



**AGENCY:** Municipal Improvement Dist.  
**MEETING DATE:** May 10, 2021  
**DEPARTMENT:** Public Works  
**PRESENTED BY:** J. Smith  
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## AGENDA ITEM SUMMARY

**TITLE:**

**Receive Report and Consider Adoption of Municipal Improvement District Resolution Adopting Budget Amendment #2021-10 Amending Selected Expenditure Budgets**

**ISSUE:**

The Wastewater Treatment Plant Upgrade Project construction contract was awarded on May 14, 2018. Switchover to the new treatment system was complete April 2020. The first year of operation has provided good data on performance of the treatment process and is producing an exceptional product. The result of this efficient process is an increase in biosolids storage causing an odiferous condition which is impacting our Coastal Trail users.

**ANALYSIS:**

For many years, the City has been working toward ways to reuse treated products at the wastewater facility. Recycling the water and biosolids is important in our community to reduce our environmental footprint. In the coming years, our goal to reuse treated products may come to fruition. Prior to the newly upgraded wastewater treatment facility coming on line, this wasn't an option. The old treatment process was a good system that treated the sewage well and was within the required water quality requirements set forth by our National Pollutant Discharge Elimination System (NPDES) Permit. The new system greatly reduces our carbon footprint and the core treatment process further reduces solids from our discharge. The result is greater treatment of the effluent which increases the solids removal, producing a larger volume of biosolids to dispose of. The increased removal is great as we push into the future. Some folks may not agree due to the smell when walking or riding by the wastewater facility.

The new treatment train is able to remove a greater amount of solids than was forecast, thereby increasing the amount of solids on site. The City currently transports the solids year round via a contractor who land applies the product at permitted locations in the Sacramento area and provides 100% reuse of our solids. This is a great first step, but we need to reduce or eliminate transport cost and work toward reusing the solids in our community.

Staff studied several biosolid treatment units that would significantly reduce transport cost, produce a class A biosolid product that we can reuse, fit the unit within the existing property and requires little to no maintenance. The search began in September of last year. In March we had identified several different treatment options that would work. The USA Sludge unit answered our list of requirements and included the lowest price and a performance guarantee. If approved for purchase, the dryer is expected to be delivered 21 weeks after placing the order. In the meantime, staff has identified a couple products that are added to our treatment system to further reduce solids volume and combat odor. The first of these products was introduced to our treatment process four weeks ago and we have included another that will further reduce smell. Additionally, staff will limit transfer of the biosolids to late evening to minimize impact on Coastal Trail users.

The top four dryers are listed below:

- ELODE – Electro Osmosis Dehydrator (\$763,000)
  - Uses electro-osmosis and electrophoresis process. Not chosen due to price and maintenance cost.
- HUBER – Solar drying system. (\$2,190,000)
  - This unit is not expected to produce a class A product and the structure footprint will not fit on the existing parcel.
- SHINCCI – Low Temperature Dehumidification Solids Treatment System (\$587,000)
  - The Shincci required higher energy use and higher unit cost than the USA Sludge unit.
- USA Sludge - Low Temperature Dehumidification Solids Treatment System (\$539,800)
  - This company provided a performance guarantee and provides a class A product at the lowest cost.



The USA dryer is capable of producing a Class A granular product by heating the biosolids, accomplishing a 90 percent total solids content. The temperature and total solids content values are in accordance with U.S. Environmental Protection Agency (EPA) Clean Water Act, Part 503 rule regarding land application of biosolids; those biosolids meeting the Class A requirement have less stringent regulations for reuse and disposal.

**RECOMMENDED ACTION:**

Approve the budget amendment for the purchase of biosolids dryer to reduce transportation cost to the Municipal Improvement District.

**ALTERNATIVE ACTION(S):**

Deny request.

**FISCAL IMPACT:**

The annual budget for biosolids removal is expected to decrease conservatively by \$150,000-\$200,000. This piece of equipment is expected to pay for itself in three years.

**IMPLEMENTATION/TIMEFRAMES:**

Order unit after approval of budget amendment.

**ATTACHMENTS:**

1. Resolution for Budget Adjustments
2. Exhibit A - Budget Amendments
3. Dryer Proposals (SHINCCI)
4. Sodium Hypochlorite quote (Univar)

**NOTIFICATION:**

None.