

January 18, 2012,
Zoning Conditional Use Permit Application
Kittitas County Community Development Services

Project Narrative Question 9:

Narrative project description (include as attachment): Please include at minimum the following information in your description: describe project size, location, water supply, sewage disposal and all qualitative features of the proposal; include every element of the proposal in the description.

Project Description
PacifiClean Elk Heights Facility

PacifiClean of Washington, LLC proposes to construct and operate a 83.4-acre compost facility located at 8860 Thorp Prairie Road, Cle Elum, in Kittitas County, Washington. Initial construction will impact approximately 45-acres of the site. The site is within 193-acres purchased by PacifiClean Elk Heights. The property is currently zoned Forest and Range, and as such it requires a Conditional Use Permit (CUP) for the proposed activity. The Elk Heights facility will be designed and operated in accordance with all applicable State and Local regulations (refer to: WAC 173-350-220).

The Elk Heights facility will process yard debris, wood residuals, commercial and residential food waste and municipal biosolids, A majority of which are generated in King and Snohomish Counties. Biosolids from the City of Ellensburg and other local municipalities will also be composted at the Elk Heights facility. The majority of finished compost will be utilized as an agricultural soil amendment in central Washington, with the balance used in residential and municipal applications.

Initially, the Elk Heights facility will be sized to process 160,000 tons of organic waste (Construction Phase I) per year and to yield approximately 64,000 tons of finished compost. Within one to five years, the project goal is to expand the facility (Construction Phase II) to accommodate a maximum of 320,000 tons of waste per year and produce approximately 128,000 tons of finished compost. Another 10,000 tons of feedstock will be processed by anaerobic digestion.

A tipping building will be constructed which will be 35 ft high above final grade level. Dimensions of the building will be 180 ft X 120 ft. Air inside the building will be removed by blowers and pushed through biofilters which will remove 95% – 99% of the odor and VOCs. Delivery of feedstocks, shredding, mixing and grinding of high nitrogen feedstocks will take place in the building.

Structures, in addition to the tipping building, will include an office building, a water tank for fire prevention, a maintenance building of approximate dimensions of 100 ft x 60 ft, concrete retaining walls, also used to support aeration equipment, a conveyor system, below and above grade utilities, roads and surface operating areas of crushed rock, asphalt, and concrete.

Following Construction Phase I PacifiClean Elk Heights will hire 11 staff and after Construction Phase II 18 staff will be hired. Wall structures to support the compost process will be constructed according to the site plan which is included in this application.

Considerable grading will take place to establish a suitable and engineered operating surface. Most of the surface will be covered with asphalt or concrete.

The processes to take place on the site will include feedstock blending, separating, mixing, screening, grinding, shredding, as necessary then composting, curing and storage. The site will serve as a distribution yard for compost and compost products.

As part of Construction Phase II an anaerobic digester will be constructed to produce renewable methane gas (Condensed Natural Gas or CNG) for use in generating electricity and operating a fleet of transport vehicles. The by-product of the anaerobic digestion process ("digestate") would then be further processed by aerobic composting.

The design of the Elk Heights facility pays particular attention to mitigating potential impacts to: 1) surface water resources; 2) air quality (volatile organic compound [VOC] emissions and dust); and 3) the impact on the neighboring community (odor, noise, traffic, aesthetics and cultural resources). The design also emphasizes the production of a superior quality finished compost product with strong market value.

The organic high nitrogen waste materials (Those with odor potential) will be received, shredded, ground and mixed in a fully enclosed building (Tipping Building) that is negatively ventilated, with the captured emissions treated in a biofilter. Biofiltration is designed to capture sulfides and reduced sulfurs along with Volatile Organic Carbons (VOCs), and other odorous compost intermediates.

Water from an existing well will be used on the project for office and employee potable water use and for fire protection.

Clean surface water that falls outside of the facility boundary will be diverted around the site. Surface water that falls inside of the facility boundary and considered stormwater will be retained in 2 lined ponds and used in the composting process, for dust control, cleanup, moisture addition, and to irrigate undeveloped areas and crops on the surrounding property. Compost leachate will be stored in above grade tanks and reused to moisture condition feedstock materials prior to composting.

The GORE® Cover System will be used throughout the initial phase of composting. The Gore technology employs the Aerated Static Pile (ASP) method of composting wherein airflow is induced under positive pressure through the compost pile to maintain aerobic conditions throughout the first 30-days of composting. Maintaining aerobic conditions optimizes the biology of the system, expedites the composting process and reduces the generation of objectionable odors.

GORE® Cover System will be placed over each of the Compost Phase 1 compost piles to retain and treat VOC's, manage moisture conditions within the compost pile, and minimize the production of compost leachate.

Truck traffic with feedstocks will come from I-90 and exit at the Elk Heights Exit then travel approximately 2 miles northwest on Thorp Prairie Road to the site entrance. Most compost product being delivered for use will travel 2 miles southeast then onto the I-90 on-ramp and generally east to agricultural users. Some product may travel west on I-90 and some product may be delivered by traveling southeast on the Thorp Prairie Road, but these would be minor amounts of product.

Restrooms facilities will be in the site office for use by site employees and portable sani-can type restrooms as needed in other areas of the site. An existing onsite residential septic system will be

modified as necessary and used for the on-site office restroom, gray water from the PacifiClean Elk Heights office, and lunch room facilities.

Constructed will be an office, tipping building, maintenance building, retaining and push walls, drainage, electrical, plumbing, Anaerobic Digester, fire water storage tank, site surfaces of concrete, asphalt, and gravel and miscellaneous incidental and support facilities for the operation.

Site access will be controlled by a gate at the entrance and a soil berm across the front.

Site surface may be used for parking and storage of mobile equipment and trailers for material hauling.

Specific engineering and related studies have been or will be conducted by a qualified third-party specialists as part of the CUP Application Process and Air Permit. These studies include the following: 1) traffic analysis; 2) noise; 3) air quality; 4) geotechnical; 5) wetlands and habitat; 5) archeological resources; 6) landscape view analysis; 7) Thorp Prairie Road Geotechnical; and 8) economic benefit analysis. Information from these studies will be incorporated in the site design. The final reports which have been completed are appended to this CUP Application.

A study has been performed on the Thorp Prairie Road to determine the pavement suitability to the added truck traffic. Field work for this study is complete and the report has not yet been completed.

PacifiClean Elk Heights is working with Washington Dept of Ecology to provide a complete Notice of Construction (NOC) for an Air Order of Approval with all necessary backup air emission reports. A consultant has been selected to assist with determining air emission quantities and concentrations and perform site air modeling. Site design and process operation will be based on these study results. Operation will not commence until all aspects of design and operation are approved by Ecology and an Air Order of Approval is issued by Ecology Central Region.

Attached to this application is a Draft Operation Plan which provides considerable more detail about the process. As the permitting process proceeds the Operation Plan will change to incorporate comments from Ecology, Health Department, Kittitas County, Local Citizens and others.