

Project 423573 SP STP Convert Disinfection From Chlorine To Sodium

Category: A20000, A20010 South Treatment Plant

Council District: 05

LTD Actual 2006 \$1,176,910

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
08/25/05	12/15/06	1 Development	\$2,136	\$0	\$0	\$0	\$0	\$0	\$2,136
12/15/06	09/14/07	2 Predesign	\$4,273	\$0	\$0	\$0	\$0	\$0	\$4,273
09/15/07	08/15/08	3 Final Design	\$114,228	\$9,246	\$0	\$0	\$0	\$0	\$123,474
02/27/09	10/15/09	4 Implementation	\$112,783	\$3,006,151	\$1,133	\$0	\$0	\$0	\$3,120,068
10/15/09	06/15/10	5 Close Out	\$2,114	\$24,955	\$45,785	\$0	\$0	\$0	\$72,854
02/27/09	10/15/09	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$13,047	\$26,876	\$0	\$0	\$0	\$0	\$39,923
		Total:	\$248,581	\$3,067,228	\$46,918	\$0	\$0	\$0	\$3,362,727

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Milestone 3.2 SEPA / DNS
Scope This project involves the conversion of the existing Chlorine Gas Disinfection system to liquid Sodium Hypochlorite for disinfection. This eliminates the potentially lethal effects of chlorine gas release to plant staff and surrounding community. The new project assumes that the existing chlorine building would be modified to accept railcars of sodium hypochlorite and that sodium hypochlorite metering equipment would be installed in the area where the existing evaporators and chlorinators are located. It is also assumed that the existing chlorine delivery piping system would need to be replaced with double-walled PVC piping. This further assumes modifications to the chlorine building and railroad tracks to accommodate an additional two railcars indoors (for a total of four) with liquid spill containment for the additional railcars to meet the 10-day wet season peak month storage criteria.

Location: Project is located at the South Plant, 1200 Monster Road SW, Renton, WA 98055.

Status: Complete redesign and initiate final design in 2007

Project 423591 Space Planning Year 2 Phase 2
Category: A20000, A20020 South Treatment Plant
Council District: 05
LTD Actual 2006 \$1,209,681

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/01/04	11/15/04	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11/15/04	10/15/06	2 Predesign	\$5,334	\$0	\$911	\$0	\$0	\$0	\$6,245
10/15/06	07/01/07	3 Final Design	\$316,971	\$8,732	\$19,123	\$0	\$0	\$0	\$344,825
10/11/06	07/01/09	4 Implementation	\$7,087,905	\$1,331,651	\$427,117	\$0	\$0	\$0	\$8,846,672
02/01/09	07/01/10	5 Close Out	\$13,071	\$11,103	\$0	\$0	\$0	\$0	\$24,174
07/01/09	12/31/09	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$26,383	\$54,493	\$0	\$0	\$0	\$80,876
		Total:	\$7,423,281	\$1,377,868	\$501,643	\$0	\$0	\$0	\$9,302,792

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Milestone 4.1 NTP for Construction / Implementation
Scope The goal of the project is to upgrade the laboratory, eliminate the existing CM trailer and build either new or remodeled office space for occupants of the trailer and existing Admin. building. During the initial planning of this project it was thought that the best way to accomplish this goal was to remodel the existing Administration Building including the Laboratory and build a new Building to house the Plant's administrative offices. Once we examined the project more closely in the Predesign phase we realized that the least cost way to accomplish our project goals was to demo the existing one storey Admin Building and re-build a two storey Admin Building in the same location. The new Admin Building will contain all of the work groups and functions that we first proposed to provide in two buildings, but at a lesser cost.

Location: South Treatment Plant. 1200 Monster Road. Renton, WA
Status: 1-17-07 completed assessment of alternate temporary lab facilities and determined a recommended option. Met with management staff associated with the project today to discuss implications of temporary lab options and current budget and schedule. Began preparation for presenting findings at the CST meeting on February 5th and requesting authorization to proceed with implementation.

Project 2008-008 WPTP Heating and Cooling Loop Improvements
Category: A20100, A20110 West Treatment Plant
Council District: 04
LTD Actual 2006 \$0

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/15/03	08/19/04	1 Development	\$20,456	\$0	\$0	\$0	\$0	\$0	\$20,456
08/19/04	10/12/04	2 Pre-design	\$56,486	\$0	\$0	\$0	\$0	\$0	\$56,486
07/01/07	12/31/07	3 Final Design	\$101,998	\$0	\$0	\$0	\$0	\$0	\$101,998
01/01/08	03/01/09	4 Implementation	\$1,864,939	\$614,783	\$0	\$0	\$0	\$0	\$2,479,722
03/01/09	03/13/09	5 Close Out	\$5,094	\$74,512	\$0	\$0	\$0	\$0	\$79,606
		6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$125,128	\$0	\$0	\$0	\$0	\$125,128
		Total:	\$2,048,973	\$814,423	\$0	\$0	\$0	\$0	\$2,863,396

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Milestone Scope

The primary hot water (PHW) loop and the secondary hot water (SHW) loops serving the Boilers and Raw Sewage Pumps at the West Point Treatment Plant do not function optimally without extensive operator intervention under certain flow and ambient temperature conditions. Problems with the PHW loop include difficulty controlling PHW loop temperature, overheating the PHW loop due to inadequate cooling strategy in the Raw Sewage Pump loop, and lack of responsiveness of boiler controls. These problems will become more severe when the existing cogeneration system, which contributes heat to the system, no longer functions. Mechanical piping and controls will be reconfigured, and Raw Sewage Pump backup cooling will be provided by radiators currently used for cooling the existing cogeneration engines, which are beyond their useful life and will be removed. VFDs are being added to fans and circulation pumps on RSP loop radiators. The EWR originally requested capital funding to design and construct the modifications to the heating and cooling loops to support a new Co-Gen Project (see IBIS 423474). The project was originally to be implemented with the cogen project.

Location:WPTP

Status: New project request in 2008 to implement project scope of work.

Project 423593 WP Digestion Improvements
Category: A20100, A20110 West Treatment Plant
Council District: 04
LTD Actual 2006 \$282,716

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
02/01/05	06/19/06	1 Development	\$22,317	\$0	\$0	\$0	\$0	\$0	\$22,317
06/19/06	07/16/07	2 Predesign	\$37,194	\$0	\$0	\$0	\$0	\$0	\$37,194
11/01/06	09/01/08	3 Final Design	\$194,708	\$53,634	\$0	\$0	\$0	\$0	\$248,342
09/01/08	08/30/10	4 Implementation	\$804,423	\$1,561,814	\$1,497,986	\$0	\$0	\$0	\$3,864,222
08/30/10	12/31/10	5 Close Out	\$40,131	\$0	\$47,351	\$0	\$0	\$0	\$87,483
		6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$1,152,827	\$0	\$0	\$0	\$1,152,827
		Total:	\$1,098,773	\$1,615,448	\$2,698,164	\$0	\$0	\$0	\$5,412,386

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Milestone 3.3 60% Design thru Design Review
Scope The purpose of this project is to provide improvements to the West Point Treatment Plant's solids digestion system. Improvements will include: 1. Provide necessary modifications to the digestion system to enable the use of the existing Blending/Storage Digester as a primary digester in the event of digester system instability. 2. Provide necessary modifications to the digestion system to provide a flexible digester feed and withdrawal system including capability to provide continuous feed and withdrawal and accurately measure and control feed and withdrawal from each digester. 3. Provide necessary modifications to Digesters Nos. 4 and 5 to provide robust and reliable mixing of the digester contents. It is anticipated that this will, at a minimum, involve replacement of the existing draft-tube mixing system.

Location: West Point Treatment Plant
Status: Project is in predesign. Final design scheduled to start in June 2007. Construction scheduled to start in June, 2008.

Project 423474 West Point Waste-to-Energy (W2E) Project
Category: A20100, A20140 West Treatment Plant
Council District: 04
LTD Actual 2006 \$6,434,780

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/16/07	10/15/07	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11/02/07	04/02/08	2 Predesign	\$374,960	\$39,194	\$0	\$0	\$0	\$0	\$-623,504
04/03/08	04/06/09	3 Final Design	\$749,431	\$160,520	\$887,110	\$0	\$0	\$0	\$-370,145
11/28/09	06/17/11	4 Implementation	\$1,286,172	\$2,009,533	\$6,428,900	\$7,258,621	\$0	\$0	\$21,218,453
06/20/11	08/12/11	5 Close Out	\$22,490	\$16,352	0	\$287,770	\$0	\$0	\$-703,750
		6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$664,090	\$0	\$0	\$664,090
		Total:	\$2,433,054	\$2,225,600	\$7,316,010	\$8,210,481	\$0	\$0	\$20,185,144

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Milestone 2.2 30% Design thru Design Review
Scope WTD staff will seek approximately \$5.2 million in EPA grant funding for implementation of this project. Implementation will not proceed until confirmation that those funds will be committed. Staff will also pursue other agreements which impact project economics, including one with Seattle City Light regarding net metering policy for project, and confirmation that the project will be eligible for Washington State sales tax relief per WAC related to manufacturing equipment exemptions. Staff will also assess impact on project of currently elevated levels of gas contaminants (hydrogen sulfide). Upon successful resolution of these issues, which would reduce project costs shown in this budget forecast, staff will move forward with implementation of the project.

Location: West Point TP
Status: WTD director is expected to approve the preferred alternative and scope identified here. Work to proceed with predesign tasks would proceed once that approval is given.

Project 423484 Brightwater Treatment Plant
Category: A20200, A20220 Brightwater Treatment Plant
Council District: All

LTD Actual 2006 \$255,607,896

** Schedule										
Start	Finish		2008	2009	2010	2011	2012	2013	Total	
01/01/01	06/01/05	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
05/09/02	07/01/04	2 Predesign	\$499,569	\$0	\$0	\$0	\$0	\$0	\$499,569	
07/01/04	11/01/06	3 Final Design	\$4,238,721	\$3,550,872	\$166,258	\$0	\$0	\$0	\$7,955,852	
05/10/06	04/25/11	4 Implementation	\$126,045,051	\$246,387,428	\$75,570,943	\$40,750,400	\$0	\$0	\$488,753,822	
11/01/10	07/31/12	5 Close Out	\$-1,101,098	\$0	\$225,512	\$0	\$0	\$0	\$-875,586	
01/01/03	04/15/06	6 Land/ROW	\$17,300,000	\$1,173,918	\$0	\$0	\$0	\$0	\$18,473,918	
		7 Contingency	\$0	\$0	\$0	\$4,000,000	\$0	\$0	\$4,000,000	
		Total:	\$146,982,244	\$251,112,218	\$75,962,713	\$44,750,400	\$0	\$0	\$518,807,574	

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Milestone 4.1 NTP for Construction / Implementation
Scope The design of the system will include:
 -Process to provide secondary treatment of wastewater consistent with state and federal requirements;
 -Treatment of solid byproducts to produce biosolids suitable for application to agricultural and forestry lands;
 -Treatment of solid byproducts to produce methane for energy to run the plant;
 -Tertiary treatment of a portion of the wastewater to produce reclaimed water for reuse on-site;
 -Treatment plant odor control systems designed to the highest standards in the US;
 -A facility designed to be architecturally compatible with the surrounding neighborhood with habitat improvements to help protect Little Bear Creek;
 - An Environmental Education Center is being designed at the treatment plant to provide opportunities for environmental education and a place for community meetings;
 -A system that fulfills commitments to local governments and sewer service providers in King County service area to provide wastewater services;
 -More flexibility in the operation of the regional wastewater system; and
 -Services that are cost-effective and a good investment for the region.

Location:The treatment plant will be built on a 114 acre site in unincorporated Snohomish County - east of SR-9, just north of the intersection of SR-9 and SR-522 and the City of Woodinville, approximately 12.5 miles east of Puget Sound.
Status: Construction work has been substantially completed on North Mitigation Area with some planting to occur in 2007. Site Prep has also been substantially completed in the fourth quarter of 2006 except for the Effluent drop structure which is still under construction, consequently the site will be ready for excavation. Final negotiation of the MACC did not complete in the fourth quarter but will continue through the first quarter of 2007. This delay is not expected to affect the final completion date of the project.

100% Design documents were completed during the 3rd quarter of 2006 and Hoffman Construction Company prepared both a 90% and 100% cost estimate on the basis of the final drawings. The County's outside Construction Management firm, CDM, reviewed the estimate and on that basis proposed further changes to help reduce costs.

Project 423575 Brightwater Conveyance
Category: A20200, A20220 Brightwater Treatment Plant
Council District: All

LTD Actual 2006 \$175,752,568

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/01/99	11/07/02	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11/07/02	06/28/04	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
06/28/04	11/01/06	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/30/06	05/25/11	4 Implementation	\$199,903,885	\$217,696,872	\$70,764,849	\$85,416,435	\$0	\$0	\$573,782,040
03/31/10	06/30/12	5 Close Out	\$0	\$7,550	\$1,033,558	\$0	\$0	\$0	\$1,041,107
01/01/03	01/01/10	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$3,640,166	\$14,560,663	\$0	\$0	\$18,200,829
		Total:	\$199,903,885	\$217,704,421	\$75,438,572	\$99,977,099	\$0	\$0	\$593,023,977

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Milestone 4.1 NTP for Construction / Implementation
Scope The Brightwater Conveyance project is composed of the following elements:

East Tunnel Contract - Combined tunnel between the Treatment Plant in Woodinville and the Bothell Portal adjacent to I-405. This portal site is also the location of the Influent Pump Station which will pump untreated wastewater to the treatment plant.
 Influent Pumping Station Contract - Pump station to transmit flows to treatment plant through East Tunnel.
 Central Tunnel Contract - Tunnels between the Bothell Portal and a portal located by I-5. This segment will also include temporary storage.
 West Tunnel Contract - Tunnel segment between the I-5 Portal and the Puget Sound.
 Marine Outfall - Design/Build Contract to connect the western end of the west tunnel with the Puget Sound in a deep water outfall.

In addition to the construction contracts noted above, three on-going consultant contracts support the construction process. These three contracts are for conveyance system design, construction management and geotechnical support.

Location: The Conveyance system runs east and west, and will be located along a NE 195th Street and NW 205th Street corridor, near the King and Snohomish County Line. The system is approximately 14.9 miles long and intersects the cities of Woodinville, Bothell, Kenmore, Lake Forest Park, Mountlake Terrace, Shoreline, Edmonds and Woodway.

Status: East Tunnel - Under construction. Influent portal is completed and IPS Portal in construction. Tunnel operations to begin in 3rd quarter 2007
 Central Tunnel - Under construction. Site preparation is under way and the Kenmore portal is being dug.
 West Tunnel - Contract will be awarded in February 2007 with construction to start immediately thereafter.
 IPS - Contractor bids expected in late February 2007.
 Marine Outfall - Design build proposals expected in 1st quarter 2007

Project 423460 VTP Vashon Facility Improvement
Category: A20300, A20320 Local Treatment Facilities
Council District: 08
LTD Actual 2006 \$20,451,950

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/01/01	06/01/01	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
06/01/01	10/09/02	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10/09/02	10/04/04	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0
08/16/04	03/31/07	4 Implementation	\$1,049,169	\$0	\$0	\$0	\$0	\$0	\$1,049,169
02/28/05	12/31/08	5 Close Out	\$15,243	\$0	\$0	\$0	\$0	\$0	\$15,243
01/01/02	05/30/03	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$1,064,413	\$0	\$0	\$0	\$0	\$0	\$1,064,413

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Milestone 5.5 One Year Certification
Scope The treatment plant expansion includes a new oxidation ditch, headworks, two clarifiers, administration building and lab and standby generator. The existing UV disinfection process will be relocated and existing solids facilities utilized. Work has also included preparation of Facility Plan including development of population & flow estimates, evaluation of local system I/I, study of the marine environment and preparation of a biological, environmental and essential fish habitat assessments. Financial and operational assistance has been provided on the Beulah Park and Bunker Trail health hazard areas. Finally, interim improvements to the existing plant were completed that included installation of a new UV process and standby generator, local water and reuse water system repairs, electrical code upgrades, site grading and laboratory improvements.

Location: Vashon Island

Status: Vashon Wastewater Treatment Plant Upgrade is substantially complete and is treating wastewater in accordance with permit requirements. Start-up activities began in September 2006 and will continue through mid-2007. The construction contractor, Hollinger Construction Inc. , is currently addressing punch list items, with close-out of the construction contract planned for April 2007. Previous work completed for this project includes, preparation of a Facility Plan, providing financial and operational assistance to the Beulah Park and Bunker Trail health hazard areas. Finally, interim improvements to the existing plant were completed that included installation of a new UV process now being used by the upgraded plant.

Project 423557 Carnation Treatment Plant
Category: A20300, A20320 Local Treatment Facilities
Council District: 03
LTD Actual 2006 \$6,807,469

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
06/01/02	01/16/03	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/16/03	10/14/05	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10/14/05	09/11/06	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0
09/11/06	03/31/08	4 Implementation	\$2,391,636	\$0	\$0	\$0	\$0	\$0	\$2,391,636
03/31/08	06/01/09	5 Close Out	\$-1,348	\$0	\$0	\$0	\$0	\$0	\$-1,348
01/01/05	10/01/05	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$2,390,288	\$0	\$0	\$0	\$0	\$0	\$2,390,288

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Milestone 4.2 Construction/Maintenance/PO/Service/GFE/CFE
Scope The treatment plant is necessary for compliance with the sewer service agreement which requires that the County accept and treat all wastewater collected and conveyed by the City of Carnation. Carnation is planning to have its new sewage collection system on line in March 2008, requiring the treatment plant to be operational and ready to accept sewage at that time.

Location: City of Carnation

Status: Notice to Proceed on the treatment plant construction contract was issued on September 11, 2006

- Construction is 12% complete as of the end of December 2006.
 - Addendum No. 1 to Carnation Facilities Plan was submitted to Ecology on January 10, 2007.
 - First of a series of sewer system start-up coordination meetings was held with City of Carnation on January 10, 2006 .
- In January 2007 King County was notified that Ecology will provide SRF grant funding for the Carnation WWTF project.

Project 423602 Ballard Siphon Repair
Category: A20400, A20410 Conveyance Pipelines and Storage
Council District: 04

LTD Actual 2006 \$233,965

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/01/06	03/20/06	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
03/20/06	04/23/07	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
04/23/07	09/17/07	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10/29/07	12/31/08	4 Implementation	\$12,644,385	\$3,713,150	\$0	\$0	\$0	\$0	\$16,357,535
01/01/08	12/31/10	5 Close Out	\$201,260	\$0	\$0	\$0	\$0	\$0	\$201,260
02/14/07	07/07/07	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$515,000	\$530,450	\$0	\$0	\$0	\$0	\$1,045,450
		Total:	\$13,360,645	\$4,243,600	\$0	\$0	\$0	\$0	\$17,604,244

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Milestone 2.2 30% Design thru Design Review
Scope Design and build jacking pit on the south side of the canal; removal shaft on the north side of the canal and connect the two shafts with a micro tunnel under the Washington Ship Canal. Design and build forebay and afterbay structures; install connecting conveyance pipe. Slip line existing siphon. Modify control and electrical systems to accommodate new gates.

Location: Washington Ship Canal
Status: Project is predesign. Survey and geotechnical data being gathered. Project team is preparing 30% design documents.

Project 2008-011 Black Diamond Storage Facility
Category: A20400, A20420 Conveyance Pipelines and Storage
Council District: 09
LTD Actual 2006 \$0

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
03/01/06	02/01/06	1 Development	\$19,431	\$0	\$0	\$0	\$0	\$0	\$19,431
01/01/06	05/30/07	2 Predesign	\$229,354	\$0	\$0	\$0	\$0	\$0	\$229,354
06/01/07	11/15/08	3 Final Design	\$362,037	\$101,922	\$0	\$0	\$0	\$0	\$463,959
11/16/08	11/30/09	4 Implementation	\$22,903	\$2,628,889	\$234,556	\$0	\$0	\$0	\$2,886,348
12/01/09	12/31/10	5 Close Out	\$4,506	\$22,129	\$25,415	\$0	\$0	\$0	\$52,049
01/01/08	12/31/08	6 Land/ROW	\$412,000	\$0	\$0	\$0	\$0	\$0	\$412,000
		7 Contingency	\$0	\$0	\$573,682	\$0	\$0	\$0	\$573,682
		Total:	\$1,050,230	\$2,752,940	\$833,652	\$0	\$0	\$0	\$4,636,822

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Milestone 2.3 30% CST Authorization
Scope Planning budget for project is about \$5M for design and construction of the storage facility. Design cost is estimated in advance at about \$1M of the \$5M. Elements of the predesign scope of work include: siting of the facility, including gathering input from stakeholders in the area; evaluation of siting alternatives; cost estimates, preliminary civil, mechanical, electrical calculations and criteria development, preliminary drawings development; community briefings, permitting efforts; community relations efforts, geotechnical data gathering; and right of way and property acquisition research. Final design will follow on the chosen site, which will result in 100% plans, specifications, and construction cost estimate. Bidding and construction will follow.

Location:Black Diamond

Status: As of Feb 15, 2007, the predesign contract is just about ready to sign, so that siting and predesign efforts can get underway in the first quarter of 2007. The predesign work is being done under a subproject of 423373 RWSP Conveyance System Improvements. If approved, implementation will take place under new project 2008-011.

Project 423373 RWSP Conveyance System Improvements
Category: A20400, A20420 Conveyance Pipelines and Storage
Council District: 06,09,All
LTD Actual 2006 \$58,816,010

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/01/01	12/31/14	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/01/01	12/31/14	2 Predesign	\$817,233	\$0	\$0	\$0	\$0	\$0	\$817,233
01/01/01	12/31/14	3 Final Design	\$313,264	\$2,003,064	\$1,944,042	\$96,118	\$49,501	\$0	\$4,405,990
01/01/01	12/31/14	4 Implementation	\$5,952,868	\$6,632,683	\$11,220,786	\$21,373,853	\$20,612,141	\$9,058,557	\$74,850,887
01/01/01	12/31/14	5 Close Out	\$22,317	\$0	\$0	\$7,034	\$178,687	\$1,301,899	\$1,509,937
01/01/03	12/31/08	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$7,105,681	\$8,635,747	\$13,164,828	\$21,477,006	\$20,840,329	\$10,360,456	\$81,584,046

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Milestone
Scope Conveyance system improvement planning is driven by the RWSP' adopted conveyance standard of being able to convey 20-year peak flow events. For purposes of constructing facilities to meet future demand, the design standard used for planning new conveyance facilities is to accomodate 20-yesr peak flow events as projected in 2050 (the projected year of service area build-out).

Location:This project covers the entire KC Wastewater System including those areas in Snohomish County and in the very northern part of Pierce County.
Status: The conveyance system improvement plan update along with updated conveyance planning policy is due to be delivered to the council in the 1st or 2nd quarter of 2007.

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Milestone 0.0 New
Scope 423373 sub project 003 represents annual spending schedule based on a list prioritized projects developed by the CSI Plan Update. The project list, schedule, and costs are contained in the plan update document that is due to be complete in 2007.

Location:
Status:

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Milestone 4.2 Construction/Maintenance/PO/Service/GFE/CFE
Scope O&N manual for maintenance of bouy and electrical equipment

Location:To monitor underwater flap gates in three locations along the Lake Line between Log boom and Matthews Beach pump station.
Status:

367
Milestone
Scope The flow monitoring group maintains about 80-100 flowmeters in the conveyance system. The group will also perform extensive flow monitoring (225 meters) in the separated portion of the service area at the turn-of-the-decade to coincide with the availability of detailed census data. The "turn-of-the-decade" monitoring will take

Location:This project covers the entire KC Wastewater System including those areas in Snohomish County and in the very northern part of Pierce County.
Status:

Project 423373 RWSP Conveyance System Improvements

place over a four-year period from 2008-2011. Flow meter equipment for the "turn-of-the-decade" monitoring will be purchased in 2008, and additional staff will be hired to help perform the monitoring. Installation of meters will take place in 2009. Flow data will be collected during the 2009-2010 and 2010-2011 wet seasons. Two years of flow monitoring is considered a minimum to account for variations in weather. If two relatively dry years with insufficient large storms occur during the monitoring period, a third wet season of monitoring may be necessary. Finalization of flow data will occur in 2011. During the "turn-of-the-decade" monitoring effort as well as after completion of the effort, the flow monitoring group will continue to maintain about 80-100 flowmeters in the conveyance system.

447

Milestone 4.1 NTP for Construction / Implementation
Scope KC GIS provides overall support to all GIS functions at the county. This sub project is our commitment to O&M cost of the KC GIS Center in addition to GIS staff charges to the project

Location:
Status:

580

Milestone 4.3 Substantial Completion
Scope This project is result of agreements between KCWTD and Sammamish Plateau Water and Sewer District (SPWSD) to have the district permit, design, and construct the SE Lake Sammamish Interceptor with KCWTD reimbursing the district for the costs of the project. The project is due to Bid in Feb 2005, with Construction NTP to occur in second quarter 2005. The District hopes to complete the project in 4th Quarter 2005. The billing for the project is as follows per the Agreement. Cost incurred to design and permit at NTP (est \$1.5 M) 50 percent of construction costs plus 1/2 of the construction inspection at 50 percent of construction completion est (\$3M + \$.3M insp) in the 3rd or 4th qtr. of 2005. and the balance of construction and 50% of the inspection upon completeion and acceptance of the project. Eric Davison is the functional contact for WTD on the project.

Location:
Status:

621

Milestone 2.3 30% CST Authorization
Scope Planning budget for project is about \$5M for design and construction of the storage facility. Design cost is estimated in advance at about \$1M of the \$5M. Elements of the predesign scope of work include: siting of the facility, including gathering input from stakeholders in the area; evaluation of siting alternatives; cost estimates, preliminary civil, mechanical, electrical calculations and criteria

Location:City of Black Diamond
Status: As of Feb 15, 2007, the predesign contract is just about ready to sign, so that siting and predesing efforts can get underway in the first quarter of 2007.

Project 423373 RWSP Conveyance System Improvements

development, preliminary drawings development; community briefings, permitting efforts; community relations efforts, geotechnical data gathering; and right of way and property acquisition research. Final design will follow on the chosen site, which will result in 100% plans, specifications, and construction cost estimate. Bidding and construction will follow.

667

Milestone Scope

3.4 90% Design thru Design Review
The Conveyance System Improvement (CSI) project is developing facility specific planning level scopes, schedules, and budgets for all new conveyance projects including design flow requirements. Beginning in 1999, the CSI program identified and prioritize

Location: This project covers the entire KC Wastewater System including those areas in Snohomish County and in the very northern part of Pierce County.

Status: 90% Design review

700

Milestone Scope

The scope of the project is to first identify components of the conveyance system that either have or will have capacity limitations between 2000 and 2050. Next, planning level estimates of projects, and their costs, that address identified needs will be developed. Finally, a prioritized project schedule that balances operational needs, construction management constraints, and rate and capacity charge impacts will be developed.

Location:

Status: The Conveyance System Plan is nearing completion. Implementation of the Plan, which entails transferring planned projects to Major Capital for pre-design work, will occur according to the planned project schedule (approximately one project per year through 2040).

999

Milestone Scope

The Scope of this project is to further estimate cost of repairing the Pipe and develop a total cost of acquisition to the county. The pipe is in close proximity to Juanita creek and presents challenges for access, constructability of repairs, and the potential for multiple permitting issues. by the end of 2007 we will have a tech memo indicating potential repair techniques for each pipe segment and manhole along with planning cost estimates to share with the district and WTD management. The current estimate for Rehab of the pipe is ~\$2M. This estimate is based solely on their review of pipe inspection videos and location maps. Field visits and further investigation will provide us with a more accurate estimate. Once the potential rehab work is identified the county and the district can determine who is best suited to manage and deliver the project.

Location:

Status:

Project 423582 SW Interceptor (2004-03)
Category: A20400, A20420 Conveyance Pipelines and Storage
Council District: 05,07,09
LTD Actual 2006 \$745,206

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
07/01/04	07/03/06	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
07/03/06	11/05/07	2 Predesign	\$22,746	\$37,535	\$0	\$0	\$0	\$0	\$60,281
11/05/07	12/01/08	3 Final Design	\$918,227	\$268,796	\$88,456	\$0	\$0	\$0	\$1,275,479
12/01/08	12/31/10	4 Implementation	\$2,334,537	\$16,259,592	\$18,893,971	\$4,690	\$0	\$0	\$37,492,789
12/31/10	12/31/11	5 Close Out	\$0	\$0	\$423,968	\$23,448	\$0	\$0	\$447,416
		6 Land/ROW	\$1,060,900	\$0	\$0	\$0	\$0	\$0	\$1,060,900
		7 Contingency	\$0	\$0	\$1,802,999	\$0	\$0	\$0	\$1,802,999
		Total:	\$4,336,410	\$16,565,923	\$21,209,394	\$28,138	\$0	\$0	\$42,139,864

subproj

Milestone 2.1 Award of consultant contract & NTP
Scope Construct approximately five miles of 18 to 54 inch diameter pipe in Auburn and Kent by 2010 to handle increased flows. The project contains three distinct elements.
 1) The first element consists of approximately 2.7 miles of forcemain and gravity sewer in parallel to the Auburn West Valley Interceptor in Auburn, Algona and Pacific which will convey flow to the north from the Pacific Pump Station to the Auburn West Interceptor, and from there add gravity sewer to parallel or replace a portion of the Auburn West Interceptor .
 2) The second element is the Stuck River Trunk in Auburn, consisting of approximately 0.8 miles of gravity sewer which will convey flow west to the new portion of the Auburn West Interceptor and away from the M-Street Trunk.
 3) The third element is the Mill Creek Relief Sewer in Kent, which consists of approximately 1.3 miles of new gravity sewer which will convey flow out of the upper Mill Creek basin to the South 277th Interceptor, and build a new or parallel sewer to add capacity to the lower portions of the Mill Creek Trunk north of downtown Kent.

Location: Trunkline of pipeline runs approximately 6 miles north/south in the Kent/Auburn area. Also includes the Stuck River trunk in Auburn and the Mill Creek Relief trunk in Kent.

Status: NTP was issued on 7/3/06 for Engineering services for predesign. The predesign effort is well under way and has narrowed the number of alternatives down to two for each of the project elements. Early tasks in predesign investigated the feasibility of constructing storage in lieu of new conveyance, and were determined to not be cost effective. During early predesign, additional alternatives were identified and investigated, and the most cost effective of these are now being evaluated as candidates for preferred alternatives.

Project 423596 North Creek Pipeline
Category: A20400, A20420 Conveyance Pipelines and Storage
Council District: 03

LTD Actual 2006 \$1,094,195

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/01/04	06/06/05	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
06/06/05	01/08/06	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
07/11/06	07/01/08	3 Final Design	\$1,737,234	\$314,138	\$0	\$0	\$0	\$0	\$2,051,373
11/01/06	07/27/09	4 Implementation	\$17,215,243	\$10,506,609	\$0	\$0	\$0	\$0	\$27,721,851
12/31/08	06/01/10	5 Close Out	\$0	\$263,871	\$0	\$0	\$0	\$0	\$263,871
01/01/06	12/31/06	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$18,952,477	\$11,084,618	\$0	\$0	\$0	\$0	\$30,037,095

subproj

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Milestone 4.1 NTP for Construction / Implementation
Scope King County purchased the North Creek Interceptor from Alderwood Water and Wastewater District (AWWD) in 2001. The North Creek Interceptor will be under-capacity by as much as 13 MGD by 2010, using King County Service Standard (20 year flow recurrence without surcharging. Pipeline is located in both Snohomish County and City of Bothell. Capacity improvements are required to the pipeline, contract involves, preliminary design, final design, construction and construction management services. An agreement was signed on February 2005, for Alderwood to take the lead in project implementation.

Location:Bothell

Status: Predesign and route selection currently underway. The route selection has been completed and the predesign report was completed and published in August of 2006. The Project will be implemented in two contracts. The Northern half which is in Snohomish County, and the southern half which is in the City of Bothell. This was done in anticipation of getting the permits from Snohomish County early. Consultant was given NTP for final design in November, 2006. The 60 percent Contract documents for the project are scheduled to be completed by Feb. 28, 2007. The 60 percent cost estimate is due on March 9, 2007.

Project 423597 Pipeline Rehabilitation Lining for H2S Corrosion Control
Category: A20400, A20420 Conveyance Pipelines and Storage
Council District: All

LTD Actual 2006 \$111,189

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/02/06	10/26/06	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
03/22/06	11/06/06	2 Predesign	\$100,083	\$106,916	\$0	\$0	\$0	\$0	\$207,000
05/03/06	04/15/16	3 Final Design	\$44,805	\$53,458	\$165,186	\$170,141	\$254,076	\$0	\$687,666
07/31/07	12/31/12	4 Implementation	\$1,891,861	\$2,192,946	\$1,606,828	\$1,771,365	\$1,006,986	\$2,406,058	\$10,876,045
10/30/09	12/31/18	5 Close Out	\$55,168	\$0	\$0	\$0	\$0	\$0	\$55,168
05/03/06	07/15/06	6 Land/ROW	\$3,605	\$0	\$0	\$0	\$8,115	\$0	\$11,720
		7 Contingency	\$0	\$168,395	\$0	\$0	\$0	\$0	\$168,395
		Total:	\$2,095,523	\$2,521,715	\$1,772,014	\$1,941,507	\$1,269,177	\$2,406,058	\$12,005,993

subproj

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Milestone 4.2 Construction/Maintenance/PO/Service/GFE/CFE
Scope This project will rehabilitate pipelines in the East and West Sections that are suffering from corrosion due to high levels of H2S. This is an ongoing program that will rehabilitate pipe based on ongoing inspections of the sewer system.

Location: System wide.
Status: A predesign effort for the sections of pipe already identified has been completed. The first project of the program, the rehabilitation of sections of the Lake Hills Interceptor, Kenmore Interceptor and EB12 is currently at the 60% level of design.

100

Milestone 4.2 Construction/Maintenance/PO/Service/GFE/CFE
Scope Design and perform the rehabilitation of sections of Kenmore Interceptor, Lake Hills Interceptor and Elliott Bay Interceptor section 2.

Location:
Status: The project is in the final design phase.

Project 423135 Interbay Pump Station
Category: A20500, A20510 Conveyance Pump Station
Council District: 04

LTD Actual 2006 \$5,077,854

** Schedule										
Start	Finish		2008	2009	2010	2011	2012	2013	Total	
01/03/97	08/20/98	1 Development	\$515	\$1,061	\$0	\$0	\$0	\$0	\$1,576	
08/20/98	10/18/07	2 Predesign	\$116,545	\$2,122	\$0	\$0	\$0	\$0	\$118,668	
10/18/07	10/09/09	3 Final Design	\$963,380	\$1,537,099	\$360,318	\$0	\$0	\$13,397	\$2,874,194	
02/13/09	04/07/12	4 Implementation	\$12,403	\$396,749	\$2,906,967	\$7,027,199	\$4,532,125	\$1,223,244	\$16,098,686	
04/07/12	02/07/13	5 Close Out	\$0	\$5,855	\$6,413	\$0	\$247,950	\$247,483	\$507,701	
		6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$3,332,601	\$3,332,601	
		Total:	\$1,092,843	\$1,942,885	\$3,273,698	\$7,027,199	\$4,780,075	\$4,816,725	\$22,933,426	

subproj

Milestone 3.3 60% Design thru Design Review
Scope The scope includes replacing aging mechanical and electrical equipment and building components, replacing obsolete raw sewage pumping equipment, increasing capacity to 133 mgd, upgrading emergency power generation capacity, addressing code issues, and providing odor control at the pump station and the force main discharge structure. This project reflects the second phase (Phase II) of a two-phase upgrade project that began in 1990. The Phase I Upgrade was completed in 1996. The lifetime actual costs for Project 423135 include past costs from the Phase I Upgrade. The schedule shown reflects only the Phase II Upgrade.

Location: The Interbay Pump Station is located near the intersection of West Garfield Street and 15th Avenue West in Seattle. The force main discharge structure is located near the intersection of West Wheeler Street and 15th Avenue West.

Status: The consultants have been given Notice to Proceed on revising the predesign report and producing 30 percent drawings.

Project 423592 West Division Regulator Stations and Four Pump Stations Upgrade

Category: A20500, A20510 Conveyance Pump Station

Council District: All

LTD Actual 2006 \$453,277

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/20/05	06/15/05	1 Development	\$133	\$0	\$0	\$0	\$0	\$0	\$133
03/07/07	06/26/07	2 Predesign	\$238,047	\$0	\$0	\$0	\$0	\$0	\$238,047
07/30/07	08/14/09	3 Final Design	\$286,065	\$365,439	\$163,909	\$126,620	\$0	\$0	\$942,032
03/31/09	12/31/10	4 Implementation	\$1,717,068	\$2,842,168	\$1,646,902	\$1,327,515	\$173,891	\$0	\$7,707,543
03/15/11	12/31/11	5 Close Out	\$0	\$0	\$103,301	\$45,731	\$0	\$0	\$149,032
07/28/07	04/27/08	6 Land/ROW	\$374	\$129	\$0	\$0	\$0	\$0	\$503
		7 Contingency	\$148,579	\$153,036	\$223,306	\$0	\$0	\$0	\$524,922
		Total:	\$2,390,266	\$3,360,771	\$2,137,418	\$1,499,865	\$173,891	\$0	\$9,562,211

subproj

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Milestone 3.4 90% Design thru Design Review
Scope This project continues the upgrade of West Division Offsite Facilities electrical and control systems as well as HVAC systems. It will replace obsolete equipment which the manufactures no longer supports, spare parts are not shelf items. It will address code issues at these facilities. This project focuses on Regulator Stations and the remaining four pump stations.

Location: Various

Status: Demo work at Hollywood PS is progressing under contract C00081C06; the Contractor is working with Puget Sound Energy to have temporary power provided to the pump station. Consultant Contract E53024E with Gray and Osborne is progressing. A site visit schedule was submitted on December 12, 2006 Comments received from O&M on this schedule is being worked out with the Consultant.

Project 423365 Hidden Lake PS/Boeing Creek Trunk
Category: A20500, A20520 Conveyance Pump Station
Council District: 01
LTD Actual 2006 \$16,803,997

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
06/01/98	09/11/00	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
09/11/00	09/26/01	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
09/26/01	05/22/06	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0
05/22/06	12/31/08	4 Implementation	\$8,334,196	\$2,464,695	\$0	\$0	\$0	\$0	\$10,798,891
12/31/08	12/31/09	5 Close Out	\$16,406	\$64,888	\$0	\$0	\$0	\$0	\$81,295
08/01/03	06/30/05	6 Land/ROW	\$33,774	\$0	\$0	\$0	\$0	\$0	\$33,774
		7 Contingency	\$0	\$268,342	\$0	\$0	\$0	\$0	\$268,342
		Total:	\$8,384,376	\$2,797,925	\$0	\$0	\$0	\$0	\$11,182,301

subproj

Milestone 4.1 NTP for Construction / Implementation
Scope The existing Hidden Lake Pump station has overflows approximately 3 times per year. The station lacks storage and is in need of mechanical upgrades. The downstream Boeing Creek trunk experiences surcharging. Construct Phase I of the project. Construct a new Hidden Lake Pump Station to a 5.5 mgd peak capacity. Parallel or replace 6,400 lf of the Boeing Creek Trunk. Provide 0.5 MG storage upstream of the new Hidden Lake Pump Station. A decision on Phase II is dependent on the results of the I/I study to be concluded in 2005.

Location: 16700 10th Ave. NW, City of Shoreline
Status: The contractor is continuing the work on the structures in Boeing Creek Park and the microtunneling in 6th Ave and 175th street. Work is continuing on the Pump Station foundation and walls. Work is continuing on the trunk sewer. The 2006 escalated total project forecast was \$38,400,531. The 2007 escalated total project forecast is \$38,425,714. The projected budget increase is due to updated costs for Non-WTD Support services and WTD staff labor.

Project 423406 Juanita Bay PS - Modifications
Category: A20500, A20520 Conveyance Pump Station
Council District: 06
LTD Actual 2006 \$19,032,988

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/01/99	05/21/01	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
02/02/01	05/20/03	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
05/20/03	08/15/05	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0
08/15/05	07/14/08	4 Implementation	\$5,067,430	\$0	\$0	\$0	\$0	\$0	\$5,067,430
07/14/08	01/31/09	5 Close Out	\$281,082	\$36,694	\$0	\$0	\$0	\$0	\$317,776
03/01/02	12/31/04	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$1,065,713	\$0	\$0	\$0	\$0	\$0	\$1,065,713
		Total:	\$6,414,225	\$36,694	\$0	\$0	\$0	\$0	\$6,450,920

subproj

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Milestone 4.2 Construction/Maintenance/PO/Service/GFE/CFE
Scope A new 30.6 mgd two-stage pump station is being built across the street from the existing Juanita Bay Pump Station. The station will include four pairs of two-stage pumps, odor control, chemical addition for odor and corrosion prevention, equipment sound attenuation, and a standby generator. The existing Juanita Bay Pump Station will be taken off-line when the new pump station is completed. Capacity and rehabilitation needs for the Juanita Force Mains will be evaluated. If pipeline work is identified, additional funds will be required.

Location: NE Juanita Drive and 93rd Ave NE
Status: Facility construction continues in 2007.

Project 423521 Bellevue Pump Station
Category: A20500, A20520 Conveyance Pump Station
Council District: 06

LTD Actual 2006 \$4,945,791

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/01/01	06/22/04	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
06/22/04	07/27/05	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
07/27/05	02/01/08	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0
05/01/07	12/01/09	4 Implementation	\$10,587,791	\$4,981,522	\$18,212	\$0	\$0	\$0	\$15,587,525
06/01/08	06/01/10	5 Close Out	\$12,149	\$149,482	\$0	\$0	\$0	\$0	\$161,631
		6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$725,125	\$0	\$0	\$0	\$0	\$725,125
		Total:	\$10,599,939	\$5,856,130	\$18,212	\$0	\$0	\$0	\$16,474,281

subproj

Milestone Scope 4.2 Construction/Maintenance/PO/Service/GFE/CFE
 The existing Bellevue Pump Station is 30 years old. The scope under this project is to ; replace the pumps, controls, electrical system, process piping, HVAC unit, generator ; adding chemical storage; updating odor control system; and build a new force main from the Pump Station to existing KC conveyanceline, East Side Interceptor (ESI).

Location:Bellevue

Status: The Force Main construction contract was advertised on 12/5/06 and bids were opened on 1/18/07. Bid evaluation is on going. The pump station design document is at 98% and will be finalized once the bid evaluation of the Force Main bid is complete. Negotiating CM services with selected firm Earth Tech and plan to issue Notice to Proceed around 4/1/07. Finalizing engineering services during construction with Jacobs and plan to issue Notice to proceed on 3/1/07.

This project will upgrade the hydraulic capacity, electrical systems, and control systems for the Bellevue Pump Station. It will also construct a new 5,500 ft long, 24-inch diameter forcemain from the Bellevue Pump Station to the East Side Interceptor (ESI), thereby reducing the hydraulic load on the Sweyolocken Pump Station. The new forcemain will require a new discharge structure at the ESI just upstream of the Wilburton Siphon inlet structure. The project provides needed capacity to avoid raw sewage overflows downstream at the Sweyolocken Pump Station. A planning assessment of the alternatives to flow from Sweyolocken was conducted during 2000. Seven possible alternatives were evaluated; two alternatives were carried forward for further evaluation; alternative 4 (this project) was ultimately selected. This project is part of the Council-approved Regional Wastewater Services Plan.

Project 423580 King Street Regulator Odor Control
Category: A20500, A20530 Conveyance Pump Station
Council District: 05
LTD Actual 2006 \$474,671

** Schedule			2008	2009	2010	2011	2012	2013	Total
Start	Finish								
08/01/04	04/15/05	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
04/01/05	11/11/05	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
06/01/06	08/07/07	3 Final Design	\$9,065	\$0	\$0	\$0	\$0	\$0	\$9,065
08/07/07	10/01/08	4 Implementation	\$2,343,183	\$0	\$0	\$0	\$0	\$0	\$2,343,183
10/02/08	12/31/08	5 Close Out	\$129,751	\$0	\$0	\$0	\$0	\$0	\$129,751
07/01/05	06/28/06	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$185,400	\$0	\$0	\$0	\$0	\$0	\$185,400
		Total:	\$2,667,400	\$0	\$0	\$0	\$0	\$0	\$2,667,400

subproj

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Milestone 3.7 100% Plans Prepared / Ready / Approved
Scope Evaluate the volume of foul air that currently exhausts from the King Street Regulator Station and evaluate potential nuisance odor impacts. Design and construct a suitable odor control system to prevent nuisance odors.

Location: King St Regulator
Status: Project was just reviewed at the 90% Design, permitting is underway and is expected to be completed by early May 2007.

Project 423506 Emergency Generator Program

Category: A20500, A20540 Conveyance Pump Station

Council District: All

LTD Actual 2006 \$8,045,464

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
09/25/00	12/31/06	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/05/06	02/01/07	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
09/01/06	07/01/08	3 Final Design	\$106,552	\$9,146	\$0	\$0	\$0	\$0	\$115,697
09/01/05	06/01/10	4 Implementation	\$3,565,288	\$1,999,613	\$365,498	\$11,255	\$0	\$0	\$5,941,655
07/01/09	12/01/10	5 Close Out	\$97,388	\$0	\$75,360	\$0	\$0	\$0	\$172,749
		6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$3,769,228	\$2,008,759	\$440,859	\$11,255	\$0	\$0	\$6,230,101

subproj

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Project 423506 Emergency Generator Program

Milestone Scope 4.1 NTP for Construction / Implementation 1/14/02. The scope of work for this project is to: 1) Remove and replace emergency/standby generators at the following West Division Regulator and Outfall Stations: Ballard Regulator Station, Brandon Outfall Station, Brandon Regulator Station, Chelan Avenue Regulator Station, Connecticut Street Regulator Station, Denny Way Regulator Station, Dexter Regulator Station, 8th Avenue South Regulator Station, Hanford Street Outfall Station, Harbor Avenue Regulator Station, King Street Regulator Station, Lake City Regulator Station, Mountlake Regulator Station, Norfolk Street Regulator Station, South Michigan Outfall Station, South Michigan Regulator Station, University Regulator Station, West Michigan Street Regulator Station. 2) Remove and replace emergency/standby generators at the following West Division Pump Stations: 30th Street Pump Station, Belvoir Pump Station, East Pine Pump Station, Woodinville Pump Station. 3) Remove and replace emergency/standby generators at Barton and Murray Pump Stations. 4) Install new generators at Duwamish Pump Station, East Marginal Pump Station and West Marginal Pump Station. . . EWR 305: The Barton and Murray Avenue pump stations receive primary utility electrical power from Seattle City Light and have plug in receptacles for portable emergency generators in the event of a power outage. East Section staff have made repeated inquiries to City Light about obtaining an alternate power feed and staff are told that a second feed is not feasible. The stations experience occasional sewage overflows during power outages because it is often difficult to get a portable generator to the stations due to traffic and physical distance. . . Federal and State regulations require 2 separate and independent sources for standby power for these type of facilities. The stations do not currently meet those requirements. This request is to have the CIP Section evaluate the facilities to determine the size, type and location for on site emergency generators, and design and install the generators. . . This request is a high priority because the stations are not in regulatory compliance, and there is a need to reduce or eliminate the occurrence of overflows due to power outages. . . Coordinate with Ron Kohler and other East Operations and Maintenance staff. Conduct a predesign evaluation of alternatives for providing permanent on site emergency power at the 2 stations, and design and implement the preferred alternative. . . Note: East Section staff have obtained budget approval for this project. The approved budget includes \$150,000.00 in year 2000 to conduct predesign and design and includes

Location: Various Offsite Facilities: Ballard Regulator Station, Brandon Outfall Station, Brandon Regulator Station, Chelan Avenue Regulator Station, Connecticut Street Regulator Station, Denny Way Regulator Station, Dexter Regulator Station, 8th Avenue South Regulator Station, Hanford Street Outfall Station, Harbor Avenue Regulator Station, King Street Regulator Station, Lake City Regulator Station, etc.

Status: The following pump stations have had new generator facilities installed and completed: Duwamish Pump Station, East Marginal Way Pump Station, West Marginal Way Pump Station. The following facilities have completed the replacement of existing generators with new and larger generator: 30th Ave. N.E. Pump Station, Belvoir Pump Station, East Pine Pump Station, and Woodinville Pump Station. The following facilities have designs at 80% in preparation for re-bidding the "Small Generator Installations Contract: Norfolk St. Regulator, South Michigan St. Outfall, South Michigan St. Regulator, Ballard Regulator, Hanford Regulator, Dexter Regulator, Hanford St. Outfall, Harbor Ave. Regulator, King St. Regulator, Lake City Regulator, Mountlake Regulator, 8th. Ave. S. Regulator, Brandon Outfall, Brandon Regulator, Chelan Regulator, Connecticut Regulator, and the Denny Way Regulator. The North Mercer Island Generator replacement is scheduled to begin design in 2007 for construction in 2008 or later. The Hollywood Generator is at 90% design and will be completed in 2007, along with other electrical upgrades at the Hollywood Pump Station. The Barton and Murray Pump Stations are in early design, and are being statused under subprojects 423506-305 and 310. The Barton Pump Station was combined into a joint project to include the new emergency generator, new odor control, new electrical upgrades, and new pumping and force main headworks for additional CSO mitigation. Construction is planned to start 1st Qtr, 2008. The Murray Pump Station new generator was combined into a joint project to include new odor control facilities. Final location of the Murray Pump Station Generator and Odor Control Project is in Community re-negotiations, as the preferred site selected by the community is not acceptable for the County Operations and Maintenance functions required. A new location will be re-negotiated with the community beginning 1st. Qtr, 2007. Construction schedule will be determined upon successful negotiations with the Morgan Junction Community Association and Seattle Parks department.

Project 423506 Emergency Generator Program
 \$700,000.00 in 2001 to purchase and install the generators.. .
 EWR 318:. The Duwamish, East Marginal and West Marginal
 pump stations do not have permanent on site emergency
 generators. The stations also do not have dual power feed and a
 portable generator must be hauled to the stations in the event of
 a power outage. This request is to have the CIP Section design,
 purchase and install new generators at these pump stations.. .
 Federal and State Regulations and design standards require 2
 independent sources of power for wastewater facilities. These
 pump stations do not meet that requirement and this project is a
 high priority to bring the facilities into compliance.. . 3/3/00
 Completed and submitted year 2001 rate-setting documentation--
 Attachment B: 2001 Rate CIP Request form and Attachment F:
 2001 Proposed Rate - Capital Project Budget Cash flow Form.. .
 3/7/00 Met with management analyst to set up the following sub
 projects under the IBIS project number 423506:. Participated in
 Capital Systems Team meeting. . . Coordinate with Mike
 Fischer, Sam Greene and others in Maintenance. Design and
 install new permanent on site generators at Duwamish, East
 Marginal and West Marginal pump stations. The estimated sizes
 and cost to purchase and install are:. Duwamish: @ 750 Kw;
 \$600,000. East Marginal: @ 300 Kw; \$300,000. West

305

Milestone 3.7 100% Plans Prepared / Ready / Approved
Scope This project will construct a new, underground Standby
 Generator and Odor Control structure to house the new
 equipment adjacent to the existing pump station. The project will
 include mass excavation, building construction, all electrical and
 mechanical support services. The work will also include
 modifications at the existing pump station to accomodate and co-
 join the new facilities and to make the systems complete. Work
 will also include major electrical upgrades, replacement of motor
 control centers and main control panels. Installation of
 replacement variable speed pump drives (VSDs), new pumps
 and motors. Larger pumps will be installed with associated
 components. New force main piping modifications will be made in
 a new discharge structure. Restoration of the grounds and
 landscaping artwork will be required and restored with
 Community participation.

Location: Barton St. Pump Station, Alki
Status: Barton PS continues in 30% design. The site has been surveyed and
 the generator and odor control building have been located between the existing
 facilities. Work continues with challenging equipment space planning and
 coordination with WSDOT and the Ferry System. Different pumping schemes
 are being looked at for better efficiency and conservation of energy and
 maintenance resources. Equipment plans are coming together.

310

Project 423506 Emergency Generator Program

Milestone 3.7 100% Plans Prepared / Ready / Approved
Scope This project will construct a new, underground Standby Generator and Odor Control structure to house the new equipment adjacent to the existing pump station. The project will include mass excavation, building construction, all electrical and mechanical support services. The work will also include modifications at the existing pump station to accommodate and co-join the new facilities and to make the systems complete. This project was coordinated with the Morgan Junction Community Association of the Logan Park community.

Location: Murray Ave Pump Station at Loman Park, Alki

Status: 2-15-07

The Murray Pump Station is in Final Design. The Pre-Design report from Brown and Caldwell was received and distributed for review and comment. This will be the basis of the final design underway. The Generator and Odor Control installation contract is planned to follow the Murray Ave Pump Station Electrical Upgrade Project currently under construction and planned to be completed in 2007.

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Milestone 3.8 Advertise/Bid/Award implementation contracts
Scope The scope of work for this project is to: 1) Remove and replace emergency/standby generators at the following West Division Regulator and Outfall Stations: Ballard Regulator Station, Brandon Outfall Station, Brandon Regulator Station, Chelan Avenue Regulator Station, Connecticut Street Regulator Station, Denny Way Regulator Station, Dexter Regulator Station, 8th Avenue South Regulator Station, Hanford Street Outfall Station, Harbor Avenue Regulator Station, King Street Regulator Station, Lake City Regulator Station, Mountlake Regulator Station, Norfolk Street Regulator Station, South Michigan Outfall Station, South Michigan Regulator Station, University Regulator Station, West Michigan Street Regulator Station. . 2) Remove and replace emergency/standby generators at the following West Division Pump Stations: 30th Street Pump Station, Belvoir Pump Station, East Pine Pump Station, Woodinville Pump Station. . 3) Remove and replace emergency/standby generators at Barton and Murray Pump Stations. . 4) Install new generators at Duwamish Pump Station, East Marginal Pump Station and West Marginal Pump Station. . . EWR 305: The Barton and Murray Avenue pump stations receive primary utility electrical power from Seattle City Light and have plug in receptacles for portable emergency generators in the event of a power outage. East Section staff have made repeated inquiries to City Light about obtaining an alternate power feed and staff are told that a second feed is not feasible. The stations experience occasional sewage overflows during power outages because it is often difficult to get a portable generator to the stations due to traffic and physical distance. . . Federal and State regulations require 2 separate and independent sources for standby power for these type of facilities. The stations do not currently meet those requirements. This request is to have the CIP Section evaluate the facilities to determine the size, type and location

Location: Various

Status: The "Small Generator Projects" construction package was placed on hold in 2003 after the contract was bid and only one bidder responded, with a bid twice the Engineers' Estimate. It was considered an excessive amount, with too little competition available at the time to obtain a real competitive bid. Since then, environmental and EPA clean air code changes are requiring a redesign of portions of the generator contract. These design change requirements are being researched and will be incorporated into a new contract that is now planned to re-bid in 2007. Availability of new generators that can meet both the new Tier 2 to Tier 4 clean air requirements and still meet the County's specifications is being resolved. New procurement contracts may be required, which will affect new schedules being developed. Once resolved, rebidding will be pursued immediately.

Project 423506 Emergency Generator Program

for on site emergency generators, and design and install the generators. . . This request is a high priority because the stations are not in regulatory compliance, and there is a need to reduce or eliminate the occurrence of overflows due to power outages. . . Coordinate with Ron Kohler and other East Operations and Maintenance staff. Conduct a predesign evaluation of alternatives for providing permanent on site emergency power at the 2 stations, and design and implement the preferred alternative. . . Note: East Section staff have obtained budget approval for this project. The approved budget includes \$150,000.00 in year 2000 to conduct predesign and design and includes \$700,000.00 in 2001 to purchase and install the generators. . . EWR 318: The Duwamish, East Marginal and West Marginal pump stations do not have permanent on site emergency generators. The stations also do not have dual power feed and a portable generator must be hauled to the stations in the event of a power outage. This request is to have the CIP Section design, purchase and install new generators at these pump stations. . . Federal and State Regulations and design standards require 2 independent sources of power for wastewater facilities. These pump stations do not meet that requirement and this project is a high priority to bring the facilities into compliance. . . 3/3/00 Completed and submitted year 2001 rate-setting documentation--Attachment B: 2001 Rate CIP Request form and Attachment F: 2001 Proposed Rate - Capital Project Budget Cash flow Form. . . 3/7/00 Met with management analyst to set up the following sub projects under the IBIS project number 423506: Participated in Capital Systems Team meeting. . . Coordinate with Mike Fischer, Sam Greene and others in Maintenance. Design and install new permanent on site generators at Duwamish, East Marginal and West Marginal pump stations. The estimated sizes and cost to purchase and install are: Duwamish: @ 750 Kw; \$600,000. East Marginal: @ 300 Kw; \$300,000. West Marginal;

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Milestone 7.1 Contingency
Scope Construct generator building, install new generators and related equipment at Duwamish, East and West Marginal pump stations.

Location:
Status: Construction has been completed and new systems have been transferred to operations. Settling Contractor claim.

325

Milestone
Scope

Location:
Status:

Project 423515 CSO Control & Improvement
Category: A20600, A20620 Combined Sewer Overflow (CSO)
Council District: 02,04,08,All
LTD Actual 2006 \$559,385

** Schedule			2008	2009	2010	2011	2012	2013	Total
Start	Finish								
01/01/01	12/31/12	1 Development	\$0	\$392,886	\$0	\$0	\$631,233	\$0	\$1,024,120
01/01/06	06/30/10	2 Predesign	\$0	\$1,456,897	\$1,707,596	\$0	\$4,065,337	\$589,799	\$7,819,629
01/01/07	12/31/11	3 Final Design	\$0	\$60,716	\$385,658	\$2,092,568	\$2,845,454	\$7,419,591	\$12,803,986
01/01/08	12/31/15	4 Implementation	\$0	\$2,054,743	\$2,183,158	\$203,560	\$9,798,857	\$10,932,047	\$25,172,364
01/01/16	12/31/19	5 Close Out	\$0	\$0	\$25,198	\$31,144	\$4,378	\$460,904	\$521,624
01/01/10	06/30/10	6 Land/ROW	\$0	\$923,708	\$951,419	\$0	\$0	\$1,491,413	\$3,366,540
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$0	\$4,888,949	\$5,253,029	\$2,327,272	\$17,345,260	\$20,893,753	\$50,708,263

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- Milestone 1.1 Project # assigned to PM
Scope This project funds the responsibility for comprehensive facility planning and for broader RWSP reporting required by Council in Ordinance 13680, including development of an Annual RWSP Water Quality Report, and development of the 3-year Review of the entire RWSP. The project provides a "holding" area for planned project budgets in the 6 year window. When the planned projects are transferred to the Major Capital Program for implementation, we will seek a unique project number for them.

Location: Various in Seattle
Status: On schedule

- Milestone 0.0 New
Scope Plan, design, build and commission a CSO treatment facility to control both University and Montlake CSOs

Location: University Regulator by University Hospital
Status: Placeholder in capital budget

- Milestone 0.0 New
Scope Plan, design, build and commission a CSO treatment facility to control both Hanford and Lander CSOs.

Location: Seattle, along Duwamish River
Status: Placeholder in capital budget.

- Milestone 0.0 New
Scope Reimburse WSDOT for pipeline.

Location: Near King St., along new Viaduct
Status: Uncertainties about the Viaduct Replacement alternative leave this questionable.

- Milestone 0.0 New
Scope Assess impact of CSO flows captured and transferred to West Point. Develop plant improvements if needed.

Location: West Point Plant in Seattle
Status: Placeholder in 6 year capital window

Project 423368 Sediment Managment Plan
Category: A20600, A20650 Combined Sewer Overflow (CSO)
Council District: 04,05,08
LTD Actual 2006 \$5,597,349

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
12/19/00	12/31/07	1 Development	\$8,633	\$0	\$0	\$0	\$0	\$0	\$8,633
06/01/02	12/31/07	2 Predesign	\$321,107	\$0	\$0	\$0	\$0	\$0	\$321,107
01/01/03	12/31/09	3 Final Design	\$1,736,080	\$1,169,155	\$507,224	\$57,964	\$0	\$0	\$3,470,422
06/01/06	06/30/11	4 Implementation	\$1,125,328	\$8,448,961	\$19,796,589	\$2,084,813	\$12,308	\$0	\$31,467,997
07/01/12	12/31/12	5 Close Out	\$0	\$0	\$110,478	\$98,140	\$313,032	\$0	\$521,650
		6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$3,191,147	\$9,618,115	\$20,414,290	\$2,240,916	\$325,340	\$0	\$35,789,809

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Milestone 3.6 Final Design Meeting with other Agencies
Scope This project will implement the Countys participation in the Lower Duwamish Waterway Superfund site MOA and Administrative Order on Consent (AOC) and clean up the other contaminated sites under state MTCA voluntary cleanup authority. . Tier 1: Program plan (complete). Tier 2: Studies. Develop a model to predict contamination from CSOs needed for cleanup decisions. Provide other project support to implement Teir 3 projects. Tier 3: Site remediations. . SMP identified and laid out a plan for 7 sites that need remediation. The sites scheduled for cleanup in this budget cycle are included in this budget.

Location:King Street Center
Status: Tier 1 complete. Tier 2 75% complete. Denny at design stage. Tier 3 site in planning.

Project 2008-010 RWSP Local Systems I/I Implementation
Category: A20700, A20700 Inflow & Infiltration
Council District: All
LTD Actual 2006 \$0

** Schedule			2008	2009	2010	2011	2012	2013	Total
Start	Finish								
		1 Development	\$3,219	\$0	\$0	\$0	\$0	\$0	\$3,219
		2 Predesign	\$1,189,112	\$11,457	\$0	\$0	\$0	\$0	\$1,200,569
01/01/08	02/28/10	3 Final Design	\$157,813	\$3,344,817	\$656,102	\$76,781	\$0	\$0	\$4,235,512
03/01/10	10/31/11	4 Implementation	\$420,988	\$33,831	\$9,949,020	\$10,342,829	\$174,421	\$19,089	\$20,940,179
11/01/11	12/31/14	5 Close Out	\$0	\$19,308	\$0	\$0	\$124,265	\$32,136	\$175,709
		6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$1,771,132	\$3,409,414	\$10,605,122	\$10,419,610	\$298,686	\$51,225	\$26,555,188

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Milestone 1.3 Award of consultant contract & NTP
Scope Implementation of Initial I/I Reduction Projects consists of Sewer Sytem Evaluation Survey (SSES) work (smoke testing, CCTV inspection, dye testing), predesign, design, and construction of 2 to 3 initial I/I reduction projects; as well as pre and post-construction flow monitoring for project evaluation. Each project is large enough to potentially reduce or eliminate the need for a planned conveyance facility expansion.

Location: Countywide

Status: New project request to implement I/I projects in 2008.

Project 2008-009 Reclaimed Water - Comprehensive Plan

Category: A20900, A20920 Water Reuse

Council District: All

LTD Actual 2006 \$0

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/01/08	12/31/09	1 Development	\$549,333	\$583,495	\$0	\$0	\$0	\$0	\$1,132,828
		2 Predesign	\$343,333	\$0	\$0	\$0	\$0	\$0	\$343,333
		3 Final Design	\$600,833	\$0	\$0	\$0	\$0	\$0	\$600,833
		4 Implementation	\$0	\$618,858	\$0	\$0	\$0	\$0	\$618,858
	06/01/10	5 Close Out	\$0	\$442,042	\$0	\$0	\$0	\$0	\$442,042
		6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$1,493,500	\$1,644,395	\$0	\$0	\$0	\$0	\$3,137,895

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Milestone Scope

The scope of the Reclaimed Water Comprehensive Plan (Plan) addresses the development and structure of a reclaimed water program for the region. The Plan will address policy issues regarding why a reclaimed water system(s) should be developed in the region, and how the costs and benefits of a reclaimed water system should be accounted for; management issues that discuss the roles the County and component agencies will have in producing and distributing reclaimed water, and how the capital and O&M should be recouped; and technical issues related to treatment standards for potential uses, availability, and compatibility of reclaimed water facilities with the operation of the existing wastewater conveyance and treatment infrastructure.

Location: Entire regional wastewater service area

Status: Development of the reclaimed water comprehensive plan is scheduled to begin in January 2008.

Project 423258 Future Water Reuse
Category: A20900, A20920 Water Reuse
Council District: All

LTD Actual 2006 \$3,384,378

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/01/05	12/31/10	1 Development	\$495,919	\$382,454	\$225,102	\$0	\$0	\$0	\$1,103,475
01/01/05	12/31/07	2 Pre-design	\$15,471	\$0	\$0	\$0	\$0	\$0	\$15,471
01/01/05	12/31/07	3 Final Design	\$914,491	\$252,903	\$16,414	\$0	\$0	\$0	\$1,183,808
01/01/05	12/31/09	4 Implementation	\$276,904	\$907,908	\$595,724	\$0	\$0	\$0	\$1,780,536
01/01/06	12/31/10	5 Close Out	\$20,261	\$0	\$357,634	\$0	\$0	\$0	\$377,895
01/01/05	12/31/06	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$1,723,046	\$1,543,266	\$1,194,874	\$0	\$0	\$0	\$4,461,186

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Milestone
Scope

Complete a feasibility study for RW by Dec 2007. Initiate R and D, marketing planning, focus groups, renegotiate agreements and plan for reclaimed water use or continued use.

Location:
Status:

Additionally, this project supports the King County Water Supply Planning effort initiated by King Co and Cascade Water Alliance. It covers that portion of the project that is attributable to WTD and in particular to water demand forecasts and associated methodology.

Also supported is minimal funding of water conservation projects that provide a benefit to the Wastewater Treatment Division.

100

Milestone
Scope

4.1 NTP for Construction / Implementation
Complete feasibility study, maximize the use and production of reclaimed water, execute agreements, develop marketing and public education plan, develop research and demonstration plan, work directly with local water purveyors and customers. Respond to Executive initiatives as necessary.

Location:King County
Status: Feasibility study underway, Discussions with water purveyors scheduled for mid-year. Working with the UW on a R and D program, KC staff developing marketing and public education materials

200

Milestone
Scope

4.1 NTP for Construction / Implementation
This project is in support of the King County Water Supply Planning effort initiated by King Co and Cascade Water Alliance. The project is for that portion of the project that is

Location:Countywide
Status:

Project 423258 Future Water Reuse
attributable to WTD and in particular to water demand forecasts
and associated methodology.

300

Milestone 4.1 NTP for Construction / Implementation
Scope This subproject will provide minimal funding of water conservation
projects that provide a benefit to the Wastewater Treatment
Division.

Location: Countywide

Status: Minimal activities to search for water saving opportunities in WTD

Project 423600 Brightwater Reclaimed Water Pipeline
Category: A20900, A20920 Water Reuse
Council District: 03
LTD Actual 2006 \$1,704,811

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
01/01/04	09/27/04	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
09/27/04	06/02/06	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
06/02/06	07/22/08	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/01/06	10/31/10	4 Implementation	\$5,092,201	\$5,681,057	\$7,413,643	\$324,144	\$0	\$0	\$18,511,046
11/01/10	12/31/12	5 Close Out	\$5,007	\$5,304	\$32,866	\$337,672	\$0	\$0	\$380,849
		6 Land/ROW	\$103,000	\$79,567	\$81,955	\$0	\$0	\$0	\$264,522
		7 Contingency	\$0	\$0	\$3,346,184	\$1,384,333	\$0	\$0	\$4,730,517
		Total:	\$5,200,208	\$5,765,929	\$10,874,648	\$2,046,149	\$0	\$0	\$23,886,934

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Milestone Scope 4.1 NTP for Construction / Implementation
 A conveyance system will be developed to convey reclaimed water from the Brightwater site to a number of water reuse opportunities. Issues critical to the success of the reclaimed water component of the Brightwater Project are: a. Minimize cost, b. Optimize the project schedule, c. Meet stakeholder and County commitments, and d. Minimize risk. Given that the Brightwater Treatment Plant will produce an effluent that, except for disinfection, meets the requirements for Class A reclaimed water, reclaimed water will be conveyed from the Brightwater Treatment Plant to the Sammamish Valley and other potential customers via the following: 1. a new pipeline from the North Creek Portal and IPS to North Creek Pump Station, 2. use of one of the existing North Creek forcemains to the Sammamish Valley 3. New local distribution piping to reclaimed water customers specifically in the Sammamish Valley area, and 4. Facilities in the Brightwater Tunnel and at one or more effluent portal site to ultimately serve potential reclaimed water customers west of the North Creek Portal in Bothell.

Location: The Brightwater Reuse Facility will be located on the Brightwater Treatment Plant site. The site is in unincorporated Snohomish County. The pipeline under design and ultimately to be constructed will be included in the the BW Tunnels from the Treatment plant to the IPS in Bothell, west to the Ballinger Portal as well as south from the IPS to the NCPS then to the York PS and finally to the WRGC.

Status: 86% of new backbone pipeline (56,000 feet) and 76% of the 0+total backbone construction forecast budget (\$14.5M) are under construction and/or out for bid at this time. Final design of the remaining pipeline section from the North Creek Pump Station to the York Pump station will be completed in 2007. This section will utilize the existing East North Creek Force Main and extend into the Sammamish Valley with a new pipeline; construction permits expected to be granted by the end of December 2007.

Project 423086 Water Quality Capital Outlay
Category: A21100, A21100 Central Functions
Council District: All

LTD Actual 2006 \$8,714,443

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
		1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/01/01	12/31/14	4 Implementation	\$2,091,795	\$386,050	\$397,631	\$409,560	\$421,847	\$434,502	\$4,141,384
		5 Close Out	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$2,091,795	\$386,050	\$397,631	\$409,560	\$421,847	\$434,502	\$4,141,384

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Milestone 4.1 NTP for Construction / Implementation
Scope The project covers the capital outlay portion of the Capital Asset Management Plan (CAMP), which includes equipment purchases for new or changing projects. The Wastewater Treatment Division follows general criteria in determining the replacement of assets: the maintenance history of the equipment, the manufacturer's recommended useful life, quantifiable benefits, intangible cost/benefits, and the future impact of the decision to replace equipment in order to reduce maintenance costs are all factors which are considered in the equipment replacement plans.

Location: Countywide
Status: On Schedule

Project 423493 Information Systems
Category: A21100, A21100 Central Functions
Council District: All

LTD Actual 2006 \$12,819,950

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
12/01/00	12/31/10	1 Development	\$0	\$63,484	\$656	\$0	\$0	\$0	\$64,140
02/01/01	01/15/11	2 Predesign	\$300,896	\$429,338	\$51,385	\$298,260	\$0	\$0	\$1,079,879
03/01/02	01/15/11	3 Final Design	\$880,409	\$788,298	\$1,028,024	\$324,914	\$354,892	\$0	\$3,376,538
03/15/02	03/15/13	4 Implementation	\$4,250,232	\$2,192,065	\$894,650	\$1,979,433	\$1,195,087	\$213,767	\$10,725,234
01/01/03	06/14/13	5 Close Out	\$22,650	\$277,514	\$6,901	\$0	\$259,535	\$100,996	\$667,596
01/01/05	12/15/06	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$983,454	\$0	\$185,484	\$597,026	\$1,765,964
		Total:	\$5,454,186	\$3,750,700	\$2,965,071	\$2,602,607	\$1,994,998	\$911,789	\$17,679,351

subproj

102
Milestone 1.2 Project Plan Complete
Scope This project funds multiple subproject intended to develop a 10 year comprehensive plan for maintenance, repair and replacement of existing computer systems and installation of a new computer system and to prevent the development of isolated and/or redundant computer systems.

Location:
Status: Standard control systems, laboratory data systems, network design, process data historian, and cyber-security tasks have been largely completed as of 2006. System and standards implementation across WTD remains the primary goal in the next five years.

103
Milestone 1.1 Project # assigned to PM
Scope This Subproject will provide the CSO Predictive Control software and dedicated hardware. New software will be purchased to model the current conveyance system. Standard operating procedures will be developed so that the system model always reflects the actual conveyance system. This Subproject will provide three new local workstations, and two remote workstations.

Location: West Point Treatment Plant. 1400 West Utah Street
Status: CSO PCM project will begin as planned in 2007. The data modeling and predictive control technology will be coordinated and integrated with the new WTD Control System Standards and selection of Emerson Ovation as the Supervisory Process Control System.

104
Milestone 7.1 Contingency
Scope

Location: Westpoint Treatment Plant. 1400 West Utah Street
Status:

Project 423493 Information Systems

Milestone 3.4 90% Design thru Design Review
Scope Creation of WTD control system standards and the design and implementation of control system replacement at East Section (South Plant and East Offsite). Specific Plant control upgrades include replacement of aging and high-risk control system elements such as the MicroVAX Forney system DCS core system, aged PLCs and related I/O hardware.

Location:WTD Control System Standards will be developed during Phase 1 in a design engineering effort centered at 201 South Jackson, King Street Center building. Initial control systems replacement implementation will be located at South Plant (Renton), and East Section Conveyance sites.

Status: Phase 1 'control system standards development' is complete, though standards will be generated and improved during the duration of the project. Phase 2 is complete and includes design and implementation of the 'backbone' Module 1 Supervisory Process Control System and related control system network and power, as well as a 'proof-of-concept' vertical Module 2 – part of process area ACC2, South Primary. This phase was amended to include support of the installation of the aging and high-risk MicroVAX data historian as well as related projects in support of developing standards requirements. Phase 3 initiated in Q4 2006 and will complete designs for the Plant and Offsite, Supervisory Process Control System (SPCS) and Regional-SPCS designs, and manage construction and system configuration of modules 1 and 2A. A planned Phase 4 will close the project at South Plant with final design and implementation of control replacement at each remaining ACC (following lessons learned from the Module 2A pilot).

106

Milestone
Scope Process flow data, as well as the data from biological and chemical analyses, are collected by WTD plants and used in the management of the plant facilities and processes. Data within each plant is collected by manual means, from laboratory analyses, and from monitoring instruments. The use of this data for managing plant facilities and processes comes under the category of decision support. That is, this data is used by professional plant managers and supervisors in making decisions about the planning, scheduling, and dispatching of equipment and facilities within the plants.

Location:Westpoint Treatment Plant. 1400 West Utah Street. . South Treatment Plant. 1200 Monster road. . South Treatment Plant. 1200 Monster Road

Status: Project complete as of November 2006. Project in close-out.

The existing means of storing and accessing operations decision support information in WTD plants is outdated and is far more labor-intensive than more modern means already in fairly common use today. The hardware and software in use by WTD is 4-5 years beyond a well-managed replacement program. The implementation of an Operations Decision Support System for each major operational facility will replace all existing plant data management systems. The implementation will take place in three Parts:

Part I replaces the existing Lab Auto Reporting System (LARS) at South Plant and the Plant Report System ("Lab System") at West Plant. It replaces these existing systems with a standards-setting system that includes both state-of-the-art database and web-based software

Project 423493 Information Systems
 applications. The technical architecture and components to be deployed with the Operations Decision Support System are intended to serve as the standards for all decision support - that is, all analytical and reporting processes - throughout the Division. The technical architecture and components will also be acquired and implemented so as to be consistent with Countywide information technology standards.

110

Milestone 0.0 New
Scope The process control systems at West Section (West Point Treatment Plant and West Offsite) are scheduled for replacement. This project will be designed, planned and implemented with respect to the WTD Control System Standards as developed in sub-project 104, and will thus be designed in a modular approach which will allow phased installation based upon business case evaluation. The supervisory control system and control system infrastructure, including power and communications, will be replaced with modern, robust equipment. Control processors and selected devices will be replaced based upon Business Case Evaluation (BCE) balancing compliance to Standards, including evaluating life-cycle costs.

Location:West Point Treatment Plant
Status: January 2007: No change to expected project start date in 2009. February 2006: Project pre-planning stages only as of 2006. WTD Control System Standards project is incorporating input from West Section plant and Offsite staff so as to move seamlessly into this project following design work for East Section in 2006/2007.

303

Milestone 1.3 Award of consultant contract & NTP
Scope Support development of a mirror database of Environmental Labs data (LIMS) for WTD and WLRD, as well as environment indicator database creation, networking, and data publishing using standards developed in this project as well as the WTD Control System Standards project (subproject 104), and WTD Laboratory Information Management System (LIMS, subproject 106).

Location:WTD KSC, 2nd and Jackson Street
Status: Assessment phase is complete with reporting and team review and recommendations scheduled in Q1 2007.

401

Milestone 4.1 NTP for Construction / Implementation
Scope Develop the Asset Management Program (AMP) and to design and install the Asset and Maintenance Management System (AMMS). The AMMS shall be developed as a computer system that will assist WTD staff in the successful implementation of the asset and maintenance management strategies and business processes enhancements designed to achieve the mission, goals and objective of the AMP.

Location:KSC; STP; West Point Treatment Plant. 1400 West Utah Street
Status: AMMS pilot is ready and in demonstration to WTD plant staff. AMMS server will be located at WTD KSC and use will formally kick-off in Q1 2007, with improvement and expansion development cycles to follow into 2008.

405

Milestone 4.1 NTP for Construction / Implementation
Scope Maintenance Strategy Development
 Create criticality classes
 Create weighting algorithms

Location:ALL - WTD Enterprise
Status:

Project 423493 Information Systems
 Determine asset criticality
 Develop potential maintenance routines
 Establish maintenance frequency
 Estimate costs
 Determine Risk Factors
 Complete Failure Modes and effects Analysis
 Calculate risk costs
 Select Maintenance routine
 Business Case Evaluation
 Complete condition assessments
 Collect maintenance data
 Complete Failure Modes and Effects Analysis
 Make repair, refurbish or replacement recommendation
 Prepare recommendation justification
 Operations Modifications
 Document operational changes required to reduce risk or asset damage
 Establish program to implement operational fixes
 Implement Plan
 Provide Training

901

Milestone
Scope

1.2 Project Plan Complete
 The WTD Control System Standards project and Brightwater project have identified the need for the completion of a secure, robust, high-speed fiber-optic control system network joining plant-to-plant and Offsite locations. The goal is to build a data network for process and flow control and monitoring, accessible from any secure site along the network.
 Based on our evolving WTD Control System Standards, this data network will have a secure connection to our WTD enterprise application network for enhanced data management, analysis and planning.
 System architecture, network topography, targeted performance rates (data throughput and user load) and Information Portal requirements will be largely defined by user requirements as a result of current work at WTD process control and Lab replacement systems, and the WTD Control System Standards Development project.
 The project will be completed in 3 phases: Phase 1: Pre-design - survey of existing network technology, capacity and topology; review of WTD data historian and information portal standards; user requirement definition. Establish requirements and cost for leasing and/or building-out final fiber-optic connections.
 Brightwater work likely will take priority due to accessibility during excavation, as well as the business requirement to ensure control connectivity between

Location:WTD Conveyance network and plant, pump station, and regulatory station facility sites.

Status: January 2007: Project team meeting kick-off held in Q4 2006, with key stakeholder meetings scheduled in Q1 2007. Regional communication system requirements for WTD will be derived from this project and fed to the sub-project 104, control system standards efforts.

Project 423493 Information Systems
Brightwater and South Treatment Plant as the new plant comes online. Phase 2: Design - integrate systems design with WTD IT and County ITS projects, as well as those at Section level (plant and offsite). Phase 3: Contract with fiber-optic network service provider and ITS, installation - procure hardware, software, install, train and test.

911

Milestone 1.2 Project Plan Complete
Scope Adding redundant "star" process control fiber-optic network, and positioning redundant hub out of flood zone.

Location: West Point Treatment Plant

Status: Project planning for design and installation in 2007.

Project 423551 Electrical / I&C
Category: A21200, A21201 Minor Asset Management
Council District: 05,All
LTD Actual 2006 \$10,088,135

** Schedule										
Start	Finish		2008	2009	2010	2011	2012	2013	Total	
01/01/02	12/31/12	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/01/01	02/26/07	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/01/01	12/31/12	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/01/01	12/31/12	4 Implementation	\$1,912,084	\$2,119,797	\$2,213,865	\$2,902,124	\$3,087,726	\$3,180,358	\$15,415,953	
01/01/01	12/31/13	5 Close Out	\$244,916	\$267,228	\$354,044	\$474,402	\$506,023	\$521,204	\$2,367,816	
01/01/02	12/31/12	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$2,157,000	\$2,387,025	\$2,567,908	\$3,376,526	\$3,593,749	\$3,701,562	\$17,783,770	

subproj

Milestone Scope 4.1 NTP for Construction / Implementation
 The Electrical/Instrumentation and Control Program includes Asset Management projects that enhance the treatment process; overhaul or replace failed electrical/I&C equipment or electrical/I&C equipment that has reached the end of its useful life; improve safety, reliability, efficiency or increase redundancy of electrical/I&C systems; and code required upgrades for electrical/I&C equipment.

Location: Projects are located throughout the Wastewater Treatment Division's facilities.
Status: N/A: See individual sub-projects for specific information.

This "Roll-Up Project" funds a number of electrical/I&C sub-projects that vary in dollar value, but are typically less than \$500,000. The number of sub-project fluctuates from as projects are completed and new sub-projects are added through the Engineering Work Request (EWR) process. As a result, sub-projects contained within this project number are in various states of design, from planning to construction. In addition, this project number is used to initiate electrical/I&C sub-projects throughout the year that develop into stand alone projects with their own unique project number.

73

Milestone Scope

Location:
Status:

74

Milestone Scope

Location:
Status:

82

Project	423551	Electrical / I&C	
	about 100 flow meters. About 1/5 of the flow meter inventory (20 meters) is replaced every year. After 5 years, the oldest meters are at the end of their useful life, and the replacement cycle begins again.		
534			
<u>Milestone</u>			<u>Location:</u>
<u>Scope</u>	refer 423594 in construction		<u>Status:</u>
550			
<u>Milestone</u>	5.4 IBIS Project Number closed / closeout complete		<u>Location:</u>
<u>Scope</u>	The scope of this project is to automate the operation of the Return Activated Sludge (RAS) valves feeding the aeration basins at the WPTP. The six 30-inch RAS butterfly valves are currently adjusted manually by hand. The addition of automatic operator and remote controls will provide better process control , and reduce the amount of staff labor currently required to adjust the valve positions. The RAS valves are used to balance the flow between each of the aeration basins, and require adjustment as plant flows vary.		<u>Status:</u> Electrical installation is almost complete. Two of the six actuators have been installed. PLC programming and SCS screen development work continues.
555			
<u>Milestone</u>			<u>Location:</u>
<u>Scope</u>	Investigate location of underground conduit and cable damage and replace.		<u>Status:</u> Work is schedule to start on February 5, 2005 and be completed by February 16, 2007.
561			
<u>Milestone</u>	4.1 NTP for Construction / Implementation		<u>Location:</u>
<u>Scope</u>	Determine a replacement strategy for obsolete ambient air monitors at Off-site facilities with new standardized equipment. Review all regulator and pump stations for installation of LEL/H2S monitors, review feasibility of installing monitors in each station, installation of alarm indicators. Determine costs & on-going field maintenance impacts.		<u>Status:</u> Contract will be issued 3rd quarter of 2007
578			
<u>Milestone</u>	5.1 As-Built Dwgs. & Sched's. / O&M's / Tech Pubs		<u>Location:</u> 1200 Monster Road. Renton WA
<u>Scope</u>	2-1-07 The current PBX telephone network at the STP is at the end of there useful life. Replacement parts for the current equipment is no longer available, while reliability and expandability have become issues in the last several years. The PBX upgrade proposed by the Information & Telecommunications Services (ITS) Division would upgrade the equipment by two generations, provide additional phone numbers, and solve the reliability issues. ITS strongly supports upgrading the old PBX network.		<u>Status:</u> 2-1-07 KC IT recently made a decision on the best course of action, they have decided to procure and install a new PBX system and use a different procurement method than the one used previously.
580			

Project 423551 Electrical / I&C

Milestone
Scope

Location:West Point Treatment Plant
Status:___

581

Milestone 2.2 30% Design thru Design Review
Scope Motor Control Centers (MCC) 704-MCC04, 05, 06, 07, and 08 and others withing the RSPB will be removed and replaced with new MCCs, in coordination with the Co-Gen Replacement Project and the Screens Project. Obsolete or abandoned MCCs will be removed and old, deteriorated MCC will be replaced with new.

Location:WPTP
Status:___Project is on "hold" pending resolution of design changes of the Co-Generation program and the Screenings Room final designs by others. Exploration is being conducted as to how to maintain the equipment in operation until final designs can continue.

594

Milestone 4.3 Substantial Completion
Scope Part A: The current interface and communication link s between the Connecticut Regulator Station and the Kingdome Regulator Station are very tenuous at best. West Offsite Staff have stated that controls should be verified and the regulator gate controller be upgraded to current County standards. PLCs located at the Connecticut R.S.control the Kingdom R.S.gate via a telemetry link between the 2 stations; this information is passed via telemetry link to West Point. West Offsite Staff have requested that the Kingdom R.S. gate control reside at the Kingdome R.S.

Location:
Status:___Information gathering, installation of the bubblers to confirm extent of saltwater inflow problem.

603

Milestone
Scope West Section old rain gauges.

Location:West Section (and likely East Section and Brightwater) WTD Conveyance facilities, such as pump stations and regulatory stations.
Status:___Close-out; waiting on final data report verifying correct operations via SCADA data collection.

612

Milestone
Scope The requirement of this EWR is to provide funding for Consultant Services to evaluate all power distribution equipment throught out WTD eighty plus (80+) facilities to determine the short circuit calculation; confirm circuit breaker settings, fues sizing and establish standards that will bring WTD distribution equipment into compliance with NFPA70E Arc Flash Standards. This work includes identifying equipment to be labeled and performed coordination study.

Location:
Status:___

637

Milestone
Scope

Location:
Status:___

638

Project 423551 Electrical / I&C

Milestone 3.7 100% Plans Prepared / Ready / Approved
Scope Proposed Solution: Abandon existing conduit/ductbank in place and install new ductback with a spare conduit run. Coordinate design with electrical upgrades and generator/odor control project. Coordinate construction with electrical upgrades project.

Location: Murray Ave. Pump Station

Status: 2-15-07

The water leak has not resumed this winter. The leak repair project is holding while the Murray Ave Pump Station Electrical Upgrade installation contractor either completes their work currently underway at the pump station, or the leak re-appears. If it re-appears during construction, the work order contractor will initiate the repair immediately. Source of the leak is unknown.

643

Milestone
Scope Remove and replace the existing standby emergency power diesel generator at the North Mercer Island Pump Station. Work shall include such demolition as is necessary to gain access to the existing generator for removal and for installation of the new generator. Repair and restoration of building and services as may be required.

Location:

Status: Kick-off meeting will be held in 1st Qtr., 2007. Design plan still on schedule.

646

Milestone 1.2 Project Plan Complete
Scope Problem Statement: The high starting current (over 1200 A) for pump 2 and 3 motors is creating a large electrical arc across the starter contactors. The large arc results in an accelerated deterioration of the contactors. This also results in a breaker trip.

Location:

Status: Preliminary design phase

Status: The station was designed as and normally operates as a fill and draw station with the lead pump cycling on and off several times in an hour. During higher flows the second or third pumps will be called in to duty two or three times an hour. This control strategy and the resulting problem with the starters has been an issue since the station became operational.

EWR 577 rebuilt the starters in August of 2004 and purchased spare parts. The spare parts were recently used to replace the damaged equipment earlier this year. This equipment is normally to last at least 20 years.

Proposed Solution:

Consequence: Starters are failing prematurely. Frequent call outs to reset breakers in which staff is not able to determine the reason for the tripped breaker. O&M Staff believes it is transient related to arc that is causing the breaker to trip. Pump 1 is being used at a higher rate because pumps 2 and 3 cannot be reliably run in the lead position. This increases the wear on pump 1.

Project 423551 Electrical / I&C

The fill and draw control strategy causes more wear and tear on equipment and associated piping from the frequent starts, which ultimately results in increased maintenance and in addition, uses more electricity.

Proposed Solution: Replace the two stage starters on all motors with VFDs and modify the control strategy to flow and/or level control.

Benefits: A more even wear on the motors and pumps; fewer call outs; more efficient energy usage; and a more reliable facility.

657

Milestone 5.4 IBIS Project Number closed / closeout complete
Scope Problem Statement: There is no leak detection or alarming for the York PS air relief valves.

Location: York Pump Station
Status: Equipment ordered, will receive this month

Consequence: Pressure created when the swapping flows from the 48" to the 30" FM hammers the air relief valves, until they eventually fail. Once the valves fail, the seal that is designed to keep water from leaking into the vault no longer works. The vault then fills with sewage that leaks through the seal. The vault eventually fills with sewage and overflows onto land where it flows toward the pump station.

Status: There have been three failures of the air relief valve in the last 15 years. Council is aware of this problem and has suggested a monitoring program to alert staff when sewage is able to leak past the air relief valve seal. At this time Engineering is unable to fix the root cause of the problem, but will design a solution in the future upgrade to the facility. This is viewed as an interim solution.

Recommended Solution:
Install leak detection and alarming.
Connect alarm system to SCADA.
Establish response plan to alarm.

Roger Browne's Recommendation
WTD procure equipment and then provide equipment to WO construction contractor for installation.

Schedule Constraints: It is preferred to complete the installation this fall before the rainy season

663

Milestone
Scope

Location:
Status:

668

Project 423551 Electrical / I&C

Milestone
Scope

Location:
Status: _____

691

Milestone
Scope

Location:
Status: _____

Project 423552 Mechanical Upgrade & Replacement
Category: A21200, A21202 Minor Asset Management
Council District: 05,All
LTD Actual 2006 \$8,395,199

** Schedule										
Start	Finish		2008	2009	2010	2011	2012	2013	Total	
01/01/02	12/31/12	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
06/17/02	12/31/12	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12/16/03	12/31/12	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10/27/04	12/31/12	4 Implementation	\$2,590,199	\$2,278,352	\$2,302,654	\$2,837,014	\$3,153,225	\$3,247,822	\$16,409,266	
01/01/05	12/31/13	5 Close Out	\$293,801	\$373,898	\$429,164	\$539,512	\$556,451	\$573,145	\$2,765,972	
01/01/02		6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$2,884,000	\$2,652,250	\$2,731,818	\$3,376,526	\$3,709,677	\$3,820,967	\$19,175,237	

subproj

Milestone 4.1 NTP for Construction / Implementation
Scope The Mechanical Upgrade and Replacement Program includes Asset Management projects that enhance the treatment process; overhaul or replace failed mechanical equipment or mechanical equipment that has reached the end of its useful life; improve safety, reliability, efficiency or increase redundancy of mechanical systems; and code required upgrades for mechanical equipment.

Location:All WTD facilities

Status: NA - see individual subprojects for specific information.

This "Roll-Up Project" funds a number of mechanical sub-projects that vary in dollar value, but are typically less than \$500,000. The number of sub-project fluctuates from as projects are completed and new sub-projects are added through the Engineering Work Request (EWR) process. As a result, sub-projects contained with this project number are in various states of design, from planning to construction. In addition, this project number is used to initiate mechanical sub-projects throughout the year that develop into stand alone projects with their own unique project number.

71

Milestone
Scope

Location:
Status:

72

Milestone
Scope

Location:
Status:

75

Project	423552	Mechanical Upgrade & Replacement	
	<u>Milestone</u> <u>Scope</u>		<u>Location:</u> <u>Status:</u>
76			
	<u>Milestone</u> <u>Scope</u>		<u>Location:</u> <u>Status:</u>
77			
	<u>Milestone</u> <u>Scope</u>		<u>Location:</u> <u>Status:</u>
81			
	<u>Milestone</u> <u>Scope</u>		<u>Location:</u> <u>Status:</u>
85			
	<u>Milestone</u> <u>Scope</u>		<u>Location:</u> <u>Status:</u>
86			
	<u>Milestone</u> <u>Scope</u>		<u>Location:</u> <u>Status:</u>
87			
	<u>Milestone</u> <u>Scope</u>		<u>Location:</u> <u>Status:</u>
89			
	<u>Milestone</u> <u>Scope</u>		<u>Location:</u> <u>Status:</u>
92			
	<u>Milestone</u> <u>Scope</u>		<u>Location:</u> <u>Status:</u>
94			
	<u>Milestone</u> <u>Scope</u>		<u>Location:</u> <u>Status:</u>
457			
	<u>Milestone</u> <u>Scope</u>	5.4 IBIS Project Number closed / closeout complete Conduct a comprehensive evaluation and assessment of each hydraulic control panel and develop a proposal to repair leaking panels. Replace or refurbish failing equipment	<u>Location:</u> <u>Status:</u> Construction contract is in closeout
461			

Project 423552 Mechanical Upgrade & Replacement

Milestone 5.4 IBIS Project Number closed / closeout complete
Scope The sluice and flap gates at some of the Off-Site Regulator Stations are showing signs of corrosion and may require refurbishment or replacement. There are also multiple regulator stations that are experiencing corrosion problems. Inspections will be concluded in the first quarter of 2003. Work orders will be issued after the inspections are concluded.

Location:

Status: The sluice and flap gates at some of the Off-Site Regulator Stations are showing signs of corrosion and may require refurbishment or replacement. There are also multiple regulator stations that are experiencing corrosion problems. Inspections will be concluded in the first quarter of 2003. Work orders will be issued after the inspections are concluded.

494

Milestone 4.1 NTP for Construction / Implementation
Scope Replace and relocate gates and guides.

Location: West Point Treatment Plant

Status: Awaiting a report on gates and guides after plant sht down and inspection summer of 2007.

572

Milestone
Scope Design and install C3 strainer for the C3 water system

Location:

Status: Current

589

Milestone
Scope

Location:

Status:

601

Milestone
Scope Raw Sewage Pumps 1, 4, & 6 were installed in 1965 and are at the end of their useful life. Pumps 1 & 4 have experience vibration issues and pump 4 has diminish capacity. Assess, Schedule and implement a multi-year replacement program for these pumps and associated ancillary equipment (motor, drives etc.). Include up-sizing pump 6, 40 mgd pump in keeping with Brown & Caldwell 2004 Re-rating Evaluation.

Location:

Status:

626

Milestone
Scope The offices and rooms that house the Forney system in the SP Pump building are overheating, this happens in both the winter and the summer. The building is currently used as the headquarters/offices of the Day Ops work group and is very uncomfortable for them as well as being detrimental to the control equipment in the ACC. Day Ops is scheduled to move out of the Pump Bldg. and into the new Administration building in mid-2008. In 2001 our Engineering section developed a Predesign Report that outlined problems and deficiencies in the Pump Bldg. and recommended solutions. Some of the recommendations were implemented but others were set aside for future implementation. This EWR request is to develop and implement a short term solution to address the heating/cooling issues until mid-2008

Location:

Status: This project is in implementation. Final design was completed in early January 2007.

Project 423552 Mechanical Upgrade & Replacement

when staff move out of the building.
 Once future use of the building is determined we may want to implement the remaining recommendations of the 2001 Predesign Report, depending on if they are still relevant.

This work should be accomplished prior to the hot summer weather

Proposed Solution:
 Provide thermal comfort for staff and to allow control equipment to function properly. Plant staff have reset the set points to provide immediate relief but this will not be adequate in the summer months.
 Installation of individual air conditioning units is a possible cost effective solution.

631

Milestone 1.2 Project Plan Complete
Scope The generator fuel storage tanks do not meet the 24-hour fuel storage capacity standard.

Location:
Status: Predesign phase

Proposed Solution:
 Remove existing fuel storage tanks and replace with new larger tanks to meet the 24-hour fuel storage capacity standard.

640

Milestone
Scope

Location:
Status:

641

Milestone
Scope This project will be imbedded within the Brightwater construction of the summer of 2008; design and replacement the corroded gates with SS gates

Location:
Status: Design completed; waiting construction

644

Milestone 4.1 NTP for Construction / Implementation
Scope Use internal engineering and maintenance staff to determine whether a pick point lifting eye or a jib crane is needed at South Henderson, Juanita Bay, Sunset pump stations and Alki TP. Lifting eyes will be installed by with operating funds, while jib crane installations will use capital funds.

Location:
Status: Planning inspections

648

Milestone 4.5 Final Completion / Acceptance
Scope Replace existing diffusers at Carkeek and Richmond Beach.
 Replace anodes on Alki outfall.

Location:
Status: Currently in design and permitting

649

Project 423552 Mechanical Upgrade & Replacement

Milestone 4.2 Construction/Maintenance/PO/Service/GFE/CFE
Scope Incorporate access tees and cathodic protection to forcemain design

Location:
Status: Design done

650

Milestone 5.1 As-Built Dwgs. & Sched's. / O&M's / Tech Pubs
Scope Replace selected bridge hangers

Location:
Status: planned as change order work to the Hidden lake project

651

Milestone
Scope

Location:Richmond Beach Pump Station. 2640 NW 198th ST
Status:

653

Milestone
Scope

Location:
Status:

672

Milestone
Scope

Location:
Status:

685

Milestone
Scope

Location:
Status:

Project 423553 Odor / Corrosion Control
Category: A21200, A21203 Minor Asset Management
Council District: 04,05,All
LTD Actual 2006 \$1,266,925

** Schedule			2008	2009	2010	2011	2012	2013	Total
Start	Finish								
01/01/02	12/31/12	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/01/05	12/31/12	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/01/05	12/31/12	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/01/05	12/31/12	4 Implementation	\$85,653	\$450,882	\$464,409	\$574,009	\$591,230	\$1,014,944	\$3,181,128
01/01/05	12/31/13	5 Close Out	\$17,347	\$79,567	\$81,955	\$101,296	\$104,335	\$179,108	\$563,608
01/01/02		6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$103,000	\$530,450	\$546,363	\$675,305	\$695,564	\$1,194,052	\$3,744,735

subproj

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Milestone 4.1 NTP for Construction / Implementation
Scope The Odor/Corrosion Control Program includes Asset Management projects that correct, mitigate or repair the effects of H2s damage; overhaul or replace failed odor/corrosion control equipment or odor/corrosion control equipment that has reached the end of its useful life; improve safety, reliability, efficiency or increase redundancy related to odor/corrosion control systems; and code required upgrades for odor/corrosion control equipment.

Location:
Status: N/A: See individual sub-projects for specific information.

This "Roll-Up Project" funds a number of odor/corrosion control sub-projects that vary in dollar value, but are typically less than \$500,000. The number of sub-project fluctuates from one year to the next as projects are completed and new sub-projects are added through the Engineering Work Request (EWR) process. As a result, sub-projects contained with this project number are in various states of design, from planning to construction. In addition, this project number is used to initiate odor/corrosion control sub-projects throughout the year that develop into stand alone projects with their own unique project number.

56

Milestone 4.3 Substantial Completion
Scope Develop and publish a comprehensive plan for the implementation of odor and corrosion control projects describing WTD's facilities, condition assessments, existing

Location:
Status: Comprehensive plan will be reviewed to determine if updates are needed.

Project	423553	Odor / Corrosion Control	
	odor control systems and necessary system upgrades.		
64			
<u>Milestone Scope</u>	3.4	90% Design thru Design Review Design new duct routing and install new ductwork.	<u>Location:</u> Carkeek Pump Station 1201 NW Carkeek Road Seattle, WA <u>Status:</u> 90% Design
495			
<u>Milestone Scope</u>	5.4	IBIS Project Number closed / closeout complete Install Linabond, or similar, protective liner to the inside of the Primary Effluent Drop Structures at the West Point Treatment Plant.	<u>Location:</u> West Point Treatment Plan <u>Status:</u> The West Primary structure was lined in the summer of 2006. The East structure will be lined during hte summer of 2007.
595			
<u>Milestone Scope</u>	5.2	Transfer to Operations In September 1998, the South Treatment Plant's Dewatering Wet Scrubbers were placed into service, using a combination of caustic soda and sodium hypochlorite for odor scrubbing. At roughly the same time, the caustic-impregnated carbon originally placed in the tower (1985) was replaced with activated carbon. During the initial years of the wet scrubber operation, no problems with the Dewatering carbon tower was observed.	<u>Location:</u> South Treatment Plant <u>Status:</u> A system assessment has been conducted. As-built information and inspection of equipment location/operation was also reviewed and verified. Based upon the assessment, system operation and modification recommendations were prepared by design consultant, submitted, reviewed and approved by STP staff. Approved recommendations were packaged into five work orders. Execution of work orders would be issued under existing Mechanical & Electrical Work Order Construction Contracts.
654			
<u>Milestone Scope</u>	4.3	Substantial Completion WTD will provide Dirk Apgar as co-principal investigator of the project. He will provide direction to the team of volunteers regarding the areas of investigation, research and final product development.	<u>Location:</u> <u>Status:</u> This project has completed the literature search and the draft report on the state of the art in odor and corrosion control for the Water Environment Research Foundation.
695			
<u>Milestone Scope</u>			<u>Location:</u> <u>Status:</u>

Project 423554 Process Replacement / Improvement
Category: A21200, A21205 Minor Asset Management
Council District: 02,04,11,All
LTD Actual 2006 \$7,931,411

** Schedule										
Start	Finish		2008	2009	2010	2011	2012	2013	Total	
01/15/03	12/31/13	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
08/19/04	12/31/13	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
03/21/06	12/31/13	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11/15/06	12/31/13	4 Implementation	\$2,232,362	\$2,040,552	\$2,104,592	\$2,406,900	\$2,648,941	\$2,638,855	\$14,072,202	
01/01/07	12/31/13	5 Close Out	\$275,580	\$347,374	\$354,044	\$406,871	\$469,506	\$573,145	\$2,426,520	
01/01/05	12/31/13	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total:	\$2,507,943	\$2,387,926	\$2,458,636	\$2,813,772	\$3,118,447	\$3,212,000	\$16,498,722	

subproj

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|---|---|
| <p><u>Milestone</u> 4.1 NTP for Construction / Implementation
 <u>Scope</u> The Process Replacement /Improvement projects in this asset management project are designed to enhance or improve the treatment process by adding redundancy, improving safety, or enhancing maintenance practices.</p> | <p><u>Location:</u>
 <u>Status:</u> This is a continuing project which includes a number of sub-projects that range in status from planning through implementation.</p> |
|---|---|

- 79

<p><u>Milestone</u> <u>Scope</u></p>	<p><u>Location:</u> <u>Status:</u></p>
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- 80

<p><u>Milestone</u> <u>Scope</u></p>	<p><u>Location:</u> <u>Status:</u></p>
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- 91

<p><u>Milestone</u> <u>Scope</u></p>	<p><u>Location:</u> <u>Status:</u></p>
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- 519

<p><u>Milestone</u> 2.2 30% Design thru Design Review <u>Scope</u> Install new pump mixing and piping adjacent to the RSBT. Install new piping and specially designed and placed mixing nozzles inside the tank. Install an in-line grinder on the pump suction. The existing air mixing system will be modified to provide "sweetening" air for the sludge should that be required.</p>	<p><u>Location:</u> <u>Status:</u> Working on 30% design</p>
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- 576

Project 423554 Process Replacement / Improvement

Milestone
Scope

The primary hot water (PHW) loop and the secondary hot water (SHW) loops serving the Boilers and Raw Sewage Pumps at the West Point Treatment Plant do not function optimally without extensive operator intervention under certain flow and ambient temperature conditions. Problems with the PHW loop include difficulty controlling PHW loop temperature, overheating the PHW loop due to inadequate cooling strategy in the Raw Sewage Pump loop, and lack of responsiveness of boiler controls. These problems will become more severe when the existing cogeneration system, which contributes heat to the system, no longer functions. Mechanical piping and controls will be reconfigured, and Raw Sewage Pump backup cooling will be provided by radiators currently used for cooling the existing cogeneration engines, which are beyond their useful life and will be removed. VFDs are being added to fans and circulation pumps on RSP loop radiators. The EWR originally requested capital funding to design and construct the modifications to the heating and cooling loops to support a new Co-Gen Project (see IBIS 423474). The project was originally to be implemented with the cogen project.

Location:
Status:

616

Milestone
Scope

5.4 IBIS Project Number closed / closeout complete
The scope of this project is to replace eighteen valves on VSA Train 1 in the OGADS facility at the West Point Treatment Plant. The scope of work includes removal of the valves currently in service, installation of County furnished valves, and rebuilding the valves removed from Train 1

Location:
Status: Construction contract work completed January 2007. Rebuild of valves and actuators by plant staff will proceed over next 6-9 months.

647

Milestone
Scope

5.4 IBIS Project Number closed / closeout complete
The West Point Treatment Plant uses a 0.72 MGD sand filter to reclaim secondary effluent for use in the plant's non-potable water system. The existing water reuse system has no redundancy. Taking the sand filter offline will result in an increase in City supplied water consumption, Costs are estimated to be approximately \$2000/day. This project will install a second water reuse system (500gpm capacity) be installed to provide redundancy. Grant funding from Seattle Public Utilities is available for this project.

Location:
Status: Construction complete.

654

Milestone
Scope

3.3 60% Design thru Design Review
see above

Location: West and East Offsite pump stations
Status: Current

656

Project 423554 Process Replacement / Improvement

Milestone 4.2 Construction/Maintenance/PO/Service/GFE/CFE
Scope KCWTD Eastside Interceptor, Section 10 (Wilburton Tunnel) is in conflict with the currently proposed configuration of the I405 widening project. Originally, WSDOT's I405 expansion did not conflict with Eastside Interceptor because WSDOT was accommodating the adjacent railroad right of way. With the transfer of the adjacent railroad property rights to King County, WSDOT no longer had to accommodate costly railroad conditions.

Location:Wilburton Tunnel

Status: This project will become a stand alone project in 2008 and will be re-named 2008-003.

671

Milestone
Scope

Location:

Status:

687

Milestone
Scope

Location:

Status:

688

Milestone
Scope

Location:

Status:

Project 423555 Pipeline Replacement
Category: A21200, A21204 Minor Asset Management
Council District: All

LTD Actual 2006 \$5,074,245

** Schedule									
Start	Finish		2008	2009	2010	2011	2012	2013	Total
03/05/02	12/31/13	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
03/31/02	12/31/13	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/01/07	12/31/13	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0
03/02/06	12/31/13	4 Implementation	\$1,538,750	\$1,768,442	\$1,857,636	\$2,152,535	\$2,217,111	\$2,537,361	\$12,071,836
01/01/07	12/31/13	5 Close Out	\$230,049	\$308,800	\$327,818	\$379,859	\$391,255	\$447,770	\$2,085,550
		6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$0	\$44,558	\$0	\$0	\$0	\$0	\$44,558
		Total:	\$1,768,799	\$2,121,800	\$2,185,454	\$2,532,395	\$2,608,366	\$2,985,130	\$14,201,944

subproj

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Milestone 4.1 NTP for Construction / Implementation
Scope The pipeline replacement projects in this asset management project are primarily treatment support systems. This piping conveys fluids such as potable and non-potable water, sludge, gases, chemicals, and air.

Location:

Status: This is a continuing project which includes a number of sub-projects that range in status from plannin through implementation.

78

Milestone
Scope

Location:

Status:

153

Milestone 3.3 60% Design thru Design Review
Scope This is to have the pipe inspected, and replace as needed.

Location:

Status: This project is currently in design phase.

596

Milestone
Scope

Location:

Status:

598

Milestone 4.3 Substantial Completion
Scope 4 new tanks, new pumps, new drain lines, power, I&C, etc.

Location:

Status: currently at about 30% design, as of Feb 2007

604

Project 423555 Pipeline Replacement

Milestone 4.1 NTP for Construction / Implementation
Scope Approximately 175 manholes will be replaced with in the City of Seattle.

Location: Approximately 16 basin areas throughout the original City of Seattle boundaries

Status: Due to scheduling conflicts Nordic Construction has requested that the replacements begin around April 2007. The initial 140 Manholes and frames have been purchased and are inventoried at Olympic Foundry in Seattle. We will order additional manholes to adjust for the 60 day order period. Street Use permits have been issued 130 manhole locations and will obtain the balance later in 2007.

635

Milestone
Scope

Location:

Status:

658

Milestone 5.3 Retainage release
Scope Excavation of the existing forcemain including protection of the adjacent waterline. Installation of a new access port within a manhole or vault, cleaning and inspection of the forcemain.

Location:

Status: Currently in design

661

Milestone
Scope

Location:

Status:

669

Milestone
Scope

Location:

Status:

681

Milestone
Scope

Location:

Status:

Project 423556 Structures / Site Improvement
Category: A21200, A21206 Minor Asset Management
Council District: 05,All
LTD Actual 2006 \$5,812,369

** Schedule			2008	2009	2010	2011	2012	2013	Total
Start	Finish								
01/01/01	12/31/12	1 Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/01/02	12/31/12	2 Predesign	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/01/01	12/31/12	3 Final Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0
01/01/01	12/31/12	4 Implementation	\$1,698,386	\$1,954,572	\$2,026,115	\$2,220,387	\$2,244,525	\$2,537,361	\$12,681,346
01/01/02	12/31/13	5 Close Out	\$78,769	\$151,021	\$142,092	\$295,446	\$346,784	\$447,770	\$1,461,880
01/01/02	12/31/12	6 Land/ROW	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		7 Contingency	\$282,245	\$15,610	\$16,079	\$16,561	\$17,058	\$0	\$347,553
		Total:	\$2,059,400	\$2,121,203	\$2,184,285	\$2,532,395	\$2,608,366	\$2,985,130	\$14,490,779

subproj

Milestone 4.1 NTP for Construction / Implementation
Scope The Structure/Site Improvement includes Asset Management projects that improve, modify or upgrade structures, buildings and property owned by the Wastewater Treatment Division. For example, replacing, modifying or upgrading cranes, ladders, water lines, on site drainage systems or repairing structural damage from earthquakes. The program also includes projects that increase safety, minimize vandalism and code required upgrades.

Location:
Status: NA - see individual subprojects for specific information.

This "Roll-Up Project" funds a number of structure/site improvement sub-projects that vary in dollar value, but are typically less than \$500,000. The number of sub-project fluctuates from as projects are completed and new sub-projects are added through the Engineering Work Request (EWR) process. As a result, sub-projects contained with this project number are in various states of design, from planning to construction. In addition, this project number is used to initiate structure/site improvement sub-projects throughout the year that develop into stand alone projects with their own unique project number.

13

Milestone
Scope

Location:
Status:

70

Milestone
Scope

Location:
Status:

Project	423556	Structures / Site Improvement	
84			<u>Location:</u> <u>Status:</u>
	<u>Milestone Scope</u>		
150			<u>Location:</u> <u>Status:</u> Design engineer consultant selected Feb 2007, predesign to begin in March 2007.
	<u>Milestone Scope</u>	4.1 NTP for Construction / Implementation Included will be: structural reinforcement of roof to support new HVAC units, new modified downdraft paintbooth, new crane, rollup door, modifications to prep area, modification of lube oil storage room, etc.	
531			<u>Location:</u> <u>Status:</u> The decision was made in 2006 not to award a construction contract which included this work. The project is currently on hold pending an assessment of other alternatives, which may include other locations for cogeneration facilities.
	<u>Milestone Scope</u>		
547			<u>Location:</u> SE corner of Monster Rd SW and Oakesdale Ave SW, Renton, WA <u>Status:</u> Project is in implementation
	<u>Milestone Scope</u>	4.5 Final Completion / Acceptance Determine the cause of the leaks and design and construct measures to mitigate the leakage.	
575			<u>Location:</u> South Treatment Plant <u>Status:</u> Design completed. Construction contract advertised and awarded. Contract NTP issued. Anticipate substantial completion early second quarter 2007
	<u>Milestone Scope</u>	Remove and replace safety handrails.	
606			<u>Location:</u> <u>Status:</u> Construction complete October 2006. Awaiting invoice for final payment.
	<u>Milestone Scope</u>	5.4 IBIS Project Number closed / closeout complete Install a permanent ladder to access the upper roof on the Administration Building at the West Point Treatment Plant. Re-use ladder previously fabricated for the Facilities Services Bldg. Modify as required.	
608			<u>Location:</u> <u>Status:</u> The project is currently in the implementation phase. We are waiting for drier weather before installing the motor mounts, since earc pump must come off line for a week or so.
	<u>Milestone Scope</u>	Proposed Solution: two alternatives are currently being considered. The first is to construct dedicated and possibly collapsable platforms in the pump room that will facilitate safe access to the drive shafts. Another (preferred) alternative is to replace the existing motor mounts (steel plates) with an open frame that would raise the motors and provide access to the U-joints from the motor romm instead of the pump room. The drive shafts would also need to be lengthened.	
619			<u>Location:</u> all facilities in division <u>Status:</u> 2-5-07 predesign
	<u>Milestone Scope</u>	5.4 IBIS Project Number closed / closeout complete 2-5-07 develop guidelines and procedures to ensure fuure WTD facilities have landscapes with maintenance	

Project	423556	Structures / Site Improvement	
<u>Milestone</u>	4.3	Substantial Completion	<u>Location:</u>
<u>Scope</u>	Design and construct a platform for accessing the carbon tower to replace carbon media.		<u>Status:</u> Final design
676			<u>Location:</u>
<u>Milestone</u>			<u>Status:</u>
<u>Scope</u>			
678			<u>Location:</u>
<u>Milestone</u>			<u>Status:</u>
<u>Scope</u>			
679			<u>Location:</u>
<u>Milestone</u>			<u>Status:</u>
<u>Scope</u>			
680			<u>Location:</u>
<u>Milestone</u>			<u>Status:</u>
<u>Scope</u>			
684			<u>Location:</u>
<u>Milestone</u>			<u>Status:</u>
<u>Scope</u>			
686			<u>Location:</u>
<u>Milestone</u>			<u>Status:</u>
<u>Scope</u>			
690			<u>Location:</u>
<u>Milestone</u>			<u>Status:</u>
<u>Scope</u>			
692			<u>Location:</u>
<u>Milestone</u>			<u>Status:</u>
<u>Scope</u>			
696			<u>Location:</u>
<u>Milestone</u>			<u>Status:</u>
<u>Scope</u>			
1111			<u>Location:</u> King County
<u>Milestone</u>	0.0	New	<u>Status:</u> Active- ongoing year-to-year
<u>Scope</u>	Remove old roofing systems and replace with new roofing systems.		

Project	423556	Structures / Site Improvement	
			requirements in keeping with the maintenance staff's staffing plans and availability.
620			
<u>Milestone</u>	3.3	60% Design thru Design Review	<u>Location:</u>
<u>Scope</u>	N/A		<u>Status:</u> Design review to be followed by a work order package for construction in summer 2007
627			
<u>Milestone</u>	5.4	IBIS Project Number closed / closeout complete	<u>Location:</u>
<u>Scope</u>		Remove old roofing systems and replace with new roofing systems.	<u>Status:</u> Active
629			
<u>Milestone</u>	5.4	IBIS Project Number closed / closeout complete	<u>Location:</u>
<u>Scope</u>		Remove old roofing systems and replace with new roofing systems.	<u>Status:</u> Active
630			
<u>Milestone</u>			<u>Location:</u>
<u>Scope</u>		The Sodium Hypochlorite filling station at Carkeek pump station does not have a containment area. As a consequence, spills associated with filling the tanks can run into the nearby stream. The stream is used for salmon spawning and as a migratory path.	<u>Status:</u>
		A temporary berm has been installed in an attempt to contain spill, but does not eliminate the potential for chemicals spills reaching the stream.	
		Proposed Solution: Design and construct a chemical containment area with a catch basin and sump. Install drain piping to transfer chemicals from the sump into the existing chemical containment in the building.	
		Installation will be similar to containment system at Kenmore pump station.	
632			
<u>Milestone</u>	5.4	IBIS Project Number closed / closeout complete	<u>Location:</u>
<u>Scope</u>		Erosion related to surface water run-off is undermining the building structure at Brandon Outfall Station. . . Proposed Solution:. Improve the drainage around the facility to eliminate erosion. . . Acces the structural integrity of the building foundation to determine impact of erosion. Design and construct improvements to stabalize soils and sturctue as needed. . .	<u>Status:</u> Closeout.
645			