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Effective Date: August 1, 2011
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RECLAIMED WATER PERMIT NUMBER ST0045498

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

In compliance with the provisions of the State of Washington Reclaimed Water Act,
Chapter 90.46 Revised Code of Washington, and the Water Pollution Control Law
Chapter 90.48 Revised Code of Washington, as amended, and

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
Water Reclamation and Reuse Program
16201 E. Indiana Avenue, Suite 1500
Spokane Valley, WA 99216

in compliance with the provisions of
Chapter 90.46 and 43.70 Revised Code of Washington, as amended,
authorizes

Brightwater Treatment Plant
King County Wastewater Treatment Division
King Street Center, KSC-NR-0512
Seattle, Washington 98104-3855

to produce, distribute, and use reclaimed water in accordance with
the Special "R" and General "G" Conditions which follow.

<u>Plant Location:</u> 22509 State Route 9 SE, #101 Woodinville, WA 98072-6010	<u>Use Area Locations:</u> Reclaimed Water from King County's Brightwater Treatment Plant to various reclaimed water sites
<u>Treatment Type:</u> Membrane Bioreactor & Sodium Hypochlorite Disinfection	<u>Location of Treatment Plant:</u> Latitude: 47.7927 N Longitude: -122.1434 W

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Washington State Department of Ecology

TABLE OF CONTENTS

SUMMARY OF PERMIT REPORT SUBMITTALS.....	4
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RECLAIMED WATER CONDITIONS

R1. WATER QUALITY LIMITS	5
R2. MONITORING REQUIREMENTS	6
A. Class A Reclaimed Water Monitoring	
B. Sampling and Analytical Procedures	
C. Flow Measurement, Field Measurement and Continuous Monitoring Devices	
D. Laboratory Accreditation	
R3. REPORTING AND RECORDKEEPING REQUIREMENTS	8
A. Reporting	
B. Records Retention	
C. Recording of Results	
D. Additional Monitoring by the Permittee	
E. Reporting Permit Violations	
F. Other Reporting	
G. Reclaimed Water Operational Records	
H. Maintaining a Copy of this Permit	
R4. OPERATION AND MAINTENANCE	12
A. Certified Operator	
B. O & M Program	
C. Short-term Reduction	
D. Electrical Power Failure	
E. Decontamination of Reclaimed Water Conveyance System	
F. Cleaning and Disinfecting Piping System After Force Main Conversion	
G. Operations and Maintenance Manual	
R5. RESIDUAL SOLIDS	15
R6. PRETREATMENT	15
R7. RECLAIMED WATER DISTRIBUTION AND USE	15
A. Authorized Uses and Locations	
B. Authorization for New Direct Non-potable Uses of Reclaimed Water	
C. Reclaimed Water Use Summary Plan	
D. Sale & Distribution Agreements	
E. Service and Use Area Agreements	
F. Use Area Responsibilities	
G. Irrigation Uses	
H. Commercial and Industrial Uses	

I.	Other Uses of Reclaimed Water	
J.	Reliability	
K.	Bypass Prohibited	
L.	Revocation of Authorization	
R8.	APPLICATION FOR PERMIT RENEWAL	21
GENERAL CONDITIONS		
G1.	SIGNATORY REQUIREMENTS.....	22
G2.	RIGHT OF INSPECTION AND ENTRY	23
G3.	PERMIT ACTIONS.....	23
G4.	REPORTING A CAUSE FOR MODIFICATION	24
G5.	PLAN REVIEW REQUIRED	25
G6.	COMPLIANCE WITH OTHER LAWS AND STATUTES	25
G7.	DUTY TO REAPPLY	25
G8.	TRANSFER OF THIS PERMIT	25
G9.	REDUCED PRODUCTION FOR COMPLIANCE	26
G10.	REMOVED SUBSTANCES	26
G11.	DUTY TO PROVIDE INFORMATION.....	26
G12.	OTHER REQUIREMENTS OF 40 CFR.....	26
G13.	ADDITIONAL MONITORING	26
G14.	PAYMENT OF FEES.....	26
G15.	PENALTIES FOR VIOLATING PERMIT CONDITIONS	26
G16.	PROPERTY RIGHTS.....	27
G17.	DUTY TO COMPLY	27
G18.	TOXIC POLLUTANTS.....	27
G19.	PENALTIES FOR TAMPERING	27
G20.	REPORTING PLANNED CHANGES.....	27
G21.	REPORTING ANTICIPATED NON-COMPLIANCE.....	27
G22.	REPORTING OTHER INFORMATION.....	28
G23.	COMPLIANCE SCHEDULES	28
APPENDIX A.....		29

SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
R3.A	Discharge Monitoring Report (DMR)	Monthly	September 15, 2011
R3.E	Reporting Permit Violations	As needed	
R3.G.4	Cross Connection Control Coordination Letter	Annually	May 31, 2012
R4.G	Operations and Maintenance Manual	As needed	
R7.C	Reclaimed Water Use Summary Plan	Annually	March 31, 2012
R7.D	Sale & Distribution Agreements	As needed	
R7.E	Service and Use Area Agreements	As needed	
R8	Application for Permit Renewal	1/permit cycle	January 31, 2016
G1	Signature Authority	As needed	
G1.C	Notice of Change in Authorization	As needed	
G4	Permit Application for Substantive Changes to the Discharge	As needed	
G5	Plan Review	As needed	
G8	Notice of Permit Transfer	As needed	

RECLAIMED WATER CONDITIONS

R1. WATER QUALITY LIMITS

All reclaimed water distribution and activities authorized by this permit must be consistent with the terms and conditions of this permit. The distribution of reclaimed water containing any of the following constituents more frequently than, or at a concentration in excess of, that authorized by this permit constitutes a violation of the terms and conditions of this permit.

Beginning on the effective date and lasting through the expiration date of this permit, the Permittee is authorized to produce, distribute, and use Class A reclaimed water to various reclaimed water sites. The production, distribution, and use of reclaimed water must comply with all specific conditions and requirements of the Washington State Water Reclamation and Reuse Standards, 1997 or subsequent versions, and is subject to the limits listed in Table 1. The Permittee must operate the system in accordance with the permit conditions to ensure statutory requirements are met including protecting the existing and future beneficial uses of waters of the State.

Table 1. Reclaimed Water Limits

Class A Reclaimed Water Limits		
Class A Reclaimed Water Prior to Distribution		
BOD ₅	<u>Average Monthly</u> ^a 30 mg/L	<u>Average Weekly</u> ^b 45 mg/L
TSS	<u>Average Monthly</u> ^a 30 mg/L	<u>Average Weekly</u> ^b 45 mg/L
Turbidity	<u>Average Monthly</u> ^a 0.2 NTU	<u>Instantaneous Maximum</u> ^c 0.5 NTU
Total Coliform	<u>7-day Median</u> ^d 2.2 MPN / 100 ml	<u>Sample Maximum</u> ^e 23 MPN / 100 ml
pH ^f	Daily minimum is equal to or greater than 6.0 and the daily maximum is less than or equal to 9.0 standard units.	
Chlorine	A minimum chlorine residual of at least 1 mg/L after an effective contact time of at least 30 minutes is required.	
Distribution System ^g		
Residual Chlorine	<u>Minimum Daily</u> 0.5 mg/L	<u>Point of Compliance</u> ^h To Use Areas

^a Average monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, you add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured.

^b Average weekly limits are based on an arithmetic mean of the samples taken during distribution in a calendar week.

- ^c The NTU instantaneous maximum is defined as the value not to be exceeded by a continuous measurement. Turbidity excursions lasting less than 5 minutes are allowed and not considered a permit violation.
- ^d The median number of total coliform organisms in the reclaimed water after disinfection must not exceed 2.2 MPN per 100 milliliters, as determined from the bacteriological results of the last 7 days for which reclaimed water was distributed. The 7-day median must include all the analytical results from samples collected the previous 7 days. If there is an even number of values over the 7 days, the Permittee must report the larger of the two median values.
- ^e The number of total coliform organisms must not exceed 23 MPN per 100 milliliters in any single sample.
- ^f Indicates the range of permitted values. The Permittee must report the instantaneous max and min pH monthly.
- ^g The Permittee may distribute a total of 21 million gallons per day (MGD) of reclaimed water to end users per day.
- ^h A total chlorine residual of at least 0.5 mg/L must be maintained in the reclaimed water during conveyance to the use areas.

All Class A reclaimed water must at all times be oxidized, filtered, and disinfected. Therefore, reclaimed water must not be blended with wastewater treated only by chemically enhanced primary clarification (CEPC). The Class A reclaimed water must contain dissolved oxygen.

R2. MONITORING REQUIREMENTS

A. Class A Reclaimed Water Monitoring

The Permittee must:

- a. Monitor influent loadings to the facility as required by NPDES permit number WA0032247.
- b. Monitor the reclaimed water, for any water that will or is being distributed, for the parameters listed in Table 2.

Table 2. Monitoring Schedule

Parameter	Units	Sample Location Point	Sampling Frequency	Sample Type
Distributed Flow	GPD	Influent Pump Station (IPS) and Disinfection Building	Daily	Recording Meters
BOD ₅	mg/L	Membrane Effluent Box (MEB)	2/week	24-hr flow weighted composite
TSS	mg/L	MEB	2/week	24-hr flow weighted composite
Turbidity ^b	NTU	MEB and IPS	Continuous ^f	On-line analyzer with recorder

Parameter	Units	Sample Location Point	Sampling Frequency	Sample Type
Total Coliform ^d	# of organisms per 100 mL	IPS and Disinfection Building	Daily	Grab ^a
pH	Standard Units	MEB or IPS and Disinfection Building	Continuous ^f	On-line analyzer with recorder
Total Chlorine Residual (for disinfection purposes) ^c	mg/L	Disinfection Building and IPS	Continuous ^f	On-line analyzer with recorder
Total Chlorine Residual (for distribution purposes) ^c	mg/L	IPS and York Pump Station	Continuous ^f	On-line analyzer with recorder
Dissolved Oxygen ^e	mg/L	MEB	Continuous ^f	On-line analyzer with recorder
Ammonia (as N)	mg/L	MEB or IPS	Weekly	24-hr composite
Nitrate + Nitrite (as N)	mg/L	MEB or IPS	Weekly	24-hr composite
Total Phosphorus	mg/L	MEB or IPS	Weekly	24-hr composite

- ^a Grab samples must be taken at the same time daily when wastewater characteristics are the most demanding on the treatment facilities and disinfection processes.
- ^b Effluent turbidity analysis must be performed by a continuous recording turbidimeter. The Permittee must report the maximum value that exceeds five minutes. .
- ^c Monitoring for Total Residual Chlorine is required when the Permittee is producing and distributing reclaimed water. .
- ^d As an alternate method, total coliform bacteria may be monitored using the ONPUG-MUG test (also called Autoanalysis Colilert System) per latest edition of *Standard Methods for the Examination of Water and Wastewater*. The Permittee must report in its discharge monitoring report when it uses this alternative method.
- ^e The daily minimum value must be reported.
- ^f "Continuous" means uninterrupted except for brief periods of time for calibration, for power failure, or for unanticipated equipment repair or maintenance. The Permittee must sample every four hours when continuous monitoring is not possible.

B. Sampling and Analytical Procedures

Samples and measurements taken to meet the requirements of this permit must be representative of the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including upsets and maintenance-related conditions affecting reclaimed water quality.

Sampling and analytical methods used to meet the reclaimed water monitoring requirements specified in this permit must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 or to the latest revision of *Standard Methods for the Examination of Water and Wastewater* (APHA), unless otherwise specified in this permit or approved in writing by the Department of Ecology (Ecology).

C. Flow Measurement, Field Measurement and Continuous Monitoring Devices

The Permittee must:

1. Select and use appropriate flow measurement, field measurement, and continuous monitoring devices and methods consistent with accepted scientific practices.
2. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard and the manufacturer's recommendation for that type of device.
3. Use field measurement devices as directed by the manufacturer and do not use reagents beyond their expiration dates.
4. Calibrate these devices at the frequency recommended by the manufacturer.
5. Calibrate flow monitoring devices at a minimum frequency of at least one calibration per year.
6. Maintain calibration records for at least five years.
7. Verify the accuracy of the on-line turbidimeters at least once every two weeks in accordance with the manufacturer's recommendations.

D. Laboratory Accreditation

The Permittee must ensure that all monitoring data required by Ecology is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, *Accreditation of Environmental Laboratories*. Flow, temperature, settleable solids, conductivity, pH, dissolved oxygen, chlorine residual and internal process control parameters are exempt from this requirement. On-line turbidimeters, dissolved oxygen meters, and chlorine analyzers must be verified every two weeks and calibrated per the manufacturer's recommendations.

R3. REPORTING AND RECORDKEEPING REQUIREMENTS

The Permittee must monitor and report in accordance with the following conditions. The falsification of information submitted to Ecology constitutes a violation of the terms and conditions of this permit.

A. Reporting

The first monitoring period begins on the effective date of the permit. The Permittee must:

1. Submit required monitoring results each month.
2. Submit monitoring data by conventional means or via Ecology's electronic DMR application. Information needed to register for electronic submittal available at:
<http://www.ecy.wa.gov/programs/wq/permits/paris/webdmr.html>.
3. Submit the form as required with the words "no discharge" entered in place of the monitoring results, if the facility did not produce reclaimed water during a given monitoring period. Enter "no discharge" for an entire DMR, if the facility did not distribute reclaimed water off-site during a given monitoring period. No discharge in this case equates to no off-site reclamation or reuse.
4. Submittal required no later than the 15th day of the month following the completed monitoring period, unless otherwise specified in this permit.

B. Records Retention

The Permittee must retain records of all monitoring information for a minimum of five (5) years, corresponding to the life cycle of this permit. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. During the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology, the Permittee must extend this period of retention.

C. Recording of Results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place and time of sampling;
2. The individual who performed the sampling or measurement;
3. The dates the analyses were performed;
4. The individual who performed the analyses;
5. The analytical techniques or methods used; and
6. The results of all analyses.

D. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by Condition R2 of this permit, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR.

E. Reporting Permit Violations

1. The Permittee must take the following actions when it violates or is unable to comply with any permit condition:
 - a. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
 - b. If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within thirty (30) days of sampling.
2. Follow the established protocols for managing the system regarding sampling and wasting of reclaimed waters.
3. Repeat sampling and analysis of any violation and submit the results to Ecology within thirty (30) days after becoming aware of the violation.
4. Within 24 hours of discovering the noncompliance condition, notify the Departments of Health and Ecology of the failure to comply. Notify the local health authorities of any discharge of inadequately treated reclaimed water. The Permittee must notify:
 - Ecology using the ERTS (Environmental Reporting Tracking System) by calling 425-649-7000.
 - The Department of Health by calling 509-329-2146.
5. Submit a detailed, written report to Ecology and the Department of Health with that month's DMR submittal, unless requested earlier by Ecology, describing the nature of the violation, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of the resampling, and any other pertinent information. Work with Ecology to prepare an operating protocol for conditions with frequent recurrence.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

F. Other Reporting

The Permittee must report all instances of noncompliance, not required to be reported immediately or within 24 hours, at the time that monitoring reports for R3.A ("Reporting") are submitted. The reports must contain the information listed in paragraph E.3, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

G. Reclaimed Water Operational Records

The Permittee must:

1. Keep maintenance records for five (5) years, corresponding to the life cycle of this permit, on all major electrical and mechanical components of the reclamation facility, distribution, and use areas. Records must clearly specify the frequency and type of maintenance recommended by the manufacturer and must show the frequency and type of maintenance performed. These maintenance records must be available for inspection at all times.
2. Maintain operating records at the reclamation treatment plant or within a central depository within the Permittee's operating agency for five (5) years. These records must include records of all analyses performed, records of operational problems, unit process and equipment breakdowns, and diversions to emergency storage or disposal; and all corrective or preventative action taken.
3. Record and maintain separate record files of process or equipment failures triggering an alarm that is key to maintaining reliability of reclaimed water quality. The recorded information must include the time and cause of failure and corrective action taken.
4. Cross Connection Control Coordination: The Permittee must provide to the Departments of Health and Ecology an annual letter confirming that they have contacted all the public water supplier(s) where reclaimed water is being used in their service area. The letter must indicate where reclaimed water is used and for what purpose, and remind the water suppliers(s) of their duty to comply with the cross connection control report requirements from the Department of Health.

H. Maintaining a Copy of this Permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to Ecology inspectors.

R4. OPERATION AND MAINTENANCE

The Permittee must, at all times, properly operate and maintain all facilities or systems of treatment and control (and related appurtenances) which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems, which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

A. Certified Operator

An operator certified for at least a Class IV plant by the state of Washington must be in responsible charge of the day-to-day operation of the treatment plant. An operator certified for at least a Class III plant must be in charge during all regularly scheduled shifts at the Plant.

B. O & M Program

The Permittee must:

1. Institute an adequate operation and maintenance program for the entire reclamation system.
2. Keep maintenance records on all major electrical and mechanical components of the reclaimed water treatment plant. Such records must clearly specify the frequency and type of maintenance recommended by the manufacturer and must show the frequency and type of maintenance performed.
3. Make maintenance records available for inspection at all times.
4. Maintain, at all times, the reclamation facility, County-owned distribution, and County-owned use areas and keep all equipment in a reliable operating condition.
5. Maintain a chlorine residual of at least 0.5 mg/l in the reclaimed water during conveyance from the reclamation plant to the use area boundaries, as determined by measurements at the influent pump station and downstream locations.
6. Notify end users whenever reclaimed water not meeting the requirements listed in Table 1 has been distributed to use areas.

C. Short-term Reduction

If a Permittee contemplates a reduction in the level of treatment that would cause a violation of permit limits on a short-term basis for any reason, and such reduction cannot be avoided, the Permittee must:

1. Give written notification to Ecology, if possible, thirty (30) days prior to such activities.
2. Detail the reasons for, length of time of, and the potential effects of the reduced level of treatment.

This notification does not relieve the Permittee of its obligations under this permit.

D. Electrical Power Failure

The Permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated wastes or wastes not treated in accordance with the requirements of this permit during electrical power failure at the treatment plant. The power supply must be provided with one of the following reliability features to assure that inadequately treated wastewater is not discharged to distribution or use areas:

1. An alarm and a standby power source
2. An alarm and automatically actuated alternative disposal provisions. All equipment must be either independent of the normal power supply or provided with a standby power supply.

E. Decontamination of Reclaimed Water Conveyance System

The Permittee must:

1. Have a procedure, as contained in the Operations and Maintenance Manual, to decontaminate reclaimed water piping and other appurtenances following incidents when the permit limits, as listed in Table 1, are exceeded.
2. Re-treat reclaimed water such that it meets all reclaimed water permit limits or discharge it through an approved NPDES outfall.
3. Monitor, and if necessary disinfect, the reclaimed water pipelines and other appurtenances that were exposed to reclaimed water that exceeds the permit limits.
4. Ensure that reclaimed water piping and other appurtenances are decontaminated prior to returning the facilities to reclaimed water service.

F. Cleaning and Disinfecting Piping System After Force Main Conversion

The Permittee must:

1. Follow the cleaning and disinfection procedures as approved by the Departments of Health and Ecology and as contained in the Operations and Maintenance Manual. Water not meeting the reclaimed water permit limits must be either re-treated such that it meets all reclaimed water permit limits or discharged through an approved NPDES outfall.
2. Monitor, and if necessary disinfect, the effluent pipelines and other appurtenances located downstream of the North Creek Pump Station for coliform contamination per the total coliform testing requirements in Table 1 of this permit.
3. Complete the monitoring, and if necessary disinfection, in item number 2 above prior to returning the facilities to reclaimed water service.
4. Notify the Departments of Health and Ecology with the confirmatory testing results and obtain approval from the departments prior to initiating reclaimed water service.

G. Operations and Maintenance Manual

The Operation and Maintenance (O&M) Manual will be the same manual used to meet the NPDES permit requirements.

The Permittee must:

1. Review the O&M Manual at least annually.
2. Submit to Ecology for review and approval substantial changes or updates to the O&M Manual whenever it incorporates them into the manual.
3. Maintain a copy of the O&M Manual at the permitted facility.
4. Follow the instructions and procedures of this manual.

In addition to the requirements of WAC 173-240-080(1) and (2), the O&M Manual must include:

1. Emergency procedures for plant shutdown and cleanup in event of reclaimed water system upset or failure.
2. Reclaimed water system maintenance procedures and the proper handling of any associated wastewater as a result of these procedures (i.e. pipeline flushing, disinfection of conveyance lines, etc.).

3. Reclaimed water system maintenance procedures that generate wastewater.
4. Procedures to maintenance staff when cleaning, or maintaining other equipment or performing other tasks which are necessary to protect the operation of the reclaimed water system.
5. Treatment plant process control monitoring schedule.
6. Reclaimed water sampling protocols and procedures for compliance with the sampling and reporting requirements in the reclaimed water permit.
7. Adequate staffing levels to operate and maintain the treatment processes and carry out compliance monitoring required by the permit.
8. Alarm condition response plan to ensure that no untreated or inadequately treated wastewater will be delivered to reclaimed water use areas.
9. Discussion of the cross-connection control and inspection program, including who will be responsible for compliance and testing of the cross connection control devices.
10. Operational Control Strategies for reclaimed water use under the Permittee's control.
11. Cleaning, disinfecting, testing, and maintaining a chlorine residual for the reclaimed water transmission and distribution system.

R5. RESIDUAL SOLIDS

The Permittee must handle any residuals generated from the reclamation process as described in NPDES permit No. WA0032247 and the Brightwater Facilities Plan approved by Ecology.

R6. PRETREATMENT

The Permittee must ensure that all commercial and industrial contributors to the collection system comply with pretreatment regulations, and that it meets the pretreatment requirements in NPDES permit No. WA0032247.

R7. RECLAIMED WATER DISTRIBUTION AND USE

A. Authorized Uses and Locations

Beginning on the effective date and lasting through the expiration date of this permit, the Permittee is authorized to distribute reclaimed water in accordance with the terms and conditions of this permit for authorized uses.

The distribution of reclaimed water by the Permittee that does not meet the treatment, water quality and monitoring requirements established in this permit or the use of reclaimed water other than for authorized uses in a Department of Health- and Ecology - approved reclaimed water engineering report is a violation of the terms and conditions of this permit.

The Permittee may produce and distribute Class A reclaimed water for the following irrigation and commercial and industrial uses at the locations listed in Table 3 and at new locations as described in R7.B.

Table 3. Reclaimed Water Uses and Locations

Customer	Use	Location
Willows Run Golf Course	Irrigation Uses – golf course features, landscaping areas, and lined storage irrigation ponds.	10402 Willows Road NE Redmond, WA 98052
King County - Sammamish River Landscaping Strip	Irrigation Uses - landscaping areas.	Along west side of Sammamish River between NE 124 th Street & NE 100 th Court, Redmond, WA 98052
King County – Environmental Education and Community Center	Commercial and Industrial Uses - Toilet and Urinal Flushing. Irrigation Uses – landscaping areas.	22509 State Route 9 SE, Woodinville, WA 98072-6010.
King County – Brightwater Art Sculpture	Commercial and Industrial Uses - Decorative Fountains	22509 State Route 9 SE, Woodinville, WA 98072-6010
King County – North Creek Pump Station	Irrigation Uses - landscaping areas.	18707 North Creek Parkway, Bothell, WA 98011
King County – York Pump Station	Commercial and Industrial Uses – Truck Fill Station. Irrigation Uses – landscaping areas.	14120 NE 124 th Street, Redmond, WA 98052
King County – Hollywood Pump Station	Irrigation Uses - landscaping areas.	14815 NE 124 th Street, Redmond, WA 98053

B. Authorization for New Non-potable Uses of Reclaimed Water

The Permittee may provide reclaimed water for all irrigation, and commercial and industrial uses as listed in the 1997 Washington State Water Reclamation and Reuse Standards at additional locations not listed in R7.A. Crop irrigation uses are allowed and include irrigation of both food and non-food crops.

The Permittee must document new locations for irrigation, and commercial and industrial use sites in the Reclaimed Water Use Summary Plan required by this permit. In accordance with the terms and conditions of this permit, the County must meet the following conditions:

1. Beneficial use areas and requirements for use must comply with the Washington State Water Reclamation and Reuse Standards. The class of reclaimed water provided meets or exceeds the minimum requirements for the proposed use. Irrigation uses do not exceed agronomic rates of application.
2. The reclaimed water meets all applicable requirements of this permit for the approved class of reclaimed water, including source control, treatment, water quality limits, monitoring, reporting, record keeping, operation and maintenance, distribution, and use.
3. The Permittee lists the new use areas in the next annual Reclaimed Water Use Summary Plan and submits a copy of the revised plan to the Departments of Ecology and Health as described in R7.C.
4. The Permittee submits, to the Departments of Ecology and Health, the Sale and Distribution of Reclaimed Water Agreement (if applicable) which is the contract between King County and the water purveyor and/or the Service and Use Area Agreement which is the contract between King County and the end user.

Groundwater recharge, streamflow augmentation, and discharges to wetlands as beneficial uses are not authorized by this permit. A new "type" of use (i.e. groundwater recharge, streamflow augmentation, discharge to wetlands, etc.) will require the approval of an engineering report or amendments to the existing engineering report and reopening of this permit for review and public comment prior to implementation of the new type of use.

C. Reclaimed Water Use Summary Plan

The Permittee must prepare a Water Use Summary Plan, which contains a summary description of the reclaimed water distribution system. The Permittee must review and update the plan annually and submit updates to the Departments of Health and Ecology. The annual updates are due March 31st of each year, and cover the previous calendar year. The plan must, at a minimum:

1. Describe the current reuse distribution system.
2. Identify all current water purveyors, uses, and location of reuse sites.
3. Evaluate reuse sites, estimated volume of reclaimed water use at each site, means of application, purpose of application (e.g., irrigation), the application rates, water balance, expected agronomic uptake, and assure reclaimed water is not discharged to any ground water or surface water except as allowed under an existing State Waste Discharge Permit or NPDES Permit, respectively.

D. Sale & Distribution Agreements

Where the reclaimed water distribution system or additional treatment system to maintain reclaimed water quality is not under direct control of the Permittee:

1. The entity that provides additional treatment, distributes, owns, or otherwise maintains control over the reclaimed water use area is responsible for reuse facilities and activities inherent to the distribution and use of the reclaimed water to ensure that the system operates as approved by the Departments of Health and Ecology in accordance with this permit.
2. A binding Sale & Distribution Agreement among the parties involved is required to ensure that distribution, operation, maintenance, and monitoring meet all requirements of the Departments of Health and Ecology. The Sale & Distribution Agreement must be consistent with the requirements of the *Water Reclamation and Reuse Standards, 1997*. A standard Sale & Distribution Agreement must be reviewed and approved by the Departments of Health and Ecology prior to implementation. A copy of each site-specific Sale & Distribution Agreement must be provided to the Departments of Health and Ecology prior to use.
3. The Sale & Distribution Agreements must provide the Permittee with authority to terminate service of reclaimed water to a customer violating the *Water Reclamation and Reuse Standards* and restrictions outlined in the Sale & Distribution Agreement.
4. The Permittee must maintain all Sale & Distribution Agreements for the duration of the permit. The Permittee must inform the Departments of Health and Ecology in writing of any proposed changes to the approved, standard Sale & Distribution Agreement.

E. Service and Use Area Agreements

Where the reclaimed water use area is not under direct control of the Permittee:

1. The entity that owns or otherwise maintains control over the reclaimed water use area is responsible for on-site reclaimed water facilities, infrastructure, and activities inherent to the use of the reclaimed water to ensure that the system operates as approved by the Departments of Health and Ecology in accordance with this permit.
2. Reclaimed water use, including runoff and spray, must be confined to the designated and approved use areas.
3. A binding Service and Use Area Agreement among the parties involved is required to ensure that construction, operation, maintenance, and monitoring meet all requirements of the Departments of Health and Ecology. This Service and Use Area Agreement must be consistent with the requirements of the *Water Reclamation and Reuse Standards, 1997*. A

standard Service and Use Area Agreement must be reviewed and approved by the Departments of Health and Ecology prior to implementation. A copy of each site-specific Service and Use Area Agreement must be provided to the Departments of Health and Ecology prior to use.

4. The Service and Use Area Agreement must provide the Permittee with authority to terminate service of reclaimed water to a customer violating the *Water Reclamation and Reuse Standards* and restrictions outlined in the reclaimed water use agreement.
5. The Permittee must maintain all Service and Use Area Agreements for the duration of the permit. The Permittee must inform the Departments of Health and Ecology in writing of any proposed changes to the approved, standard Service and Use Area Agreement.

F. Use Area Responsibilities

1. The Permittee must develop general language, symbols, and colors to be used for notification signs and have it approved by the Departments of Ecology and Health. The signs must be used in all reclaimed water use areas, consistent with the *Water Reclamation and Reuse Standards*.
2. All reclaimed water valves, storage facilities, and outlets must be tagged or labeled to warn the public or employees that the water is not intended for drinking. The signage or advisory notification must be colored purple with white or black lettering.
3. Reclaimed water use, including runoff and spray, must be confined to the designated and approved use area.
4. Precautions must be taken to assure that reclaimed water will not be sprayed on people or any facility or area not designated for reuse, including but not limited to buildings, passing vehicles, and drinking water fountains.
5. There must be no hose bibs on reclaimed irrigation lines unless approved by the Departments of Health and Ecology.
6. Where the reclaimed water production, distribution, and use areas are under direct control of the Permittee, the Permittee must maintain control and be responsible for all facilities and activities inherent to the production, distribution, and use of the reclaimed water. The Permittee must ensure that the reuse system operates as approved by the Departments of Health and Ecology.
7. Tank trucks and other equipment used to distribute reclaimed water must be clearly identified with advisory signs. Tank trucks used to transport reclaimed water must not be used to transport potable water that is used for drinking or other potable purposes, unless they have been cleaned and disinfected to the satisfaction of the potable water purveyor, and the tank

truck is contracted to or operated by an approved public water supplier. Methods for truck filling shall be done so that cross connection problems do not arise. Tank trucks used to transport reclaimed water must be inspected and approved for such use prior to transporting reclaimed water. A procedure must be in place that documents the above requirements.

8. The Permittee must assure that all customers or authorized personnel using reclaimed water have completed training in the requirements for appropriate use of the water, including signage, cross connection control requirements, public health, and environmental protection.

G. Irrigation Uses

1. For any irrigation use of reclaimed water, the hydraulic loading rate of reclaimed water must be applied at agronomic rates and be determined based on a water balance analysis or other methods such as moisture sensors, rain sensors, or hand inspections.
2. There must be no runoff of reclaimed water applied to land by spray irrigation to any surface waters of the state or to any land not authorized by approved Service and Use Area Agreement.
3. There must be no application of reclaimed water for irrigation purposes when the ground is saturated or frozen.
4. The reclaimed water must not be applied to the irrigation lands in quantities that:
 - a. Significantly reduce or destroy the long-term infiltration rate of the soil.
 - b. Cause long-term anaerobic conditions in the soil.
 - c. Cause ponding of reclaimed water and produce objectionable odors or support insects or vectors.

H. Commercial and Industrial Uses

Commercial and industrial uses must conform to the state Water Reclamation and Reuse Standards for Class A reclaimed water. Any wastewater discharged from commercial or industrial uses is regulated as wastewater and subject to waste discharge permit requirements.

I. Other Uses of Reclaimed Water

Water reclamation plant effluent used for sewage treatment purposes within the bounds of the wastewater treatment facility and other County-owned facilities (not subject to public exposure) is not required to meet the state Water Reclamation and Reuse Standards for Class A reclaimed water, except in areas where there is potential public exposure as determined by the Departments of Health and Ecology.

J. Reliability

The Permittee must maintain the highest reliability class as described in the Water Reclamation and Reuse Standards, which require one of the following features for each of the critical reclamation treatment unit processes of oxidation, filtration, and disinfection:

1. Alarms and standby power source.
2. Alarms and automatically actuated disposal provisions.

K. Bypass Prohibited

The Permittee must not bypass untreated or partially treated wastewater from the reclamation plant or any intermediate unit processes to the distribution system or point of use at any time. All reclaimed water distributed for beneficial use must meet Class A requirements at all times. The Permittee must retain water not meeting Class A Reclaimed Water Standards for additional treatment by diversion to a bypass storage structure or discharged back to the sewer system or headworks for additional treatment.

The Permittee must notify the Departments of Ecology and Health by telephone within 24 hours of any discharge not meeting Class A entering the distribution system. The Permittee must not discharge substandard reclaimed water to the reclaimed water use areas.

L. Revocation of Authorization

Ecology may revoke authorization to provide service if the Permittee fails to comply with any requirement in this permit. Ecology will base its determination to revoke authorization on the risk to public health and safety or threat to waters of the state. Ecology may revoke the authorization for any or all reclamation facilities and use areas located within a specific geographic area if, due to a geologic or hydrologic condition, the cumulative effect of the reclamation facilities and use areas causes the violation of state water quality standards. Before revoking the authorization, Ecology will notify the Permittee in writing and provide a reasonable opportunity and time frame to correct the noncompliance.

R8. APPLICATION FOR PERMIT RENEWAL

The Permittee must apply for permit renewal at least 180 days prior to expiration of this permit.

GENERAL CONDITIONS

G1. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to Ecology and Health must be signed and certified.

- A. All permit applications must be signed by either a principal executive officer or a ranking elected official.
- B. All reports required by this permit and other information requested by Ecology and Health must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - 1. The authorization is made in writing by a person described above and submitted to Ecology.
 - 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
- C. Changes to authorization. If an authorization under paragraph B.2, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph B.2, above, must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
- D. Certification. Any person signing a document under this section must make the following certification:

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

G2. RIGHT OF INSPECTION AND ENTRY

The Permittee must allow an authorized representative of Ecology and Health, upon the presentation of credentials and such other documents as may be required by law:

- A. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
- B. To have access to and copy - at reasonable times and at reasonable cost - any records required to be kept under the terms and conditions of this permit.
- C. To inspect - at reasonable times - any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
- D. To sample or monitor - at reasonable times - any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the Permittee) or upon Ecology and Health's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

- A. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
 - 1. Violation of any permit term or condition.
 - 2. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
 - 3. A material change in quantity or type of waste disposal.
 - 4. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination [40 CFR Part 122.64(3)].
 - 5. A change in any condition that requires either a temporary or permanent reduction, or elimination of any discharge or sludge use or disposal practice controlled by the permit [40 CFR Part 122.64(4)].
 - 6. Nonpayment of fees assessed pursuant to RCW 90.48.465.
 - 7. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.

- B. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:
1. A material change in the condition of the waters of the state.
 2. New information not available at the time of permit issuance that would have justified the application of different permit conditions.
 3. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.
 4. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.
 5. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.
 6. Ecology and Health have determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.
 7. Incorporation of an approved local pretreatment program into a municipality's permit.
- C. The following are causes for modification or alternatively revocation and reissuance:
1. Cause exists for termination for reasons listed in A1 through A7 of this section, and Ecology and Health determine that modification or revocation and reissuance is appropriate.
 2. Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G8) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new permittee.

G4. REPORTING A CAUSE FOR MODIFICATION

The Permittee must submit a new application, or a supplement to the previous application, along with required engineering plans and reports whenever a material change to the facility or in the quantity or type of discharge is anticipated which is not specifically authorized by this permit. This application must be submitted at least sixty (60) days prior to any proposed changes. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G5. PLAN REVIEW REQUIRED

Prior to constructing or modifying any reclaimed water control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with chapter 173-240 WAC. Engineering reports, plans, and specifications must be submitted at least 180 days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities must be constructed and operated in accordance with the approved plans.

G6. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit must be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. DUTY TO REAPPLY

The Permittee must apply for permit renewal at least 180 days prior to expiration of the permit.

G8. TRANSFER OF THIS PERMIT

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to Ecology.

A. Transfers by Modification

Except as provided in paragraph (B) below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

B. Automatic Transfers

This permit may be automatically transferred to a new Permittee if:

1. The Permittee notifies Ecology at least 30 days in advance of the proposed transfer date.
2. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.
3. Ecology does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

G9. REDUCED PRODUCTION FOR COMPLIANCE

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment plant until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment plant is reduced, lost, or fails.

G10. REMOVED SUBSTANCES

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of reclaimed water must not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G11. DUTY TO PROVIDE INFORMATION

The Permittee must submit to Ecology and Health, within a reasonable time, all information which Ecology and Health may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology and Health upon request, copies of records required to be kept by this permit [40 CFR 122.41(h)].

G12. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G13. ADDITIONAL MONITORING

Ecology or Health may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G14. PAYMENT OF FEES

The Permittee must submit payment of fees associated with this permit as assessed by Ecology.

G15. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit must be deemed guilty of a crime, and upon conviction thereof must be punished by a fine of up to \$10,000 and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit must incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to \$10,000 for every such violation. Each and every such violation must be a separate and distinct offense, and in case of a continuing violation, every day's continuance must be deemed to be a separate and distinct violation.

G16. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. DUTY TO COMPLY

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. TOXIC POLLUTANTS

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. PENALTIES FOR TAMPERING

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit must, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two (2) years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this Condition, punishment must be a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

G20. REPORTING PLANNED CHANGES

The Permittee must, as soon as possible, give notice to Ecology and Health of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in: 1) the permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b); 2) a significant change in the nature or an increase in quantity of pollutants discharged; or 3) a significant change in the Permittee's sludge use or disposal practices. Following such notice, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation of the terms and conditions of this permit.

G21. REPORTING ANTICIPATED NON-COMPLIANCE

The Permittee must give advance notice to Ecology and Health by submission of a new application or supplement thereto at least 180 days prior to commencement of such discharges, of any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility or activity which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, must be scheduled during noncritical water quality periods and carried out in a manner approved by Ecology and Health.

G22. REPORTING OTHER INFORMATION

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must promptly submit such facts or information.

G23. COMPLIANCE SCHEDULES

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.

APPENDIX A

Please see Section R2 of this permit for the parameters to be monitored.

The following table with analytical levels is to be used as guidance for reclaimed water monitoring. The objectives of this table is to reduce the number of analytical “non-detects” in monitoring reports and to measure concentrations near or below criteria values where possible at a reasonable cost. If a Permittee knows that an alternate, less sensitive method (higher DL and QL) is sufficient to produce measurable results in their effluent, that method may be used for analysis.

EPA 307 (A) REF. #	Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>	Lowest Criteria Values <i>µg/L unless specified</i>
	Biochemical Oxygen Demand	SM5210-B		5 mg/L	
	Total Suspended Solids	SM2540-D		2 mg/L	
	pH	SM4500-H ⁺ B	N/A	N/A	
	Turbidity	Calibrated device		<0.1 NTU	
	Flow	Calibrated device	N/A	N/A	
	Dissolved Oxygen	SM4500-OC/OG		0.2 mg/L	
	Total Coliform	SM9222A		0 organisms	
	Total Chlorine Residual	SM4500 Cl G		50.0	7.5
	Total Ammonia (as N)	SM4500-NH3- GH		0.3 mg/L	
	Nitrate-Nitrite (as N)	SM4500-NO3- E/F/H		100	10,000
	Total Phosphorus (as P)	SM4500-PE/PF	100	100	

1. Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99 percent confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR Part 136, Appendix B.
2. Quantitation Level (QL) is equivalent to EPA's Minimum Level (ML) which is defined in 40 CFR Part 136 as the minimum level at which the entire GC/MS system must give recognizable mass spectra (background corrected) and acceptable calibration points. These levels were published as proposed in the *Federal Register* on March 28, 1997.