Repairs to out-of-specification (66-inch diameter) treatment plant yard pipe
 - Work required under the Influent Pump Station (IPS) Conversion contract, including the 84-, 66-, and 48-inch pipe repairs between the IPS and Treatment Plant.
 - Marine outfall diffuser cap removal.
- The following construction work will continue into 2013, and includes:
 - Odor control facilities at Ballinger Way and North Kenmore Portal
 - Addressing the hydraulic surge issue at the IPS
 - Wetlands restoration at the North Kenmore Portal
 - Point Wells site restoration

Recently, WTD has re-inspected the 84-inch effluent pipe in the East Tunnel, and determined that the repair plan to address grout port weld defects will require more time than previously scheduled. This repair plan will delay Full Commissioning from the previously scheduled September 24, 2012 for at least several weeks, but WTD does not yet have a more defined schedule. As of the publication date of this report, this is an emerging issue and schedule specifics are expected to change.

Risk

The overall risk profile of the project continues to diminish as the construction nears completion. Cost risk on undisputed portions of the project is diminishing, and resolution of the dispute related to the delay in performance of the Central Tunnel continues to be the largest outstanding component of cost risk. The trial related to this dispute is scheduled to begin on September 4, 2012.

Oversight Monitoring Consultant Report

Introduction

This report is a briefing on the Brightwater Project provided by the Brightwater Oversight Monitoring Consultant (OMC), working as part of the King County Auditor's Office Capital Projects Oversight program. This report is based on the most current information available through the Wastewater Treatment Division (WTD) April 2012 Monthly Project Report, supplemented by more current information when available, including: construction cost information through June 30, 2012; and certain other cost, schedule, and construction progress data through July 2012 that was obtained from meetings with WTD staff.

Project Progress

The tables below illustrate construction activity for the various major construction contracts. They are not intended to be an exhaustive list of construction activity, but instead illustrate the types of construction activities that are ongoing.

Several key milestones have been reached in the since the beginning of 2012:

- The BT-3 Completion construction was completed on January 13, 2012. The contractor (JDC) is now completing the remaining work in the West Tunnel and at the Point Wells site that was added to JDC's contract via Change Order (CO) 8.
- The IPS contractor reached its substantial completion milestone on January 30, 2012.
- As of April 24, 2012, all work has been completed and inspected for the BT-2 and BT-3 tunnels.
- JDC achieved Milestone 5 (Ready for Full Commissioning) on July 13, 2012.

Conveyance Construction

Contracts Status

Table 1 summarizes the status of the conveyance construction contracts.

Table 1: Major Conveyance Construction Contract Status

Contractor	Contract	Status (1)
KST	East Tunnel	Substantial Completion achieved in July 2010. Final Payment has been made and closeout is in progress.
JCT	West Tunnel	Final Acceptance issued in May 2012. Final Payment has been made and closeout is in progress.
VPFK	Central Tunnel	Substantial Completion of Central Tunnel Contract anticipated October 2012.
JDC	BT-3 Completion	Milestone for completing BT-3C scope of work was met on January 13, 2012.
JDC	Change Order 8 (2)	Substantial Completion of West Tunnel work anticipated February 2013.
Kiewit	Influent Pump Station	Substantial Completion achieved 1/30/2012. (3)

(1) Status per WTD's May 2012 Monthly Report. This Table excludes contracts that have been closed out.
(2) Change Order 8 added scope previously removed from the JCT West Tunnel contract and added to the JDC BT-3 Completion contract.
(3) Substantial Completion includes testing to the extent possible prior to the resolution of the hydraulic surge issue.

Contracts that have been closed out include:

- Marine Outfall (Triton Marine)
- Ancillary Facilities: Hollywood (McClure & Sons)
- Ancillary Facilities: North Creek (James W. Fowler)

Additional detail of construction activities for active projects are included in the tables below.

Central Tunnel (VPFK Contract)

A partial list of Central Tunnel construction activities since January 1, 2012 is shown in Table 2.

Table 2: Central Tunnel Activities Since January 1, 2012

Quarter	Partial List of Construction Activity
Quarter 1	Completed all BT-2 work. Coated BT-3 126-inch pipe. Ongoing work at North Kenmore Portal (NKP) Odor Control Facility (OCF) site.
Quarter 2	Completed all BT-3 work. Ongoing work at NKP OCF site.

JDC Contract

A partial list of JDC construction activities since January 1, 2012 is shown in Table 3.

Table 3: JDC Activities Since January 1, 2012

Month	Partial List of Construction Activity
Quarter 1	Completed all BT-3C work. Continued work on BT-4 tunnel and at Point Wells Portal. Installed BT-4 tunnel liner pipe.
Quarter 2	Completed mortar lining of BT-4 tunnel liner pipe. Began construction of Sampling Facility.

Influent Pump Station (Kiewit Contract)

A partial list of Influent Pump Station construction activities since January 1, 2012 are shown in Table 4.

Table 4: Influent Pump Station Activities Since January 1, 2012

Month	Partial List of Construction Activity
Quarter 1	Ongoing finish work in Influent Pump Station, Influent Structure, Generator Building and Odor Control Facility. Ongoing site finish work. Substantial Completion achieved 1/30/2012.
Quarter 2	Miscellaneous finish work in Influent Pump Station. Working on punch list items in the Influent Structure, Generator Building, and Odor Control Facility.

Treatment Plant Construction**Liquids (Hoffman Contract)**

A partial list of liquids construction activities since January 1, 2012 is shown in Table 5.

Table 5: Liquids Contract Activities Since January 1, 2012

Month	Partial List of Construction Activity
Quarter 1	Ongoing completion of punch list items. Ongoing excavation of 66" pipe.
Quarter 2	Ongoing completion of punch list items. Ongoing excavation and repair of 66" pipe.

The date of Final Acceptance on the Hoffman Contract will depend on the completion date of repairs to the out of specification yard pipe. This date is uncertain at this point. The current contractual milestone is September 30, 2012, as previously reported.

Solids (Kiewit Contract)

Since January 1, 2012, work has consisted of miscellaneous punch list activities, and 100 percent of the contract amount has been invoiced.

Final Acceptance of the Solids contract has not yet occurred, but is projected to be given with an effective date of July 31, 2012. This has slipped two months since the previous Quarterly Report, primarily due to delays in completing punch list activities.

Analysis and Findings

Cost

OMC Estimate

OMC's estimated costs at project completion have not changed since OMC published its 2012 Trend Report Review on June 26, 2012. Table 6 summarizes the cost at project completion as published in WTD's 2012 Trend Report and OMC's 2012 Trend Report Review.

Table 6: Estimated Costs at Project Completion (nominal \$million)

Project Component	WTD Baseline Budget	WTD 2012 Trend Report	OMC 2012 Estimate
	3% Infl. - 5% Infl		
Conveyance	\$1,020.6 - \$1,105.5	\$963.6	\$964.8
Treatment Plant	\$639.6 - \$684.4	\$896.3	\$898.1
Subtotal	\$1,660.2 - \$1,789.9	\$1,859.9	\$1,862.9

WTD's 2012 Trend Report and the OMC 2012 Estimate are the lifetime costs of the Brightwater Program, and exclude Known Disputed Costs.

Known Disputed Costs

As discussed in more detail in OMC's 2012 Trend Report Review, WTD reported in its 2012 Trend Report that King County's claims of Known Disputed Costs related to delay in the performance of the Central Tunnel contract are \$158 million. King County's claims include costs the County has already paid or will pay and seeks to recover. WTD reports that VPFK, the Central Tunnel contractor, has made counterclaims of \$66.7 million.

The Known Disputed Costs will continue to change over time. Because they are by definition "disputed", the final set of costs, final amount, and determination of responsibility has not been established.

GC/CM Contract Considerations (Treatment Plant Liquids- Hoffman)

As of June 30, 2012, the remaining buyout savings were approximately \$3.3 million. This is \$0.8 million less than the previous Quarterly Report². At the end of the project, unused buyout savings will be removed from the contract via deductive change order.

Use of the Maximum Allowable Construction Cost (MACC) Contingency has remained fairly steady for the past two years, averaging approximately \$290,000 per month. As of June 30, 2012, there was \$168,392 of MACC Contingency remaining,

² Oversight Monitoring Consultant Report – Quarterly Report for Quarter Ending December 31, 2011.

including pending uses. At the end of the project, any unused MACC Contingency will be removed from the contract via deductive change order.

JDC Contract Update

OMC has conducted monthly reviews of the BT-3C documentation that WTD provides in accordance with the Executive's Declaration of Emergency waiver. Table 7 summarizes costs invoiced by JDC as of June 30, 2012.

Table 7: Invoiced JDC Contract Costs through June 30, 2012, \$M

	Direct Cost	Indirect Cost (1)	Total	Budget (2)
BT-3C Scope at Contract Execution	\$43.7	\$17.3	\$61.0	\$68.9
Change Orders				
CO 2: Segment Delivery & Fender Piles	0.3	0.0	0.4	0.4
Added Work for BT-3 Connection (3)	9.2	0.9	10.1	7.0
Incentives	0.0	4.2	4.2	0.0
Subtotal - BT-3C	\$53.2	\$22.4	\$75.7	\$76.3
West Tunnel Scope at Contract Execution	\$0.0	\$0.0	\$0.0	\$0.0
Change Orders				
CO 8: RCP ³ 5 BT-4 Completion and Related Work	9.5	1.5	11.0	18.0
Incentives (Capped at \$0.61M)	0.0	0.0	0.0	0.0
Subtotal - West Tunnel	\$9.5	\$1.5	\$11.0	\$18.0
Total (4)	\$62.7	\$23.9	\$86.6	\$94.3

Notes:

(1) Indirect Cost includes Home Office Overhead, Equipment Lump Sum, Contractor Fixed Fee, and Incentives.

(2) Budget is a term used by SAIC to describe WTD's Baseline Budget Estimate derived from the Contract Estimated Reimbursable Cost and all executed change orders.

(3) Added Work for BT-3 Connection consists of Change Order 4, the portion of Change Order 8 associated with RCP 6, and Change Order 10.

(4) Totals may not add up due to rounding to the nearest \$0.1M.

BT-3C Scope

Completion of the BT-3C scope of work was achieved on January 13, 2012. This body of work included the original scope of work, as well as work for the BT-3 Connection added to the contract by change order. The BT-3 Connection consisted of ground freezing at the 19500 block of 53rd Avenue NE in Lake Forest Park, added to JDC's contract by CO 4, and the in-situ tunnel lining at the connection between the segments of tunnel mined by VPFK and JDC, added by a portion of CO 8.

The Central Tunnel contractor (VPFK) also has incurred costs associated with ground freezing and other work at the tunnel connection point. These costs are tracked under WTD's Field Directive 39 to VPFK, and as of June 30, 2012, VPFK has submitted cost proposals of approximately \$4.5 million for this work. VPFK's cost proposal is not included in Table 8 because it is not part of the JDC contract.

³ RCP: Request for Cost Proposal.

West Tunnel Scope (CO8)

West Tunnel Contract CO 15 (-\$10.9 million) deleted a number of work activities from the West Tunnel contractor, JCT. This body of work was added to the JDC's contract by CO 8 in September 2011. The most significant components of this work are the installation of the BT-4 tunnel steel liner and construction of the Point Wells sampling facility. Some new work items that were not part of the original West Tunnel contract are part of this change order. The total budget for this body of work is \$18.0 million, with \$11.0 million earned by JDC through June 30, 2012.

JDC Contract Incentives

Table 8 shows the incentives associated with the JDC contract, including incentives associated with additional scope added via change orders.

Table 8: Incentive Status

Incentives	Included in Original Scope (March 2010)	Included as of CO 4 (Ground Freeze) (Feb. 2011)	Included as of CO 8 (Remaining BT-4 Scope) (Sep. 2011)		Status
Milestone 1 (Start of Mining)	✓	✓	✓		\$500,000 Paid.
Milestone 2 (Mine to Connection)	✓	✓	✓		\$2,000,000 Paid.
Milestone 3 (Start Phase 1 Ground Freeze)		✓	✓		\$400,000 Paid.
BT-3C Target Completion	✓	✓	✓		\$1,280,000 Paid.
Milestone 5			✓		\$500,000 Earned.
Substantial Completion			✓		Not Yet Earned. \$50,000 plus \$10,000/day prior to 3/30/13.
Contractor Safety Incentives	✓	✓	✓		Not Yet Earned. Capped at \$240,000.
Incentive Cap	\$3,700,000	\$4,000,000	\$4,790,000	\$4.68M	Earned Through 7/13/12

The contractor has achieved Milestone 5 and is entitled to \$500,000 in incentive payout. The payout includes a \$50,000 incentive payment plus \$25,000 for each of the 18 days ahead of the planned schedule for the milestone. There is a remaining balance of \$110,000 in the contractual incentive fund and the contractor can earn that by achieving on time (or early) Substantial Completion and meeting conditions of the Contractor Safety Incentives. The incentive fund is capped and the most the contractor can earn is the remaining \$110,000. There is a separate contractual Employee Safety Incentive that is earned as a reimbursable cost and is not subject to the milestone incentive cap.

As of March 11, 2012, JDC had billed WTD approximately \$80.3 million. WTD reviews all billings, focusing on non-labor costs. WTD hired MRW Advisory, LLC (MRW) to audit JDC's pay requests with a focus on labor costs. MRW issues reports on a periodic basis; its June 11, 2012 report (covering costs through March 11, 2012) was its eighth. The following summary of the outcome of MRW's review was provided by WTD in August 2012 but has not yet been published in an MRW report.

- MRW has questioned \$218,316 to date.
- Deductions or credits have totaled \$138,506.

- \$25,889 has been allowed by WTD after further review.
- \$53,921 remains under review by WTD.

Change Order Status

The most recent claim and change order data is from WTD's June 30, 2012, construction reports, and is as follows:

- Overall project construction is 97.9 percent complete, measured as percent of contract value earned by construction contractors, as of June 30, 2012, excluding the one contract for wetland restoration at the North Kenmore Portal which is not yet advertised.
- Conveyance construction is approximately 97.9 percent complete, excluding contracts which have not yet been bid. The sum of executed Conveyance change orders is approximately 17.2 percent of the original construction contract value.
- Treatment Plant construction progress is approximately 97.9 percent complete, and the sum of executed Treatment Plant change orders is approximately 4.5 percent of the original construction contract value.

Table 9 summarizes, for each of the major construction contracts, construction progress described by payments to contractors, the amount of executed change orders, and change orders as a percent of amount paid to the contractor.

Table 9:
Construction Progress and Change Order Summary by Contract as of June 30, 2012

Major Construction Contract	Amount Paid to Contractor \$M, (1,2)	Percent Construction Complete (1,2)	Executed Change Orders (2)		Original Contingency % (3)
			\$M	% of Paid	
Marine Outfall	\$29.8	100.0%	\$2.2	7%	10%
West Tunnel (JCT)	\$106.0	100.0%	\$14.5	14%	12.5%
BT-3C (4)	\$86.6	87.9%	\$29.6	34%	n/a
Central Tunnel (5)	\$222.7	98.5%	\$33.8	15%	15%
East Tunnel	\$138.1	100.0%	\$7.3	5%	10%
IPS	\$107.0	97.9%	\$17.4	16%	15%
Liquids Stream	\$303.2	96.7%	\$13.2	4%	10%
Solids Stream	\$174.3	100.0%	\$7.8	4%	

(1) Measured by Milestone-Based Payments to Contractors. % Construction Complete equals amount paid divided by sum of original contract value plus executed change orders. Central Tunnel paid to date includes amounts paid under Conditional Change Orders 13, 15 and 18, and the ultimate payment responsibility for these items has yet to be determined.

(2) As of June 30, 2012. Deductive change orders to remove scope are not included when calculating the amount of executed change orders. Instead, they are included in the Percent Construction Complete, where the percent complete is based on the original contract value, plus executed change orders related to construction work performed, less deductive change orders that change the scope of the project. This is particularly true for the West Tunnel contract, where JCT's bid cost for the Final Work was removed from the JCT contract.

(3) Comparing executed change orders with WTD's original construction contingency is difficult for the Treatment Plant. First, the Treatment Plant contingency was developed prior to the Treatment Plant being split into separate liquids and solids contracts. Second, the executed liquids change orders do not include use of the \$10.0M MACC contingency, but the total construction contingency does include MACC contingency.

(4) Includes costs associated with CO 8. Includes \$4.18 million in incentive payments through 6/30/2012.

(5) Includes Central Tunnel \$20M conditional change orders.

Table 9 shows that executed change orders, as a percent of the amount paid to contractors, are below the percentages initially estimated by WTD in previous contingency projections for the Marine Outfall, East Tunnel, Liquids Stream and Solids Stream. The four contracts with the highest percentage of change orders are West Tunnel, BT-3C, Central Tunnel, and IPS. The following explains the sources of the higher percentages.

- West Tunnel, where a \$4.8 million change order was executed to cover certain activities related to BT-3 completion prior to execution of the BT-3C contract. This change order is considered a Known Disputed Cost.
- BT-3C, where the majority of executed change orders are scope additions or incentive payments, rather than changes on the original scope of work.
- Central Tunnel, where executed change orders include \$20 million associated with conditional change orders. These conditional change orders are Known Disputed Costs.
- IPS, where change orders include Known Disputed Costs and impacts from the East Tunnel construction.

Non-Construction Cost Review

OMC has reviewed WTD's ramp down of non-construction costs as the project nears completion. Table 10 presents engineering, planning and management, and staff labor as reported by WTD, showing actual expenditures for 2010, 2011, year to date (YTD) expenditures for 2012, and WTD's projection for 2012 in its 2012 Trend Report. The data in Table 10 includes some Known Disputed Costs.

Table 10: Engineering, Planning & Management, and Staff Labor Costs

	2010 Actual	2011 Actual	2012 Actual (5 month YTD)	2012 Trend Report (Projected)
Eng, Planning & Mgmt	\$26.8	\$26.1	\$3.7	\$9.2
Staff Labor	6.2	5.7	1.6	2.5
Total	\$32.9	\$31.8	\$5.3	\$11.7

The five-month year to date total of \$5.3 million demonstrates a ramp down of these costs when compared with the 2011 cost of \$31.8 million. This is evidence that these costs are ramping down as the Brightwater project nears completion. Given that 42 percent of the year has elapsed, and 45 percent of the projected estimate has been spent, it appears that WTD is on track to ramp down at the rate projected in WTD's 2012 Trend Report.

Contingency

The conveyance contingency remaining as of the 2012 Trend Report was \$25.1 million. OMC estimates that approximately \$22.9 million of this contingency remains as of June 30, 2012. This change is due to executed change orders on the IPS contract and the Central Tunnel.

As discussed in the OMC's 2012 Trend Report Review, the 2012 Trend Report reported that there was no treatment plant contingency remaining. WTD's 2012 Trend Report included an assumption that the treatment plant construction cost includes \$2.2 million in future treatment plant change orders. As of June 30, 2012, there has been \$1.6 million in treatment plant change orders executed since December 31, 2011. As reported previously, OMC's estimate included an additional \$3 million in contingency.

OMC has not changed the conclusion it expressed in its 2012 Trend Report Review, which is that WTD's remaining conveyance contingency will likely be sufficient to cover cost risks in non-disputed conveyance portions of the Brightwater project.

Schedule

Schedule information is from a variety of sources: the May 2012 Monthly Project Report, the June 2012 Treatment Plant and Conveyance Monthly Reports, and additional more recent schedule information obtained via discussions with WTD.

Treatment Plant Liquids and Solids Final Acceptance

The date of Liquids Final Acceptance depends on the completion date of repairs to the out-of-specification 66-inch yard piping. According to WTD, the latest projection shows the last task – final restoration of the pavement following the 66-inch pipe repairs – as completing in December 2012. The current contractual milestone is September 30, 2012. Solids Final Acceptance has not yet occurred, but is projected to be given with an effective date July 31, 2012.

Full Commissioning

This section describes the status of the several work items that need to be completed prior to initiation of Full Commissioning (discharge of wastewater through the marine outfall into Puget Sound). Some of this information is taken from the June 2012 Conveyance Monthly Report, which shows schedule information on a timeline without noting specific dates.

In the June 2012 Conveyance Monthly Report, there are two critical paths identified:

1. Through JDC's work at the Ballinger Way Portal, and a portion of the Ballinger Way Odor Control Facility that is being built by Prospect Construction.
2. Through VPFK's work at the North Kenmore Portal, and a portion of the North Kenmore Odor Control Facility that is being built by Prospect Construction.

Other items that must be completed prior to Full Commissioning are:

3. Marine Outfall Diffuser Cap Removal. The June 30 schedule timeline shows this construction beginning in July and finishing in mid-September, with approximately 1 to 2 weeks of float.
4. Repairs to out-of-specification (66-inch) treatment plant yard pipe. An updated construction schedule is not available, but WTD's September 24 scheduled date to start Full Commissioning implies this work will be done by September 24.

5. Work required under the IPS and the Treatment Plant Conversion contracts, including the 84-, 66-, and 48-inch pipe repairs between the IPS and Treatment Plant and the programming work to transition from interim to normal control standards.

- Recently, WTD has re-inspected the 84-inch effluent pipe in the East Tunnel, and determined that the repair plan to address grout port weld defects will require more time than previously scheduled. Work to correct these defects is under contract, along with conversion work for full commissioning at both the treatment plan and the IPS, and is being coordinated with the yard pipe repairs. This repair plan will delay Full Commissioning from the previously scheduled September 24, 2012 for at least several weeks, but WTD does not yet have a more defined schedule. As of the publication date of this report, this is an emerging issue and schedule specifics are expected to change. Retainage funds associated with the East Tunnel contract are being withheld under the warranty provisions of that contract. Given WTD's recently revised repair plan, WTD is assessing whether withheld retainage will be sufficient to cover the cost of the repairs. The East Tunnel contractor has initiated a lawsuit regarding the retained funds. The cost of the repairs is a disputed issue that will be addressed in that litigation.

Contracts Remaining to Bid

In the previous Quarterly Report there were four contracts remaining to bid. Since then, the Odor Control Facilities at Ballinger Way and North Kenmore Portals contract has been awarded to Prospect Construction, Inc, the IPS Conversion and Full Commissioning contract has been awarded to Harbor Pacific Contractors, Inc., and the Diffuser Cap Removal contract has been awarded to TerraSond.

The only remaining contract to be bid is for Wetlands Restoration at the North Kenmore Portal. It is scheduled to be advertised in late 2012, with construction to begin in mid-2013.

Risk and Issues

WTD issues weekly Risk Logs that classify identified risks based on their impact and probability. The following high risk items from past reports have been addressed as follows:

Conveyance:

- Resolution of a potential unacceptable hydraulic surge (water hammer) pressure issue during the winter of 2012-2013 has been reclassified by WTD from High Probability to Low Probability. This issue is addressed through the use of existing generators for surge control. Additionally, design project engineers are providing a permanent remediation including re-design and installation of new motors and flywheels at the Influent Pump Station to address hydraulic surges when transitioning to generator power in the event of loss of electrical power or high flow conditions.

Treatment Plant:

- Inspection of the 66-inch force main section as part of the treatment plant yard piping indicates unacceptable deformation requiring excavation and repair. Excavation has been completed, and Hoffman has submitted a schedule for repairs. Pipe repairs are scheduled to be completed by September 2012, prior to Full Commissioning.