

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY  
Permitting and Compliance Division  
Solid Waste Program  
P.O. Box 200901  
1620 E. Sixth Avenue  
Helena, MT 59620-0901

**ENVIRONMENTAL ASSESSMENT (EA)**

**Division/Bureau:**

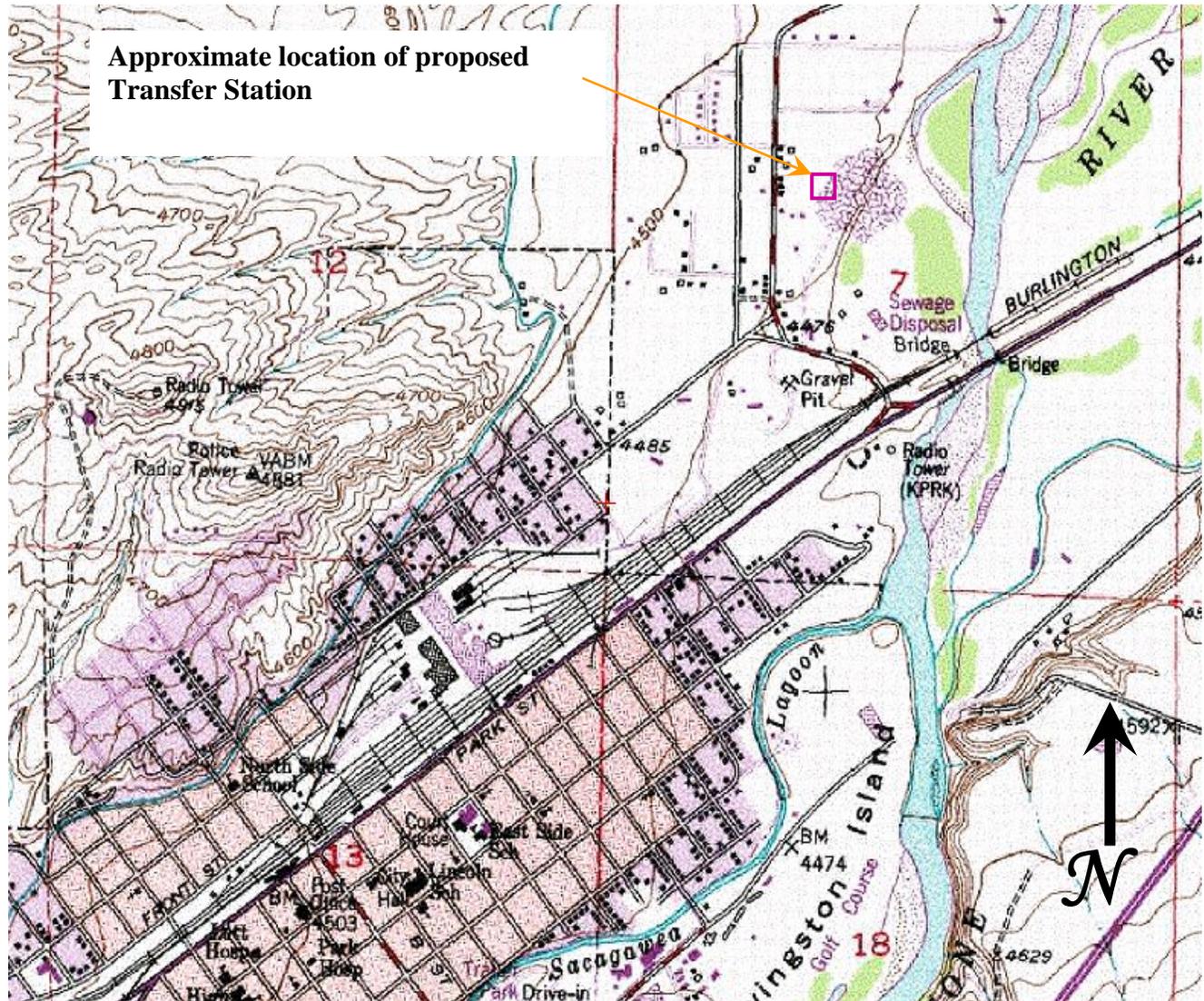
Permitting and Compliance Division, Waste and Underground Tank Management Bureau, Solid Waste Management Section.

**Project or Application:**

The City of Livingston (City) submitted a solid waste license application to the Montana Department of Environmental Quality (Department) for a Solid Waste Transfer Station. The City proposes to license approximately 10-acres of city-owned property for the construction and operation of the transfer station. This transfer station will replace the current practice of using City-owned haul trucks to transport municipal solid waste more than 70-miles to the nearest licensed Class II Landfill for disposal. Municipal solid waste will continue to be collected by City crews within the city limits, but will then be consolidated and loaded at the transfer station into trailers for transport to an off-site licensed Class II Landfill. The City also proposes to operate the glass pulverizer at this location and receive glass for processing from surrounding communities.

**Description of Project:**

Site Location: The new facility will be built on 10-acres located within an approximate 72-acre City-owned parcel on the northeast side of the City of Livingston (Figure 1). The site is located in the NW ¼ of the SE ¼ of the NW ¼ of Section 7, T2S, R10E, M.P.M. The 72-acre City-owned parcel is bounded on the south by Bennett Street, on the west by homes on Old Clyde Park Road, on the north by homes on Grandview Street, and on the east by the Yellowstone River. The City Shop complex and the City Waste Water Treatment Plant are located on the south end of the parcel, adjacent to Bennett Street (Figure 2). The 72-acre City-owned parcel containing the City Shop and Waste Water Treatment Plant is zoned for industrial use, while the areas to the north and west of the property are zoned for residential use.



**Figure 1:** Topographic map showing approximate location of proposed Transfer Station relative to the City of Livingston.

The northern portion of the 72-acre City-owned parcel was used historically by the City as a gravel pit. After gravel mining operations ceased, the historic gravel pit was used as a City landfill. This landfill was closed in the early-1970's, and remains as a grass-covered mound within the larger area that was excavated during gravel mining operations. The closed landfill will not be disturbed during the construction and operation of the proposed transfer station. The proposed transfer station will be located west of this closed landfill and historic gravel mining area near an area currently used for the City's yard waste composting operation. At the present time, the City is using the full northern portion of the site for the storage of City trucks and equipment and a variety of recycling operations, including the stockpiling and crushing of asphalt and concrete removed from City projects and the licensed City yard waste composting operation. The City's yard waste composting operation will be relocated to an area within the historic gravel mining operation that is covered with remilled and recompacted asphalt.



**Figure 2:** Location of proposed Transfer Station relative to City Shop, City Waste Water Treatment Facility, and residential areas.

Site Geography: The site of the proposed transfer station is located on an alluvial bench situated approximately 1,150-ft west and approximately 40-ft above the elevation of the Yellowstone River. The alluvial bench is about 3,500-ft wide and is situated between the Yellowstone River and the dissected foothills of the Bridger Mountains.

Current site topography is shown in Figure 3. With the exception of the closed depression that was created by the historic gravel mining operation, site elevations range from 4460-ft above mean sea level (msl) on the east side of the property, to approximately 4490-ft msl on the west side of the property. The site lies outside the 100-year floodplain of the Yellowstone River.

The proposed transfer station will be located adjacent to the western edge of the depression created from the historic gravel mining operation. The City will utilize the elevation difference on the western edge of the closed depression to facilitate the construction of the lower bay of the transfer station area where the transfer trailer will be located.



**Figure 3:** Existing site topography. \*note – North is to the left on the figure. (Source: CTA, Livingston Waste Transfer Station Construction Document, September, 2007)

#### Transfer Station Features:

*Building Design and Construction:* The transfer station will consist of a 60'x80' steel framed building with steel siding and steel roofing. The building will feature both an upper and lower bay area, a rooftop ventilation fan, and interior and exterior operational lighting. The upper bay will be used by the City haul trucks to deposit the solid waste into the waiting transfer trailer located in the lower bay. The lower bay will contain the transfer trailer and includes a truck scale to allow the transfer station operators to maximize the amount of waste in the trailer before it is hauled off-site to a licensed Class II landfill. The building will also house a glass pulverizer that is equipped with an exhaust fan and water misting system to reduce dust created from crushing operations.

Access to the facility will be provided via a gravel road that has been top-dressed with at least 2-inches of asphalt millings. City haul trucks will enter the upper tipping floor in the building from this gravel and asphalt road over a concrete apron and through one of

three main doors. The transfer trailer will enter the lower bay through the entrance door on the lower level. The access road to the lower entrance will consist of a gravel road top-dressed with asphalt millings and a concrete approach at the entrance and exit.

*Hot Load Pad:* The transfer station will also include a “hot load pad” to be used for the discharge, containment, and extinguishing of smoldering loads. This hot load pad will be located outside the building near the southeast edge of the entrance and will consist of a lined concrete pad surrounded by a 4-inch curb. The hot load pad will drain to a 500-gallon sump. The volume of liquids in this sump will be monitored after the hot load pad has been used and removed and disposed of at the City’s wastewater treatment plant using City-owned equipment.

*Leachate Control:* Any water that flows through or contacts municipal solid waste is considered leachate. This leachate will not be mixed with stormwater. The site will be graded to prevent the entry of stormwater into the facility. The interior of the transfer station building will be the only part of the facility in regular contact with municipal solid waste. Leachate may be generated in the building from wet trash, or from snow, ice or rain carried in on the City haul trucks dumping the waste. To preclude the potential for leachate ponding on the floor of the upper bay and to capture any leachate that is generated, the tipping floor of the upper bay will be sloped towards the steel-lined waste chute. This slope will allow leachate to drain through the chute to the lower bay where it will then be routed towards an underground leachate containment vault for collection.

The containment vault will be fully water-tight and constructed with an internal coating. The volume of leachate in the containment vault will be monitored and removed periodically via a separate underground 300-gallon leachate pumping well by a City owned vacuum truck. The total available storage in the two pre-cast concrete vaults is 1,800 gallons. All leachate removed from the containment chamber and sumps would be disposed of at the City’s wastewater treatment plant.

*Detention Ponds and Drainage Control:* As required by the City, conveyance structures are designed to accommodate peak flows from the 10-year, 6-hour storm and to ensure that no stormwater runoff will enter the transfer building from a 100-year, 24-hour storm event. The remainder of the site outside the transfer station building will be graded to promote drainage away from the building and its entrances. In addition, three stormwater detention ponds are designed to provide storage for a 100-year, 24-hour storm event without inundating the site access roads needed for operation of the transfer station. The lower bay of the transfer station will also be constructed two-feet above the expected 100-year surface water elevation. Because of the gravelly nature of the native soils, the current closed topographic basin encompassed by the historic gravel pit collects standing water only for short periods of time during frozen ground conditions or intense storms.

Because the construction activity may disturb an area larger than one acre, the City will submit an application to the Department for a General Permit for Storm Water Discharges associated with Construction Activity.

It is unlikely that the facility will ever discharge to surface waters. However, if the facility needed to discharge to surface waters, stormwater discharge permits will first be obtained from the Department and will include appropriate sampling prior to discharge and ongoing compliance with the permit.

#### Operation and Maintenance Plan:

*Personnel:* The City will be responsible for administration and operation of the transfer station. One full-time employee will manage the transfer station facility. The facility operator will operate the equipment, direct and oversee haul trucks for waste off-loading, monitor leachate collection and stormwater control systems, and maintain all roads and facility structures. No additional employees are expected to be needed to operate the proposed transfer station, however additional City employees would be utilized on an as needed basis. Employees are trained by continuing education courses on solid waste management conducted by the Department, the Montana Association of Counties (MACo), the Montana State University Extension Office, and taught by various solid-waste professionals including Solid Waste Program staff.

*Operating Hours:* The transfer station will be open from 7:00 a.m. to 4:00 p.m., Monday through Friday, and from 8:00 a.m. to noon on Saturdays. The facility will be closed on Sundays and City holidays. The facility will not be open for public access. Only City haul trucks will be bringing waste to the transfer station. Since there will be no public access to the transfer station, the City will provide four 300-gallon trash collection bins near the City Shop building for use by City residents on Mondays, Wednesdays, and Fridays from 1:00 p.m to 4:00 p.m. City personnel will then transport these bins to the transfer station for disposal on at least a weekly basis, at a minimum.

*Site Access:* The proposed transfer station will be located on the northern portion of the City's 72-acre parcel, north of the City Shop, including the City equipment and vehicle storage area.

Access to the City property will be from Bennett Street. Bennett Street is a Montana Department of Transportation Alternate Route. Bennett Street was designed and built to accommodate heavy vehicle traffic to nearby industrial facilities. Currently all traffic to the City Utility Shop, including all solid waste trucks and utility maintenance trucks and equipment use this street and access point without difficulty.

Entrance to the transfer station will be through the existing gated and fenced City Shop area. All access roads to the transfer station within the fenced perimeter will be top-dressed with asphalt millings and will be maintained by the City. The existing roads will be re-aligned as needed to provide appropriate grading and adequate turning clearances for the City haul trucks and waste transfer trailers. In addition, appropriate signage will be installed on internal facility roads.

The site will not be open for public drop-offs, but will be accessed only by City waste collection vehicles. The gate will be closed and locked when the site is not open for waste off-loading and/or transfer activities.

*Acceptable Wastes:* Household and commercial municipal solid waste and construction and demolition debris will be accepted at the facility. Glass will be accepted for crushing and recycling. Refrigerators and other Freon-containing appliances will be accepted only if the proper documentation certifying complete Freon removal is provided.

City personnel operating the facility will visually screen the waste as it is deposited on the tipping floor. City personnel will also be trained to recognize regulated hazardous waste and PCB wastes.

*Special and Hazardous Wastes:* The facility will not accept hazardous waste and will implement a waste screening program that includes random load inspections to ensure compliance with rules regarding hazardous waste, Freon removal, hot loads, liquid wastes and other prohibited materials. Unacceptable wastes such as waste containing bulk or non-containerized liquids, sewage sludge and/or septage, waste regulated as radioactive, waste containing polychlorinated biphenyls (PCBs) or PCB-contaminated materials, large volumes of bulky construction, demolition and land-clearing waste, burn barrels, dirt, street sweepings and concrete and asphalt. Any unacceptable wastes would be segregated, and transferred to an appropriate licensed facility for disposal.

*Daily Transfer Station Operations:* City haul trucks will enter the upper bay of the transfer facility and discharge their waste onto the tipping floor. This activity will be directed by the facility operator. After waste is tipped onto the floor, the operator will visually inspect the waste. Using a skid steer loader, the operator will push the waste through the chute to the transfer trailer positioned in the lower bay. If necessary, the tipping floor and additional transport trailers will store multiple days of waste in the event of road closures, inclement weather, equipment breakdown or other emergencies that preclude the transport of the transfer trailer off-site for disposal. Waste containing transport trailers will be removed as needed, generally every 24 hours, barring unforeseen weather emergencies or road closures.

The facility operator will be responsible for maintenance of the tipping floor, chutes and transfer trailer bays. A city sweeper-vacuum truck will be used to clean the tipping floor. All wash water will be captured by the leachate containment system. The leachate tanks and sumps will be monitored by the facility operator and pumped using a City vacuum truck, as needed. The leachate will then be transported to the City Wastewater Treatment Plant for treatment and disposal.

The transfer station building will also house a glass pulverizer to make glass cullet from waste glass. The pulverizer will be equipped with a water misting system to reduce the amount of dust generated from crushing activities. There will also be an exhaust fan in the wall of the pulverizer bay.

*Litter Control:* Problems with litter will be minimal because all waste handling activities will occur inside the transfer station building. All outgoing loads will be covered. The transfer station building has three access doors, each equipped with an overhead door that can be closed during high wind events. In addition, the site is fenced to collect any

fugitive litter that escapes from the building. Site litter will be picked up by the facility operator as needed.

*Severe Weather Operation:* All solid waste transfer activities will be carried out in the building. Therefore, severe weather will pose few problems. Excess moisture from rain or snow on vehicles will be collected and routed to the leachate containment system for collection by a City vacuum truck and transported and disposed of at the City Wastewater Treatment Plant. Site roads would be plowed, as needed, by City road crews. Each vehicle entry door is equipped with an overhead door that will be closed during severe weather events.

*Contingency Planning:* All hot loads that are detected will be directed to the hot load pad, where the load will be dumped and spread out, then saturated with water until it was confirmed that no burning material remained. Runoff from the hot load pad is directed into a sump, which will be pumped and transported to the City Wastewater Treatment Plant for treatment and disposal. The City Fire Department will provide general fire protection.

The City will notify the Department if non-approved waste is discovered. If unacceptable wastes are found, they will be segregated and properly disposed. The Livingston Emergency Services will be able to respond to all fire, medical or hazardous waste spills or leaks that might occur. Site employees will be provided with appropriate training and safety equipment to provide on-site response in advance of Emergency Services arrival.

### **Benefits and Purpose of the Proposal**

The objective of the proposal is to provide cost effective solid waste disposal for residents of the City of Livingston. Construction of a solid waste Transfer Station appears to be in the best interest of the residents because it is generally more cost effective and efficient than the current disposal method. Currently, municipal solid waste from City of Livingston residents is collected by City haul trucks and taken to a temporary City-operated container site. The containers are then removed and hauled to an off-site licensed Class II landfill. However, container sites are limited to a total annual volume of 3,000 tons or less per year of waste before they are subject to regulation by the Department. In addition, container sites may enhance uncontrolled blowing litter and disposition of prohibited wastes because they are often unmanned sites with uncontrolled access. Since the City collects an average of 5,600 tons of waste per year from City residents, the City would be required to operate an additional container site to be excluded from regulation. Therefore, the construction and operation of the proposed transfer station is necessary for the City to comply with the laws and rules of Montana governing solid waste management and provide an environmentally safe means of waste disposal for residents.

**Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider.**

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

Alternative A: Not approve the license for the transfer station — the “no action alternative”. If this alternative were chosen, the City of Livingston would have to either:

1. Site and operate additional container sites for the collection of wastes generated by City residents;
2. Utilize the Park County Transfer Station at an additional cost to City residents;
3. Invest additional time and money to locate, study and license another site suitable for a Class II landfill in the Livingston area.

Alternative B: Approve the transfer station license application as proposed by the City of Livingston. Several factors support the viability of this option:

1. This will provide a long-term, cost effective option for the disposal of solid waste for the City of Livingston;
2. The Transfer Station will be constructed and operated on City-owned property adjacent to current City structures and operational areas that are fenced and gated such that access to the site is controlled;
3. All waste transfer activities will occur inside a building, so the effects on human health and the environment are minimized; and,
3. There is an on-going need for economical disposal services for City residents.

Based on the information provided and Department research on the area surrounding the proposed transfer station 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 discussion of site-specific environmental impacts for Alternative B is provided in the Appendix.

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

The proposed transfer station must meet the minimum requirements of the Montana Solid Waste Management Act 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 transfer station facility will operate under the guidelines in the approved Operations and Maintenance Plan, will only accept Group II, III, and IV wastes; will not accept bulk

liquids; and will have all future design and operations changes receive prior approval from the Department.

If the facility is licensed, the licensee (City of Livingston) shall meet the following license conditions:

- (1) Collection and removal of leachate by the onsite leachate collection sumps.
- (2) No release of leachate to the storm-water detention pond or State waters unless approved and permitted by the Department.
- (3) No release of storm water from the detention ponds, except for approved on-site irrigation, without the appropriate permit from the Department.
- (4) No construction or disturbance of areas more than one acre without the appropriate permit from the Department.
- (5) Compliance with appropriate provisions of the federal Air and Clean Water Acts and associated regulations, as well as applicable City and County Ordinances.

**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 Class II Transfer Station facility.

**If an EIS is needed, and if appropriate, explain the reasons for preparing the EA**

The Department finds that an Environmental Impact Statement is not needed.

**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 City of Livingston Class II Transfer Station 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 Transfer Station.

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

- US Army Corps of Engineers
- US Fish and Wildlife Services
- Montana Department of Environmental Quality, CECRA/ CERCLA
- Montana Natural Heritage Program
- Montana Historical Society State Historic Preservation Office
- City/County Floodplain Administrator
- Park County Conservation District

**Individuals or groups contributing to this EA:**

CTA-Nelson Engineering, Livingston, MT  
Hyalite Environmental, LLP, Bozeman, MT  
Tetra Tech, Inc., Helena, MT

**EA prepared by:**

Mary Louise Hendrickson, Tim Stepp, Joseph Blaine - DEQ Permitting and Compliance  
Division, Waste and Underground Tank Management Bureau, Solid Waste Program

**Date**

May 15, 2008

**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		
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 Class II Solid Waste Transfer Station are minor. As a transfer station, the facility will only be used for the collection and consolidation of solid waste for transport to an off-site licensed Class II landfill. 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			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			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 Class II Solid Waste Transfer Station are minor. The net potential impact of the proposed transfer station on the human environment is minor. The site is currently zoned industrial with residential zoning on the north and west side of the City-owned parcel. The site is fenced and gated to control access and illegal dumping and all operations will be conducted in an enclosed building, so impacts from blowing litter and debris are minimized. 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 ON THE PHYSICAL ENVIRONMENT**

##### 4.0 Vegetation Cover, Quantity and Quality

Impacts of the construction and operation of the proposed transfer station 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 consists of sagebrush steppe and foothills prairie. Many areas in the vicinity of the transfer station are relatively barren because of the current activities on-site. However, the vegetation at the site is composed predominantly of *Pseudoroegneria spicata* (bluebunch wheatgrass) community, with associated minor other perennial wheat grasses, fescues, and forbs. Following final construction and grading of the transfer station and associated roads, areas adjacent to the facility, such as those adjacent to the upper access apron, shoulders and berms of the new roads, including the surface water detention areas would be planted with drought tolerant grasses. The barren areas in the vicinity of the transfer station, including portions of the unreclaimed gravel pit, will be covered with topsoil, graded and vegetated. Some minor areas that have been disturbed in the vicinity of the transfer station will be allowed to re-vegetate through natural colonization. The City will continue to control noxious weeds on the City property.

## 5.0 Aesthetics

Impacts of the construction and operation of the proposed transfer station are expected to be minor for aesthetics. The transfer station consists of a steel building, similar to those at the City Shop and other industrial facilities on Bennett and Gallatin Streets. The site design, including the relocation of the yard-waste compost stockpiles, the construction of the lower transport bay below grade in the excavated portion of the gravel pit, and the plan to construct an earthen berm along the west property boundary, will minimize the visual impact of the facility to the surrounding area. Asphalt millings will be used to cover the gravel roads to the transfer station to minimize fugitive dust due to haul traffic. The Operations and Maintenance Plan stipulates that the facility be kept clean and tidy. Because waste management activities will occur inside the building, odors are not anticipated. Litter will not be allowed to accumulate at or around the facility. Lighting at the facility will be directed downwards to preserve night sky darkness to the maximum extent practicable.

## 6.0 Air Quality

Air quality impacts due to the construction and operation of the proposed transfer station are expected to be minor. Fugitive dust resulting from the construction of the transfer station will be controlled by watering traffic and working areas. Vehicle traffic during operation of the facility are not expected to create problematic dust since access roads will be covered with asphalt millings. 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 waste to be dry and dusty. However, appropriately timed washing and sweeping of the tipping floor will control dust during the dry periods. The building ventilation system will be used to purge dust from the building and disperse it into the air. The glass pulverizer will be equipped with a water-misting system to control dust from the glass pulverizing process.

The short-term storage of loaded trailers could generate odor that could be detected downwind of the facility. The worst odors may likely occur with warmer temperatures, longer residence time at the facility, and low wind conditions. The Livingston valley is well known for frequent strong winds, which will effectively disperse most odors. Odor impacts will be greatest at the transfer trailer staging area, and decrease with increased distances from the source. Odors resulting from the storage of the transfer trailers will be minimized by limiting the time that waste is on-site. Therefore, all transfer trailers will be removed from the facility on a first-in/first-out rotation. Barring emergencies, loaded trailers will not be kept at the facility more than 24 hours. The tipping floor and transfer trailer loading areas will be swept daily, and washed and disinfected as needed, to prevent the build-up of odors.

## **II. POTENTIAL IMPACTS ON HUMAN ENVIRONMENT**

### **3.0 Local and state tax base and tax revenue**

Construction of the proposed facility may have a minor positive effect on the local tax base because of additional jobs created during construction. Although there is no anticipated change in the number of City personnel needed to operate the facility, there may be a net increase in employment related to the transport of the waste transfer trailers to an off-site Class II landfill.

### **7.0 Quantity and distribution of employment**

As concluded in the discussion concerning local and state tax bases and revenues, there is potential for minor positive impact to employment due to the short-term creation of jobs during facility construction, and potential additional employment created related to transport of the waste transfer trailers to an off-site Class II landfill.

### **9.0 Demands for government services**

The impact of the construction and operation of the proposed transfer station 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 would perform inspections of the site during construction and operation. During the construction phases, there would be slightly increased traffic on roads leading to the landfill, but the impact is expected to be minor because very little added wear and tear or traffic enforcement would result due to the few contractors briefly involved over several weeks. The City Waste Water Treatment Plant will have to treat the water collected from the leachate collection sumps.

### **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 contractors and associated materials and machinery repairs. The site is currently being used for the storage of City vehicles and equipment. The net result of the construction of the facility on the industrial and commercial activity in the area is expected to be minor.

## References

Berg, Richard B., David A. Lopez and Jeffrey D. Lonn, 2000, "Geologic Map of the Livingston 30' x 60' Quadrangle, South-Central Montana": MT Bur. of Mines and Geol. Open File Report MBMG 406.

Ford, Gary L., C. Lee Maynard, John A Nesser, Deborah S. Page-Dumroese, 1997, "Landtype Associations of the Northern Region, A First Approximation": USDA Forest Service [http://nris.state.mt.us/nrcs/soils/hta/text/chapt1\\_2.pdf](http://nris.state.mt.us/nrcs/soils/hta/text/chapt1_2.pdf).

Hyalite Environmental, LLP, 2003. "Hazardous Materials and Water Quality Report, Yellowstone Bridge – Livingston NE, BR11-1(44)56; CN4790," two volumes, prepared for David Evans and Associates, Inc. for the Montana Department of Transportation, May 2003.

Hyalite Environmental, LLP, 2005. "Environmental Assessment, Wastewater Collection and Treatment Plant Improvements, City of Livingston, Park County, MT," prepared for City of Livingston for US Army Corps of Engineers, August, 2005.

Lageson, Dave R., 1989, "Reactivation of a Proterozoic Continental Margin, Bridger Range, Southwestern Montana" in D.E. French and R. F. Brabb, eds., Geologic Resources of Montana: Montana Geol. Soc. Field Conf. Guidebook – Montana Centennial Edition, v. 1, pp. 279-298.

McDonald, Catherine, David A. Lopez, Richard B. Berg, and Richard I. Gibson, 2004, "Preliminary Geologic Map of the Ringling 30' x 60' Quadrangle, Central Montana": MT Bur. of Mines and Geol. Open File Report MBMG 511.

Montana Department of Environmental Quality, 2008. "Burlington Northern Livingston Shop Complex CECRA Facility Page, Supporting Documents and Reports," <http://deq.mt.gov/StateSuperfund/BNLivingston.asp#Documents>

Natural Resource Conservation Service, 2007. Natural Resource Conservation Service. "Hydric Soils for MT669 (Park County, MT)." Retrieved February 2008 from <http://www.mt.nrcs.usda.gov/soils/mtsoils/hydric/>

Natural Resource Information System Montana State Library, 2008. "Online Interactive Map Builder." Retrieved from <http://nris.state.mt.us/mapper/> February 2008.

Nesser, John A., Gary L. Ford, C. Lee Maynard and Deborah S. Page-Dumroese, 1997, "Ecological Units of the northern Region: Subsections": Gen. Tech. Rep. INGGTR- 369, US Dept. of Agriculture, Forest Service, Intermountain Research Station, Ogden, UT, 88 pp.

1972, "Cretaceous and Early Tertiary Depositional and Tectonic History of the Livingston Area, Southwestern Montana": US Geol. Survey Professional Paper 526-C, 120 pp.

Skipp, Betty, D.R. Lageson and W.J. McMannis, 1999, "Geologic Map of the Sedan Quadrangle, Gallatin and Park Counties, Montana": US Geol. Survey, Geol Investigations Series I-2634, Version 2.1.

US Army Corps of Engineers, 1987. "Corps of Engineers Wetlands Delineation Manual."

US Army Corps of Engineers Technical Report Y-87-1: Vicksburg, MS.

US Geological Survey, 1981. "Livingston, Montana" 7.5 Minute Topographic Quadrangle Map (1951, photorevised 1981).