November 16, 2012

M E M O R A N D U M

TO: Clayton Steele
Regional Administrator, Lewiston Regional Office

FROM: Jerry Shaffer
Staff Engineer

SUBJECT: Staff Analysis for Draft Wastewater Reuse Permit M-320-01 (Municipal Wastewater)
City of Potlatch

1. PURPOSE

The purpose of this memorandum is to satisfy the requirements of IDAPA 58.01.17.400.05, "Recycled Water Rules", for issuing wastewater reuse permits (WRPs). This memorandum addresses draft WRP No. M-230-01 for the municipal wastewater reuse system owned and operated by the City of Potlatch (Potlatch).

2. SUMMARY OF EVENTS

This is a new permit for Potlatch, located in Latah County. A permit application was received on February 16, 2012, indicating their intent to initiate operation of the facility. This draft permit is to allow operation of a wastewater reuse system by Potlatch.

The permit application from Potlatch largely serves as the basis for the terms and conditions contained in the draft permit. As required by the "Recycled Water Rules," the draft permit will be presented for a public comment period. After the comment period has closed, DEQ will provide written responses to all relevant comments and prepare a final permit for Potlatch's wastewater reuse facilities.

3. PROCESS AND SITE DESCRIPTIONS

The municipal wastewater to be treated and disposed of by the Potlatch recycled water system comes from the Potlatch wastewater treatment plant. The Potlatch wastewater treatment plant as designed consists of a two-cell facultative lagoon followed by chlorine disinfection, disinfection contact, dechlorination, and discharge to the Palouse River. With the issuance of the permit, the treated wastewater can be either discharged to the Palouse River in accordance with National Pollution Discharge Elimination System (NPDES) permit ID-002250-1 or sent to Potlatch's recycled water system during the growing season. If the latter is chosen, dechlorination may not be necessary when applying the effluent to the reuse site. Wastewater detention time in the two cells at a mid-operational level of 2488 feet elevation is approximately 230 days at the projected flow of 67,000 gallons/day. This is

substantially longer than the general 30-day design detention time for treatment lagoons. The lagoon depth should vary by less than four feet over the course of the year, which allows for a 3-foot freeboard at high water levels and a minimum operating depth of 2- feet.

Potlatch currently discharges treated wastewater to the Palouse River near River Mile 135 (N46^{o} 55' 23.98" W116^{o} 54' 50.34"). The current NPDES permit expired October 3, 2010; Potlatch applied for a new permit on December 18, 2009 and is waiting for the issuance of a new permit. Potlatch is concerned that the next NPDES permit will contain permit limits that may be difficult to meet during the summer. Therefore, Potlatch is seeking a reuse permit to discharge to the proposed reuse site during the most challenging water quality period of the year.

Data regarding flows and wastewater quality from the wastewater facility is missing and the permit should be based on the capacity of the site to store and treat the constituents coming from the treatment system. Due to this limitation, the permit should contain the full range of sample collection and analysis.

In order to demonstrate compliance with the conditions of the current permit, the permittee should monitor the volume of treated wastewater applied to each of the Hydraulic Management Units and all pertinent constituents and attributes of the treated wastewater. Each year the permittee should submit an annual report that provides all of the monitoring results as well as discusses the monitoring results and general operational requirements essential to the system's ability to receive and treat wastewater.

4. PERMITTING DISCUSSION

The "Recycle Water Rules" have established classifications for wastewater effluent based on the type of treatment provided for the wastewater and the level of disinfection of the wastewater. Each classification has specific requirements and allowed uses. Based on the current "Recycled Water Rules", the uses proposed by the permittee, irrigation of agricultural hay fields and silviculture, are allowed for Classes A, B, and C effluent. Potlatch expects to meet Class C effluent requirements.

Class C effluent is required to be oxidized, clarified, and adequately disinfected. Class C water must meet a median number of total coliform organisms of 23 CFU/100 mL, as determined from the bacteriological results of the last five days for which analyses have been completed. In addition, no single sample shall exceed 230 CFU/100 mL, in any confirmed samples.

Potlatch's treated wastewater appears to meet the treatment requirements for a Class C reuse system. Potlatch's wastewater can be considered oxidized and clarified based on the very long detention time in the two treatment cells, a minimum of 240 days. No data is available on the expected Total Coliform concentrations in the effluent, however the wastewater disinfection system, using chlorine, has a serpentine chlorine contact basin followed by dedicated piping to the reuse site. Similar systems in the region have been able to achieve a Class C effluent. Also, since the permit does not contain a chlorine limit, the City can increase chlorination to achieve the required Total Coliform limit, if needed.

The new reuse system at Potlatch has no outstanding compliance issues but will have the following compliance schedules for the following reasons.

4.1 Compliance Schedule for Required Activities – Section 3

All wastewater systems are required to have an operation and maintenance manual, also called a plan of operation, in accordance with IDAPA 58.01.16, "Wastewater Rules." Both the "Wastewater Rules" and the "Recycled Water Rules" contain requirements about the information that should be provided in the plan of operation. DEQ's "Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater" (*Reuse Guidance*) may also be used as guidance when developing the plan of operation. The *Reuse Guidance* contains a plan of operation checklist that identifies information that should be included. Compliance Activity No. CA-230-01 requires that the Plan of Operation be developed and submitted within 6 months following permit issuance.

In order to ensure that reuse water is applied to and remains on the permitted site, buffer zones have been established in the permit. Those buffer zones for Class C effluent are meant to protect public health and the environment. For further protection, runoff management should be addressed in the plan of operation.

4.2 Permit Limits and Conditions – Section 4

Potlatch has chosen not to pursue non-growing season application or grazing of the site. Therefore, only agronomic rates for water and nutrients for Timothy hay grass and silviculture will be considered. In addition, hydraulic and nutrient loading to the site will be based on crop requirements due to the lack of data regarding hydraulic flows and wastewater nutrient concentrations for this system.

Hydraulic Loading Rates. Because of a sewer rehabilitation project in 2010, existing wastewater flow records may not accurately reflect current or future wastewater flows. For this reason, the engineer has estimated daily flows at the wastewater treatment plant at 67,000 gallons per day, or 24.5 million gallons per year, as calculated below.

Equation 1. Calculation of Annual Flow Rates at the Potlatch Wastewater Treatment Plant
Given: Daily flow rates to the Potlatch Wastewater Treatment Plant = 67,000 gallons/day

$$\frac{67{,}000 \text{ gallons}}{\text{Day}} \frac{* \text{ 1 million gallons}}{* \text{ 1,000,000 gallons}} \frac{* \text{ 365 days}}{* \text{ 1 year}} = \underline{\text{24.5 million gallons per year}}$$

Average daily flows prior to 2010 included significant levels of infiltration and inflow but even after 2010 there has been higher flows recorded due to abnormally wet weather. Infiltration is defined as the entering of groundwater into a sewer system due to sewer material and joint degradation and deterioration as well as when sewer lines are poorly designed and constructed. Inflow is defined as rainfall entering a sewer system through direct connections such as roof leaders, yard drains, catch basins, sump pumps, manhole covers and frame seals or indirect connections such as storm sewers. An average flow of 67,000 gallons per day may be a good estimate. Monitoring during the operation of the facility will give better information on actual flows. Potlatch has the ability to discharge to the Palouse River throughout the year, so if the measured wastewater flows to the wastewater treatment facility are higher than estimated and the reuse site is unable to accept the additional flow, the excess can be discharged to the

Palouse River during the winter/spring. From the submitted application, during the growing season flows from the wastewater treatment plant to the reuse site will exceed flows coming into the wastewater treatment plant. Existing storage in the wastewater treatment plant should accommodate wastewater flow generated during the growing season for discharge to the Palouse River during the winter and early spring. The City of Potlatch has alternate disposal methods available through an NPDES permit and is not required to discharge to the reuse site, therefore they can adjust their flows to the site based on incoming wastewater flows throughout the application season.

The Preliminary Engineering Report for the City of Potlatch Wastewater Reuse Project states on page 3, "Potlatch's goal is to dispose of *some* of its wastewater while growing a beneficial crop, as opposed to a pure land application system (dispose of *all* wastewater) and pure farming (maximize crop yields while minimizing irrigation)." In this publication, there is a water balance table located in Exhibit B10, located in Appendix B. The engineer proposes an annual wastewater flow rate to the wastewater treatment plant of 24.5 million gallons. He adds to this the amount of precipitation that will fall onto the lagoon cells, which he estimates to be 8.7 million gallons per year. This comes to a total of 33.2 million gallons of water that enters the wastewater treatment plant. Losses in the system include evaporation (estimated at 9.9 million gallons per year) and lagoon leakage (estimated at 11.8 million gallons per year), for a total of 21.7 million gallons per year. Of the remaining 10.5 million gallons per year that the City of Potlatch disposes, the City will discharge approximately 4.9 million gallons to the Palouse River in accordance with NPDES Permit ID-002250-1. This leaves 5.6 million gallons per year to be applied to the proposed reuse site.

The 16.5 acre site is divided into four hydraulic management units, based on crop and type of application. Irrigation efficiencies are taken from Neibling (1997) and are reproduced below. Hydraulic loading limits will be based on the Hydraulic Management Units 1 through 4's ability to utilize the applied wastewater.

Irrigation System Attainable Application Efficiencies

Irrigation Method	Efficiency (Percent)
Solid Set	70 - 85
Hand Move	65 - 85
Side-Roll	65 - 85
Traveling Gun	60 - 75
Center Pivot	75 - 90
Linear Move	75 - 90
LEPA	80 - 90
Row Crop Drip	85 - 90
Drip	85 - 90
Microspray	85 - 90
Bubbler: Low Head	80 - 90
Border Strip	55 - 90
Furrow: Modern	60 - 90
Furrow	50 - 80

Hydraulic Management Unit 1 is the northern-most unit and it consists of five acres of Timothy hay grass irrigated by a center pivot (Irrigation Efficiency = 90%). Hydraulic Management Unit 2 consists of five acres of Timothy hay grass and it is irrigated by set sprinkler lines (Irrigation Efficiency = 85%). Hydraulic Management Unit 3 consists of five acres of existing pine forest with set sprinkler lines (Irrigation Efficiency = 85%). And finally, Hydraulic Management Unit 4 consists of 1.5 acres of buffer trees irrigated by drip irrigation (Irrigation Efficiency = 90%).

For pasture grass, from the University of Idaho, Kimberly, Idaho website, the seasonal irrigation requirement for a pasture near Potlatch, Idaho is 426 millimeters, or 16.8 inches.

Equation 2. Conversion of seasonal irrigation requirements for pasture to inches

Given: Seasonal irrigation requirements for pasture is 426 millimeters
25.4 millimeters = 1 inch

$$\frac{426 \text{ millimeters}}{} * \frac{1 \text{ inch}}{25.4 \text{ millimeters}} = \underline{16.8 \text{ inches}}$$

From the same publication, seasonal irrigation requirements for apple and cherry orchards with ground cover (there was no option for pine forest so this seemed the closest match), near Potlatch, Idaho is 228 millimeters, or 9.98 inches.

Equation 3. Conversion of seasonal irrigation requirements for pasture to inches

Given: Seasonal irrigation requirements for pasture is 228 millimeters
25.4 millimeters = 1 inch

$$\frac{228 \text{ millimeters}}{} * \frac{1 \text{ inch}}{25.4 \text{ millimeters}} = \underline{9.98 \text{ inches}}$$

And finally, for cottonwood trees near Potlatch, Idaho, irrigation requirements are 561 millimeters, or 22.1 inches.

Equation 4. Conversion of seasonal irrigation requirements for cottonwood trees to inches

Given: Seasonal irrigation requirements for pasture is 561 millimeters
25.4 millimeters = 1 inch

$$\frac{561 \text{ millimeters}}{} * \frac{1 \text{ inch}}{25.4 \text{ millimeters}} = \underline{22.1 \text{ inches}}$$

Leaching is defined as the "removal of soluble or other constituents by the action of a percolating liquid." Leaching is generally required when applying wastewater to an agricultural site to prevent the buildup of excess chemicals in the soil that come from the applied wastewater. Over time, this buildup of chemicals can alter the soil structure and the site's ability to accept and process wastewater. The City of Potlatch's reuse permit will limit the amount of wastewater applied to the site to that amount necessary to meet crop demands, evapotranspiration minus natural precipitation. Evapotranspiration is defined as "the combined processes of evaporation, sublimation, and transpiration of the water from the earth's surface into the atmosphere, or the total amount of water transferred from the earth to the atmosphere." In the non-growing season natural precipitation exceeds evapotranspiration and

there is a net gain of water to the site. The non-growing season precipitation to the site is not needed to build up soil moisture since growing season irrigation to the site will maintained the soil moisture. Therefore, the non-growing season precipitation should leach excess chemical buildup out of the soil. As a consequence, there will be no leaching factor applied for this site due.

Based on crop requirement and irrigation efficiencies, the maximum loading for each site is as follows: 1) Hydraulic Management Unit 1 will be limited to a maximum of 2.53 million gallons per year; 2) Hydraulic Management Unit 2 will be limited to a maximum of 2.68 million gallons per year; 3) Hydraulic Management Unit 3 will be limited to a maximum of 1.59 million gallons per year; and 4) Hydraulic Management Unit 4 will be limited to a maximum of 1.00 million gallons per year. The total hydraulic loading for this site during the irrigation season would be limited to a maximum of 7.80 million gallons per year. The calculations used to determine these hydraulic loading limits are shown below.

Equation 5. Calculation of Hydraulic Management Unit 1's hydraulic loading limit.

Given: Area of Hydraulic Management Unit 1 = 5.0 acres
Seasonal Irrigation requirement for Hydraulic Management Unit 1 = 16.8 inches
Irrigation Efficiency for Center Pivot = 90%
1 acre = 43,560 feet^2
1 foot^3 = 7.48 gallons

Hydraulic Loading Limit = (Area) * (Irrigation Requirement) / (Irrigation Efficiency)

$$\frac{5 \text{ acres} * 16.8 \text{ inches} * 43{,}560 \text{ feet}^2 * 1 \text{ foot} * 7.48 \text{ gallons} * 100\%}{90\% * \text{year} \quad 1 \text{ acre} * 12 \text{ inches} * \text{ft}^3 * 1}$$

Hydraulic Loading Limit = <u>2,530,000 gallons per year</u>

Equation 6. Calculation of Hydraulic Management Unit 2's hydraulic loading limit.

Given: Area of Hydraulic Management Unit 2 = 5.0 acres
Seasonal Irrigation requirement for Hydraulic Management Unit 1 = 16.8 inches
Irrigation Efficiency for Set Sprinkler Lines = 85%
1 acre = 43,560 feet^2
1 foot^3 = 7.48 gallons

Hydraulic Loading Limit = (Area) * (Irrigation Requirement) / (Irrigation Efficiency)

$$\frac{5 \text{ acres} * 16.8 \text{ inches} * 43{,}560 \text{ feet}^2 * 1 \text{ foot} * 7.48 \text{ gallons} * 100\%}{85\% * \text{year} \quad 1 \text{ acre} * 12 \text{ inches} * \text{ft}^3 * 1}$$

Hydraulic Loading Limit = <u>2,680,000 gallons per year</u>

Equation 7. Calculation of Hydraulic Management Unit 3's hydraulic loading limit.

Given: Area of Hydraulic Management Unit 3 = 5.0 acres
Seasonal Irrigation requirement for Hydraulic Management Unit 1 = 9.98 inches
Irrigation Efficiency for Set Sprinkler Lines = 85%
1 acre = 43,560 feet^2

1 foot^3 = 7.48 gallons

Hydraulic Loading Limit = (Area) * (Irrigation Requirement) / (Irrigation Efficiency)

$$\frac{5 \text{ acres} * 9.98 \text{ inches} * 43{,}560 \text{ feet}^2 * 1 \text{ foot} * 7.48 \text{ gallons} * 100\%}{85\% * \text{year} \quad 1 \text{ acre} * 12 \text{ inches} * \text{ft}^3 * 1}$$

Hydraulic Loading Limit = <u>1,590,000 gallons per year</u>

Equation 8. Calculation of Hydraulic Management Unit 4's hydraulic loading limit.

Given: Area of Hydraulic Management Unit 4 = 1.5 acres
Seasonal Irrigation requirement for Hydraulic Management Unit 1 = 22.1 inches
Irrigation Efficiency for Drip Lines = 90%
1 acre = 43,560 feet^2
1 foot^3 = 7.48 gallons

Hydraulic Loading Limit = (Area) * (Irrigation Requirement) / (Irrigation Efficiency)

$$\frac{1.5 \text{ acres} * 22.1 \text{ inches} * 43{,}560 \text{ feet}^2 * 1 \text{ foot} * 7.48 \text{ gallons} * 100\%}{90\% * \text{year} \quad 1 \text{ acre} * 12 \text{ inches} * \text{ft}^3 * 1}$$

Hydraulic Loading Limit = <u>1,000,000 gallons per year</u>

The 7.80 million gallons per year total hydraulic limit exceeds the estimated application rate of 5.6 million gallons per year to the reuse site.

<u>Nitrogen Loading Rates</u>. As stated previously, with no nitrogen data provided in the application packet from Potlatch, nitrogen loading limits will be based on the site's ability to take up and utilize the available nitrogen. For Hydraulic Management Units 1 and 2, which contain Timothy hay grass, Table 1 of the Fertilizer and Nutrient Management of Timothy Hay Grass (http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex12785) predicts that based on a production rate of five to six tons of hay a year and a nitrogen concentration of 35 pounds per ton. Since the site will be irrigated at a rate to meet crop requirements, the six tons per acre harvest rate will be used. From the Idaho Reuse and Recycle Water Guidance, "general rates for nitrogen loading have typically been 150% of crop uptake. This approach is somewhat general and allows for a 50% loss of nitrogen through various pathways including volatilization, denitrification, microbial/biomass fixation, and leaching." Allowing 150% of crop uptake, the nitrogen loading limit for Hydraulic Management Units 1 and 2 would be 315 pounds per acre per year.

Equation 9. Calculated Annual Nitrogen Requirements for Timothy Hay Grass

Given: Timothy Hay Grass nitrogen content = 35 pounds per ton of hay
Expected annual harvest of Timothy Hay Grass = six tons

Annual Nitrogen Requirements = (Annual Harvest) * (Nitrogen Content) * 150%

$$\frac{6 \text{ tons Timothy Hay Grass} * 35 \text{ pounds Nitrogen} * 150\%}{\text{Year} * \text{ton Timothy Hay Grass}} = \underline{315 \text{ pounds N/year}}$$

Table 1. Approximate nutrient removal per ton of timothy dry matter forage

Nutrient	Amount Removed (lb/ton)*
Nitrogen (N)	35
Phosphorus (P)	4
Phosphate (P_2O_5)	10
Potassium (K)	40
Potash (K_2O)	50
Calcium (Ca)	7
Magnesium (Mg)	5
Boron (B)	0.08
Copper (Cu)	0.01
Iron (Fe)	0.3
Manganese (Mn)	0.1
Molybdenum (Mo)	0.002
Zinc (Zn)	0.05

* Amounts of removal are approximate and vary depending on growing season conditions

For Hydraulic Management Units 3 and 4, which contain trees, from Table 7-30 of Section 7.7.9 of the Idaho Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater, the nitrogen uptake by the silviculture crop should be about 220 pounds per acre per year. From the Idaho Reuse and Recycle Water Guidance, "general rates for nitrogen loading have typically been 150% of crop uptake. This approach is somewhat general and allows for a 50% loss of nitrogen through various pathways including volatilization, denitrification, microbial/biomass fixation, and leaching." Allowing 150% of crop uptake, the nitrogen loading limit for Hydraulic Management Units 3 and 4 would be 330 pounds per acre per year.

Equation 10. Calculated Annual Nitrogen Requirements for silviculture

Given: silviculture nitrogen content = 220 pounds per acre of trees

Annual Nitrogen Requirements = (Nitrogen Content) * 150%

$$\frac{220 \text{ pounds Nitrogen}}{\text{Acre silviculture}} * 150\% = \frac{330 \text{ pounds N/year}}{}$$

Phosphorus Loading Limits. The City of Potlatch did not submit effluent phosphorus data in their permit application therefore phosphorus loading limits will be based on the site's ability to take up and utilize the available phosphorus. For Hydraulic Management Units 1 and 2, which contain Timothy hay grass, Table 1 of the Fertilizer and Nutrient Management of Timothy Hay Grass (http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex12785) (see above) predicts that based on a production rate of 5 to 6 tons of hay a year and a phosphorus concentration of 4 pounds per ton, the phosphorus uptake should be 20 to 24 pounds per acre

per year. Since the site will be irrigated at a rate to meet crop requirements, the six tons per acre harvest rate will be used, allowing the maximum phosphorus loading rate to Hydraulic Management Units 1 and 2 to be 24 pounds phosphorus per acre per year.

Equation 11. Calculated Annual Phosphorus Requirements for Timothy Hay Grass

Given: Timothy Hay Grass phosphorus content = 4 pounds per ton of hay
Expected annual harvest of Timothy Hay Grass = six tons

Annual Phosphorus Requirements = (Annual Harvest) * (Phosphorus Content)

$$\frac{\text{6 tons Timothy Hay Grass}}{\text{Year}} * \frac{\text{4 pounds Phosphorus}}{\text{ton Timothy Hay Grass}} = \frac{\text{24 pounds P per year}}{}$$

For Hydraulic Management Units 3 and 4, which contain trees, phosphorus uptake should be approximately 50 pounds per acre per year. This comes from an article by Michael Blazier, who is a forestry research project leader at the LSU AgCenter Farm Research Station (http://www.forestproductivity.net/pdfs/blazier.pdf). He recommends fertilizing slash pine forests with 250 pounds Triple Superphosphate per acres (50 pounds phosphorus per acre) or 250 pounds diammonium phosphate per acre (50 pounds phosphorus per acre). This article addresses fertilizer considerations for maximizing tree growth whether the stand is young or more mature.

COD Loading: The old standard reuse permit by the State of Idaho limited COD loading to 50 pounds COD per acre per day. The City of Cottonwood's reuse permit limits the city to 50 pounds COD per acre per day (See September 9, 2009 City of Cottonwood Wastewater Reuse Permit page 8) but they applied only about 12 pounds COD per acre per day in 2011 (see January 31, 2012 2011 City of Cottonwood Reuse Permit Annual Report, page 8). The City of Genesee does not contain a permit limit for COD (See June 30, 2009 City of Genesee Wastewater Reuse Permit), they apply about 18 pounds COD per acre per day (See December 29, 2011 2011 Genesee Annual Reuse Report), which is much less than 50 pounds COD per acre per day. The cited COD loading rates are far below the standard COD loading rate contained in standard municipal reuse permits so there should be no COD limit in the permit.

Salt Loading: Potlatch contains no industry that would be expected to produce a wastewater stream with high concentrations of sodium or chloride (salts). Potlatch is required to notify the State of any significant changes to their wastewater quantity or constituents. As a check, the State does perform an annual inspection and one of the items to check during the inspection would be if the wastewater characteristics have changed in the last year. An additional backup would be the requirement for Potlatch to include any changes to its system in the previous year as noted in their annual report. For this reason, salt limits should not be included in this permit. Non-volatile dissolved solids should also not be a monitoring requirement in the permit. In order to ensure that there is no salt buildup in the soil, the owner should conduct soil analysis in saturated paste extract.

TDS Loading: Potlatch contains no industry that would be expected to produce a wastewater stream with high concentrations of Total Dissolved Solids (TDS). Potlatch is required to notify the State of any significant changes to their wastewater quantity or constituents. As a check,

the State does perform an annual inspection and one of the items to check during the inspection would be if the wastewater characteristics have changed in the last year. An additional backup would be the requirement for Potlatch to include any changes to its system in the previous year as noted in their annual report. For this reason, TDS limits will not be included in this permit.

Site buffers should be set at the standard distances. The distance to surface water from MU-230-04 will be reduced to 50 feet since there should be no spray from the drip irrigation emitters and the trees need to be close enough to the river to eventually receive water from the subsurface flow of the river.

4.3 Monitoring and Reporting – Sections 5 & 6

There is no monitoring reduction from standard monitoring requirements for this permit, though there may be in future permits. Since no information was submitted with the permit application regarding wastewater quantity or quality, the permit was developed based on the ability of the site to accept and incorporate pollutant loads anticipated from the wastewater treatment plant. The next permit should be based on data gathered from the site and from the wastewater applied to the site.

The permittee should submit an annual report that should include
1) all monitoring conducted under the terms of the permit,
2) the hydraulic management unit reporting requirements in Section 6 of the draft permit,
3) the status of compliance activities required by the permit, and
4) an interpretive discussion of the monitoring data with particular respect to any potential environmental impacts.

The annual report is due by January 31st of each year, and should address operations conducted during the previous reporting year.

5. RECOMMENDATIONS

Based on review of applicable state rules, staff recommends that DEQ issue draft WRP No. M-230-01 for a public review and comment period. Based on the fact that little is known regarding the quality of the effluent from the wastewater treatment plant, this permit is recommended for a 60-month permitting cycle. The draft permit contains terms and conditions required for operation of the reuse system. Monitoring and reporting requirements to evaluate system performance and to determine permit compliance has been specified and compliance activities have been incorporated into Section 3 of the permit.

References

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