The UTILITIES, SAFETY & ENVIRONMENT and FINANCE COMMITTEES held a JOINT MEETING on Monday, September 29th, 2025 beginning at 6:00 P.M.

Committee Members Present:
Utilities: Chair Mitchell, Davis, Oswald, Armstrong, Stewart
Finance: Chair Tollett, Schneider, Cerra, Siwierka, Davis
Others: Lipian

Administration and Department Heads Present:
Law Director Deery, Safety Service Director Pyanowski, Asst Finance Dir Farrell, Engineer McKillips, Water Operations Supt Jacob, WWPC Supt Stewart, WWPC Mgr. Derricotte, Parks & Rec Dir Reardon

1. The matter of approval of the August 6th, 2024 Utilities Meeting Minutes as circulated.
Moved by Mrs. Davis and second by Mr. Oswald to approve the said minutes.
MOTION CARRIES

2. The matter of entering into a contract with Brown and Caldwell for a comprehensive Biosolids Study for the Wastewater Pollution Control Plant.
Referred By: WWPC Supt Stewart

WWPC Supt Stewart said the matter this is to enter into an agreement with Brown and Caldwell for the biosolid study. This is something that has been brought up in the past, at the conclusion of the Energy Master Plan. The WWPC team has worked on this for a few months and have met with 16 different firms and have interviewed them and now have narrowed it down to four. They then had in-depth interviews and presentations and the panel agreed that Brown and Caldwell would be the best fit. Supt Stewart has created a presentation to give the committee a better idea of what the study will be about and what to expect in the future of the plans with the biosolids and bio gas. Supt Stewart began the Biosolids Study & Roadmap for Future Upgrades Presentation which is attached and made a part of these minutes and designated as Exhibit "A".

The presentation began with a brief history of the WWPC Plant. It was built in 1929 and had upgrades in 1960's and 1980's. The current capacity is 13 million gallons per day and with the consent decree they're increasing that peak flow to 40 million gallons and the average is 8 million gallons a day. in 2024 they treated 2.75 billion gallons of water.
A rundown of what they do in, 8 million gallons and the objective is to protect the Black River and Lake Erie and public health. They do that by removing solids, phosphorus, ammonia to prevent Alka looms and pathogens and disinfect. The solids are removed and the clean water is sent to the river.

Biosolids are byproducts of waste water, the organics that come to the plant, they are removed mechanically and biologically and they get settled out and they pump them to the anorobic digestor. They're stabilized by bacteria which reduces order, pathogens and the volume of sludge through that stabilization. Then they dewater the sludge to 25% solid. They per wet ton, less water the better. It is then sent as waste to the landfill. Now, instead of being waste can be used as a resource; land application, compost, nutrient energy recovery which are new technologies out there that they will be exploring as part of the study. Currently with the biosolids management, all the sludge biosolids, organic material is pumped to these anorobic digestors and heated to 98 degrees. The digestors are similar to our stomachs, they need food, which is the organic sludge and it creates methane. The stabilized sludge reduces methane and they send it to the belt presses for dewatering and then to the landfill. This process is working right now, but there are certain regulations making it more difficult looking forward into the future and could become a challenge. The presentation continued with yearly numbers of biosolids and biogas production and equivalencies per year, which equals 26 million cubic feet of biogas which equals 145,000 tons of gasoline that they burn every year. There is no use for it so they burn it and it's a never-ending flame, which is about a 5-foot flame and always burning because it's better to release carbon monoxide than methane, which is a very powerful greenhouse gas. The 393 gallons of gasoline a day that is burned could generate about 2.6 million kilowatt hours of electricity a year, which is enough to power 257 homes. On the biosolids, that is 8.6 million pounds and equivalent to a little over a thousand dry tons or 2,000 cubic yards of biosolids.

There is a huge cost in operations at the plant. They're seeing the increase more rapidly as far as electricity. Last year they spent $450,000 in electricity and an increase to $600,000 after July 2025. With the descent decree projects, they're adding more equipment with the aeration tank project. And the costs will keep going up, which is why they are thinking ahead to try to reduce the costs.

The objectives of the study are to build a road map for biosolids management, evaluate all the options, improve digester performance, optimize costs by reducing landfill fees, gain regulatory compliance with EPA requirements, assess resource opportunities, secure capacity for growth for Elyria.

This seems like a big upfront cost of $440,000, but, this study will only have to be done one time. It will be a fluid model that they will use and we'll be able to tailor it to our needs and change triggers down the road. We can use methane to run a generator to lower electric cost, up to 50%. Another objective is the emerging contaminants which Mr. Jacob will be speaking on.

The study will be done in phased implementation, 3 phases; identify, transition and evaluate. The cost avoidance and risk reduction is being proactive now, with the 100 year old digestors and by figuring out what's wrong we can extend the life of them. This will be a 20-year road map. This will give us the options for the best use of our money. They have looked at the FOG Program for future and it's modeled after the septic program which was launched in April 2025 and has generated $125,000 already. The second plant expansion took place in 1986 and the digestors were raised 10 to 12 feet. Therefore, they are oversized, which is great because the longer it sits in them, the it can degrade and the more bio gas can be treated.

Since ours are oversized we don't have to build any more infrastructure, we just need additional equipment for the infrastructure because we already have that. It's pleasing to know that we have the capability to do this. once we enter into contract, it'll be about 8 months to completion. If we do the immediate operations and the immediate quick fixes and the near-term digestion, dewatering, improvements, bio gas reuse; that is what we can do in near term and from there we can see what triggers happen. The sheet shows the disposal costs and the biosolids market changes. This is a fluid plan, it's not linear. If something happens in between this will give us the best use of our time and our resources and our money. This is cost saving and the additional revenue is something that is promising as we move into the future. He ended with this quote... 'For nearly a century, Elyria has treated waste water and protected our waterways, but, tonight, the message is about the future and together we can transform this plant into a facility that not only treats water but recovers resources, protecting our environment, reducing costs and providing for the many generations to come'. And that's the reason that we're doing what we're doing here.

Chair Mitchell thanked Supt Stewart and asked what the contract with Brown & Caldwell will be?

Supt Stewart said the do not exceed amount is $441,000. That is with additional contingencies that could've been removed a few, but they put them all there. It's hard to know what they will need until they get into it and have the early workshops and until they start diving into the data. And if there is something they don't need to do, they will eliminate it for the cost savings. The money will come out of engineering professional services and the funds have been appropriated.

Fin Dir Farrell said the monies are in the Waste Water Pollution Fund, Waste Water Misc. Dept. and it is appropriated in the 2025 budget.

Mr. Oswald asked if we pay the dumping fee at the landfill? Supt Stewart said yes.
Mr. Oswald asked if we have enough farms? Is it doable to send this to farms that can use the biosolids? So, we wouldn't have to pay to dump in the landfill?

Supt Stewart said that is what will be looked at in the study. The City of Oberlin actually buys the farm land, lease it to farmers and then spread the biosolids on their own farm fields. That is something they will look into. There are two types of biosolids; class B which is good for landfill and land application within reason. There are certain restrictions, has to meet certain limits, metals and pathogens. The advanced digestion or sludge drying will get to Class A where we don't have to wait a year to plant row crops. There are communities around us that are doing it.

Mr. Oswald asked if there grant programs with EPA for this?
Supt Stewart said there are grant programs and some have changed recently into the federal level. This does help with moving forward with those grants. He said they need to have the concept and basis of design and what they need to do before they can even apply.

Mr. Tollett said a large employer in the community is Beckett and they utilize a lot of these technologies and are using them for residential and commercial burners. The methane piece which could operate a generator and could save 50% on electric, and if we could do that, it would almost pay for this entire study. So, this would eliminate 50% of our electric bills.

Supt Stewart said it would be with a combined heat power unit because you're also utilizing the heat from it as well, the heat from the generator is heating the digesttors. They hold at 98 degrees and they're efficient. They're creating electricity and from the exhaust and the fumes, they're running the sludge through. They're 70 to 90 percent efficient.

Mr. Schneider thanked for this informative presentation. His question is on the FOG program, if we use it would it require additional staffing and what would the startup cost be? Would they only accept product only from the city? What would be the average collection fee?

Supt Stewart said the tipping fees would be more than septic. He said it would be similar to the septic program and only accept from the county. No, they would not have to hire additional staff and they would need equipment to heat it before it gets pumped to the digesttors.

Mrs. Siwierka asked where Brown & Caldwell are located?
Supt Stewart said their main offices are out of Columbus. Two engineers are local; Rocky River and Cleveland.
She asked if we are still doing electric and gas thru SCES? Supt Stewart said yes.

Mrs. Siwierka said Oberlin is currently burning methane to generate electricity for the entire city. She told Supt Stewart that this is the most polished, professional presentation that any department head has given to City Council in many years. She congratulated him because this could stand on its own in a professional environment and she doesn't see reports with this much polished detail and professionalism.

There were no further questions and Chair Mitchell asked for a motion.
Utilities:
Mr. Oswald moved, seconded by Mrs. Davis to enter into the 'said' contract with Brown and Caldwell for the 'said' biosolid study for WWPC. Emergency clause.
MOTION CARRIES

There were no further questions and Chair Tollett asked for a motion.
Finance:
Mrs. Siwierka moved, seconded by Mr. Schneider to enter into the 'said' contract with Brown and Caldwell for the 'said' biosolid study for WWPC. Emergency clause.
MOTION CARRIES

3. The matter of applying for and accepting a Water Pollution Control Loan Fund Agreement and/or loan through Ohio EPA for the study of emerging contaminants related to the Biosolids Planning Project.
Referred By: Water Operations Supt Jacob

Supt Jacob said this matter is part of the study that was just discussed by Supt Stewart. It's the new regulations from the EPA, there are emerging contaminants that they consider something that we need to be looking at in the future. Two of the big ones are POS and POA. They are looking at EPA Grants and they found one thru the Water Pollution Control Fund that is a complete principal forgiveness loan for emerging contaminant studies. They had Brown & Caldwell break out the portion of that study that would be related to the emerging contaminants. It came out to be $24,000 and he added an extra $5,000, total amount of the grant would be $29,708.00. They just did a similar grant with the last round of the lead service line program and we received payment within 2 weeks.

Mrs. Siwierka thanked Supt Jacob for finding this grant and other grant opportunities over the years.

There were no further questions and Chair Mitchell asked for a motion.
Utilities:
Mr. Oswald moved, seconded by Mr. Armstrong to authorize the Mayor to enter into the 'said' agreement, Emergency requested.
MOTION CARRIES

There were no further questions and Chair Tollett asked for a motion.
Finance:
Mr. Cerra moved, seconded by Mr. Schneider to authorize the Mayor to enter into the 'said' agreement, Emergency requested.
MOTION CARRIES

4. The matter of advertising for bids and awarding a contract for the Playground Project at West Park.
Referred By: Parks & Rec Dir Reardon

Dir Reardon said they are ready to go out for bids for this project, The ODNR grant agreement allows them to start it October 1st, so, they are asking for permission.

Chair Mitchell said the playground equipment isn't just standard, it's adaptive.

Dir Reardon said this playground will be completely accessible. The other playgrounds have the ADA mulch. This will be a poured in place rubber surface and will be a smooth transition for accessibility with wheelchairs. They got $325,000 from ODNR for this project and that covers about half of the project. They haven't decided on which equipment they will get. They did a community outreach and they narrowed it down.

This will be a design build bid and playground companies will send pictures and overview. They will score it and then go with the best option.

Mr. Schneider asked if it will be completed before July 4th, 2026?

Dir Reardon said they have had playgrounds installed in the winter. They are hoping this will be completed in plenty of time.

Mrs. Davis asked if the size of the playground will be expanded?

Dir Reardon said, they will expand the area as much as they can. One of the trees was taken out by a storm and they cannot remove the other tree. They will expand as much as possible, will take it to the trail, adding about 100 feet.

Mr. Armstrong asked if any of this funding can help with the skate park?

Dir Reardon said no, they have to submit the exact project. But, getting that grant could possibly open up some other dollars.

Utilities:
Mr. Oswald moved, seconded by Mr. Armstrong to authorize the Mayor to advertise for bids and award a contract for the 'said' project. Emergency clause.
MOTION CARRIES

Finance:
Mrs. Davis moved, seconded by Mr. Cerra to authorize the Mayor to advertise for bids and award a contract for the 'said' project. Emergency clause.
MOTION CARRIES

5. The matter of the renewal of the lease with Horizon Education Center at the East Recreation Center. The lease runs from September 2025 through May 2026.
Referred By: Parks & Rec Dir Reardon

Dir Reardon said Horizon Education Center runs their 21st century after school program at East. There were questions based on federal funding whether they were going to be able to do the program. They are back and they want to renew that. They pay $1000 per month.
Dir Deery clarified that this will be a new lease.

Mr. Oswald asked if there have been any problems or issues with Horizon?

Dir Reardon said there are some things here or there, as far cleaning up.
They are responsive to requests and it's been a good partnership. The program runs 2:30 to 5:00 and staff get there at 1:30 and are out by 5:00 and they follow the school schedule.

Mr. Tollett said they do provide their own liability insurance.

Chair Mitchell asked if their supervisors are mainly contained in the building?

Dir Reardon said the Horizon Program is for middle school only. The city's program is K thru 4th two days a week and 5th thru 8th two days a week. Their program is strictly 5th thru 8th because that is what their grant covers. They have staff and tutors who supervisor the kids at all times and they offer transportation with a shuttle bus.

Mrs. Siwierka asked what school the kids are coming from.

Dir Reardon said mainly Eastern Heights school and they walk from the school.

Mr. Lipian asked if the staff can be trained to keep a lookout for issues; bikes being stolen, etc.

Dir Reardon, said you can ask them to do so, but can't make them be trained to do that. Last year they were able to get some bike locks donated from the LC Health District.

Utilities:
Mr. Oswald moved, seconded by Mr. Armstrong to authorize the 'said' lease agreement. Emergency clause requested.
MOTION CARRIES

Finance:
Mr. Cerra moved, seconded by Mr. Schneider to authorize the 'said' lease agreement. Emergency clause requested.
MOTION CARRIES

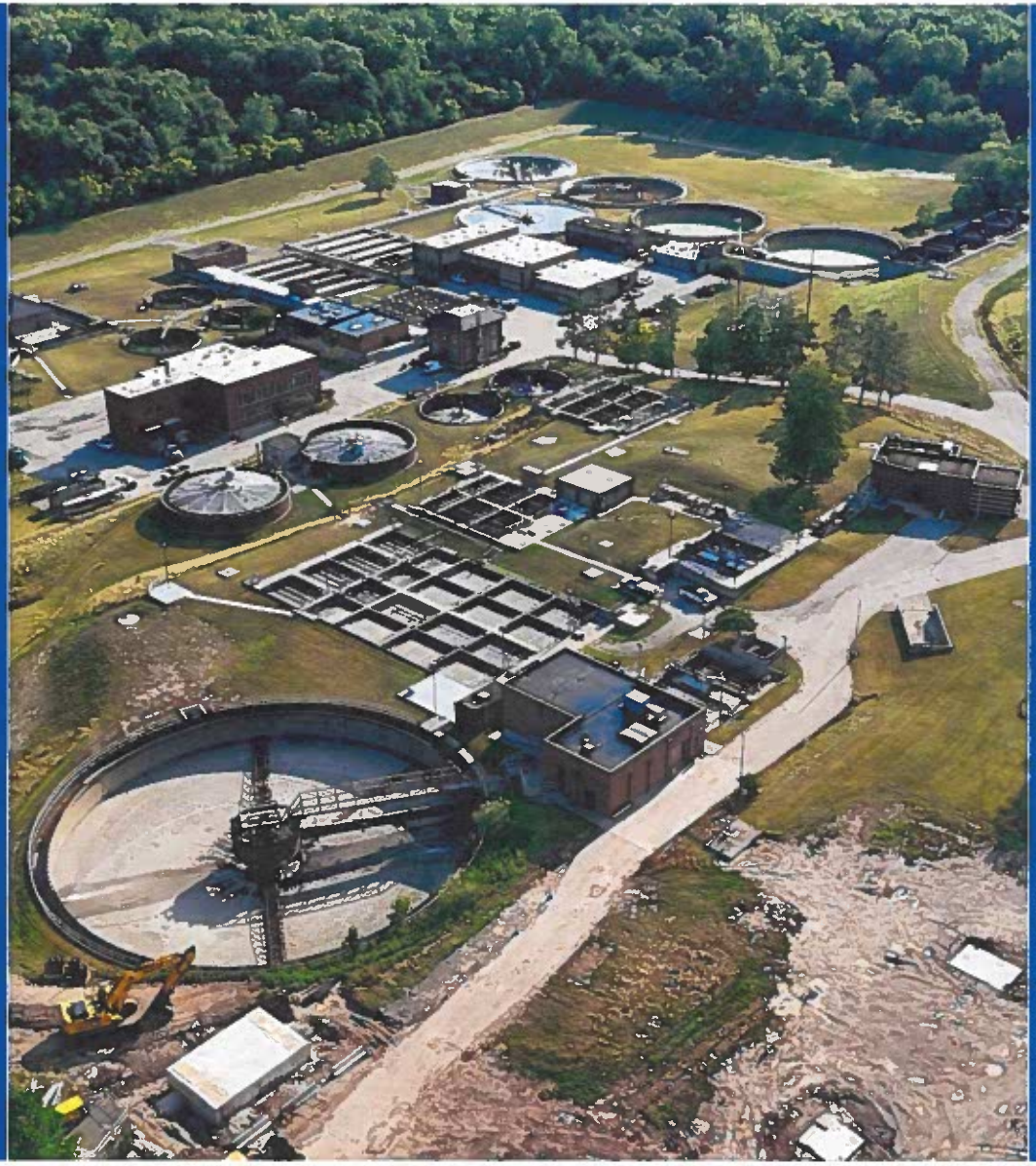
No further business to come before the committee and Chair Mitchell asked for a motion to adjourn the Utilities Committee portion of this evening's meetings.

Mr. Oswald moved, seconded by Mr. Armstrong to adjourn the Utilities Committee Meeting at 6:50 P.M.
MOTION CARRIES

The evening's meetings continued with Finance also, which had already been called to order.

Respectfully Submitted by, Colleen Rosado
Colleen Rosado, Clerk Secretary/Administrative Assistant

"EXHIBIT A"



City of Elyria Wastewater Pollution Control Plant

Biosolids Study & Roadmap for Future Upgrades

Shayne Stewart, Superintendent

Date: 09/29/2025

CLEAN RIVER ELYRIA

PROTECT OUR FALLS

Elyria WWTP

- History
  - **Originally built:** 1929
  - **Major upgrades:** 1960s & 1980s → shaped today's plant
  - **Design capacity:** 13 MGD (current)
  - **Peak hydraulic capacity:** 30 MGD → increasing to **40 MGD** with ongoing projects
  - **Average daily flow:** 8 MGD
  - **Annual flow treated (2024):** 2.75 billion gallons of water

What Elyria WWTP Does

- Treats **8 million gallons per day** of wastewater
- Protects the **Black River and Lake Erie**
- Provides essential public health & environmental protection
- Removes: solids, BOD, phosphorus, ammonia, pathogens

Waste from Homes and Businesses

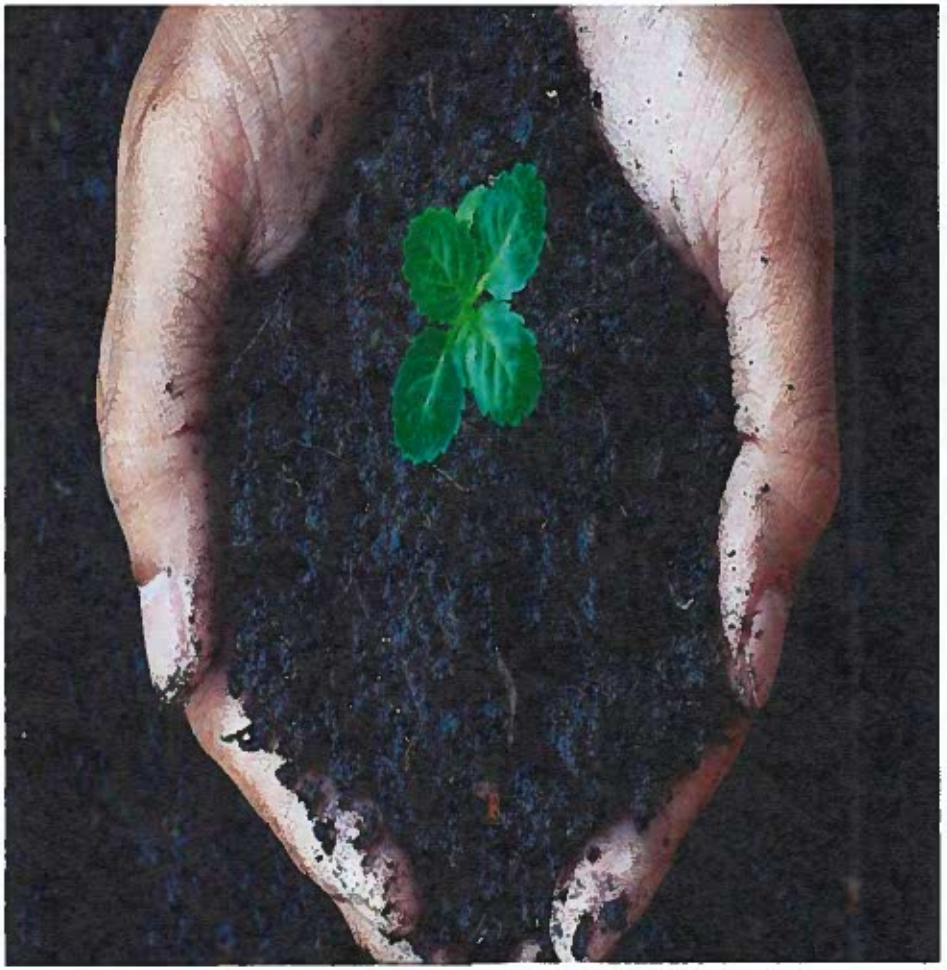
Solids Removed and sent to Landfill

Clean Water Sent to Black River

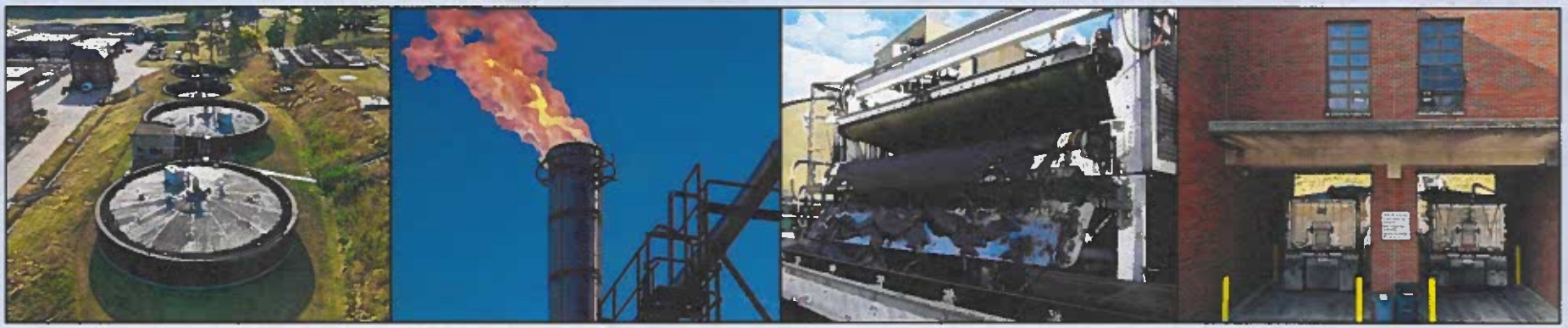
What Are Biosolids?

- Byproduct of wastewater treatment: the solids that remain after cleaning water
- Stabilized through digestion to reduce odors and pathogens
- Dewatered to 25% solids → material safe to handle and dispose of
- Currently managed as waste sent to landfill

Can be managed instead as a resource: land application, compost, or energy recovery



Current Biosolids Management



Sludge is pumped to the digesters and stabilized at 98F

Stabilized Sludge is reduced and methane is created as a byproduct

Biosolids are then sent to the belts presses for dewatering

Dewatered Solids are sent to the Lorain County Landfill

Biosolids & Biogas Production

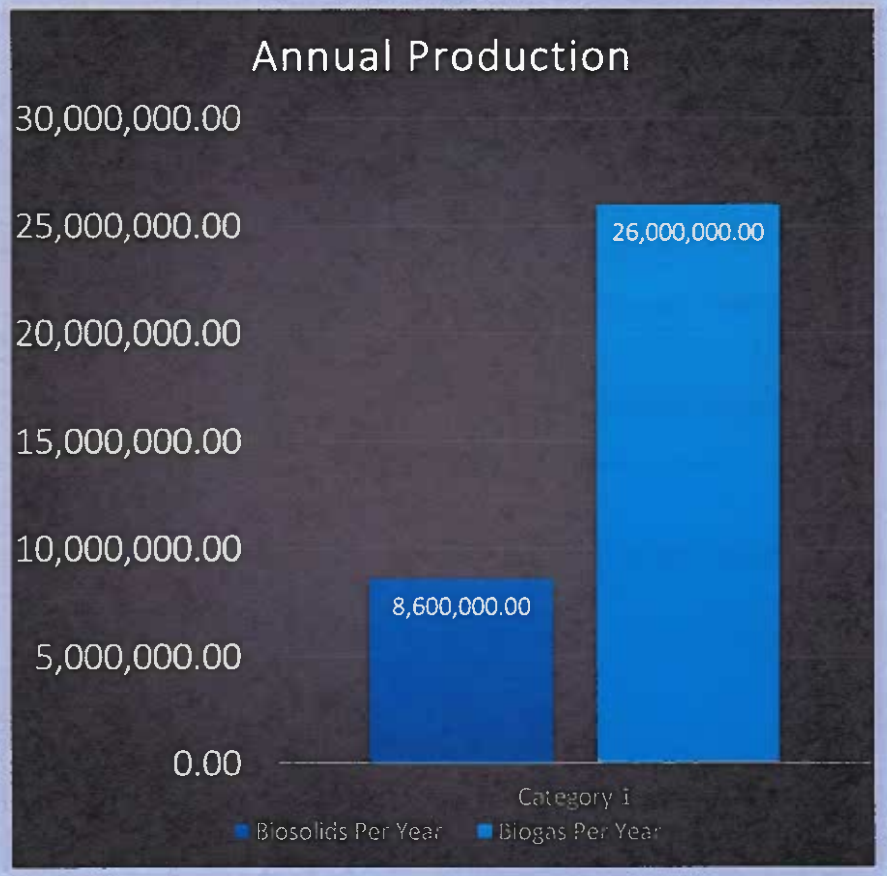
Slide 27

Biosolids Production

- 350 wet tons/month
- 4600 wet tons per year
  - ➢ 8.6 Million lbs

Biogas (Methane) Production

- 3000 cubic feet per hour
- 26 Million cubic feet per year



Biogas & Biosolids Equivalencies

- 26 Million cf/year methane
  - *= 145,000 gal of Gasoline/ year*
  - *= 393 gal/day*
  - = 2.6 million kWh/year electricity
  - = 300 kW continuous power
  - = Enough to power **257** homes/year

- 8.6 Million Lbs/year Biosolids
  - *= 1,075 Dry tons*
  - *= 1990 yd^3/ year*

26 MILLION
CUBIC FEET
OF BIOGAS PER YEAR

=

145,000
GALLONS
OF GASOLINE

26 MILLION CUBIC FEET OF BIOGAS PER YEAR

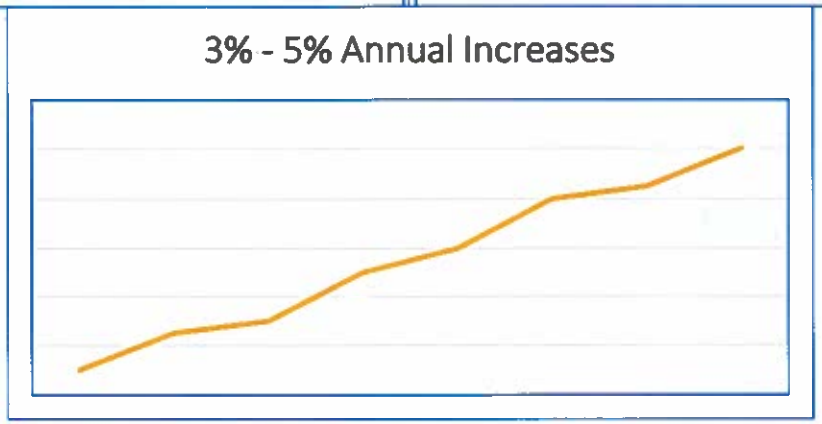
Why This Matters: Current Costs

Electricity Costs

- Annual WWTP electricity bill: $450,000 per year
  - July 2025 price and Demand increased from $36,000 to $50,000/ month
  - '25-'26: **$450,000 → $600,000** annual cost
  - #1 largest City energy user due to treatment processes

Biosolids Disposal Costs

- Landfill tipping fee: $36.29 per ton
- Hauling & disposal total: $400,000+ per year
- Trend: costs rising 3-5% annually



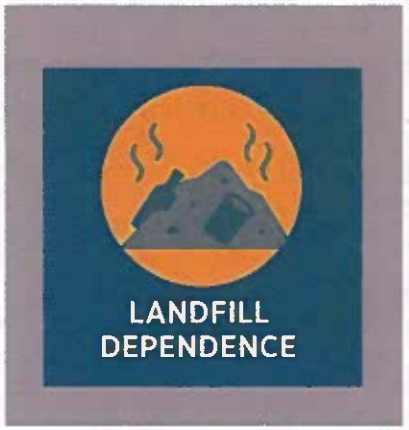
Purpose of the Study

EPA compliance and tightened regulations

Aging Digesters and Equipment

Dig 1 & 2 approaching 100 years old

Rising Energy & Disposal Costs



Landfill Dependence

Study Objectives

- Build a long term 20 year roadmap for biosolids management
- Improve digester performance (heating, mixing, reliability upgrades)
- Optimize costs by reducing landfill fees and capturing energy savings
- Gain regulatory compliance with tightening EPA/Ohio EPA requirements
- Assess resource opportunities
- Secure Elyria's future capacity for growth & evaluate all options

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Biogas Options

- Methane reuse to run generator and lower electric costs by half
- Possible pipeline injection into natural gas as revenue
- Accept FOG (restaurant grease) to generate more methane & add'l revenue from tipping fees.

Biosolids Options

- Biosolids land application
- Composting
- Advanced digestion
- Class A biosolids for sale

Study Objectives – Emerging Contaminants

- Preparing for future regulations

  - •PFAS ("forever chemicals") - persistent in water and biosolids
  - •Health & regulatory concern - increasing EPA/Ohio EPA focus
  - •Unfunded mandate risk - testing, treatment, and disposal costs likely to rise
  - •Grant opportunities - state and federal programs targeting PFAS response
  - •Our role - plan ahead now to avoid future compliance and disposal crises

Roadmaps & Risk Reduction

- Phased Implementation
  - Phase 1- Identify cost effective solutions and essential upgrades
  - Phase 2- Transition to sustainable reuse/energy recovery
  - Phase 3- Evaluate advanced digestion and other reuse programs

- Cost Avoidance & Risk Reduction
  - **Extends digester life** → protects our investment
  - **Avoids costly emergencies** → planned upgrades cheaper than crisis fixes
  - **Stabilizes long-term costs** → predictable O&M and hauling expenses
  - **Captures methane** → reduces electric bills, future revenue potential with FOG
  - **FOG Program (future)** → modeled after our Septic Program (launched April 2025)
    - Septic program has already generated **$125,000 in 6 months**

Roadmap Development – 8 Months to Completion

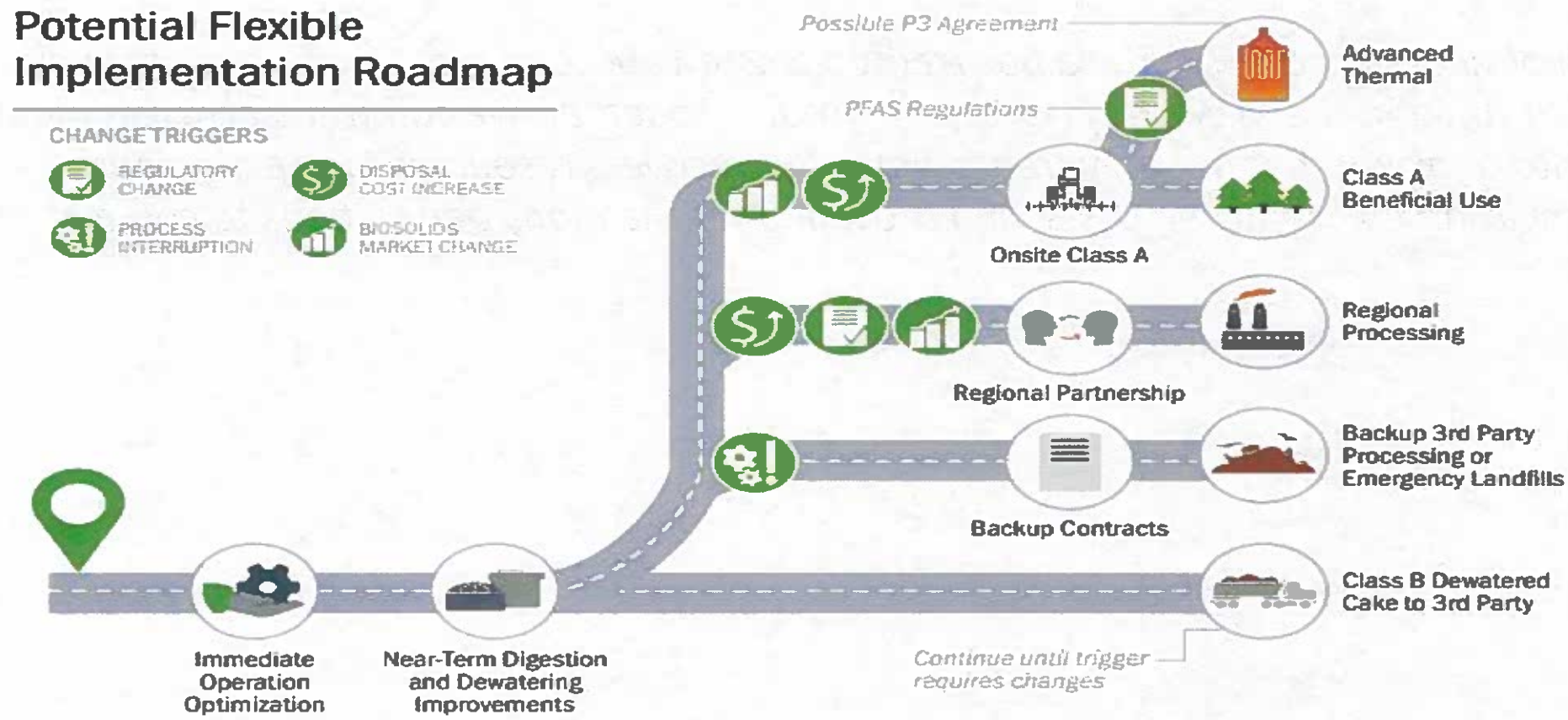

Figure 4-4 // Potential Flexible Implementation Roadmap

Together, we can change what's been done for almost 100 years.

"For nearly a century, Elyria has treated wastewater and protected our waterways. But tonight, the message is about the future. Together, we can transform this plant into a facility that not only treats water but recovers resources, protecting our environment, reducing costs, and providing for the many generations to come."