

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Waste and Underground Tank Management Bureau
Solid Waste Section
Metcalf Building
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ENVIRONMENTAL ASSESSMENT

DIVISION/SECTION:

Permitting and Compliance Division, Solid Waste Section.

PROJECT OR APPLICATION

This Environmental Assessment (EA) will document environmental issues related to the management of a small compost operation.

DESCRIPTION OF PROJECT – SUMMARY OF ANALYSIS:

The City of Livingston currently operates a small composting operation at the City's Transfer Station site. The City is proposing to relocate the current small compost operation to a remote location outside the City limits on property co-owned by the City. The main purpose of the compost facility is to keep the excess grass clippings and yard waste from entering the waste stream at the City of Livingston Transfer Station and being shipped to Cascade County for disposal. The facility will accept leaves, grass clippings, wood chips, branches, and brush for its composting operation.

Site Location:

The proposed site is located in the SE¼ of the SE¼ of Section 9, T2S, R10E, Park County, Montana (Figures 1 and 2). The facility will be located on approximately two acres of property owned by Ted Watson and the City of Livingston.

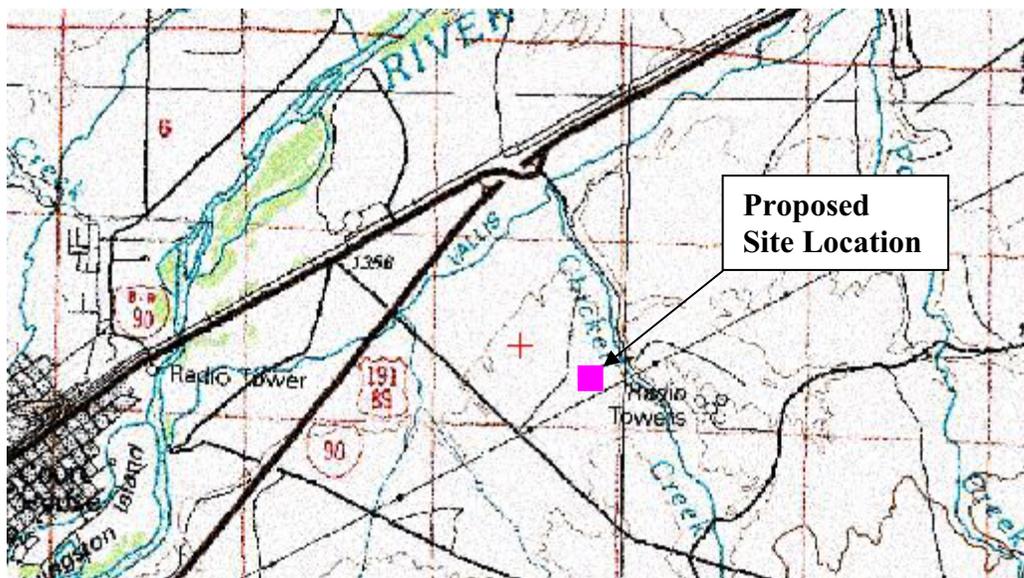


Figure 1: Topographic map showing approximate location of proposed Small Compost Facility relative to the City of Livingston.



Figure 2: Location of proposed Compost Facility relative to commercial and residential areas.

Site Geography, Geology, and Hydrogeology: The topography at the proposed site slopes gently to the northwest and is located on an alluvial gravel terrace deposit that lies approximately 50 to 90 feet above the elevation of the Yellowstone River. The alluvial terrace consists mainly of cobbles and pebbles with minor amounts of sand and silt. In this area, the alluvial gravel terrace deposit ranges from 10 to 30 feet thick. The average depth to groundwater in the area is 32 ft. The site lies outside the 100-year floodplain of the Yellowstone River.

Operation & Maintenance (O&M) Plan:

The facility will use leaves, grass clippings, wood chips, branches, and brush in the composting operation. The material will be collected at the City of Livingston's Transfer Station and stockpiled in compost holding pile area. City personnel will transport these compostable materials to the proposed composting location. The material will be shredded at the proposed composting site and composted in windrows approximately 4-6 feet high and 12-16 feet wide. The windrows will be approximately 10-20 feet apart. A loader will be used to turn and maintain the windrows. Water will be added to the windrows as needed with a sewer jet. Berms and ditches encircling the site will be used to control surface run-off and will be inspected annually. The finished material will be used in the City's parks and cemetery, and may also be made available to city residents.

Site Access and Control:

The site has 3-strand fencing surrounding the property. The site will not be open to the public. City crews will transport the compostable materials to the site and maintain the windrows.

Benefits and Purpose of Project:

The operation will continue to provide an alternative to the landfilling of green waste or the open burning of green wood wastes. The continued operation of the small compost operation at the new site will conserve landfill space, reduce airborne particulates generated during the open-burning process, and provide the community an alternative to the disposal of green wastes. The proposed operation will produce a useable product from a waste product. In addition, operation of the site will continue to save the community the added shipping cost and keep down solid waste disposal costs for the citizens.

Solid Waste Section Roles and Responsibilities:

The Department's Solid Waste Section is responsible for ensuring activities proposed under the Solid Waste Management Act are in compliance with the Act and with other State and Federal regulations. A license issued pursuant to these regulations do not confer any property rights to the licensee. Each licensee is responsible for obtaining any special use permits and complying with other agency, county, and local/city restrictions and requirements.

ALTERNATIVES CONSIDERED:

The Department considered two alternatives in the preparation of this EA.

Alternative A – No Action: Under the “no-action” alternative, the Department would not license the facility as proposed. As a result, the waste materials proposed for use in the composting process would be disposed of by landfilling or open-burning at a licensed facility.

Alternative B – License Issuance: License the facility as proposed by the applicant. Several factors support the viability of this option:

1. This will provide a long-term, cost effective option for the beneficial use of a waste otherwise destined for landfilling or open-burning;
2. The compost site will be constructed and operated on City-owned property that is fenced and gated such that access to the site is controlled; and,
3. All composting activities will be performed in accordance with an approved O&M Plan, so the effects on human health and the environment are minimized.

Based on the information provided and Department's research on the area surrounding the proposed composting site, the potential environmental impacts of Alternative B were evaluated for the proposed project. The results of the Department's evaluation are summarized in Tables I and II.

A listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by the agency or another government agency:

The proposed small composter operation must meet the minimum requirements of the Montana Solid Waste Management Act (SWMA) and administrative rules regulating solid waste management. In addition, the facility must comply with Air and Water Quality Acts and associated administrative rules as well as City and County ordinances. Obtaining the necessary approvals and remaining in compliance with these laws and regulations should minimize any adverse environmental effects. The required approvals are by the Department after appropriate review of complete submittals, unless specified otherwise.

The proposed small composter will operate under the jurisdiction of the SWMA and associated rules, as well as commitments made in the Department approved Operation and Maintenance Plan. The proposed facility will accept only yard waste generated by City crews and the general public.

Recommendation:

The Montana Department of Environmental Quality is requesting input from the public regarding this proposal. If there are no adverse public comments identifying environmental problems or significant impacts that have not been addressed in the EA, the Department intends to issue a license for the proposed City of Livingston small composter operation.

If an Environmental Impact Statement (EIS) is needed, and if appropriate, explain the reasons for preparing the EA:

The Department finds that an EIS is not needed. The nature and severity of impacts associated with the operation of the proposed facility in accordance with the controls noted above are anticipated to be minimal, if any.

If an EIS is not required, explain why the EA is an appropriate level of analysis:

The Department finds that construction and operation of the proposed small composter operation would not significantly affect the quality of the human environment. Potential impacts to surface water resources, terrestrial and aquatic life, vegetation, ground water and other aspects of the physical and human environment are expected to be minor. An Environmental Assessment is an adequate document to address potential impacts of the proposed small composter operation.

Other groups or agencies contacted or which may have over-lapping jurisdiction:

Montana Natural Heritage Program
Montana Historical Society State Historic Preservation Office
Montana Natural Resource Information Service

Individuals or groups contributing to this EA:

City of Livingston

EA prepared by:

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Date: April 17, 2009

TABLE 1. Potential Impacts on the Physical Environment
 [See appendix as indicated for a specific resource analysis]

| RESOURCE | LEVEL OF IMPACT | | | | | |
|---|-----------------|----------|-------|------|---------|----------|
| | Major | Moderate | Minor | None | Unknown | Appendix |
| 1. Terrestrial and Aquatic Life and Habitat | | | X | | | X |
| 2. Water Quality, Quantity, and Distribution | | | | X | | |
| 3. Geology and Soil Quality, Stability and Moisture | | | | X | | |
| 4. Vegetation Cover, Quantity and Quality | | | X | | | X |
| 5. Aesthetics | | | X | | | X |
| 6. Air Quality | | | X | | | X |
| 7. Unique, Endangered, Fragile or Limited Environmental Resources | | | | X | | |
| 8. Demands on Environmental Resources of Water, Air, and Energy | | | | X | | |
| 9. Historical and Archaeological Sites | | | | X | | |

CUMULATIVE AND SECONDARY IMPACTS — The cumulative impacts from the proposed composter operation are minor. The facility will only be used for the collection, processing, and generation of compost from yard waste generated by City crews and the general public. Current site conditions combined with engineering controls would eliminate any impact from leachate. There are no recognized secondary impacts.

TABLE 2. Potential Impacts on the Human Environment
 [See appendix as indicated for a specific resource analysis]

| RESOURCE | LEVEL OF IMPACT | | | | | |
|--|-----------------|----------|-------|------|---------|----------|
| | Major | Moderate | Minor | None | Unknown | Appendix |
| 1. Social Structure and Mores | | | | X | | |
| 2. Cultural Uniqueness and Diversity | | | | X | | |
| 3. Local and State Tax Base and Tax Revenue | | | | X | | |
| 4. Agricultural or Industrial Production | | | | X | | |
| 5. Human Health | | | | X | | |
| 6. Access to and Quality of Recreational and Wilderness Activities | | | | X | | |
| 7. Quantity and Distribution of Employment | | | | X | | |
| 8. Distribution of Population | | | | X | | |
| 9. Demands for Government Services | | | X | | | X |
| 10. Industrial and Commercial Activity | | | X | | | X |
| 11. Locally Adopted Environmental Plans and Goals | | | | X | | |

CUMULATIVE AND SECONDARY IMPACTS — The cumulative impacts from the proposed small composter operation are minor. The net potential impact of the proposed site on the human environment is minor. The parcel is currently zoned agricultural. The site is fenced to control access and illegal dumping. An increase in employment is not anticipated as the site would be managed by current City of Livingston employees. There are no recognized secondary impacts.

APPENDIX

EVALUATION OF POTENTIAL ENVIRONMENTAL IMPACTS RELATED TO THE PROPOSED FACILITY

This section evaluates potential environmental effects that may occur if the Transfer Station is licensed. **Bolded headings I and II** correspond to Tables 1 and 2. The number on each of the underlined resource headings corresponds to one of the resources listed in the tables. Generally, only those resources potentially affected by the proposal are discussed. If there is no effect on a resource, it may not be mentioned in the appendix.

Direct and indirect impacts are those effects that occur in or near the proposed project area and might extend over time. Often, the distinction between direct and indirect effects is difficult to define, thus in the following discussion, impact or effect means both types of effects.

Cumulative impacts are restricted to the net effects of the proposed project because no other known projects are proposed in this area. Secondary impacts are induced by a direct impact and occur at a later time or distance from the triggering action. No secondary impacts are expected.

I. POTENTIAL IMPACTS OF THE PROPOSED PROJECT ON THE PHYSICAL & BIOLOGICAL ENVIRONMENTS (see Table 1)

1.0 Terrestrial and Aquatic Life and Habitat

The Yellowstone River Corridor is located along the Yellowstone River in South Central Montana. The area has a rich diversity of aquatic, riverine, wetland and adjacent upland habitats along the main-stem of the Yellowstone River from the Wyoming border to the confluence with the Bighorn River. Adjacent uplands (within the 1-mile buffer) include benches, slopes, cliffs, rock outcrops and historic river-bottom that supports shrublands of sagebrush (all three subspecies of *Artemisia tridentate*), grasslands consisting of bluebunch wheatgrass, and woodlands of primarily ponderosa pine.

A search by the Montana Natural Heritage Program indicates 3 species of concern within a 1-mile buffer zone of the site; the Bald Eagle, the Yellowstone Cutthroat Trout and the Gray Wolf.

There are no wetlands or permanent surface water bodies located on the proposed site. Because no continuously active aquatic systems exist within the approximately two-acre composting facility, it is unlikely that there is any significant aquatic life or habitat anywhere on the site. Thus, any impacts to aquatic life and habitat due to the proposed facility will likely be very minor.

No terrestrial species currently inhabit the proposed two-acre composting facility and will not be displaced by the construction or operation at the site. The impacts due to the proposed compost facility will be minor.

4.0 Vegetation Cover, Quantity and Quality

Impacts of the construction and operation of the proposed small compost site for vegetation cover, quantity, and quality are expected to be minor. The area of the proposed project is in the Shield-Smith Valleys Level IV Ecoregion of the Northwestern Great Plains (Level III Ecoregion.). The natural vegetation at the site is composed predominantly of *Pseudoroegneria spicata* (bluebunch wheatgrass) community, with associated minor other perennial wheat grasses, fescues, and forbs. The proposed site will utilize approximately two-acres for active composting activities, so only a minor area will be disturbed for construction and operation of the site. Some minor areas that may be disturbed in the vicinity of the site will be allowed to re-vegetate through natural colonization.

5.0 Aesthetics

Impacts of the construction and operation of the proposed compost site are expected to be minor for aesthetics. The site is located outside the City limits in an area zoned for agricultural operations, and thus the operation is consistent with local zoning and current use of surrounding areas. The Operations and Maintenance Plan stipulates that the site be kept clean and tidy. The water will be applied to the compost pile as needed to expedite the composting process and to minimize odors and the generation of dust as the pile is turned.

6.0 Air Quality

Air quality impacts due to the construction and operation of the proposed compost site are expected to be minor. Fugitive dust resulting from the construction of the site will be controlled by watering traffic and working areas. Vehicle traffic during operation of the facility is not expected to create problematic dust since the site will be accessed infrequently. Vehicles will emit carbon monoxide and other air pollutants as combustion exhaust, however, the exhaust is not expected to have any significant adverse impact on air quality. Dust may be generated during the summer and early fall when long periods of low rainfall may cause the compost pile to be dry and dusty. However, the compost pile will be watered as needed to expedite the composting process and to minimize odors and the generation of dust as the pile is turned.

II. POTENTIAL IMPACTS OF THE PROPOSED PROJECT ON HUMAN ENVIRONMENT (see Table 2)

9.0 Demands for government services

The impact of the construction and operation of the proposed compost site on the demands for government services are anticipated to be minor. Department personnel must spend time reviewing the proposal and licensing the facility. The Department will perform inspections of the site during operation. However, the City's current small compost operation is inspected on at least an annual basis by Department personnel. During site construction, there will be slightly increased traffic on roads leading to the site, but the impact is expected to be minor because very little added wear and tear or traffic enforcement would result due to the few personnel involved in site construction. Additional demands for government services are not anticipated because the City is currently operating a small compost operation at the City's Transfer Station.

10. Industrial and Commercial Activity

Construction of the proposed facility may cause a minor increase in the industrial activity in the area during construction, due to the need for personnel and associated materials and machinery repairs. The net result of the construction of the facility on the industrial and commercial activity in the area is expected to be minor.