

**OPEN SESSION MINUTES  
WINNEBAGO COUNTY BOARD OF SUPERVISORS  
SOLID WASTE MANAGEMENT BOARD**

DATE: June 15, 2022

TIME: 9:01 a.m.

LOCATION: Solid Waste Administration Office  
100 W. County Road Y  
Oshkosh, WI

PRESENT: Pat O'Brien, Chairman  
Doug Nelson, Vice Chairman  
Mike Easker  
Kevin Konrad  
Howard Miller

PRESENT BY ZOOM  
OR TELEPHONE: Paul Eisen

EXCUSED: Jim Wise, Secretary  
Gerry Konrad  
Shanah Zastera

ALSO PRESENT: John Rabe, Director of Solid Waste  
Cassie Stadtmueller, Office Supervisor

ALSO PRESENT BY  
ZOOM: Lee Daigle, Cornerstone Environmental Group, A Tetra Tech  
Company (9:01 a.m. – 10:35 a.m.)  
Mark Torresani, Cornerstone Environmental Group, A Tetra Tech  
Company (9:01 a.m. – 10:12 a.m.)

1. Call to Order: P. O'Brien called the meeting to order at 9:01 a.m.
2. Approve Agenda: Motion to approve the June 15, 2022 agenda, made by D. Nelson and seconded by H. Miller. Motion carried 6-0.
3. Public Comments on Agenda Items: None.
4. Communications Shared by Solid Waste Management Board Members: P. Eisen informed the Solid Waste Management Board (SWMB) that at the June 13, 2022 Judiciary and Public Safety Committee meeting, Mary Anne Mueller, Corporation Counsel, briefly explained an overview of the current litigation between PTS Contractors and Winnebago County/Solid Waste

Department. P. Eisen encourages the SWMB members to view the uploaded video to listen to the presentation.

5. Approval of Minutes – June 1, 2022, 2022 Open and Closed Session: Motion to approve the June 1, 2022 Open and Closed Session, made by K. Konrad and seconded by D. Nelson. Motion carried 6-0.
  
6. Discussion – Landfill Gas Beneficial Use Study, Cornerstone Environmental Group, A Tetra Tech Company: L. Daigle and M. Torresani, Cornerstone Environmental Group, A Tetra Tech Company, presented the Landfill Gas (LFG) Beneficial Use Study to the SWMB as follows:
  - Background
    - Overall objective of the LFG Beneficial Use Study is to:
      - Review/Confirm landfill gas generation and collection rates
      - Identify potential scenarios for the beneficial use of landfill gas
      - Assess scenarios to identify 3-4 for most realistic to continue forward
      - Develop economic proformas for various scenarios
      - Identify potential risks associated with the options
      - Identify “Needle movers”
      - Provide recommendations on next steps
  - Scenarios
    - Scenario 1A – Renewable Natural Gas (RNG) Generation (Direct Injection)
      - High BTU gas generated and injected into a natural gas pipeline
      - Requires a natural gas pipeline in nearby vicinity for connection
      - Allows for the most economically beneficial use of landfill gas
      - Requires significant capital expenditures due to the equipment required
      - Payback period is often very quick because of the value of Renewable Identification Number (RIN)
    - Scenario 1B – RNG Generation (Virtual Pipeline)
      - System at the Landfill would be the same as the RNG Generation for Direct Injection with some changes in the final processes
      - After the RNG is generated, it is metered (gas composition and volume) and then pressurized into high pressure tanker trucks
      - Tanker trucks are offloaded at a location that has an interconnection and metered again
      - Value of the gas will be slightly less because there will be a fee for using someone else’s interconnect
    - Scenario 2 – On-Site Vehicle Fuel
      - Offset for existing fuel use for an end user
      - Requires an end-user with a large fleet (school buses, city buses, highway departments, etc.)
      - Treatment does not need to be as extensive as the RNG generation for a natural gas pipeline
      - The value of the gas is not as high as RNG because of the lack of additional credits (non-RIN) but capital is significantly lower

- Scenario 3 – Medium BTU Direct-Use
  - Easiest of the projects to design, permit and operate
  - Requires a willing end-user within a reasonable distance (generally within 1 mile but may vary)
  - Off-sets natural gas used by the end user
  - Requires filtration, dehydration and compression at the landfill and retrofits to any boilers or systems at the end-user
  - Capital cost is the lowest of most systems but the value of the gas is tied to the offset savings for Natural Gas consumption
- Scenario 4 – Continued Electrical Generation
  - Existing Sunnyview Landfill Power Purchase Agreement (PPA) is expiring so the financials associated with the continuation of the PPA was examined
  - Current PPA rates are extremely low across the United States
  - Electrical generation is generally not as financially viable as it was historically
- Results/Recommendations:
  - Scenario 1A – RNG Generation (Direct Injection)
    - 10 Year Net Present Value (NPV) - \$19.6 Million
    - Payback – 3.5 years
    - Internal Rate of Return – 27.6%
    - Summary:
      - Fast payback period
      - Significant capital expenditure (\$16.9 Million)
      - Payback is tied closely to RIN value
      - Requires a pipeline nearby
  - Scenario 1B – RNG Generation (Virtual Pipeline)
    - 10 Year NPV - \$5.8 Million
    - Payback – 4.8 years
    - Internal Rate of Return – 14.2%
    - Summary:
      - Fast payback period
      - Significant capital expenditure (\$15.2 Million)
      - Payback is tied closely to RIN value
      - Significant Operating Cost for trucking of RNG
      - Requires a nearby offload station with appropriate metering equipment — Aware of 2 in the state (Dane County and one private interconnect)
  - Scenario 2 – On-Site Vehicle Fuel
    - 10 Year NPV - \$12.2 Million
    - Payback – 2.8 years
    - Internal Rate of Return – 43.1%
    - Summary:
      - Reduces volatility in energy market for End-User
      - Lower capital costs than RNG systems (\$5.8 Million)

- Requires a fleet capable of consuming all the generated fuel — Approximately 20 large trucks (collection vehicles) using 50 diesel gallon equivalent (365 days/year)
- Scenario 3 – Medium BTU Direct-Use
  - Financials not included\*
  - Summary:
    - Prison may be the most feasible potential end user due to distance from the Sunnyview Landfill and the likely natural gas usage rates
    - Seasonal fluctuations in gas consumption are possible
    - Financial payback is slower because it is only offsetting fuel use
    - Provides consistency for End-User
    - Simplified equipment and operations
    - \*Need to identify End-User with confidence prior to economic proforma development
- Scenario 4 – Continued Electrical Generation
  - 10 Year NPV – \$4.7 Million
  - Payback – N/A
  - Internal Rate of Return – N/A
  - Summary:
    - Due to the PPA being offered Continued Electrical Generation is not an economically viable option for landfill gas utilization
    - Equipment upkeep and replacement will likely exceed the income generated by electrical sale
    - On-site utilization of generated electricity is possible but would increase costs for electrical purchase
    - Will need to update with current PPA offer
- Recommended Next Steps
  - In general, the Sunnyview Landfill has limited potential for a utilization project as the declining landfill gas generation rates do not lend itself to a long-term project
  - Update the economic proforma based on the most recent PPA information
  - Commence discussion with prison for potential Medium BTU Direct-Use Project
  - Begin discussions with Outagamie County's third part developer for potential inclusion in their pipeline injection point
    - Additional capital will be required at the Outagamie RNG facility for the offload station and additional metering equipment
    - Negotiations with the US EPA will be required for setting up the tracking system for fuel shipments (Dane County example)
    - If Outagamie is a possibility for an offload station, discuss options with Outagamie's third-party developer to see if the Sunnyview Landfill fits into their portfolio

D. Nelson asked if the Solid Waste Department could allow other County Departments to utilize the energy produced. M. Torresani stated that is a possibility however the Solid Waste Department could not collect revenue on the energy.

D. Nelson asked if the CNG vehicles have improved. M. Torresani stated CNG vehicles have improved significantly. M. Torresani explained that CNG vehicles are primarily busses and semi-trucks. M. Torresani further explained that the CNG vehicles are reliable and are less maintenance.

K. Konrad asked how the BTU values of CNG compare to RNG. L. Daigle explained that BTU values of CNG are slightly lower than RNG. L. Daigle further explained that RNG needs to be cleaner for pipeline injection.

D. Nelson asked if there is a pipeline interconnect at Outagamie County, would Brown County also be able to utilize? L. Daigle stated Brown County is actively looking into RNG and this is something the Tri-County Partnership could possibly do as a group with their agreement.

Discussion ensued amongst the SWMB.

M. Easker asked how long it will take to get this capital project in place. M. Torresani explained that both RNG projects will take 2 years to complete and have a system in place. M. Torresani further explained that there will be permitting and design/engineering involved in that timeline.

Discussion ensued amongst the SWMB.

P. O'Brien asked how much it costs to convert a vehicle to CNG fuel. M. Torresani explained that it costs approximately \$50,000 to convert a large vehicle.

Discussion ensued amongst the SWMB.

M. Easker stated he feels the onsite vehicle fuel is most appealing.

D. Nelson asked how much fuel can be stored on site. M. Torresani explained that a large tank can be installed to provide storage at 250 psi, but this can be expensive. M. Torresani further explained that once the storage tank is full, the remaining LFG would then have to be flared.

Discussion ensued amongst the SWMB.

P. Eisen stated he would like to see a matrix table of the 4 options presented that includes maximum benefit and minimum risk/expense.

J. Rabe explained that Foth Infrastructure and Environment will be evaluating the 4 options presented, and a future report will be provided to the SWMB.

J. Rabe stated he will e-mail a copy of the presentation to SWMB members.

7. Discussion/Action – 2022 Budget Adjustment/Budget Transfer: J. Rabe presented the 2022 Budget Adjustment/Budget Transfer to the SWMB as follows:

- Budget Adjustment
  - Clarification from the June 1, 2022 meeting – Legal Services (52801-55001) will be increased from \$5,000 to \$100,000 (increase of \$95,000); oversight from last meeting - budget increase will be covered by fund balance (surplus revenues or retained earnings at end of year)

Motion to increase Legal Services (52801-55001) to \$100,000 for 2022 by adding \$95,000 to this account, made by M. Easker and seconded by D. Nelson. Motion carried 6-0.

- Budget Transfer:
  - Volvo Loader: Budget = \$275,000; Actual = \$ 254,350; Excess = \$20,650
  - Toro Mower: Unbudgeted/emergency purchase; Actual = \$14,108
  - Excess of \$20,650 from the loader will be applied to the 52801-58004 Capital Equipment for the \$14,108 mower purchase (Capital Substitution) and the information presented at the July 7, 2022 P&F meeting for informational purchases only

Motion to use \$14,108 of excess funds from the purchase of the Volvo Loader (52813-58004) to apply to the Toro Mower (52801-58004), made by M. Easker and seconded by D. Nelson. Motion carried 6-0.

8. Director's Report on 2023 Budget and Department Operations: J. Rabe presented the Director's Report on 2023 Budget and Department Operations to the SWMB as follows:

- 2023 Budget
  - Budget workshop will be held at the August 3, 2022 SWMB meeting from 9:00 a.m. to Noon; budget packets will be emailed/mailed the SWMB members no later than July 29, 2022; please try to attend this meeting to review draft budget information and set tipping fees for 2023
- Department Operations
  - Transfer station operations continue at a rapid pace shipping waste to the Outagamie County (OC) and Brown County (BC) landfills, and shipping recycling to the OC Material Recovery Facility (MRF); tonnages continue to increase during summer months (normal); heavy shingle tonnages continue due to hail event earlier this spring
  - LFG to Energy operations continue to maximize on-peak engine operations as LFG gas flows permit; running all 3 engines when gas quality allows and running 2 engines when gas quality suffers; periodic flare operation continues when necessary (June 16, 2022 afternoon through June 20, 2022 morning while C. Baier is out of town)
  - \$109,821 in WPS revenues for May 2022 (\$140,989 in April 2021); total of \$572,687 in total revenues 5 months YTD (\$114,537/month average); no Highway Department direct LFG usage for May 2022
  - Annual WI Department of Natural Resources closed landfill inspections at the Snell Road and Sunnyview Landfills will be conducted on June 23, 2022

9. Future Agenda Items: None at this time.
10. Set Next Meeting Date: The next SWMB meeting date is scheduled tentatively for July 6, 2022 at 9:00 a.m.
11. Adjournment: Motion to adjourn made by M. Easker and seconded by D. Nelson. Motion carried 6-0. Meeting was adjourned at 10:59 a.m.

Respectfully Submitted,

Cassie Stadtmueller  
Office Supervisor

**Approved by SWMB – July 20, 2022**