CITY OF PORTLAND
ENVIRONMENTAL SERVICES

1211 SW Fifth Avenue, Room 800, Portland, Oregon 97204-3713 (503) 823-7740, FAX (503) 823-6995 Dean Marriott, Director

August 28, 1998

Oregon Department of Environmental Quality
Water Quality Division
2020 SW Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

Attention: Richard Santner

SUBJECT: Amended Stipulation and Final Order (ASFO) No. WQ-NWR-91-75
City of Portland Combined Sewer Overflow (CSO) Program
Annual Progress Report

Enclosed please find two copies of the subject report submitted per the requirements of the subject ASFO. The report covers Fiscal Year 97-98, ending June 30, 1998.

This submittal is responsive to Section 12.a. (11) of the ASFO which states:

By no later than September 1 of each year that this Amended Order is in effect, the Respondent shall submit to the Department and to the Commission for review an annual progress report on efforts to eliminate untreated CSO discharges, subject to the storm return frequencies specified in Section 12.a of this Amended Order. These annual reports shall include at a minimum work completed in the previous fiscal year and the work scheduled to be completed in the current fiscal year.

If you have questions regarding this year's report, please contact me (823-7115) or Lissa Druback (823-7735).

Sincerely yours,

Becky Kreag

Becky Kreag
Manager
System Development Group

Enclosure

c: Dean Marriott, BES/Director
Lissa Druback, BES/Systems Development Group
Lester Lee, BES/Systems Development Group
Lee Klingler, BES/CIP Management Group
Joan Saroka, BES/Communications

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COMBINED SEWER OVERFLOW PROGRAM

ANNUAL PROGRESS REPORT TO DEQ

ASFO WQ-NWR-91-75
FISCAL YEAR 97-98
JUNE 30, 1998

ENVIRONMENTAL SERVICES
CITY OF PORTLAND
CLEAN RIVER WORKS

Printed on recycled paper.

CITY OF PORTLAND
COMBINED SEWER OVERFLOW PROGRAM
ANNUAL PROGRESS REPORT
FISCAL YEAR 97-98
(ASFO WQ-NWR-91-75)

CITY OF PORTLAND
BUREAU OF ENVIRONMENTAL SERVICES

JUNE 30, 1998

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I. Summary

The following summarizes the City of Portland's efforts to minimize and/or eliminate CSO discharges to the Columbia Slough and Willamette River during the past fiscal year:

- Continued work on the Willamette River Basin CSO Predesign Project (WRPP), which will refine the CSO control alternatives identified in the current CSO Management Plan for the Willamette River Basin component of the CSO Control Plan.

- Completed the work related to the renewal of the NPDES Permit for the Columbia Boulevard Wastewater Treatment Plant (CBWTP) and the Columbia Slough and Willamette River basin CSO discharges.

- Continued to implement the Cornerstone Projects to reduce stormwater inflow into the combined sewer system.

- Completed the final design on the Columbia Slough Consolidation Conduit (CSCC), the Columbia Boulevard Wet Weather Treatment Facilities (CBWWTF) Influent Pump Station, the Columbia Boulevard Wet Weather Treatment Facilities (CBWWTF), and the CBWWTF Outfall.

- Started construction of Segments 1, 2, and 5 of the CSCC, the CBWWTF Dry Weather Primaries, and the CBWWTF Chlorination System Improvements.

- Continued CSO operation and maintenance activities to reduce the environmental impact of current CSO discharges.

- Continued implementation of a comprehensive public information/public education/public involvement program.

The program to control CSOs is on schedule and within the projected budget. The current program budget is $700 million (January 1993 dollars) with expenditures to date of $122.6 million (actual dollars) and an estimated cost at completion of $684 million (January 1993 dollars).

The following summarizes the planned efforts to minimize and/or eliminate CSO discharges to the Columbia Slough and Willamette River during the current fiscal year:

- Perform the third year of the WRPP. (This work involves stakeholder and technical process activities designed to re-evaluate and refine the current Willamette River Basin CSO Control Plan in terms of costs and benefits to City rate payers.)

- Integrate the WRPP with the City's Integrated Watershed Planning (IWP) Program.

- Design and/or construct additional CSO Cornerstone Projects (stormwater infiltration drainage sumps, downspout disconnection, stream diversions, and local sewer separation).

- Continue to construct the major CSO control facilities associated with the Columbia Slough Component of the CSO Control Plan.

- Continue current CSO operation and maintenance activities to reduce the environmental impact of current CSO discharges.

- Continued implementation of the public information/education/involvement programs.

II. Introduction

The City of Portland Bureau of Environmental Services (BES) manages the planning, design, construction, and implementation (startup) of all capital projects by means of a Capital Improvement Program (CIP) Management Group. The CIP Management Group programs and tracks capital improvement projects in the six categories identified in the following listing:

Category	Projects Listed in FY97-98	Projects Open in FY97-98
Combined Sewer Overflow	246	97
Maintenance and Reliability	148	97
Mid-County Sewer	30	13
Sewage Treatment	123	76
Surface Water Management	59	32
Systems Development	105	68
Total	711	383

At the end of FY 97-98 there were 711 individual projects listed in the CIP, with 383 projects listed as "open projects" during the year. "Open projects" are all active projects that were not closed prior to the beginning of FY 97-98.

The 246 CSO projects (see Appendix A) represent the CSO Control Plan as it currently exists within the City of Portland. This report focuses on the accomplishments on those projects. It should be noted, however, that there are projects in other CIP categories that will have a positive impact on the control and/or handling of CSO.

This report is submitted to the Oregon Department of Environmental Quality (DEQ) pursuant to Amended Stipulation and Final Order (ASFO) No. WQ-NWR-91-75 issued to the City of Portland (City) by DEQ on August 11, 1994. As stipulated in the ASFO, this

report summarizes the City's efforts to eliminate unauthorized CSO to the Columbia Slough and the Willamette River during the past fiscal year and identifies the work planned under the CSO Program for the current fiscal year.

The ASFO requires that the report be submitted to DEQ by September 1 of each year that the ASFO remains in effect.

III. Background

At the time the original Combined Sewer Overflow SFO was issued in 1991, approximately 60% of Portland's population was being served by a combined sewer system that collected both municipal wastewater (residential, commercial, and industrial sewage) and municipal stormwater (roof runoff; street and paved surface runoff; and urban stream runoff). Currently, when there is a storm event in the City, runoff typically exceeds the carrying capacity of the combined sewer system causing overflows to both the Columbia Slough and the Willamette River through up to 52 individual outfalls.

These overflows are in violation of Federal clean water regulations and have been deemed a significant source of water pollution in both the Columbia Slough and the Willamette River. Before control work began in 1990, the City's CSO outfalls discharged on average approximately 6.0 billion gallons of CSO annually. Approximately 20% of the content of this annual overflow was projected to be untreated municipal wastewater. As of June 30, 1998, due to significant interceptor system improvements, completion of numerous diversion structure modification projects, and the completion of many of the Cornerstone Projects, approximately 2.9 billion gallons/year of CSO has been eliminated based on current model projections.

The current ASFO is essentially a 20-year compliance schedule to reduce overflow from the City's combined sewer system. It includes the following major milestones:

- By December 1, 2000, the City must eliminate all CSO discharges to the Columbia Slough that violate provisions of the ASFO.

- By December 1, 2001, the City must eliminate all CSO discharges that violate provisions of the ASFO at 20 of the CSO outfalls (including the Columbia Slough outfalls) consistent with the Facilities Plan approved by the Environmental Quality Commission (EQC).

- By December 1, 2006, the City must eliminate all CSO discharges that violate provisions of the ASFO at 16 of the remaining CSO outfalls, consistent with the Facilities Plan approved by the EQC.

- By December 1, 2011, the City must eliminate all remaining CSO discharges that violate provisions of the ASFO , consistent with the Facilities Plan approved by the EQC.

Also included in the ASFO are a number of intermediate milestones, including the submittal of annual progress reports to DEQ by September 1 of each year that the ASFO is in effect. The reports are to summarize the work performed during the past fiscal year and identify the work planned for the current fiscal year to eliminate discharges that violate the provisions of the ASFO.

IV. Past Fiscal Year Activities

This section summarizes the CSO abatement efforts for the period beginning July 1, 1997, and ending June 30, 1998. The section is divided into the following subsections:

ASFO Milestones Achieved
Program Planning Accomplished
Control Projects Planned, Designed, and/or Constructed
CSO Operation and Maintenance Activities
Public Involvement Activities

A. ASFO Milestones Achieved

Two additional milestones were scheduled and accomplished during the fiscal year. This means that all 35 scheduled SFO/ASFO milestones to date have been met on time since the signing of the initial SFO. The two milestones met during the past year are:

- Submittal of Final Engineering Plans and Specifications for the construction work to eliminate untreated discharges at 20 CSO discharge points, including all discharge points to the Columbia Slough. (This submittal was made on December 1, 1997, as scheduled.)

- Start of the construction work to eliminate untreated discharges at 20 CSO discharge points, including as discharges points to the Columbia Slough. (This work began on June 18, 1997 with the award of the first of a number of construction contracts for the Columbia Slough CSO work.)

B. Program Planning Accomplished

Program planning continues to be an important aspect of the work being performed under the CSO Program. Planning is important to insure that the technical requirements of the ASFO are met within the schedule and budget constraints of the CSO Program. Important

planning activities accomplished during the fiscal year were as follows:

- Internal meetings and meetings with DEQ related to the WRPP and the City's IWP Program.

- Internal meetings and meetings with Willamette River Stakeholders Task Force (WRSTF), to develop and provide technical and nontechnical information related to the progress on the WRPP and the IWP Program. (The WRSTF, which includes neighborhood, business, industry, civic, environmental, city, and regulatory representatives, has been providing guidance on the WRPP and IWP Program. After the City's Willamette River Basin CSO Control Plan is fully defined, the WRSTF will be making recommendations to the Portland City Council and the Bureau of Environmental Services on how to best implement the plan. Five formal meetings were held during the fiscal year.)

- Continued the WRPP, which will refine the CSO control alternatives identified in the current CSO Management Plan and perform a ten percent design of the recommended projects. Planning is scheduled to be completed by June of 1999, with the ten percent design to be completed by December 1999. The results of the WRPP will be integrated into the City's IWP Program.

  An important component of the WRPP work was a two-day meeting with a group of National experts from across the country (The Advisory Committee) to present the work of the WRPP and receive feedback on the merits of the work relative to the control of CSO in the Willamette River Basin. The recommendations of the committee, which reflect a more integrated watershed approach in the Willamette basin, were published and presented to BES staff, BES management, and the WRSTF.

C. CSO Control Projects Planned, Designed and/or Constructed

As noted in Section II, 97 of the 246 projects in the City's CIP directly related to the CSO Program were active during the fiscal year. To be "active" a project must have been in at least one of the following project phases:

Predesign
Design
Advertise/Bid
Construction
Close Out/Startup

A review of the schedules in the Appendix A information will provide a visual indication of

the status of each of the 97 projects. The following is a narrative summary for some of the major projects and project groups:

Downspout Disconnections

Continued with the voluntary program in most of the Columbia Slough Watershed and disconnected 5,256 downspouts at 2,319 residences. Completed the Fiske B Basin mandatory program, raising the disconnection rate to over 80 percent of the roof area in the basin. Began mandatory programs in the St. Johns A, St. Johns B, Oregonian, and Oswego basins.

Stormwater Infiltration Sumps

Continued to construct sumps in the Willamette River Watershed, with a total of 113 sumps installed during the fiscal year. All of the sumps were installed in the various Taggart basins.

Tanner Creek Stream Separation

Continued to work on the various components (phases) of the Tanner Creek stream separation work. Design work was accomplished on Phases 1 and 2, and construction was performed on Phase 1.

Columbia Slough Consolidation Conduit (CSCC)

The CSCC has seven components of design work (Segments 1, 2, 3A, 3B, 4, 5, & 6). Work was performed on six of the segments during the past fiscal year. Design work was performed on Segments 3A, 3B, & 4; Segments 1, 2, & 5 were bid; construction took place on Segments 1, 2, & 5; and Segment 5 was completed.

Columbia Boulevard Wet Weather Treatment Facilities (CBWWTF)

The CBWWTF has one major design package with seven individual construction packages (Flowmeter Replacement, New Primary Clarifiers, Modification to Wet Weather Primaries, Effluent Pump Station Improvements, CBWTP Chlorination System Improvements, Dechlorination Facility, and Environmental Enhancements). Work was performed on three of the construction packages during the past fiscal year. Bidding and/or construction was performed on the Flowmeter Replacement, the New Primary Clarifiers, and the CBWTP Chlorination System Improvements.

CBWWTF Influent Pump Station

The CBWWTF Influent Pump Station has one design and one construction package. The design was completed and the construction package was bid during the fiscal year.

CBWWTF Outfall

The CBWWTF Outfall has one design package and two construction packages (Outfall and Outfall Clear & Grub). The design was nearly completed and the Clear & Grub construction package was bid during the fiscal year.

Willamette River CSO Predesign Project (WRPP)

The WRPP is a 14 task planning and preliminary design project designed to re-evaluate and refine the current CSO control plan for the Willamette River Basin. The project has the following tasks:

S1 Stakeholders Task Force (41)
S2 Public Outreach Activities (50)
S3 Willamette River Basin Activities (38)
M1 M/W/ESB Support Activities (9)
T1 CSO Pollutant Characterization (95)
T2 Regulatory Issues and Permitting (43)
T3 Water Quality Impact Evaluations (74)
T4 Green Solutions and Inflow Controls (99)
T5 Collection System Optimization (76)
T6 Overflow Treatment Strategy (98)
T7 Identification of Integrated Control Alternatives (64)
T8 Evaluation of Integrated Control Alternatives (1)
T9 Predesign of Selected CSO Control Plan (0)
T10 Project Management (52)

Work was performed on all tasks except Task 9 during the fiscal year. The values in parenthesis after each task description are the total percent complete at the end of the fiscal year. Overall the project was estimated to be 48 percent complete at the end of the year.

D. CSO Operation and Maintenance Activities

Continued implementation of operation and maintenance practices that reduced the impact of CSOs on the receiving streams. Although the following represents the City-wide effort, the majority of this work was performed within the CSO area:

Sewer Cleaning	154 miles
Catch Basin/Inlet Cleaning	9,671 units cleaned
Drainage Sump Cleaning	346 units cleaned
Street Sweeping	36,588 curb miles

E. Public Involvement Activities

Public involvement activities related to CSO Program continued on both the program and the project level during the fiscal year. The activities included general public information activities, general public education activities, Willamette River activities and events, and Columbia Slough CSO activities and events. The following is a summary of the activities and events in each category:

General Public Information

Public Notification/River Alert Signage Program: The City continues the ongoing River Alert Signage program, which began in the summer of 1991. The program includes CSO identification signs. These signs indicate where outfall pipes are located (similar to a NO PARKING sign). It also includes folding signs with the message WARNING: SEWAGE. The folding signs are opened and closed every time there is an overflow from May 15 to October 15 each year. During the winter months the signs remain open with the message in view for boaters and other river users.

The River Alert program also notifies the media (by fax) every time there is an overflow from May 15 to October 15. The Oregonian Newspaper carries an Overflow Icon on the top of the weather page when overflows occur.

Clean River Works Construction Signage: The City now requires contractors to develop and post signage at any sewer system-related construction site with the Clean River Works message to inform the public that the construction is a sewer project designed to keep our rivers and streams clean.

Media Relations: The City uses several techniques to gain media coverage of CSO projects. Media advisories, news releases and media events are used to alert the media about CSO projects. Individual briefings are also held with reporters. The City provides timely, accurate information to all media requests and keeps files of all newsprint and broadcast media coverage.

The City released 49 media notifications regarding the combined sewer overflow program during the fiscal year. Fifteen were related to actual combined sewer overflows during the summer notification period. Other notifications were about Big Pipe construction, Tanner Creek stream diversion construction, work of the Willamette River Stakeholder Task Force, and general information about the program.

Bill Inserts: The City produces a water/sewer bill insert each year to provide 120,000 residential customers with information about the combined sewer overflow program.

General Public Education

Environmental Education: The City provides free water quality education programs to Portland schools and community groups. A special Combined Sewer Overflow presentation is available for students in grades 6 to 12. Students learn the history of the CSO problem, talk about solutions and discuss how to pay for improvements. More than 7,000 students were contacted with information about the combined sewer overflow program.

A plastic model has been developed that physically shows (with the use of water) how overflows actually occur. The Clean River Quest computer game and computer kiosks are still used by schools and community groups. The kiosks have been located at Fred Meyer stores and OMSI.

Web Site: Environmental Services has a home page with the following address: ***www.europa.com/environmentalservices.*** This site has a section about the combined sewer overflow program that includes specific information about the Columbia Slough, Cornerstone, and Willamette River CSO projects.

Willamette River Activities and Events

The City develops public outreach plans with guidance from citizen task forces and committees. Over the past year, with volunteer support, the bureau developed new programs to help citizens learn more about the importance of protecting Portland's streams and rivers. These hands-on programs focused on getting people to learn more about issues impacting rivers and streams. The activities and events included:

- Wild on the Willamette Walks
- Wild on the Willamette Boat Tours
- School Classroom presentations
- H2O Educational Boat Tours
- Presentations at Neighborhood Association meetings

The Willamette River outreach activities successfully educated and involved:

- 641 citizens in 36 neighborhood, business and civic meetings;
- 705 students in 40 school outreach activities;
- 457 citizens in 19 Willamette River Walks and Boat Tours;
- 36, 650 people through 13 community fairs, festivals and events;
- 732 people and students in 38 storm drain stenciling events; and
- 45,950 using 17 newsletters, project fact sheets and letters.

Volunteer Activities: In addition to the activities listed above, 10 citizens volunteers have been trained to help the City broaden outreach activities. Staff members and volunteers

have contacted over 84,595 people, utilized 6,049 volunteer hours and created 144 different partnerships with environmental, business, and a variety of non-profit community organizations.

Willamette River Stakeholder Task Force (WRSTF): The WRSTF is a 24 member committee developed in 1996 to assist the Bureau with a technical and policy review of the Willamette River portion of the CSO program. The group is scheduled to complete their work by June of 1999. At that time, they will present their recommendations to City

Council regarding how the City should move forward to improve water quality and control Willamette River CSO.

The task force met with a National CSO Advisors group and with the Governor's Willamette Basin Task Force to discuss broader issues with the CSO Program and the impact of the Program on the entire Willamette River Basin.

Columbia Slough CSO Activities and Events

Columbia Slough Consolidation Conduit (CSCC): During FY 97-98 the Columbia Slough CSO activities focused on providing the public with information about the construction of CSO related projects. In May 1998, approximately 400 local citizens attended the Big Pipe Picnic which was held as a kick-off event to celebrate the start of construction of the CSCC. The City distributed the Big Pipe Update as a quarterly newsletter throughout the year and continued to meet with the Conduit Steering Committee. A media event was held in July 1998 to give local journalists an opportunity to view the work site for the tunneled portion of the conduit. Several newspaper, radio, and TV stations ran stories about the project. Traffic advisories and construction notices were routinely distributed. Construction also began on a noise berm along Columbia Boulevard which is the first phase of community amenities to be included in the project.

CBWWTF Outfall Project: During the summer of 1998, preliminary work started on the CBWWTF Outfall project. During the course of the year, City staff met several times with the Hayden Island community to provide citizens with information about the project and to get input about potential traffic controls. An informational flyer was distributed to area residents to provide them with information about the project and to solicit their input on traffic control.

Sewer Separation Projects: Design work was completed for the North Portland Sewer Separation Project during the summer of 1998. BES staff attended Neighborhood and Business Association meetings to inform the North Portland community about the project and the potential construction impacts. CSO program staff teamed up with staff from the Downspout Disconnection program to make comprehensive presentations to the community about forthcoming construction and the role citizens play by disconnecting their downspouts.

CBWTP Citizen Advisory Committee (CAC): The CAC, facilitated by BES staff, continued to meet throughout the year. Members of the CAC served on the Conduit Steering Committee and the Outfall Advisory Committee. To keep the committee well educated and informed, committee members are given a presentation each month on various topics related to the CSO construction projects and the treatment plant. Recent topics included a digital photo and construction methodology presentation on construction of the CSCC.

V. Planned Efforts for Current Fiscal Year

The current fiscal year's efforts covers the period beginning July 1, 1998, through June 30, 1999. The work planned for the fiscal year will focus on continued implementation of the Cornerstone Projects throughout the CSO area, the construction/implementation of the control facilities in the Columbia Slough Watershed, and refined planning in the Willamette River Basin. The current year's work is divided into the same five subsections used for the previous year's efforts.

A. ASFO Milestones to be Achieved

Except for the submittal of this CSO Progress Report, there are no major ASFO milestones during the current fiscal year.

B. Program Planning to be Accomplished

Program level planning will continue during the current fiscal year. The activities that will directly impact the CSO Program include:

- Continue work on the WRPP, which will develop the general planning in the 1994 CSO Management Plan to a more detailed predesign of the Willamette River Basin CSO control plan. All remaining task of the WRPP (see Section IV.C) except Task 9 (Predesign of the Selected CSO Control Plan) are scheduled to be completed during the fiscal year.

- Preparation of an Integrated Watershed Plan (IWP) for the City of Portland Willamette Watershed. The purpose of this work is to integrate all the planning and project work that is taking place in the watershed (such as systems development/maintenance, system optimization, CSO control, stormwater management, watershed restoration, Endangered Species Act (ESA) requirements, and flood protection) into a common planning document that can be use to optimize and prioritize the work necessary to best achieve the goal in the watershed. The work accomplished under the WRPP will be "rolled" into the Willamette IWP.

C. CSO Control Projects to be Planned, Designed and/or Constructed

The CSO control projects to be planned, designed and/or constructed during the current fiscal year are defined in the schedule in Appendix A. The work includes the continuation of the inflow reduction projects (including stormwater infiltration sump construction, downspout disconnections, stream diversion projects, and sewer separations) along with major CSO conveyance, storage, and treatment facilities to control the Columbia Slough

outfalls. The schedule shows that over 80 CSO projects will be active during the fiscal year.

D. CSO Operation and Maintenance Activities Planned

Continue the implementation of operation and maintenance practices that reduce the impact of CSOs on receiving streams. This City-wide effort will include the following project work:

Sewer Cleaning:	152 miles
Catch Basin/Inlet Cleaning:	6,030 catch basin/inlets
Drainage Sump Cleaning:	1,572 sumps/sedimentation manholes
Street Sweeping:	45,000 curb miles

E. Public Involvement Activities Planned

The public information, education, and involvement activities planned for the current year include a continuation of the same types of activities conducted during FY 97-98. Some of the programs include:

Wild on the Willamette walks and boat tours
H2O boat tours
Volunteer recruitment and training
CSO classroom education program
Willamette River Stakeholder Task Force
CSO River Alert signage/notification program (signs will be updated this year)
Continued promotion and education outreach for the Downspout Disconnection Program.
CBWTP Citizen Advisory Committee
CSCC construction notifications
Tanner Creek construction notifications
Wild on the Willamette newsletter
Rivers and Streams newsletter

VI. Conclusions

- The City is making very good progress and is on schedule towards the target reduction of CSO's as evident by the above list of accomplishments and the work planned for the current year.

- The ASFO milestones to be accomplished during FY 97-98 were met as planned and as scheduled. This means that all of the 35 SFO/ASFO milestones scheduled to be completed through the end of FY 97-98 have been met on time. The City has every intention of maintaining this perfect record.

- The City conducted substantial operation and maintenance of the CSO collection system during the past fiscal year to reduce the environmental impact of current CSO discharges, and the City plans to continue with this effort during the current fiscal year.

- The public involvement/public outreach activities will continue to expand and improve the public's understanding of the City's combined sewers and the impact of CSO discharges on water quality in the Columbia Slough and the Willamette River. The City will continue to deliver a comprehensive Clean River message through quarterly direct mail newsletters to the rate payers.

- Because of significant interceptor system improvements, completion of numerous diversion structure modification projects, and rapid implementation of the Cornerstone Projects to date, the City has eliminated an estimated 2.9 billion gallons/year of CSO from the Columbia Slough and Willamette River. This represents just over 50% of the total volume of CSO that must be controlled under the conditions of the ASFO.

- The City will be integrating the Willamette River CSO Control Plan with other planning in the City's Willamette Watershed into an Integrated Watershed Plan during FY 98-99.

APPENDIX A

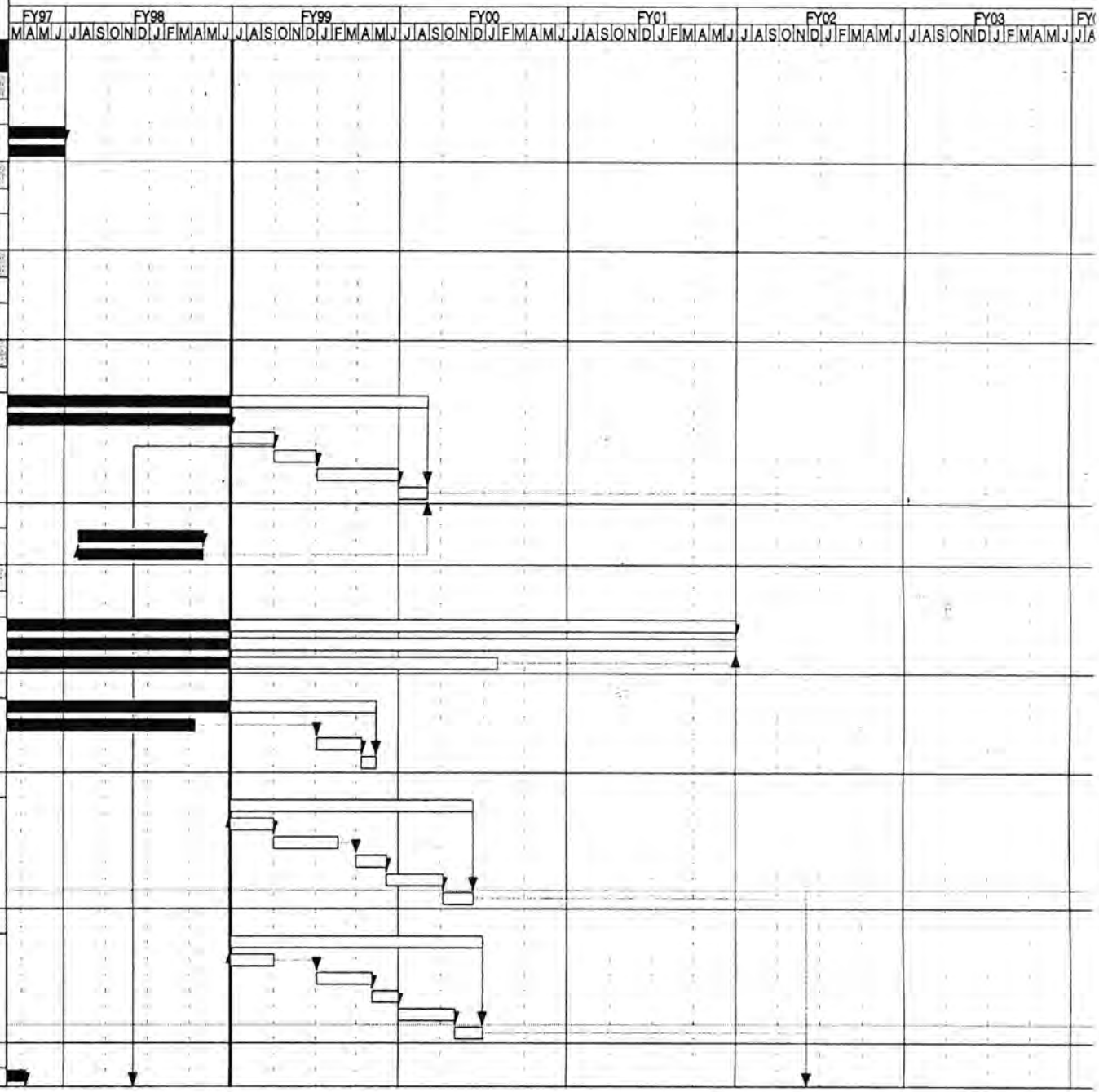
LISTING AND CURRENT SCHEDULE

COMBINED SEWER OVERFLOW PROGRAM PROJECTS

CITY OF PORTLAND BUREAU OF ENVIRONMENTAL SERVICES

CAPITAL IMPROVEMENT PROGRAM

Activity Description	Rem Dur	%	Early Start	Early Finish
Combined Sewer Overflow Program				
0180 CSO Direct Support				
C180(P) Direct CIP Support				
Direct CIP Support	0*	100	07/01/95A	06/30/97A
Direct CIP Support	0*	100	07/01/95A	06/30/97A
1005 CSO Program Support				
1005(P) CSO Program Support				
CSO Program Support	0*	100	07/01/95A	02/01/97A
CSO Project Support	0	100	07/01/95A	02/01/97A
4539(P) Diversion Reconstruction				
4539(P) Diversion Reconstruction				
Diversion Reconstruction	0*	100	05/11/94A	02/14/97A
Diversion Reconstruction	0	100	05/11/94A	02/14/97A
5037(P) NW 110th Ave. Separation				
5037(P) NW 110th Sewer Separation				
NW 110th Ave Sewer	295*	84	08/01/92A	08/30/99
Predesign - NW 110th Ave	0	100	08/01/92A	06/30/98A
Design - NW 110th Ave Sewer	64	0	07/01/98*	09/30/98
Advertise thru NTP - NW 110th	63	0	10/01/98	12/31/98
Construction - NW 110th Ave	124	0	01/04/99	06/29/99
Closeout/Startup - NW 110th	43	0	06/30/99	08/30/99
5037.6241 NW 110th St. Pump Station upgrade				
NW 110th Ave Sewer	0*	100	08/01/97A	05/01/98A
Design - NW 110th Ave Sewer	0	100	08/01/97A	05/01/98A
5083(P) CSO Sump Program				
5083(P) CSO Drainage Sump Program				
CSO Drainage Sump Program	757*	75	09/29/89A	06/29/01
CSO Drainage Sump Program	757	10	09/29/89A	06/29/01
Prepare Report of Columbia	399	0	07/05/95A	01/31/00
508X-Willamette Basin 3 Sumps				
Willamette River Basin Phase 3	218*	85	09/27/93A	05/11/99
Willamette River Basin Phase 3	0*	100	09/27/93A	04/13/98A
Monitor Willamette Basin	68*	0	01/04/99*	04/09/99
Prepare Report for Willamette	22*	0	04/12/99	05/11/99
5083.5425-Stark Basin CSO Sump Project, Unit #5				
Stark Basin Sump #5	365*	0	07/01/98	12/10/99
Predesign - Stark Basin Sump	64	0	07/01/98*	09/30/98
Design & Bid - Stark Sump #5	95	0	10/01/98	02/18/99
Advertise thru NTP - Stark	45	0	04/01/99*	06/03/99
Construction - Stark Basin	85	0	06/04/99	10/04/99
Close Out/Startup - Stark Basin	47	0	10/05/99	12/10/99
5083.5427-Stark Basin CSO Sump Project, Unit #7				
Stark Basin Sump #7	378*	0	07/01/98	12/30/99
Predesign - Stark Basin Sump	64	0	07/01/98*	09/30/98
Design - Stark Basin Sump #7 -	84	0	01/04/99*	05/03/99
Advertise thru NTP - Stark	41	0	05/04/99	06/30/99
Construction - Stark Basin	85	0	07/01/99	10/29/99
Closeout/Startup - Stark Basin	41	0	11/01/99	12/30/99
5083.5491-Taggart Basin CSO Sump #2				
Taggart Basin Sump #2	0*	100	01/11/95A	04/10/97A



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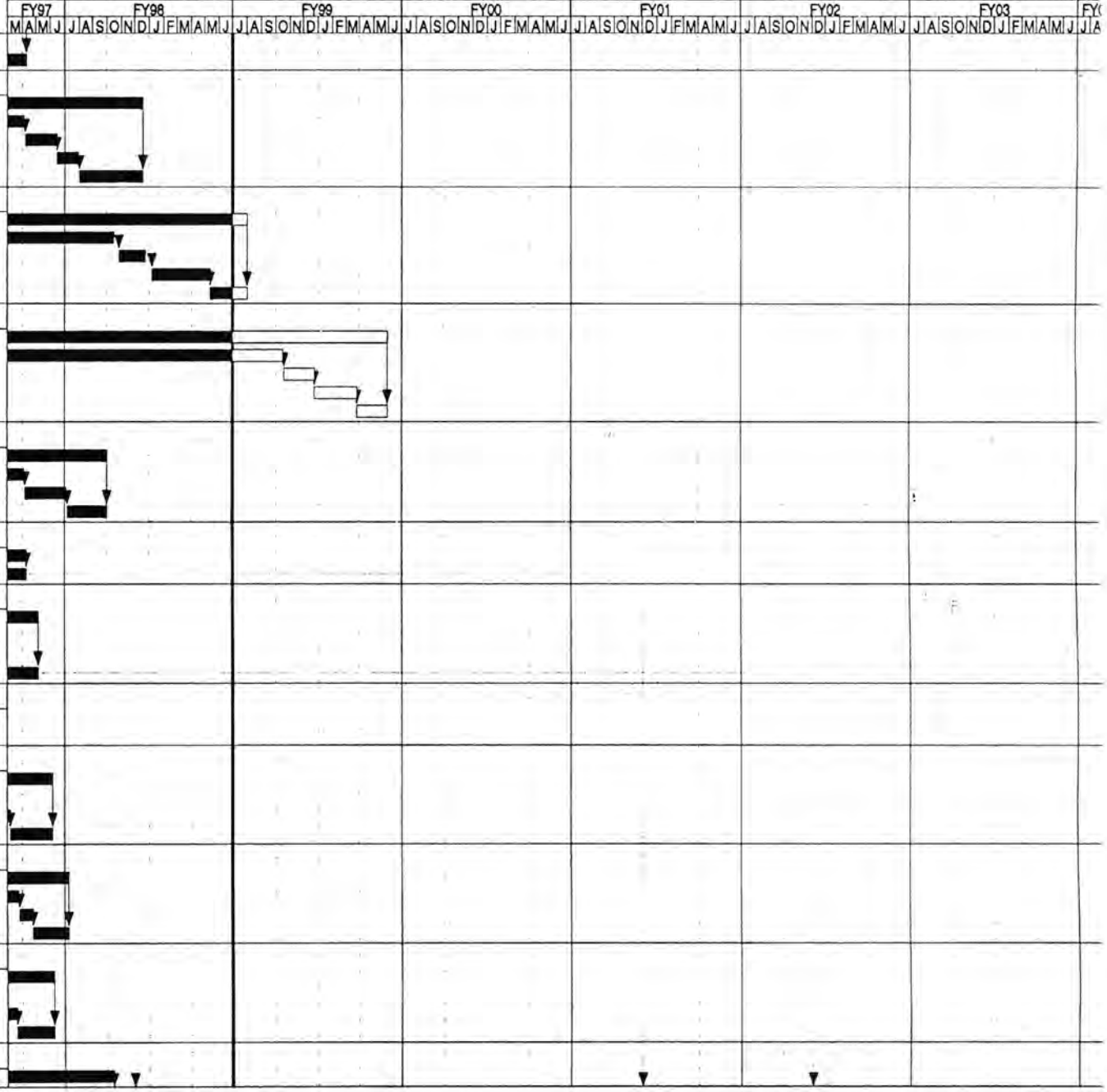
Construction - Taggart Basin	0	100	11/21/96A	01/10/97A
Closeout/Startup - Taggart	0	100	01/14/97A	04/10/97A
5083.5493-Taggart Basin CSO Sump #4				
Taggart Basin Sump #4	0*	100	03/15/95A	12/17/97A
Design - Taggart Basin Sump	0	100	06/22/95A	04/02/97A
Advertise thru NTP - Taggart	0	100	04/07/97A	06/13/97A
Construction - Taggart Basin	0	100	06/16/97A	07/30/97A
Closeout/Startup - Taggart	0	100	08/01/97A	12/17/97A
5083.5494-Taggart Basin CSO Sump #5				
Taggart Basin Sump #5	22*	97	05/08/95A	07/30/98
Design - Taggart Basin Sump	0	100	07/03/95A	10/14/97A
Advertise thru NTP - Taggart	0	100	10/27/97A	12/22/97A
Construction - Taggart Basin	0	100	01/06/98A	05/11/98A
Closeout/Startup - Taggart	22	48	05/12/98A	07/30/98
5083.5495-Taggart Basin CSO Sump #6				
Taggart Basin Sump #6	231*	78	03/15/95A	05/28/99
Design - Taggart Basin Sump	77	0	06/20/95A	10/16/98
Advertise thru NTP - Taggart	45	0	10/19/98	12/22/98
Construction - Taggart Basin	61	0	12/23/98	03/23/99
Closeout/Startup - Taggart	48	0	03/24/99	05/28/99
5083.5498-Insley Basin CSO Sump Project, Unit 4				
Insley Basin Sump #4	0*	100	01/18/95A	10/01/97A
Advertise thru NTP - Insley	0	100	01/02/97A	04/03/97A
Construction - Insley Basin	0	100	04/07/97A	07/03/97A
Closeout/Startup - Insley Basin	0	100	07/07/97A	10/01/97A
5083.5795-N. Denver & N. McCellan Sumps				
N. Denver & N. McCellan Sump	0*	100	03/11/96A	04/09/97A
Closeout/Startup - N. Denver &	0	100	11/20/96A	04/09/97A
5083.5922 Willamette Test Sump #10				
Willamette Test Sump #10 -	0*	100	07/26/96A	05/05/97A
Willamette Test Sump #10 -	0	100	10/07/96A	01/08/97A
Willamette Test Sump #10 -	0	100	01/08/97A	02/22/97A
Willamette Test Sump #10 -	0	100	02/22/97A	05/05/97A
5083.5923 Insley Unit 1.1 - Ph.2				
Insley Basin Sump Unit 1.1,	0*	100	09/04/96A	02/10/97A
Construction - Insley Basin	0	100	12/12/96A	02/10/97A
5083.5931-Willamette TS#11				
Willamette TS#11 Overall	0*	100	07/31/96A	06/06/97A
WilliametteTS#11 Advertise	0	100	12/20/96A	01/21/97A
WilliametteTS#11 Construction	0	100	01/21/97A	03/07/97A
WilliametteTS#11	0	100	03/07/97A	06/06/97A
5083.5958-Willamette TS#12				
Willamette TS#12 Overall	0*	100	08/26/96A	07/08/97A
WilliametteTS#12 Advertise	0	100	12/30/96A	03/24/97A
WilliametteTS#12 Construction	0	100	03/28/97A	04/24/97A
WilliametteTS#12	0	100	04/24/97A	07/08/97A
5083.5967-Insley Sump#2 Phase2				
Insley Sump #2 Phase 2	0*	100	09/10/96A	06/09/97A
Advert thru NTP - Insley Sump	0	100	11/18/96A	01/24/97A
Construction - Insley Sump #2	0	100	01/24/97A	03/20/97A
Startup/Closeout - Insley Sump	0	100	03/20/97A	06/09/97A
5083.5989-Insley Sump#3 Phase 2				
Insley Sump #3 Phase 2	0*	100	10/21/96A	10/15/97A



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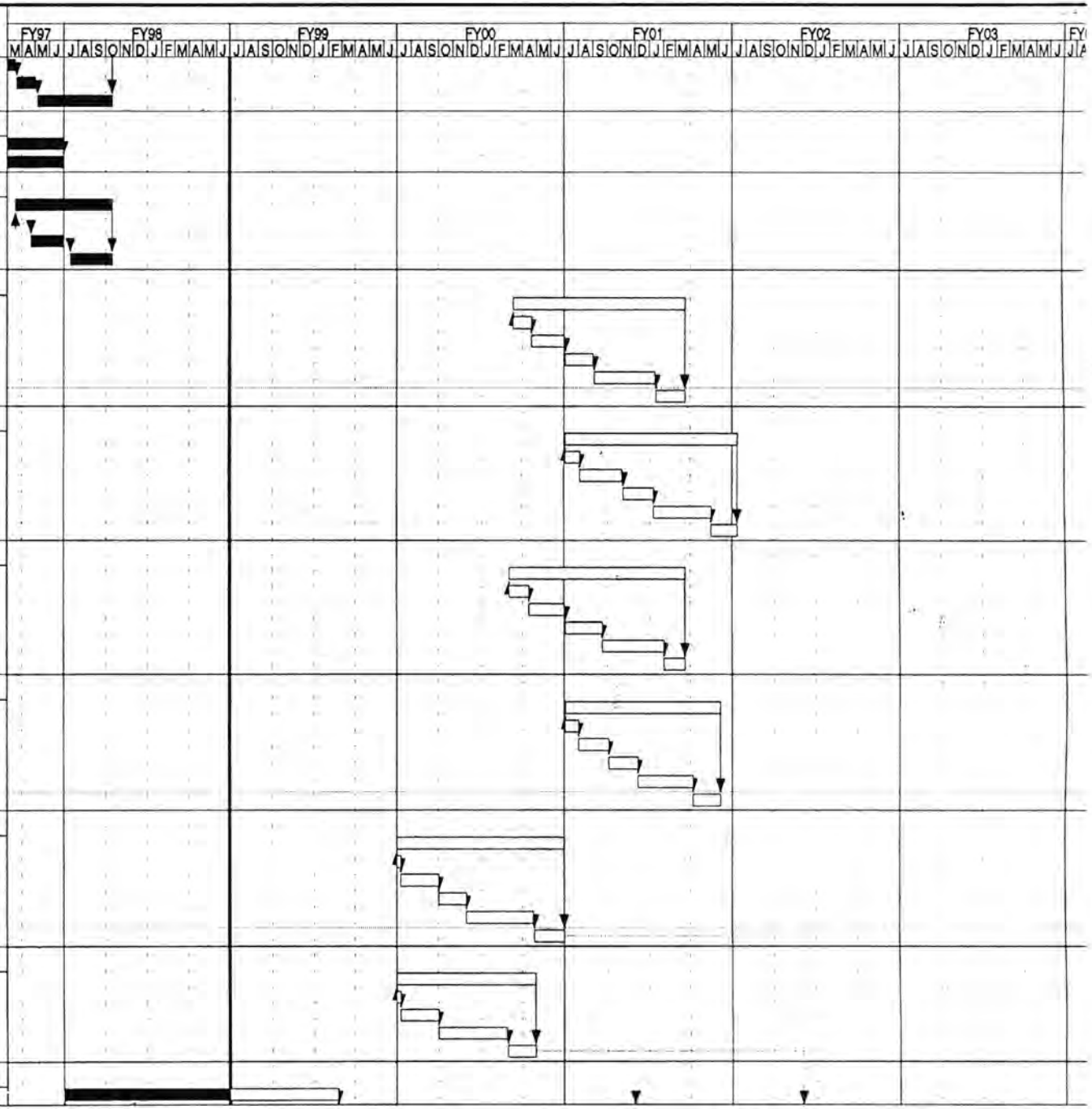
Advert thru NTP -Insley Sump	0	100	01/13/97A	03/18/97A
Construction - Insley Sump #3	0	100	03/21/97A	04/30/97A
Startup/Closeout - Insley Sump	0	100	05/06/97A	10/15/97A
5083.6035-Sump Administration				
Project Summary - Sump	0*	100	07/01/96A	06/30/97A
Construction - Sump	0	100	07/01/96A	06/30/97A
5083.6060 Taggart Sump 2&3 Phase II				
Taggart Basin Unit 2 Phase II	0*	100	03/18/97A	10/15/97A
Bid Opening - Taggart Basin	0	100	03/18/97A	03/18/97A
Construction - Taggart Basin	0	100	04/22/97A	06/30/97A
Closeout/Startup - Taggart	0	100	07/15/97A	10/15/97A
5083.6109 Beech Basin Sumps Phase I				
Beech Basin Phase I	258*	0	03/10/00	03/19/01
Predesign - Beech Basin Phase	30	0	03/10/00*	04/20/00
Design - Beech Basin Phase I	50	0	04/21/00	06/30/00
Advertise thru NTP - Beech	44	0	07/03/00	09/01/00
Construction - Beech Basin	90	0	09/05/00	01/12/01
Closeout/Startup - Beech Basin	44	0	01/15/01	03/19/01
5083.6110 Beech Basin Sumps Phase II				
Beech Basin Phase II	259*	0	07/03/00	07/12/01
Predesign - Beech Basin Phase	22	0	07/03/00*	08/02/00
Design - Beech Basin Phase II	66	0	08/03/00	11/03/00
Advertise thru NTP - Beech	42	0	11/06/00	01/08/01
Construction - Beech Basin	88	0	01/09/01	05/14/01
Closeout/Startup - Beech Basin	41	0	05/15/01	07/12/01
5083.6111 Essex Basin Sumps Phase I				
Essex Basin Phase I	263*	0	03/03/00	03/19/01
Predesign - Essex Basin Phase	30	0	03/03/00*	04/13/00
Design - Essex Basin Phase I	55	0	04/14/00	06/30/00
Advertise thru NTP - Essex	56	0	07/03/00	09/20/00
Construction - Essex Basin	90	0	09/21/00	01/31/01
Closeout/Startup - Essex Basin	32	0	02/01/01	03/19/01
5083.6112 Essex Basin Sumps Phase II				
Essex Basin Phase II	232*	0	07/03/00	06/04/01
Predesign - Essex Basin Phase	20	0	07/03/00*	07/31/00
Design - Essex Basin Phase II	45	0	08/01/00	10/03/00
Advertise thru NTP - Essex	45	0	10/04/00	12/07/00
Construction - Essex Basin	80	0	12/08/00	04/04/01
Closeout/Startup - Essex Basin	42	0	04/05/01	06/04/01
5083.6113 Stark Basin Sumps Unit 5&6 Phase II				
Stark Basin Unit 5&6 Phase II	253*	0	07/01/99	06/30/00
Predesign - Stark Basin Unit	4	0	07/01/99*	07/07/99
Design - Stark Basin Unit 5&6	60	0	07/08/99	09/30/99
Advert thru NTP - Stark Basin	40	0	10/01/99	11/29/99
Construction - Stark Basin Unit	100	0	11/30/99	04/21/00
Closeout/Startup - Stark Basin	49	0	04/24/00	06/30/00
5083.6114 Stark Basin Sumps Unit 7 Phase II				
Stark Basin Unit 7 Phase II	207*	0	07/01/99	04/26/00
Predesign - Stark Basin Unit 7	4	0	07/01/99*	07/07/99
Design - Stark Basin Unit 7	60	0	07/08/99	09/30/99
Advertise thru NTP - Stark	100	0	10/01/99	02/25/00
Construction - Stark Basin Unit	43	0	02/28/00	04/26/00
5083.6116 Taggart Basin Sumps Unit 4 Phase II				
Taggart Basin Unit 4 Phase II	162*	61	07/01/97A	02/22/99



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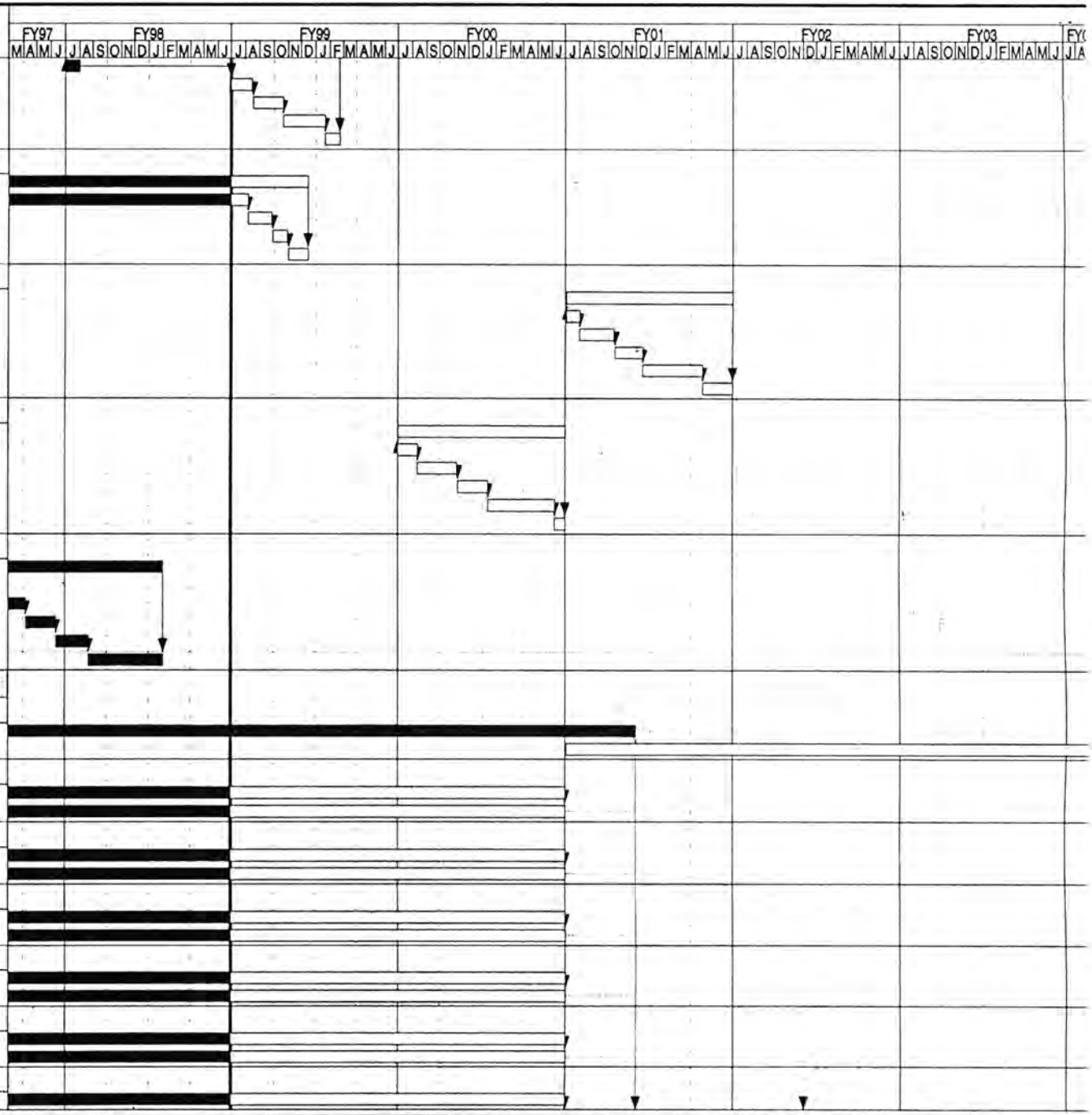
Predesign - Taggart Basin Unit	0	100	07/01/97A	07/31/97A
Design - Taggart Basin Unit 4	33	23	07/01/98A	08/14/98
Advertise thru NTP - Taggart	46	0	08/17/98	10/20/98
Construction - Taggart Basin	62	0	10/21/98	01/21/99
Closeout/Startup - Taggart	21	0	01/22/99	02/22/99
5083.6119 Taggert Basin Sumps Unit 6 Phase II				
Taggart Basin Unit 6 Phase II	117*	88	03/15/95A	12/15/98
Design - Taggart Basin Unit 6	26	96	06/20/95A	08/05/98
Advertise thru NTP - Taggart	36	0	08/06/98	09/25/98
Construction - Taggart Basin	25	0	09/28/98	10/30/98
Closeout/Startup - Taggart	30	0	11/02/98	12/15/98
5083.6122 Riverside Basin Sumps Unit 1 Phase II				
Riverside Basin Unit 1 Phase II	251*	0	07/03/00	06/29/01
Predesign - Riverside Basin	20	0	07/03/00*	07/31/00
Design - Riverside Basin Unit 1	53	0	08/01/00	10/13/00
Advertise thru NTP - Riverside	42	0	10/16/00	12/14/00
Construction - Riverside Basin	90	0	12/15/00	04/25/01
Closeout/Startup - Riverside	46	0	04/26/01	06/29/01
5083.6123 Riverside Basin Sumps Unit 2 Phase I				
Riverside Basin Unit 1 Phase II	253*	0	07/01/99	06/30/00
Predesign - Riverside Basin	30	0	07/01/99*	08/12/99
Design - Riverside Basin Unit 2	60	0	08/13/99	11/05/99
Advertise thru NTP - Riverside	44	0	11/08/99	01/12/00
Construction - Riverside Basin	100	0	01/13/00	06/05/00
Closeout/Startup - Riverside	19	0	06/06/00	06/30/00
5083.6177-North Maryland Sumps				
North Maryland Sumps	0*	100	02/03/97A	01/30/98A
Predesign - North Maryland	0	100	02/03/97A	02/14/97A
Design - North Maryland	0	100	02/18/97A	04/07/97A
Advertise thru NTP - North	0	100	04/07/97A	06/12/97A
Construction - North Maryland	0	100	06/12/97A	08/20/97A
Closeout/Startup - North	0	100	08/21/97A	01/30/98A
5161 P) Downspout Disconnect Program				
5161(P) Downspout Disconnect Program				
Construction - Columbia Slough	612	51	07/03/95A	12/01/00
Construction - Willamette	1,513	0	07/03/00*	06/30/06
5161.5808-Alameda Downspout Discon				
Downspout Discon In Alameda	506*	54	03/01/96A	06/30/00
Downspout Discon In Alameda	506	0	03/01/96A	06/30/00
5161.5809-Beaumont-Wilshire Downspout Discon				
Downspout Discon In	506*	54	03/01/96A	06/30/00
Downspout Discon In	506	0	03/01/96A	06/30/00
5161.5810-Boise Downspout Discon				
Downspout Discon In Boise	506*	54	03/01/96A	06/30/00
Downspout Discon In Boise	506	0	03/01/96A	06/30/00
5161.5811-Humbolt Downspout Discon				
Downspout Discon In Humbolt	506*	54	03/01/96A	06/30/00
Downspout Discon In Humbolt	506	0	03/01/96A	06/30/00
5161.5812-King Downspout Discon				
Downspout Discon In King	506*	54	03/01/96A	06/30/00
Downspout Discon In King	506	14	03/01/96A	06/30/00
5161.5813-Overlook Downspout Discon				
Downspout Discon In Overlook	506*	54	03/01/96A	06/30/00



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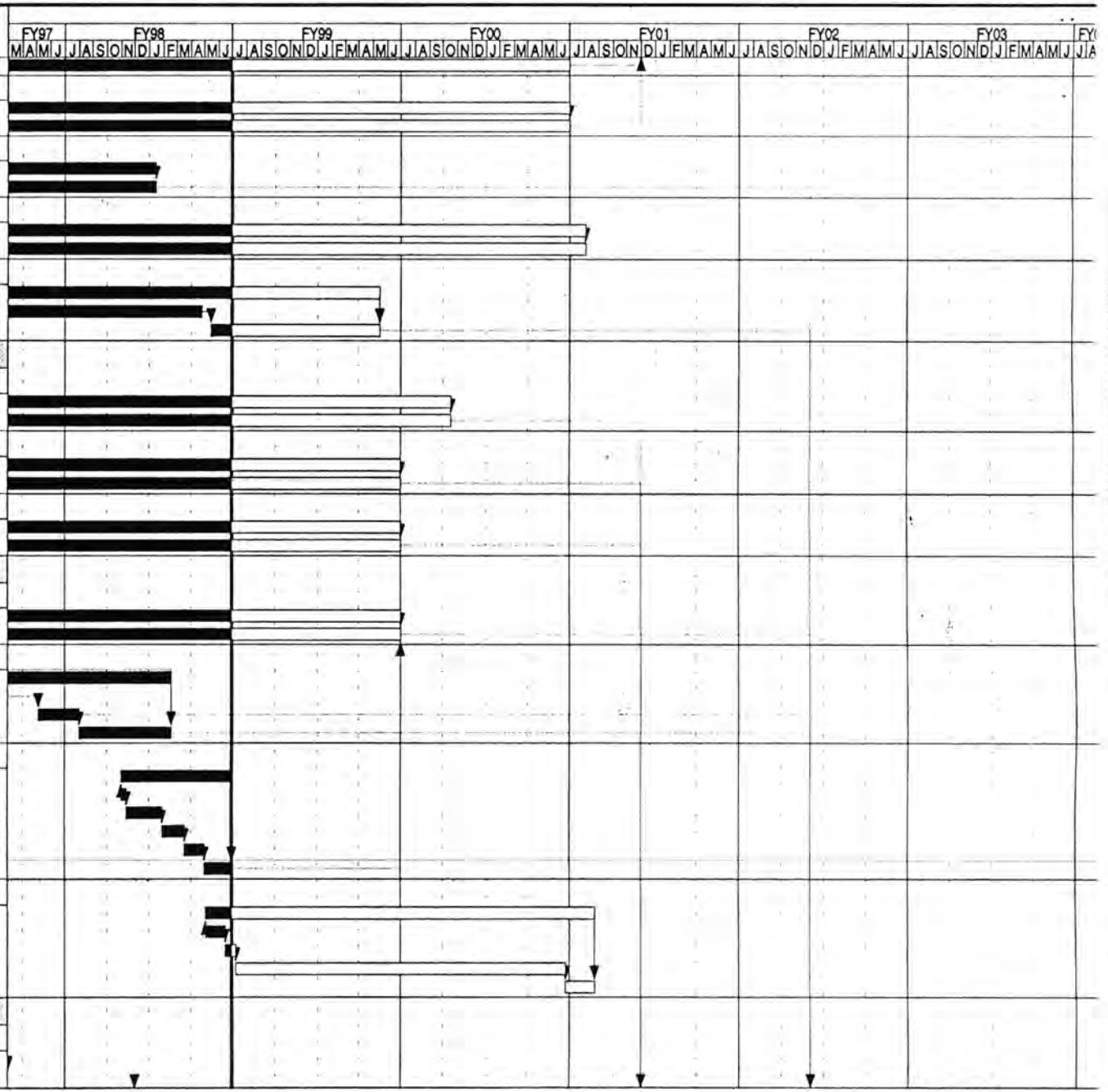
Downspout Discon In Overlook	506	0	03/01/96A	06/30/00
5161.5814-Sabin Downspout Discon				
Downspout Discon In Sabin	506*	54	03/01/96A	06/30/00
Downspout Discon In Sabin	506	0	03/01/96A	06/30/00
5161.5926-Fiske B Ph 2 Downspout Disconnects				
Project Summary - Fiske B Sep	0*	100	08/01/96A	01/15/98A
Construction - Fiske B Sep	0	100	08/01/96A	01/15/98A
5161.6014-Rose City Park Discn				
Project Summary - Rose City	527*	49	07/01/96A	08/01/00
Construction - Rose City Park	527	48	07/01/96A	08/01/00
5161.6108-Cath. Pk. Dsp. Disc.(Willamette)				
Cath Pk.DS Disc.(Willamette)	221*	62	02/05/97A	05/14/99
Design-Cath Pk.DS	0	100	02/05/97A	04/24/98A
Construction-Cath Pk.DS	221	14	05/15/98A	05/14/99
5186(P) RAMSEY LAKE SW WETLD				
5186.5666-Ramsey Lake Predator Control				
Ramsey Lake Predator Control	328*	65	02/01/96A	10/15/99
Ramsey Lake Predator Control	328	0	04/16/96A	10/15/99
5186.5668-Ramsey Lake Planting & Irrigation				
Ramsey Lake Planting &	253*	75	07/05/95A	06/30/99
Ramsey Lake Planting &	253	8	08/29/96A	06/30/99
5186.5669-Ramsey Lake Weed Control				
Ramsey Lake Weed Control	253*	69	03/29/96A	06/30/99
Ramsey Lake Weed Control	253	34	03/29/96A	06/30/99
5249(P) Fiske B Separation				
5249(P) Fiske B Basin CSO Sewer Separation				
Fiske B Basin Sewer	253*	81	05/02/94A	06/30/99
Startup/Closeout - Fiske B	253	0	11/12/96A	06/30/99
5249.5730-Fisk B Water Treatment Facility				
Fiske B Water Treatment	0*	100	11/18/94A	02/17/98A
Design Fiske B Water	0	100	06/28/96A	02/28/97A
Construction Fiske B Water	0	100	05/05/97A	07/31/97A
Startup - Fiske B Water	0	100	08/01/97A	02/17/98A
5249.6299 Fiske B PRF Landscape				
Fiske B PRF - Landscaping	0*	100	11/03/97A	06/30/98A
Predesign Fiske B PRF -	0	100	11/03/97A	11/13/97A
Design Fiske B PRF -	0	100	11/14/97A	01/29/98A
Advert thru NTP - Fiske B	0	100	01/30/98A	03/18/98A
Construction Fiske B PRF -	0	100	03/18/98A	04/30/98A
Closeout - Fiske B PRF -	0	100	05/01/98A	06/30/98A
5249.6416 Fiske B Establish				
6416 - Fiske B Plant	543*	7	05/04/98A	08/23/00
Design- 6416 - Fiske B Plant	0	100	05/04/98A	06/15/98A
Advertise thu NPT - 6416	4	71	06/16/98A	07/06/98
Construction -6416 - Fiske B	495	0	07/07/98	06/21/00
Closeout - 6416 - Fiske B Plant	44	0	06/22/00	08/23/00
5266(P) St. Johns "A" Basin Sewer Separation				
5266(P) -St. Johns 'A' Basin				
St. Johns A Sewer Seperation	0*	100	11/02/93A	02/26/97A
Closeout/Startup - St. Johns A	0	100	02/23/96A	02/26/97A



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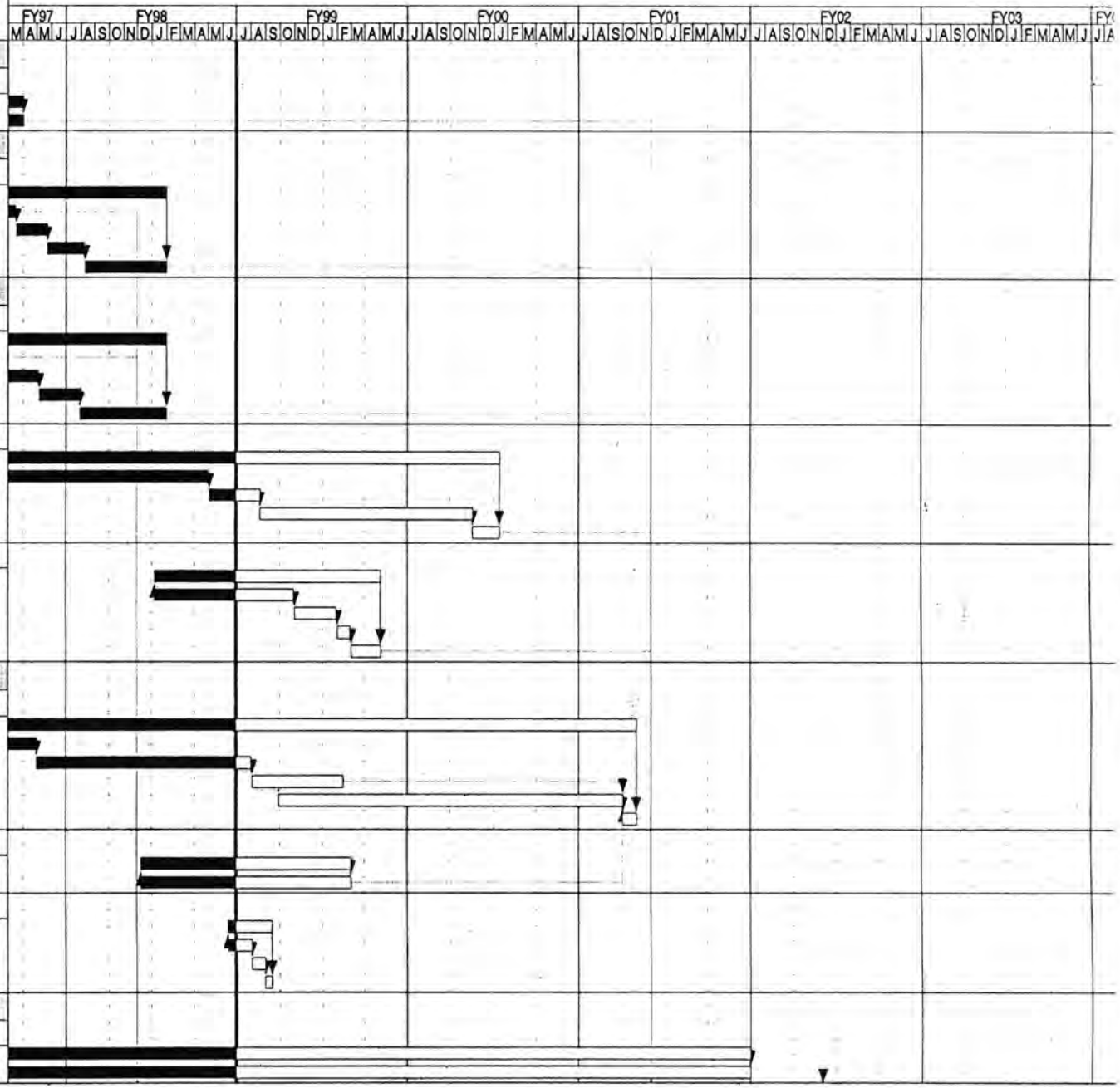
Activity Description	Rem Dur	%	Early Start	Early Finish
5273(P) Ramsey Lake Storm Trunk				
5273(P) Ramsey Lake Storm Trunk				
Ramsey Lake St Trunk	0*	100	11/02/93A	04/01/97A
Closeout/Startup - Ramsey	0	100	11/25/96A	04/01/97A
5291(P) Oregonian Basin Separation				
5291(P) Oregonian CSO Project				
Oregonian CSO Project	0*	100	11/01/94A	01/30/98A
Design - Oregonian Sewer Sep	0	100	10/31/96A	03/15/97A
Advertise thru NTP - Oregonian	0	100	03/17/97A	05/23/97A
Construction - Oregonian CSO	0	100	05/23/97A	08/08/97A
Closeout - Oregonian CSO	0	100	08/11/97A	01/30/98A
5292(P) Oswego Basin Separation				
5292(P) Oswego Basin				
Oswego Sewer Separation	0*	100	07/03/95A	01/30/98A
Design - Oswego Sewer Sep	0	100	10/31/96A	02/14/97A
Advertise thru NTP - Oswego	0	100	02/17/97A	05/02/97A
Construction - Oswego Sewer	0	100	05/05/97A	07/31/97A
Closeout/Startup - Oswego	0	100	07/31/97A	01/30/98A
5292.6086-North Portland Sewer Separation				
North Portland Sewer	388*	49	01/09/97A	01/13/00
Design - N Portland Sewer Sep	0	100	01/09/97A	05/01/98A
Advertise thru NTP - N Portland	37	41	05/04/98A	08/20/98
Construction - N Portland	311	0	08/21/98	11/15/99
Closeout/Startup - N Portland	40	0	11/16/99	01/13/00
5292.6338 Diversion Structure Modifications				
Diversion Structure Modification	212*	37	01/05/98A	05/03/99
Design - Diversion Structure	87	15	01/05/98A	10/30/98
Advertise thru NTP - Diversion	60	0	11/02/98	01/29/99
Construction - Diversion	19	0	02/01/99	02/26/99
Closeout/Startup - Diversion	46	0	03/01/99	05/03/99
5302(P) Columbia Slough Outfall				
5302(P) Col. WWTF Outfall				
CBWWTF Outfall	590*	63	07/01/94A	10/30/00
Predesign - CBWWTF Outfall	0	100	07/01/94A	04/30/97A
Design - CS\Blvd WWTF	23	85	05/01/97A	07/31/98
Advertise thru NTP - CS\Blvd	134	0	08/03/98*	02/12/99
Constr. - CS\Blvd WWTF	508	0	09/28/98*	10/02/00
Closeout/Startup - CS\Blvd	20	0	10/03/00	10/30/00
5302.6315 Outfall Easement Aquisition				
CBWWTF Outfall Easement	168*	46	12/08/97A	03/02/99
Outfall Easement Aquisition	168	52	12/08/97A	03/02/99
5302.6406 Outfall Clear & Grub				
6406- Outfall Clear & Grub	53*	19	06/12/98A	09/14/98
6406 - Advertise thru NTP	24	40	06/12/98A	08/03/98
Constr. -Outfall Clear & Grub	20	0	08/04/98	08/31/98
6406 - Closeout/Startup	9	0	09/01/98	09/14/98
5322(P) Tanner Creek/Nicola				
5322(P) Tanner Creek/Nicolai				
Balance of Tanner	757*	57	07/01/94A	06/29/01
Balance of Tanner	757	58	07/01/94A	06/29/01



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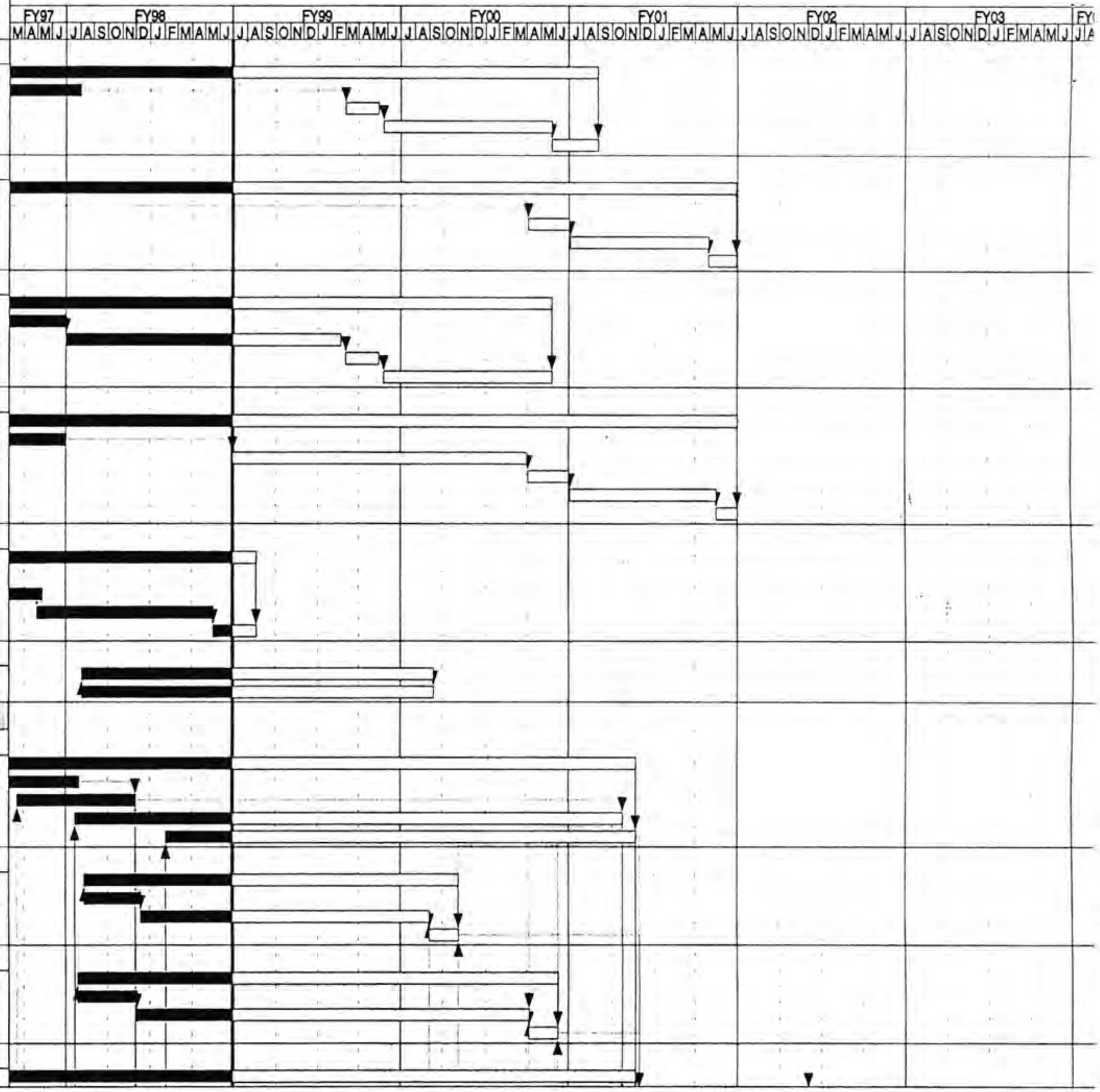
Activity Description	Rem Dur	%	Early Start	Early Finish
5322.5406-Tanner Creek Sewer: Phase I				
Tanner Basin Phase 1	549*	65	07/01/94A	08/31/00
Design - Tanner Basin Phase 1	0	100	12/01/94A	07/31/97A
Advertise thru NTP - Tanner	53	0	03/01/99*	05/12/99
Construction - Tanner Basin	254	0	05/24/99*	05/24/00
Closeout/Startup - Tanner	69	0	05/25/00	08/31/00
5322.5407-Tanner Creek Sewer: Phase 4				
Tanner Diversion Phase 4	756*	57	07/01/94A	06/28/01
Design - Tanner Diversion	0	100	03/10/95A	01/28/97A
Advrt thru NTP - Tanner Divrsn	64	0	04/03/00*	06/30/00
Construction - Tanner Divrsn	207	0	07/03/00	04/27/01
Close/Stup - Tanner Diversion	43	0	04/30/01	06/28/01
5322.5500-Tanner Diversion Mid-Creek: Phase 2				
Tanner Basin Phase 2	480*	44	01/01/97A	05/24/00
Predesign - Tanner Basin	0	100	01/01/97A	06/30/97A
Design - Tanner Basin Phase 2	161	58	07/01/97A	02/19/99
Advertise thru NTP - Tanner	53	0	03/01/99*	05/12/99
Construction - Tanner Basin	254	0	05/24/99*	05/24/00
5322.5501-Tanner Diversion Upper Creek: Phase 3				
Tanner Basin Phase 3	757*	57	07/01/94A	06/29/01
Predesign - Tanner Basin	0	100	07/01/94A	06/30/97A
Design - Tanner Basin Phase 3	441	0	07/01/98*	03/31/00
Advertise thru NTP - Tanner	64	0	04/03/00	06/30/00
Construction - Tanner Basin	219	0	07/03/00	05/15/01
Closeout/Startup - Tanner	32	0	05/16/01	06/29/01
5322.5913-Tanner Phase I Unit 2				
Tanner Phase I, Unit 2	37*	93	07/08/96A	08/20/98
Design - Tanner Phase I, Unit	0	100	08/02/96A	01/27/97A
Advert thru NTP -Tanner Phase	0	100	01/28/97A	05/09/97A
Construction - Tanner Phase I,	0	100	05/01/97A	05/18/98A
Startup/Closeout - Tanner	37	0	05/19/98A	08/20/98
5322.6076-Tanner Creek Water Feature				
Tanner Creek Water Feature	301*	43	08/04/97A	09/08/99
Predesign - Tanner Creek	301	0	08/04/97A	09/08/99
5332(P) Columbia Slough Consolidation Conduit				
5332(P) Columbia Slough Consolidation Conduit				
Columbia Slough Consolidation	606*	62	08/08/94A	11/22/00
Design - Col Sl Consol Conduit	0	100	01/08/96A	07/29/97A
Advertise thru NTP - Col Sl	0	100	03/17/97A	11/28/97A
Construction - Col Sl Consol	587*	29	07/22/97A	10/25/00
Closeout/Startup - Col Sl	606*	14	02/05/98A	11/22/00
5332.6181 CSCC Seg 1 - Conduit Otfl 58 to CBWTP				
CSCC Seg 1 - Conduit Otfl 58	339*	40	08/11/97A	11/01/99
Advertise thru NTP - CSCC	0	100	08/11/97A	12/10/97A
Construction - CSCC Seg 1 -	297	32	12/11/97A	09/01/99
Closeout/Startup - CSCC Seg 1	42	0	09/02/99	11/01/99
5332.6182 CSCC Seg 2 - 12' Tunnel I-5 to Otfl 58				
CSCC Seg 2 - 12' Tunnel I-5 to	487*	32	07/28/97A	06/05/00
Advertise thru NTP - CSCC	0	100	07/28/97A	12/02/97A
Construction - CSCC Seg 2 -	445	30	12/03/97A	04/05/00
Closeout/Startup - CSCC Seg 2	42	0	04/06/00	06/05/00
5332.6183-CSSC Seg 3A - 72" Conduit, 235 to I-5				
CSCC Seg 3A - 72" Conduit	606*	45	07/01/96A	11/22/00



Project Start	07/01/87
Project Finish	12/01/12
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Run Date	07/24/98

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Early Bar
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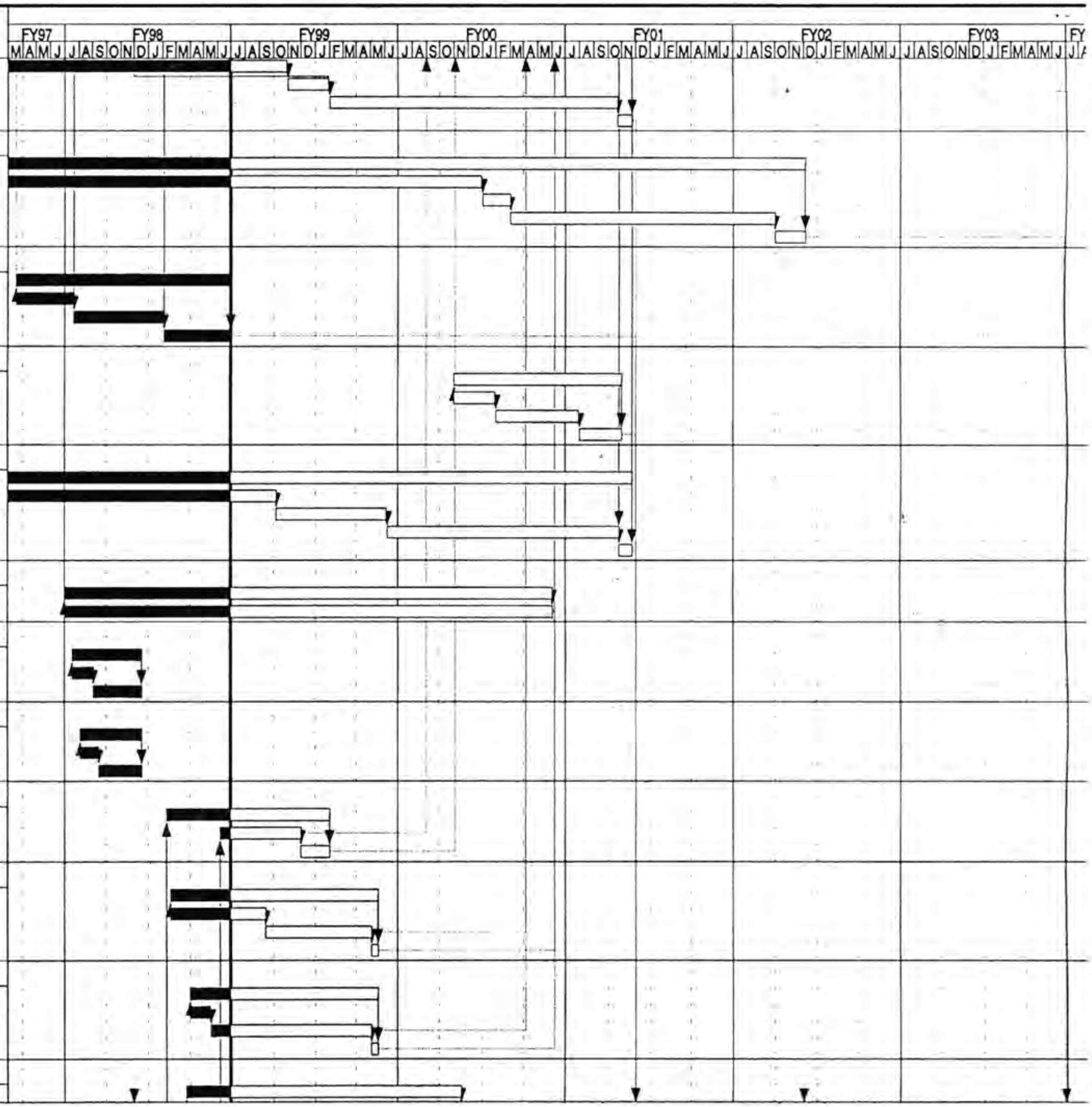
Activity Description	Rem Dur	%	Early Start	Early Finish
Design - CSCC Seg 3A - 72"	87	0	07/01/96A	10/30/98
Advertise thru NTP - CSCC	60	0	11/02/98	01/29/99
Construction - CSCC Seg 3A -	437	0	02/01/99	10/20/00
Closeout/Startup - CSCC Seg	22	0	10/23/00	11/22/00
5332.6184 CSCC Seg 4 - Landscaping Argyle & Colu				
CSCC Seg 4 - Landscaping	864*	37	07/01/96A	12/03/01
Design - CSCC Seg 4 -	379	0	07/01/96A	12/30/99
Advertise thru NTP - CSCC	42	0	01/03/00	03/02/00
Construction - CSCC Seg 4 -	399	0	03/03/00	09/28/01
Closeout/Startup - CSCC Seg 4	44	0	10/01/01	12/03/01
5332.6185-CSCC Seg 5 - Utility Relocation				
CSCC Seg 5, Utility Relocation	0*	100	03/17/97A	06/30/98A
Advertise thru NTP - CSCC	0	100	03/17/97A	07/22/97A
Construction - CSCC Seg 5,	0	100	07/22/97A	02/04/98A
Closeout/Startup - CSCC Seg	0	100	02/05/98A	06/30/98A
5332.6186-CSCC Seg 6 - I-5 Conduit Odor Control				
CSCC Seg 6 - Odor Control @	252*	0	11/01/99	10/30/00
Advertise thru NTP - CSCC	60	0	11/01/99*	01/28/00
Construction - CSCC Seg 6 -	127	0	01/31/00	07/28/00
Closeout/Startup - CSCC Seg 6	65	0	07/31/00	10/30/00
5332.6203-CSCC Seg 3B - Construct Station 235				
CSCC Seg 3B - Construct	606*	45	07/01/96A	11/22/00
Design - CSCC Seg 3B -	70	15	07/01/96A	10/07/98
Advertise thru NTP - CSCC	165	0	10/08/98	06/04/99
Construction - CSCC Seg 3B -	352	0	06/07/99	10/25/00
Closeout/Startup - CSCC Seg	19	0	10/26/00	11/22/00
5332.6224 - ColSlCCF Owner Contr. Insur. Program				
OCIP - Columbia Slough	485*	34	07/01/97A	06/01/00
OCIP - Colombia Slough	485	0	07/01/97A	06/01/00
5332.6231 - CSCC PFM Replacement #1				
CSCC - PFM Replacement #1	0*	100	07/18/97A	12/16/97A
Construction - PFM	0	100	07/18/97A	09/02/97A
Closeout/Startup - PFM	0	100	09/03/97A	12/16/97A
5332.6232 - CSCC PFM Replacement #2				
CSCC - PFM Replacement #1	0*	100	08/06/97A	12/16/97A
Construction - PFM	0	100	08/06/97A	09/12/97A
Closeout/Startup - PFM	0	100	09/15/97A	12/16/97A
5332.6340 DS CSCC-1 Hauling				
CSCC - 1 Hauling	148*	40	02/09/98A	02/01/99
Construction - CSCC - 1	107	49	06/08/98A	12/01/98
Closeout/Startup - CSCC - 1	41	0	12/02/98	02/01/99
5332.6341 DS CSCC-2 Hauling				
CSCC - 2 Hauling	223*	30	02/17/98A	05/18/99
Advertise thru NTP- Hauling	54	0	02/17/98A	09/15/98
Construction - CSCC - 2	158	0	09/16/98	05/03/99
Closeout/Startup - CSCC - 2	11	0	05/04/99	05/18/99
5332.6359 DS CSCC2 Video Taping PreExisting Cond				
CSCC - 2 Videotaping	223*	22	04/01/98A	05/18/99
Advertise thru NTP-	0	100	04/01/98A	05/15/98A
Construction - CSCC - 2	212	12	05/18/98A	05/03/99
Closeout/Startup - CSCC - 2	11	0	05/04/99	05/18/99
5332.6379 DS CSCC1 Videotaping				
DS CSCC - 1 Videotaping	349*	17	03/24/98A	11/16/99



Project Start	07/01/87
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Run Date	07/24/98

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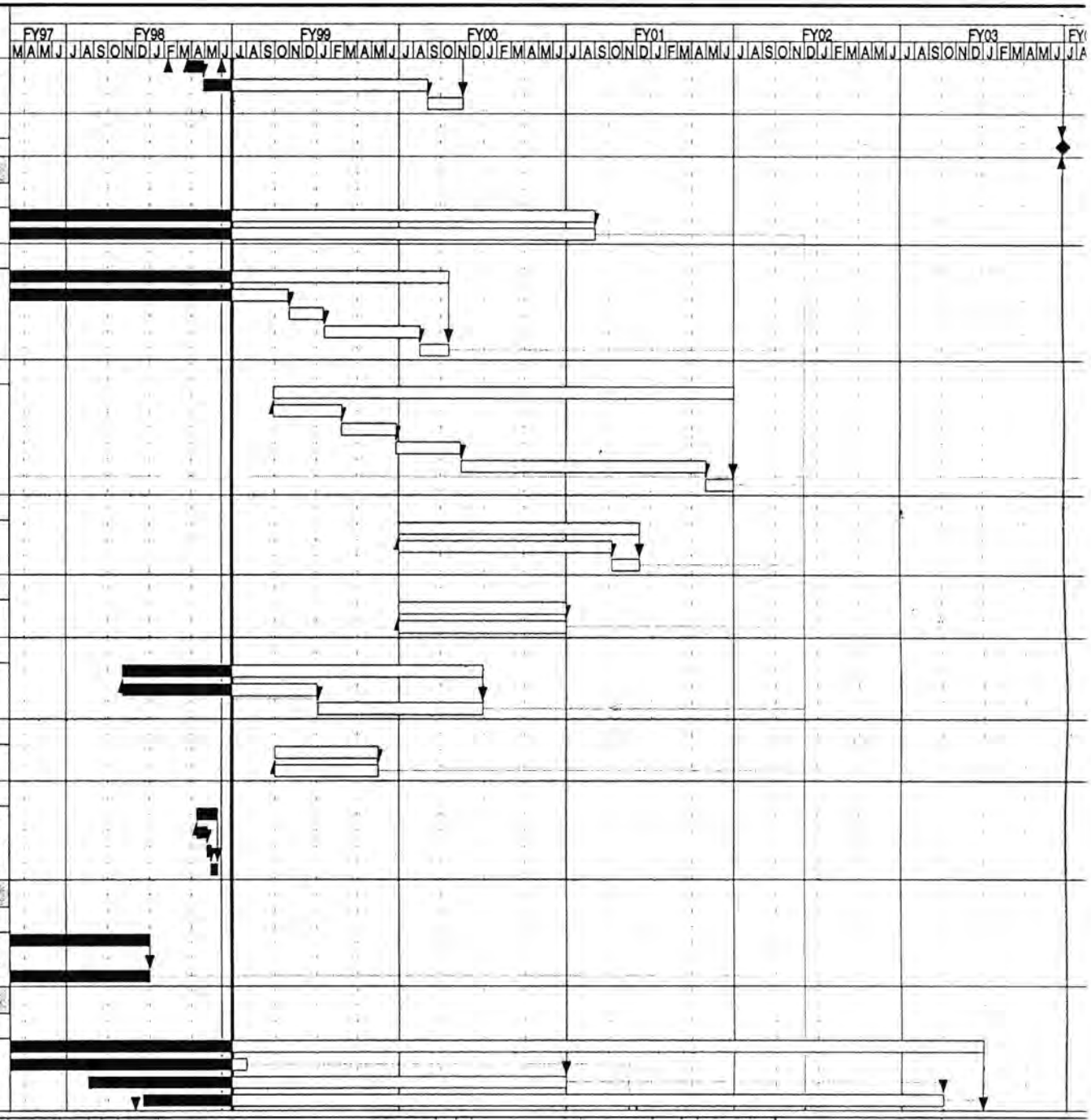
Activity Description	Rem Dur	%	Early Start	Early Finish
Advertise thru NTP- DS CSCC -	0	100	03/24/98A	04/27/98A
Construction - DS CSCC - 1	297	0	04/28/98A	09/01/99
Closeout/Startup - DS CSCC -	52	0	09/02/99	11/16/99
ASFO, Permit, and Annual Report Dates				
Columbia Basin Non-ASFO	0	0		06/30/03*
5380(P) Sellwood Bsn Local Sep.				
5380(P) Sellwood Basin Local Separation				
Sellwood Basin Sewer	548*	45	10/01/96A	08/30/00
Design FY98 - Sellwood Basin	548	46	10/01/96A	08/30/00
5380.5930-Sellwood Sewer Unit3				
Sellwood Sewer Unit3 Overall	328*	56	10/30/96A	10/15/99
Sellwood Sewer Unit3 Design	87	62	10/30/96A	10/30/98
Sellwood Sewer Unit3	51	0	11/02/98	01/15/99
Sellwood Sewer Unit3	146	0	01/19/99	08/13/99
Sellwood Sewer Unit3	44	0	08/16/99	10/15/99
5380.6120 Sellwood Basin Local Seprn Pp Sta Upgd				
Sellwd Basin Local Separation	695*	0	09/28/98	06/29/01
Predesign - Sellwd Bsn Lcl	101	0	09/28/98*	02/23/99
Design - Sellwd Bsn Lcl Sprn	86	0	02/24/99	06/24/99
Advertise thru NTP - Sellwd	98	0	06/25/99	11/12/99
Construction - Sellwd Bsn Lcl	367	0	11/15/99	04/30/01
Closeout/Startup - Sellwd Bsn	43	0	05/01/01	06/29/01
5380.6121 Sellwood Basin Local Seprn RDD				
Sellwd Basin Local Separation	362*	0	07/01/99	12/06/00
Construction - Sellwd Bsn Lcl	321	0	07/01/99*	10/06/00
Closeout/Startup - Sellwd Bsn	41	0	10/09/00	12/06/00
5380.6240 Sellwood - Umatilla PS Design				
Sellwd Umattilla PumpStation	253*	0	07/01/99	06/30/00
Design - Sellwd Umattilla	253	0	07/01/99*	06/30/00
5380.6243 Sellwood PRF Design				
Sellwd Basin PRF Design &	379*	30	11/03/97A	12/30/99
PRF Land Aquisition	128	20	11/03/97A	12/31/98
Design - Sellwood Basin PRF	251	0	01/04/99*	12/30/99
5380.6244 Sellwood Sewer Seperation Design				
Sellwd Sewer Seperation	155*	0	10/02/98	05/14/99
Design - Sellwd Sewer	155	0	10/02/98*	05/14/99
5380.6384 Ochoco St Test Sump				
Sellwood Sewer Unit3 Overall	0*	100	04/13/98A	05/29/98A
Sellwood Sewer Unit3	0	100	04/13/98A	05/04/98A
Sellwood Sewer Unit3	0	100	05/05/98A	05/14/98A
Sellwood Sewer Unit3	0	100	05/15/98A	05/29/98A
5478(P) Cathedral Park Water Quality Facility				
5478(P) Cathedral Park Water Quality Facility				
Cathedral Park Water Quality	0*	100	07/01/94A	12/31/97A
Construction - Cathedral Park	0	100	12/19/95A	01/22/97A
Cls/Strtup-Cathedral Park	0	100	01/23/97A	12/31/97A
5480(P) Columbia Blvd. WWTF				
5480(P) Columbia Slough WWTF				
CS\Blvd WWTF	1,135*	47	08/01/94A	12/27/02
Design - CS\Blvd WWTF	23	94	03/15/96A	07/31/98
Advertise thru NTP - CS\Blvd	505	19	08/18/97A	06/29/00
Construction - CS\Blvd WWTF	1,073*	11	12/18/97A	09/30/02



Project Start	07/01/87	Early Bar
Project Finish	12/01/12	Progress Bar
Data Date	06/30/98	Critical Activity
Run Date	07/24/98	

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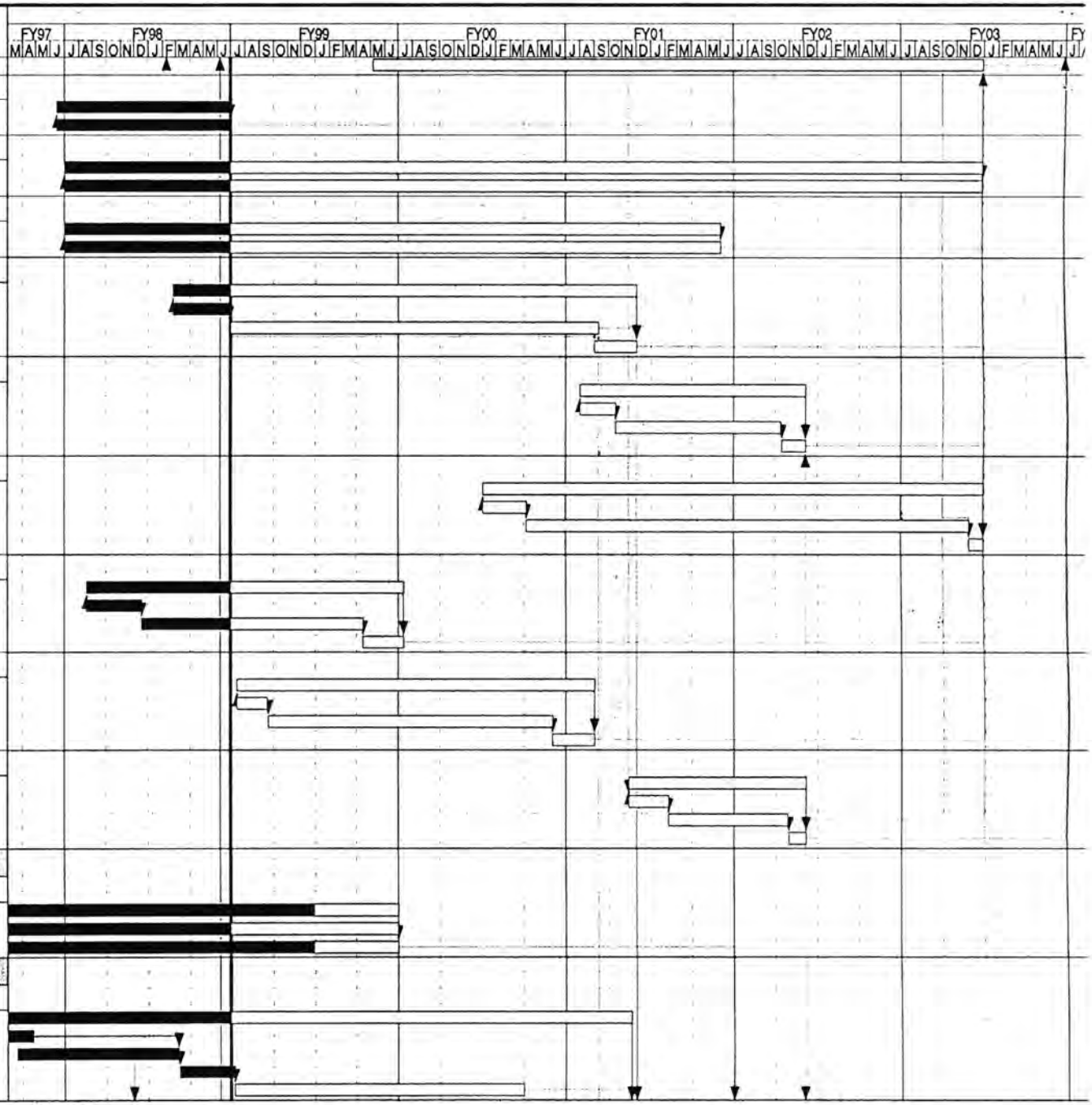
Activity Description	Rem Dur	%	Early Start	Early Finish
Closeout/Startup - CS\Blvd	921	0	05/06/99*	12/27/02
5480.6207-Flowmeter Replacement CBWTP-Parshall				
CS\Blvd WWTF Flowmeter	0*	100	06/16/97A	06/30/98A
Construction Col.Blvd WWTF -	0	100	06/16/97A	06/30/98A
5480.6233 CBWWTF Const.Manag. Serv.s				
CS\Blvd WWTF	1,135*	18	07/01/97A	12/27/02
Construction Management -	1,135	0	07/01/97A	12/27/02
5480.6234 - CBWWTF Owner Contr. Insur. Progr.				
ColBlvd WWTF OCIP	736*	25	07/01/97A	05/31/01
Owner Controlled	736	0	07/01/97A	05/31/01
5480.6281 New Primary Clarifier CBWTP - CSO				
Primary Clarifier CBWTP - CSO	611*	13	02/24/98A	11/30/00
Advertise thru NTP - Primary	0	100	02/24/98A	06/25/98A
Construction - Primary Clarifier	554	0	06/26/98A	09/08/00
Closeout/Startup - Primary	62	0	09/01/00*	11/30/00
5480.6282 WW Prim. Clarifier Mods CBWTP - CSO				
Modify Exist. Primary Clarifier	338*	0	08/01/00	12/03/01
Advertise thru NTP - Modify	54	0	08/01/00*	10/16/00
Construction - Modify Exist.	250	0	10/17/00	10/12/01
Closeout/Startup - Modify Exist.	34	0	10/15/01*	12/03/01
5480.6283 Effluent PS Improvement CBWTP - CSO				
Effluent PS Improvements	756*	0	01/03/00	12/27/02
Advertise thru NTP - Effl. PS	64	0	01/03/00*	04/03/00
Construction - Effl. PS	671	0	04/04/00	11/27/02
Closeout/Startup - Effl. PS	21	0	11/28/02	12/27/02
5480.6284 CBWTP Chlorination Improvements - CSO				
Chlorination System Upgrade	260*	46	08/18/97A	07/12/99
Advertise thru NTP - Chlor.	0	100	08/18/97A	12/17/97A
Construction -	197	30	12/18/97A	04/12/99
Closeout/Startup - Chlor. Sys.	63	0	04/13/99	07/12/99
5480.6285 Dechlorination Facility Hayden Island				
New Chlorination System	541*	0	07/13/98	08/31/00
Advertise thru NTP - New	49	0	07/13/98*	09/18/98
Construction - New Chlorination	428	0	09/21/98	06/01/00
Closeout/Startup - New	64	0	06/02/00	08/31/00
5480.6286 Enviromental Enhancements CBWTP				
Environmental Enhancements	264*	0	11/15/00	12/03/01
Advertise thru NTP - Environ.	56	0	11/15/00*	02/06/01
Construction - Environ.	184	0	02/07/01	10/26/01
Closeout/Startup - Environ.	24	0	10/29/01	12/03/01
5481(P) Willamette Site Acquisition				
5481(P) Willamette Site Acquisition				
5481 - Willamette Site Acqu	127*	89	01/02/95A	06/30/99
Property Purchase - Willamette	253	0	11/02/95A	06/30/99
Pre-design - Willamette WWTF	127	75	01/02/95A	06/30/99
5499(P) Columbia Blvd. WWTF Influent PS				
5499(P) Columbia Slough WWTF Infnt Pump Station				
Columbia Slough Influent Pump	604*	52	11/06/95A	11/20/00
Predesign - Col Sl Influent PS	0	100	11/06/95A	04/23/97A
Design - Col Sl Influent PS	0	100	03/21/97A	03/06/98A
Advertise thru NTP - Col Sl	0	100	03/09/98A	07/06/98A
Construction - Col Sl Influent	440	3	07/07/98A	03/29/00



Project Start	07/01/87
Project Finish	12/01/12
Data Date	06/30/98
Run Date	07/24/98

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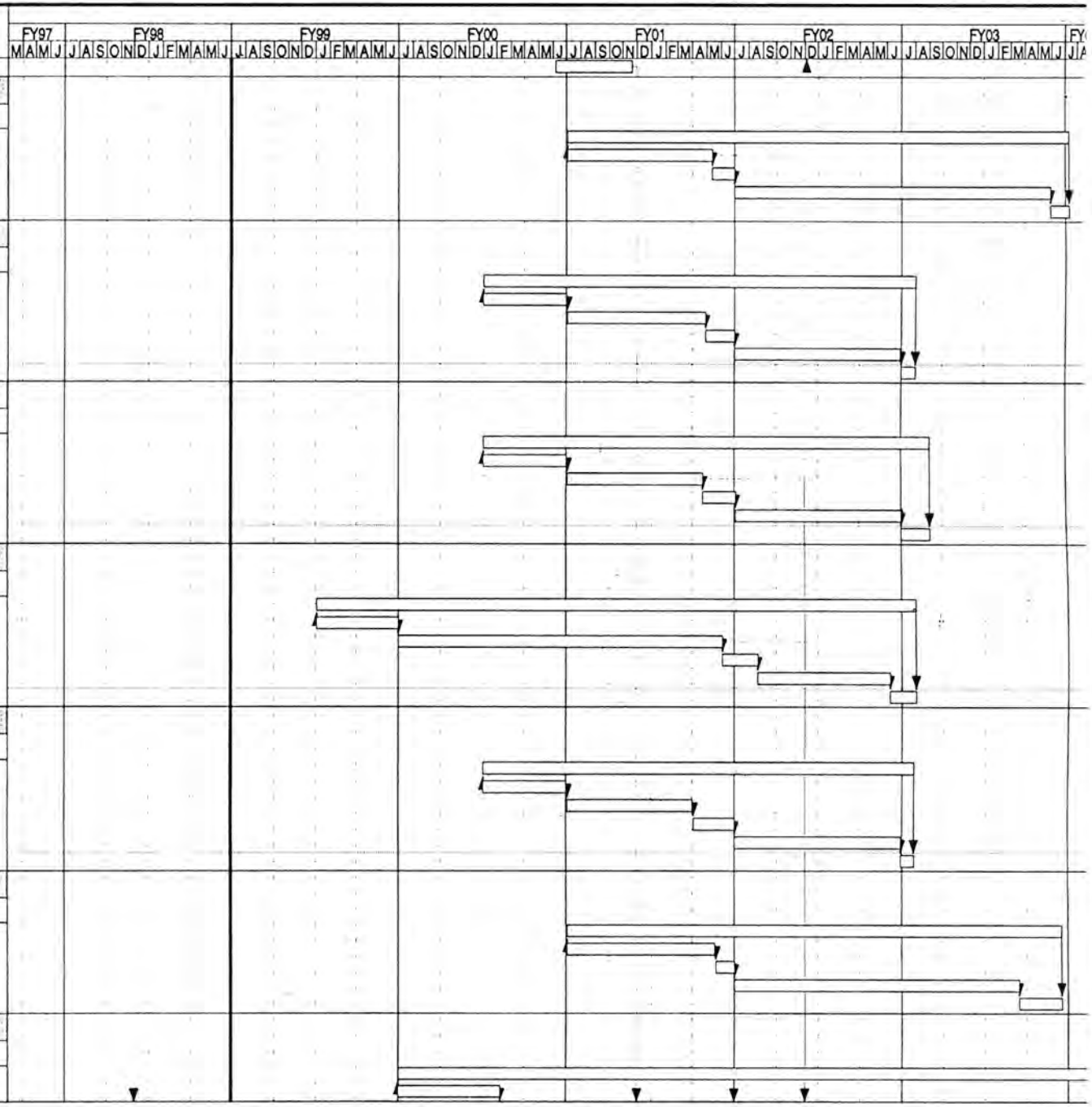
Activity Description	Rem Dur	%	Early Start	Early Finish
Closeout/Startup - Col Sl	117	0	06/06/00*	11/20/00
5502(P) California Storage				
5502(P) California Storage				
California Storage	764*	0	07/03/00	07/11/03
Design - California Storage	217	0	07/03/00*	05/11/01
Advertise for Bids thru NTP -	34	0	05/14/01	06/29/01
Construction - California	483	0	07/02/01	05/28/03
Closeout/Startup - California	30	0	05/29/03	07/11/03
5503(P) Western Half Lents 1 Separation				
5503(P) West Lents Separation				
West Lents Separation	651*	0	01/03/00	07/31/02
Predesign - West Lents	127	0	01/03/00*	06/30/00
Design - West Lents	207	0	07/03/00	04/27/01
Advertise thru NTP - West	44	0	04/30/01	06/29/01
Construction - West Lents	251	0	07/02/01	06/28/02
Closeout/Startup - West Lents	22	0	07/01/02	07/31/02
5504(P) Woods Stream Diversion				
5504(P) Woods/Sheridan Stream Diversion				
Woods/Sheridan Stream	674*	0	01/03/00	09/02/02
Predesign - Woods Stream	127	0	01/03/00*	06/30/00
Design - Woods Stream	203	0	07/03/00	04/23/01
Advertise thru NTP - Woods	49	0	04/24/01	07/02/01
Construction - Woods Stream	251	0	07/03/01	07/01/02
Closeout/Startup - Woods	44	0	07/02/02	09/02/02
5505(P) Sheridan Stream Diversion				
5505(P) Sheridan Stream Diversion				
Sheridan Stream Diversion	904*	0	01/04/99	08/02/02
Predesign - Sheridan Stream	125	0	01/04/99*	06/30/99
Design - Sheridan Stream	486	0	07/01/99	06/05/01
Advertise thru NTP - Sheridan	53	0	06/06/01	08/20/01
Construction - Sheridan Stream	200	0	08/21/01	06/06/02
Closeout/Startup - Sheridan	40	0	06/07/02	08/02/02
5506(P) Carolina Stream Diversion				
5506(P) Carolina Stream Diversion				
Carolina Basin Stream	648*	0	01/03/00	07/26/02
Predesign-Carolina Basin	127	0	01/03/00*	06/30/00
Design-Carolina Basin Stream	187	0	07/03/00	03/30/01
Advertise - NTP-Carolina Basin	64	0	04/02/01	06/29/01
Construction - Carolina Basin	250	0	07/02/01	06/27/02
Closeout/Start - Carolina Basin	20	0	06/28/02	07/26/02
5507(P) Balch River Crossing				
5507(P) Balch River Crossing				
Balch River Crossing	746*	0	07/03/00	06/16/03
Design - Balch River Crossing	222	0	07/03/00*	05/18/01
Advertise thru NTP - Balch	29	0	05/21/01	06/29/01
Construction - Balch River	430	0	07/02/01	03/14/03
Closeout/Startup - Balch River	65	0	03/17/03	06/16/03
5508(P) Balch Pump Station				
5508(P) Balch Pump Station				
Balch Pump Station	1,713*	0	07/01/99	04/17/06
Predesign-Balch Pump Station	151	0	07/01/99*	02/07/00



Project Start 07/01/87
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Early Bar
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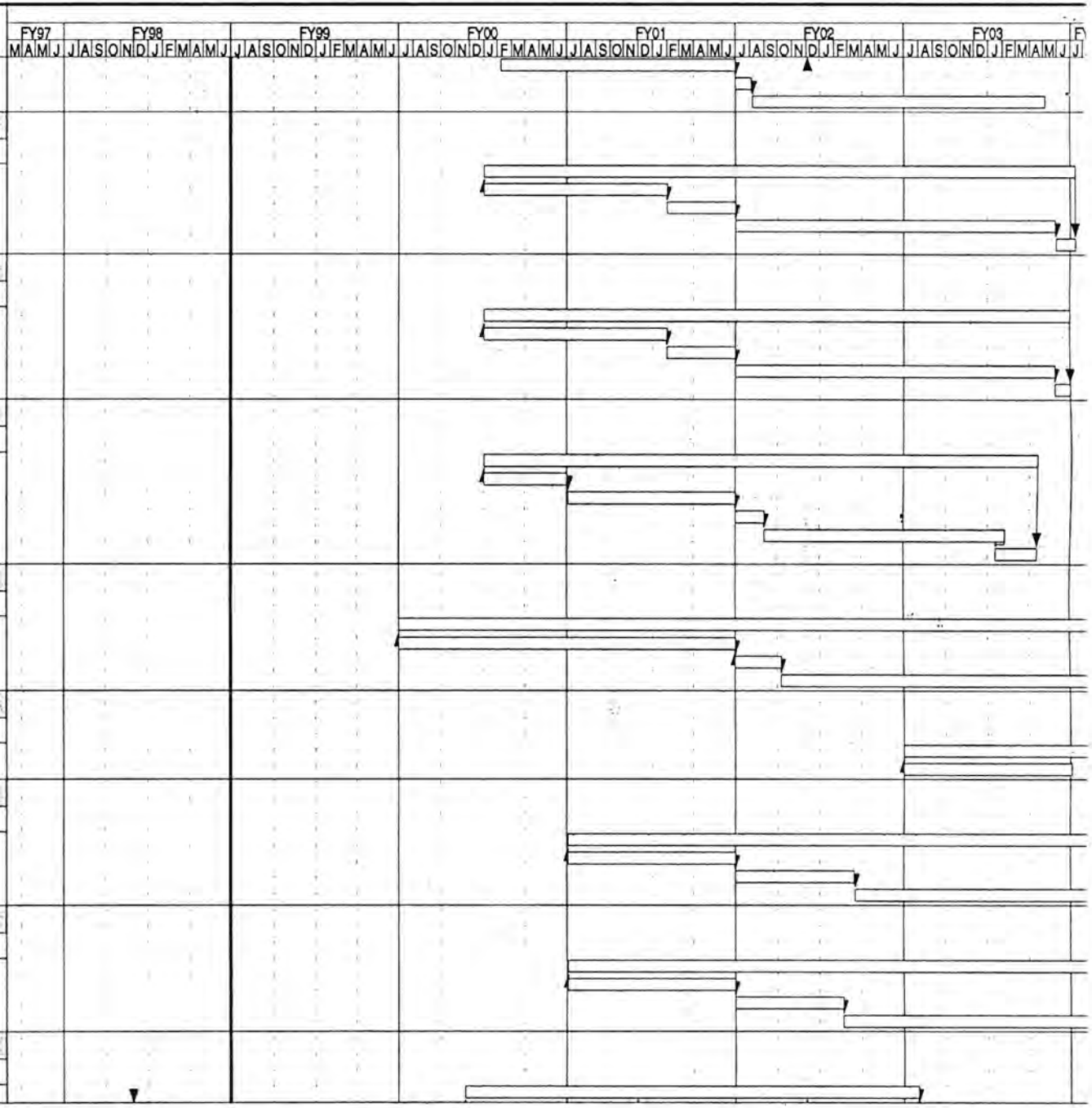
Activity Description	Rem Dur	%	Early Start	Early Finish
Design-Balch Pump Station	353	0	02/08/00	06/29/01
Advertise thru NTP - Balch	24	0	07/02/01	08/03/01
Construction - Balch Pump	442	0	08/06/01	05/05/03
5509(P) Ankeny Pump Station Upgrade				
5509(P) Ankeny Pump Station Upgrade				
Ankeny Pump Station	892*	0	01/03/00	07/14/03
Design-Ankeny Pump Station	273	0	01/03/00*	01/31/01
Adverise thru NTP - Ankeny	105	0	02/01/01	06/29/01
Construction - Ankeny Pump	484	0	07/02/01	05/29/03
Closeout/Startup - Ankeny	30	0	06/02/03	07/14/03
5510(P) Ankeny/Balch Consolidation Conduit				
5510(P) Ankeny/Balch Consolidation Conduit				
Ankeny/Balch Consolidation	883*	0	01/03/00	06/30/03
Design-Ankeny/Balch	273	0	01/03/00*	01/31/01
Advertise - NTP-Ankeny/Balch	105	0	02/01/01	06/29/01
Construction - Ankeny/Balch	483	0	07/02/01	05/28/03
Closeout/St - Ankeny/Balch	22	0	05/29/03	06/30/03
5511(P) Woods/Sheridan/Mill Consol. Conduit				
5511(P) Woods/Sher/Mill Consolidation Conduit				
Woods/Sheridan/Mill Conduit	833*	0	01/03/00	04/18/03
Predesign -	127	0	01/03/00*	06/30/00
Design - Woods/Sheridan/Mill	251	0	07/03/00	06/29/01
Advertise thru NTP -	44	0	07/02/01	08/31/01
Construction -	361	0	09/03/01	02/06/03
Closeout/Startup -	65	0	01/17/03	04/18/03
5512(P) Willamette River WWTF Phase 1				
5512(P) Willamette WWTF Phase 1				
Willamette WWTP	1,984*	0	07/01/99	05/14/07
Design-Willamette WWTP	504	0	07/01/99*	06/29/01
Advertise thru NTP - Willamette	70	0	07/02/01	10/09/01
Construction - Willamette	674	0	10/10/01	06/10/04
5513(P) Willamette River WWTF Phase 2				
5513(P) Willamette WWTF Phase 2				
Willamette WWTP	1,817*	0	07/01/02	09/11/09
Predesign - Willamette WWTP	257	0	07/01/02*	07/03/03
5514(P) Ankeny Force Main				
5514(P) Ankeny Force Main				
Ankeny Force Main	1,018*	0	07/03/00	07/14/04
Design-Ankeny Force Main	251	0	07/03/00*	06/29/01
Advertise thru NTP - Ankeny	177	0	07/02/01	03/15/02
Construction - Ankeny Force	559	0	03/18/02	05/28/04
5515(P) Willamette WWTF Outfall				
5515(P) Willamette WWTF Outfalls				
Willamette Outfall	1,206*	0	07/03/00	04/13/05
Design - Willamette Outfall	251	0	07/03/00*	06/29/01
Advertise thru NTP	160	0	07/02/01	02/20/02
Construction - Willamette	711	0	02/21/02	12/10/04
5523(P) California Consol. Conduit				
5523(P) California Consolidation Conduit				
California Basin Consolidation	678*	0	11/22/99	07/31/02



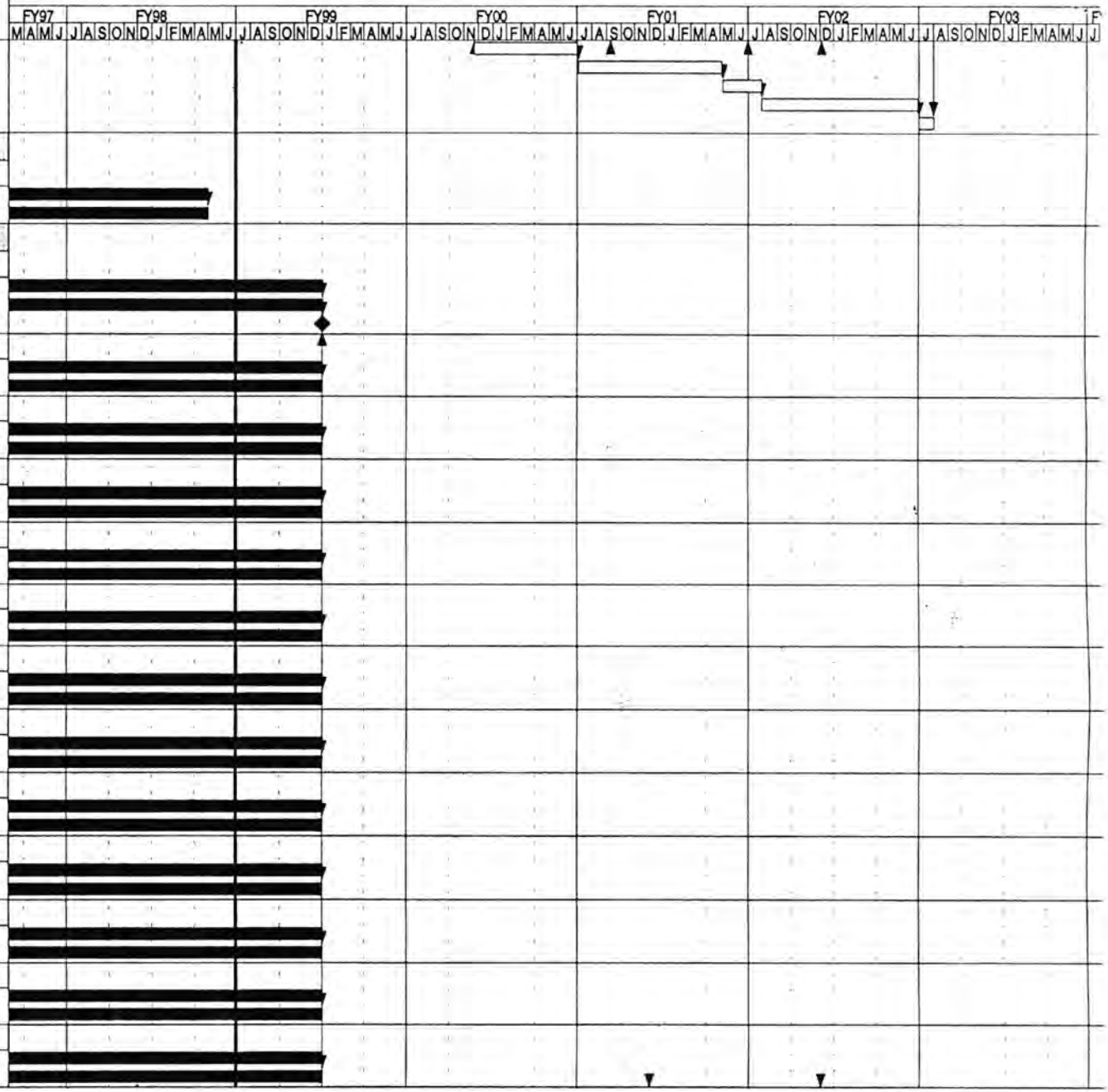
Project Start	07/01/87
Project Finish	12/01/12
Data Date	06/30/98
Run Date	07/24/98

Early Bar
Progress Bar
Critical Activity

MSTR

City of Portland - BES
Capital Improvement Program
Quarterly Report Schedule

Activity Description	Rem Dur	%	Early Start	Early Finish
Predesign-California Basin	154	0	11/22/99*	06/30/00
Design-California Basin	212	0	07/03/00	05/04/01
Advrt-NTP - California Basin	58	0	05/07/01	07/27/01
Construction - California Basin	232	0	07/30/01	06/28/02
Closeout/Startup - California	22	0	07/01/02	07/31/02
5604(P) Downspout MWESB Grant				
5604(P) Downspout MWEB Grant				
Downspout MWEB Grant	0*	100	01/03/95A	04/30/98A
Downspout MWEB Grant	0	100	01/03/95A	04/30/98A
5612(P) Downspout DISC Grant				
5612(P) Downspout Disc Grant				
Summary 5612 - Downspout	128*	87	01/03/95A	12/31/98
Downspout Disc Grant	128	86	01/03/95A	12/31/98
End Milestone - Downspout	0	0		12/31/98*
5612.5615-Discon Arbor Grant				
Discon Arbor Grant	128*	87	01/03/95A	12/31/98
Discon Arbor Grant	128	86	01/03/95A	12/31/98
5612.5616-Discon Woodlawn Grant				
Discon Woodlawn Grant	128*	87	01/03/95A	12/31/98
Discon Woodlawn Grant	128	86	01/03/95A	12/31/98
5612.5617-Discon Concorda Grant				
Discon Concorda Grant	128*	87	01/03/95A	12/31/98
Discon Concorda Grant	128	86	01/03/95A	12/31/98
5612.5618-Discon Vernon Grant				
Discon Vernon Grant	128*	87	01/03/95A	12/31/98
Discon Vernon Grant	128	86	01/03/95A	12/31/98
5612.5619-Discon Alameda Grant				
Discon Alameda Grant	128*	87	01/03/95A	12/31/98
Discon Alameda Grant	128	86	01/03/95A	12/31/98
5612.5620-Discon Overlook Grant				
Discon Overlook Grant	128*	87	01/03/95A	12/31/98
Discon Overlook Grant	128	86	01/03/95A	12/31/98
5612.5658-Discon Kenton Grant				
Discon Kenton Grant	128*	85	08/01/95A	12/31/98
Discon Kenton Grant	128	64	08/01/95A	12/31/98
5612.5743-Discon Portsmouth Grant				
Discon Portsmouth Grant	128*	87	01/03/95A	12/31/98
Discon Portsmouth Grant	128	74	01/03/95A	12/31/98
5612.5744-Discon University Park Grant				
Discon University Park Grant	128*	87	01/03/95A	12/31/98
Discon University Park Grant	128	74	01/03/95A	12/31/98
5612.5815-Beaumont-Wilshire Downspout Grant				
Discon Beaumont - Wilshire	128*	82	03/01/96A	12/31/98
Discon Beaumont - Wilshire	128	75	03/01/96A	12/31/98
5612.5816-King Downspout Grant				
King Downspout Discon Grant	128*	82	03/01/96A	12/31/98
King Downspout Discon Grant	128	75	03/01/96A	12/31/98
5612.5817-Humbolt Discon Grant				
Humbolt Downspout Discon	128*	82	03/01/96A	12/31/98
Humbolt Downspout Discon	128	75	03/01/96A	12/31/98



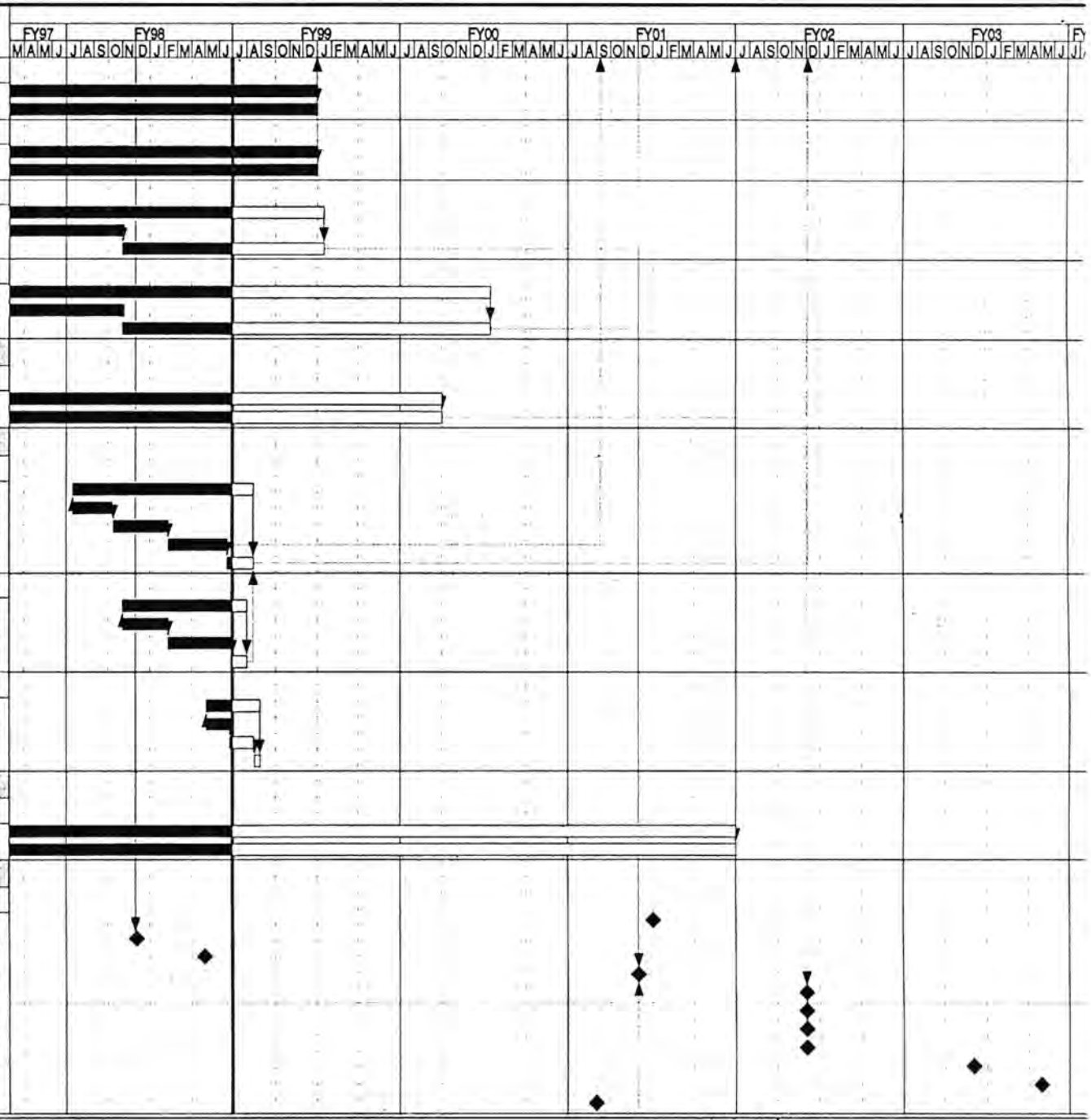
Project Start 07/01/87
Project Finish 12/01/12
Data Date 06/30/98
Run Date 07/24/98

Early Bar
Progress Bar
Critical Activity

MSTR

City of Portland - BES
Capital Improvement Program
Quarterly Report Schedule

Activity Description	Rem Dur	%	Early Start	Early Finish
5612.5818-Piedmont Downspout Grant				
Piedmont Downspout Discon	128*	82	03/01/96A	12/31/98
Piedmont Downspout Discon	128	75	03/01/96A	12/31/98
5612.5819-Sabin Downspout Grant				
Sabin Downspout Discon Grant	128*	82	03/01/96A	12/31/98
Sabin Downspout Discon Grant	128	75	03/01/96A	12/31/98
5612.5925-St Johns Downspout Disconnect Grant				
Project Summary - St Johns A	138*	72	02/05/97A	01/15/99
Design- St Johns A Sep Phase	0	100	02/05/97A	11/03/97A
Const - St Johns A Sep Phase	138	54	11/03/97A	01/15/99
5612.6107-Discon Cath Pk Grant(Col.Slough)				
Project Summary - Discon Cath	388*	48	02/05/97A	01/13/00
Design - Discon Cath Pk Grant	0	100	02/05/97A	11/03/97A
Construction - Discon Cath Pk	388	30	11/03/97A	01/13/00
6011(P) Willamette Predesign				
6011(P) Willamette Predesign				
Willamette Predesign Project	317*	61	07/01/96A	09/30/99
Willamette Predesign	317	50	07/01/96A	09/30/99
6256 (S) Packaging Bldg. Demo				
6256 (P) Packaging Bldg. Demo				
CBWWTP Packaging Bldg	33*	88	07/15/97A	08/14/98
Design - CBWTP Packaging	0	100	07/15/97A	10/10/97A
Adver. thru NTP - CBWTP	0	100	10/13/97A	02/09/98A
Construction - CBWTP	0	100	02/10/98A	06/18/98A
Startup/Close out - CBWTP	33	0	06/19/98A	08/14/98
6256.6276 PRB Bldg.Demo Trucking				
Trucking for Bldg Demo	23*	88	11/03/97A	07/31/98
Adver. thru NTP - Trucking for	0	100	11/03/97A	02/09/98A
Construction - Trucking for Bldg	0	100	02/10/98A	06/30/98A
Startup/Close - Trucking for	23	0	07/01/98A	07/31/98
6256.6403 Temp Site Civil Work				
6403 Summary - Temp Site	43*	48	05/04/98A	08/28/98
Advert thru NPT - Temp Site	0	100	05/04/98A	06/24/98A
Construction - Temp Site Civil	33	23	06/25/98A	08/14/98
Startup/Close out - Temp Site	10	0	08/17/98	08/28/98
CSO Incidental Expenses				
9005-CSO Program Incidental Expenses				
CSO Program Support	757*	40	07/01/96A	06/29/01
CSO Project Support	757	40	07/01/96A	06/29/01
Program Milestones				
ASFO, Permit, and Annual Report Dates				
Report Progress to EQC in a	0	0	01/02/01*	
Submit Final Plans & Specs for	0	100		12/01/97A
Late Construction Start Date for	0	100	05/01/98A	
Eliminate Discharge Violations	0	0		12/01/00*
Eliminate Discharge Violations	0	0		12/01/01*
Submit Final Plans & Specs for	0	0		12/01/01*
Demo that Col SI CSOs are in	0	0		12/01/01*
Submit Updated Facilities Plan	0	0		12/01/01*
Demo that 7 Will CSOs are in	0	0		12/01/02*
Late Construction Start Date for	0	0	05/01/03*	
Submit Annual CSO Progress	0	0		09/01/00*



Project Start	07/01/87
Project Finish	12/01/12
Data Date	06/30/98
Run Date	07/24/98

Early Bar
Progress Bar
Critical Activity

MSTR

City of Portland - BES
Capital Improvement Program
Quarterly Report Schedule

Activity Description	Rem Dur	%	Early Start	Early Finish
Submit Annual CSO Progress	0	0		09/01/01*
Submit Annual CSO Progress	0	0		09/01/02*
Submit Annual CSO Progress	0	100		08/31/97A
Submit Annual CSO Progress	0	0		09/01/98*
Submit Annual CSO Progress	0	0		09/01/99*
Non-Nested CSO Projects				
FPLN - CSO Planning				
CSO Planning	612*	80	01/02/89A	12/01/00
CSO Planning	612*	80	01/02/89A	12/01/00

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COMBINED SEWER OVERFLOW PROGRAM

ANNUAL PROGRESS REPORT TO DEQ

ASFO WQ-NWR-91-75
FISCAL YEAR 98-99
JUNE 30, 1999

ENVIRONMENTAL SERVICES
CITY OF PORTLAND
CLEAN RIVER WORKS

Printed on recycled paper.

COMBINED SEWER OVERFLOW PROGRAM

ANNUAL PROGRESS REPORT TO DEQ

ASFO WQ-NWR-91-75
FISCAL YEAR 98-99
JUNE 30, 1999

ENVIRONMENTAL SERVICES
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COMBINED SEWER OVERFLOW PROGRAM

ANNUAL PROGRESS REPORT TO DEQ

ASFO WQ-NWR-91-75
FISCAL YEAR 98-99
JUNE 30, 1999

ENVIRONMENTAL SERVICES
CITY OF PORTLAND
CLEAN RIVER WORKS

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CITY OF PORTLAND
ENVIRONMENTAL SERVICES

1211 SW Fifth Avenue, Room 800, Portland, Oregon 97204-3713 (503) 823-7740, FAX (503) 823-6995 Dean Marriott, Director

August 30, 1999

Oregon Department of Environmental Quality
Water Quality Division
2020 SW Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

Attention: Richard Santner

SUBJECT: Amended Stipulation and Final Order (ASFO) No. WQ-NWR-91-75
City of Portland Combined Sewer Overflow (CSO) Program
Annual Progress Report

Enclosed please find two copies of the subject report submitted per the requirements of the subject ASFO. The report covers Fiscal Year 98-99, ending June 30, 1999.

This submittal is responsive to Section 12.a. (11) of the ASFO, which states:

By no later than September 1 of each year that this Amended Order is in effect, the Respondent shall submit to the Department and to the Commission for review an annual progress report on efforts to eliminate untreated CSO discharges, subject to the storm return frequencies specified in Section 12.a of this Amended Order. These annual reports shall include at a minimum work completed in the previous fiscal year and the work scheduled to be completed in the current fiscal year.

If you have questions regarding this year's report, please contact me (823-7115) or Lester Lee (823-7186).

Sincerely yours,

Becky Kreag

Becky Kreag
Planning Group Manager

Enclosure

c: Dean Marriott, BES/Director
Gary Irwin, BES/Planning Group/WRPP Project Manager
Lester Lee, BES/Planning Group/IWP Program Manager
Lee Klinger, BES/Manager of CIP Management Group
Joan Saroka, BES/Manager of Communications Group

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CITY OF PORTLAND
COMBINED SEWER OVERFLOW PROGRAM
ANNUAL PROGRESS REPORT
FISCAL YEAR 98-99
(ASFO WQ-NWR-91-75)

CITY OF PORTLAND
BUREAU OF ENVIRONMENTAL SERVICES

JUNE 30, 1999

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I. Summary

The following summarizes the City of Portland's efforts to minimize and/or eliminate Combined Sewer Overflow (CSO) discharges to the Columbia Slough and Willamette River during the past fiscal year:

- Continued work on the Willamette River Basin CSO Predesign Project (WRPP), which will refine the CSO control alternatives identified in the current CSO Management Plan for the Willamette River Basin component of the CSO Control Plan.

- Continued to implement the Cornerstone Projects to reduce stormwater inflow into the combined sewer system.

- Completed the final design on Columbia Slough Consolidation Conduit (CSCC) Segment 3A and the Columbia Boulevard Wet Weather Treatment Facilities (CBWWTF) Outfall, and started the design of the CBWWTF Effluent Pump Station.

- Continued construction of Segments 1, 2, and 5 of the CSCC, the CBWWTF Dry Weather Primaries, and the CBWWTF Chlorination System Improvements, and started construction of Segment 3A of the CSCC, the CBWWTF Dechlorination System, and the CBWWTF Outfall.

- Continued CSO operation and maintenance activities to reduce the environmental impact of current CSO discharges.

- Continued implementation of a comprehensive public information/public education/public involvement program.

The program to control CSOs is on schedule and within the projected budget. The current program budget is $700 million (January 1993 dollars) with expenditures to date of $181.7 million (actual dollars) and an estimated cost at completion of $683.3 million (January 1993 dollars).

The following summarizes the planned efforts to minimize and/or eliminate CSO discharges to the Columbia Slough and Willamette River during the current fiscal year:

- Perform the fourth year of the WRPP. (This work involves stakeholder and technical process activities designed to re-evaluate and refine the current Willamette River Basin CSO Control Plan in terms of costs and benefits to City ratepayers.) Task 9 (the predesign of the selected control plan) will be the focus of the work during the year.

- Incorporate the WRPP and the City's Integrated Watershed Plan in the Public Facilities Plan (PFP) to create a single comprehensive planning document to be called the Portland Clean River Plan.

- Design and/or construct additional CSO Cornerstone Projects (stormwater infiltration drainage sumps, downspout disconnection, stream diversions, and local sewer separation).

- Continue to construct the major CSO control facilities associated with the Columbia Slough Component of the CSO Control Plan.

- Begin the design of some of the CSO control facilities associated with the Willamette River Basin components of the CSO Control Plan.

- Continue current CSO operation and maintenance activities to reduce the environmental impact of current CSO discharges.

- Continued implementation of the public information/education/involvement programs.

II. Introduction

The City of Portland Bureau of Environmental Services (BES) manages the planning, design, construction, and implementation (startup) of all capital projects by means of a Capital Improvement Program (CIP) Management Group. The CIP Management Group programs and tracks capital improvement projects in the six categories identified in the following listing:

Category	Projects Listed at End of FY 98-99	Projects Open During FY98-99
Combined Sewer Overflow	256	91
Maintenance and Reliability	179	93
Mid-County Sewer	30	9
Sewage Treatment	151	82
Surface Water Management	64	30
Systems Development	113	52
Total	**793**	**357**

At the end of FY 98-99 there were 793 individual projects listed in the CIP, with 357 projects listed as "open projects" during the year. "Open projects" are all active projects that were not closed prior to the beginning of FY 98-99.

The 256 CSO projects (see Appendix A for those in the current five year CIP) represent the CSO Control Plan as it currently exists within the City of Portland. This report focuses on the accomplishments on those projects. It should be noted, however, that there are projects in other CIP categories that have or will have a positive impact on the control and/or handling of CSO. The benefit and status of these projects is not covered in this report.

This report is submitted to the Oregon Department of Environmental Quality (DEQ) pursuant to Amended Stipulation and Final Order (ASFO) No. WQ-NWR-91-75 issued to the City of

Portland (City) by DEQ on August 11, 1994. As stipulated in the ASFO, this report summarizes the City's efforts to eliminate unauthorized CSO to the Columbia Slough and the Willamette River during the past fiscal year and identifies the work planned under the CSO Program for the current fiscal year.

The ASFO requires that the report be submitted to DEQ by September 1 of each year that the ASFO remains in effect.

III. Background

At the time the original Combined Sewer Overflow Stipulation and Final Order (SFO) was issued in 1991, approximately 60% of Portland's population was being served by a combined sewer system that collected both municipal wastewater (residential, commercial, and industrial sewage) and municipal stormwater (roof runoff; street and paved surface runoff; and some urban stream runoff). Currently, when there is a storm event in the City, runoff typically exceeds the carrying capacity of the combined sewer system causing overflows to both the Columbia Slough and the Willamette River through up to 52 individual outfalls.

These overflows are in violation of Federal clean water regulations and have been deemed a significant source of water pollution in both the Columbia Slough and the Willamette River. Before control work began in 1990, the City's CSO outfalls discharged on average approximately 6.0 billion gallons of combined sewage annually. Approximately 20% of the content of this annual overflow is projected to be untreated municipal wastewater.

As of June 30, 1999, due to significant interceptor system improvements, completion of numerous diversion structure modification projects, and the completion of many of the Cornerstone Projects, approximately 3.0 billion gallons/year of overflow has been eliminated based on current model projections.

The current ASFO is essentially a 20-year compliance schedule to reduce overflow from the City's combined sewer system. It includes the following major milestones:

- By December 1, 2000, the City must eliminate all CSO discharges to the Columbia Slough that violate provisions of the ASFO.

- By December 1, 2001, the City must eliminate all CSO discharges that violate provisions of the ASFO at 20 of the CSO outfalls (including the Columbia Slough outfalls) consistent with the Facilities Plan approved by the Environmental Quality Commission (EQC).

- By December 1, 2006, the City must eliminate all CSO discharges that violate provisions of the ASFO at 16 of the remaining CSO outfalls consistent with the Facilities Plan approved by the EQC.

- By December 1, 2011, the City must eliminate all remaining CSO discharges that violate provisions of the ASFO consistent with the Facilities Plan approved by the EQC.

Also included in the ASFO are a number of intermediate milestones, including the submittal of annual progress reports to DEQ by September 1 of each year that the ASFO is in effect. The reports are to summarize the work performed during the past fiscal year and identify the work planned for the current fiscal year to eliminate discharges that violate the provisions of the ASFO.

IV. Past Fiscal Year Activities

This section summarizes the CSO abatement efforts for the period beginning July 1, 1998, and ending June 30, 1999. The section is divided into the following subsections:

ASFO Milestones Achieved
Program Planning Accomplished
CSO Control Projects Planned, Designed, and/or Constructed
CSO Operation and Maintenance Activities
Public Involvement Activities

A. ASFO Milestones Achieved

There were no ASFO milestones scheduled for completion during the fiscal year. All 35 scheduled SFO/ASFO milestones to date have been met on time since the signing of the initial SFO.

B. Program Planning Accomplished

Program planning continues to be an important aspect of the work being performed under the CSO Program. Planning is important to insure that the technical requirements of the ASFO are met within the schedule and budget constraints of the CSO Program. Important planning activities accomplished during the fiscal year were as follows:

- Internal meetings and meetings with DEQ related to the WRPP and the City's Integrated Watershed Planning.

- Internal meetings and meetings with the Willamette River Stakeholders Task Force (WRSTF) to develop and provide technical and nontechnical information related to the progress on the WRPP and the Integrated Watershed Planning. (The WRSTF, which includes neighborhood, business, industry, civic, environmental, city, and regulatory representatives, has been providing guidance on the WRPP and Integrated Watershed Planning. The WRSTF will be making recommendations to the Portland City Council and the Bureau of Environmental Services on how to best deal with the control of CSO and other environmental issues.) Six formal meetings were held during the fiscal year.

- Continued the WRPP, which will refine the CSO control alternatives identified in the current CSO Management Plan and perform the predesign of the recommended projects. The

planning is essentially complete, with the predesign to be completed by December 2000. The results of the WRPP will be integrated into the City's Clean River Program.

An important outcome of the WRPP work was the identification and evaluation of the final CSO control alternatives for Willamette River Basin CSO. The result was the selection of the recommended plan at a workshop held on June 16, 1999.

C. CSO Control Projects Planned, Designed and/or Constructed

As noted in Section II, 91 of the 256 projects in the City's CIP directly related to the CSO Program were active during the fiscal year. To be "active" a project must have been in at least one of the following project phases:

Predesign
Design
Advertise/Bid
Construction
Close Out/Startup

A review of the schedules in the Appendix A information will provide a visual indication of the status of each of the 91 projects. The following is a narrative summary for some of the major projects and project groups:

Downspout Disconnections

During FY 98-99, the City continued with the voluntary program in most of the Columbia Slough Watershed; completed work at 95 % of the homes involved in the mandatory programs in St. Johns A, Oswego, and Oregonian basins; and completed work at 75 % of the homes involved in the mandatory program in the St. Johns B basin. All told, the City disconnected 5,256 downspouts at 2,319 residences during the fiscal year. As a result, an estimated 61 million additional gallons per year of stormwater has been removed from the combined sewer system. From the beginning of the Downspout Disconnection Program through June 30, 1999, downspouts have been disconnected at over 7,830 homes removing an estimated 132 million gallons per year of stormwater from the combined sewer system.

Stormwater Infiltration Sumps

Continued to construct sumps in the Willamette River Watershed, with a total of 38 sumps installed during the fiscal year. All of the sumps were installed in the various Taggart basins.

Tanner Creek Stream Separation

Continued to work on the various components (Phases 1 through 5)) of the Tanner Creek stream separation work. Design work was accomplished on Phases 2 and 3, and construction was completed on the Phase 1, Unit 2 component.

Columbia Slough Consolidation Conduit (CSCC)

The CSCC has seven components of design work (Segments 1, 2, 3A, 3B, 4, 5, & 6). Construction on Segment 5 was completed last fiscal year. Work was performed on the remaining six segments during the past fiscal year. Design work was performed on Segments 3A, 3B, & 4; Segments 3A was bid; and construction took place on Segments 1, 2, and 3A.

Columbia Boulevard Wet Weather Treatment Facilities (CBWWTF)

The CBWWTF has one major design package with seven individual construction packages (Flowmeter Replacement, New Primary Clarifiers, Modification to Wet Weather Primaries, Effluent Pump Station Improvements, CBWTP Chlorination System Improvements, Dechlorination Facility, and Environmental Enhancements). Work was performed on four of the construction packages during the past fiscal year. The Flowmeter Replacement package was completed, and bidding and/or construction was performed on the New Primary Clarifiers, the CBWTP Chlorination System Improvements, and the Dechlorination Facility.

CBWWTF Influent Pump Station

The CBWWTF Influent Pump Station has one design and one construction package. Construction began during the fiscal year.

CBWWTF Outfall

The CBWWTF Outfall has one design package and two construction packages (Outfall and Outfall Clear & Grub). The Clear & Grub construction package was completed during the fiscal year, and construction began on the Outfall package.

Willamette River CSO Predesign Project (WRPP)

The WRPP is a 14 task planning and preliminary design project designed to re-evaluate and refine the current CSO control plan for the Willamette River Basin. The project has the following tasks:

S1 Stakeholders Task Force Support (85)
S2 Public Outreach Activities (15)
S3 Willamette River Basin Activities (50)
M1 M/W/ESB Support Activities (20)
T1 CSO Pollutant Characterization (95)
T2 Regulatory Issues and Permitting (75)
T3 Water Quality Impact Evaluations (95)
T4 Green Solutions and Inflow Controls (100)

T5 Collection System Optimization (80)
T6 Overflow Treatment Strategy (100)
T7 Identification of Integrated Control Alternatives (90)
T8 Evaluation of Integrated Control Alternatives (80)
T9 Predesign of Selected CSO Control Plan (5)
T10 Project Management (75)

Work was performed on all tasks during the fiscal year. The values in parenthesis after each task description are the total percent complete at the end of the fiscal year. Overall the project was estimated to be 65 percent complete at the end of the fiscal year based on expenditure of the professional services contract budget.

D. CSO Operation and Maintenance Activities

Continued implementation of operation and maintenance practices that reduced the impact of CSOs on the receiving streams. Although the following represents the citywide effort, the majority of this work was performed within the CSO area:

Sewer Cleaning	163 miles
Catch Basin/Inlet Cleaning	18,043 units cleaned
Drainage Sump Cleaning	932 units cleaned
Street Sweeping	54,653 curb miles

E. Public Involvement Activities

Public involvement activities related to the CSO Program continued on both the program and the project level during the fiscal year. The activities included general public information activities, general public education activities, Willamette River activities and events, and Columbia Slough CSO activities and events. The following is a summary of the activities and events in each category:

General Public Information

Public Notification/River Alert Program: The City continues the River Alert program, which began in the summer of 1991. The program includes CSO identification signs. These signs indicate where outfall pipes are located (similar to a NO PARKING sign). It also includes folding signs with the message "WARNING: SEWAGE." The folding signs are opened and closed every time there is an overflow from May 15 to October 15 each year. During the winter months, the signs remain open with the message in view for boaters and other river users.

In 1998-99, the City redesigned and replaced 55 CSO outfall identification signs and 15 folding CSO warning signs at public access points along the Willamette River and Columbia Slough.

The River Alert program also notifies the media (by fax) every time there is an overflow from May 15 to October 15. The Oregonian newspaper publishes an overflow icon on the top of the weather page when overflows occur.

Clean River Works Construction Signage: The City requires contractors to develop and post signage at any sewer system-related construction site with the Clean River Works message to inform the public that the construction is a sewer project designed to keep our rivers and streams clean.

Media Relations: The City uses several techniques to gain media coverage of CSO projects. Media advisories, news releases and media events are used to alert the media about CSO projects. Individual briefings are also held with reporters. The City provides timely, accurate responses to all media requests and keeps files of all newsprint and broadcast media coverage.

The City released 27 media notifications regarding the combined sewer overflow program during the fiscal year. Twelve were related to actual combined sewer overflows during the summer notification period. Other notifications were about Big Pipe construction, the work of the Willamette River Stakeholders Task Force, and general information about the program.

Bill Inserts: The City produces a water/sewer bill insert each year to provide 120,000 residential customers with information about the combined sewer overflow program.

General Public Education

Environmental Education: The City provides free water quality education programs to Portland schools and community groups. A special Combined Sewer Overflow presentation is available for students in grades 6 to 12. Students learn the history of the CSO problem, talk about solutions, and discuss how to pay for improvements. More than 7,000 students were contacted with information about the combined sewer overflow program during the fiscal year.

A plastic model has been developed that physically shows (with the use of water) how overflows actually occur. The Clean River Quest computer game and a computer kiosk are still used by schools and community groups. The kiosk is located at OMSI.

Web Site: The Bureau of Environmental Services has an Internet site with the following address: ***www.enviro.ci.portland.or.us***. This site has a section about the combined sewer overflow program that includes specific information about the Columbia Slough, Cornerstone, and Willamette River CSO projects.

In February 1999, the City developed a newsletter on watershed and combined sewer overflow activities, which was mailed to 288,000 Portland households.

Willamette River Activities and Events

The City develops public outreach plans with guidance from citizen task forces and committees. Over the past year, with volunteer support, the bureau developed new programs to help citizens

learn more about the importance of protecting Portland's streams and rivers. These hands-on programs focused on getting people to learn more about issues impacting rivers and streams. The activities and events included:

- Wild on the Willamette Walks and Boat Tours
- Neighborhood Association Meetings
- Community Fairs and Events
- Publications

They successfully educated and involved:

- 307 citizens in 18 Willamette River Walks and Boat Tours;
- 551 citizens in 26 neighborhood and business meetings;
- 1,340 people through 10 community fairs, festivals and events;
- 778 people and students in 33 storm drain stenciling events; and
- 33,738 using 8 newsletters and project fact sheets.

In addition, the City printed 10,000 Wild on the Willamette (WOW) newsletters with information on watershed issues and activities.

Volunteer Activities: In addition to the activities listed above, 10 citizen volunteers have been trained to help the City broaden outreach activities. Staff members and volunteers have made contact with over 84,595 people, utilized 6,049 volunteer hours and created 144 different partnerships with environmental, business, and a variety of non-profit community organizations.

Willamette River Stakeholders Task Force (WRSTF): The WRSTF is a 24 member committee developed in 1996 to assist the Bureau with a technical and policy review of the Willamette River portion of the CSO program. The group is scheduled to complete their work by September of 1999. At that time, they will present their recommendations to City Council regarding how the City should move forward to improve water quality and control Willamette River CSOs.

Columbia Slough CSO Activities and Events

Columbia Slough Consolidation Conduit (CSCC): During FY 98-99 the Columbia Slough CSO activities focused on providing the public with information about the construction of CSO related projects. The City distributed a Big Pipe Update newsletter in North Portland and continued to meet with the Conduit Steering Committee. Several newspapers and radio and television stations ran stories about the project. Traffic advisories and construction notices were routinely distributed. Environmental Services staff set up information tables at the Kenton Fair and St. Johns Fair with information about the Big Pipe and other sewer system projects.

CBWWTF Outfall Project: Construction is underway on the CBWWTF Outfall project. During the course of the year, City staff met several times with members of the Class Harbor Neighborhood Association and the Hayden Island Neighborhood Association to keep them informed about the project and to get input about construction issues.

Sewer Separation Projects: Construction began on the North Portland Sewer Separation Project during the summer of 1999. BES issued regular news releases and traffic advisories to keep the public informed of project developments.

CBWTP Citizen Advisory Committee (CAC): The CAC, facilitated by BES staff, continued to meet throughout the year. Members of the CAC served on the Conduit Steering Committee and the Outfall Advisory Committee. To keep the committee well educated and informed, committee members are given a presentation each month on various topics related to the CSO construction projects and the treatment plant. Recent topics included a digital photo and construction methodology presentation on construction of the CSCC.

V. Planned Efforts for Current Fiscal Year

The current fiscal year's efforts covers the period beginning July 1,1999, through June 30, 2000. The work planned for the fiscal year will focus on continued implementation of the Cornerstone Projects throughout the CSO area, the construction/implementation of the control facilities in the Columbia Slough Watershed, the predesign of the control facilities for the Willamette River Basin. The current year's work is divided into the same five subsections used for the previous year's efforts.

A. ASFO Milestones to be Achieved

Except for the submittal of this CSO Progress Report, there are no major ASFO milestones during the current fiscal year.

B. Program Planning to be Accomplished

Program level planning will continue during the current fiscal year. The activities that will directly impact the CSO Program include:

- Continue work on the WRPP to produce a more detailed predesign of the Willamette River Basin CSO control plan. All remaining tasks of the WRPP (see Section IV.C) except Task 9 (Predesign of the Selected CSO Control Plan) are scheduled to be completed during the fiscal year. Task 9 is expected to be more than 70 % complete by the end of the fiscal year.

- Preparation of a Clean River Plan for the City of Portland Willamette Watershed. The purpose of this work is to integrate all the planning and project work that is taking place in the watershed (such as systems development/maintenance, system optimization, CSO control, stormwater management, watershed restoration, Endangered Species Act (ESA) requirements, and flood protection) into a common planning document that can be use to optimize and prioritize the work necessary to best achieve the goal in the watershed. The work accomplished under the WRPP will be "rolled" into the Clean River Plan. The City expects to present it's recommendations and request for changes in the ASFO during the year.

C. CSO Control Projects to be Planned, Designed and/or Constructed

The CSO control projects to be planned, designed and/or constructed during the current fiscal year are defined in the schedule in Appendix A. The work includes the continuation of the inflow reduction projects (including stormwater infiltration sump construction, downspout disconnections, stream diversion projects, and sewer separations) along with major CSO conveyance, storage, and treatment facilities to control the Columbia Slough outfalls. As noted in Subsection B above, the predesign of the CSO control projects for the Willamette River Basin will begin and be carried to approximately 70 % completion. The schedule shows that over 86 CSO projects will be active during the fiscal year.

D. CSO Operation and Maintenance Activities Planned

Continue the implementation of operation and maintenance practices that reduce the impact of CSOs on receiving streams. This Citywide effort will include the following project work:

Sewer Cleaning:	175 miles
Catch Basin/inlet Cleaning:	18,000 catch basin/inlets
Drainage Sump Cleaning:	1,572 sumps/sedimentation manholes
Street Sweeping:	55,890 curb miles

E. Public Involvement Activities Planned

The public information, education, and involvement activities planned for the current year include a continuation of the same types of activities conducted during FY 98-99. Some of the programs include:

- Wild on the Willamette walks and boat tours
- H20 boat tours
- Volunteer recruitment and training
- CSO classroom education program
- Willamette River Stakeholder Task Force
- CSO River Alert signage/notification program (signs will be updated this year)
- Continued promotion and education outreach for the Downspout Disconnection Program.
- CBWTP Citizen Advisory Committee
- CSCC construction notifications
- Tanner Creek construction notifications
- Wild on the Willamette newsletter
- Rivers and Streams newsletter

VI. Conclusions

- The City is making very good progress and is on schedule towards the target reduction of CSOs as evident by the above list of accomplishments and the work planned for the current year.

- There were no ASFO milestones scheduled during FY 98-99. This means that all of the 35 SFO/ASFO milestones scheduled to be completed through the end of FY 98-99 have been met on time. The City is facing a critical cross road in the next year to determine how to achieve the best long-term benefit for the Willamette River and local tributaries.

- The City conducted substantial operation and maintenance of the CSO collection system during the past fiscal year to reduce the environmental impact of current CSO discharges, and the City plans to continue with this effort during the current fiscal year.

- The public involvement/public outreach activities will continue to expand and improve the public's understanding of the City's combined sewers and the impact of CSO discharges on water quality in the Columbia Slough and the Willamette River. The City will continue to deliver a comprehensive Clean River message through quarterly direct mail newsletters to the ratepayers.

- Because of significant interceptor system improvements, completion of numerous diversion structure modification projects, and rapid implementation of the Cornerstone Projects to date, the City has eliminated an estimated 3.0 billion gallons/year of CSO from the Columbia Slough and Willamette River. This represents approximately 52% of the total volume of CSO that must be controlled under the conditions of the ASFO.

- The City will be integrating the Willamette River CSO Control Plan with other planning in the City's Willamette Watershed into an integrated Clean River Plan during FY 99-00. Control of remaining CSO will require escalating investment of critical interest to the City ratepayers. The City wants to provide assurance that the future investment will provide the best measurable results.

APPENDIX A

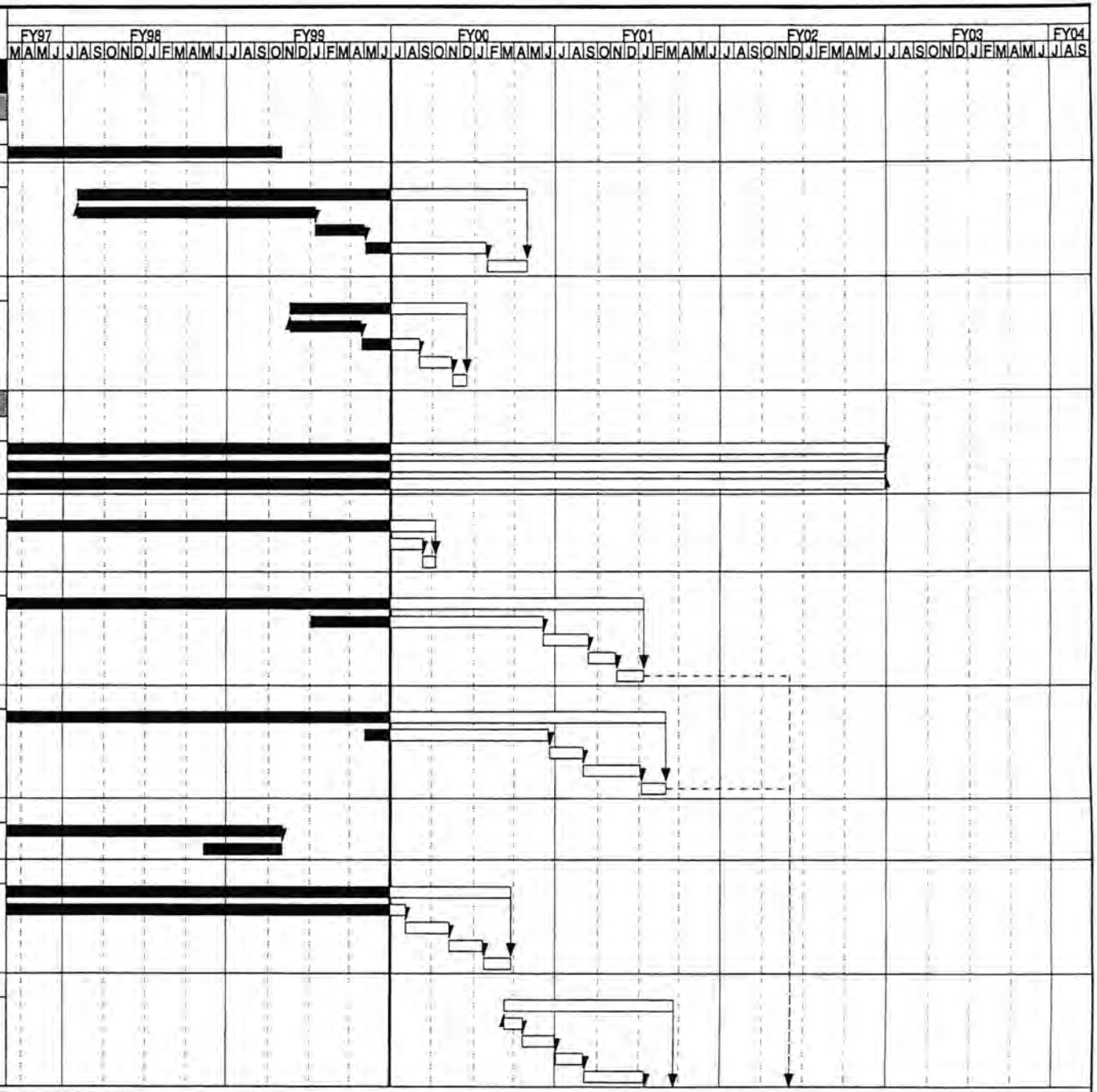
LISTING AND CURRENT SCHEDULE

COMBINED SEWER OVERFLOW PROGRAM PROJECTS

CITY OF PORTLAND
BUREAU OF ENVIRONMENTAL SERVICES

CAPITAL IMPROVEMENT PROGRAM

Activity Description	Rem Dur	%	Early Start	Early Finish
Combined Sewer Overflow Program				
5037(P) NW 110th Ave. Separation				
5037(P) NW 110th Sewer Separation				
Predesign - NW 110th Ave	0	100	08/03/92A	10/30/98A
5037.6241 NW 110th St. Pump Station upgrade				
Linnton PS Improvmnt	210*	70	08/01/97A	04/28/00
Design - Linnton Pump Sta	0	100	08/01/97A	01/11/99A
Adver thru NTP - Linnton Pump	0	100	01/12/99A	04/30/99A
Construction - Linnton Pump	146	22	05/03/99A	01/28/00
Startup/Closeout - Linnton	64	0	01/31/00	04/28/00
5037.6490				
Summary	117*	57	11/16/98A	12/15/99
Design	0	100	11/16/98A	04/23/99A
Adver thru NTP	44	0	04/26/99A	08/31/99
Construction	51	0	09/01/99	11/12/99
Startup/Closeout	22	0	11/15/99	12/15/99
5083(P) CSO Sump Program				
5083(P) CSO Drainage Sump Program				
Hammock- CSO Drainage	756*	77	09/29/89A	06/28/02
Construction- CSO Drainage	756	10	09/29/89A	06/28/02
Prepare Report of Columbia	756	0	07/05/95A	06/28/02
508X-Willamette Basin 3 Sumps				
Willamette River Basin Phase 3	71*	95	09/27/93A	10/08/99
Monitor Willamette Basin	49	0	07/01/99*	09/09/99
Prepare Report for Willamette	21	0	09/10/99	10/08/99
5083.5425-Stark Basin CSO Sump Project, Unit #5				
Stark Basin Sump #5	388*	76	09/16/94A	01/12/01
Design & Bid - Stark Sump #5	234	0	01/04/99A	06/02/00
Advertise thru NTP - Stark	69	0	06/05/00	09/11/00
Construction - Stark Basin	43	0	09/12/00	11/09/00
Close Out/Startup - Stark Basin	42	0	11/13/00	01/12/01
5083.5427-Stark Basin CSO Sump Project, Unit #7				
Stark Basin Sump #7	421*	74	09/16/94A	03/02/01
Design - Stark Basin Sump #7	244	14	05/03/99A	06/16/00
Advertise thru NTP - Stark	52	0	06/19/00	08/30/00
Construction - Stark Basin	87	0	08/31/00	01/05/01
Closeout/Startup - Stark Basin	38	0	01/08/01	03/02/01
5083.5494-Taggart Basin CSO Sump #5				
Taggart Basin Sump #5	0*	100	05/08/95A	11/02/98A
Closeout/Startup - Taggart	0	100	05/12/98A	11/02/98A
5083.5495-Taggart Basin CSO Sump #6				
Taggart Basin Sump #6	185*	85	03/15/95A	03/24/00
Design - Taggart Basin Sump	23	0	06/20/95A	08/02/99
Advertise thru NTP - Taggart	70	0	08/03/99	11/09/99
Construction - Taggart Basin	48	0	11/10/99	01/21/00
Closeout/Startup - Taggart	44	0	01/24/00	03/24/00
5083.6109 Beech Basin Sumps Phase I				
Beech Basin Phase I	258*	0	03/10/00	03/19/01
Predesign - Beech Basin Phase	30	0	03/10/00*	04/20/00
Design - Beech Basin Phase I	50	0	04/21/00	06/30/00
Advertise thru NTP - Beech	44	0	07/03/00	09/01/00
Construction - Beech Basin	90	0	09/05/00	01/12/01



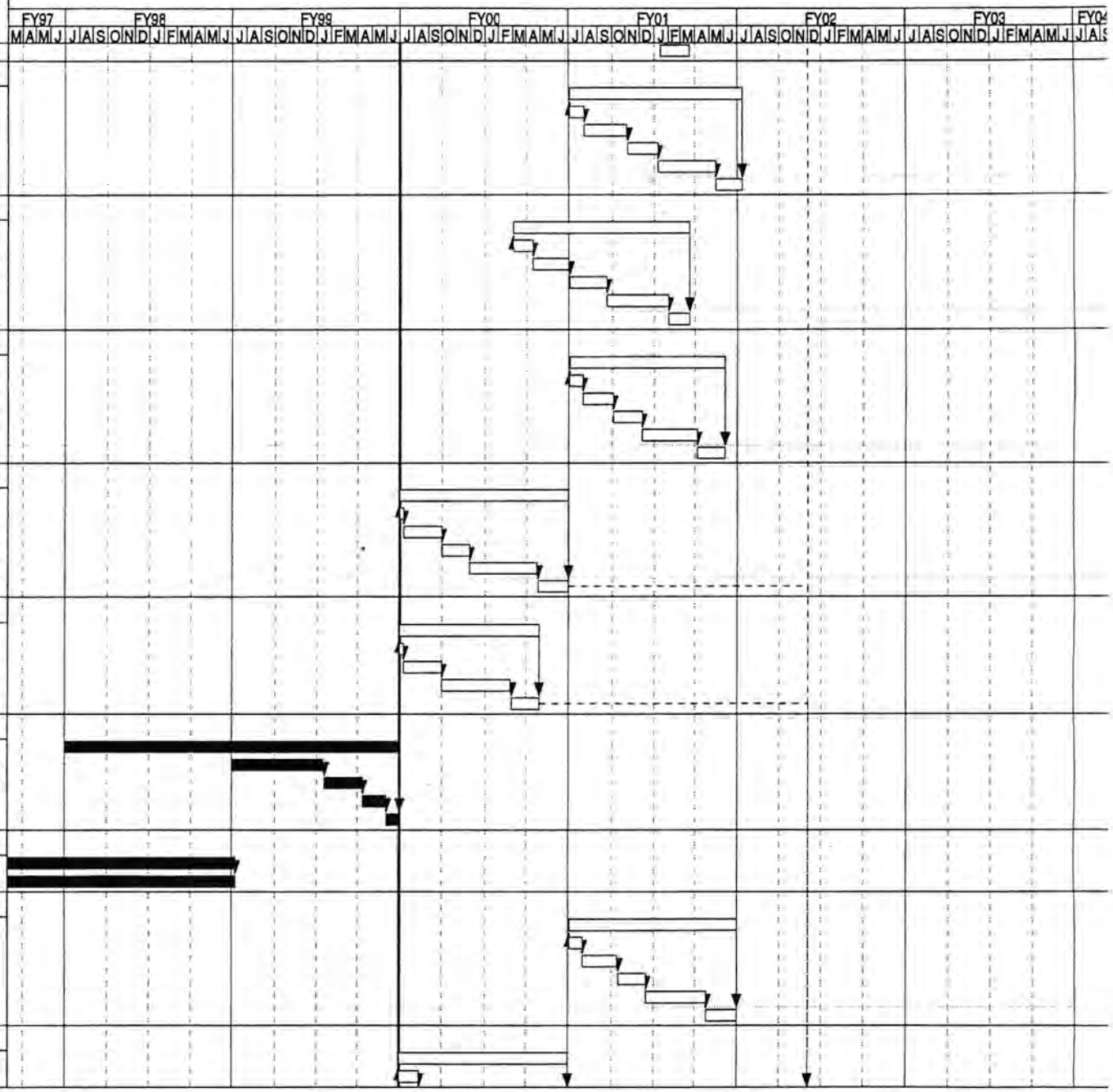
Project Start 07/01/87
Project Finish 12/01/12
Data Date 06/30/99
Run Date 07/22/99

Early Bar
Progress Bar
Critical Activity

MSTR

City of Portland - BES
Capital Improvement Program
Quarterly Report Schedule

Activity Description	Rem Dur	%	Early Start	Early Finish
Closeout/Startup - Beech Basin	44	0	01/15/01	03/19/01
5083.6110 Beech Basin Sumps Phase II				
Beech Basin Phase II	259*	0	07/03/00	07/12/01
Predesign - Beech Basin Phase	22	0	07/03/00*	08/02/00
Design - Beech Basin Phase II	66	0	08/03/00	11/03/00
Advertise thru NTP - Beech	42	0	11/06/00	01/08/01
Construction - Beech Basin	88	0	01/09/01	05/14/01
Closeout/Startup - Beech Basin	41	0	05/15/01	07/12/01
5083.6111 Essex Basin Sumps Phase I				
Essex Basin Phase I	263*	0	03/03/00	03/19/01
Predesign - Essex Basin Phase	30	0	03/03/00*	04/13/00
Design - Essex Basin Phase I	55	0	04/14/00	06/30/00
Advertise thru NTP - Essex	56	0	07/03/00	09/20/00
Construction - Essex Basin	90	0	09/21/00	01/31/01
Closeout/Startup - Essex Basin	32	0	02/01/01	03/19/01
5083.6112 Essex Basin Sumps Phase II				
Essex Basin Phase II	232*	0	07/03/00	06/04/01
Predesign - Essex Basin Phase	20	0	07/03/00*	07/31/00
Design - Essex Basin Phase II	45	0	08/01/00	10/03/00
Advertise thru NTP - Essex	45	0	10/04/00	12/07/00
Construction - Essex Basin	80	0	12/08/00	04/04/01
Closeout/Startup - Essex Basin	42	0	04/05/01	06/04/01
5083.6113 Stark Basin Sumps Unit 5&6 Phase II				
Stark Basin Unit 5&6 Phase II	253*	0	07/01/99	06/30/00
Predesign - Stark Basin Unit	4	0	07/01/99*	07/07/99
Design - Stark Basin Unit 5&6	60	0	07/08/99	09/30/99
Advert thru NTP - Stark Basin	40	0	10/01/99	11/29/99
Construction - Stark Basin Unit	100	0	11/30/99	04/21/00
Closeout/Startup - Stark Basin	49	0	04/24/00	06/30/00
5083.6114 Stark Basin Sumps Unit 7 Phase II				
Stark Basin Unit 7 Phase II	207*	0	07/01/99	04/26/00
Predesign - Stark Basin Unit 7	4	0	07/01/99*	07/07/99
Design - Stark Basin Unit 7	60	0	07/08/99	09/30/99
Advertise thru NTP - Stark	100	0	10/01/99	02/25/00
Construction - Stark Basin Unit	43	0	02/28/00	04/26/00
5083.6116 Taggart Basin Sumps Unit 4 Phase II				
Taggart Basin Unit 4 Phase II	0*	100	07/01/97A	06/29/99A
Design - Taggart Basin Unit 4	0	100	07/01/98A	01/15/99A
Advertise thru NTP - Taggart	0	100	01/19/99A	04/09/99A
Construction - Taggart Basin	0	100	04/12/99A	06/02/99A
Closeout/Startup - Taggart	0	100	06/03/99A	06/29/99A
5083.6119 Taggert Basin Sumps Unit 6 Phase II				
Taggart Basin Unit 6 Phase II	0*	100	03/15/95A	07/08/98A
Design - Taggart Basin Unit 6	0	100	06/20/95A	07/08/98A
5083.6122 Riverside Basin Sumps Unit 1 Phase II				
Riverside Basin Unit 1 Phase II	251*	0	07/03/00	06/29/01
Predesign - Riverside Basin	20	0	07/03/00*	07/31/00
Design - Riverside Basin Unit 1	53	0	08/01/00	10/13/00
Advertise thru NTP - Riverside	42	0	10/16/00	12/14/00
Construction - Riverside Basin	90	0	12/15/00	04/25/01
Closeout/Startup - Riverside	46	0	04/26/01	06/29/01
5083.6123 Riverside Basin Sumps Unit 2 Phase I				
Riverside Basin Unit 1 Phase II	253*	0	07/01/99	06/30/00
Predesign - Riverside Basin	30	0	07/01/99*	08/12/99



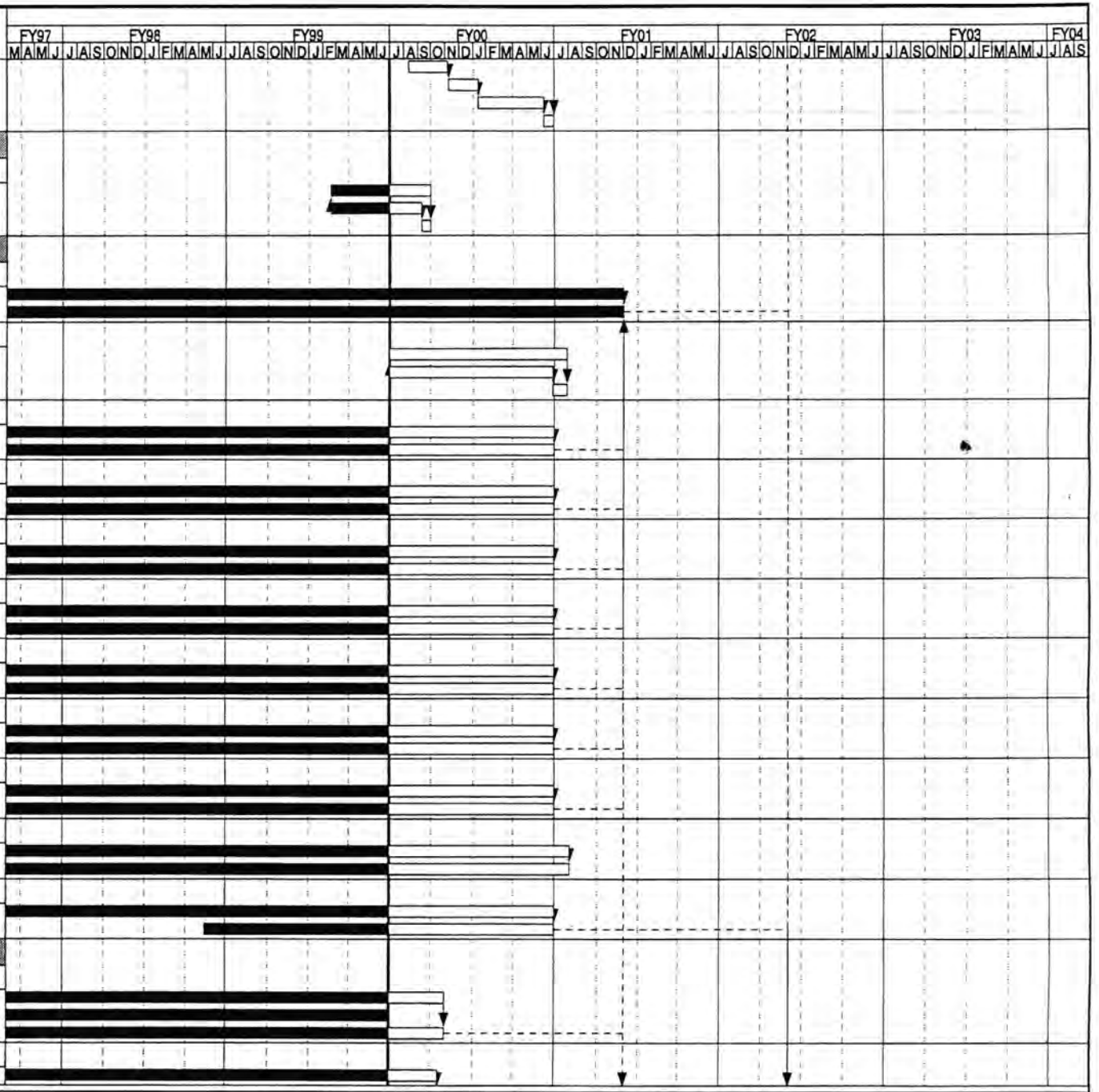
Project Start	07/01/87
Project Finish	12/01/12
Data Date	06/30/99
Run Date	07/22/99

Early Bar
Progress Bar
Critical Activity

MSTR

City of Portland - BES
Capital Improvement Program
Quarterly Report Schedule

Activity Description	Rem Dur	%	Early Start	Early Finish
Design - Riverside Basin Unit 2	60	0	08/13/99	11/05/99
Advertise thru NTP - Riverside	44	0	11/08/99	01/12/00
Construction - Riverside Basin	100	0	01/13/00	06/05/00
Closeout/Startup - Riverside	19	0	06/06/00	06/30/00
5152(P) Inverness Pump Station				
5152.6446 - Inv.Frc.Main Landscape Restore				
Summary - Inver.Force Main	65*	59	02/18/99A	09/30/99
Construction - IFM Landscape	49	64	02/18/99A	09/08/99
Closeout/Startup - IFM	16	69	09/09/99	09/30/99
5161(P) Downspout Disconnect Program				
5161(P) Downspout Disconnect Program				
Roof Drain Disconnect Program	360*	76	01/17/95A	12/01/00
Construction - Columbia Slough	360	71	07/03/95A	12/01/00
5161.516X-Will Dwnspout Disconnect Results Study				
Monitor\Model Will Downspout	272*	0	07/01/99	07/28/00
Monitor\Model Will Downspout	250	0	07/01/99*	06/27/00
Prepare Report, Will	22	0	06/28/00	07/28/00
5161.5808-Alameda Downspout Discon				
Downspout Discon In Alameda	254*	77	03/01/96A	06/30/00
Downspout Discon In Alameda	254	50	03/01/96A	06/30/00
5161.5809-Beaumont-Wilshire Downspout Discon				
Downspout Discon In	254*	77	03/01/96A	06/30/00
Downspout Discon In	254	50	03/01/96A	06/30/00
5161.5810-Boise Downspout Discon				
Downspout Discon In Boise	254*	77	03/01/96A	06/30/00
Downspout Discon In Boise	254	50	03/01/96A	06/30/00
5161.5811-Humbolt Downspout Discon				
Downspout Discon In Humbolt	254*	77	03/01/96A	06/30/00
Downspout Discon In Humbolt	254	0	03/01/96A	06/30/00
5161.5812-King Downspout Discon				
Downspout Discon In King	254*	77	03/01/96A	06/30/00
Downspout Discon In King	254	57	03/01/96A	06/30/00
5161.5813-Overlook Downspout Discon				
Downspout Discon In Overlook	254*	77	03/01/96A	06/30/00
Downspout Discon In Overlook	254	50	03/01/96A	06/30/00
5161.5814-Sabin Downspout Discon				
Downspout Discon In Sabin	254*	77	03/01/96A	06/30/00
Downspout Discon In Sabin	254	50	03/01/96A	06/30/00
5161.6014-Rose City Park Discn				
Project Summary - Rose City	275*	73	07/01/96A	08/01/00
Construction - Rose City Park	275	73	07/01/96A	08/01/00
5161.6108-Cath. Pk. Dsp. Disc.(Willamette)				
Cath Pk.DS Disc.(Willamette)	254*	70	02/05/97A	06/30/00
Construction-Cath Pk.DS	254	1	05/15/98A	06/30/00
5186(P) RAMSEY LAKE SW WETLD				
5186(P) Ramsey Lake Constructed Wetland				
Ramsey Lake Constructed	86*	94	07/01/94A	10/29/99
Construction - Ramsey Lake	0*	100	08/25/95A	06/30/99A
Closeout/Startup - Ramsey	86*	89	09/30/96A	10/29/99
5186.5666-Ramsey Lake Predator Control				
Ramsey Lake Predator Control	76*	92	02/01/96A	10/15/99



Project Start	07/01/87	Early Bar
Project Finish	12/01/12	Progress Bar
Data Date	06/30/99	Critical Activity
Run Date	07/22/99	

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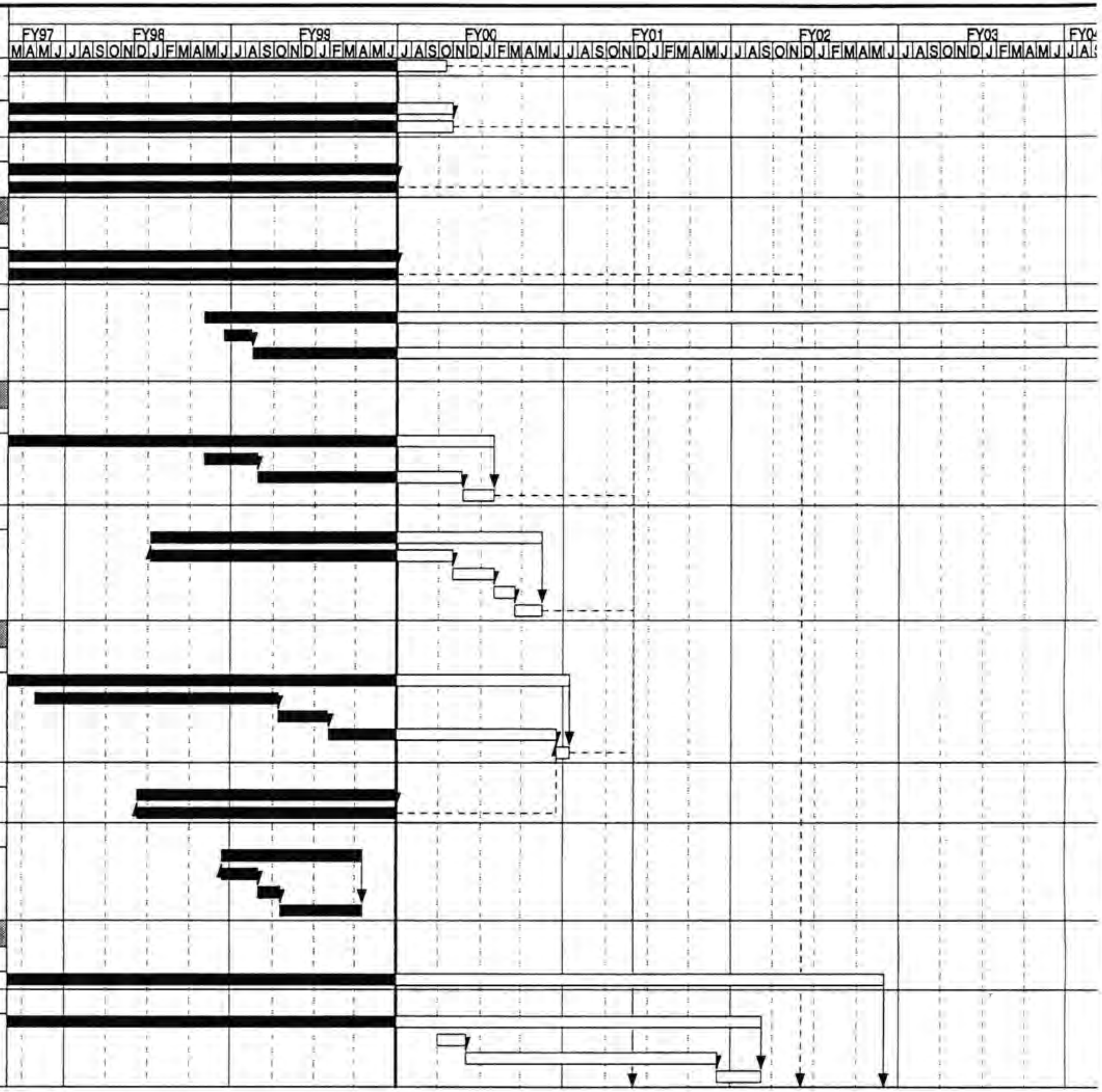
City of Portland - BES
Capital Improvement Program
Quarterly Report Schedule

Activity Description	Rem Dur	%	Early Start	Early Finish
Ramsey Lake Predator Control	76	70	04/16/96A	10/15/99
5186.5668-Ramsey Lake Planting & Irrigation				
Ramsey Lake Planting &	86*	92	07/05/95A	10/29/99
Ramsey Lake Planting &	86	69	08/29/96A	10/29/99
5186.5669-Ramsey Lake Weed Control				
Ramsey Lake Weed Control	0*	100	03/29/96A	06/30/99A
Ramsey Lake Weed Control	0	100	03/29/96A	06/30/99A
5249(P) Fiske B Separation				
5249(P) Fiske B Basin CSO Sewer Separation				
Fiske B Basin Sewer	1*	100	05/02/94A	06/30/99
Startup/Closeout - Fiske B	1	99	11/12/96A	06/30/99
5249.6416 Fiske B Establish				
6416 - Fiske B Plant	1,137*	20	05/04/98A	12/31/03
Advertise thu NPT - 6416	0	100	06/16/98A	08/14/98A
Construction -6416 - Fiske B	1,135	0	08/17/98A	12/29/03
Closeout - 6416 - Fiske B Plant	2	96	12/30/03	12/31/03
5292(P) Oswego Basin Separation				
5292.6086-North Portland Sewer Separation				
North Portland Sewer	147*	81	01/09/97A	01/31/00
Advertise thru NTP - N Portland	0	100	05/04/98A	08/27/98A
Construction - N Portland	100	0	08/28/98A	11/19/99
Closeout/Startup - N Portland	47	0	11/22/99	01/31/00
5292.6338 Diversion Structure Modifications				
Diversion Structure Modification	221*	63	01/05/98A	05/15/00
Design - Diversion Structure	86	16	01/05/98A	10/29/99
Advertise thru NTP - Diversion	61	0	11/01/99	01/31/00
Construction - Diversion	31	0	02/01/00	03/15/00
Closeout/Startup - Diversion	43	0	03/16/00	05/15/00
5302(P) Columbia Slough Outfall				
5302(P) Col. WWTF Outfall				
CBWWTF Outfall	263*	83	07/01/94A	07/14/00
Design - CS\Blvd WWTF	0	100	05/01/97A	10/12/98A
Advertise thru NTP - CS\Blvd	0	100	10/13/98A	01/29/99A
Constr. - CS\Blvd WWTF	243	30	02/01/99A	06/15/00
Closeout/Startup - CS\Blvd	20	0	06/16/00	07/14/00
5302.6315 Outfall Easement Aquisition				
CBWWTF Outfall Easement	0*	100	12/08/97A	06/30/99A
Outfall Easement Aquisition	0	100	12/08/97A	06/30/99A
5302.6406 Outfall Clear & Grub				
6406- Outfall Clear & Grub	0*	100	06/12/98A	04/15/99A
6406 - Advertise thru NTP	0	100	06/12/98A	08/31/98A
Constr. -Outfall Clear & Grub	0	100	09/01/98A	10/19/98A
6406 - Closeout/Startup	0	100	10/20/98A	04/15/99A
5322(P) Tanner Creek/Nicola				
5322(P) Tanner Creek/Nicolai				
Hammock- Tanner Creek Shell	736*	62	10/03/94A	05/31/02
5322.5406-Tanner Creek Sewer: Phase I				
Tanner Basin Phase 1	553*	70	07/01/94A	09/07/01
Advertise thru NTP - Tanner	41	0	10/01/99*	11/30/99
Construction - Tanner Basin	378	0	12/01/99	05/31/01
Closeout/Startup - Tanner	69	0	06/01/01	09/07/01



Project Start	07/01/87	Early Bar	MSTR
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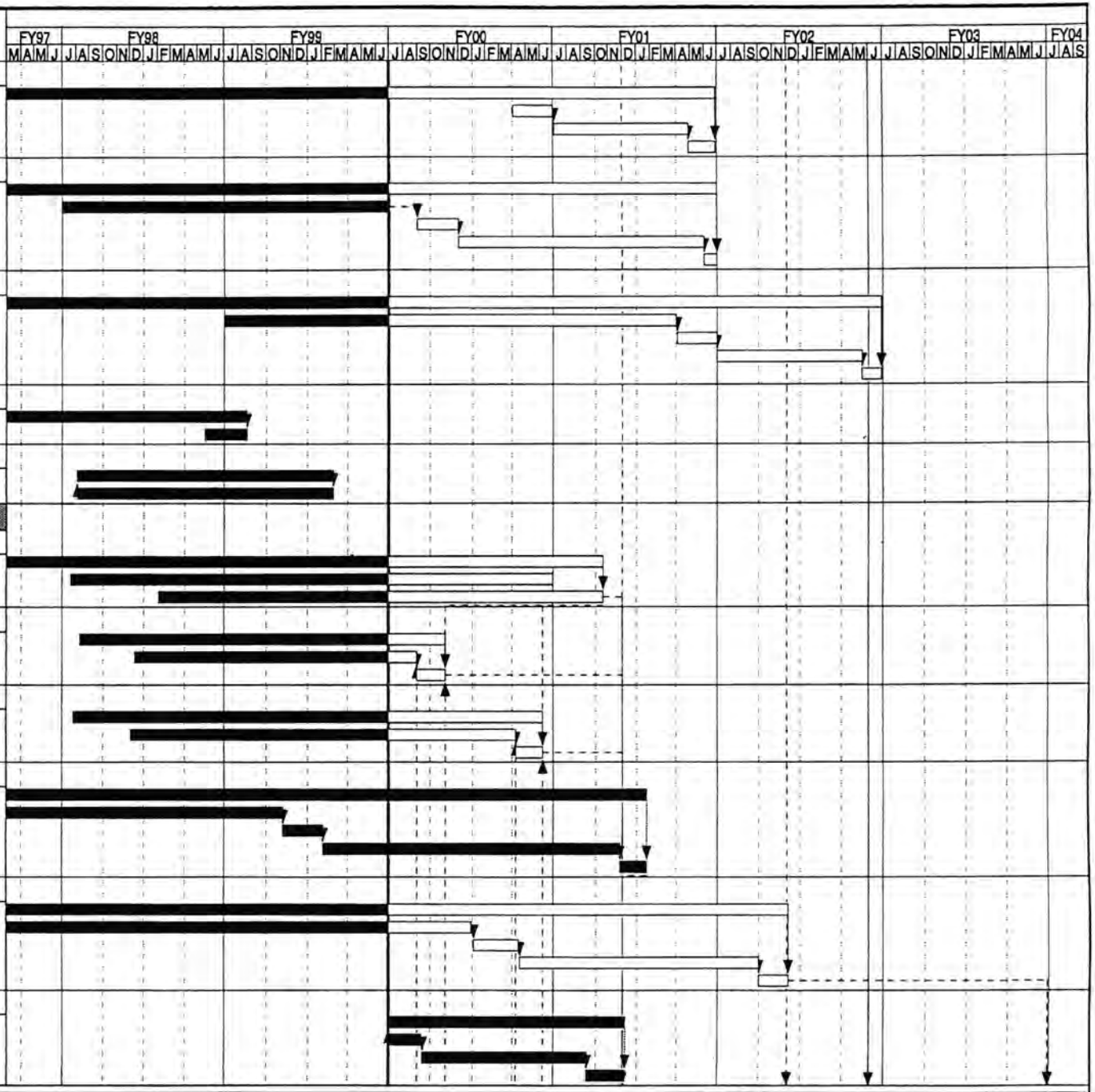
Activity Description	Rem Dur	%	Early Start	Early Finish
5322.5407-Tanner Creek Sewer: Phase 4				
Tanner Diversion Phase 4	504*	72	07/01/94A	06/28/01
Advrt thru NTP - Tanner Divrsn	64	0	04/03/00*	06/30/00
Construction - Tanner Divrsn	207	0	07/03/00	04/27/01
Close/Stup - Tanner Diversion	43	0	04/30/01	06/28/01
5322.5500-Tanner Diversion Mid-Creek: Phase 2				
Tanner Basin Phase 2	505*	55	01/02/97A	06/29/01
Design - Tanner Basin Phase 2	1	100	07/01/97A	06/30/99
Advertise thru NTP - Tanner	62	0	09/01/99*	11/30/99
Construction - Tanner Basin	378	0	12/01/99	05/31/01
Closeout - Tanner Basin Phase	21	0	06/01/01	06/29/01
5322.5501-Tanner Diversion Upper Creek: Phase 3				
Tanner Basin Phase 3	756*	63	07/01/94A	06/28/02
Design - Tanner Basin Phase 3	441	0	07/01/98A	03/30/01
Advertise thru NTP - Tanner	64	0	04/02/01	06/29/01
Construction - Tanner Basin	220	0	07/02/01	05/15/02
Closeout/Startup - Tanner	31	0	05/16/02	06/28/02
5322.5913-Tanner Phase I Unit 2				
Tanner Phase I, Unit 2	0*	100	07/08/96A	08/20/98A
Startup/Closeout - Tanner	0	100	05/19/98A	08/20/98A
5322.6076-Tanner Creek Water Feature				
Tanner Creek Water Feature	0*	100	08/04/97A	02/26/99A
Predesign - Tanner Creek	0	100	08/04/97A	02/26/99A
5332(P) Columbia Slough Consolidation Conduit				
5332(P) Columbia Slough Consolidation Conduit				
Columbia Slough Consolidation	330*	79	08/08/94A	10/18/00
Construction - Col Sl Consol	254	63	07/22/97A	06/30/00
Closeout/Startup - Col Sl	330	44	02/05/98A	10/18/00
5332.6181 CSCC Seg 1 - Conduit Otfl 58 to CBWTP				
CSCC Seg 1 - Conduit Otfl 58	87*	85	08/11/97A	11/01/99
Construction - CSCC Seg 1 -	45	90	12/11/97A	09/01/99
Closeout/Startup - CSCC Seg 1	42	0	09/02/99	11/01/99
5332.6182 CSCC Seg 2 - 12' Tunnel I-5 to Otfl 58				
CSCC Seg 2 - 12' Tunnel I-5 to	235*	67	07/28/97A	06/05/00
Construction - CSCC Seg 2 -	194	0	12/03/97A	04/06/00
Closeout/Startup - CSCC Seg 2	41	0	04/07/00	06/05/00
5332.6183-CSSC Seg 3A - 72" Conduit, 235 to I-5				
CSCC Seg 3A - 72" Conduit	394*	66	07/01/96A	01/23/01
Design - CSCC Seg 3A - 72"	0	100	07/01/96A	11/06/98A
Advertise thru NTP - CSCC	0	100	11/09/98A	02/04/99A
Construction - CSCC Seg 3A -	355	22	02/05/99A	11/24/00
Closeout/Startup - CSCC Seg	39	0	11/27/00	01/23/01
5332.6184 CSCC Seg 4 - Landscaping Argyle & Colu				
CSCC Seg 4 - Landscaping	612*	55	07/01/96A	12/03/01
Design - CSCC Seg 4 -	127	0	07/01/96A	12/30/99
Advertise thru NTP - CSCC	71	0	01/05/00*	04/14/00
Construction - CSCC Seg 4 -	368	0	04/17/00	09/28/01
Closeout/Startup - CSCC Seg 4	44	0	10/01/01	12/03/01
5332.6186-CSCC Seg 6 - I-5 Conduit Odor Control				
CSCC Seg 6 - Odor Control @	362*	0	07/01/99	12/06/00
Advertise thru NTP - CSCC	50	0	07/01/99*	09/10/99
Construction - CSCC Seg 6 -	253	0	09/13/99	09/12/00
Closeout/Startup - CSCC Seg 6	59	0	09/13/00	12/06/00



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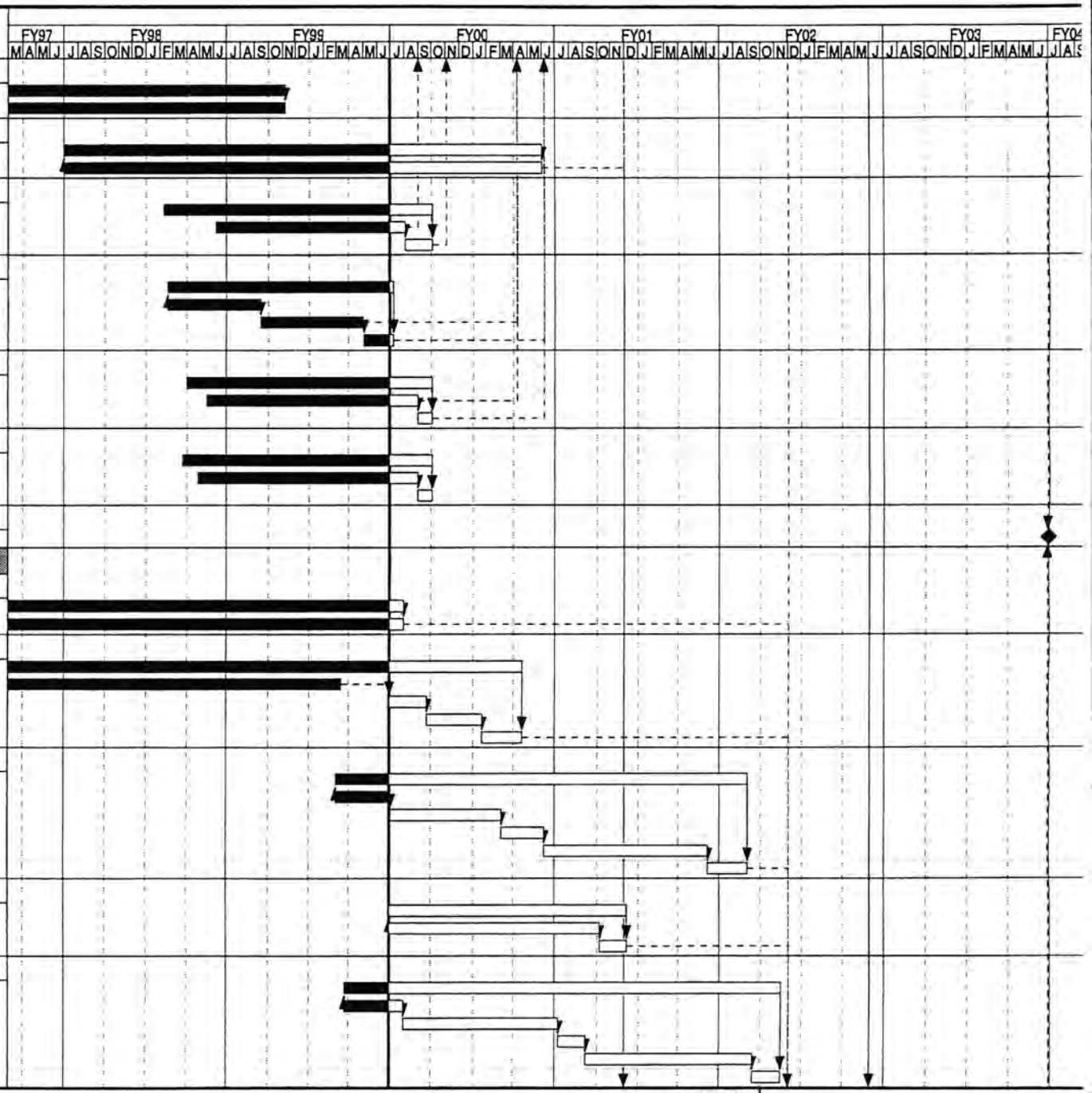
5332.6203-CSCC Seg 3B - Construct Station 235				
CSCC Seg 3B - Construct	0*	100	07/01/96A	11/06/98A
Design - CSCC Seg 3B -	0	100	07/01/96A	11/06/98A
5332.6224 - ColSICCF Owner Contr. Insur. Program				
OCIP - Columbia Slough	233*	68	07/01/97A	06/01/00
OCIP - Colombia Slough	233	36	07/01/97A	06/01/00
5332.6340 DS CSCC-1 Hauling				
CSCC - 1 Hauling	66*	84	02/09/98A	10/01/99
Construction - CSCC - 1	23	44	06/08/98A	08/02/99
Closeout/Startup - CSCC - 1	43	0	08/03/99	10/01/99
5332.6341 DS CSCC-2 Hauling				
CSCC - 2 Hauling	5*	99	02/17/98A	07/07/99
Advertise thru NTP- Hauling	0	100	02/17/98A	09/15/98A
Construction - CSCC - 2	0	100	09/16/98A	04/30/99A
Closeout/Startup - CSCC - 2	5	55	05/03/99A	07/07/99
5332.6359 DS CSCC2 Video Taping PreExisting Cond				
CSCC - 2 Videotaping	66*	83	04/01/98A	10/01/99
Construction - CSCC - 2	45	81	05/18/98A	09/01/99
Closeout/Startup - CSCC - 2	21	0	09/02/99	10/01/99
5332.6379 DS CSCC1 Videotaping				
DS CSCC - 1 Videotaping	66*	83	03/24/98A	10/01/99
Construction - DS CSCC - 1	45	0	04/28/98A	09/01/99
Closeout/Startup - DS CSCC -	21	0	09/02/99	10/01/99
ASFO, Permit, and Annual Report Dates				
Columbia Basin Non-ASFO	0	0		06/30/03*
5380(P) Sellwood Bsn Local Sep.				
5380(P) Sellwood Basin Local Separation				
Sellwood Basin Sewer	22*	97	10/01/96A	07/30/99
Predesign FY98 - Sellwood	22	98	10/01/96A	07/30/99
5380.5930-Sellwood Sewer Unit3				
Sellwood Sewer Unit3 Overall	203*	77	10/30/96A	04/19/00
Sellwood Sewer Unit3 Design	0	100	10/30/96A	03/12/99A
Sellwood Sewer Unit3	57	0	07/01/99*	09/21/99
Sellwood Sewer Unit3	82	44	09/22/99	01/20/00
Sellwood Sewer Unit3	63	0	01/21/00	04/19/00
5380.6120 Sellwood Basin Local Seprn Pp Sta Upgd				
Sellwd Basin Local Separation	549*	14	03/01/99A	08/31/01
Predesign - Sellwd Bsn Lcl	2	98	03/01/99A	07/01/99
Design - Sellwd Bsn Lcl Spm	168	0	07/02/99	03/03/00
Advertise thru NTP - Sellwd	65	0	03/06/00	06/05/00
Construction - Sellwd Bsn Lcl	251	0	06/06/00	06/04/01
Closeout/Startup - Sellwd Bsn	63	0	06/05/01	08/31/01
5380.6121 Sellwood Basin Local Seprn RDD				
Sellwd Basin Local Separation	362*	0	07/01/99	12/06/00
Construction - Sellwd Bsn Lcl	321	0	07/01/99*	10/06/00
Closeout/Startup - Sellwd Bsn	41	0	10/09/00	12/06/00
5380.6240 Sellwood - Umatilla PS Design				
Hammock- Sellwd Umattilla	600*	11	03/22/99A	11/14/01
Predesign - Sellwd Umattilla	22	91	03/22/99A	07/30/99
Design - Sellwd Umattilla	236	0	08/02/99	07/07/00
Advertise- Sellwd Umattilla	43	83	07/10/00	09/07/00
Construction- Sellwd Umattilla	255	0	09/08/00	09/12/01
Startup/Closeout- Sellwd	44	83	09/13/01	11/14/01



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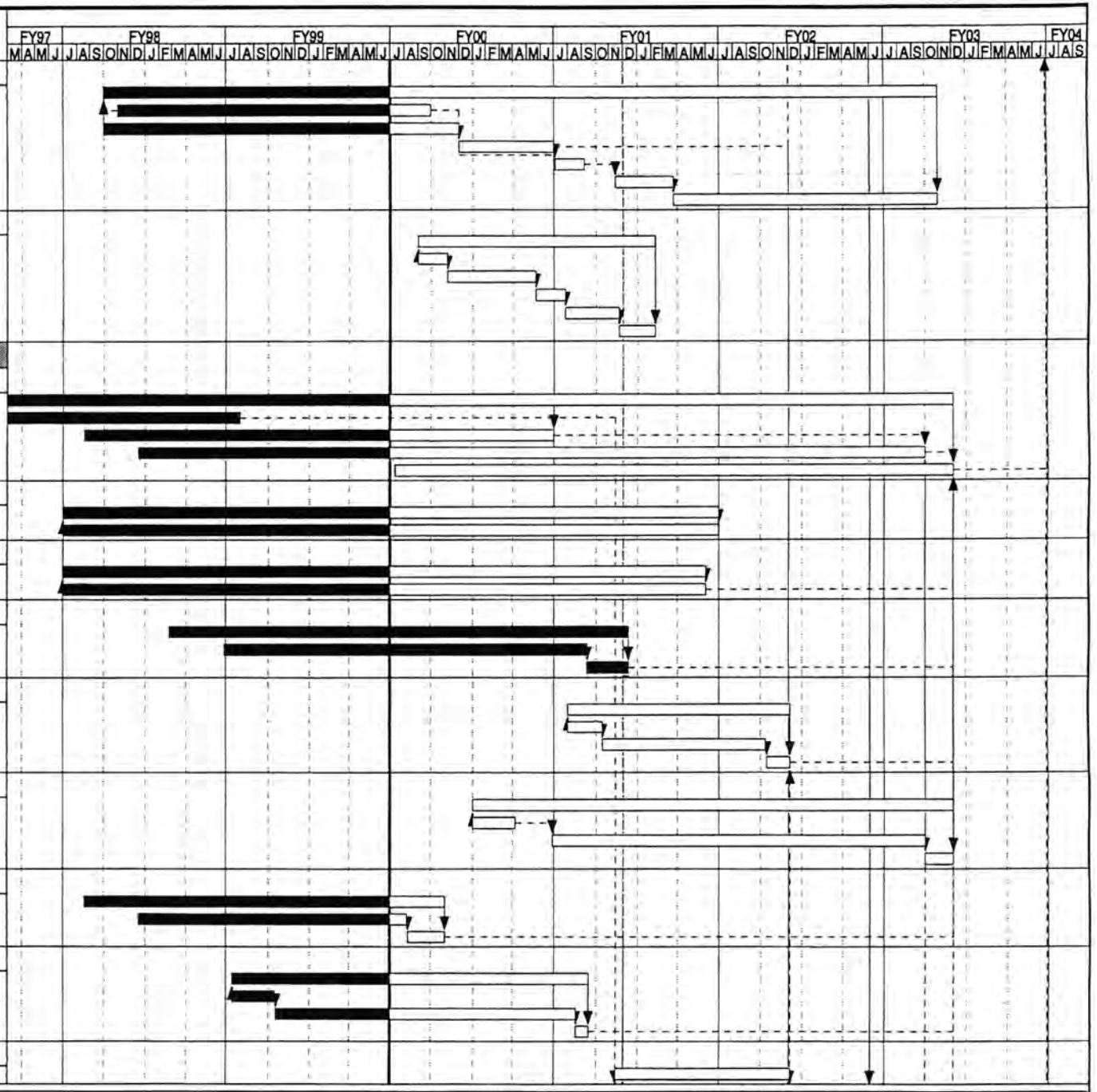
5380.6243 Sellwood PRF Design				
Sellwd Basin PRF Design &	841*	34	10/01/97A	10/28/02
PRF Land Aquisition	65	59	11/03/97A	09/30/99
Predesign- Sellwood Basin	107	33	10/01/97A	12/01/99
Design - Sellwood Basin PRF	147	0	12/02/99	06/30/00
Advertise thru NTP- Sellwood	46	0	07/03/00*	09/06/00
Construction- Sellwood Basin	87	0	11/15/00*	03/22/01
Startup/Closeout- Sellwood	406	0	03/23/01	10/28/02
5380.6244 Sellwood Sewer Separation				
Sellwood Sewer Separation	363*	0	09/01/99	02/09/01
Pre-design - Sellwood Sewer	46	82	09/01/99*	11/04/99
Design - Sellwood Sewer	135	47	11/05/99	05/19/00
Bid & Award - Sellwood Sewer	46	82	05/22/00	07/26/00
Construction - Sellwood Sewer	83	67	07/27/00	11/22/00
Startup/Closeout - Sellwood	53	79	11/24/00	02/09/01
5480(P) Columbia Blvd. WWTF				
5480(P) Columbia Slough WWTF				
CS\Blvd WWTF	865*	59	08/01/94A	12/02/02
Design - CS\Blvd WWTF	0	100	03/15/96A	07/31/98A
Advertise thru NTP - CS\Blvd	253	59	08/18/97A	06/29/00
Construction - CS\Blvd WWTF	821*	32	12/18/97A	09/30/02
Closeout/Startup - CS\Blvd	858	0	07/12/99*	12/02/02
5480.6233 CBWWTF Const.Manag. Serv.s				
CS\Blvd WWTF	505*	50	07/01/97A	06/29/01
Construction Management -	505	0	07/01/97A	06/29/01
5480.6234 - CBWWTF Owner Contr. Insur. Progr.				
ColBlvd WWTF OCIP	484*	51	07/01/97A	05/31/01
Owner Controlled	484	0	07/01/97A	05/31/01
5480.6281 New Primary Clarifier CBWTP - CSO				
Primary Clarifier CBWTP - CSO	367*	48	02/24/98A	12/12/00
Construction - Primary Clarifier	303	45	06/26/98A	09/11/00
Closeout/Startup - Primary	64	0	09/12/00	12/12/00
5480.6282 WW Prim. Clarifier Mods CBWTP - CSO				
Modify Exist. Primary Clarifier	338*	0	08/01/00	12/03/01
Advertise thru NTP - Modify	54	0	08/01/00*	10/16/00
Construction - Modify Exist.	250	0	10/17/00	10/12/01
Closeout/Startup - Modify Exist.	34	0	10/15/01*	12/03/01
5480.6283 Effluent PS Improvement CBWTP - CSO				
Effluent PS Improvements	738*	0	01/03/00	12/02/02
Advertise thru NTP - Effl. PS	64	0	01/03/00*	04/03/00
Construction - Effl. PS	572	0	06/26/00*	09/30/02
Closeout/Startup - Effl. PS	44	0	10/01/02*	12/02/02
5480.6284 CBWTP Chlorination Improvements - CSO				
Chlorination System Upgrade	86*	85	08/18/97A	10/29/99
Construction -	27	90	12/18/97A	08/06/99
Closeout/Startup - Chlor. Sys.	59	0	08/09/99	10/29/99
5480.6285 Dechlorination Facility Hayden Island				
New Chlorination System	307*	44	07/15/98A	09/15/00
Advertise thru NTP - New	0	100	07/15/98A	10/16/98A
Construction - New Chlorination	286	30	10/19/98A	08/16/00
Closeout/Startup - New	21	0	08/17/00	09/15/00
5480.6286 Enviromental Enhancements CBWTP				
Environmental Enhancements	264*	0	11/15/00	12/03/01



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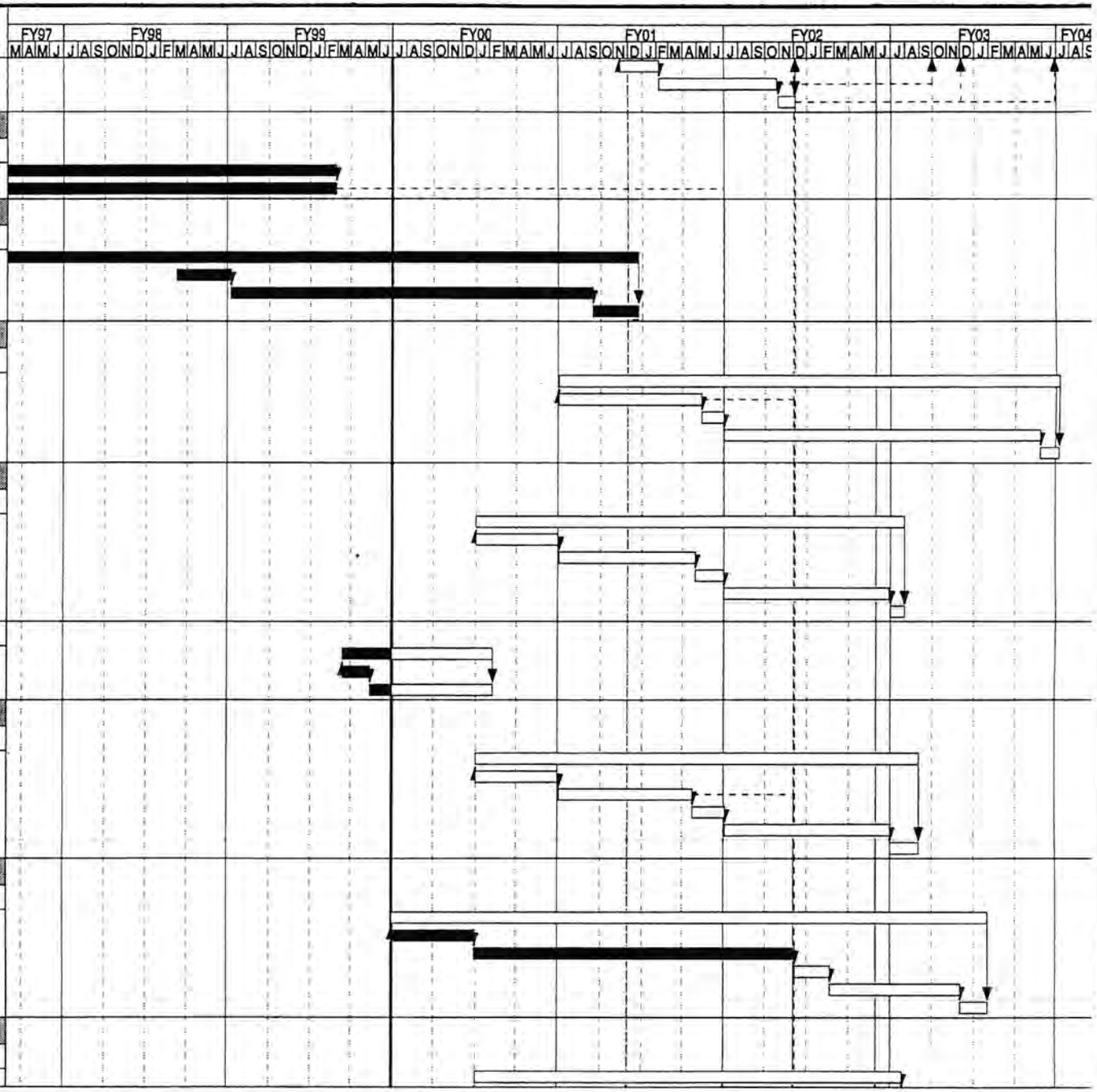
Activity Description	Rem Dur	%	Early Start	Early Finish
Advertise thru NTP - Environ.	56	0	11/15/00*	02/06/01
Construction - Environ.	184	0	02/07/01	10/26/01
Closeout/Startup - Environ.	24	0	10/29/01	12/03/01
5481(P) Willamette Site Acquisition				
5481(P) Willamette Site Acquisition				
5481 - Willamette Site Acqu	0*	100	01/03/95A	02/26/99A
Pre-design - Willamette WWTF	0	100	01/03/95A	02/26/99A
5499(P) Columbia Blvd. WWTF Influent PS				
5499(P) Columbia Slough WWTF Infnt Pump Station				
Columbia Slough Influent Pump	375*	71	11/06/95A	12/22/00
Advertise thru NTP - Col Sl	0	100	03/09/98A	07/06/98A
Construction - Col Sl Influent	305	33	07/07/98A	09/13/00
Closeout/Startup - Col Sl	70	0	09/14/00	12/22/00
5502(P) California Storage				
5502(P) California Storage				
California Storage	764*	0	07/03/00	07/11/03
Design - California Storage	217	0	07/03/00*	05/11/01
Advertise for Bids thru NTP -	34	0	05/14/01	06/29/01
Construction - California	483	0	07/02/01	05/28/03
Closeout/Startup - California	30	0	05/29/03	07/11/03
5503(P) Western Half Lents 1 Separation				
5503(P) West Lents Separation				
West Lents Separation	651*	0	01/03/00	07/31/02
Predesign - West Lents	127	0	01/03/00*	06/30/00
Design - West Lents	207	0	07/03/00	04/27/01
Advertise thru NTP - West	44	0	04/30/01	06/29/01
Construction - West Lents	251	0	07/02/01	06/28/02
Closeout/Startup - West Lents	22	0	07/01/02	07/31/02
5503.6541 Predesign & Design WHL				
Summary - Western half Lents	152*	33	03/15/99A	02/07/00
Predesign - Western half Lents	0	100	03/15/99A	05/12/99A
Design - Western half Lents	152	18	05/13/99A	02/07/00
5504(P) Woods Stream Diversion				
5504(P) Woods/Sheridan Stream Diversion				
Woods/Sheridan Stream	674*	0	01/03/00	09/02/02
Predesign - Woods Stream	127	0	01/03/00*	06/30/00
Design - Woods Stream	203	0	07/03/00	04/23/01
Advertise thru NTP - Woods	49	0	04/24/01	07/02/01
Construction - Woods Stream	251	0	07/03/01	07/01/02
Closeout/Startup - Woods	44	0	07/02/02	09/02/02
5505(P) Sheridan Stream Diversion				
5505(P) Sheridan Stream Diversion				
Sheridan Stream Diversion	904*	0	07/01/99	01/30/03
Predesign - Sheridan Stream	125	0	07/01/99*	12/29/99
Design - Sheridan Stream	486	0	12/30/99	12/03/01
Advertise thru NTP - Sheridan	53	0	12/04/01	02/20/02
Construction - Sheridan Stream	200	0	02/21/02	12/02/02
Closeout/Startup - Sheridan	40	0	12/03/02	01/30/03
5506(P) Carolina Stream Diversion				
5506(P) Carolina Stream Diversion				
Carolina Basin Stream	648*	0	01/03/00	07/26/02



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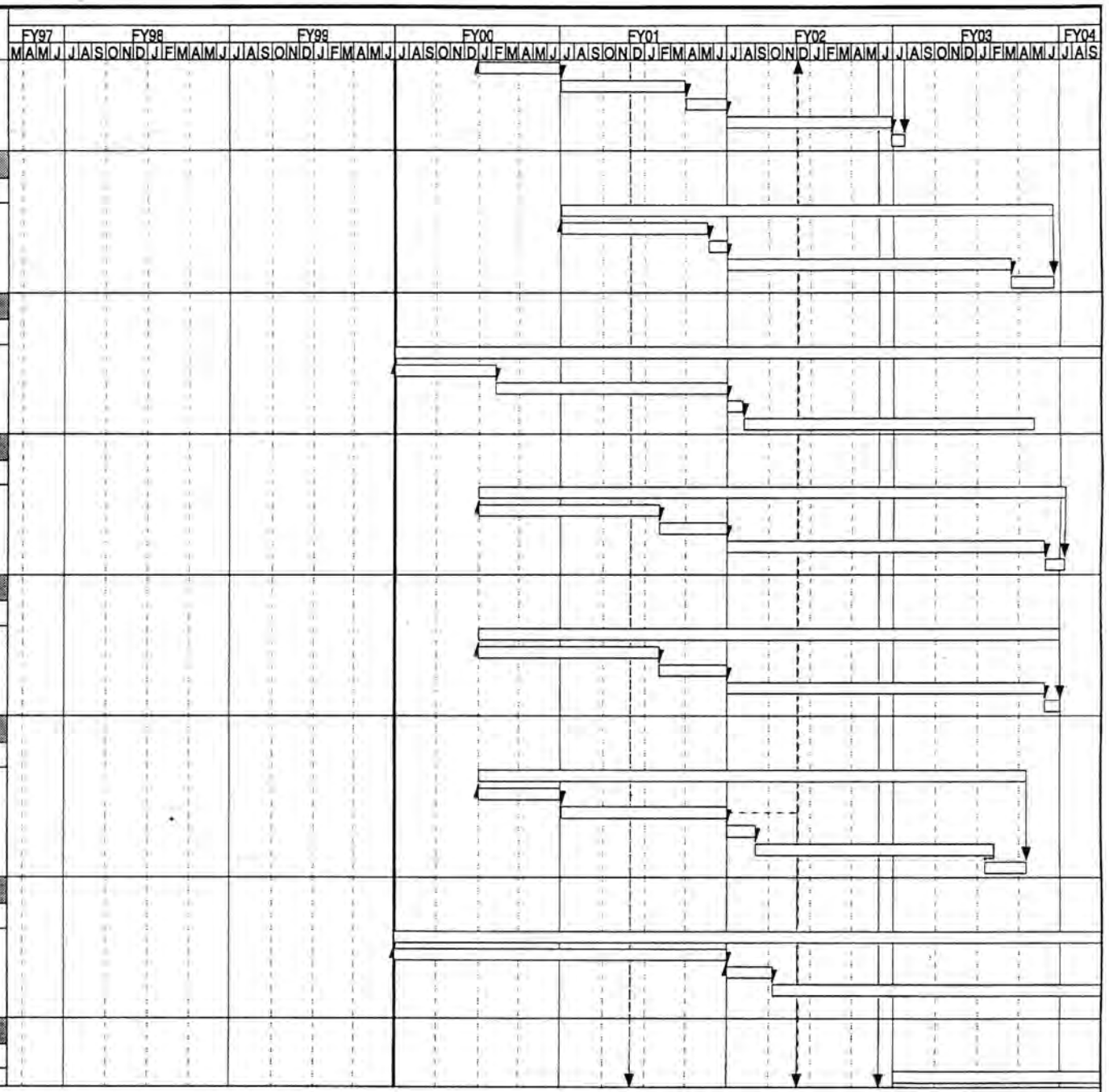
Activity Description	Rem Dur	%	Early Start	Early Finish
Predesign-Carolina Basin	127	0	01/03/00*	06/30/00
Design-Carolina Basin Stream	187	0	07/03/00	03/30/01
Advertise - NTP-Carolina Basin	64	0	04/02/01	06/29/01
Construction - Carolina Basin	250	0	07/02/01	06/27/02
Closeout/Start - Carolina Basin	20	0	06/28/02	07/26/02
5507(P) Balch River Crossing				
5507(P) Balch River Crossing				
Balch River Crossing	746*	0	07/03/00	06/16/03
Design - Balch River Crossing	222	0	07/03/00*	05/18/01
Advertise thru NTP - Balch	29	0	05/21/01	06/29/01
Construction - Balch River	430	0	07/02/01	03/14/03
Closeout/Startup - Balch River	65	0	03/17/03	06/16/03
5508(P) Balch Pump Station				
5508(P) Balch Pump Station				
Balch Pump Station	1,713*	0	07/01/99	04/17/06
Predesign-Balch Pump Station	151	0	07/01/99*	02/07/00
Design-Balch Pump Station	353	0	02/08/00	06/29/01
Advertise thru NTP - Balch	24	0	07/02/01	08/03/01
Construction - Balch Pump	442	0	08/06/01	05/05/03
5509(P) Ankeny Pump Station Upgrade				
5509(P) Ankeny Pump Station Upgrade				
Ankeny Pump Station	892*	0	01/03/00	07/14/03
Design-Ankeny Pump Station	273	0	01/03/00*	01/31/01
Adverise thru NTP - Ankeny	105	0	02/01/01	06/29/01
Construction - Ankeny Pump	484	0	07/02/01	05/29/03
Closeout/Startup - Ankeny	30	0	06/02/03	07/14/03
5510(P) Ankeny/Balch Consolidation Conduit				
5510(P) Ankeny/Balch Consolidation Conduit				
Ankeny/Balch Consolidation	883*	0	01/03/00	06/30/03
Design-Ankeny/Balch	273	0	01/03/00*	01/31/01
Advertise - NTP-Ankeny/Balch	105	0	02/01/01	06/29/01
Construction - Ankeny/Balch	483	0	07/02/01	05/28/03
Closeout/St - Ankeny/Balch	22	0	05/29/03	06/30/03
5511(P) Woods/Sheridan/Mill Consol. Conduit				
5511(P) Woods/Sher/Mill Consolidation Conduit				
Woods/Sheridan/Mill Conduit	833*	0	01/03/00	04/18/03
Predesign -	127	0	01/03/00*	06/30/00
Design - Woods/Sheridan/Mill	251	0	07/03/00	06/29/01
Advertise thru NTP -	44	0	07/02/01	08/31/01
Construction -	361	0	09/03/01	02/06/03
Closeout/Startup -	65	0	01/17/03	04/18/03
5512(P) Willamette River WWTF Phase 1				
5512(P) Willamette WWTF Phase 1				
Willamette WWTP	1,984*	0	07/01/99	05/14/07
Design-Willamette WWTP	504	0	07/01/99*	06/29/01
Advertise thru NTP - Willamette	70	0	07/02/01	10/09/01
Construction - Willamette	674	0	10/10/01	06/10/04
Closeout/Startup - Willamette	736	0	06/11/04	05/14/07
5513(P) Willamette River WWTF Phase 2				
5513(P) Willamette WWTF Phase 2				
Willamette WWTP	1,817*	0	07/01/02	09/11/09



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Predesign - Willamette WWTP	257	0	07/01/02*	07/03/03
Design - Willamette WWTF	400	10	07/07/03	02/04/05
5514(P) Ankeny Force Main				
5514(P) Ankeny Force Main				
Ankeny Force Main	1,018*	0	07/03/00	07/14/04
Design-Ankeny Force Main	251	0	07/03/00*	06/29/01
Advertise thru NTP - Ankeny	177	0	07/02/01	03/15/02
Construction - Ankeny Force	559	0	03/18/02	05/28/04
Closeout/Startup - Ankeny	31	0	06/01/04	07/14/04
5515(P) Willamette WWTF Outfall				
5515(P) Willamette WWTF Outfalls				
Willamette Outfall	1,206*	0	07/03/00	04/13/05
Design - Willamette Outfall	251	0	07/03/00*	06/29/01
Advertise thru NTP	160	0	07/02/01	02/20/02
Construction - Willamette	711	0	02/21/02	12/10/04
5516(P) East Tunnel				
5516(P) Willamette East Tunnel				
East Tunnel	1,991*	0	07/07/03	05/31/11
Predesign - East Tunnel	185	0	07/07/03*	03/30/04
Design - East Tunnel	504	0	03/31/04	03/30/06
5517(P) East Tunnel Drop Shafts				
5517(P) Willamette East Tunnel Drop Shafts				
Willamette East Tunnel Drop	1,806*	0	03/31/04	05/31/11
Predesign - Willamette Drop	185	0	03/31/04*	12/21/04
5523(P) California Consol. Conduit				
5523(P) California Consolidation Conduit				
California Basin Consolidation	678*	0	11/22/99	07/31/02
Predesign-California Basin	154	0	11/22/99*	06/30/00
Design-California Basin	212	0	07/03/00	05/04/01
Advrt-NTP - California Basin	58	0	05/07/01	07/27/01
Construction - California Basin	232	0	07/30/01	06/28/02
Closeout/Startup - California	22	0	07/01/02	07/31/02
5612(P) Downspout DISC Grant				
5612(P) Downspout Disc Grant				
Hammock 5612 - Downspout	360*	70	03/04/96A	12/01/00
Construction- DISCO EPA	317	64	03/04/96A	09/29/00
Startup- DISCO EPA Grant	43	0	10/02/00	12/01/00
5612.5615-Discon Arbor Grant				
Discon Arbor Grant	254*	82	01/03/95A	06/30/00
Discon Arbor Grant	254	71	01/03/95A	06/30/00
5612.5616-Discon Woodlawn Grant				
Discon Woodlawn Grant	254*	82	01/03/95A	06/30/00
Discon Woodlawn Grant	254	71	01/03/95A	06/30/00
5612.5617-Discon Concorda Grant				
Discon Concorda Grant	254*	82	01/03/95A	06/30/00
Discon Concorda Grant	254	71	01/03/95A	06/30/00
5612.5618-Discon Vernon Grant				
Discon Vernon Grant	254*	82	01/03/95A	06/30/00
Discon Vernon Grant	254	71	01/03/95A	06/30/00

FY97 FY98 FY99 FY00 FY01 FY02 FY03 FY04

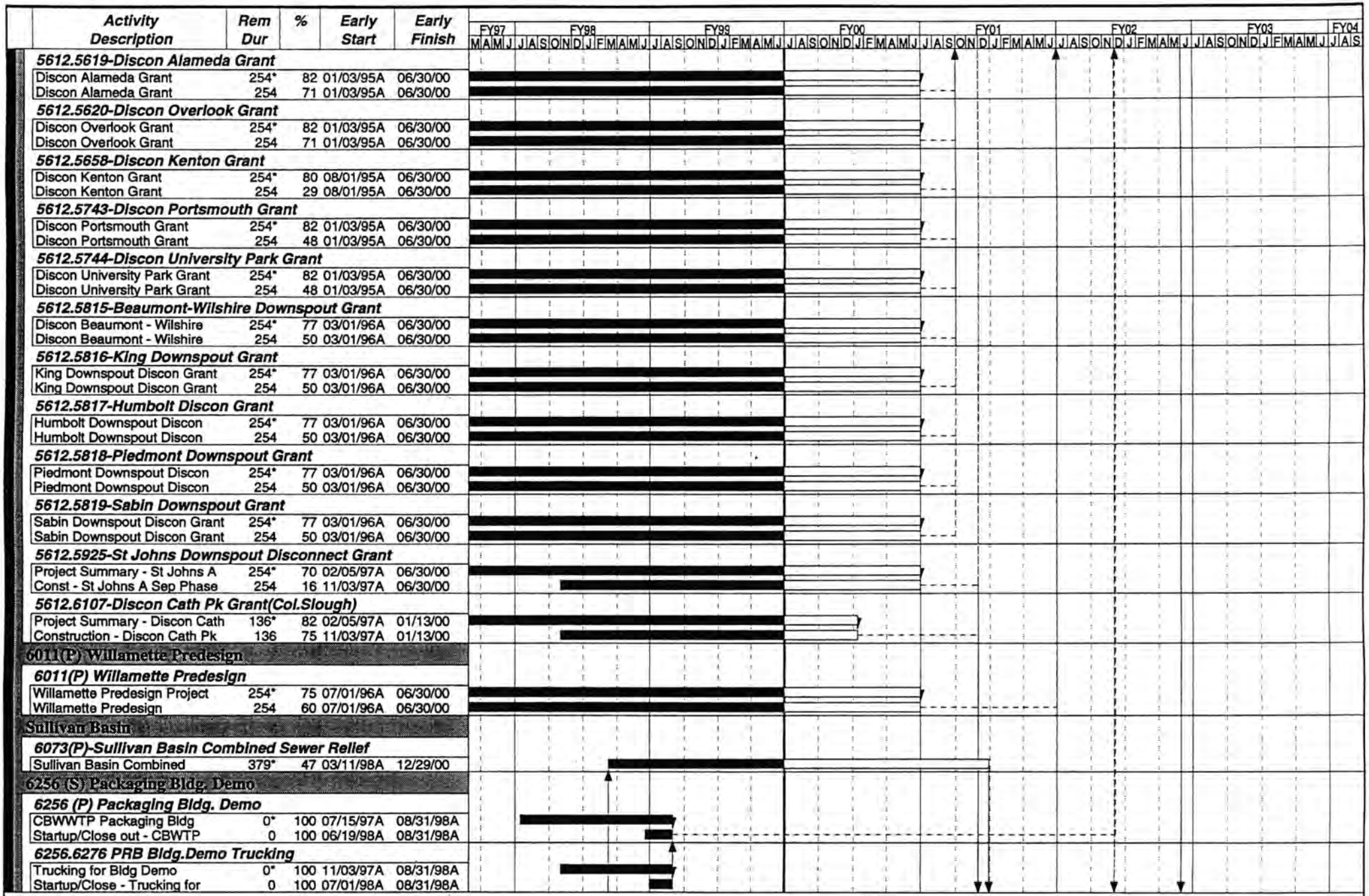
M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S

Project Start 07/01/97
Project Finish 12/01/12
Data Date 06/30/99
Run Date 07/22/99

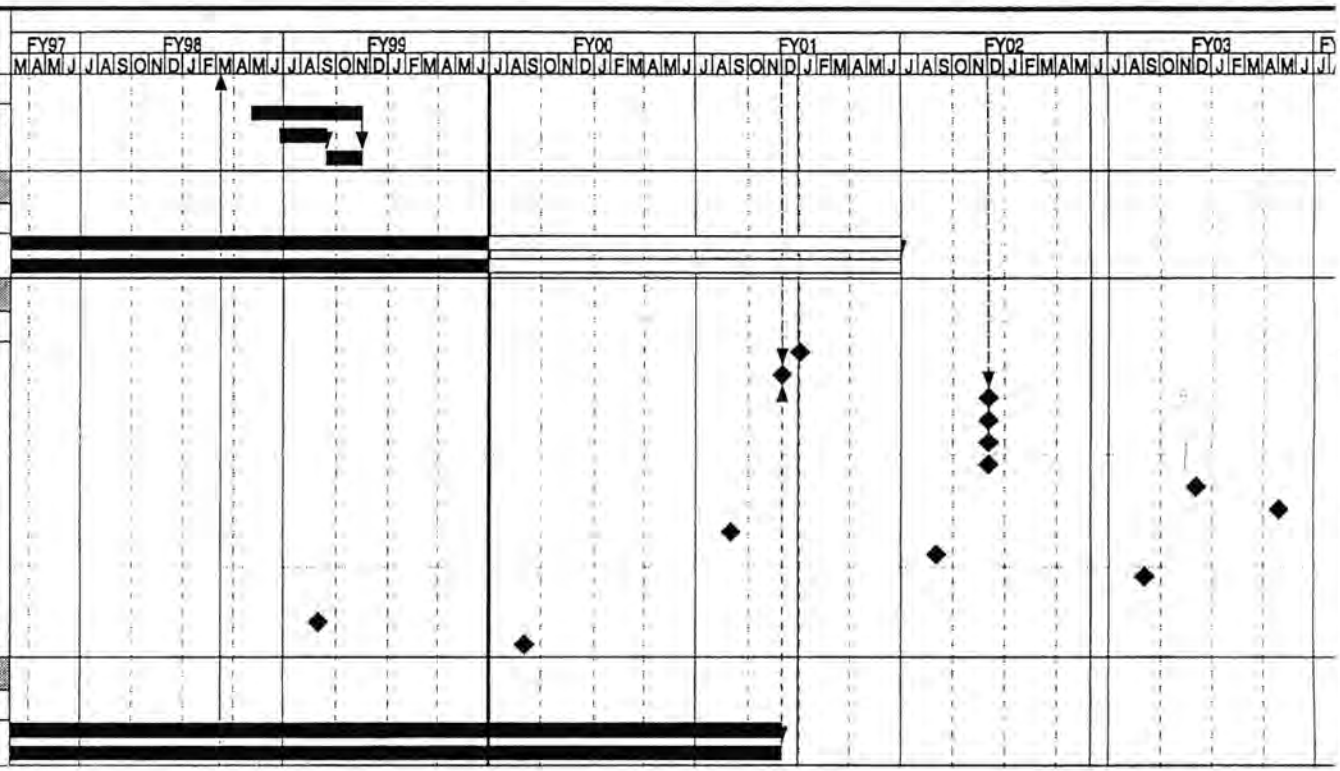
Early Bar
Progress Bar
Critical Activity

MSTR

City of Portland - BES
Capital Improvement Program
Quarterly Report Schedule



Activity Description	Rem Dur	%	Early Start	Early Finish
6256.6403 Temp Site Civil Work				
6403 Summary - Temp Site	0*	100	05/04/98A	11/16/98A
Construction - Temp Site Civil	0	100	06/25/98A	09/15/98A
Startup/Close out - Temp Site	0	100	09/16/98A	11/16/98A
CSO Incidental Expenses				
9005-CSO Program Incidental Expenses				
CSO Program Support	505*	60	07/01/96A	06/29/01
CSO Project Support	505	60	07/01/96A	06/29/01
Program Milestones				
ASFO, Permit, and Annual Report Dates				
Report Progress to EQC in a	0	0	01/02/01*	
Eliminate Discharge Violations	0	0		12/01/00*
Eliminate Discharge Violations	0	0		12/01/01*
Submit Final Plans & Specs for	0	0		12/01/01*
Demo that Col SI CSOs are in	0	0		12/01/01*
Submit Updated Facilities Plan	0	0		12/01/01*
Demo that 7 Will CSOs are in	0	0		12/01/02*
Late Construction Start Date for	0	0	05/01/03*	
Submit Annual CSO Progress	0	0		09/01/00*
Submit Annual CSO Progress	0	0		09/01/01*
Submit Annual CSO Progress	0	0		09/01/02*
Submit Annual CSO Progress	0	0		09/01/03*
Submit Annual CSO Progress	0	100		08/31/98A
Submit Annual CSO Progress	0	0		09/01/99*
Non-Nested CSO Projects				
FPLN - CSO Planning				
CSO Planning	360*	88	01/02/89A	12/01/00
CSO Planning	360*	88	01/02/89A	12/01/00



CITY OF PORTLAND
COMBINED SEWER OVERFLOW PROGRAM
ANNUAL PROGRESS REPORT
FISCAL YEAR 99-00
(ASFO WQ-NWR-91-75)

CITY OF PORTLAND
BUREAU OF ENVIRONMENTAL SERVICES

JUNE 30, 2000

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I. Summary

The following summarizes the City of Portland's efforts to minimize and/or eliminate Combined Sewer Overflow (CSO) discharges to the Columbia Slough and Willamette River during the past fiscal year:

- Continued work on the Willamette River Basin CSO Predesign Project (WRPP), which will refine the CSO control alternatives identified in the current CSO Management Plan for the Willamette River Basin component of the CSO Control Plan.

- Continued to implement the Cornerstone Projects to reduce stormwater inflow into the combined sewer system. Construction was substantially complete on all Columbia Slough Basin Cornerstone Projects.

- Construction was substantially complete on the Columbia Blvd. Consolidation Conduit, the CBWWTF Influent Pump Station, and the CBWWTF Outfall projects. Construction on the Columbia Blvd. Wet Weather Treatment Facilities projects were about 60% complete.

- Continued CSO operation and maintenance activities to reduce the environmental impact of current CSO discharges.

- Continued implementation of a comprehensive public information/public education/public involvement program.

The program to control CSOs is on schedule and within the projected budget.

The following summarizes the planned efforts to minimize and/or eliminate CSO discharges to the Columbia Slough and Willamette River during the current fiscal year:

- Complete the Willamette River Pre-design Project.

- Design and/or construct additional CSO Cornerstone Projects (stormwater infiltration drainage sumps, downspout disconnection, stream diversions, and local sewer separation).

- Begin the design of the CSO control facilities associated with the outfalls on the west side of the Willamette River.

- Continue current CSO operation and maintenance activities to reduce the environmental impact of current CSO discharges.

- Continued implementation of the public information/education/involvement programs.

- Complete Columbia Slough CSO Project by Dec., 2000

II. Introduction

The City of Portland Bureau of Environmental Services (BES) manages the planning, design, construction, and implementation (startup) of all capital projects. The number of capital improvement projects, listed by program area, are shown on the following table:

Category	Projects Listed at End of FY 99-00	Projects Open During FY99-00
Combined Sewer Overflow	271	58
Maintenance and Reliability	316	92
Mid-County Sewer	88	5
Sewage Treatment	255	67
Surface Water Management	117	37
Systems Development	97	23
Total	**1,144**	**282**

At the end of FY 99-00 there were 1,144 individual projects listed in the CIP, with 282 projects listed as "open projects" during the year. "Open projects" are all active projects that were not closed prior to the beginning of FY 99-00.

The 271 CSO projects (see Appendix A for those in the current five year CIP) represent the CSO Control Plan as it currently exists within the City of Portland. This report focuses on the accomplishments on those projects. It should be noted, however, that there are projects in other CIP categories that have or will have a positive impact on the control and/or handling of CSO. The benefit and status of these projects is not covered in this report.

This report is submitted to the Oregon Department of Environmental Quality (DEQ) pursuant to Amended Stipulation and Final Order (ASFO) No. WQ-NWR-91-75 issued to the City of Portland (City) by DEQ on August 11, 1994. As stipulated in the ASFO, this report summarizes the City's efforts to eliminate unauthorized CSO to the Columbia Slough and the Willamette River during the past fiscal year and identifies the work planned under the CSO Program for the current fiscal year.

The ASFO requires that the report be submitted to DEQ by September 1 of each year that the ASFO remains in effect.

III. Background

At the time the original Combined Sewer Overflow Stipulation and Final Order (SFO) was issued in 1991, approximately 60% of Portland's population was being served by a combined sewer system that collected both municipal wastewater (residential, commercial, and industrial sewage) and municipal stormwater (roof runoff; street and paved surface runoff; and some urban stream runoff). Currently, when there is a storm event in the City, runoff typically exceeds the

carrying capacity of the combined sewer system causing overflows to both the Columbia Slough and the Willamette River through up to 55 individual outfalls.

These overflows are in violation of Federal clean water regulations and have been deemed a significant source of water pollution in both the Columbia Slough and the Willamette River. Before control work began in 1990, the City's CSO outfalls discharged on average approximately 6.0 billion gallons of combined sewage annually. Approximately 20% of the content of this annual overflow is projected to be untreated municipal wastewater.

As of June 30, 2000, due to significant interceptor system improvements, completion of numerous diversion structure modification projects, and the completion of many of the Cornerstone Projects, approximately 3.0 billion gallons/year of overflow has been eliminated based on current model projections.

The current ASFO is essentially a 20-year compliance schedule to reduce overflow from the City's combined sewer system. It includes the following major milestones:

- By December 1, 2000, the City must eliminate all CSO discharges to the Columbia Slough that violate provisions of the ASFO.

- By December 1, 2001, the City must eliminate all CSO discharges that violate provisions of the ASFO at 20 of the CSO outfalls (including the Columbia Slough outfalls) consistent with the Facilities Plan approved by the Environmental Quality Commission (EQC).

- By December 1, 2006, the City must eliminate all CSO discharges that violate provisions of the ASFO at 16 of the remaining CSO outfalls consistent with the Facilities Plan approved by the EQC.

- By December 1, 2011, the City must eliminate all remaining CSO discharges that violate provisions of the ASFO consistent with the Facilities Plan approved by the EQC.

Also included in the ASFO are a number of intermediate milestones, including the submittal of annual progress reports to DEQ by September 1 of each year that the ASFO is in effect. The reports are to summarize the work performed during the past fiscal year and identify the work planned for the current fiscal year to eliminate discharges that violate the provisions of the ASFO.

IV. Past Fiscal Year Activities

This section summarizes the CSO abatement efforts for the period beginning July 1, 1999, and ending June 30, 2000. The section is divided into the following subsections:

ASFO Milestones Achieved
Program Planning Accomplished
CSO Control Projects Planned, Designed, and/or Constructed

CSO Operation and Maintenance Activities
Public Involvement Activities

A. ASFO Milestones Achieved

There were no ASFO milestones scheduled for completion during the fiscal year. All 35 scheduled SFO/ASFO milestones to date have been met on time since the signing of the initial SFO.

B. Program Planning Accomplished

Program planning continues to be an important aspect of the work being performed under the CSO Program. Planning is important to insure that the technical requirements of the ASFO are met within the schedule and budget constraints of the CSO Program. Important planning activities accomplished during the fiscal year were as follows:

- Internal meetings and meetings with the Willamette River Stakeholders Task Force (WRSTF) to develop and provide technical and nontechnical information related to the progress on the WRPP and the Clean River Plan. The WRSTF, which includes neighborhood, business, industry, civic, environmental, city, and regulatory representatives, has been providing guidance on the WRPP and the Clean River Plan. The WRSTF prepared and presented a report to the Portland City Council and the Bureau of Environmental Services with recommendations for how best to deal with the control of CSO and other environmental issues. The issuance of the WRSTP report concluded the task force's work.

- Continued the WRPP, which will refine the CSO control alternatives identified in the current CSO Management Plan and perform the predesign of the recommended projects. The planning is essentially complete, with the predesign to be completed by December 2000. The results of the WRPP will be integrated into the City's Clean River Program.

- The Draft Portland Clean River Plan (the Plan) was completed in October 1999. The Plan is a strategic approach for meeting multiple regulatory requirements and city goals. It will eventually address most everything Environmental Services does including: systems development and maintenance, system optimization, CSO control, stormwater management, watershed restoration, stewardship, coordination, and flood protection. After a City Council hearing the Bureau developed a more detailed report that was completed in March 2000. The Clean River Plan report describes ten action strategies the city proposes to undertake to reduce/eliminate CSOs and restore the environment. The Plan is geared to meeting requirements of the ASFO, Endangered Species Act, and the city's NPDES permits. It also anticipates needs for removing urban streams from the list of water quality limited water bodies. The Plan helps meet numerous community and city goals such as flood relief, watershed revegetation, and stewardship.

- City officials met several times with DEQ staff, the Governor's staff and community representatives to review the plan and discuss the pros and cons of the proposed strategy, schedule and budget. The City would like to take additional time on the East Side CSO work to maximize the extent of removal of stormwater flow from the combined system and to allow more intensive work on the tributary pollution and habitat problems, than could be scheduled to occur with the extent of capital investment required under the existing ASFO schedule. DEQ believes that the CSO control issue is more critical than any other issue in the city and has held to the timeline for the ASFO while saying that the approach we proposed is very good. Discussions are continuing and the final version of the Clean River Plan has yet to be determined. In the meantime we will continue to meet the requirements of the ASFO as we have since 1991.

C. CSO Control Projects Planned, Designed and/or Constructed

As noted in Section II, 58 of the 271 projects in the City's CIP directly related to the CSO Program were active during the fiscal year. To be "active" a project must have been in at least one of the following project phases:

Predesign
Design
Advertise/Bid
Construction
Close Out/Startup

A review of the schedules in the Appendix A information will provide a visual indication of the status of each of the 58 projects. The following is a narrative summary for some of the major projects and project groups:

Downspout Disconnections

During FY 99-00 the City met the established flow removal goal for the Columbia Slough Watershed and expanded the program to a large area of the East Willamette Watershed containing over 20,000 single-family residential properties. During the fiscal year 3,238 downspouts were disconnected at 1,732 homes removing over 35 million additional gallons of stormwater per year from the combined sewer system. An additional 800-900 homeowners signed up to disconnect downspouts but the work was not completed before the end of the fiscal year. Through June 30, 2000 downspouts have been disconnected at over 9,500 homes resulting in a cumulative removal of over 200 million gallons of stormwater per year from the combined sewer system.

Stormwater Infiltration Sumps

Continued to construct sumps in the Willamette River Watershed, with a total of 23 sumps installed during the fiscal year. All of the sumps were installed in the various Taggart basins.

Tanner Creek Stream Separation

Continued to work on the various components (Phases 1 through 5) of the Tanner Creek stream separation work. Bids were received for phases 2 and 5; construction will begin in FY 01. Design of the final two phases (3 and 4) will be completed in FY 01/02.

Columbia Slough Program

The following are four of the main projects in the Columbia Slough Program that will capture, store, convey and treat the CSO from the Columbia Slough Basin.

Columbia Slough Consolidation Conduit (CSCC)

The Columbia Slough Consolidation Conduit will interrupt and collect the flow from 10 overflows to the Columbia Slough.

The CSCC has six components of design work (Segments 1, 2, 3, 4, 5, & 6). Construction on Segment 5 was completed two years ago. Construction was performed on segments 1, 2, 3, and 6 during the past fiscal year. The overall consolidation conduit project was substantially complete during the past fiscal year. Segment 4-Comminity Benefits was bid during the fiscal year but has no impact on the ASFO requirements.

Columbia Boulevard Wet Weather Treatment Facilities (CBWWTF)

The Columbia Blvd. Wet Weather Treatment Facility (CBWWTF) project consists of construction of new primary clarifiers to treat up to 120 MGD of dry weather flows, modifications of existing primary clarifiers to treat up to 240 MGD of wet weather flows, expansion of the existing chlorination system, modifications of the existing effluent pump station, construction of a new dechlorination facility, modifications of the screen house, odor control, and environmental enhancements as part of the commitment to the local communities.

The CBWWTF has one major design package with seven individual construction packages (Flowmeter Replacement, New Primary Clarifiers, Modification to Wet Weather Primaries, Effluent Pump Station Improvements, CBWTP Chlorination System Improvements, Dechlorination Facility, and Environmental Enhancements). Work was performed on four of the construction packages during the past fiscal year. The Chlorination System Improvement package was completed, the Dechlorination Facility was substantially completed, and construction is progressing in accordance to schedule on the Modification to Wet Weather Primaries and the New Primary Clarifiers.

CBWWTF Influent Pump Station

The Influent Pump Station is intended to lift Combined Sewer Overflows from the Columbia Slough Consolidation Conduit into the plant influent channel. Construction reached substantial completion during the fiscal year. Operational testing is complete.

CBWWTF Outfall

This project constructed a second outfall pipeline/diffuser to expand the peak flow capacity of the Columbia Blvd. Wastewater Treatment Plant outfall system. The project involved connection to the existing 72-inch outfall pipeline. The new pipeline includes underwater crossing of the Columbia Slough; crossing of Hayden Island; connection to the new Hayden Island Dechlorination Facility; and a diffuser in the Columbia River.

The CBWWTF Outfall has one design package and two construction packages (Outfall and Outfall Clear & Grub). The overall project (pipeline, structures, and diffuser) was substantially completed during the past fiscal year and the Clear & Grub construction package was completed.

Willamette River CSO Predesign Project (WRPP)

The WRPP is a 14 task planning and preliminary design project designed to re-evaluate and refine the current CSO control plan for the Willamette River Basin. The project has the following tasks:

S1 Stakeholders Task Force Support (100)
S2 Public Outreach Activities (95)
S3 Willamette River Basin Activities (100)
M1 M/W/ESB Support Activities (95
T1 CSO Pollutant Characterization (95)
T2 Regulatory Issues and Permitting (95)
T3 Water Quality Impact Evaluations (95)
T4 Green Solutions and Inflow Controls (100)
T5 Collection System Optimization (90)
T6 Overflow Treatment Strategy (100)
T7 Identification of Integrated Control Alternatives (95)
T8 Evaluation of Integrated Control Alternatives (95)
T9 Predesign of Selected CSO Control Plan (70)
T10 Project Management (85)

Work was performed on all tasks during the fiscal year with the exception of T4 and T6 which were completed during fiscal year 98/99. The values in parenthesis after each task description are the total percent complete at the end of the fiscal year. Overall the project was estimated to be 80 percent complete at the end of the fiscal year based on the work completed to date.

D. CSO Operation and Maintenance Activities

During the year the City continued implementation of operation and maintenance practices that reduced the impact of CSOs on the receiving streams. Although the following represents the citywide effort, the majority of this work was performed within the CSO area:

Sewer Cleaning	130 miles
Catch Basin/Inlet Cleaning	18,478 units cleaned
Drainage Sump Cleaning	1,416 units cleaned
Street Sweeping	54,463 curb miles

E. Public Involvement Activities

CSO Program public involvement activities were expanded in FY 99/00 to meet the needs of individual projects identified by the Willamette CSO Predesign Project. As projects move from design to construction, the goals listed below are met through the public involvement activities:

Goal 1: Inform and involve residents and businesses within the proposed alignment area and the broader public about key issues, including, alignment, construction schedules and traffic plans.

Goal 2: Develop and maintain good working relationships between the public and project team members.

Goal 3: Meet design and construction timelines and minimize community impacts.

Goal 4: Respond to individual citizen or business concerns within 24 hours.

Goal 5: Help complete projects on time and within budget.

Public involvement plans have been developed for each CSO project. The Columbia Slough projects have successfully involved citizens in project designs and decisions. The CBWTP Citizen Advisory Committee (CAC) met and provided input to CSO projects during the year. Several of the CAC members served on the Conduit Steering Committee and the Outfall Advisory Committee which provided input to outfall design and construction. Citizens provided input to the Columbia Slough Consolidation Conduit (CSCC) and the CBWWTF Outfall Project which are now constructed and will be fully operational by December 2000.

Outreach activities began in FY 99/00 for Willamette River CSO Projects. These projects include the: Westside Stream Diversion, Southwest Parallel Interceptor, Ankeny Pump Station, Westside CSO Tunnel, Northwest CSO Pump Station, Northwest CSO Force Main, California Pump Station Upgrade, Cheltenham Storage, and Tanner Creek Stream Diversion.

Outreach activities were conducted during predesign, design and construction of these projects to provide businesses, residents and neighborhood groups with project information and opportunities to give input on project decisions, including: pipe alignment, construction mitigation measures and traffic plans. These activities are tailored to the needs of and impact to area communities and have included:

- **Databases** - developed for 11 projects and containing over 30,630 residents and businesses. They helped keep business and residential property owners, neighborhood, business and tenants associations and other stakeholder organizations within the project area informed about the project.

- **Project Fact Sheets** - developed for 5 projects and distributed to over 26,060 citizens and businesses provided an overview of the CSO program, background information on the project, the purpose of the design and construction phases and a mail in feedback form to solicit community input.

- **Community Presentations** - provided for 8 neighborhood, business and tenant associations as well as to other key stakeholder groups within the project area to provide an overview of the CSO program, the project and design and construction issues.

- **Public Meetings** - held 9 times during the design and construction phase of the project that provided more detailed information on the recommended alignment and solicited concerns and ideas regarding the project.

- **Site Visits** - conducted with 80 businesses and residents along construction routes and within the project area to resolve design and construction issues. These issues include business and residential access, parking, construction hours and issues and traffic management.

- **Watershed Walks and Tours** - to provide citizens with a better understanding of the CSO program and how citizens can help protect Portland watersheds. Over the past year, five watershed walks and two river tours were attended by 100 citizens.

In addition to involving impacted communities in CSO project decisions, the Bureau is committed to educating the public about environmental issues.

- **Educational Presentations** focusing on water quality issues were provided to Portland schools and community groups. Environmental Educators made over 400 presentations. A special Combined Sewer Overflow presentation is available for students in grades 6 to 12. Students learn the history of the CSO problem, talk about solutions, and discuss how to pay for improvements. More than 8,200 students were contacted with information about river pollution problems during the fiscal year.

- **Water Quality Display** has been developed in partnership with OMSI. This plastic model physically shows (with the use of water) how overflows actually occur. The Clean River Quest computer game and a computer kiosk are still used by schools and community groups. The kiosk is located at OMSI.

- **Educational Tours** of the Willamette river have been provided to classrooms and youth groups who have received educational presentations and learned about the City's CSO program.

The City also has an ongoing public information program that provides CSO program information to the general public.

- **Public Notification/River Alert Program** includes 55 CSO identification signs indicate where outfall pipes are located . It also includes 14 folding signs with the message "WARNING: SEWAGE" The folding signs are opened and closed every time there is an overflow from May 15 to October 15 each year. During the winter months, the signs remain open with the message in view for boaters and other river users. The River Alert program notifies the media (by fax) every time there is an overflow from May 15 to October 15. The Oregonian newspaper publishes an overflow icon on the top of the weather page when overflows occur. In addition, 5 CSO warning signs on the Columbia Slough remain open year round.

- **Clean River Works Construction Signage** requires contractors to develop and post signage at any sewer system-related construction site with the Clean River Works message to inform the public that the construction is a sewer project designed to keep our rivers and streams clean.

- **Media Relations** to gain media coverage of CSO projects. Media advisories, news releases and media events are used to alert the media about CSO projects. Individual briefings are also held with reporters. The City provides timely, accurate responses to all media requests and keeps files of all newsprint and broadcast media coverage. This past year, 15 media notifications regarding the combined sewer overflow programs were released. Eleven were related to actual combined sewer overflows during the summer notification period.

- **Bill Inserts** were enclosed in water/sewer bills to provide 165,000 residential customers with information about the combined sewer overflow program.

- **Web Site** (www.enviro.ci.portland.or.us) provided current information about the City's CSO programs to the general public.

V. Planned Efforts for Current Fiscal Year

The current fiscal year's efforts cover the period July 1,2000, through June 30, 2001. The work planned for the fiscal year will focus on continued implementation of the Cornerstone Projects throughout the CSO area, the start-up of the control facilities for control of the Columbia Slough CSO's, and the pre-design of the control facilities for the Willamette River Basin. The current year's work is divided into the same five subsections used for the previous year's efforts.

A. ASFO Milestones to be Achieved

The current fiscal year contains one major milestone; "eliminate all untreated CSO discharges to the Columbia Slough, subject to the storm return frequencies specified in Paragraph 12.a. of the Amended Order, by no later than December 1, 2000." Additionally, the submittal of this CSO

Progress Report is required. An additional requirement that may fall within the fiscal year is "The respondent shall report to the Commission in a public forum its progress for CSO reductions as outlined in paragraph 23, above, at a time established by the Commission and the Respondent in the years 2001 …".

B. Program Planning to be Accomplished

Program level planning will continue during the current fiscal year. The activities that will directly impact the CSO Program include:

- Continue work on the WRPP. All remaining tasks of the WRPP (see Section IV.C) will be completed during the fiscal year. At the project's completion a predesign report will be issued describing the current Willamette River basin CSO control plan.

- Develop and submit an update to the CSO Facilities Plan as identified in Paragraph 21 of the ASFO. The update will incorporate the WRPP recommendations regarding the Willamette River basin CSO control plan, and update Chapter 8, Implementation Plan.

- The Clean River Plan (CRP) that was published in FY2000 identifies several approaches for improving water quality within the city's portion of the Willamette River Watershed. During the current fiscal year, in support of the CRP, the city will continue evaluating the performance of several stormwater inflow control techniques for reducing flow to the CSO facilities while, also, reducing the likelihood of basement flooding. The city will also continue evaluating the effectiveness of tree canopy as an inflow control and water quality improvement technique.

- Continued planning under the Clean River Plan will develop the methods of removing 500 million gallons or 1600 acres of impervious surface from the East Side combined sewer which overflows to the Willamette River. Accomplishing this goal will reduce the size of tunnel required and lower that capital cost by $70 million. Projects are expected to include a mix of public and private activities to infiltrate, evaporate or use stormwater so that it does not enter the sewer system. This work is also expected to reduce costs for controlling basement flooding, and to provide benefits to the community environment by adding trees, vegetation and wildlife habitat and lowering air temperatures and air pollution. Other future planning is more specific to tributary restoration and protection needs.

C. CSO Control Projects to be Planned, Designed and/or Constructed

The CSO control projects on which planning, design and/or construction work will be done during the current fiscal year include:

- Continuation of the inflow reduction projects (including stormwater infiltration sump construction, downspout disconnections, stream diversion projects, and sewer separations).

- The pre-design of the CSO control projects for the Willamette River Basin will be completed.
- Design will begin on the CSO control projects for outfalls on the west side of the Willamette River (including the West Side CSO Tunnel, Ankeny Pump Station Upgrade, NW CSO Pump Station, NW CSO Force Main, CBWWTF Headworks expansion, SW Stream Diversion and Tanner Creek Stream Diversion – Phase 3).
- Design work is scheduled to be completed on the SW Parallel Interceptor.

D. CSO Operation and Maintenance Activities Planned

During the current fiscal year the City will continue the implementation of operation and maintenance practices that reduce the impact of CSOs on receiving streams. This Citywide effort will include the following project work:

Sewer Cleaning:	189 miles
Catch Basin/inlet Cleaning:	19,000 catch basin/inlets
Drainage Sump Cleaning:	1,940sumps/sedimentation manholes
Street Sweeping:	55,426 curb miles

E. Public Involvement Activities Planned

The public involvement planned for this year will continue to educate and identify opportunities for Portland residents, businesses and neighborhood groups to participate in CSO and watersheds enhancement projects. The City will continue with previous activities and will expand efforts to increase citizen participation in project decisions, raise awareness about watershed issues and encourage citizens to become stewards for the Portland watershed. The Bureau will work closely with Neighborhood Coalition Offices and Associations to raise awareness about the CSO program, gain active public input on project decisions, and involve more citizens, businesses and neighborhood groups in watershed protection and restoration efforts. This year's activities include:

- Working with citizen committees and work groups to improve CSO project designs and construction plans;
- Developing informational materials that explain CSO projects, time lines, construction mitigation plans and opportunities to develop enhance impacted communities;
- Conducting watershed walks and boat tours;
- Recruiting and training volunteers for watershed restoration projects;
- Developing and implementing the Willamette Stormwater Control Program which will encourage and provide assistance to commercial and industrial property owners in the combined area who are willing remove stormwater from the combined system by creating on-site stormwater infiltration facilities. These facilities will use more natural systems like swales, wetlands and native vegetation to detain and treat stormwater;
- Providing educational CSO classroom presentations;
- Continuing the CSO River Alert signage and notification program; and

- Distributing a City-wide newsletters and quarterly bill inserts that help inform citizens about the CSO program, watershed restoration activities and how they can help protect Portland watersheds.

VI. Conclusions

The City continues to make good progress and is on schedule towards the target reduction of CSOs as evident by the above list of accomplishments and the work planned for the current year. This is demonstrated by these specific accomplishments.

- All of the SFO/ASFO milestones have been met on time.

- The City conducted substantial operation and maintenance of the CSO collection system during the past fiscal year to reduce the environmental impact of current CSO discharges, and the City plans to continue with this effort during the current fiscal year.

- The public involvement/public outreach activities will continue to expand and improve the public's understanding of the City's combined sewers and the impact of CSO discharges on water quality in the Columbia Slough and the Willamette River. The City will involve, inform and educate citizens about watershed issues and encourage them to help protect and restore Portland waterways through stewardship activities.

- With the interceptor system improvements, diversion structure modifications, and implementation of Cornerstone Projects, the City has eliminated an estimated 3.0 billion gallons/year of CSO from the Columbia Slough and Willamette River. This represents approximately 52% of the total volume of CSO that must be controlled under the conditions of the ASFO.

- The City completed the Clean River Plan during FY 99-00.

- The City is completing all Columbia Slough projects on schedule and is on track to begin operation of the Columbia Slough projects in accordance to ASFO requirements before the December 1, 2000 deadline.

APPENDIX A

CITY OF PORTLAND - BES
CAPITAL IMPROVEMENT PROGRAM
CSO IMPLEMENTATION SCHEDULE