Draft Metro Plant Solids Management Improvements Facility Plan Public Comments Summary

The Metropolitan Council (Council) published legal notices for the Draft Metro Plant Solids Management Improvements Facility Plan public hearing in the Star Tribune newspaper and the St. Paul Pioneer Press on July 29, 2018. Paper copies of the Draft Facility Plan were available for the public to review from July 27, 2018 at four libraries in Saint Paul: the George Latimer Central Library, the Sun Ray Library, the Riverview Library, and the Dayton's Bluff Library. The Draft Facility Plan also was available at the Metropolitan Council building in downtown Saint Paul, and on the Metropolitan Council website. A public hearing to share information about project and receive verbal public comments was held on August 30, 2018 at the Wellstone Center in Saint Paul from 6:30 to 8:00 PM. Public comments were received from July 29,2018 to September 10, 2018. This summary includes a compilation of verbal and written comments received during the public comment period and Council responses.

Public Hearing Verbal Comments

The following verbal public comments (bold) were received at the Public Hearing on August 30, 2018 and Council responses (standard font) are provided below.

1. **Steve Greenwood – City of Saint Paul Resident**

   I just have a few brief comments of alternatives to evaluate also that were not on Rene's report. Considering that, you know, we're spending over $150 million capital, that's over $300 million with interest included, and that, you know, my understanding is that the annual landfill costs are about $400,000 when the incinerators are down. I just had a few suggestions for alternatives for when the incinerators are down. Consider trucking biosolids to Seneca to process in their multiple hearth incinerators, truck solids to Seneca and process in the and the Envigo (sic) process. I know you'd need some belt presses and things like that. Back in the late '90s when they had the public hearings, the Met Council promised the public they would land-apply about 15 to 20 percent of the biosolids from Metro, and that's never occurred. So that'd be one way to fulfill that promise. And then the third alternative is to rehab two or more of the multiple hearth incinerators at the Metro Plant. You'd have to install some centrifuges too. And then Number 4 would be to use the landfill as a backup to those three alternatives if they weren't available or something like that. Concerning the cost for rehabilitating multiple hearth incinerators, I'd like to remind everyone that's what they argued for about 18, 19 years ago instead of building a new facility. A few years ago, St. Louis upgraded seven multiple hearth incinerators for a cost of $13 million. Detroit, the nation's largest treatment plant, upgraded eight multiple hearth incinerators for $38 million. So combined, two of the nation's largest treatment plants, St. Louis and Detroit, spent $51 million for 15 multiple hearth incinerators. We have six multiple hearth incinerators that are sitting abandoned, and the six multiple hearth incinerators at the Metro Plant have more capacity than the four fluid bed incinerators. They were abandoned because of the U.S. EPA sued the U.S., or sued the Met Council and the settlement was to build new treatment, new fluid bed incinerators, and I argue for keeping them. So that's a major cost for this new facility. So that's why we've already spent $160 million for this facility plus another what, $18 million, to fix it up after 2012. So

that's up to about $180 million. Now we've got to expect to spend another $150 million more. I think we need to look at some more alternatives.

Response to suggested alternatives 1 and 2, truck solids to Seneca: available incinerator capacity at Seneca is insufficient to handle the required solids loading from the Metro Plant. The N-Viro process at Seneca was decommissioned because incinerating at Seneca was determined to be more cost effective. Increasing solids treatment capacity at the Seneca Plant to treat Metro solids is prohibited by the 1989 development agreement with the City of Eagan. The Council does not consider treatment of Metro Plant solids at the Seneca Plant as a viable alternative for this facility plan.

Response to suggested alternative 3, rehabilitate Metro multiple hearth incinerators: the 2001 consent decree specifically requires shutdown of the multiple hearth incinerators and replacement with the fluidized bed incinerators. The Council does not consider rehabilitating the existing multiple hearth incinerators a viable alternative for this facility plan.

Response to suggested alternative 4, landfilling: landfilling sludge is inconsistent with the Council's Wastewater Sustainability Policy (Thrive MSP 2040 Water Resources Policy Plan). Landfilling of sludge is utilized by the Council as an emergency backup for wastewater solids processing technologies such as thermal processing or anaerobic digestion. The Council does not consider landfilling of sludge as a normal operation to be a viable alternative for processing wastewater solids.

The Metropolitan St. Louis Sewer District (STLMSD) rehabilitated multiple hearth incinerators at the Bissell & Lemay Wastewater Treatment Facility to meet federal air emission standards, and they currently have a consent decree which outlines replacement of the multiple hearth incinerators. STLMSD plans to replace the multiple hearths with fluidized bed incinerators; the estimated project cost of $420 million.

In 2015 Great Lakes Water Authority (GLWA) completed a $680 million design-build-operate-maintain contract for a 316-dry ton per day biosolids dryer facility which replaced six of the 14 multiple hearth incinerators. The GLWA rehabbed eight of the remaining multiple heath incinerators to process excess solids not processed in the dryer facility.

The alternatives analysis completed for this facility plan includes multiple factors with a focus on economic considerations, sustainability, and community impacts. Adding a fourth incinerator was found to cost 50% less to construct, operate, and maintain than any other solids processing alternative.

2. **Tom Dimond – City of Saint Paul Resident**

I would really like to thank you for the work you've done there. It's expensive work, readily admit it, I'm a taxpayer also. But I would tell you living downwind from the

facility, I can tell you the difference for this facility, what it is today versus what it used to be is day and night and greatly appreciated. It has a huge payoff, and it's not just because I live downwind, but it impacts the economic viability of that part of our community as a whole. And there are also other benefits. For example, we're not landfilling in our wetlands ash and stuff, so I won't go into that belabored, but it really has been a significant improvement for livability and the economic vitality of this community because of the work that's been done. And I'm certainly no engineer, but I can tell you personally that it has made a huge difference, and again, greatly appreciated.

Adding a fourth incinerator at the Metro Plant will help the Council continue to be a good neighbor to surrounding communities.

3. **Carrie Marsh – City of Saint Paul Resident**

I'm sorry I missed the beginning of the presentation. I was at my school's open house. All the public schools are having open house this evening. He's five; he goes to our local school. And so part of the lack of participation in this meeting, I think, could be attributed to parents being very busy at this time of year particularly this evening. So I don't have any particular comments on the plan per se. I looked over the materials briefly online, but haven't had a lot of time to think about them. And speaking to express my concern about public input and ensure that there really is a true forum for some public comment on the plan. I see that we have about ten days to provide additional comments. I would suggest that that's not enough and perhaps you could extend that time and do some more work with neighborhood groups. I apologize if you've addressed that already in your presentation.

The Council regrets any scheduling conflicts with back to school events on the night of the public hearing. The Council did not receive any communications from any other residents indicating that the back to school events prohibited them from attending the public hearing.

Four neighborhood district councils surrounding the Metro Plant were contacted regarding the project including District 1 – Eastview/Conway/Battle Creek/Highwood Hills, District 3 – West Side Community Organization, District 4 – Dayton's Bluff, and District 17 – Capital River Council. The Council heard back from District 1 and District 17. District 1 did not feel an in-person meeting was needed, and the Council presented to the District 17 Public Realm Committee on June 17th. The West Side Community Organization Executive Director Monica Bravo was emailed individually about the project on May 25th and June 13th. Additionally, she was also notified about the open house and public hearing sent out June 6th, July 31st, and August 24th. The Council did not receive a response from the West Side Community Organization.

The Council feels that sufficient public outreach has been completed for the Draft Metro Plant Solids Management Improvements Facility Plan and that the public comment period does not need to be extended.

Written Public Comments

The following written comments (bold) were received during the public comment period from July 29, 2018 to September 10, 2018 and Council responses (standard font) are provided below.

1. **John Westley – City of Eagan Resident – (Letter is attached in Appendix A)**

   God Recycles-The Devil Burns – RE: Metropolitan Council Environmental Services Public Hearing: Metro Plant Solids Management Improvements Draft Facility Plan

   Please note that I was an active member of the Met.Council/City of Eagan Seneca Plant Citizen Advisory Board for several years in the 1990's. At that time, to obtain expansion development approvals from the City of Eagan, the Met.Council publicly agreed to land apply a substantial portion of the mixed Seneca and Metro plants sludge. At great effort and public expense a land application processing facility was built at the Seneca plant and used to coordinate the distributions of sludge fertilizer to local farmers and agricultural facilities.

   My fellow Citizen Advisory Board members, at great voluntary effort, assisted in the development and coordination of these land application procedures. As part of an extensive community outreach, we developed a long waiting list of local farms and agricultural facilities desiring these valuable public resource land applications. These procedures worked so well that many of these facilities agreed to store these valuable land application materials at their own expense so the processes could be run beyond seasonal time periods.

   As part of the disbanding of Met.Council/City of Eagan Seneca Plan Citizen Advisory Board the members were to be directly noticed to any proposed changes in the Metro/Seneca land application procedures. I was not noticed as to any changes and to the best of my knowledge neither was the other half dozen citizen volunteer board members.

   For the record, the Met.Council/City of Eagan Seneca Plant Citizen Advisory Board, including your public servant staff members Rebecca Flood and Bryce Pickart, met weekly extensively working for several years to directly resolve the land application v. incineration environmental issues. It was then jointly concluded and agreed that:
   1. **Lead, cadmium, mercury and other heavy metals belong on the ground not in the air**
   2. **Ingesting incinerated toxic air borne heavy metals causes brain damage, cancer and disease**
   3. **The economic cost benefits of land application out way those of the incineration of a publicly desired and valuable resource that should benefit the local agricultural industry**

The proposed 4th Metro plant incinerator, without any previously agreed upon land applications, is governed by an United States District Court of Minnesota (USDC-MN) consent decree which appears to have been fraudulently obtained and executed in additional violation of the National Environmental Policy Act (see enclosed-Docket #16 letter to USDC-MN Judge Frank-Clean Air Act Case-0:99-cv-01105 USA v. Metropolitan Council).

It is my understanding that the cited supplemental environmental project (SEP) presented to the Court and Judge Frank involving carbon injection was in fact rejected and banned by Federal regulators. Rebecca Flood knowing committed perjury in her sworn support affidavit regarding that SEP, consent decree and related environmental regulation compliances thereby obstructing due process justice. As such, I request that those complete Federal case files (including the original complaint, hearing minutes and Flood's affidavit sworn under penalties of perjury-Docket #26) be added to the official record and made available for public review with an extended comment period for 4th incinerator proposal.

From an economic, environmental, and public policy rational viewpoint, there is no logical pending need for 4th Metro Plant incinerator costing the taxpayers $150,000,000 when viable, environmental friendly, less expensive sludge disposal alternatives by land application have already been established. Based upon these facts, I request that all previous land application information and agreements developed by the Met.Council/City of Eagan Seneca Plant Citizen Advisory Board be incorporated and implemented into this plan.

I additionally request that these issues be immediately brought before the City of Eagan and the USDC-MN court of record for compliance reviews of all presiding laws and prior agreements. To mitigate further potential damages regarding these matters, kindly have your attorneys of record at Dorsey & Whitney contact me by telephone at their earliest convenience.

The Council believes that Westley's reference to a Seneca Plant Citizen Advisory Board relate to a 1989 Development Agreement between the City of Eagan and the Metropolitan Waste Control Commission and either the Seneca Odor Advisory Committee or the Seneca Mediation Roundtable. The 1989 development agreement relates to improvements made in the early 1990s to the Seneca Wastewater Treatment Plant, it is not relevant to the proposed improvements to the Metro Plant in this draft facility plan. Similarly, the Seneca Odor Advisory Committee and Seneca Mediation Roundtable (which were disbanded in 1995 and 1994 respectively) were advisory groups that addressed issues at the time at the Seneca Plant and are irrelevant to the Draft Metro Plant Solids Management Improvements Facility Plan. Further, the proposed fourth Metro Plant incinerator will not change the Council's current land application procedures.

The 2001 consent decree between the Metropolitan Council and the EPA is not relevant to the Draft Metro Plant Solids Management Improvements Facility Plan. The 2001

consent decree (which was terminated by the federal court), addresses improvements that have already been made to the Metro Plant. The consent decree does not govern the proposed installation of a fourth incinerator at the Metro Plant. Westley's claim that the Council did not complete the supplemental environmental project required by the consent decree is false. In January 2002, the federal court approved an amended supplemental environmental project which the Council completed as set forth in Rebecca Flood's October 17, 2005 affidavit. Accordingly, the Council will not extend the comment period for the draft facility plan.

Because neither of the agreements from the 1990s are relevant to the matter that is open for public comment, the Council will not bring them before Eagan or the federal court for "compliance review" as requested by Westley or include any previous agreements or understandings with the City of Eagan in the Metro Plant Solids Management Improvements Draft Facility Plan.

The Council plans to add a fourth incinerator at the Metro Plant to preserve existing wastewater treatment plant infrastructure and serve regional population growth. The Council found incineration to be the most cost-effective and sustainable alternative to meet the region's wastewater needs. It has the lowest community impact and will improve the reliability of the wastewater treatment system. The existing Metro Plant incinerators meet all permit requirements, as determined by the EPA to be protective of public health and the environment and have demonstrated emissions lower than the most stringent standards for new incinerators.

2. Steven Greenwood – City of Saint Paul Resident – (Letter is attached in Appendix A)

Re: Metro Plant Fourth Fluid Bed Incinerator Project for $150 million – Delay or Stop It. U.S. Consent Decree Civil Action No.99-CV-1105

The proposed fourth Metro Plant Fluid Bed Incinerator for the Metro Plant at a capital cost of $150 Million should be stopped or delayed for multiple reasons.

Alternative means to dispose of biosolids when the FB's are down need evaluation, prior to spending over $300 million for capital & interest costs, considering that the annual landfill costs are about $400,000 per year and the FB maintenance cost is over $1 million/yr.

1) Trucking biosolids to Seneca WWTP to be processed using Seneca's back-up multiple hearth incinerator needs to be an alternative. Trucking biosolids to Seneca is a shorter distance than to the landfill, which is west of the Metro Area. What is the 20 year present worth difference between trucking and processing biosolids at the Seneca MHI and building a new $150 million FB, including costs for ash abrasion pipe wear?

Available incinerator capacity at Seneca is insufficient to handle the required solids loading from the Metro Plant. Increasing solids treatment capacity at the Seneca Plant to treat Metro solids is prohibited by the 1989 development agreement with the City of Eagan. The Council does not consider treatment of Metro Plant solids at the Seneca Plant as a viable alternative for this facility plan.

2) **Trucking biosolids to Seneca and using N-Viro, stabilization for land application needs to be evaluated. Seneca has sludge load-in capability, as Seneca took sludge from?? Blue Lake WWTP when it's solids handling facilities where being built. The N-Viro sludge stabilization process has not been used, since the early 1990's. New belt presses would need to be installed, as the original belt presses were moved to Eagan. Using the N-Viro process would fulfill the promise that the Met Council made in the late 1990's after the public hearings on biosolids disposal stating that about 15 to 20% of the Metro Plant biosolids would be land applied. This is why the Council elected to build 3 fluid bed incinerators with supplemental land application, instead of four FB's. Land application of Metro Plant biosolids was never was done by MCES, since 2004. Met Council staff can go back and review the historical decisions on this. I attended the late 1990's public Council hearings on Metro Plant biosolids and know what decisions were made. What is the 20 year present worth difference between biosolids processing at Seneca NVIRO and building a new $150 million FB, including costs for ash abrasion pipe wear?**

   The N-Viro process at Seneca was decommissioned because incinerating at Seneca was determined to be more cost effective. Increasing solids processing capacity at Seneca for any other solids other than Seneca is prohibited by a 1989 development agreement with the City of Eagan. The Council does not consider using Seneca N-Viro for Metro Plant solids as a viable alternative for this facility plan.

3) **Another possible means to dispose of biosolids, when the FB's are down would be to rehabilitate one or more of the six (6) multiple hearth incinerators, which were abandoned in 2004 and install high solids centrifuges. St. Louis upgraded 7 MHI's at a nominal cost of $13 million in 2015. Detroit, the nation's largest WWTP with a more complex modifications, upgraded 8 MHI's at a cost of $38 million. Their MHI's date back to the late 1960's and early 1970's. Combined Detroit and St. Louis spent $51 million to upgrade 15 MHI's. The average MHI upgrade cost for Detroit & St, Louis is $3.4 million/MHI (= $51/15), which would be $20.4 million for six MHIs. Now, MCES wants to spend $150 million to build one new fluid bed incinerator; while 6 MHI's sit abandoned and this is on top of having already spent $178 million for the new incinerator complex in 2004 ($160 million) and piping repairs ($17.9 Million) in 2012. MCES should look at rebuilding either MHI 5 or 6, without steam boilers for backup, which is what MHI 5 & 6 were intended for. What is the 20 year present worth difference between processing using a rebuilt MHI at the Metro MHI and building a new $150 million FB, including costs for ash abrasion pipe wear? Are engineers following MHI manufacture's procedures to inspect a MHI and have engineers conducted previous structural & mechanical MHI inspections according to manufactures' procedures?**

   The Metropolitan St. Louis Sewer District (STLMSD) rehabbed their multiple hearths at the Bissell & Lemay Wastewater Treatment Facility to meet federal air emission standards but currently have a consent decree which outlines replacement of the multiple hearth incinerators. STLMSD plans to replace the multiple hearths with fluidized bed incinerators with an estimated project cost of $420 million.

   In 2015 Great Lakes Water Authority (GLWA) completed a $680 million design-build-operate-maintain contract for a 316-dry ton per day biosolids dryer facility which replaced six of the 14 multiple hearth incinerators. The GLWA rehabbed eight of the remaining multiple hearth incinerators to process excess solids not processed in the dryer facility.

The 2001 consent decree required shutdown of the multiple hearth incinerators and replacement with the fluidized bed incinerators. The Council does not consider rehabilitating the existing multiple hearth incinerators a viable alternative for this facility plan.

4) **Another alternative Is use simply to continue to landfill any excess biosolids, which can't be handled by any combination of using Seneca MHI, Seneca NVIRO and/or Metro MHI. My understanding is that the annual landfill cost is $400,000; while the annual FB maintenance cost is $1+ million. Simply, it is not appear to be cost effective to spend $150 million for a new FB, to eliminate an annual $400,000 landfill cost, when the annual maintenance cost for the FB is greater than the cost of landfilling. What is the 20 year present worth difference between landfill of biosolids disposal and building a new $150 million FB?**

   Landfilling sludge is inconsistent with the Council's Wastewater Sustainability Policy (Thrive MSP 2040 Water Resources Policy Plan). Landfilling of sludge is utilized by the Council as an emergency backup for wastewater solids processing technologies such as thermal processing or anaerobic digestion. The Council does not consider landfilling of sludge to be a viable alternative for processing wastewater solids and it will not be evaluated.

5) **MCES should evaluate using any combination: of landfilling, N-Viro land application, Seneca MHI, Metro MHI before spending $300 million on capital and interest costs for a new FBI. For example, if N-Viro capacity is not sufficient, it would be possible to landfill or process in Seneca MHI any excess biosolids.**

   The Council will not evaluate a combination of alternatives that it considers are not viable.

Spending an additional $300+ million (capital + interest) for a new FB is unacceptable and shows a complete disregard for ratepayers, while the N-Viro at Seneca, one MHI at Seneca and six Metro MHI's are not being used.

The alternatives analysis completed for this facility plan considered multiple factors with a focus on economic considerations, sustainability, and community impacts. Adding a fourth incinerator was found to cost 50% less to construct, operate, and maintain than any other solids treatment alternative. Although the fourth incinerator is a large project, the Council spends roughly $140 million per year on its capital program and the fourth incinerator and renewal costs will be spread over multiple years. The projects were carefully timed with other capital projects to not have a significant impact on rates which are estimated at a 0.2% increase or $0.40 per household per year.

The proposed design of the FB air pollution control system is questionable.

6) **The use of carbon injection with bagfilters to remove mercury has been determined by the EPA to be not cost effective. No other city has installed this type of system. What is the benefit cost ratio for the carbon injection system with bagfilters? How does the Metro Plant carbon injection benefit cost ratio compare the EPA's analysis of carbon injection for mercury removal? Why is this being installed, when other cities do not have to install and pay for this process?**

   Carbon injection and with bag filters were installed to provide significant net environmental benefit as part of the requirements under the 2001 consent decree. Since that time, this system

has demonstrated that it can meet the most stringent air emission standards established for new fluidized bed incinerators while achieving the lowest levels of mercury in the plant effluent.

7) **This air pollution control design system has been proven to have significant ash abrasion and leakage problems. Why is MCES duplicating this air pollution control system, with all these proven ash abrasion and ash leakage problems?**

   The Council has implemented improvements on the existing system to address observed erosion and corrosion issues. These and additional improvements that will be implemented for the fourth incinerator are outlined in the Draft Facility Plan.

In the late 1990's the EPA sued the Met Council for its operation of the MHI's and MCES's solution was to build a new $200 million fluid bed incinerator complex. The Honorable Federal Judge Donovan Frank in the case CV No. 99-1105 of United States of America v. Metropolitan Council stated "the proposed settlement will among other things, require the Met to: (i) accelerate its planned installation of new pollution-reducing fluidized bed incinerators at the Metro WWTP, at an estimated cost of $200 million…". Now, it appears that the total capital cost is well in excess of $200 million.

8) **What is the total cost for the four fluid bed incinerator facility in terms of 2001$ and 2018$; costs including, the initial construction for 3 FB (~$160 M), repairs in 2012 (~$18 M), 4th FB ($150 M), repairs ($30M) and consultant engineering planning fees (CDM – Master Plan, Brown & Caldwell – MHI evaluations, CH2MHILL – Facility Plan, and B&V – Alternatives Evaluation)? I come up with a total capital cost of about $300M (2001$) and $428M (2018$) is this reasonable? I used the CPI to adjust yearly costs. The Honorable Federal Judge Donovan Frank appears to have been given underestimated capital costs of $200 million for the FB facility. Also, Judge Frank appears to have been given inflated Metro MHI rehab costs of $90+ million for 6 MHI; while Detroit and St. Louis spent $51 million to upgrade 15 MHI.**

   The installed capital cost of four fluidized bed incinerators would have been less than $200M (2005 dollars) if the fourth incinerator had originally been constructed with the initial project. The increased cost of building a fourth incinerator today is attributed to multiple factors, including additional mobilization and demobilization, building reconstruction, and various market factors. The cost of building four fluidized bed incinerators today is approximately $420M based on the STLMSD estimate given in response to Item 3 above.

9) **The MCES report on the 'Fourth Fluid Bed Incinerator' mentions that the Metro Plant MHI's were abandoned in 2005. The report needs to discuss in detail the complete history of what happened with the six Metro Plant MHIs. In brief, the EPA issued a Notice of Violation and then sued the Met Council in 1999 for not operating and maintaining the MHI's, with the settlement being the construction of the $200 million FB facility in 2001. The EPA never required the construction of the fluid bed incineration facility.**

   Installation of new fluidized bed incinerators and shutdown of the existing multiple hearth incinerators were specified in the 2001 consent decree. The history of the multiple hearth incinerators is not relevant to this facility plan and will not be included.

10) **Installing four fluid bed incinerators for $200 million is part of the Consent Decree, United States Civil Action No. 99-CV-1105. I wrote a public letter to Tom Weaver, Regional**

Administrator, on June 28, 2007 entitled, "Concealment of Documents to the Honorable Federal Judge Donovan Frank, Department of Justice {Joel Gross, James Lofton, Friedrich Siekert}, EPA {Steven Herman, Francis Lyons, and Mary McAuliffe}, MPCA, Metropolitan Council, & Environmentalists Concerning Federal Lawsuit, Action No. 99-CV-1105, United States vs. Metropolitan Council, Metropolitan Council Procedure 4-6d, Fraud, 9/2006". Tom Weaver never responded in writing to my public letter and I would like to know in writing, what actions were taken on this public letter, with copies sent to Judge Frank, EPA, and DOJ staff who signed the Consent Decree.

The 2001 consent decree between the Metropolitan Council and the EPA is not relevant to the Metro Plant Solids Management Improvements Draft Facility Plan. The 2001 consent decree (which was terminated by the federal court), addresses improvements that have already been made to the Metro Plant. The consent decree does not govern the proposed installation of a fourth incinerator at the Metro Plant.

3. **Dana Donatucci, PhD – University of Minnesota – (Letter is attached in Appendix A)**

Dear Council Members:

I participated in the public comment period regarding the replacement of the incinerators at the Metro plant in the late 1990's. Several citizens, RAM (Recycling Association of Minnesota) and I encouraged the Met Council to look at alternatives to incineration of the bio-solids particularly land application. This method was encouraged because of the growing concern of climate change resulting in increasing carbon dioxide emissions. Four incinerators were proposed at that time, but because of the interest in land application, it was rightly decided to replace only three of the incinerators and in lieu of the fourth incinerator, land application would be used. In the 20 years since that decision was made, little to no land application of the bio-solids has occurred from the Metro Plant during maintenance of the other incinerators. Instead the solids have been landfilled which is the least desirable option based on the State's Waste Management Hierarchy. According to the Hierarchy, recycling (through Land Application or composting) is a better management strategy than either landfilling or incineration.

I'm writing to encourage the Met Council to reconsider land application of bio-solids instead of building a fourth incinerator to handle the bio-solids. We need to look at all options for sequestering carbon. Land application of bio-solids is a good way of taking recently captured carbon from the atmosphere (via food production) and sequestering the resulting carbon-based waste (bio-solids) into the soil instead of returning the carbon to the atmosphere.

In the last twenty years local capacity to handle organics has increased significantly. When direct application of bio-solids is not possible, such as during the growing season, bio-solids could be processed through regional composting operations. These operations did not exist in the late 90's when the Fluid Bed Incinerators were being proposed. I understand that the Seneca Plant does land apply some of their

bio-solids so this process is not new regionally. This would be a much preferable option than landfilling of the bio-soilds that has been done in the past. Trucking costs to move the bio-solids when needed to a composting facility or direct land application would be a much more cost-effective alternative for several centuries than building a fourth incinerator at the cost of $150 million.

One possible operation to consider is the organics processing facility at the Shakopee Mdewakanton Sioux Community's Organics Recycling Facility. They would be interested in discussing the possibilities with the Met Council since they are looking at expanding their operations. https://shakopeedakota.org/enterprises/organics-recycling-facility/

I encourage the Met Council Environmental Services to reconsider the economics of land application as a more sustainable option for our bio-solids and not build another incinerator. If you have questions or need additional information or clarification, feel free to contact me either by email: donat001@umn.edu or by phone: 651-490-9733.

Thank you for your consideration.

A lot has changed with solids processing technologies since the 1998 Facility Plan. The alkaline stabilization system was installed as an emergency backup for the three fluidized bed incinerators, but the cake storage and odor control facilities required for land application were deferred until commissioning of the fluidized bed incinerators was complete. After the fluidized bed incinerators were operational, the Council learned from talking with other wastewater utilities that alkaline stabilization installations at other wastewater utilities were being prematurely abandoned due to high operating costs and environmental concerns. The Council abandoned the land application program and focused increasing incineration efficiency and effectiveness. Note that controlled combustion conditions limit emissions from fluid bed incineration.

For this facility plan, the Council considered all alternatives equivalent with regards to greenhouse gas emissions because greenhouse gas emissions from wastewater treatment plants are insignificant compared to other sources in the Twin Cities Region in the State of Minnesota. Due to the short cycle of agriculture, carbon sequestration was found not to be a delineating factor in comparing the fate of residuals.

There are a lot of factors to evaluate when selecting and recommending a solids treatment technology for a particular wastewater treatment plant. MCES operates two plants that land apply biosolids, Blue Lake and Empire. Land application tends to be better suited for smaller plants which have closer access to agricultural areas. Incineration tends to be better suited for larger wastewater treatment plants located in urban environments. For the Metro Plant, continuing incineration by adding a fourth incinerator is the most cost-effective and sustainable alternative to meet the region's wastewater needs. It has the lowest community impact and will improve the reliability of the wastewater treatment system.