

City of Scottsbluff, Nebraska

Monday, February 3, 2020

Regular Meeting

Item Reports11

Council to receive update, discuss and consider action on moving forward with siting a regional landfill.

Staff Contact: Nathan Johnson, City Manager



memorandum

To: City of Gering City Council
City of Scottsbluff City Council
From: Travis Evans, P.E., Trihydro
cc: Annie Folck, P.E., Mark Bohl
Date: December 12, 2019
Re: Western Nebraska Regional Landfill Progress Update

The following information is provided to update the Scottsbluff and Gering City Councils on the status of Step 1 of the Western Nebraska Regional Landfill (WNRLF) Project, managed by Trihydro Corporation (Trihydro). The following is a summary of activities and tasks completed per the Cities' request under Work Order Number 18-134WO-E.

Step 1 – WNRLF / Trihydro Project No. 54Q-001-001

The following sections provide a summary of work conducted to date by Trihydro for the WNRLF project:

- **Kickoff Meeting** – Trihydro met with both Cities on October 5, 2018 to discuss past siting efforts; proposed siting efforts; project team communications; public communication; and project approach.
- **Public Outreach** – Our team created a project website – www.wnrlf.com. The website provides a project overview, frequently asked questions (FAQ), and a link to email questions to the Trihydro team. In October 2018, a press release was issued announcing that the Cities were seeking a landfill site and providing a link to the project website. Links to the project website were also added to each City's waste management services home page. The project website has received more than 300 views with at least 170 unique users. A subsequent press release was issued to local media outlets and added to the project website on August 15, 2019. The second press release's intent was to serve as a call for landowners to contact Trihydro if they had interest in selling property to the Cities for the WNRLF.
- **Location Standards** - After the kickoff meeting, Trihydro worked in conjunction with the Cities to develop location standards which would aid in locating a site compliant with Nebraska Department of Environment and Energy (NDEE), Resource Conservation and Recovery Act (RCRA) Subtitle D, and local requirements. Lands located within a 45-mile radius of the Cities in Scotts Bluff, Morrill, Banner, and Sioux Counties were evaluated. Location standards were developed to address the following site characteristics:
 - Surface Water
 - Distance from State, Interstate, and Federal Highways
 - Airport Proximity
 - Wetlands



- Unstable Areas
- Fault Areas
- Current and Projected Uses of Water Resources
- Soils
- Soil and Bedrock Depth (Surficial Geology)
- Zoning
- Dwellings
- Land Use

In addition, a preliminary desktop threatened and endangered species survey was conducted to determine if there were specialized ecosystems that needed to be addressed in development of the location standards. Land areas were not specifically eliminated based on potential habitat but will be examined further with site-specific evaluation of potential landfill sites.

- **GIS Mapping** – After identifying the location standards, geographic information system (GIS) mapping was conducted. Maps were generated for each of the counties which depicted land ownership parcels overlain with the location standards and applicable buffer zones. The maps were utilized to identify potential parcels and landowners to potentially approach regarding a land sale. At this time, it was determined that suitable lands were not present in Scotts Bluff County. Trihydro also developed a website for each of the City's use which provides all land parcel information and location standard mapping.
- **County Commissioner Meetings** – On April 30, 2019, Trihydro and representatives from the Cities met with the Chairmen of the Banner, Morrill, and Sioux Counties' Commissions. An overview of the project was presented to each commissioner, and discussion was held regarding potential landowners who may be interested in discussing a land sale.
- **Landowner Meetings** – At the City's direction, Trihydro prepared a contact list of landowners and potential properties. The Cities reached out to the landowners to ask if they would be interested in entertaining the possibility of selling land for the WNRLF project. One landowner expressed interest, and Trihydro and City representatives met with the landowner on July 17, 2019. During the meeting, Trihydro staff presented information related to the permitting, design, and operations of a new landfill. Additionally, our staff prepared a general overview of landfill site investigation activities which would be conducted prior to the purchase of a property.
- **South Morrill Group Meeting** – On July 25th, Trihydro and representatives from both Cities met with the South Morrill Group who opposed siting the landfill south of Morrill, NE. City representatives and Trihydro explained the site was no longer under consideration and provided an overview of the permitting, design, and operations of the new landfill.



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- **Potential Sites Evaluated** – The project team has evaluated four potential landfill sites to date. The site identification and assessment phase is still on-going.
- **Conceptual Design** – During a meeting held on October 21st, Trihydro was asked to prepare conceptual landfill designs and associated cost estimates. Additionally, we were asked to evaluate waste transfer alternatives.
- **Gering Landfill Feasibility** - The existing City of Gering landfill is anticipated to reach capacity in September 2026. The City does own 53 acres adjacent to the existing landfill property, but the land is not included in the current operating permit. Additionally, the land owned by the City is in the Scotts Bluff National Monument Historic Site Zoning District. Amending the current permit to include the existing landfill would be challenging due to depth to groundwater; proximity of residences; current methane migration issues; and site zoning.
- **Project Schedule** - Due to challenges associated with finding interested landowners who own sites suitable for landfill development, the project schedule has lengthened, but is within the timeline necessary to develop a facility to replace the Gering Landfill when it reaches capacity. A revised schedule is provided as Attachment A.

Should you have any questions or require additional information please feel free to contact me via phone at (307) 461-6100 or via email at tevans@trihydro.com.

Sincerely,

Travis Evans, P.E.
Project Engineer

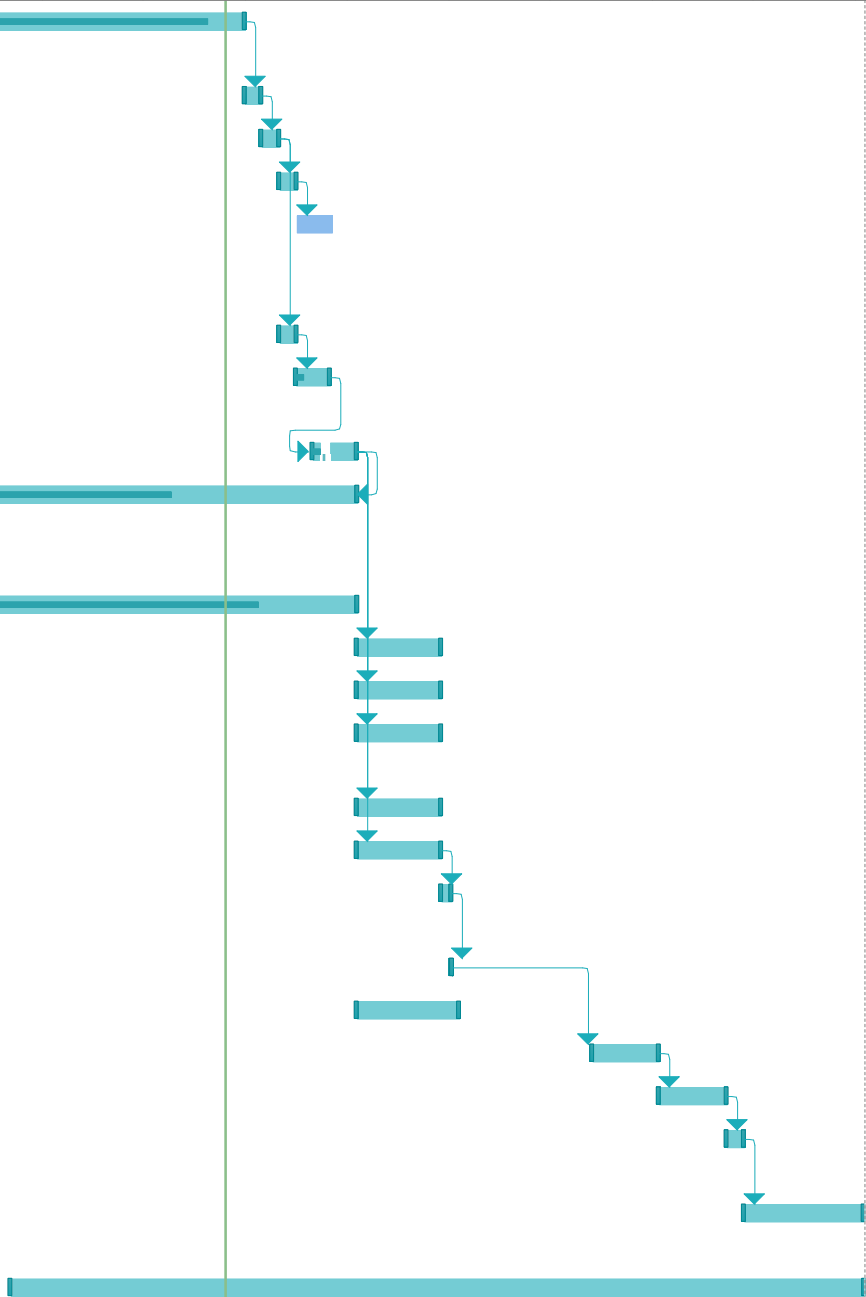
Marge Bedesssem, P.E. Ph.D.
Project Manager

Attachment

ATTACHMENT A

PROJECT SCHEDULE

ID	Step Number	Step Name	Task Numbe	Task Name	Duration	Start	Finish	% Complete	2018		2019		2020		2021		2022		2023			
									H1	H2	H1	H2	H1	H2	H1	H2	H1	H2				
1	STEP 1	SITE ASSESSMENT/INVESTIGATION	Task 1	Preliminary Geotechnical Investigations	323 days	Fri 10/5/18	Tue 12/31/19	85%														
2	STEP 1	SITE ASSESSMENT/INVESTIGATION	Task 2	Site Survey	22 days	Wed 1/1/20	Thu 1/30/20	0%														
3	STEP 1	SITE ASSESSMENT/INVESTIGATION	Task 3	Geotechnical Work	22 days	Fri 1/31/20	Mon 3/2/20	0%														
4	STEP 1	SITE ASSESSMENT/INVESTIGATION	Task 4	Surface Drainage Analysis	23 days	Tue 3/3/20	Thu 4/2/20	0%														
5	STEP 1	SITE ASSESSMENT/INVESTIGATION	Task 5	Archaeological Survey and Threatened and Endangered Species	45 days	Fri 4/3/20	Thu 6/4/20	0%														
6	STEP 1	SITE ASSESSMENT/INVESTIGATION	Task 6	Seismic Impact Zones	23 days	Tue 3/3/20	Thu 4/2/20	0%														
7	STEP 1	SITE ASSESSMENT/INVESTIGATION	Task 7	Preliminary Conceptual Design	43 days	Thu 4/2/20	Mon 6/1/20	20%														
8	STEP 1	SITE ASSESSMENT/INVESTIGATION	Task 8	Preliminary Cost Estimate	43 days	Fri 5/1/20	Mon 7/20/20	20%														
9	STEP 1	SITE ASSESSMENT/INVESTIGATION	Task 9	Preliminary Schedule using MS Project with Gantt Chart	467 days	Fri 10/5/18	Mon 7/20/20	49%														
10	STEP 1	SITE ASSESSMENT/INVESTIGATION	Task 10	Meetings	467 days	Fri 10/5/18	Mon 7/20/20	73%														
11	STEP 2	PERMIT APPLICATION DEVELOPMENT	Task 1	Permit Drawings	109 days	Mon 7/20/20	Fri 12/18/20	0%														
12	STEP 2	PERMIT APPLICATION DEVELOPMENT	Task 2	Modeling and Analysis	109 days	Mon 7/20/20	Fri 12/18/20	0%														
13	STEP 2	PERMIT APPLICATION DEVELOPMENT	Task 3	Groundwater and Gas Monitoring Plan	109 days	Mon 7/20/20	Fri 12/18/20	0%														
14	STEP 2	PERMIT APPLICATION DEVELOPMENT	Task 4	Closure Plan	109 days	Mon 7/20/20	Fri 12/18/20	0%														
15	STEP 2	PERMIT APPLICATION DEVELOPMENT	Task 5	Operations Plan	109 days	Mon 7/20/20	Fri 12/18/20	0%														
16	STEP 2	PERMIT APPLICATION DEVELOPMENT	Task 6	Assemble Permit Application Documents	13 days	Fri 12/18/20	Wed 1/6/21	0%														
17	STEP 2	PERMIT APPLICATION DEVELOPMENT	Task 7	Public Hearings	1 day	Wed 1/6/21	Thu 1/7/21	0%														
18	STEP 2	PERMIT APPLICATION DEVELOPMENT	Task 8	Meetings	132 days	Mon 7/20/20	Tue 1/19/21	0%														
19	STEP 3	FINAL DESIGN AND CONSTRUCTION	Task 1	Final Design	86 days	Thu 9/16/21	Fri 1/14/22	0%														
20	STEP 3	FINAL DESIGN AND CONSTRUCTION	Task 2	Final Cost Estimate	86 days	Fri 1/14/22	Mon 5/16/22	0%														
21	STEP 3	FINAL DESIGN AND CONSTRUCTION	Task 3	Construction Bidding Services	23 days	Mon 5/16/22	Thu 6/16/22	0%														
22	STEP 3	FINAL DESIGN AND CONSTRUCTION	Task 4	Construction Inspection Services	153 days	Thu 6/16/22	Tue 1/17/23	0%														
23	STEP 4	PROJECT SCHEDULE	Task 1	Project Schedule	1097 days	Mon 11/5/18	Tue 1/17/23	0%														



Project: 201911_ScheduleUpda
Date: Tue 11/26/19

Task

Split

Milestone

Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Deadline

Baseline

Baseline Milestone

Baseline Summary

Progress

Manual Progress

Slippage

Western Nebraska Regional Landfill

Solid Waste Cost Analysis Summary

Estimated Construction Costs for New Facility

\$8.5 Million

See Section 2 of report for assumptions utilized in determining estimated construction costs. This does not include the cost of property purchase.

Estimated Tipping Fees

The current tipping fee at the existing Gering Landfill is \$48.87. The following are estimated tipping fees based off of the above estimated construction costs, as well as costs for property purchase, and operations and maintenance.

Scottsbluff/Gering Landfill

If the new landfill serves the same communities that are currently served by the existing Gering Landfill, with a waste stream of about 34,000 tons per year*, the following are the estimated tipping fees for the new facility:

Years 1-20	\$35
Years 21-30	\$17.69
Average Tipping fee for years 1-30	\$29.23

Regional Landfill

If the amount of waste received increases to 40,000 tons per year* (assuming some of the surrounding communities choose to bring their trash to the new regional facility), the following are the estimated tipping fees for the new facility:

Years 1-20	\$29.48
Years 21-30	\$14.90
Average Tipping fee for years 1-30	\$24.62

*Calculations assume a 1% increase in waste year-over-year to account for potential growth. See Section 3 for more detail on how the estimated tipping fees were calculated.

Other Recommendations

The report also determined that direct haul is the most cost-efficient method of transporting waste to the landfill facility, meaning that a separate transfer station would not be needed. This will save on capital and operational costs