



September 15, 2020

Jim Junker  
407 172<sup>nd</sup> Ave  
Somerset, WI. 54025

Re: Landfill maintenance and upgrades request  
Junker's Landfill, Hudson, WI  
BRRTS# 023-0000

Mr. Junker,

I recently visited the Junker landfill to inspect the new gravel installed and observe sampling of the monitoring well system. I identified several maintenance issues that need immediate attention and several others that will need attention within the next year. It is of the utmost importance that the landfill and all its systems remain operable to ensure release of leachate are not permitted. I asked Cedar Corp. to give me estimates of these upgrades and feasibility to assist with prioritizing and scheduling. I've included photos that document the need for maintenance and upgrades.

Within the next 3-6 months:

1. Monitoring Wells- estimate costs \$21,500
  - a. Steel outer casings need replacement and new locks on LHW, MW-6, GMW-18.
  - b. Several other wells need to be painted (prior to snowfall)
  - c. MW-3 is bent at 40' below ground surface and should be attempted to be fixed as we are not able to sample it currently
  - d. Monitoring well nest should be installed. Private wells should not be used as monitoring points and a monitoring well nest should be used to define the down gradient plume boundaries.
2. Replacement of Leachate Booster Blower- estimate costs \$3,295
  - a. Installation of a new GAST R5125Q-50 2hp blower with replacement of fittings that have weathered. The current blower is nearing the end of its life cycle and is failing
3. Installation of simple telemetry system and upgrading and simplifying the control panels- estimate costs \$6,660
  - a. Omni Beacon – with one year of cell service and required control panel components
  - b. Removal of Flare Panel and the unnecessary cross connections from unused components which are hard to troubleshoot and have been the source of system shutdowns
  - c. Electrical upgrades
4. Replacement of Flare Insulation and removal of wood panels that have deteriorated and are no longer needed. The current insulation system has been piecemealed for many years.
  - a. Insulation Replacement on discharge piping- estimate costs \$1,995

5. Replacement of Leachate Tank Float Assembly - The floats are old and need to be replaced- They failed during this last heavy rain event likely due to their age- estimate costs \$755

**Total recommended maintenance and upgrades which includes all labor, travel, coordination and materials -is \$23,955 and should be completed as soon as possible.**

Within the next 6-12 months:

1. Flare system; no longer in use and deteriorating. The old flare stack is currently being used to vent methane. This should be removed and re-piped with a new stack system. A smaller more efficient venting/discharge system could be installed as flaring is no longer needed at the site. Estimate cost \$25,000
2. Landfill valving systems located on the cap are aging. It is my understanding and observations that valves/fittings are being replaced as they fail but a total re-piping of the valve heads and replacement of the steel covers should be considered. In addition, several gate valves from the original construction need adjustment and have not been accessible since for many years. These should be repaired and evaluated to determine if they are functional and or even needed. Estimate costs \$17,500
3. Leachate tank riser/manhole evaluation should be completed as they tank was installed in 1992 and may be at the end of its life cycle. The failure of this tank system would be unacceptable as a release of concentrated leachate to the groundwater would not only be a threat to the environment but to all citizens downgradient. Estimate costs \$45,000 for replacement of the tank system

Within 12-24 months:

1. Leachate recovery is currently being complete using four of the leachate recovery wells. This appears to be adequately recovering leachate in the area of the landfill with higher leachate levels as indicated by head well measurements. Note that these are the only functional recovery wells currently. However, these age out and require replacement every 5-10 years. The current pumps are at the 5-year mark of their life cycle. As leachate management continues the installation of new leachate recovery wells requires evaluation and possible replacement. As the landfill continues to settle recovery wells have shifted and will likely at some point fail to a point that they can no longer be used. Several older wells that were used in the past are no longer able to be pumped or do not produce leachate in a volume that can be effectively pumped. The pumps no longer able to recover leachate should be properly abandoned and new locations evaluated for new pumps. Estimate costs- \$95,000 for news recovery wells and pumping system.  
\*\*\* Please note that while I recommend this task to take place within 12-24 months, leachate pumps are continuously evaluated by Cedar Corp when they are on-site and if any of the leachate pumps are not able to recover leachate this task will need to be addressed in an expedited fashion. Also, if leachate levels continue to increase it may be necessary to add another location sooner rather than later.

Lastly, the department of health is currently changing the new drinking water standard for TCE based on toxicological data. The current enforcement standard of 5ppb will be changed to 0.5ppb and the protective action limit (PAL) currently set 0.5ppb will be changed to 0.05ppb. Based on these upcoming changes I have asked Cedar Corp. to conduct a desktop exercise to evaluate all the home within the TCE plume that have and those that don't have a filter system. My home is to eliminate filter systems that have never had any TCE impacts and make sure we don't have home that do have impacts that may need a filter system. It is my understanding that this type of evaluation has not been conducted since filters were first installed.

As you are aware maintenance is very important to protect the environment and human health of the neighbors of this site. The escrow account set up to address these environment and health concerns through landfill sampling, leachate collection and private home sampling is currently valued at an estimated \$250,000 and available for the remediation and monitoring of the landfill. I know you have the best interest of this site and look forward to working with you as Cedar Corp continues sampling and upgrading the landfill systems.

I've attached a few photos from my site visit. As you can see the site needs upgrades and maintenance.

I appreciate you taking the time to review this and would also appreciate a call from you regarding your response. You can reach me at (715)928-0452. This is my new contact number as my desk line will be disconnected as of October 1<sup>st</sup>.

Sincerely,

A handwritten signature in black ink that reads "Candace Sykora". The signature is written in a cursive, flowing style.

Candace Sykora  
Hydrogeologist  
Remediation & Redevelopment  
Wisconsin Department of Natural Resources  
890 Spruce St, Baldwin, WI 54002  
Phone:715-928-0452 (please note change)  
Candace.sykora@wisconsin.gov

Cc: Mitch Evenson, Cedar Corporation  
Dave Rozeboom, DNR



Broken steel casings on wells



Old stack system with degrading and insufficient insulation.





outdated control panels that are cumbersome and outdated. The DNR has concerns about efficiencies during emergency situations. Also, as no telemetry exists the only way to identify problems is upon physical inspections. This is worrisome as leachate could overflow during heavy storm events.