

Teton County's Trash: Taming the Wild Waste Goals, Summary and General Project Information

Overall Project Goals:

- Mitigate groundwater contamination.
- Diminish the long lines at the scale house.
- Reduce the enormous amount of Jackson Hole waste that is hauled 100 miles to the landfill.
- Decrease carbon emissions and fuel consumption.
- Capture out of control food and yard waste and create valuable compost.
- Capture more recyclables.
- Conserve valuable resources.
- Enhance the customer experience.

Background and Project Summary:

Solid waste was accepted for disposal at Teton County's Horsethief Canyon Landfill from the mid-1950's through 1989. In 1989, due to lack of landfill capacity, the landfill was closed through the application of a soil cap and surface water control channels which was the accepted practice at the time; and a solid waste transfer station and scale house were constructed on the property to manage the County's solid waste. Starting in 1989, the County's solid waste was transferred to the Sublette County-Marbleton Landfill for disposal until July 2012, when Teton County began sending waste to a lined landfill in Bonneville County, Idaho.

Over time, it became evident that surface water had infiltrated the buried waste due to the outdated cap and limited storm water controls at the Horsethief Canyon Landfill. This storm water infiltration increased leachate production at the landfill. Leachate is any liquid that, in the course of passing through matter, extracts soluble or suspended solids. When water passes through solid waste, the resulting leachate can contain undesirable, toxic materials that can lead to groundwater contamination. In 2008, quarterly monitoring was initiated for four groundwater monitoring wells at the landfill site. Low concentrations of groundwater contamination were detected, including a few contaminants that exceed Federal Groundwater Protection Standards. As a result, the Wyoming Department of Environmental Quality is requiring Teton County to obtain a final closure permit for the Horsethief Canyon Landfill, including the installation of an engineered cap and improved storm water controls. These requirements are planned to be met by the end of 2019. Once capped, the site will remain undisturbed and will be monitored for a minimum of 30 years post-closure. The goal in capping the landfill is to minimize the infiltration of surface water, reduce the production of leachate, and significantly reduce impacts to groundwater.

The closure of the Horsethief Canyon Landfill is going to disturb the entire Horsethief Canyon site, requiring new facilities and improvements to all areas that are utilized for the transfer facility, waste diversion/recycling, and composting operations. The facility no longer safely and efficiently meets Teton County's solid waste needs given the 60% increase in population since 1989. Due to a lack of suitable land for a new solid waste facility, not to mention exorbitant land prices in Teton County, it was determined that the Horsethief Canyon site is the best and only option for a waste recovery and management facility in the valley. Improvements and changes to the site are necessary to allow for continued and improved operations after the Horsethief

Canyon Landfill closure. These improvements include a new weigh station and solid waste transfer facility as well as an expanded compost facility, with the capability to accept community food waste for composting.

Teton County Integrated Solid Waste and Recycling (ISWR) is excited for the opportunity this project brings in terms of providing improved and more effective use of the site; and to allow for an increase in the amount and types of materials that can be efficiently diverted from landfilling. Teton County is in the midst of developing its “Road to Zero Waste” plan. The closure of the Horsethief Canyon Landfill and site improvements project give us the opportunity to assess ISWR’s waste diversion and management programs and ensure that the site is redeveloped to seize all of the possibilities that are identified through this plan. This project will benefit facility customers by making the operation more efficient; as well as benefitting the local and global environment by implementing and improving programs that will maximize our ability to recover resources and reduce trips to the landfill.

Big Picture (Local and Global) Environmental Mitigation from the “Taming the Wild Waste” Project

- The Horsethief Canyon property has been a brown-field site for nearly six decades and has experienced significant human disturbance during that time. By re-developing the site for the County’s solid waste management and diversion activities, we protect another “green-field” site from being disturbed;
- The landfill closure project at Horsethief Canyon will ultimately remediate the groundwater contamination resulting from the historic landfill. The groundwater at the site contains contaminants from the landfill, including two Volatile Organic Compounds (VOCs) that are above the EPA’s maximum contamination level; and,
- The resulting new and improved composting facility will allow Teton County to divert more organic waste from landfilling, including food waste. Organics are high in moisture content, which can be a concern for landfills for the following reasons:
 1. The moisture from organics in the landfill can contribute to leachate production, which can lead to groundwater contamination in unlined facilities
 2. The moisture and biodegradation of organics in the landfill produce methane gas – a greenhouse gas 23 times more potent than carbon dioxide.

Diversion of organics from landfilling to composting will help mitigate these local and global problems associated with landfilling organics.