

**CITY OF PORTLAND AND CLEAN WATER SERVICES
WHOLESALE SEWER SERVICE AGREEMENT**
(Working Draft 10-16-2012)

This Agreement is entered into between the City of Portland ("the City"), a municipal corporation of the State of Oregon, and Clean Water Services ("the District"), a county service district organized under ORS Chapter 451, under the authority granted by ORS 190.010 and ORS 454.165 and the charters and laws applicable to the City and the District for the purposes set forth below.

RECITALS

The City and the District (then known as the Unified Sewerage Agency) entered into a Wholesale Sewer Service Agreement, effective July 1, 1999; an amendment to that agreement, effective March 15, 2000; and a "First Amendment" to that agreement, effective June 12, 2002 (collectively, "the 1998 Agreement"). The 1998 Agreement governs the overall relationship between the parties relating to the conveyance and treatment of sewage and pretreatment within the Fanno Creek Basin area and from areas of the City that drain by gravity to the District's system.

In addition, the City and the District, with the Oregon Department of Environmental Quality ("DEQ"), entered into a Mutual Agreement and Order, effective March 20, 2009, as may be modified or amended ("the Fanno MAO"). The Fanno MAO imposes certain obligations on the parties relevant to this Agreement.

The parties wish to terminate the 1998 Agreement effective upon execution of this Agreement. The pretreatment responsibilities of the parties will now be addressed by separate agreement.

NOW, THEREFORE, the parties agree as follows:

TERMS

I. PURPOSE AND INTENT OF AGREEMENT

The purpose and intent of this Agreement is:

A. To provide operating and financial protocols between the parties:

1. Until completion of construction of the City's SW 86th Avenue Pump Station and Appurtenances Project ("the Project"); and
2. After the Project is complete.

B. To provide for conveyance and treatment of sewage discharged from "Area B" (see Exhibit A), defined as the portion of the District's service area that drains by gravity to the City's Fanno Basin Sewer and SW 86th Avenue pump station complex (collectively, "the Pump Station") when the

Pump Station is operational but that discharges sewage to the District's system when the Pump Station is not fully operational.

- C. To provide for conveyance and treatment of sewage discharged from property within "Area C" (see Exhibit A), defined as the portion of the City's service area that drains by gravity to the District's system.
- D. To provide for conveyance and treatment of sewage discharged from "Area A" (see Exhibit A), defined as the area within the City's service area that drains by gravity to the Pump Station but that discharges sewage to the District's system when the Pump Station is not fully operational.
- E. To provide a mechanism for the parties to reimburse each other for the conveyance and treatment of one party's sewage by the other, to provide a mechanism for payment of new connections, and to provide a mechanism for purchase of temporary capacity.
- F. To establish procedures to be followed in the event of discharges from the Pump Station to the District's conveyance system, Fanno Creek, or the surrounding area.
- G. To provide for procedures to be followed in the event of discharges from the conveyance systems of Areas A, B or C.
- H. To provide standards for performance and provisions for monitoring the flows from each area.
- I. To provide for compliance with existing and future federal, state, and local requirements, including the Fanno MAO, which are applicable to and binding on the City and the District.

II. DEFINITIONS

A. Applicable Fees

For the City, Applicable Fees include those established by City Code Chapter 17.36 and the annual sewer and drainage rates and charges ordinance. For the District, Applicable Fees include those established by District Ordinance and the annual Rates and Charges Resolution and Order.

B. Action Plan

An Action Plan is a jointly-developed plan that addresses deficiencies that caused an emergency diversion or overflow. At a minimum, the development of an Action Plan will include the following:

1. Root-cause analysis;
2. Development and selection of alternatives based on appropriate criteria; and
3. Implementation of a preferred alternative.

C. Approved Diversion

An Approved Diversion is a diversion of flow to the District's system that is:

1. Preceded by a written request from the City to the District as early as reasonably possible;
2. Specifically approved by the District in writing, which approval may not be unreasonably withheld; and
3. Coordinated with the District, including the provision by the District to the City of a specific approved time frame for the diversion.

D. City Code

City Code is the Code of the City of Portland, as amended from time to time. The original is on file with the Auditor's Office of the City.

E. City Connection Charge

The City Connection Charge is the sanitary sewage system development charge per EDU as established by City Code Chapter 17.36 and the annual sewer and drainage rates and charges ordinance.

F. City Rate

The City Rate is the sanitary sewer volume charge multiplied by the City-wide average monthly winter water usage as specified in the Sanitary System User Fees Administrative Rules (ENB 4.09.5.c.iv – Class Average) plus the monthly service charge, if any, as established by City Code Chapter 17.36 and the annual sewer and drainage rates and charges ordinance.

G. Director

For the City, the Director of the Bureau of Environmental Services or designee. For the District, its General Manager or designee.

H. District Connection Charge

The District Connection Charge is the District-wide portion of the "Sanitary Sewer System Development Charge" for permanent or temporary discharges per EDU described in District Ordinances 28 and 29 and the annual Rates and Charges Resolution and Order.

I. District Rate

The District Rate is the District-Wide Allocation of the monthly sanitary sewer use charge multiplied by the system-wide average winter water consumption plus the District-Wide Allocation

of the monthly sanitary sewer base charge as described in District Ordinances 28 and 29 and the annual Rates and Charges Resolution and Order.

J. District Resolution or Ordinance

District Resolutions and Orders, or Ordinances, as approved or adopted by the District's Board of Directors, as amended from time to time. Originals are on file with the District.

K. Diversion Percentage

The Diversion Percentage will be calculated by dividing the measurements from the flow monitor downstream of the Pump Station in the District system by the Total Fanno Basin Volume.

L. Effective Date

The Effective Date of this Agreement is November 30, 2012.

M. Equivalent Dwelling Unit ("EDU")

An EDU is a unit of measurement that represents the sewage discharged from a typical single-family residential dwelling. EDUs will be assigned to particular properties based on District Ordinance, District Resolution, or City Code, as applicable.

N. Jurisdictional Party

The Jurisdictional Party is the party within whose sewer service area a property is located.

O. Receiving Party

The Receiving Party is the party to whose treatment plant a property normally discharges or will normally discharge.

P. Total Fanno Basin Volume

Total Fanno Basin Volume will be calculated by adding measurements from the flow monitor downstream of the Pump Station in the District system to the flow measurements from the Pump Station itself.

III. LIMITATIONS ON DISCHARGE

A. General

1. The parties will coordinate with each other annually and exchange comments, which will be reasonably considered, on proposed capital improvement and system alteration projects that would affect the other party's system. With the exception of allowing new connections or issuing permits to industrial users, neither party may change basin boundaries by directing

flows to it that would not otherwise flow there by gravity without the written approval of the party receiving the flow, which approval may not be unreasonably withheld.

2. The parties will notify and coordinate with each other if either party plans to restrict downstream capacity temporarily in a manner that could affect the other party's receiving system.
3. The parties will undertake their best efforts to prevent sanitary sewage or stormwater from entering the sewer system in a manner that could cause the Tryon Creek Wastewater Treatment Plant, the Columbia Boulevard Wastewater Treatment Plant, or the Durham Advanced Wastewater Treatment Facility to exceed the limitations of the parties' National Pollution Discharge Elimination System ("NPDES") permits, be otherwise detrimental to efficient operation or the economical disposal of sewage sludge, adversely affect operations or the product of the sewage sludge composter, or cause any treatment plant to be inoperable.

B. Inflow and Infiltration Control Efforts

1. The parties will adopt, and enforce through inspection, sewer construction and maintenance standards that minimize the amount of infiltration and inflow ("I&I") entering the other's sewer system and to reduce risk of overflows from either party's system.
2. The parties will enact, maintain, and enforce ordinances and regulations prohibiting direct or indirect connections of roof drains, footing drains, and all other stormwater and groundwater connections to any portion of the other's sewer system covered by this Agreement.
3. Every 10 years, beginning in 2013, the parties will jointly determine basin-specific I&I targets and action levels targeting a one-in five year, 24 hour recurrence interval storm event for Areas A, B, and C. Following each such joint determination, the parties will report annually on I&I levels in their respective areas, describing planned efforts to meet the established targets.

IV. PRETREATMENT

Each party will implement and enforce a pretreatment program to control discharges from industrial users to its wastewater treatment system pursuant to its NPDES permit, 40 CFR Part 403, other federal and state regulations, and will enter into a Pretreatment Program Implementation Agreement between the District and the City to address pretreatment responsibilities previously contained in the 1998 Agreement.

V. CHARGES FOR CONVEYANCE AND TREATMENT OF SEWAGE

- A. From the effective date of this agreement through June 30, 2013, City shall pay the District \$293,366.04 per month for sewage conveyance and treatment.
- B. Beginning July 1, 2013, charges for sewage conveyance or treatment following each month will be calculated according to the following formulas. The City will determine the number of EDUs in

Areas A and C and the District will determine the number of EDUs in Area B. Each party will update its EDU counts monthly.

1. If the Pump Station was operating and the City did not divert Fanno Basin flows to the District:

- a. If the number of EDUs in Area C exceeds the number of EDUs in Area B, the City will pay the District:

$$((\text{EDUs in Area C}) - (\text{EDUs in Area B})) \times \text{District Rate}$$

- b. If the number of EDUs in Area B exceeds the number of EDUs in Area C, the District will pay the City:

$$((\text{EDUs in Area B}) - (\text{EDUs in Area C})) \times \text{City Rate}$$

2. If the Pump Station was operating and the City sent some portion of its Fanno Basin flows to the District as Approved Diversions, the City will pay the District according to the following formula for each day (including partial days) the diversions occurred:

$$(\text{Area C EDUs} + ((\text{Area A EDUs} - \text{Area B EDUs}) \times \text{Diversion Percentage})) \times \text{District Rate}$$

The calculation will be performed on a daily or monthly basis, as appropriate, such that the District is credited for flow from Area B and the City is charged for flow from Area A during the diversion.

3. If the Pump Station was not operating and the City sent all of its Fanno Basin flows to the District as Approved Diversions, the City will pay the District:

$$(\text{Area A EDUs} + \text{Area C EDUs}) \times \text{District Rate}$$

4. After completion of the Project the City will pay the District in accordance with Section V.B.2 or 3, as applicable, for Fanno Basin flow diversions to the District that did not qualify as Approved Diversions, whether or not the Pump Station was operating. The City shall also implement and/or fund improvements as identified in an Action Plan developed under Section VIII.B.3.

VI. OPERATING PROCEDURES

A. The City will:

1. Meet all its obligations as required by the Fanno MAO, including:

- a. Before completion of the Project, provide primary project management for coordination of all work necessary to upgrade the City's conveyance and treatment facilities, including improvements to the Pump Station.

- b. Cooperate and coordinate with the District to prepare and implement a Wet Weather Monitoring and Response Plan.
 - c. Prepare and implement a Capital Improvement Plan for improvements to the City's conveyance and treatment facilities to permanently manage flows from the Fanno Creek Basin.
 - d. Prepare and implement a Flow Reduction and Mitigation Plan within the City's sanitary sewer system to reduce the likelihood and flow volumes of sanitary sewer discharges to the District's sanitary sewer and surface waters.
 - e. Provide all necessary reports and notifications to DEQ (with copies to the District) as required by the Fanno MAO.
 - f. In the event that any legal action is brought against the District by DEQ, the federal Environmental Protection Agency, or any affected third parties regarding controlled diversion of flows to surface waters within the District's boundary or uncontrolled overflows from the District's sanitary sewer conveyance system caused by diversions of City flows to the District's system, including, but not limited to, any claims of related property damage caused by the City's diversion of Fanno Creek Basin flow to the District, the City shall protect, defend, hold harmless and indemnify the District, its officers, employees and agents from and against any related claims, damages, penalties, fines, compensation, suits, actions, and expenses including reasonable attorneys fees. This obligation is in addition to the City's indemnification obligations under Section XIII of this Agreement.
2. Within 45 days of receipt of final invoices, pay the District for the volume of sanitary sewage flow to the District from areas served by the City in accordance with Section V of this Agreement and for Temporary Capacity in accordance with Section VII of this Agreement.
 3. Within 45 days of receipt of final invoices, pay the District direct expenses associated with an overflow event in accordance with the apportionment methodology described in Section VI.C, "Determination of Responsibility for Overflows."
 4. Designate representatives for purposes of implementing the obligations of this Agreement and coordinating those actions with the District.
 5. Operate and maintain its facilities, including the Pump Station, diversion structure, conveyance systems, and treatment facility in a manner to ensure safety, efficiency, and environmental protection in accordance with the City's Pump Station and Active Controls Inspection Guidelines.
- B. The District will:
1. Meet all its obligations as required by the Fanno MAO including:
 - a. Accept flow from the City's Fanno Creek Basin as provided in the Fanno MAO.

- b. Cooperate with the City in preparing and implementing a Wet Weather Monitoring and Response Plan.
2. Invoice the City for diversions and direct expenses related to overflows in accordance with Sections VI.A.2. and VI.A.3. above. Within 15 days of the invoice date, the City may submit a written request for an explanation of the charges. The District shall provide the City an explanation of the charges within 5 business days of receiving the request before invoices are considered final. An invoice shall be considered final if no request for explanation of the charges is made within 15 days of the invoice date.
3. Designate representatives for purposes of implementing the obligations of this Agreement and coordinating those actions with the City.
4. Operate and maintain its facilities, including its conveyance systems and treatment facility, in a manner to ensure reliability and capacity.

C. Determination of Responsibility for Overflows

1. Prior to completion of the Project, responsibility for overflows, including monetary penalties, fines, and costs for response and clean-up, will be allocated between the parties according to the Wet Weather Monitoring and Response Plan, attached hereto as Exhibit B.
2. After completion of the Project, responsibility for overflows, including monetary penalties, fines, and costs for response and clean-up, will be allocated between the parties according to the Diversion Response Plan, to be completed in accordance with Section VIII.B.2.a.

VII. CONNECTION TO AND USE OF FACILITIES AND CONNECTION CHARGES

A. Issuance of Connection Permits

1. The Receiving Party will allow property owners to connect to and use its sewer system in accordance with this Agreement and with the City Code or District Resolution or Ordinance, as applicable, of the Jurisdictional Party.
2. The Jurisdictional Party will require each such property owner to obtain a sewer connection permit from the Jurisdictional Party and to pay the Jurisdictional Party's Applicable Fees. The Receiving Party may not require separate payment of the Receiving Party's Applicable Fees from the property owner.

B. Connection Permit Records

To facilitate calculation of the amount of sewage contributed by the parties, each party will keep records of the properties (including EDUs) that connect to its system during each month. Each party will forward this information to the other within 15 days after the last day of that month. For purposes of billing, a property that connects during that month will be considered to have been connected for the full month.

C. Connection Charges

1. Temporary Capacity

- a. The City is not purchasing or reserving future permanent capacity for flows from the Fanno Basin except as provided under Section VIII.C.1.b.. As such, the District cannot guarantee future capacity in the District's collection system or at the Durham Advanced Wastewater Treatment Facility.
- b. By January 15, 2013, the City shall deliver to the District a single payment of \$7,000,000 for temporary capacity provided by the District for Fanno Basin discharges from July 1, 2008 through June 30, 2013. The parties expect that the Pump Station will operate and transfer flows to the City's system after June 30, 2013.
- c. From July 1, 2013 until completion of the Project, if an Emergency Diversion lasts longer than 16 days, the City shall pay the District for temporary capacity during that Emergency Diversion for Fanno Basin discharges to the District's system unless specifically waived in writing by the District. This amount shall be calculated as follows:

EDUs in Area A x District Connection Charge for temporary discharges

2. Permanent Capacity

- a. Within Area B, when a property connects to the sanitary sewer system or a connected property expands its sanitary sewer usage, the District will pay the City's connection charges for that property.
- b. Within Area C, when a property connects to the sanitary sewer system or a connected property expands its sanitary sewer usage, the City will pay the District's connection charges for the property.
- c. Monthly payment of connection charges required by this Section VII.C.2 will be as follows:
 - i. If new EDUs in Area C exceed new EDUs in Area B, then the City shall pay the District:

((New EDUs in Area C) - (new EDUs in Area B)) x District Connection Charge
 - ii. If new EDUs in Area B exceed new EDUs in Area C, then the District shall pay the City:

((New EDUs in Area B) - (new EDUs in Area C)) x City Connection Charge

VIII. DIVERSIONS

A. Approved Diversions

Diversions to the District's system must be Approved Diversions. The District will consider current and projected flows and the likelihood of permit compliance and provide the City with a scheduled time over which an Approved Diversion can take place. Diversions to the District's system that are the result of a storm event that exceeds the one-in-five year, 24-hour recurrence interval will be treated as Approved Diversions.

B. Emergency Diversions

1. An "Emergency Diversion" is a diversion that

- a. Is not an Approved Diversion;
- b. Results in a discharge to the environment, Fanno Creek, or the District's system; and
- c. Is not the result of a storm event that exceeds the one-in-five year, 24-hour recurrence interval.

2. Diversion Response Plan

- a. Prior to completion of the Project, the District and the City will jointly develop a Diversion Response Plan with procedures for notification of each party, field response responsibilities, root-cause analysis, and determination of responsibilities for overflows, penalties, and costs, etc.
- b. An Emergency Diversion will trigger the Diversion Response Plan.

3. Action Plan

If two Emergency Diversions occur within any 18-month period or any single Emergency Diversion endures longer than three days or results in a release to the environment, the District and the City will develop an Action Plan to identify necessary capital or performance-improvement projects in either party's system and commit the parties to implementing those projects within the next budget cycles of the parties.

C. Diversions shall be handled in accordance with the Diversion and Discharge Diagram, attached hereto as Exhibit C.

IX. NEIGHBORHOOD COMMUNICATIONS

- A. The City will address off-site issues associated with the operation and potential failure of the Pump Station according to the City's _____.
- B. By March 1, 2013, the City will appoint and convene a Citizens' Advisory Committee ("CAC") for the Pump Station to:

1. Inform the community, including adjacent neighbors, nearby neighborhood associations, recreational users, and others (collectively, "stakeholders") about construction impacts in advance of and during the Project; and
 2. Engage in dialogue with stakeholders after completion of the Project regarding the operation and maintenance of the Pump Station and regarding the City's stewardship of Fanno Creek in general. Such issues as noise, odor, vibration, maintenance, landscaping, and vegetation will be considered. Communications issues such as public notification, emergency response, emergency contacts, and complaint resolution data will also be considered.
- C. The CAC will be comprised of five to seven representatives of the neighbors, neighborhood association, and stakeholder agencies.
- D. The CAC's term will be 24 months after completion of the Project. The City and the CAC may jointly agree to extend the term.
- E. The CAC will assist in identifying and prioritizing Community Environmental Projects to be implemented in the event of a discharge to the environment.

X. SEVERABILITY

If any of the provisions of this Agreement are held to be invalid or unenforceable, the remaining provisions will remain valid and binding upon the parties.

XI. WAIVER

A waiver by either party of any provision, condition, or covenant of this Agreement may not be construed by the other party as a waiver or subsequent breach of the same by the other party.

XII. INTERPRETATION

This Agreement was prepared as a joint effort of the City and the District and must be construed as such.

XIII. INDEMNIFICATION

Within the limits of the Oregon Tort Claims Act, codified at ORS 30.260 through 30.300, each party hereby agrees to protect, defend, hold harmless, and indemnify the other, its officers, employees and agents of and from any claims, damages, compensation, suits, actions and expenses, including reasonable attorney's fees, occasioned in whole or in part by the negligent acts, errors or omissions of the indemnitor or its employees, while in any way engaged in the performance of this Agreement. In addition, each party shall be solely responsible for any contract claims, delay damages, or similar items arising from or caused by the negligent or wrongful action or inaction of the party.

XIV. TIMING AND COORDINATION

District and City shall take all reasonable steps within their abilities to perform their work under this Agreement in an efficient and timely manner.

XV. AMENDMENT OF AGREEMENT

The City and the District may amend this Agreement from time to time by mutual written agreement signed by both parties' Directors.

XVI. RESOLUTION OF DISPUTES

If any dispute arising out of this Agreement cannot be resolved by the designees of the parties' Directors, both parties' Directors will attempt to resolve the issue. If the parties' Directors are not able to resolve the dispute, the parties will submit the matter to mediation, each party paying its own costs and sharing equally in common costs. In the event the dispute is not resolved in mediation, the parties will submit the matter to arbitration. The decision of the arbitrator shall be final, binding and conclusive upon the parties and subject to appeal only as otherwise provided in Oregon law.

XVII. LAWS AND REGULATIONS

The City and the District agree to abide by all applicable laws and regulations.

XVIII. INTEGRATION

This Agreement constitutes the entire agreement between the parties on the subject matter hereof and supersedes all prior or contemporaneous written or oral understandings, representations or communications of every kind on the subject. No course of dealing between the parties and no usage of trade shall be relevant to supplement any term used in this Agreement. Acceptance or acquiescence in a course of performance rendered under this Agreement shall not be relevant to determine the meaning of this Agreement and no waiver by a party of any right under this Agreement shall prejudice the waiving party's exercise of the right in the future.

XIX. TERM OF AGREEMENT

The term of this Agreement is from the Effective Date until either (1) the execution of a new wholesale sewer service agreement between the District and the City or (2) the termination of this Agreement pursuant to Section XXI.

XX. TERMINATION OF PREVIOUS AGREEMENT

The 1998 Agreement is hereby terminated upon the Effective Date of this Agreement.

XXI. TERMINATION OF THIS AGREEMENT

- A. The initial term of this Agreement will be twenty-five years unless earlier terminated as provided herein.
- B. Unless terminated, this Agreement will be automatically renewed for periods of five years.
- C. At any time, either party may unilaterally or by mutual written agreement terminate this Agreement upon proper notice to the other party, which termination will not take effect until five years later.
- D. A notice of termination may be withdrawn at any time prior to the termination date with the written approval of both parties' Directors.

XXII. CHOICE OF LAW/VENUE

This Agreement and all rights, obligations and disputes arising out of the Agreement shall be governed by Oregon law. All disputes and litigation arising out of this Agreement shall be decided by the state courts in Oregon. Venue for all disputes and litigation shall be in Washington County, Oregon.

XXIII. COUNTERPARTS EXECUTION

This Agreement may be executed in multiple counterparts, each of which shall be deemed to be an original, and such counterparts shall constitute one and the same instrument. For the convenience of the parties, the execution pages of any executed counterpart may be detached and reattached to any other executed counterpart to form one or more documents that are fully executed. This Agreement shall not be effective until all parties have executed this Agreement or a counterpart of this Agreement. Execution of this agreement may be accomplished by electronic means.

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Approved as to form:

CITY OF PORTLAND

City Attorney

Commissioner-in-Charge

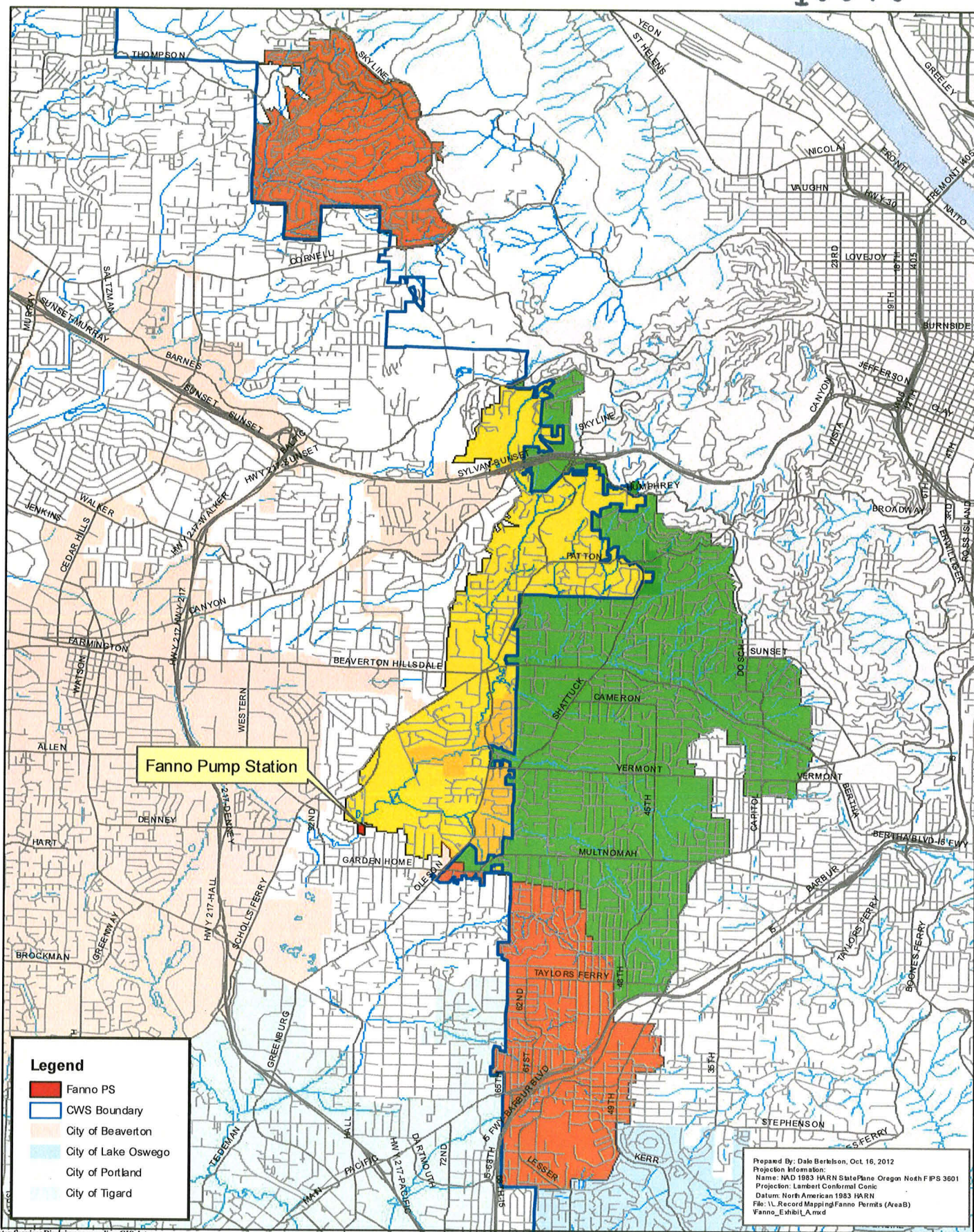
By: Auditor

Approved as to form:

CLEAN WATER SERVICES

District Counsel

General Manager or Designee



Legend

-  Fanno PS
 CWS Boundary
 City of Beaverton
 City of Lake Oswego
 City of Portland
 City of Tigard

Prepared By: Dale Bertelson, Oct. 16, 2012
Projection Information:
Name: NAD 1983 HARN StatePlane Oregon North FIPS 3601
Projection: Lambert Conformal Conic
Datum: North American 1983 HARN
File: \L Record Mapping\Fanno Permits (AreaB)
Fanno Exhibit A.mxd

Water Services Disclaimer regarding GIS data:
The product and its associated data is for informational purposes only and was derived from digital datasets. This information is not prepared for, and is not suitable for, legal, engineering or survey purposes. Users of this information should review or consult the primary data and information sources. Users of this information can be held responsible for any errors, omissions, or positional inaccuracies. There are no warranties, expressed or implied, for the accuracy, reliability, or completeness of the information. The data and information at various locations are depicted using the best available information but must be field verified before being digged. Service laterals are marked in the field as "Unlocateable underground" as defined in the 1995 90100-0010 (20) Easement data is not currently completed. The data is intended to be used for informational purposes only. The data is not intended for the exception of zany lines 24" and larger located within the city limits of Beaverton, Medford, Forest Grove, Hillsboro, Lake Oswego, Portland, Shallowford, Tigard or Tualatin need to be verified by contacting the individual city. Notification of any errors would be appreciated. For more information contact: 503-686-2222 or 503-686-2222. Hillsboro OR 97123 (503) 686-2222

Exhibit A



1 in = 5,000 ft

Fanno Sub-Basins

- Area A
Area C
Area B



Fanno Wet Weather Monitoring & Response Plan

October 17, 2012 – DRAFT Update for BES & CWS

I. Purpose & Introduction

a. Purpose

This Plan establishes the methods and procedures Clean Water Services (CWS) and the City of Portland's Bureau of Environmental Services (BES) will use to effectively monitor and operate the Fanno Creek Sewer System. The purpose is to communicate in advance of the rising sewer levels and take steps to control overflows to Fanno Creek to the greatest extent practicable.

The procedures identified in this Plan are aimed at protecting public health and safety by minimizing potential catastrophic system failure during the specific interim period when the City of Portland is implementing the long-term solution to problems associated with the Fanno Pressure Line. Absolute strict adherence to the details in this Plan is not required to be in compliance with meeting the intent of the Plan.

[NOTE: This document remains in draft form and will be updated as more information becomes available.]

b. Timeframe

This Plan and subsequent updates will be in effect from November 1, 2008 to June 1, 2013 or completion of the long-term SW 86th Avenue Pump Station & Appurtenances, and related projects, whichever is earliest.

c. Contact Information

Responsibility	Agency	Name	Best Contact Number	Backup Number
Primary Field Contact schuhd@cleanwaterservices.org *	CWS	Doug Schuh	503.547.8109	503.807.9031*
Primary Field Contact Bill.Sterling@portlandoregon.gov	BES	Bill Sterling	503.823.8914*	503.823.2442
Secondary Field Contact claussent@cleanwaterservices.org *	CWS	Ted Claussen	503.784.9874	503.547.8111
Secondary Field Contact Paul.Tkachenko@portlandoregon.gov	BES	Paul Tkachenko	503.823.8295*	503.271-0020
Primary Engineering Contact pakc@cleanwaterservices.org *	CWS	Carrie Pak	503.681.3646	971.255.9884
Primary Engineering Contact Scott.Gibson@portlandoregon.gov	BES	Scott Gibson	503.823.7615	503.880.4489

Responsibility	Agency	Name	Best Contact Number	Backup Number
Primary Public Affairs jockersm@cleanwaterservices.org	CWS	Mark Jockers	503.681.4450	503.701.4293
Primary Public Affairs Linc.Mann@portlandoregon.gov	BES	Linc Mann	503.823.5328	503.641.1529
Monitoring Review brauna@cleanwaterservices.org *	CWS	Andy Braun	503.681.3615	503.367.7191*
Monitoring Review Virgil.Adderley@portlandoregon.gov	BES	Virgil Adderley	503.823.7866	503.747.8155*
BLT Contact/Chief Engineer Bill.Ryan@portlandoregon.gov	BES	Bill Ryan	503.823.7203	971.227.0809*
CWS LT Communication curtissn@cleanwaterservices.org *	CWS	Nora Curtis	503.681.3623	503.720.4267*
CWS Field Ops Manager sandhur@cleanwaterservices.org *	CWS	Ryan Sandhu	503.367.4788	503-984-0337
BES Collection Sys. Manager Gary.Irwin@portlandoregon.gov	BES	Gary Irwin	503.823.3645	503.823.3645
BES District Engineer Rob.Cozzi@portlandoregon.gov	BES	Rob Cozzi	971.533.5554*	503.823.7086
BES Monitoring Lead Jordan.McCann@portlandoregon.gov	BES	Jordan McCann	503.823.8006*	503.823. 7587
BES Monitoring Backup Randy.Belston@portlandoregon.gov	BES	Randy Belston	503.823.6495	503.823.5536
BOM Dispatch	BES	Dispatch	503.823.1700	
CWS Dispatch	CWS	Dispatch	503.681.3600	
* Device to receive Text Message Alarms from Telog system - City of Portland devices are on Verizon network - Keypad for FABA: <key> <key> 2-5-8-0 (wait for it...)				

In cases where cell phone coverage is limited by storm conditions, CWS and BES will be sharing radio systems as a backup communication system.

II. Background

a. Fanno Basin (FABA) Pump Station

In 2000, the City of Portland finished construction on the FABA pump station, the Fanno Pressure line, and a gravity sewer line in SW Vermont Street that delivers flow to the new pump station. Recurring pressure main breaks have caused sewage leaks to nearby properties and ditches over the eight years of operation. After the most recent failure in March 2008, Environmental Services deactivated the FABA Pump Station and pressure sewer and began diverting flow to Clean Water Services Fanno Interceptor, a gravity sewer that conveys sanitary sewage to the CWS Durham Advanced Wastewater Treatment Plant in Washington County.

In 2010, the new dual-line pressure force-main was completed, but the recent force main leak requires the station to remain in standby-emergency mode until other related projects are sufficiently completed to reliably control wet weather flows in this system and prevent overflows to the CWS Fanno System.

b. Storms that May Overload the CWS Fanno System

The collection system maintained by Clean Water Services is able to safely convey dry and wet weather flows for storms exceeding a 5-year event without overflowing to streets or creeks.

However, with the additional flows from Portland's Fanno Basin, the CWS system will no longer be able to achieve its normal level of performance. Computer modeling was used to estimate the impact of Portland's flows on the CWS Fanno Interceptor for multiple storms experienced over the past few years. The modeling results indicate that:

- The CWS Fanno Interceptor will convey all flows for storms up to a 1.7-inch storm in 24-hours (slightly under a 1-year storm).
- The CWS Fanno Interceptor will be fully utilized and near overflow conditions for storms at or above 2.3 inches in 24-hours (a 2-year storm level).

Therefore, for most storms there will be little or no risk of overloading the CWS Fanno Interceptor to the point of causing a sewage release. A storm near a 2-year storm level could begin to overwhelm the system and create conditions that would require actions to relieve the CWS system. Those relief actions are described below.

c. Expected Overflows and Potential Locations

Because of its depth, CWS operates the Fanno Interceptor in a manner that allows a significant amount of surcharging. During past storms, this has been done safely without causing overflows or damaging the CWS system. However, with the additional Fanno Basin flows from Portland, it is expected that during large storms uncontrolled overflows may occur at specific locations, and if not relieved, the Fanno Interceptor would experience excessive pressures that could damage the structural integrity of the conveyance system.

CWS staff has identified two areas near downtown Beaverton and one area in Tigard that could be subject to uncontrolled overflows from the manholes onto the streets and near homes if the surcharge level in the Fanno Interceptor were to rise too high:

- SW Hall & Millikan (near Beaverton Ford)
- SW Center Street & 117th (Corral Mobile Home Park)
- SW 89th & Spruce (in Tigard)

To reduce the likelihood of uncontrolled overflows and damage to the Fanno Interceptor, BES has implemented two systems at the FABA Pump Station site:

1. FABA station pumping through the repaired force main
2. Relief pumping & screening to Fanno Creek at the FABA Pump Station site.

If needed, flows will be diverted to the Fanno Pump Station and away from the CWS system to relieve downstream surcharging. After the station is pumping its full capacity into the

force main, and no other options exist to further reduce flow to CWS, then flow will be screened and discharged into Fanno Creek through the energy dissipation basin.

d. Temporary Facilities to Mitigate Overflow Impacts

BES and CWS have implemented multiple tactics to minimize overflows and mitigate impacts during a significant storm. BES has implemented a temporary pumping facility to mitigate potential impacts of excess flows to the CWS system. Operation of this facility is described in more detail in Section V:

Relief Pumping & Screening at Fanno Pump Station Site: BES has configured the Fanno Pump Station wet well to screen, store and control overflows from the CWS system during an extreme storm condition. When needed to relieve CWS system, the excess screened flow can be pumped out of the wet well (8 MGD or 12 cfs) and discharged into an energy-dissipation structure prior to release into Fanno Creek.

Figure 1: Wet well screens on intake pipe for pumping to creek structure

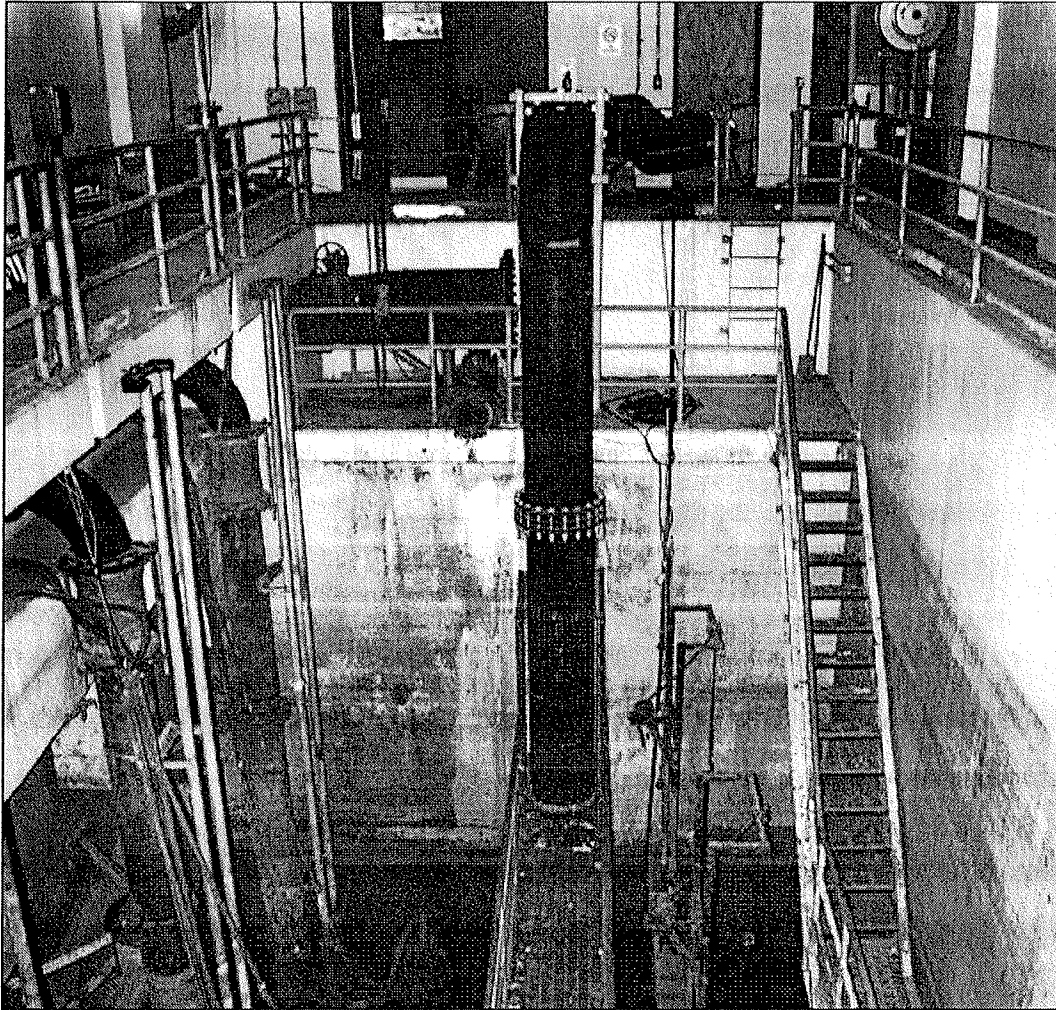


Figure 2: 8 MGD Pumping & Energy-Dissipation Structure at Fanno PS:

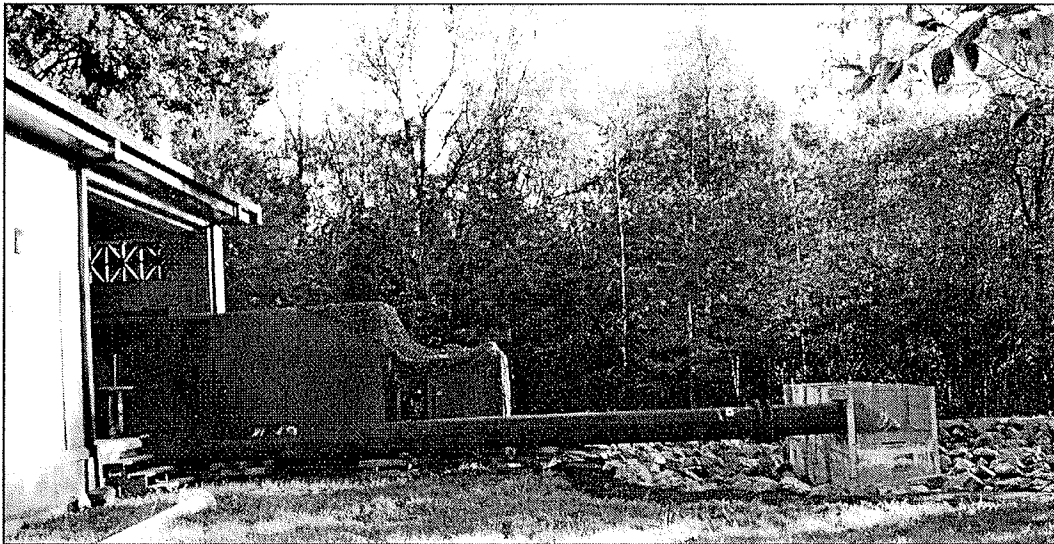
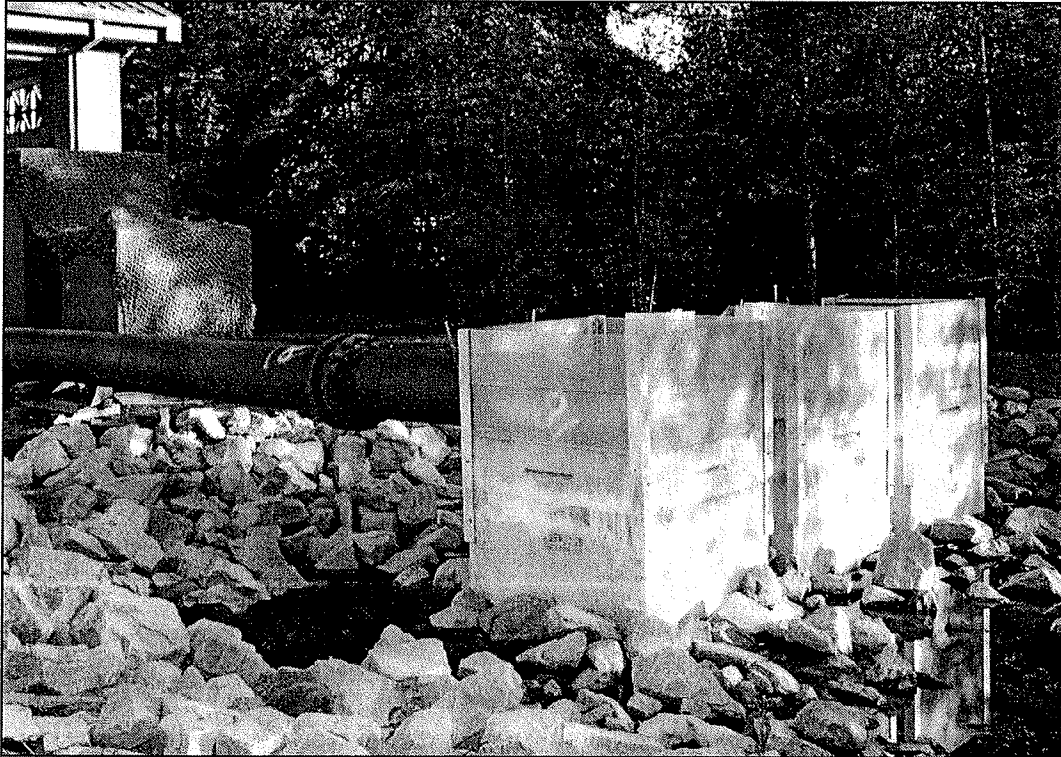


Figure 3: Discharge boxes and secondary screens - close-up view:



III. Public Notice & Notification Procedures

a. Public Notice Prior to Winter Conditions

BES & CWS have jointly developed the *Public Notification Plan & Procedures*, which is provided as Attachment #1 to this document. The *Procedures* include:

- Flyer for Public Information prior to the start of winter conditions. This flyer covers:
 - Background of Fanno Pump Station problems
 - Current Interim Measures
 - Summary of Public Notification procedures
- Detailed Notification Procedures
- Media Advisories
- Warning Signs to be posted

BES and CWS have provided written notice to identified stakeholders on 1) sanitary sewer overflows; 2) business and off-hours contact information for both BES and CWS; 3) general information on personal protection measures to take if an overflow is identified.

b. Regulatory Reporting to DEQ

Any sewage released from the Fanno sanitary system shall be reported to DEQ within 24 hours of detection as required under both agencies' NPDES permits. The agency in whose

jurisdiction the sewage release occurred will make the initial report to DEQ and provide relevant details as they are available. A full report documenting the overflow details, the causes and the response taken by the agencies will be submitted by the same agency to DEQ within 5 days of the overflow event. Both BES and CWS staff will work together to develop this report.

c. Public Notification, Signage and Media Notification

In the event an overflow occurs, posting shall be done in accordance with the *Public Notification Plan & Procedures*. The lead agency responding as identified below shall post in accordance with the *Procedures* and the other agency shall provide assistance as requested. The posting locations are:

- At FABA Pump Station: BES
- Immediately down stream of diversion point (near CWS MH 4567 on Bohmann and Fanno Creek): CWS
- Fanno Creek Corridor down stream: CWS
- Other CWS sanitary system down stream of diversion point: CWS

In the event relief pumping is implemented, BES shall inform the Portland City Council via staff report.

IV. Monitoring and Communication Systems

BES and CWS have jointly worked with Telog to provide a real-time, web-based system to display the data collected at the monitoring stations described in this section. The monitoring system provides data on the levels in the Portland and CWS systems, especially the Fanno Interceptor key locations that indicate a rising risk of overflows or damage to the system. The monitoring system helps detect and (where possible) measure the amount of sewage released from the system. The monitoring system also displays the local rainfall data and the real-time levels in Fanno Creek to help provide instream background conditions.

If an overflow occurs, the monitoring data will be supplemented by in-stream water quality grab samples for E. coli bacteria.

a. Existing Monitoring & Communication Capabilities

Both CWS and BES currently have monitors installed in locations that are necessary for observing the system status and detecting rising / falling overflow risk.

Current CWS Monitors available for viewing on CWS-Telog Website:

- MH 4316 on 36" pipe to Fanno Diversion near SW 86th Ave ("D06")
- MH 4326 on 36" pipe just downstream of Fanno Diversion Structure
- MH 12430 on 30" at SW Hall and Millikan ("14320 Beaverton")
- MH 11779 on 54" Fanno Interceptor at Allen near Hwy 217
- MH 10766 on 60" Fanno Interceptor at Hall near Hwy 217
- MH 10796 on 60" Fanno Interceptor at Windsor along Greenway Trail
- MH to be constructed fall 2012 to monitor offline storage at SW 89th and Spruce.

Current BES Monitors available for viewing on Telog Website:

- Fanno Creek (level and flow rates)
- MH AMN800 between Fanno Diversion and Fanno Pump Station
- Fanno PS Wet Well level
- Rain gage at PCC Sylvania

Also, visual monitoring can be performed by CWS at MH #10792 at Scholls Ferry & Nimbus if necessary.

b. Fanno Creek Instream Monitoring & Background Sampling

In 2008, BES installed a temporary depth & velocity meter to estimate the levels and flowrate in Fanno Creek and to provide documentation of sufficient dilution flows in the creek prior to diverting flow to the screening and energy-dissipation structure.

Prior to allowing Fanno PS to discharge to Fanno Creek, the Maintenance response staff will take background samples for E. coli bacteria at:

- (1) The footbridge 250 feet upstream of the discharge point (Figure 4)
- (2) Off street bridge on SW Bohmann 650 feet downstream of the pump station (Figure 5)

Samples will be taken before any discharge begins. Additional sampling will be taken at these two locations within 4 hours after the discharge has stopped. Daily sampling at the locations will continue until the upstream and downstream samples are close in value.

Figure 4: Sampling location 250-feet upstream of discharge point:

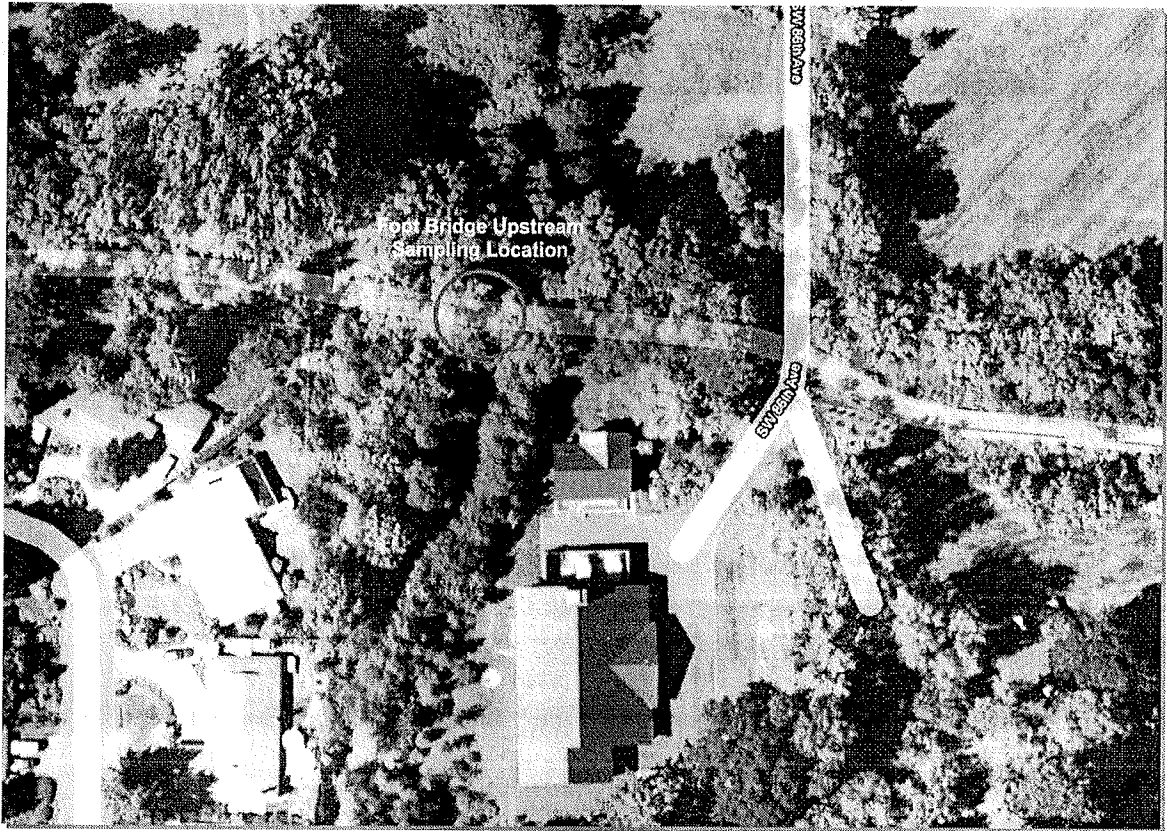


Figure 5: Sampling location on SW Bohmann Parkway 650-feet downstream:



c. Communication system for real-time data sharing

The communication systems provide CWS and BES the ability to jointly share real-time data and communicate directly throughout the duration of a large storm event.

- BES is using TELOG remote telemetry systems to display monitoring data and alarms on a TELOG website that can be viewed by staff from both agencies. This website can be accessed at the following URL:

<http://dms.telog.com/TelogE/DesktopLoginPage.aspx>

Username: Portland

Password: alarm

- CWS has developed an in-house website for their TELOG remote telemetry systems to display monitoring data and alarms on a TELOG website that can be viewed by staff from both agencies. This website can be accessed at the following URL:

<http://telog.cleanwaterservices.org>

Username: CWSTelog

Password: flodar

The users should remember to select the “surcharge” data when the level rises above the pipe diameter in order to get a more accurate reading.

d. Rainfall Forecasting Sites

Some of the rainfall forecasting web-sites that have proven useful include:

- NOAA 6-hour Precipitation Forecasts for next 3-days in table format:
http://www.nwrfc.noaa.gov/weather/temp_fcst.cgi
- NOAA 6-hour Precipitation Forecasts for next 10-days in *.csv format:
http://www.nwrfc.noaa.gov/weather/csv_forcings.cgi?type=PRECIP
- Similar NOAA 6-hour forecasts for 7-days with related weather data:
<http://www.wrh.noaa.gov/forecast/wxtables/index.php?lat=45.491579&lon=-122.7651163&clindex=0&table=custom&duration=7&interval=6>

V. System Operating Strategy¹

CWS and BES have developed strategies to operate their respective systems to fully contain all flows and convey them to a POTW up to the maximum extent feasible. Under normal conditions, CWS will convey and treat all flows in the area to the Durham Treatment Plant, and BES will send all Fanno Basin flows to the Columbia Boulevard Treatment Plant.

¹ Portland has installed a special trailer on the FABAS site to act as a “war room” or incident command center during large wet weather events when the Yellow or Orange levels are activated.

During storm events, BES will operate the FABA Pump Station to fully utilize two to three pumps and thereby send 18 to 24 cfs to the discharge structure at SW 31st & Multnomah.

During rain storm events that approach 1.0 inches in 4-hours, or a 5-year frequency (2.5 inches or more over 24 hours), the Fanno System can generate about 42 cfs to the Diversion Structure. If the pump station is operating three pumps, the storm could still cause about 12 cfs entering the CWS system through the high overflow orifices in the Diversion Structure. If sewer levels in the CWS system are observed to reach a potential condition of uncontrolled overflows to homes and streets, then CWS and BES will initiate the measures presented below to protect public health and safety by diverting flow away from the CWS system. If necessary and no other feasible option remains, BES will pump excess flow through the screening facility and discharge to Fanno Creek.

a. Alert Level System

Based on specific sewer levels observed rising in the Fanno Interceptor, CWS and BES will respond to the given Alert Levels determined by setpoints presented below. In general, these Alert Levels can be summarized as follows:

- **Green Level:** Normal conditions, no special action required
- **Yellow Level:** Field staff mobilizes to control sites. Communications and preparations are made for higher flows potentially occurring in a short time. Prepare and then activate the Fanno Pump Station to pump into the force main to CBWTP system.
- **Orange Level:** Near full conditions in CWS system that require operating staff to be ready for Emergency Pumping activities. Background sampling is performed and communications protocols are in process.
- **Red Level:** Controlled overflow to screening facility at the Fanno Pump Station is requested by CWS and initiated to prevent uncontrolled overflow to streets and homes. The diverted flow is controlled and supervised on-site using real-time monitoring to ensure the minimum volume is released from the sewer system and the overflow pumping ends as quickly as possible.

b. Control Logic for FABA Pump Station Screening & Discharge Facility

With FABA Pump Station able to use four pumps, it may still be possible for storm flows to overtop the diversion orifices and send up to 12 cfs (8 mgd) to the CWS system. If the remaining flow to CWS is likely to cause overflows from the CWS system, then CWS staff will initiate a RED Alert and BES will begin the diversion pump to send 8 mgd to the discharge control facility. The flow, screened in the wet well, will enter the energy-dissipation structure/basin before being released into Fanno Creek. Background sampling and flow measurements will be done before and after the diversion event to ensure sufficient information on the impacts to the creek is provided to regulators and the public.

c. Emergency Strategy for CWS Relief Manholes

If (for whatever reason) the above measures are not effective in controlling the level of surcharge in the Fanno Interceptor, and if sewer levels continue to rise to the point that the pressure on the sealed manholes risk causing permanent damage to the Fanno Interceptor, then CWS may take emergency action to relieve the interceptor and prevent a significantly worse situation from occurring. Under this emergency condition, CWS may be required to

direct staff to remove specific manhole covers and allow the excess flow to enter the creek directly from the manhole rim. Cleanup procedures would be implemented as soon as feasibly possible after the storm event.

VI. Cleanup Procedures

BES and CWS implemented flow control procedures to minimize the occurrence and impact of a sanitary release from the Fanno system. In addition, BES implemented a pumping and screening system to minimize the amount of solids and floatable debris released during an extreme storm event. Therefore, it is quite likely that little environmental cleanup will be necessary after a large storm. However, clean up procedures are prepared and in place to be implemented when needed.

a. Inspection & Documentation of Impacted Area

After extreme storm events, BES and CWS field staff will be inspecting potential and actual locations of overflow to determine the level of clean up needed if any.

b. Stream Bank Cleanup

When necessary after an overflow event, CWS staff, or contractor under supervision of CWS staff will implement CWS standard stream bank clean up procedures consisting of:

- Removal of floatable debris caught on stream bank vegetation
- Removal of visible solids from sanitary system
- Additional signage where needed to compliment public notification signage

c. Screening / Control Structure Cleaning

BES will be responsible for the clean up of the Fanno site pumping and screening system. This will include dewatering and cleaning the wet well, cleaning the screening structures, and cleaning as necessary the energy-dissipation structure and stream bank in the immediate vicinity of the discharge.

VII. Alert Levels & Response Protocols

For each of the four Alert Levels, there are appropriate and important communications between BES-CWS which will occur and are specified below. Communications should be briefly noted and logged for reporting to BES & CWS management as well as DEQ.

The four Alert Levels – Green, Yellow, Orange and Red, indicate an increasing amount of rainfall and sewage are in the collection system and therefore represent higher potential for overflow. Only alert level Red indicates a sewage release is imminent.

Each Alert Level is ultimately determined by CWS staff and relayed to BES staff using the communication protocols. Orange Alert Level becomes Red Level once CWS makes the request to BES to divert flow to the screening & discharge structure on Fanno Creek. The ultimate goal is to maximize the volume delivered safely to the treatment plants without damaging the collection system and minimize overflows (controlled and uncontrolled) to populated areas.

Informational Monitoring Locations in the Fanno System

					Flow Levels (Does not indicate an alert condition)		
					Green	Yellow	Orange
Location	Description	Pipe Dia	Rim Elev	Invert Elev	n/a		
CWS MH #4316	SW 86 th U/S of Fanno PS Telog Depth & Flow	36"	206	191.18 0"		193.06 22.6" & 12 mgd	193.25 24.8" & 18 mgd
CWS MH #4326	D/S of Fanno PS	36"	206	189	Use to verify flow through diversion structure to CWS system.		
BES Fanno Wet Well	Fanno PS Wet Well Level Telog Depth	n/a	n/a	179'			Overtop Weir at 240"
Fanno PS Inlet	New monitor in influent manhole to PS	Provides real-time control level information and measurement of flows sent to pump station					
8749 SW Bohmann	Fanno Creek just downstream of Fanno PS	Provides real-time measurement of depth and flow in Fanno Creek (expected to be >600 MGD during 2-year event)					
CWS MH #10792	MH south of Scholls Ferry near Nimbus. For visual depth check only. Backup verification of flow monitors	159'	145'				Orange ring painted 5' below Scholls Ferry & Nimbus

Alert-Triggering Monitoring Locations and Sewer Depths

Location	Description	Pipe Dia	Rim Elev	Invert Elev	ALERT LEVELS		
					Green	Yellow	Orange
CWS MH #10796 (Windsor Ct.)	Fanno Interceptor along Greenway Trail Telog Depths:	60"	154' 132"	143' 0"	145.5' 30"	146.3' 40"	148'+ 60"
CWS MH #12430 (Beaverton)	SW Hall and Millikan, Beaverton Telog Depths:	30"	174' 84"	167' 0"	168.25' <30"	169.5' 30"	170' 36"
CWS MH #TBD (Tigard)	Offline Storage at SW 89 th & Spruce Telog Depths:	Offline storage at 89 th and Spruce under construction fall 2012. Details to be include in plan upon completion.					
CWS MH #11779 (Allen & Hwy 217)	Fanno Interceptor just U/S of Fanno PS Collector Telog Depths:	54"	179' 227"	160.07' 0"	162.32' 27"	164.5' 57"	167' 83"
CWS MH #10766 (Hall & 217)	Fanno Interceptor just D/S of Fanno PS Collector Telog Depths:	60"	171' 216"	153' 0"	155.5' 30"	159.75' 81"	163' 120"

The sewer level monitors for tracking the Fanno sewer system are listed in the tables above along with the relevant Alert Level set points. The map below shows the monitoring locations near the Fanno Pump Station Site.

Monitoring Locations In Fanno Pump Station Area



Description of Alert Levels & Actions

- a. **Green Alert Level:** Low Flow Conditions (Windsor Court pipe ½ full; <1.0" rain in 24-hrs)
- Monitor rain forecast for large storms
 - Required Communication & Check-in

As wet weather conditions indicate that more than 2.0" of rain may occur, the BES Chief Engineer (or designee) may initiate phone calls to request confirmation of:

- Availability of Fanno Force main to convey emergency flows: Call Primary Field Contact
- Availability of CWS Fanno System: Call CWS LT Contact
- Current Monitoring Plan & Monitoring website available to all participants: Call Primary Monitoring Contact.

- b. **Yellow Alert Level:** Moderate Flow Conditions (Level at Yellow set-points, or rainfall is about 1.0" in 6-hours, or 2.2" in 24-hours; or CWS Flow Monitor #4316 measures > 12 MGD)
- Implement Required Communication & Check-in
 - Mobilize field crews to control locations
 - Monitor rain forecast for next 24 hours
 - Track and verify system response

Under Yellow Level, the water surface in the CWS Sanitary Sewer is still in the pipe but it is now running full, i.e., HGL at the crown

- Automated alarm will notify staff listed in Section I of this document.
- CWS and BES staff identified in Section I of this document are alerted that the Yellow level has been reached.
- BES Primary Field Contact (Sterling) informs BES Chief Engineer of Yellow Alert and confirms decisions to:
 - Prepare and activate Fanno to pump into force main system
 - Prepare (only) to initiate pumping to the creek overflow system if it is requested by the CWS Primary Field Contact (Schuh)
- Field Response Teams are notified by Primary Field Contacts
- BES Field Response (Maintenance) Team mobilizes to site and initiates checklist: First to activate force main pumping; Second to prepare by-pass pumping & screening system
 - Cell phone (primary) & radio (secondary) communications systems functioning (communication hand shake).
 - Internet & Computer systems functioning; Wet Weather Response e-mail list is available for broadcasting status and major actions taken
 - Fanno Pumping systems are in functioning order
 - Determine if wind storm potential makes a power outage more likely, and therefore consider option to run station from back up power at the start of the pumping actions
- Perform steps necessary to prepare station for activating Force Main System
 - Confirm two or more pump sets and motors are ready for activation

- Confirm Wet Well is ready to receive flow
 - Confirm via CWS TELOG that the CWS flow monitor at #4316 is measuring 12 MGD or more to prevent cycling between one pump down to zero.
 - Request BES Chief Engineer to have Inspectors walk the force main route
 - Open Gate to FABA PS, Close Gate to CWS
 - Activate two to three pumps to force main system pumping to CBWTP; ensure pumps do not cycle down to zero pumping until end of storm event.
 - Prepare station for Emergency Pumping to creek overflow system.
 - Screening structure inspected and prepared
 - Energy-dissipation structure ready to receive flows
 - CWS to notify the City of Beaverton and City of Tigard field crews.
- c. **Orange Alert Level:** High Flow Conditions (Fanno Interceptor at Windsor Court is surcharged, about 2.5" of rain in 24-hours, or **> 1.0" in 4-hours**, or CWS Flow Monitor #4316 measures > 18 MGD)
- Required communication & check-in
 - Background bacteria sampling from Fanno Creek
 - CWS monitors for uncontrolled overflows
 - Monitor rain forecast for next 24 hours
 - Track and verify system response
 - Post-event Site Inspection & Documentation of No Overflow

Sanitary sewer levels are still in the pipe but now Fanno Interceptor System is running nearly or fully surcharged, i.e., water level (HGL) is above crown but still below rims.

- BES Field Response (Maintenance) Team is on-site at Fanno Pump Station
 - Confirm pumping to force main is activated and working appropriately
 - Verify gate settings are successfully preventing flow from passing under the gate to CWS (check flow in manhole downstream of the gate to CWS visually or on Telog website MH#4326).
 - Verify maximum number of pump sets are being used. If requested by CWS, activate 4th pump for a short duration.
- BES Field Response Team takes upstream and downstream bacteria grab samples from Fanno Creek according to Sampling Protocols provided in Attachment #2. Notify and request BES Field Ops to take samples to lab.
- BES Field Response Team reviews final checklist, including start and idle big orange pump motor
- BES Primary Field Contact confirms with CWS Primary Field Contact that system is prepared but no pumping to Fanno Creek has been initiated.
- CWS field crews monitor system for uncontrolled overflows
- BES Primary Public Affairs Contact prepares Public Notification

- d. **Red Alert Level:** High Flow Conditions (Interceptor is surcharged up to rim level or above; more than 2.5" in 24-hours) and overflow to Fanno Creek.
- Required communication & check-in
 - CWS requests flow diversion away from CWS system
 - BES Chief Engineer (or designee) directs BES to divert to Fanno Creek
 - BES & CWS Implement Public Notification Procedures
 - CWS monitors for uncontrolled overflows
 - Monitor rain forecast for next 24 hours
 - CWS Primary Field Contact notifies BES Primary Field Contact to cease diversion
 - Track and verify system response
 - Post-event site inspection & documentation of impacts
 - BES & CWS initiate cleanup procedures

Red Alert Actions:

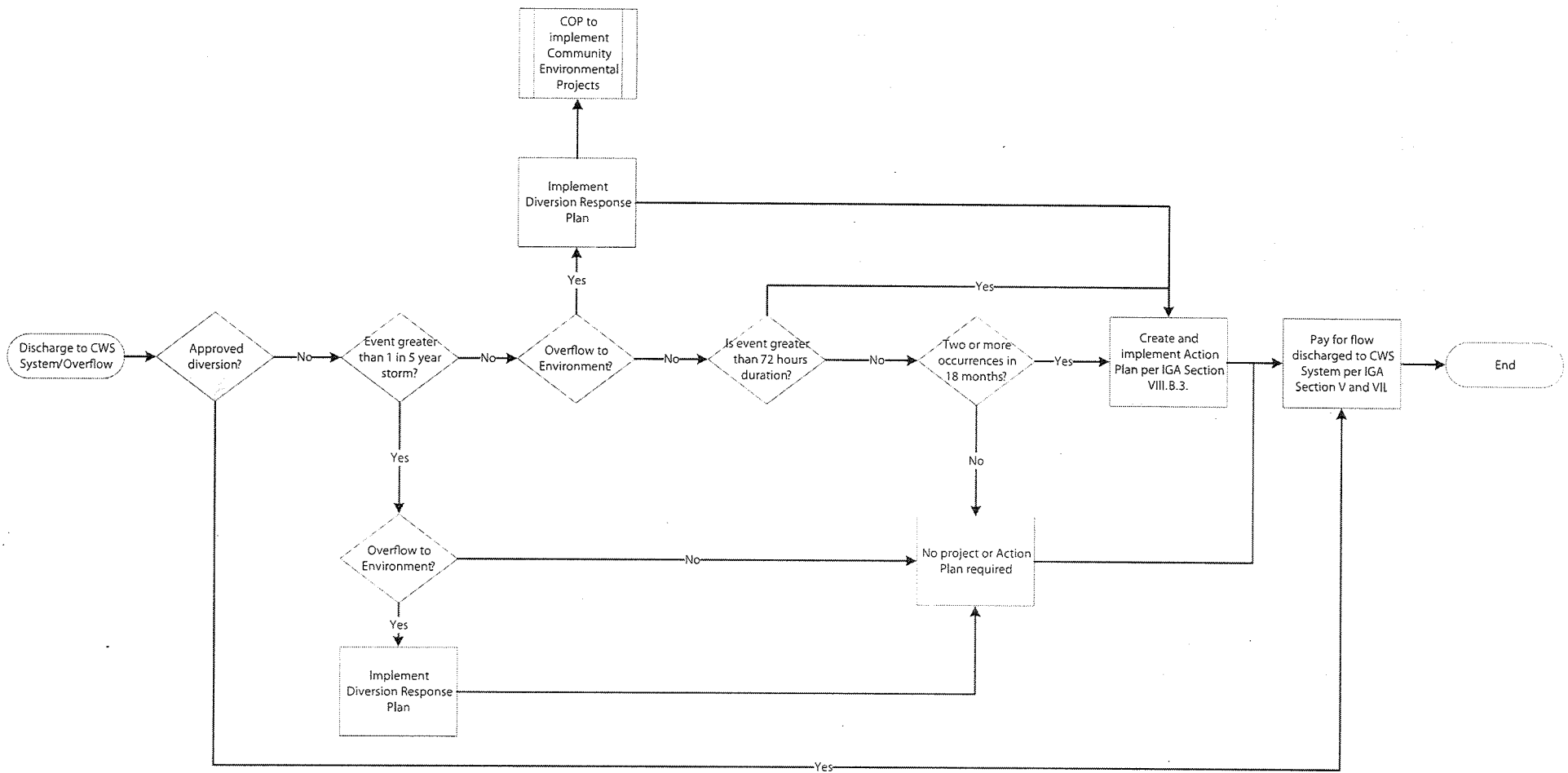
Under Red Alert, a flow diversion away from the CWS system and to the Fanno Pump Station site is absolutely required to protect from uncontrolled overflows and damage to the Fanno Interceptor system.

- CWS Primary Field Contact to notify BES Primary Field Contact that a flow diversion to Fanno Creek is required and that the Red level has been reached.
- Fanno Creek Overflow Pumping: BES Field Response Team initiates checklist to divert flows to the screening & energy dissipation structure.
 - Pumping system is put through startup procedures when level in wet well has exceeded Elevation 199' which is the invert level for the orifice holes in the diversion structure to CWS.
 - Pumping and screening overflows to Fanno Creek is initiated.
 - Pumping will be limited to the amount needed to keep the wet well level below Elevation 199 – crest of the diversion orifice holes.
 - BES Primary Field Contact informs Primary Public Affairs Contact that Red level has been reached
 - BES Primary Public Affairs Contact initiates Public Notification Procedures for overflow to Fanno Creek
 - BES Primary Public Affairs notifies BES Leadership Team and BES Monitoring Response Contact of Red Alert and impending overflow to Fanno Creek.
 - BES Primary Public Affairs Contract notifies BES Duty Officer for reporting overflows to DEQ regarding the impending event.
 - CWS Primary Field Contact informs CWS Primary Public Affairs Contact that Red level has been reached
 - CWS Primary Public Affairs Contact initiates Public Notification Procedures for overflow to Fanno Creek

Cease Pumping to Fanno:

- CWS & BES Primary Contracts will be in communication to determine when pumping to creek can stop and excess flow be released to CWS without causing uncontrolled overflow from CWS system.
 - BES Primary Field Contact notifies CWS Primary Field Contact that overflow to Fanno Creek has been stopped.
 - BES Primary Contract notifies Primary Public Affairs Contact that overflow to Fanno Creek has been stopped.
 - BES Primary Public Affairs Contact notifies Bureau Leadership and BES Duty Officer that pumping to creek has stopped.
 - BES Primary Public Affairs Contact initiates Public Notification Procedures for the end of overflows to Fanno
- CWS field crews monitor system for uncontrolled overflows
- BES Monitoring Response Contact performs review of rainfall & flow response of Fanno System during and after storm event. Any monitoring or communication problems are addressed immediately. Results of analysis are distributed within 24 hours after the event.
- CWS and BES field crews inspect potential and actual overflow sites and document impacts noted.
- BES & CWS initiate cleanup procedures
 - CWS initiates clean up (as appropriate) for Fanno Creek areas impacted by controlled and uncontrolled overflows (outside of Fanno fence line)
 - BES initiates clean up of the Fanno Emergency Pumping System
 - Initiate screening structure cleanup
 - Initiate cleanup of Fanno Creek stream bank if needed (inside of fence line)

Exhibit C. Diversion and Discharge Action Plan



Guide to Diversion and Discharge Chart

Updated October 15, 2012

Description to accompany the flow chart/logic diagram for Fanno system discharges to the CWS system and/or the environment.

❖ Discharge to CWS System/Overflow

This flow chart/logic diagram is intended to cover both.

❖ Approved diversion? (Section VIII.A.)

If the discharge to the CWS system is pre-approved with written authorization by CWS, then only payment for flow is required per the IGA.

➤ Storm event greater than one-in-five year, 24-hour recurrence interval? (Section VIII.B.1.c.)

It is implicit that conveying flows up to and including this storm meets DEQ and EPA requirements for controlling discharges from the system therefore if a storm exceeds this no additional projects are expected.

▪ Yes

- Overflow to environment? (Section VIII.B.)

Intent here is to cover any discharge whether from the pump station, the force mains, or the collection system.

- Implement the Diversion Response Plan per the IGA (Section VIII.B.2.)

Overflows to the environment will require cleanup of the spill and the affected area.

▪ No

- Overflow to environment? (Section VIII.B.)

Intent here is to cover any discharge whether from the pump station, the force mains, or the collection system.

◆ Yes

- Implement the Diversion Response Plan per the IGA (Section VIII.B.2.)
- Implement Community Environmental Projects (Section IX.D.)

The Citizen Advisory group will develop the prioritized list of projects. Intent is something akin to DEQ's Supplemental Environmental Projects.

- Create and implement an Action Plan (Section VIII.B.3.)

- ◆ No

- Is the event greater than 72 hours duration? (Section VIII.B.3.)

- No

- Two or more occurrences in 18 months? (Section VIII.B.3.)

- ◆ Yes

- ◆ Create and Implement Action Plan (Section VIII.B.3.)

No project is triggered if it is a one-time event that meets the preceding criteria. Eighteen months selected to capture two wet weather seasons.

- ◆ No

- ◆ No Project or Action Planning required

- ❖ Pay for flow discharged per IGA per Section V. and Section VII.

Payment for flows is based on the flow discharged and the EDU's as described in Section V.
Payment for Temporary Capacity until completion of the Project, as described in Section VII.C.1.c.