



January 15, 2021

Peder Sandhei
Planner Principal
Sustainable Materials Management Unit
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Re: Certificate of Need Request for the Dem-Con Companies Facility - Permit SW-290

Dear Mr. Sandhei:

The intent of this letter is to request a Certificate of Need (CON) determination from the Minnesota Pollution Control Agency (MPCA) for the disposal of Municipal Solid Waste (MSW) at the Dem-Con landfill, MPCA Permit SW-290 (Facility) located in Louisville Township in Scott County, Minnesota. Additional Capacity for MSW disposal is a proven need as part of an integrated solid waste management system. It is imperative that the MPCA grant additional CON capacity to meet the disposal needs of the Seven County Metro Area and surrounding counties. These counties include Hennepin, Ramsey, Anoka, Washington, Dakota, Scott, Carver and the Tri-County district of Sibley, Nicollet, and Le Sueur counties which are collectively referred to herein as "jurisdictions". In accordance with Minn. Statute 473 the MPCA Commissioner has prepared the Metropolitan Solid Waste Management Policy Plan and the MPCA has subsequently issued a "Notice of Intent to Accept Certificate of Need Requests". Dem-Con believes there are not enough feasible and prudent alternatives to land disposal for the non-recyclable portion of the solid waste generated in these jurisdictions. This need is also acknowledged by each of these counties in the jurisdictional letters of support included in Appendix A. These counties collectively estimate that, despite landfill diversion measures, approximately 9,960,351 tons of MSW landfill capacity will be needed over the next 10 years from 2021-2030.

Currently, the jurisdictions manage their MSW at multiple landfills and through waste-to-energy facilities within the state. In many instances the jurisdictions do not actively dictate where the waste is managed as market forces influence the management of the waste for these jurisdictions. The landfills used by these jurisdictions are located both inside and outside of the seven-county metro area. Additionally, waste is managed at landfills located out of the state as well. The reliance on greater Minnesota and out-of-state landfills is projected to increase in the future as metro area landfill capacity is depleted increasing the greenhouse gas (GHG) impacts from the management of this waste. The populations, and waste generation, in these jurisdictions has increased over the last 10 years and is projected to continue to grow for each of the counties over the next ten years.



The landfill capacity in the metro area is nearing capacity and all of capacity serving these jurisdictions is controlled by only three large waste companies limiting the options for disposal and processing. Historically, these companies have not provided innovative processing capacity in Minnesota. On the contrary, Dem-Con continues to be committed to additional processing including our current proposal for an anaerobic digester for processing source separated organic waste. Like our C&D landfill, granting CON for MSW disposal to Dem-Con will help support the development additional MSW and organics processing capacity serving the twin cities metro area. Finally, a shortage of landfill capacity can reasonably be anticipated given that resource recovery operations are at capacity. Thus, the granting of additional CON capacity to Dem-Con to serve the metro area will best serve these jurisdictions helping them meet their waste processing goals.

When waste from the Seven County Metro Area is not being managed as a local resource the result is significant negative environmental, economic, and social impacts to the region and the State of Minnesota. Environmental impacts are mitigated when disposal capacity is most proximate to the generation source. One of the most obvious is the reduction of GHG emissions. Many of these impacts can be mitigated by permitting additional MSW disposal capacity in the Metro area. The Dem-Con landfill, which is currently permitted by the MPCA as a Type III Demolition waste landfill, is located within the region and ideally situated to meet the disposal, processing, and recycling needs of the metro area.

GHG emission reduction is priority for Minnesota. In the 2016 Climate Strategies Report prepared by the Environmental Quality Board, MPCA, and Department of Commerce, the Former Lieutenant Governor, Tina Smith, stated that “...we missed our 2015 greenhouse gas emissions targets and will miss the 2025 goal without additional work. Minnesota needs bold action to meet these goals and secure the environment, health, and economic benefits of tackling climate change.” and that we “...need long-term strategies to transform our communities and their transportation systems to reduce our use of gasoline”. This GHG reduction is also consistent with Governor Walz’s Executive Order 19-37. This order state that “...Minnesota’s 2007 Next Generation Energy Act set statutory goals to reduce greenhouse gas emissions in the state by 30% of 2005 levels by 2025 and 80% by 2050. Minnesota fell short of its 2015 goal of 15% and is not on track to meet the 2025 goal. We must redouble our efforts to meet our future goals.” Permitting the Dem-Con Facility would significantly improve logistics and reduce the fuel consumption thus reducing the GHG associated with the current waste management system in Minnesota.

Currently, much the MSW that is landfilled in the Metro area is transported long distances out of the region for disposal resulting in unnecessary CO2 emissions every year. MSW disposal at the Dem-Con Facility in Shakopee would stimulate processing options for MSW and reduce GHG emissions by improving the existing logistics of managing the waste. This improved logistics is one market force that will begin to result in more localized MSW management within the seven-county metro area. To illustrate this point Dem-Con has prepared a GHG summary (Table 1). This summary compares GHG emissions when the MSW waste is managed at Dem-Con and each of the existing landfills currently being utilized. If all the 2020 projected MSW waste was managed at Timberline Trail in Wisconsin 22,851 tons of GHG would have be generated. The amount drops to only 5,284 tons if the waste was sent to Dem-Con in Shakopee. In this example, GHG emissions could have been reduced by 17,567 tons in 2020 alone. This is the equivalent of 3,443 passenger vehicles being removed from the roads each year. Over the ten-year period of this CON request, the approval of the Dem-Con CON could eliminate the emissions equivalent of 34,430 cars for a total of 175,670 tons of GHG.

Based on logistics alone, the Dem-Con Facility is clearly the best disposal location for MSW for Scott, Carver, and the Tri-County district. Additionally, Dem-Con’s waste campus can provide residual waste and unprocessable waste disposal for waste from Washington, Ramsey, and Hennepin Counties. This residual disposal is one of the key components of the anaerobic digester project proposed by Dem-Con. With the Dem-

Con transfer capacity in Blaine, MN, Dem-Con is also well positioned to manage the MSW from Anoka County.

The following is a narrative response providing the information required by Minnesota Rule 9215.0900 – Content of Certificate of Need Request:

Subpart 1. Scope

This letter and attachments address the requirements of the rule and outline the benefits and capabilities of the proposed Dem-Con Facility and landfill alternatives.

Subpart 2. Annual solid waste estimates:

The Dem-Con landfill is part of a waste management campus that will serve as a disposal facility for Scott, Carver, Anoka, Hennepin, Ramsey, Washington, and Dakota counties as well as the Tri-County district. Dem-Con already manages solid wastes and recycling from these jurisdictions and other locations beyond. If the MPCA grants the CON capacity at the Shakopee Facility, the improved logistics and access to our processing campus will enable additional waste to be managed in a more environmentally friendly manner. One such processing option would include the processing of Durable Compostable Bags (DCB's) as part of a proposed anaerobic digestion project with any residual from these processing operations being disposed of in the onsite Dem-Con MSW cell. In addition to Dem-Con's current MSW transfer operations, Dem-Con currently manages Construction and Demolition Debris (C&D), industrial waste, commercial and residential recycling, metals recycling, source-separated organics, waste tires, electronics, and other waste materials. Collectively these operations make up the Dem-Con Environmental Campus which provides logistical and operational efficiencies that will allow for the efficient management of waste and recycling.

It is anticipated that the annual volumes of MSW managed at the Facility would increase over time as the population in each of these counties grow. Given the 10-year planning period for the CON request, and the 10-year MPCA permit cycle for landfills, Dem-Con is requesting 3,652,655 tons of MSW disposal capacity to service the region through 2030. This capacity request was based on our estimate of material that will likely be available to Dem-Con based on committed and projected MSW generation as stated in the attached letters of support from the perspective counties (Appendix A) and summarized in Table 2. The anticipated annual MSW volumes disposed of at the Facility for a ten-year period are shown in the table below:

Total Annual Dem-Con CON Request	
Year	Annual MSW Tons
2021	324,668
2022	331,037
2023	365,000
2024	369,169
2025	372,586
2026	375,319
2027	377,208
2028	378,541
2029	379,386
2030	379,742
Total	3,652,655

Commercial and residential recycling, yard waste, source separated organics, waste tires, and electronics are highly dependent on the regulatory environment and the supporting infrastructure. The approval of a MSW landfill at the Dem-Con Shakopee location would provide this supporting infrastructure stimulating the development of these additional processing and recycling opportunities. This would especially be true for the anaerobic digester that Dem-Con is proposing. The co-location of MSW disposal capacity at Shakopee is critical to facilitate this additional processing. The Shakopee Environmental Campus enjoys the benefit of onsite disposal for recycling residue from C&D waste and provides a “one-stop shop” for an economical and convenient option for the local communities. The development of a MSW option within the existing campus will add additional employment at the site as well as peripheral jobs for the building and service trades who help to develop and maintain the campus.

Subpart 3. Origin of Waste:

The MSW generation projections are based upon the information provided in the Goal Volume Table attached as Table 2. The volume estimate was based on the MSW landfilled as reported by each jurisdiction in their letters of support (Appendix A). Dem-Con also reviewed the 2019 Metro Certification Data reports and the Metropolitan Solid Waste Management Policy Plan (MSWMPP) and found these estimates to be consistent with the jurisdictional letters. The following is a summary of the waste generation by jurisdiction as well as the Dem-Con CON request for each jurisdiction accordingly.

Scott County:

Scott County estimates the annual amount needing to be landfilled from the county during the 2021-2030 period to be 808,635 tons. Historically, Scott County has been able to process some MSW in the Metro area, however since 2018 the processing capacity in the metro area has been reduced. Great River Energy (GRE) has ceased to process MSW and Washington and Ramsey counties have stopped managing waste from Scott County. Additionally, the Hennepin Energy Recovery Center (HERC) is at capacity and only manages a portion of the Hennepin County waste let alone any waste from Scott County. Dem-Con currently processes a majority of the recyclables from Scott County as well as a percentage of the MSW through our existing transfer station. The Dem-Con Facility offers processing and recycling options in addition to being the most proximate landfill to the Scott County waste. Scott County estimates that approximately 40% of their MSW will be managed at the proposed Dem-Con Facility. Therefore, Dem-Con is requesting 322,241 tons of CON capacity to serve Scott County over the next ten-year period.

Carver County:

Carver County estimates the annual amount needing to be landfilled from the county during the 2021-2030 period to be 566,121 tons. Historically, Carver County has been able to process some MSW in the Metro area, however since 2018 the processing capacity in the metro area has been reduced. The same reduction in processing MSW waste that affected Scott County has reduced processing options for Carver County. Dem-Con currently processes a majority of the recyclables from Carver County as well as a percentage of the MSW through our existing transfer station. The Dem-Con Facility offers processing and recycling options in addition to being the most proximate landfill to much of Carver County waste. Carver County estimates that approximately 26% of their MSW will be managed at the proposed Dem-Con Facility. Therefore, Dem-Con is requesting 147,191 tons of CON capacity to serve Carver County over the next ten-year period.

Tri-County:

The Tri County Solid Waste Joint Powers Board consists of Nicollet, Le Sueur, and Sibley counties. The Tri County members have been committed to a waste-to-energy integrated system embracing the processing and recycling of waste over landfill disposal. However, Tri County relies on the processing of waste at the R&E Center and the continued reliance on this may be in question once the R&E Center power purchase agreement with Xcel Energy ends in 2027. Therefore, the Tri County area will likely need additional processing and disposal capacity for the management of their waste. Dem-Con currently processes a majority of the recyclables from the Tri County area as well as a percentage of the MSW through our existing transfer station. The 2019 SCORE report for Tri County noted that 59,075 tons of MSW were landfilled. Using a growth rate of 0.46% from the US Census Bureau, the estimated 10-year MSW volume would be 608,694 tons for Tri County from 2021 through 2030. The proposed Dem-Con Facility offers processing and recycling options in addition to being the most proximate landfill to a significant portion of the Tri-County area and thus Dem-Con requests 100% of the CON for the waste from the Tri County area. Therefore, Dem-Con is requesting 608,191 tons of CON capacity to serve Tri County over the next ten-year period.

Hennepin County:

The Hennepin Energy Recovery Center (HERC) has reached its capacity for processing waste and cannot accept any additional tonnage. Given this, Hennepin County estimates the annual amount needing to be landfilled from the county from 2021-2030 to be 5,216,500 tons with an annual range of 483,600 – 536,700 tons/year from 2021 and 2030, respectively. Hennepin County controls approximately 60,000 tons/year of the landfilled volume through its Brooklyn Park transfer station with the balance of the annual tonnage being managed by private third-party haulers. The waste managed by Hennepin County is typically contracted through a bidding process independent of the CON process. Dem-Con plans to actively bid to procure any contract for Hennepin County waste as well as solicit third-party haulers and believes that 33% of the 5,216,500 tons of CON capacity should be allocated to Dem-Con based upon our assumed probability of receiving the waste. An equitable allocation of the CON will allow for Dem-Con to offer MSW processing and disposal solutions in a competitive market space. Therefore, Dem-Con is requesting 1,721,445 tons of CON capacity to serve Tri County over the next ten-year period.

Washington & Ramsey Counties:

All MSW generated in Ramsey and Washington counties is designated through county ordinance to the Ramsey/Washington Recycling & Energy Center (R&E Center) located in Newport, MN. Ramsey and Washington counties have estimated the annual amounts to be managed at the R&E Center for the period of 2021 through 2030 as well as the annual tonnage needing to be disposed of in a landfill. The two counties estimate that the annual amount disposed of in the landfill to range from 87,700 – 76,500 tons/year from 2021-2030, respectively. Of this tonnage, the volumes for 2021 and 2022 are contractually committed under existing contracts leaving the available the remaining CON capacity for the ten-year period of 663,700 tons. Dem-Con plans to actively pursue the procurement of any contracts for processing and disposal of waste from Ramsey and Washington counties and believes that 33% of the 663,700 tons of CON capacity should be allocated to Dem-Con based upon our assumed probability of receiving the waste. An equitable allocation of the CON will allow for Dem-Con to offer MSW processing and disposal solutions in a competitive market space. Therefore, Dem-Con is requesting 219,021 tons of CON capacity to serve Ramsey and Washington counties over the next ten-year period.

Anoka County:

The 2019 county waste certification report for Anoka County noted that 181,753 tons of MSW were landfilled from Anoka County. Assuming a 0.85% growth rate in population (US Census Bureau population projections) this would represent 1,921,401 tons of MSW being generated in the county for the period of 2021 through 2030. With the closure of Great River Energy (GRE) and the lack of capacity at HERC and the R&E Center, Anoka County no longer has access to waste-to-energy processing capacity and will need to further rely on land disposal for the management of MSW. Dem-Con owns and operates a transfer station in Anoka County which currently manages MSW from the county and will continue to do so for the next 10 years and beyond.

Anoka County estimates that between 4,066-5,464 tons of MSW will be managed at the Dem-Con Facility from 2021-2031, respectively, for a total of 52,074 tons. This estimate was based on MSW historically delivered to the Dem-Con transfers station when we did not have a MSW landfill or MSW processing capabilities. Anoka county has a desire to meet their landfill diversion goals and follow the waste management hierarchy with a preference to avoid landfilling prior to processing MSW. The Dem-Con Blaine transfer station could offer an opportunity for Anoka County, and private haulers in Anoka County, to access processing options available at our Shakopee location. Thus, we believe that the MSW tonnage estimates provided by Anoka County based on historical MSW delivery rates to the Dem-Con transfer station are significantly underestimated.

The newly constructed Dem-Con transfer station has the capacity and infrastructure to manage the Anoka County MSW and believes that 33% of the 1,921,401 tons of CON capacity should be allocated to Dem-Con based upon our assumed probability of receiving the waste. An equitable allocation of the CON will allow for Dem-Con to offer MSW processing and disposal solutions in a competitive market space. Therefore, Dem-Con is requesting 634,062 tons of CON capacity to serve Anoka county over the next ten-year period.

Dakota County:

Dakota County has two MSW landfills located within their border. As such Dakota County has landfill capacity proximate to their location. Dakota County is the only county with existing landfill facilities that will likely apply for CON. Dem-Con is not requesting any CON capacity from Dakota County.

Subpart 4. Alternatives:

This proposed CON request reflects the current need for additional landfill capacity in the seven-county metro area over the next ten years from 2021-2030. This MSWMPP approved and adopted in April 2017 details the solid waste management goals for the state and the waste management hierarchy but did not specifically detail the need for additional disposal in the metro area. Dem-Con is supportive of the waste management hierarchy, as evidenced by the development of our environmental campus, but believes that disposal of waste in landfills will be a necessary component of an integrated waste management system over the period of this CON request. Given the decreases in processing capacity in the metro area with the closing of GRE, the issuance of CON for the metro area will be necessary to efficiently manage waste and minimize the environmental impacts and GHG emissions from MSW disposal. As per the Minn. Rule requirements, Dem-Con has evaluated alternatives to land disposal and provides the following summary of options reviewed.

Regional Waste to Energy Facility:

There are currently two waste processing options available in the seven-county metropolitan area. The HERC mass burn incinerator is operating at capacity and cannot process any additional MSW waste. The R&E Center, owned and operated by Ramsey and Washington counties, is also at capacity and only processes waste from Ramsey and Washington counties. The R&E Center produces Refuse Derived Fuel (RDF) for Xcel Energy and by 2027 will no longer have an agreement in place to purchase the RDF as Xcel Energy is phasing out the use of RDF. Ramsey and Washington counties are currently soliciting proposals to continue to process MSW waste generated in their counties and Dem-Con has submitted a proposal for an anaerobic digester to help meet these goals. That said, the waste processing capacity is fully utilized, and we do not believe that any additional capacity will be available in the next 10 years.

Composting Facility:

Multiple yard waste composting facilities exist in the seven-county metropolitan area but few of them manage source separated organics due to the associated odor and environmental issues. The 2018 SCORE report stated that currently 15.8 % of the total waste stream is recovered organics. According to the MPCA studies, there are ample opportunities to increase the capture of source separated organic waste, but we are lacking the infrastructure to process the organics. The proposal Dem-Con submitted to Ramsey and Washington counties for an anaerobic digester would provide this missing infrastructure needed to process organic waste from the metro area. However, an on-site MSW disposal facility would be needed to optimize the logistics and economics of such a facility.

Recycling:

The seven-county metro area boasts a robust recycling system with a 33.8% recycling rate as reported in 2018 SCORE report. When combined with the organics recovery the metro area recovered 49.8% of the total MSW generated. Although these rates are among some of the best in the nation, we are short of the current goal of 75% by 2030. Dem-Con currently has a state-of-the-art recycling facility processing over 90,000 tons/year of single stream recycling. That said, we believe that there are opportunities to improve recycling and increase the capture rate of materials and we have been actively involved with the MPCA working groups to help accomplish these goals. Although recycling recovery will certainly increase in the next 10 years, it will not meet the disposal demands for MSW and thus additional CON allocations will still be necessary.

New Regional Public Landfill:

Although suitable landfill sites were identified in the 1980's, siting a new land disposal facility in the seven-county metro area today would likely prove very difficult given the political climate, public opinion, and the significant development in the metro area since the study. A new landfill location would likely face significant opposition from the surrounding communities – the NIMBY (Not-In-My-Back-Yard) effect. Whereas the Dem-Con landfill already has the support of the local community and currently has a liner, groundwater monitoring, infrastructure, and other environmental controls that meet the design requirements for an MSW disposal facility. In addition, the Dem-Con Environmental Campus provides opportunities for further MSW processing decreasing the reliance on landfilling alone. Based on the arguments above, we do not believe that the development of a new “green field” landfill site is a viable option.

Existing MSW Disposal Facility:

There are two MSW landfills that are currently located in the seven-county metro area, both of which are located within Dakota County. Other disposal facilities serving the region include: The Waste Management landfill in Elk River, Minnesota; the Republic Services landfill in Sarona, Wisconsin; the Advanced Disposal landfill in Eau Claire, Wisconsin; the Waste Management landfill in Lake Mills, Iowa; the Waste Management landfill in Glencoe, MN; the Waste Connections Landfill in Nobles County MN; and the Waste Management landfill in Weyerhaeuser, Wisconsin which are all located significantly outside the metro area. These facilities outside the region are not only an unnecessarily expensive disposal option but they also have significant negative impacts to the environment including the GHG emissions as discussed in the sections above.

From an environmental and logistical standpoint, we believe it is in the state's best interest to also develop metro capacity with companies such as Dem-Con that support processing and waste diversion. Further, the difficulty in siting new green field landfills make it essential that we continue to develop existing facilities such as the Dem-Con site.

MSW Disposal at the Dem-Con Landfill:

The permitting of MSW disposal at the Dem-Con landfill Shakopee, Minnesota would be taking advantage of an existing landfill that is located within the seven-county metro area (Figure 1). The existing Dem-Con landfill has been in operations since 1965 and already has the support of the local community (Scott County letter, Appendix A). Dem-Con Companies is a third-generation family-owned company with over 60 years of experience in the disposal, processing, and recycling industries. Our management team is active in solid waste policy at the federal, state, and local levels including regular policy and planning meetings with the MPCA. We are active members of several professional solid waste and recycling associations including being a board member for the Recycling Association of Minnesota (RAM), Chapter Chair of the National Waste and Recycling Association (NWRA), Executive Committee board member of the Construction and Demolition Recycling Association (CDRA), Vice Chair of the Minnesota Waste Wise Foundation, board member for the Minnesota Chamber of Commerce, SWANA Manager Of Landfill Operations (MOLO) Instructor, Minnesota MPCA Landfill Operator Training Instructor, as well as regularly attending and speaking as subject matter experts at national conferences. This experience helps provide the expertise and knowledge to operate the Dem-Con landfill in an environmentally responsible manner, advance recycling and processing initiatives, and provide a driving force to move waste management up the hierarchy in a proven environmental campus model.

MSW disposal at the Dem-Con landfill would stimulate the development of processing and recycling operations that would grow the Dem-Con Environmental Campus. The Dem-Con landfill would also have the support of the Dem-Con Green Grades education program. This nationally recognized program focuses on community outreach to school children, youth groups (i.e., boy scouts, girl scouts, etc.), regulators, policy makers, industry groups, and the general public to improve participation and knowledge about recycling and improving the way we manage waste. The program includes curriculum modules for schools, educational videos, facility tours, and a mobile education unit that can be onsite for community events. The use of this program will not only help to facilitate recycling but will also help the various jurisdictions in the seven-county metro area meet the goals of their goals outlined in the MSWMPP.

The disposal of metro area MSW at the Dem-Con facility versus the Timberline Trail landfill would reduce GHG emissions by 17,567 tons each year which is equivalent to removing 3,443 cars from our roadways annually. Another example would be the use of the Dem-Con landfill for disposing of 50,000 tons of MSW from Anoka County, as opposed to using the Seven Mile Creek Landfill, which would reduce GHG

emissions by 756 tons/year. Even this small example highlights the significant reduction in GHG emissions that local MSW disposal will realize. This reduction is equivalent to 1,701,815 miles driven by an average passenger vehicle. In addition, the Facility already has a Subtitle D equivalent liner system, leachate collection, groundwater monitoring network, and existing infrastructure to support the disposal of MSW.

If the CON capacity Dem-Con is requesting is granted, Dem-Con would manage an average of 365,265 tons of waste each year locally. Alternatively, if Dem-Con is not granted CON this same waste would likely be disposed of less proximate facilities, many of which are out of the state. To demonstrate these environmental impacts of nonlocalized disposal, we assumed alternate disposal locations for the waste from each jurisdiction in the table below if Dem-Con was not used as the local disposal facility. The net result would be an additional 6,559 tons of GHG emitted annually as shown in the following table.

County/Jurisdiction	Tons to Dem-Con	Additional GHG Emissions and Alternative Landfill
Anoka	63,406	744 tons for Timberline Trail Landfill
Scott	32,224	130 tons for Pine Bend Landfill
Carver	14,719	126 tons for Elk River Landfill
Hennepin	172,145	3,969 tons for Central Disposal Landfill
Tri-County	60,869	1,295 tons for Nobles County Landfill
R&E (Washington and Ramsey)	21,902	295 tons for Lake Area Landfill
Total:	365,265	6,559 tons annually

Managing the waste from the region as a local resource at the Dem-Con Facility will stimulate the development of further processing and recycling operations which decreases the dependence on landfilling while minimizing the impacts to human health and the environment by significantly reducing greenhouse gas emissions. In addition, managing the waste locally will create additional jobs and a tax base within Minnesota, specifically the seven-county metro area, supporting the local and state economy. The proposed project not only meets the criteria for a CON determination from the MPCA for additional MSW disposal capacity but it is also consistent with the mission and vision of the MPCA which is to *“protect and improve the environment and enhance human health”* and to have *“clean water, air and land, support healthy communities and ecosystems, and a strong economy in Minnesota”*.

Supported by the information provide in this submittal, Dem-Con is requesting 3,652,655 tons of MSW disposal capacity to service the region through 2030. We appreciate your timely consideration of our request and we would welcome the opportunity to discuss the proposal in more detail or answer any questions you may have. Please feel free to contact me directly at 952-224-7102 if you need further information regarding this request.

Sincerely,



William P. Keegan, P. E.
President
Dem-Con Companies

Cc: David Benke – Minnesota Pollution Control Agency
Elizabeth Gary's – Pollution Control Specialist Principal
Abdifitah Hassan – Engineer 1 Graduate

Attachments:

Tables – Table 1 & Table 2
Figures – Figure 1, Figure 2
Appendix A – Jurisdictional Letters of Support
Appendix B – Greenhouse Gas Equivalents
Appendix C – Failed Alternative Processing Technologies

TABLES

Table 1
GHG Emissions Summary Table

Location	Annual MSW Volume (tons)**	Loads per Year	Annual CO2 Emissions (tons/yr)										
			Dem Con	Republic Pine Bend Landfill	Republic Lake Area Landfill	WM Burnsville Landfill	WM Spruce Ridge Landfill	WM Timberline Trail Landfill	WM Central Disposal Lake Mills Iowa	WM Elk River Landfill	Advanced Disposal 7 Mile Creek Landfill	SKB Rosemount Waste Connections	Nobels County Waste Connections
Scott County MN	63,865.00	2,903	157	414	2,194	235	677	2,122	1,559	847	1,761	461	2,238
Carver County MN	51,445.00	2,338	141	454	1,663	295	322	1,768	1,372	580	1,489	561	1,814
Le Sueur County MN	15,069.00	685	119	205	579	162	186	606	279	293	525	207	439
Hennepin County MN	289,246.00	13,148	1,635	2,119	7,650	1,367	3,577	8,239	8,304	2,073	6,996	2,223	11,770
Ramsey County MN	46,530.00	2,115	418	206	1,043	272	754	1,136	1,346	412	980	223	2,051
Washington County MN	17,215.00	783	196	106	349	144	322	384	537	191	340	112	806
Anoka County MN	100,596.00	4,573	1,162	994	2,133	1,026	1,869	2,342	3,388	475	2,661	1,030	4,776
Dakota County Mn	206,459.00	9,385	1,456	560	5,834	840	3,225	6,254	5,041	3,146	4,947	625	8,401
Totals	750,425	35,928	5,284	5,057	21,447	4,342	10,932	22,851	21,827	8,018	19,699	5,442	32,294

Assumptions:
MSW Tons/Load = 22
Pounds CO2/gal. Diesel * = 22.38
Miles/gal. = 4.5
* (U.S. Energy Information Administration)
** 2020 Annual Estimated Volume Based on 2018 Score Data

Table 2
Goal Volume Tables - Summary of Annual MSW Disposal

Scott County			Hennepin County By Pass			Anoka County			Carver County			Washington and Ramsey		
Annual MSW Disposal Tons			Annual MSW Bypass Tons			Annual MSW Disposal Tons			Annual MSW Disposal Tons			Annual MSW Disposal Tons		
Year			Year			Year			Year			Year		
2021	76,820		2021	60,000		2021	184,871		2021	53,229		2021	87,700	
2022	77,629		2022	60,000		2022	186,450		2022	54,008		2022	87,600	
2023	78,438		2023	60,000		2023	188,042		2023	54,787		2023	87,200	
2024	79,246		2024	60,000		2024	189,648		2024	55,566		2024	86,600	
2025	80,055		2025	60,000		2025	191,268		2025	56,345		2025	85,700	
2026	81,672		2026	60,000		2026	192,901		2026	57,042		2026	84,500	
2027	82,481		2027	60,000		2027	194,549		2027	57,740		2027	83,000	
2028	83,289		2028	60,000		2028	196,210		2028	58,437		2028	81,200	
2029	84,098		2029	60,000		2029	197,886		2029	59,135		2029	79,000	
2030	84,907		2030	60,000		2030	199,576		2030	59,832		2030	76,500	
Total	808,635		Total	600,000		Total	1,921,401		Total	566,121		Total	839,000	
Tri-County			Hennepin County Private System Landfill			Total Annual Dem-Con CON Request								
Annual MSW Disposal Tons			Annual Bypass Tons			Annual MSW Tons								
Year			Year			Year								
2021	59,620		2021	423,600		2021	324,668							
2022	59,894		2022	438,900		2022	331,037							
2023	60,170		2023	450,600		2023	365,000							
2024	60,447		2024	459,800		2024	369,169							
2025	60,725		2025	467,000		2025	372,586							
2026	61,004		2026	471,500		2026	375,319							
2027	61,285		2027	474,700		2027	377,208							
2028	61,566		2028	476,500		2028	378,541							
2029	61,850		2029	477,200		2029	379,386							
2030	62,134		2030	476,700		2030	379,742							
Total	608,694		Total	4,616,500		Total	3,652,655							

FIGURES

FIGURE 1
SITE LOCATION MAP

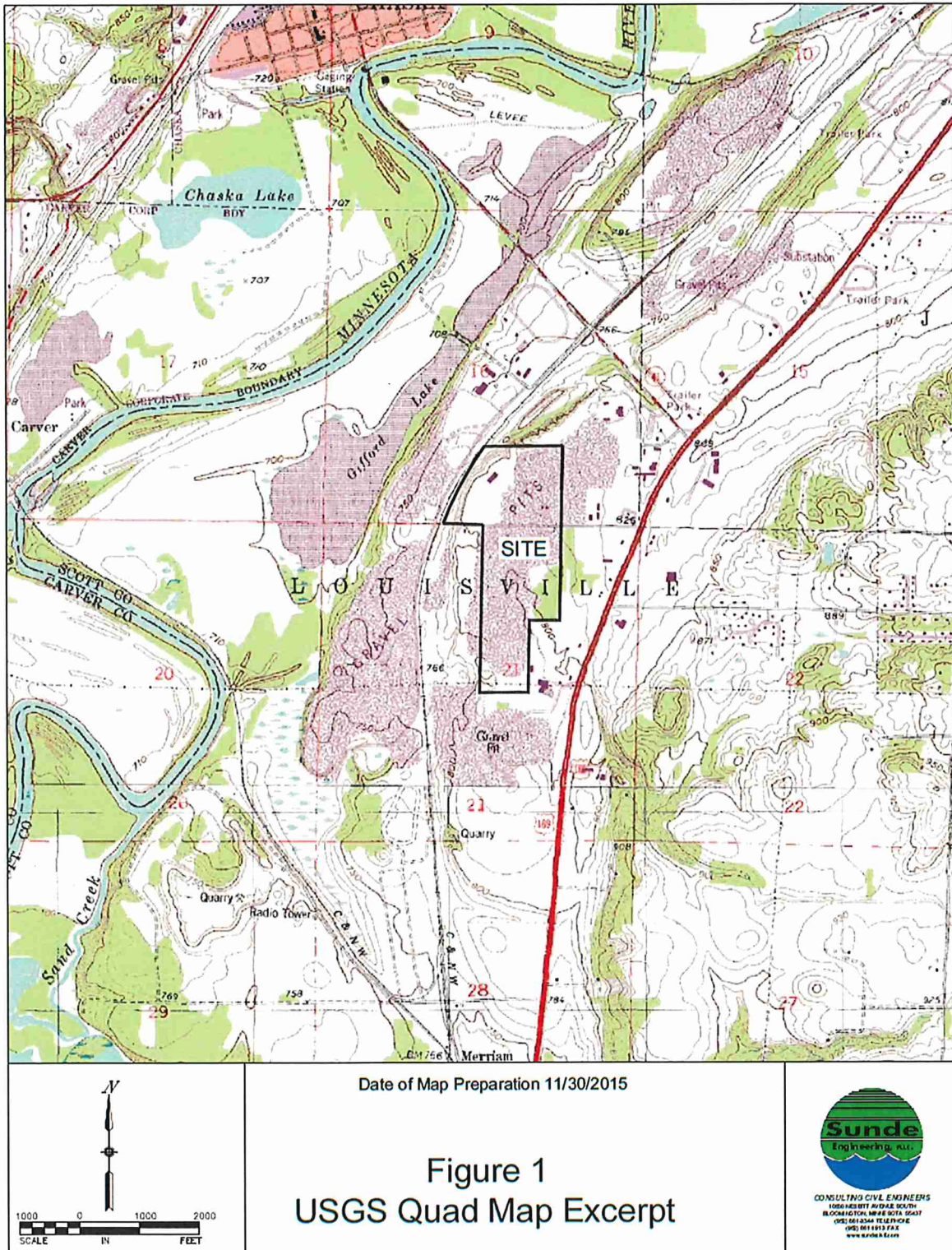
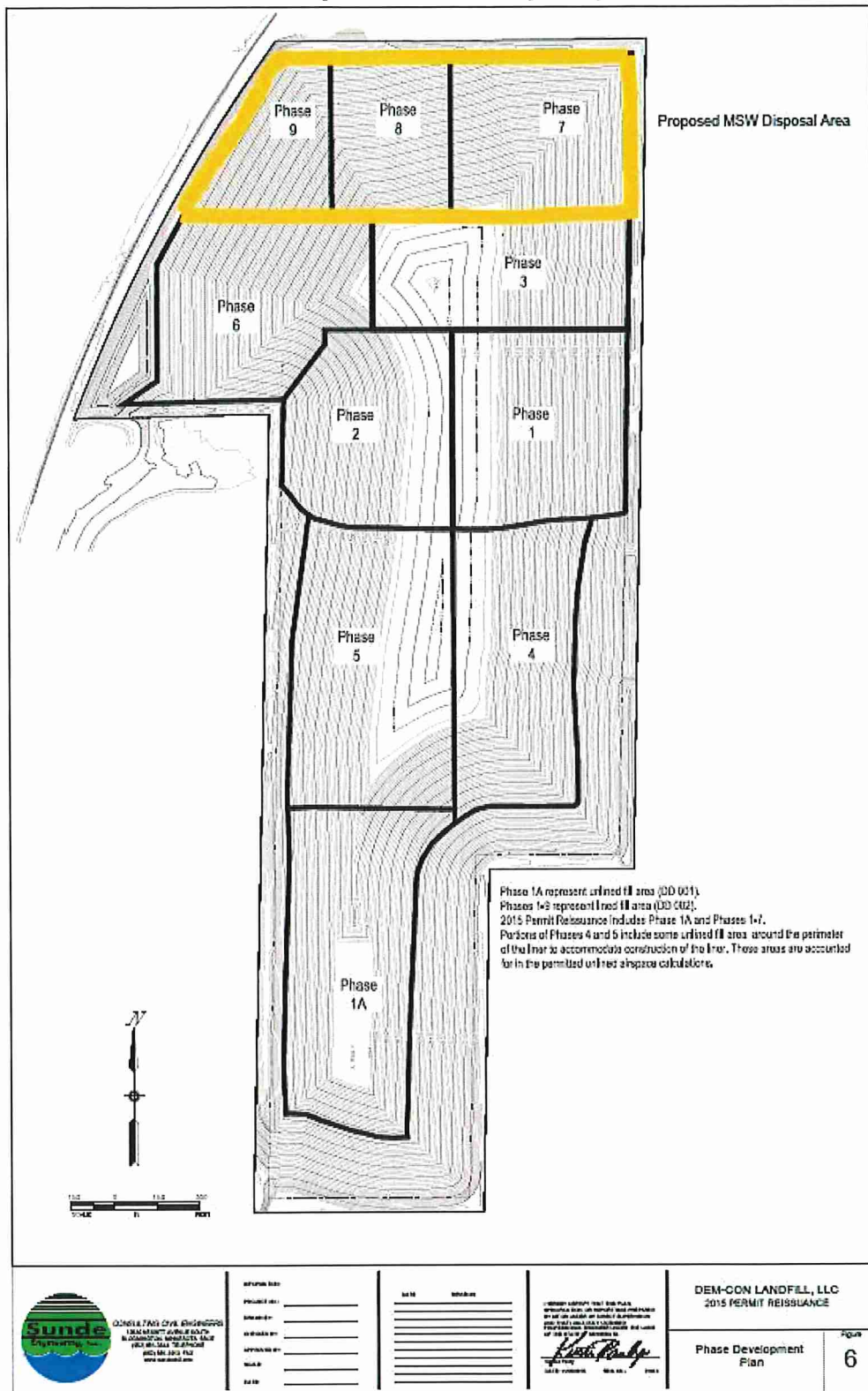


FIGURE 2 Conceptual Facility Layout



APPENDIX A

JURISDICTIONAL LETTERS OF SUPPORT



**SCOTT COUNTY
COMMUNITY SERVICES DIVISION
ENVIRONMENTAL SERVICES DEPT
200 FOURTH AVE W
SHAKOPEE, MN 55379-1220
(952) 496-8475 Fax: (952) 496-8496**

December 23, 2020

Mr. Bill Keegan
President
Dem-Con Companies
13020 Dem Con Dr
Shakopee MN 55379

Re: Dem-Con Companies Landfill – Certificate of Need

Dear Mr. Keegan:

Scott County is working to divert as much waste as possible from Mixed Municipal Solid Waste (MSW) landfills as outlined in the 2018 Solid Waste Management Plan to achieve the 75% recycling goal by 2030 consistent with the 2016 Metro Solid Waste Management Plan. However, we understand the need to properly manage our current and future MSW waste.

Scott County would prefer our waste stay within Minnesota to ensure all disposal facilities meet the Minnesota Pollution Control Agency (MPCA) minimum permit requirements for construction, operation, closure and monitoring. In addition, the County prefers to manage MSW from Scott County in the most economically feasible manner.

We understand that landfills applying for a Certificate of Need must provide a letter from the County as a part of the application expressing where the County prefers the waste to be landfilled, and the amount that would go to each facility (see table below).

Although Scott County does not mandate where to dispose of unprocessable MSW, Scott County prefers that waste to be disposed of within the State of Minnesota boundaries. We expect DEMCON Companies, Pine Bend Landfill, and Burnsville Sanitary Landfill will meet our MSW disposal needs.

The MPCA estimates Scott County will need enough local landfill capacity to properly dispose of approximately 808,635 tons of unprocessable MSW through 2030.

Traditionally, roughly 78% of MSW generated in Scott County has been landfilled at either the Burnsville or Pine Bend Landfills, about 19% was transferred to Spruce Ridge, and approximately 4% went to other landfills in the state or region.

We estimate that the Pine Bend Landfill will continue to manage approximately 100% of the total MSW that their companies collect and haul from Scott County for disposal. In 2019, this amounted to approximately 20% of all Scott County MSW landfilled.

Burnsville Landfill, sited just outside Scott County, is estimated to continue to manage approximately 100% of the total MSW that their companies collect and haul from Scott County for disposal. This was determined to be approximately 18% of all Scott County MSW landfilled.

We estimated that Dem-Con Companies, *if permitted*, would receive in the future a similar percentage of the total waste that they usually manage through their MSW Transfer Station. In 2019, Dem-Con's MSW Transfer Station accepted approximately 25% of all Scott County MSW for transfer that needed to be landfilled.

There is still 37% of Scott County's landfilled waste unaccounted for that will ultimately need to go to area landfills. We estimated that a new MSW landfill permitted in Scott County and the Burnsville landfill would receive a larger percentage (approximately 15% each) of the remaining waste due to their location. We estimated that Pine Bend would receive the smallest portion of the remainder, approximately 7%.

As such, we estimate the following volumes of Scott County MSW waste would go to the three local Companies who have requested a letter from Scott County.

Waste Flows Tons	% MSW estimated to be disposed of at each landfill	Total Tons Capacity needed through 2030 at each landfill for Scott County MSW
DEMCON Companies	40%	322,241.05
Burnsville Sanitary Landfill	33%	268,062.50
Pine Bend Landfill	27%	218,331.45

In the event that new or additional MSW processing capacity serving the Metropolitan Area becomes available, the County prefers that the management of the MSW generated in the County follow the waste management hierarchy and applicable restrictions on disposal if required.

Sincerely,



Kate Sedlacek
Environmental Services Manager
Scott County

Attachment: Signed and certified copy of Board Resolution No. 2020-242

**BOARD OF COUNTY COMMISSIONERS
SCOTT COUNTY, MINNESOTA**

Date:	December 15, 2020
Resolution No.:	2020-242
Motion by Commissioner:	Weckman Brekke
Seconded by Commissioner:	Beard

**RESOLUTION NO. 2020-242; AUTHORIZING THE SCOTT COUNTY LETTER TO MIXED MUNICIPAL
SOLID WASTE (MSW) LANDFILLS REQUESTING SUPPORT FOR CERTIFICATE OF NEED
APPLICATION**

WHEREAS, Scott County is committed to the Waste Management Act (Minn. Stat. 115A.551) to protect the state's land, air, water, natural resources, and public health and the waste management goals of the State of Minnesota that require metro counties to achieve a 75% percent recycling rate by the year 2030; and

WHEREAS, the *Scott County Solid Waste Management Plan*, adopted by the Scott County Board of Commissioners on November 20, 2018, defines Scott County's plan for managing waste is in accordance with the State of Minnesota's Solid Waste Management Hierarchy; and

WHEREAS, the County believes that the County should consider all available options for waste management and disposal that provides the best environmental, financial and practical benefits for the county citizens; and

WHEREAS, the County would prefer that un-processible mixed municipal solid waste generated by Scott County stay within Minnesota to ensure all disposal facilities meet the Minnesota Pollution Control Agency (MPCA) minimum permit requirements for construction, operation, closure and monitoring. In addition, the County prefers to manage the mixed municipal solid waste from local communities in the most economically feasible manner.

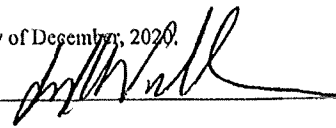
NOW THEREFORE BE IT RESOLVED that the Scott County Board of Commissioners authorizes the Scott County letter to Mixed Municipal Solid Waste landfills requesting support for certification of application.

COMMISSIONERS	VOTE			
Weckman Brekke	☒ Yes	☐ No	☐ Absent	☐ Abstain
Wolf	☒ Yes	☐ No	☐ Absent	☐ Abstain
Beard	☒ Yes	☐ No	☐ Absent	☐ Abstain
Beer	☒ Yes	☐ No	☐ Absent	☐ Abstain
Ulrich	☒ Yes	☐ No	☐ Absent	☐ Abstain

**State of Minnesota)
County of Scott)**

I, Lezlie A. Vermillion, duly appointed qualified County Administrator for the County of Scott, State of Minnesota, do hereby certify that I have compared the foregoing copy of a resolution with the original minutes of the proceedings of the Board of County Commissioners, Scott County, Minnesota, at their session held on the 15th day of December, 2020 now on file in my office, and have found the same to be a true and correct copy thereof.

Witness my hand and official seal at Shakopee, Minnesota, this 15th day of December, 2020.



County Administrator

Administrator's Designee

December 15, 2020

William Keegan
President
Dem-Con Companies
13020 Dem-Con Drive
Shakopee, MN 55379

Re: Dem-Con Companies – Certificate of Need

Dear Mr. Keegan:

This letter is in response to Dem-Con Companies' letter dated November 13, 2020 requesting information pertaining to municipal solid waste (MSW) management in Carver County. In accordance with the Metropolitan Solid Waste Management Policy Plan, Carver County has prepared its best estimate of MSW tonnages available for management at a prospective Dem-Con Companies Landfill from 2021 through 2030.

Carver County is committed to protecting and improving the environment and the quality of life within the County through the implementation of the 2018-2038 Carver County Solid Waste Management Master Plan (Master Plan). The overall objective of the Master Plan is to manage MSW consistent with the waste management hierarchy, which identifies waste reduction, recycling, and the processing of waste as preferred methods over land disposal. While it is our goal to divert waste from land disposal, the County understands the role that land disposal plays for the current and future management of municipal solid waste.

Forecast models generated by the Minnesota Pollution Control Agency (MPCA) estimate that Carver County will need enough local land disposal capacity to properly dispose of approximately 566,121 tons of unprocessable MSW from 2021 through 2030. To determine the best estimate of MSW available for management at a prospective Dem-Con Companies Landfill for that time period, the County analyzed information provided by Dem-Con Companies as well as historical data provided by haulers and disposal facilities.

Dem-Con Companies indicated that approximately 582,926 tons of Carver County MSW would be available for management at a prospective Dem-Con Companies Landfill from 2021-2030. This total was estimated using the reported 51,445 tons of MSW from the 2018 Carver County SCORE Report inflated by 1.66% based on annual census data for Carver County.

Carver County utilized data from the MPCA ReTRAC data management system and the Metropolitan County Annual MSW Data Report to determine the percentage of Carver County MSW that could be delivered to a prospective Dem-Con Companies Landfill. Based on this data, approximately 26% of Carver County waste was delivered to Dem-Con Companies in 2019. When applying this percentage to the waste forecasts developed by the MPCA, the County estimated that approximately 147,191 tons of Carver County MSW would be available for management at a prospective Dem-Con Companies Landfill from 2021-2030.

Year	Dem-Con Estimates (tons)		Carver County Estimates (tons)	
	Total MSW Available for Land Disposal	Total MSW for Dem-Con Landfill	Total MSW Available for Land Disposal	Total MSW for Dem-Con Landfill
2021	54,057	54,057	53,229	13,840
2022	54,957	54,957	54,008	14,042
2023	55,872	55,872	54,787	14,245
2024	56,803	56,803	55,566	14,447
2025	57,748	57,748	56,345	14,650
2026	58,710	58,710	57,042	14,831
2027	59,687	59,687	57,740	15,012
2028	60,681	60,681	58,437	15,194
2029	61,691	61,691	59,135	15,375
2030	62,718	62,718	59,832	15,556
2021-2030	582,926	582,926	566,121	147,191

The County would like to point out that MSW collection and disposal within Carver County is entirely managed by private entities. The County does not control or require all or a portion of MSW to be delivered to a designated waste management facility. Therefore, the estimates Carver County provided could change greatly between 2021 and 2030 depending on private business decisions within the waste industry.

To help minimize our long-term liability with our waste ("cradle to grave" responsibility), the County would like to see our waste stay within Minnesota to ensure all disposal facilities are meeting the MPCA minimum permit requirements for construction, operation, closure and monitoring. Additionally, Carver County supports utilizing local facilities to minimize energy resources and environmental impacts of transporting waste for disposal.

If new or additional MSW processing capacity serving the Metropolitan Area becomes available, the County maintains that the management of the MSW generated in the County follows the waste management hierarchy and applicable restrictions on disposal.

Please contact Brad Hanzel at 952-361-1805 or bhanzel@co.carver.mn.us if you have questions or require additional information.

Sincerely,



James Ische
Carver County Board of Commissioners, Chair

Cc: Greg Boe, Carver County Environmental Services
Brad Hanzel, Carver County Environmental Services
Peder Sandhei, MPCA

HENNEPIN COUNTY
MINNESOTA

December 14, 2020

William P. Keegan, P.E.
President
Dem-Con Companies
13020 Dem-Con Drive
Shakopee, MN 55379

Re: MPCA Certificate of Need Letter Request

Dear William P. Keegan,

In response to your Certificate of Need request dated November 13, 2020, Hennepin County is providing a letter as a member of the Partnership on Energy and Waste, which is a joint powers board consisting of Hennepin, Ramsey and Washington counties. If you have any questions, please contact me at 612-348-5906.

Sincerely,



Dave McNary
Assistant Director

Sent via [email](#)

Cc: Peder Sandhei, Minnesota Pollution Control Agency

Hennepin County Environment and Energy
701 Fourth Ave S., Suite 700, Minneapolis, MN 55415
612-348-3777 | hennepin.us/environment





December 14, 2020

William P. Keegan, P.E.
President
Dem-Con Companies
13020 Dem-Con Drive
Shakopee, MN 55379

Dear William P. Keegan,

The Partnership on Waste & Energy (PWE) is a joint powers board between Hennepin County and Ramsey/Washington Recycling & Energy (R&E). PWE includes Hennepin, Ramsey, and Washington counties and collaborates in areas of waste and energy management.

The PWE is submitting this letter on behalf of the three counties pertaining to the Minnesota Pollution Control Agency's (MPCA) notice of intent to accept certificate of need (CON) requests from Twin Cities metropolitan area landfills. Under state law, a CON request by a landfill must include annual solid waste estimates and the origin of waste from each county or waste management district.

Hennepin, Ramsey, and Washington counties support the policy goals of the Waste Management Act and the solid waste management hierarchy. The counties developed their 2018 Solid Waste Management Master Plans to make progress toward the goals in state statute and the objectives in the Metropolitan Solid Waste Management Policy Plan. The master plans and annual progress reports demonstrate each county's commitment to public health and the environment.

Hennepin County

Hennepin County has estimated the total amount of mixed municipal solid waste (MMSW) to be generated annually in the county from 2021 through 2030. The county estimates that 365,000 tons per year of MMSW will be managed at Hennepin Energy Recovery Center (HERC) for resource recovery and an additional 60,000 tons per year of MMSW will be managed at the county's Brooklyn Park Transfer Station (BPTS).

The remaining tons of MMSW will be managed in the private system. The MPCA is in the best position to determine how those remaining tons should be allocated by facility for the purposes of Certificate of Need requests. The MPCA has access to statewide waste data, an in-depth knowledge of landfill permits, and a holistic perspective on capacity needs. In addition, it is the MPCA's responsibility to ensure the orderly and deliberate development of facilities, including landfills.

PARTNERSHIP ON WASTE AND ENERGY
HENNEPIN | RAMSEY | WASHINGTON

2785 White Bear Avenue North, Suite 350 | Maplewood, MN 55109
info@morevaluelesstrash.com | 651-266-1199

Hennepin County Tonnage Estimates

Year	MMSW Generated	Resource Recovery at HERC	Tons Available for Landfill	BPTS to Landfill	Private System to Landfill
2021	848,600	365,000	483,600	60,000	423,600
2022	863,900	365,000	498,900	60,000	438,900
2023	875,600	365,000	510,600	60,000	450,600
2024	884,800	365,000	519,800	60,000	459,800
2025	892,000	365,000	527,000	60,000	467,000
2026	896,500	365,000	531,500	60,000	471,500
2027	899,700	365,000	534,700	60,000	474,700
2028	901,500	365,000	536,500	60,000	476,500
2029	902,200	365,000	537,200	60,000	477,200
2030	901,700	365,000	536,700	60,000	476,700

Ramsey/Washington Recycling & Energy

All MMSW generated in Ramsey and Washington counties is designated through county ordinance to the Ramsey/Washington Recycling & Energy Center (R&E Center) located in Newport, MN. A percentage of that waste is non-processible or residual and needs to be disposed of at a landfill.

Ramsey and Washington counties' Joint Waste Designation Plan was approved by the MPCA in 2017 and includes waste projections for the counties through the R&E Center system. While adjustments are made as new data comes in such as from annual SCORE reports, the counties and R&E continue to base waste projections and future plans on these waste designation projections.

Ramsey and Washington counties have estimated the total amount of MMSW to be generated from the two counties annually from 2021 through 2030, as well as the estimated annual amounts to be managed at the R&E Center for processing. The remaining MMSW is estimated for waste needed to be disposed in landfills for the two counties in the table below.

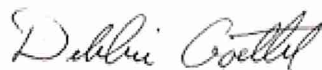
R&E currently contracts with Burnsville Sanitary Landfill and with BFI Waste Systems of North America dba Pine Bend with agreements through 2022. Tonnages in 2021 and 2022 are estimated based on the proportion of landfilled waste delivered to each landfill facility in 2019. After 2022, the estimated annual tonnage is shown as total landfill capacity needed, and is not identified by landfill facility. R&E cannot identify estimated quantities by landfill facility after 2022, as new landfill agreements will need to be solicited. In selecting landfills for contracts, Ramsey and Washington counties, through R&E, will take into consideration a number of elements, such as long-term environmental liability; facility compliance with federal, state and local regulations; operating factors such as hours of operation and services offered at the site; transportation costs; and general risk associated with the landfill.

Ramsey and Washington Counties Tonnage Estimates

Year	Burnsville Sanitary Landfill est.	BFI Waste Systems of North America dba Pine Bend est.	Total Landfill Tons
2021	5,600	82,100	87,700
2022	5,600	82,000	87,600
2023			87,200
2024			86,600
2025			85,700
2026			84,500
2027			83,000
2028			81,200
2029			79,000
2030			76,500

Please contact Dave McNary, Hennepin County at 612-348-5906, Zack Hansen, Ramsey County at 651-266-1160 or Nikki Stewart, Washington County at 651-430-6713 with questions.

Sincerely,



Commissioner Debbie Goettel, Hennepin County
Chair, Partnership on Waste and Energy



Commissioner Fran Miron, Washington County



Commissioner Victoria Reinhardt, Ramsey County

December 17, 2020

Mr. Bill Keegan, P. E.
President
Dem-Con Companies
13020 Dem-Con Drive
Shakopee, MN 55379

Re: Dem-Con Landfill – Certificate of Need

Dear Mr. Keegan:

As a follow-up to your letter regarding a certificate of need (CON) request for the prospective Dem-Con MMSW Landfill, Anoka County understands the closing of the Great River Energy Waste-to-Energy Facility caused waste generated within the County and delivered to the Dem-Con Transfer Station to be diverted for disposal at municipal solid waste (MSW) landfills in Minnesota as well as outside of the state borders.

As per the 2018 Anoka County Solid Waste Management Master Plan, it is the policy of Anoka County that landfills are a necessary component of an integrated solid waste management system. Sufficient landfill capacity should be available to:

- manage solid wastes that cannot be reduced, reused, recycled, composted or processed;
- operate an efficient regional solid waste management system; and
- manage waste in the event of unscheduled facility shutdowns, abatement market downturns, or catastrophic events.

While the County supports a market approach, in order to minimize the County's long-term liability with waste generated within the County, it is preferred that MSW generated within Anoka County be disposed of at MSW Landfills within Minnesota to ensure all disposal facilities are meeting the Minnesota Pollution Control Agency (MPCA) minimum permit requirements for construction, operation, closure and monitoring. The County is working diligently to meet our goals to divert as much waste from MSW landfills as possible. It is the understanding of the County all nearby waste-to-energy facilities are currently operating at capacity. We estimate between 2021 and 2031, 4,066 - 5,464 tons of MSW per year (with a 3% growth rate) from Anoka County (which has historically been managed through the Dem-Con Transfer Station in Blaine) could be disposed of at the Dem-Con Landfill in Shakopee if/when a permit is approved.

Anoka County acknowledges that Dem-Con is requesting approximately 182,000 tons/year, would be available for management at the prospective Dem-Con MMSW landfill in Shakopee, via the Blaine transfer station. It is the policy of Anoka County to encourage open and competitive markets and thereby cannot guarantee that all the waste generated in Anoka County will be landfilled at Dem-Con's facility. Anoka County prefers all unprocessable MSW generated in the County be disposed of within the State of Minnesota boundaries. We anticipate the Dem-Con Landfill to meet a portion of our MSW disposal needs. In the event new or additional MSW processing capacity serving the Metropolitan Area becomes available, the County maintains the management of MSW generated in the County follows the waste management hierarchy and applicable restrictions on disposal.

Anoka County reviewed historical data of the amounts of MSW managed through the Shamrock and then Dem-Con Transfer station as well as factored in a theoretical portion of what had been going to processing to now be managed through the Dem-Con transfer station. Also included in the analysis was an assumed 3% rate of growth due to population increases, etc. as is consistent with the estimates provided to the Minnesota Pollution Control Agency.

As such, Anoka County anticipates the following volumes to be available to go to the Dem-Con Landfill:

Waste Flows	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Tons	4,066	4,188	4,313	4,443	4,576	4,714	4,855	5,000	5,150	5,305	5,464

Please feel free to call or email Alison Peterson, Anoka County Environmental Services Manager if you have any further needs.

Sincerely;

Anoka County Board of Commissioners



Tri-County Solid Waste Office

January 13, 2021

William P. Keegan, P.E.
President Dem-Con Companies
13020 Dem-Con Drive
Shakopee, MN 55379

Re: Tri County letter of support for Dem-Con Companies Certificate of Need (CON) application

To whom it may concern,

This is a letter of support for the Dem-Con Companies in pursuit of CON from the Tri County Solid Waste Joint Powers Board consisting of Nicollet, Le Sueur and Sibley Counties regarding the current disposal of the three (3) Counties solid waste tons and the future disposal of said tonnages. The Dem-Con Companies currently process the majority of recyclable tons from the Tri Counties and a percentage of our solid waste tons. It is our understanding that the Dem-Con Companies are pursuing the processing of organics from solid waste streams to produce renewable natural gas to further evolve its operations. The Tri County Solid Waste Board is in favor of recycling technologies that increase recycling and reduce waste.

As reported in the 2019 Tri County Solid Waste SCORE Re Trac program – the Tri Counties reported a combined total of 59,075 tons of solid waste. A further break down of the tons are – 22,795 of that total being residential and 36,280 tons being from commercial. Our Counties are currently committed to the waste to energy (WTE) integrated system where by the Counties have committed their solid waste (via the Public Entities Statute) to the WTE system. It is reported that approximately eighty – five (85) percent or higher of these residential tons ($22,796 \times 85\% = 19,377$ tons) ends up in the WTE system. It is presumed and anticipated that these Public Entity solid waste tons, along with the current affiliated commercial solid waste tons, will follow the same direction and end up in the same processing location as the committed solid waste tons from the Ramsey / Washington Counties WTE system. Future technologies as presented and developed by the Dem-Con Companies will most likely present opportunities for these solid waste streams to migrate to the Dem-Con Companies processing facilities and will be in need of CON to dispose of unusable materials. Furthermore, as Dem-Con develops these solid waste technologies and processing becomes more efficient, affordable and environmentally sound, the Tri Counties solid waste stream (tonnages) will become available for management at facilities such as Dem-Con.



Tri-County Solid Waste is an Equal Opportunity Employer

Nicollet County Courthouse • 501 South Minnesota Avenue • St. Peter, MN 56082 • Ph: 507-934-7078 • Cell: 507-381-9196

The Tri Counties prefer local, economical and environmentally protective disposal options and have a long-standing positive relationship with the Dem-Con Companies and therefore we support their pursuit of CON for the success of their future organics recycling operations.

Sincerely,

A handwritten signature in black ink, appearing to read "Marie Dranttel", with a long, sweeping horizontal line extending to the right.

Marie Dranttel
Tri County Solid Waste Board Chair

Cc: Al Christensen, Tri County Solid Waste Director
Peder Sandhei, MPCA

APPENDIX B

EPA GREENHOUSE GAS EQUIVALENTS

EPA CALCULATOR

PROJECTED GREENHOUSE GAS SAVINGS FOR ESTIMATED 2020 SEVEN COUNTY METRO
TONNAGE MANAGED AT DEM-CON RATHER THAN TIMBERLINE TRAIL

Equivalency Results [How are they calculated?](#)

The sum of the greenhouse gas emissions you entered above is of Carbon Dioxide Equivalent. This is equivalent to: **17,567 Tons**

Greenhouse gas emissions from

 Passenger vehicles driven for one year 3,443	-or-	 Miles driven by an average passenger vehicle 39,544,699
---	------	--

CO₂ emissions from

 gallons of gasoline consumed 1,793,239	-or-	 gallons of diesel consumed 1,565,473	-or-	 Pounds of coal burned 17,559,852
---	------	---	------	---

EPA CALCULATOR

PROJECTED GREENHOUSE GAS SAVINGS FOR ESTIMATED 50,000 TONS FROM ANOKA COUNTY
MANAGED AT DEM-CON RATHER THAN SEVEN MILE CREEK LANDFILL

The sum of the greenhouse gas emissions you entered above is of Carbon Dioxide Equivalent. This is equivalent to: **756 Tons**

Greenhouse gas emissions from

 Passenger vehicles driven for one year 148	-or-	 Miles driven by an average passenger vehicle 1,701,815
---	------	---

CO₂ emissions from

 gallons of gasoline consumed 77,172	-or-	 gallons of diesel consumed 67,370	-or-	 Pounds of coal burned 755,692
--	------	--	------	---

APPENDIX C

FAILED ALTERNATIVE PROCESSING TECHNOLOGIES

GRE CLOSURE -EXAMPLE

MPRnews

Elk River garbage-burning power plant to close

Kirsti Marohn November 22, 2018 10:00 a.m.

Great River Energy says it will close a plant in Elk River that converts trash into energy after failing to find a buyer willing to take it over.

The Elk River Resource Recovery Project is about 30 miles northwest of Minneapolis. It includes a plant where solid waste is processed into fuel, a power plant that burns the fuel to generate energy and a landfill for leftover ash.

Great River Energy has owned the power plant since 1989, and bought the processing plant and landfill in 2010. It employs 84 people.

The plant has been financially unsustainable for years due to low electricity prices and less garbage coming in, said Therese LaCanne, Great River spokesperson.

Great River announced in July that it would sell the plant unless a buyer stepped forward. LaCanne said the company talked to several counties about purchasing it.

But the decision to close the plant became final on Tuesday after the Sherburne County board of commissioners decided not to pursue ownership.

Sherburne officials reached out to several other counties, including Anoka and Hennepin, about partnering on the project without success, said board chair Lisa Fobbe. Sherburne County only provides about 5 percent of the Elk River plant's waste, she said.

"We're really a little fish in this big pond of solid waste," Fobbe said. "In the end, we just realized that it wasn't anything Sherburne County would be able to take on by ourselves."

Fobbe said it wasn't an easy choice, because the plant's 84 employees will lose their jobs.

"When you're dealing with people's jobs and lives, it's not something that I or we take lightly," she said. "It was just a really, really difficult decision, but something that in the end we had to do."

LaCanne said Great River will provide severance pay and financial planning services to the employees. Great River Energy's other facilities in Elk River, including a peaking power plant and office, will continue to operate, she said.

Fobbe said the waste that had been going to the Elk River plant likely will end up in landfills, since it's up to individual haulers to decide where to take their garbage and landfilling is the cheapest option. Some could go to other garbage-burning plants in Minnesota, like the Pope-Douglas waste-to-energy facility in Alexandria.

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Support MPR News

OTTAWA - PLASCO EXAMPLE

Ottawa severs ties with Plasco as company files for creditor protection



JOANNE CHIANELLO, OTTAWA CITIZEN

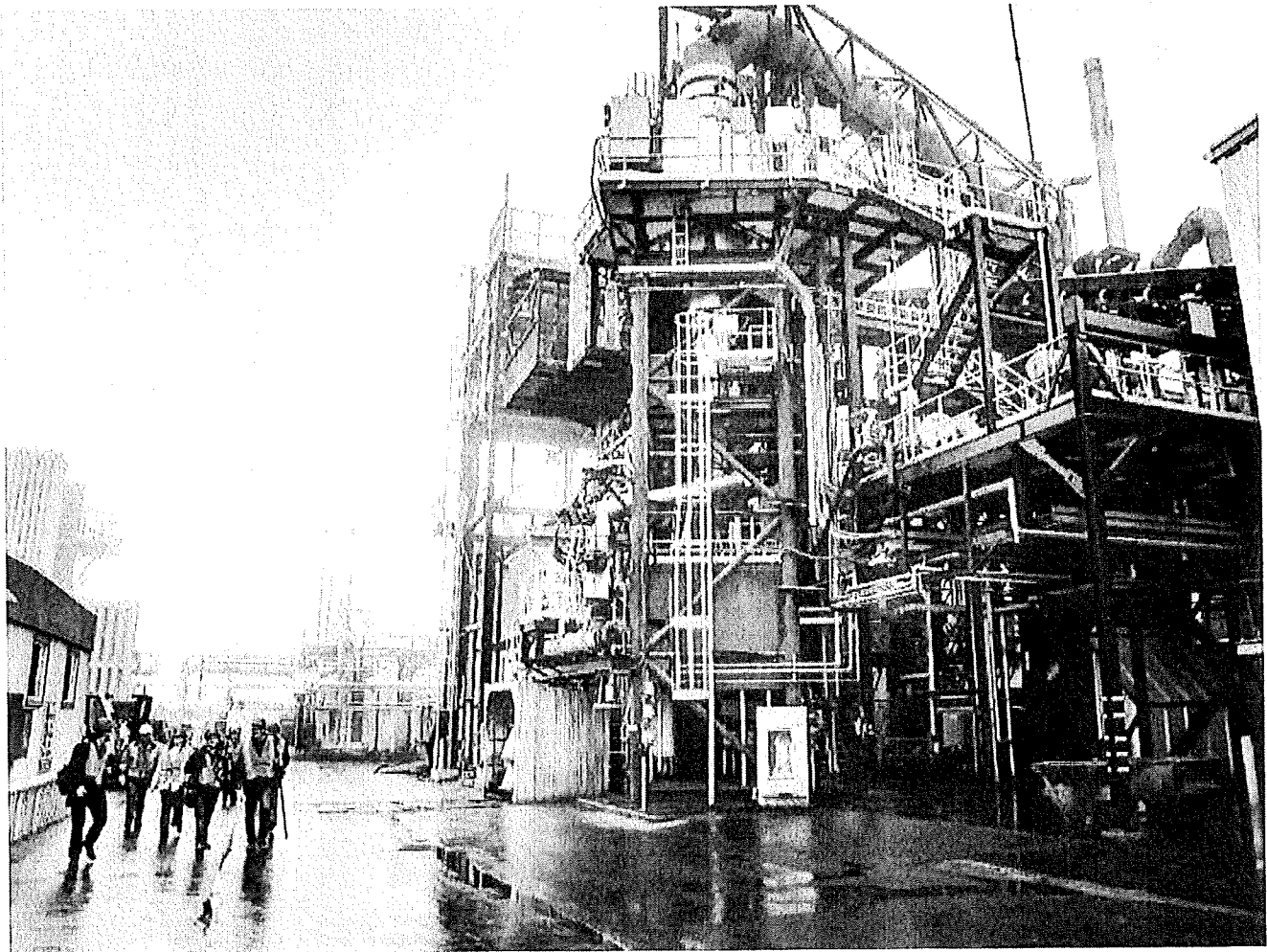
More from Joanne Chianello, Ottawa Citizen ([HTTP://OTTAWACITIZEN.COM/AUTHOR/JOANNE-CHIANELLO](http://ottawacitizen.com/author/joanne-chianello))



MATTHEW PEARSON, OTTAWA CITIZEN

More from Matthew Pearson, Ottawa Citizen ([HTTP://OTTAWACITIZEN.COM/AUTHOR/MPEARSON78](http://ottawacitizen.com/author/mpearson78))

Published on: February 10, 2015 | Last Updated: February 10, 2015 9:13 PM EDT



The proposed net operating budget for the environment department is \$49.1 million. That's 2.2 per cent lower than the 2014 budget. The savings come primarily from the decline of Plasco Energy

On the same day that city officials recommended that Ottawa end its relationship with Plasco Energy Group, the home-grown waste-management firm filed for creditor protection, resulting in the loss of 80 jobs and the end of an era for a company once considered a shining light in the local clean-tech industry.

The city's relationship with Plasco is "for all intents and purposes" done, Mayor Jim Watson said Tuesday after learning of the news. "While it's regrettable the Plasco arrangement did not work out, the fact is we have to move forward and find other technologies other than burying garbage in a hole."

The 80 laid-off employees — all local — are to receive one month's salary and benefits, as well as any vacation and other time owed to them. The remaining 25 employees, including president and CEO Ray Floyd, have been retained because they are considered key in helping Plasco move into whatever its next phase might be, according to a source with knowledge of the proceedings.

It appears Plasco simply ran out of time and money. An attempt to secure a grant from the Sustainable Development Technology Canada fund was unsuccessful at the end of January. (The federal fund had granted Plasco \$9.5 million in 2005.)

Then on Feb. 1, Plasco missed a \$3.5 million payment owed to a creditor, according to court documents. Following a grace period of 10 days, the creditor could have demanded immediate payment of \$18 million.

But the Companies' Creditors Arrangement Act proceedings has bought Plasco protection from its creditors and time to figure out what to do next. It's still unclear how long the stay of proceedings is, but the usual time is 30 days.

Although it has raised more than \$300 million over the years, Plasco was unable to secure financing for its commercial plant by Dec. 31, missing its

third and final deadline under the 20-year contract that would have paid Plasco \$9.1 million a year to take up to 300 tonnes of garbage a day.

That final missed deadline opened the door for the city to walk away from the contract and explore other options. Early last month, the city posted a Request for Information for residual waste management technologies and received 37 submissions from places as far away as Korea, Japan, Germany and Spain, as well across Canada and the United States.

Only four firms provided the city with documentation that demonstrated the operation of a commercial-sized facility that processes municipal solid waste, according to a report to the environment committee by city manager Kent Kirkpatrick. However, the report recommends that council not proceed with the procurement strategy for residual waste management until after the green bin program review is completed later this year.

While the city's contract with Plasco called for the company to build the commercial plant, the capital costs for the various technologies described in the report, which include incineration, range from \$50- to \$275-million, while annual operating costs range from \$3- to \$75-million.

As for Plasco, Kirkpatrick seeks council's permission to terminate not just the contract, but the lease for the company's demonstration facility on city land.

The lease agreement gives the company 18 months to decommission its site. The company will not be required to pay rent during that time and has provided a \$300,000 decommission security. The city can use the money to complete the decommission of the site should Plasco fail to do so.

Plasco also owes the city \$27,824.

The report to the environment committee had already been prepared when news broke that the company had applied for creditors' protection, so questions remain over how exactly the city can move forward when the committee meets next Tuesday.

It's not clear what's next for Plasco, which appears to have sold many of its assets and is leasing them back. Randall Benson, a partner and turnaround specialist with KPMG, was hired by the company to oversee the restructuring of the company. In a statement, he said that "Plasco will

explore potential strategic alternatives that may provide the company the funding required to pursue commercial development of its technology."

It's also possible that in addition to financial troubles, Plasco may have also been dealing with technical issues. In November, Plasco informed the Ministry of Environment that it planned to reduce its plant size, which included changes to its drying and cooling system, storm-water management, and a reduction in engines from 10 to seven. Plasco did not publicly address why it was making those changes.

In 2005, Plasco was a company with eight employees led by a bullish Rod Bryden who was set on proving that the company's proprietary technology could use plasma — a very high-temperature gas — to convert garbage into energy. By 2008, Bryden had convinced a council led by then-mayor Larry O'Brien to provide city land for a demonstration project. After years of trials — and promises from Bryden that the approvals to expand the operations were imminent — Plasco finally received its certification from the environment ministry in 2011, which allowed the company to move ahead with a commercial plant.

Later that year, Plasco and the city entered into an agreement, but the terms of the contract were ultimately not met. In November 2013, Bryden was replaced as CEO by Floyd, who brought with him experience as a senior executive at General Motors, Exxon Mobil and Suncor Energy.

Bryden, who remained executive chairman, said Tuesday only that he was "sad and disappointed."

Plasco has signed a number of international agreements, but none of them were confirmed contracts to construct commercial plants.

With files from Vito Pilieci

A timeline of the Plasco Energy Group

2006

June 9: Rod Bryden, president and CEO of Plasco Energy Group announces a pilot project to generate electricity from waste ('plasma gasification') at the Trail Road Landfill. An agreement with the City of Ottawa says Plasco will

build the project at no cost and run it for up to two years. The plant is to be in full production by April 1, 2007, and will be a solution to growing pressure on landfills. The City will pay for treatment of 75 tonnes of waste per year and will receive royalties from Plasco worth up to \$37 million over 10 years, once other cities have plants in operation. Financed with help from a government environmental fund, it will cost about \$31 million.

Sept. 19: Plasco officially begins construction of a \$27-million demonstration project near the Trail Road landfill. It is to start operation by March, 2007.

2007

Feb. 16: Bryden says that construction of Plasco's pilot project plant, is proceeding well, a little behind schedule and a few million dollars over the projected cost, and that by May, power will be flowing from the plant.

April 27: Minister of Health Promotion Jim Watson says Ontario will invest \$4 million in Plasco, diverting 85 tonnes of garbage per day into clean electricity. Environment committee chair Counc. Jan Harder, admits initially she thought the technology sounded "too good to be true." After visiting a Plasco test plant in Spain, Harder thinks it could work in Ottawa.

Dec. 3: The Citizen reports that Plasco has raised \$54 million in new funding, with a U.S. backer promising \$115 million in 2008. The firm plans to add 100 jobs to the current 85 at its Ottawa operations.

2008

Feb. 7: Plasco has its first full demonstration, converting a load of municipal garbage into electricity that is sold to Hydro Ottawa.

Feb. 27: Bryden says that Plasco is gearing up for full-time operation next month, saying, "So far it's done exactly what we've expected it to do." He says the facility isn't operating at full capacity because it is still testing equipment and adjusting its conveyors.

June 3: Plasco offers to build a \$125-million plant near the Trail Road Landfill to take the 400 tonnes per day of Ottawa's non-recyclable residential garbage, if council approves the deal. The plant could be running by early 2010. Mayor Larry O'Brien says, "This is a very exciting technology ... exactly where every modern city in the western world should be heading when it comes to waste management."

June 10: The City of Ottawa agrees to go ahead with its partnership with Bryden to move from testing its garbage-to-power technology to building a full commercial-size plant.

July 9: City council unanimously approves a plan to exempt Plasco from paying \$72,000 per year in municipal taxes.

Sept. 8: Bryden calls a two-month plant shutdown 'planned', having nothing to do with high sulphur dioxide emissions in July.

Sept. 16: Controversy arises when Counc. Jan Harder and Ottawa's top garbage bureaucrat take a trip to Port Moody B.C. on Plasco's tab to attend a public meeting demonstrating the company's technology. Critics say public officials should not be involved in Plasco's sales pitches.

2009

May 12: Plasco lays off 57 engineering staff because of delays raising project financing for a \$90-million project in Alberta. The temporary layoffs are to last up to 12 weeks.

Sept. 21: Bryden says Plasco's bugs have been worked out and facility could be ready by 2011. A contract to finalize an \$8 million agreement to process Ottawa's garbage could be signed within the next few weeks.

2010

Jan. 14: The Citizen reports that a contract is expected to be finalized imminently between the Plasco and the City, and will deliver 140,000 tonnes of garbage per year. .

Feb. 17: Plasco signs an agreement that is to see it begin to treat municipal solid waste in Poland.

May 24: The Ontario Ministry of the Environment (MOE) finds the Plasco plant struggling with smog-causing emissions, and has not yet proven it can be successful. Bryden says they won't sign a contract with the city for a full-scale plant until the problems are resolved.

June 24: Plasco says it expects to have the first of several Chinese plants in operation in two years. Meanwhile, an Alberta environmental agency gives a

\$10 million grant to Plasco Alberta to build the Red Deer plant announced two years previously.

July 28: Plasco raises \$110 million in private funding to help it begin construction of waste-to-energy conversion facilities around the world. Cash will be allocated to help the Trail Road test facility pass the MOE emissions tests.

Dec. 22: Plasco says it has completed operational and environmental testing at its Trail Road plant, and will need to apply for a new operating certificate in order to run its plant permanently.

2011

Jan 6: Plasco's plant on Trail Road is slated to shut down on Jan. 21, the expiry for the pilot project, while the company pursues approvals from the MOE to expand,

March 22: Plasco receives \$140 million from a group of private investors.

Oct. 27: Ottawa officials continue negotiating a long-term \$8 million annual contract with Plasco after it receives both air and waste certificates of approval from the MOE.

Nov. 15: A long-term deal to have Plasco process Ottawa's garbage into energy could be presented to city councillors as soon as December, city manager Kent Kirkpatrick reports.

Nov. 26: The Citizen reports that Brian Guest, a senior executive at Plasco with close ties to Mayor Jim Watson and Infrastructure Minister Bob Chiarelli has worked as a top consultant on three of the biggest City Hall files this year, including while negotiations over a long-term deal for Plasco to dispose of city garbage intensified.

Dec. 1: The City of Ottawa quits a provincial waste-management trade association after it sent a letter requesting the city stop negotiating with Plasco Energy Group following the Brian Guest revelations.

Dec. 5: Mayor Jim Watson calls the not-fully finalized contract with Plasco a good deal for taxpayers. The city will pay \$9.1 million a year to Plasco to take up to 300 tonnes a day, (about a third of Ottawa's household waste production) of garbage.

Dec. 14: Pinning their hopes to a pledge that Ottawa taxpayers are supremely well protected from any financial risks A 22-1 vote by council seals a 20-year deal with Plasco Energy Group. Only Councillor Diane Holmes of Somerset ward dissents. Under terms of the agreement, Plasco's new plant would have to begin operating between 2014 and 2016. The company would need all necessary construction financing in place to the city's satisfaction, and would have had to award at least \$5 million worth of equipment manufacturing contracts by the end of March 2013, or the city could get out of the contract.

2012

March 24: Bryden says Plasco has worked out all pieces of its garbage-processing contract with the city.

Nov. 20: After many delays and missed deadlines, the city's contract with Plasco Energy Group could be inked by mid-December, says city council's environment committee chair Maria McRae.

Dec. 15: One full year after the two parties came to a \$180-million-plus, 20-year agreement, the city finally signs a contract wherein Plasco will process 109,500 tonnes of city waste annually. The 20-year contract has four, five-year extensions at the option of the city. The city is to pay the Ottawa company \$83.25 for every tonne of garbage it processes. It is clear that Plasco will not be able to meet a March 2013 construction and financial milestone.

2013

Feb. 27: As the March 31 deadline looms, city council grants Plasco another five months to pull together the financing and start letting contracts for the garbage-to-energy plant the city wants it to build near the Trail Road Landfill.

July 12: As the clock ticks on the city's provisional deal with Plasco, city manager Kent Kirkpatrick sends a letter to Plasco "starting the 60-day notice period" to terminate the contract between the city and the company.

Aug. 15: Plasco says it won't have financing lined up until the end of 2014, blowing its original deadline by nearly two years. City staff recommend keeping the contract alive.

Aug. 28: By a 17-5 council agrees to extend an imminent deadline for Plasco to put together the \$200 million it needs until December, 2014

Nov. 1: Plasco announces that board member Raymond Floyd will immediately replace Rod Bryden as chief executive officer of the company. Bryden, 72, is to remain on the company's board of directors as executive chairman.

2014

Jan. 30: Rod Bryden announces his departure from Plasco.

March 8: The Citizen reports that the promised scheduling of a technical briefing with Plasco CEO Ray Floyd for February has not come to pass.

Aug. 14: Plasco lays off 12 employees after the company decides not to keep spending money on operating its demonstration plant at full capacity. The company employs 110 people.

Dec. 31: Plasco misses its third deadline set by the city to prove it has secured the financing it needs to build a waste-to-energy plant in Ottawa by 2016. The city now has the power to terminate the contract. A company spokesman says that Plasco representatives will be at the Feb. 17 environment committee meeting to bring councillors up to speed on the company's plans.

2015

Feb. 10: Mayor Jim Watson says the city is done with Plasco as the company files for creditor protection.

Comments

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GLENDALÉ, AZ EXAMPLE

Glendale in \$200 million trash war with energy firm

Peter Corbett, The Republic | azcentral.com Published 3:29 p.m. MT Sept. 18, 2015 | Updated 12:36 p.m. MT Sept. 22, 2015



(Photo: John Samora/The Republic)

It was a deal that was supposed to turn Glendale's trash into revenue for the city and its partner Vieste Energy through recycling and converting garbage to electricity.

But so far, the city's October 2012 agreement with Vieste has only generated a flurry of legal filings. Vieste's \$30 million recycling facility sits idle near the city landfill at 115th and Glendale avenues.

The trash war of words started in February with Chicago-based Vieste filing a claim against Glendale seeking \$200 million in damages.

Glendale countered in April with a lawsuit in Maricopa County Superior Court seeking to resolve a key question in its 30-year contract with Vieste: Can the city include grass, leaves, brush and other yard waste with the household trash it delivers to Vieste from its 52,000 residential customers?

"We think the agreement is pretty clear and Vieste is trying to change the rules of the game," said Nancy Mangone, Glendale assistant city attorney.

Vieste has argued the contract does not allow the city to deliver yard waste until an energy plant is built at a cost of up to \$100 million.

The outcome of the litigation has serious implications for what happens with 120 tons of Glendale trash every year, whether more waste can be recycled or converted to energy and whether local taxpayers end up paying millions of dollars for something that was supposed to generate about \$560,000 annually for the city without any capital costs.

An arbitrator in March ruled in favor of Vieste, saying that yard waste was unacceptable for the first phase of Vieste's recycling facility.

Glendale filed suit asking a judge to review the entire contract on that issue, and later demanded that Vieste pay its \$10,000 monthly lease payments for previous months or the city would consider terminating the agreement.

But the city and Vieste agreed to negotiate and Glendale said it would hold off on any action to terminate the agreement and the lease until Oct. 1.

Vieste invested \$2.5 million in its recycling plant and obtained about \$29 million in bond financing to build the facility.

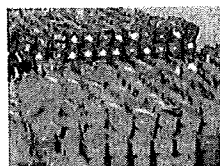
In court filings, Vieste said it could be forced into bankruptcy, lose its recycling facility and default with bondholders.

Glendale, in its response, alleged that the Vieste site appears to be contaminated with oil, diesel fuel or gasoline that must be cleaned up by Vieste.

Municipal waste collection

Recycling and reuse of waste is a growing concern in the state and is one area of emphasis for Pollution Prevention Week, announced for this week by the Arizona Department of Environmental Quality.

Glendale, like many Valley cities, has weekly curbside trash and recycling collection in separate 90-gallon bins, along with monthly pickups of bulk items and yard waste.



Around the Valley

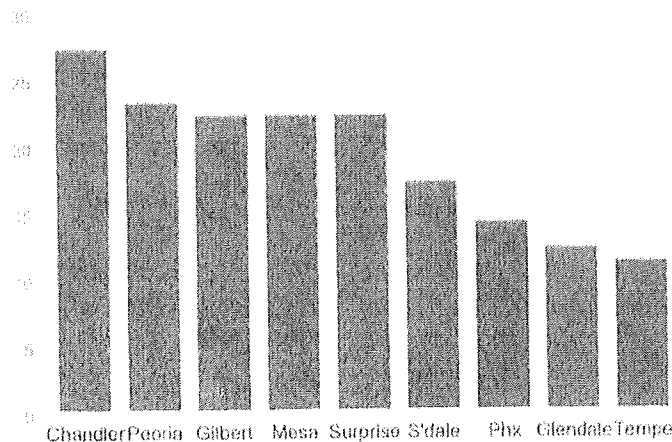
- [Take the recycling quiz](http://www.azcentral.com/stc/what-can-you-recycle/72423160/) (<http://www.azcentral.com/stc/what-can-you-recycle/72423160/>)
- [Recycling reality: Valley lags nation](http://www.azcentral.com/stc/arizona-recycling-behind-nation-average/72408854/) (<http://www.azcentral.com/stc/arizona-recycling-behind-nation-average/72408854/>)
- [Phoenix eyes ambitious recycling plan](http://www.azcentral.com/stc/recycling-goal-2020-ambitious/32566553/) (<http://www.azcentral.com/stc/recycling-goal-2020-ambitious/32566553/>)
- [What the East Valley recycles](http://www.azcentral.com/stc/tempe-chandler-gilbert-recycling-programs/32566469/) (<http://www.azcentral.com/stc/tempe-chandler-gilbert-recycling-programs/32566469/>)
- [What the West Valley recycles](http://www.azcentral.com/stc/peoria-surprise-litchfield-goodyear-buckeye-recycling-program/72379296/) (<http://www.azcentral.com/stc/peoria-surprise-litchfield-goodyear-buckeye-recycling-program/72379296/>)
- [Glendale in \\$200 million trash war with energy firm](http://www.azcentral.com/stc/million-trash-war-energy-firm/72398882/) (<http://www.azcentral.com/stc/million-trash-war-energy-firm/72398882/>)
- [Recycling business on roller-coaster ride](#)

But some Glendale residents put yard waste into the regular trash bins, which is common mistake in other cities as well, Mangone said.

<http://www.azcentral.com/stories/arizona-recycling-business-economy-impact/72425294/>

RECYCLING RATES AMONG VALLEY CITIES

Percentages for cities in the greater Phoenix area.



(Photo: The Republic | azcentral.com)

In Phoenix, as much as 30 percent of its trash is yard waste, according to a city study, said Mara DeFillipis, project manager of the Regional Green Organics Project that involves Arizona State University, Phoenix and other Valley cities.

Project participants are looking at ways to sort and use yard waste for mulch or waste-to-energy plants, she said.

Scottsdale has to keep the yard-waste volume below 20 percent in its recycling materials or it would have to pay a fine to its recycling contractor, something that has not happened, said Frank Moreno, Scottsdale solid waste director.

Mesa already has a yard-waste collection program for single-family homes. Those residents have three trash bins, one each for household trash, recycling and green waste.

Glendale's curbside recycling program, started in 2000, sells recovered aluminum, plastic, paper, cans and bottles from residents' recycling bins. Close to 15,000 tons of recyclable material was sent to the city's Materials Recovery Facility this past fiscal year.

Vieste wants to capture recyclable materials that residents dispose of in regular trash bins and sell the recovered materials. But the company said in its court filing that its sorting equipment does not work properly if yard waste is in the trash.

Phoenix attorney Don Bivens, representing Vieste, said Glendale could collect yard waste in a separate container, as some cities do, to ~~eliminate~~ ^{Fullerton} organic waste from the regular trash.

What you can, can't recycle

Mangone said that still would not ensure that yard waste would not end up in the regular trash containers.

"Even if a town or city has a third curbside trash can for 'green' wastes, some amount of yard waste is normally contained in (regular household trash), as customers either don't attempt to segregate it out or are mistaken in the definition of 'green' waste and throw it in with their regular household trash," she said.

Glendale estimates it would take \$5 million to \$7 million in startup costs for the city and up to \$1.15 million annually to remove the yard waste by ~~delivering~~ ^{delivering} it to Vieste.

Under its agreement with Vieste, Glendale is required to deliver at least 120,000 tons of municipal waste annually, half of what it collects.

Vieste and Glendale estimated that Vieste would remove about 26,000 tons of recyclable materials from the regular trash annually. That would extend the lifespan of the landfill by about three years.

Vieste is required to pay the city \$100,000 annually to lease six acres for its recycling facility and Glendale is guaranteed a recycling management fee of \$476,000, escalating by 0.5 percent annually.

Vieste refuses trash loads

In May, Vieste rejected more than 300 loads of trash from Glendale garbage trucks delivered to Vieste's recycling facility because the loads included yard waste.

Completion of the energy facility would solve the problem with the yard waste. But it would cost \$75 million to \$100 million to build, Bivens said.

"It seems unlikely that the energy plant remains a viable option, given the actions of the city of Glendale," he said, adding that it would take about three years to get a Maricopa County air-quality permit and build the plant.

Vieste has not operated a recycling facility or an energy plant but the technology has been used in North America to convert trash to energy through a process known as gasification.

Instead of burning it, gasification converts trash into a gas through a chemical reaction. This creates synthesis gas or syngas that can be converted into electricity, according to the Gasification Technology Council.

Vieste had intended to start with the energy plant but ran into delays in getting an agreement with entities that wished purchase power from its energy plant.

Tons of trash

Glendale's landfill received about 328,500 tons of trash in the fiscal year that ended June 30. That includes municipal waste from:

- **Glendale:** 79,479 tons.
- **Peoria:** 56,875 tons.
- **Avondale:** 26,875 tons.

Glendale processed 22,742 tons of recycling waste at its Municipal Recycling Facility from these cities and towns:

- **Glendale:** 14,793 tons.
- **Peoria:** 7,075 tons.
- **Wickenburg:** 874 tons.

Roughly one-third of materials from recycling bins are not suitable for recycling and are instead dumped in the landfill.

Source: City of Glendale.

MONTGOMERY - IREP EXAMPLE

The cost of doing business with IREP

Andrew J. Yawn, Montgomery Advertiser Published 4:17 p.m. CT July 20, 2016 | Updated 9:46 a.m. CT July 21, 2016

A look at the money IREP owed the city but never paid



(Photo: Lloyd Gallman/Advertiser file)

Infinitus Renewable Energy Park (IREP) is filing for bankruptcy, a move that, once approved, will give the City of Montgomery possession of the \$37 million facility, city officials announced Tuesday.

Now the city has to pay for it.

If the bankruptcy is approved, the city will pay \$625,000 to acquire the materials recycling facility (MRF) and up to another \$125,000 in "other consideration" that includes a portion of IREP's legal fees.

In addition, the approximately \$31 million in bonds used to build the facility still needs to be paid off. That debt falls to the city at a rate of \$2.175 million per year now that IREP is out of the picture, Director of Finance Barry Crabb said.

"What we have is a brand new, state-of-the-art \$37 million facility, but we do have to pay for it," Crabb said. "Look at it like this: If you guaranteed your buddy's mortgage and he stops paying, you go through a legal process to obtain the house, but you're obligated to keep paying for it."

Facing that annual \$2.175 million fee regardless of whether or not the MRF was operational, the city agreed to pay the more than \$625,000 in an effort to skip a potentially more costly courtroom procedure, find a new recycling company and reopen as quickly as possible, according to Crabb and Mayor Todd Strange.

Montgomery's high-tech recycling center shuts down

(<http://www.montgomeryadvertiser.com/story/news/2015/10/05/new-recycling-center-shuts/73378194/>)

'Dirty' goods may have sunk IREP

(<http://www.montgomeryadvertiser.com/story/news/local/2015/11/13/dirty-goods-may-have-sunk-irep/74899002/>)

Strange hopes the quick return to recycling revenue will wash the annual fee.

"Wash that or make a profit," Strange said. "Our goal is to either break even or, for a small amount of money, be in the recycling business."

Unfortunately for the city, IREP has been a costly business partner before this point.

IREP owed the city about \$2.6 million for waste taken to the landfill when it was still open, but the city conceded that fee due to the company's financial struggle.

Needing money, the city also allowed IREP to withdraw \$325,000 from an escrow account to help with operations, Crabb said.

"As time went on they realized, and we realized, they needed a lot more help than that," he said.

The company shut down in October after 15 months of operation. When IREP left the facility, the property was not cleaned and piles of compost were left outside. As of March, IREP had approximately 18,210 tons of composting waste sitting on the property. The Alabama Department of Environmental Management reported that the compost piles caught fire on several occasions and stormwater runoff from the compost tested positive for levels of arsenic, zinc, ammonia, lead, benzoic acid and copper above ecological screening levels.



(Photo: MONTGOMERY ADVERTISER Lloyd Gallman/Advertiser)

Attempts to reach IREP COO Angel Mendez were unsuccessful.

Crabb said IREP did not have the money to clean the property. As a result the city paid about \$125,000 to clean it instead.

"It was becoming an environmental issue," Crabb said. "ADEM was citing IREP as the owner, but we knew we'd end up with it so we made arrangements to get it removed."

If IREP had taken the compost to the landfill, the city would have earned more than \$600,000 from the tipping fee.

- \$2.6 million concession
- \$325,000 withdrawal from escrow account
- \$125,000 to clean up property
- At least \$625,000 for facility
- At least \$600,000 if waste had been taken to the landfill by IREP

Crabb also said IREP technically should have been paying the city \$315,000 per month since it closed down. That's not money unaccounted for, but it is money left on the table.

The IREP deal was a noble goal. If everything worked as planned, the city would have been paying about \$1 million a year for recycling — about the cost of the orange bag program — and that cost would have been offset by the extended life of the landfill and less landfill workers.

Now the city must wait for the bankruptcy to be approved. The \$4 increase in garbage collection fees passed in 2014 will also help offset the cost of the \$2.175 million annual fee, Crabb said.

The city is already meeting with prospective recycling companies looking to use the facility.

Due to the bond debt, however, any operator that agrees to a deal will receive no financial contribution from the city.

"We have several that are interested in it," Crabb said. "Some find that out and can't make their numbers work without a contribution from the city. There are others that are trying to make it work without a contribution from the city. It's not a situation where we expect it to be open next week or next month."

There is no timetable for when recycling will return to the facility, but Strange said there is interest from several companies, and a necessary step has been taken.

"We're delighted to get this far," Strange said. "It's kind of tragic having a \$37 million facility there and not being able to use it. We want to get back in the recycling business, and that's our goal."

CREF CA EXAMPLE



After its first WTE facility closes, California down to 2

By Cole Rosengren

Published Aug. 2, 2018

California's list of active WTE facilities got even shorter this summer, yet the local waste management system seemingly didn't miss a beat.

The June closure of the Commerce Refuse-to-Energy Facility (CREF) yielded little mention beyond a notice on the Sanitation Districts of Los Angeles County's website. Local advocacy groups heralded it as a victory for environmental justice in an overburdened city. County operators say the site was felled by economic conditions, not performance issues. Covanta, which runs the state's remaining two facilities, says this shouldn't be taken as a sign of WTE's overall financial viability.

The closure of this 350 ton-per-day operation may not rate much attention as bigger discussions about recycling markets play out in California. Yet its fate offers an interesting story of changing economics and future trends for landfill alternatives nationwide.

From demonstration project to demolition

Planning for CREF began in 1981, with the goal of demonstrating WTE was "a viable alternative method of solid waste management in the South Coast Air Basin, where air pollution requirements are the toughest in the world." The project was a source of ongoing industry and academic interest ahead of its opening in 1987. This came at a time when many had concerns about national landfill

capacity and saw WTE as one way to address that in addition to expanding curbside recycling.

According to the Sanitation Districts of Los Angeles County (LASCD) — which operates the facility in partnership with the City of Commerce via the Commerce Refuse-to-Energy Authority (CREA) — its award-winning technology has since attracted visitors from all 50 states and nearly two dozen countries.

Locally, CREF hasn't always been quite as popular. Groups such as East Yard Communities for Environmental Justice have campaigned against this "huge dark cloud" for years, saying it added air pollution to an already densely trafficked industrial area within blocks of residential streets.

"Before there was a real groundswell around opposing incineration in California, they were able to push this through," said co-founder Angelo Logan, "basically right before there was a lot of information out in the public around the detrimental effects."

Logan and the Global Alliance for Incinerator Alternatives (GAIA) have heralded CREF's closure as a community victory, pointing to previous air quality events as signs of its adverse effects. They also note that the local census tract ranks in the highest percentile of pollution concerns according to CalEnviroScreen.

CREA did begin deferring non-critical maintenance work at the plant in recent years to reduce costs, but LASCD stands by its operational abilities.

"We think we could have continued to operate just fine and met all of our permit limits," said Charles Boehmke, head of LASDC's solid waste management department. "Its best years of operation, when you look at its reliability, had been the last three years."

Instead, Boehmke said it ultimately came down to revenue.

"It really was all because of the expiration of a 30-year power purchase agreement we had with the local utility, Southern California Edison, that expired on December 31, 2016," he said, explaining this cut previous rates of 11 cents per kWh by nearly two-thirds. "That was insurmountable."

CREA raised tip fees to \$84, as far the local market would allow when factoring in cheaper rates at nearby landfills, but that wasn't enough. Energy comprised two-thirds of the plant's revenue model.

AB 655, a stalled 2017 bill that would have granted WTE facilities renewable energy status, was seen as another option to potentially improve CREF's economics. Similar bills had also been pursued in prior years.

Boehmke said that by the end of 2017 "it became obvious that we were losing money and we were going to continue to lose money," leading CREA's board to establish a closure plan in December.

When CREF finally stopped accepting material on June 24, about a week earlier than expected due to a forced outage, the event essentially went unnoticed.

The future of WTE in California

Environmental groups did notice CREF's closure and are now touting it as the latest sign of WTE's declining viability.

Ahmina Maxey, GAIA's U.S. and Canada regional coordinator, called this "another example of what we've been seeing with these facilities," adding that "they can't stand on their own two legs and usually require a lot of subsidies by local communities."

California now has two remaining WTE facilities (plus a small-scale U.S. Army gasification project). The Southeast Resource

Recovery Facility in Long Beach, operated by Covanta on a contract that runs until 2024, has capacity for up to 1,380 tons per day. The Stanislaus County Resource Recovery Facility, owned and operated by Covanta, can handle up to 800 tons.

CalRecycle does allow local jurisdictions to count WTE for up to 10% in credit toward meeting the state's waste reduction targets, but that alone may not be enough to set it apart.

Covanta is on record supporting the continuation of renewable energy status for the Stanislaus operation in 2015. State filings show the company has lobbied on both AB 655 and a newer bill, AB 2208, that addresses similar issues.

The company declined to comment about its position on AB 2208 and Communications Director James Regan cautioned against reading too much into CREF's closure. He noted that it can be harder to make economies of scale work at smaller plants, and the state is not unique in relying primarily on landfills for disposal due to plentiful space.

He did confirm that a 30-year power purchase agreement will expire for Long Beach later this year and Stanislaus no longer has one. Regan also noted that long-term power purchase agreements are rare these days due to low energy prices.

"It's not unique to California. We're seeing that all over the country," he said.

While Covanta is of course still happy to get such agreements when it can — such as a recently announced 15-year deal in Oregon and a one-year deal in Virginia — the company has been looking at ways to diversify for years. On the energy side, that may include more local agreements for electricity or steam. On the waste side, that means a focus on non-traditional streams that can yield a higher tip fee. Metals recovery is also an increasing priority for the

company, with a major operation set to open in Pennsylvania next year.

Per the company's recent second quarter earnings call, this approach has successfully grown revenue despite expectations that energy prices will continue to decline in the near-term. Though that call also included the announcement of a planned facility closure in New Jersey due to cost factors — a sign that sometimes the math just doesn't line up for certain sites.

Next steps

Now that CREF's days of operation are over, employees are working to decommission the plant and get it ready for whatever comes next. Boehmke said none of the 35 staff were laid off, though some may not be able to transition into the same job titles at other county facilities.

LACSD staff have previously estimated the site could be worth up to \$10 million if the plant was demolished and any contamination was remediated. Prior demolition cost estimates range from \$2.3 million to \$4 million. CREA estimates it could spend \$1 million in the upcoming fiscal year cleaning and preparing for that event. Though it may also end up being preferable to sell the site as is for a developer to perform its own demolition.

While the industrial site's potential uses are still up in the air, local groups plan to stay engaged with its decommissioning.

"We're hoping that this site is redeveloped into a useful asset to the community," said Logan. "What we're looking forward to is a really robust community driven development process."

As the push toward waste reduction continues in California, despite significant recycling market disruptions, this won't be the last WTE facility or landfill that local groups advocate to close.

Though whenever material gets displaced from one facility that also raises the question of where it's going next. When asked, neither Logan or Maxey were aware of what had happened to CREF's previous intake.

According to Boehmke, CREF was only handling "a very small fraction" of the 28,000 tons generated on average in Los Angeles County each day. All 20 cities that utilized the plant were given a heads up, but none reported any problems finding new homes for their waste at nearby landfills.