



STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

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C.L. "Butch" Otter, Governor  
Toni Hardesty, Director

January 7, 2010

Calvin Leman  
305 Washington Street  
Salmon, ID 83467

Dear Mr. Leman:

Thank you for the email regarding your concerns about the City of Salmon's wastewater collection and treatment system. Your email to Representative Barrett was forwarded to me so I may respond to your questions and provide some background with DEQ's involvement with the City's proposed project.

The City of Salmon's wastewater lagoons were constructed at its present location in 1970 and significantly modified in 1987. A significant challenge to the City's wastewater system is the highly variable and sometimes very large volumes of groundwater infiltrating the aging collection system that was constructed during the early part of last century, 1940's and 1950's. The City through various past improvement projects determined that complete elimination of infiltration of the collection system was not cost effective. The City acknowledges a comprehensive and long term approach to the infiltration control is one of the components to achieve satisfactory performance of the treatment system, in addition to necessary upgrades to the aging treatment plant.

DEQ wastewater planning grants are available for counties, cities, special service districts, other governmental entities, and nonprofit corporations that have authority to collect, treat, or dispose of wastewater. Most systems owned by Idaho municipalities, special service districts, and associations are eligible for grants. Planning grants are not available to entities that do not collect, treat, or dispose of wastewater.

During 2008, the City of Salmon applied for and was awarded a \$30,000 wastewater planning grant by DEQ for a planning study of the City's public wastewater facilities. The goal of the facility plan was to identify the most cost effective, environmentally sound methods to upgrade public wastewater systems to achieve and maintain compliance with state and federal standards. The City has been working with their engineering consultant, Keller Associates, and a Citizens Advisory Committee to prepare a planning study and master plan for the City's wastewater collection and treatment systems. Since August 2008, six public meetings were held by Keller Associates and the Citizens Advisory Committee to provide recommendations and input to the City Council. The Citizens Advisory Committee was involved with the review of all wastewater improvement alternatives explored by the study and instrumental in selecting the best apparent alternative for upgrading the existing plant and elimination of the most significant infiltration sources. The selection of wastewater improvement alternatives is the responsibility of the local wastewater authority, Salmon City Council. DEQ concurs with the study's recommended alternatives that the City has selected for improving their wastewater collection and treatment facility. The planning study has not been finalized and opportunity for public comment will be available during the forthcoming environmental impact public hearing. Please contact the City on the scheduling of the public hearing.

You expressed interest in wetland treatment and inquired about consulting engineers specializing in this technology. Your web page lists several qualified engineering firms with constructed wetland treatment experience. Land application, wetlands and rapid infiltration and other alternatives for wastewater disposal and additional treatment were considered in the study and were evaluated by the Citizens Advisory Committee. The land application and wetland alternatives were not selected or studied further because of the limitation on land availability as well as costs associated with land acquisition and needed infrastructure. Wetland sewage treatment is a viable component of various wastewater systems throughout the United States and employed as a wastewater treatment polishing process for the reduction of nutrients before discharge to surface water or ground water. Lining of wetland treatment areas to prevent seepage and contamination to groundwater is a regulatory requirement and constitutes a substantial expense for this technology. Concerning wastewater reuse, DEQ regulates over 200 wastewater reuse permittees utilizing land application as a viable wastewater treatment and disposal technology. Wastewater land application does provide elimination of pollutants to surface water but it needs available lands, infrastructure and additional non-growing season wastewater storage, another significant cost component. Utilizing either wastewater reuse or wetlands treatment methods, the existing wastewater plant would still need significant upgrades to provide these alternatives with the required wastewater quality to optimize treatment and disposal.

Salmon is authorized to discharge effluent from their plant by the Environmental Protection Agency (EPA) under NPDES Permit Number ID-0020001 issued in 2007. The City's current wastewater lagoon system is functioning as lagoons should even though there have been numerous permit discharge violations, particularly with BOD<sub>5</sub> and TSS percent removal requirements. The problem lies with the very low strength wastewater entering the plant from groundwater infiltration making the required percent removal of BOD<sub>5</sub> and TSS very difficult to achieve. The City has decided it is more cost effective to modify the plant and address the major collection system infiltration contributors rather than the complete elimination of infiltration within the entire collection system. EPA does have the ability to penalize dischargers violating their NPDES permits, but DEQ has not been informed of their intent to do so. We believe the City of Salmon is being proactive in identifying and correcting wastewater facility deficiencies.

As discussed, the City Council has the authority to implement projects to improve the wastewater system. We encourage you to work with the Council and other constituents towards the common goal of achieving the most feasible solution to the City's wastewater needs. If you have further questions, please contact Erick Neher, DEQ Idaho Falls Regional Administrator or Greg Eager, Engineering Manager at (208) 528-2650.

Sincerely,



Toni Hardesty  
Director

c: Representative Lenore Barrett  
Erick Neher, DEQ Idaho Falls Regional Administrator  
George Ambrose, City of Salmon Administrator  
John Miller, Mayor of Salmon