

DIGESTER 5 REHABILITATION DESIGN-BUILD AGREEMENT RIVERSIDE BIOENERGY FACILITY

Public Works

City Council
July 2, 2024

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THE WHY



California Senate Bill 1383 mandates:

- **Senate Bill 1383 - California is the only State to require:**
Organics recycling for all waste
Edible food recovery programs
Food waste diversion programs



RWQCP long-term biosolids management:

- Biosolids disposal **costs continue to increase** year-over-year
- Biosolids disposal locations **less available** and waste disposal requirements **more stringent**



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PROJECT BACKGROUND

1. August 2020, City Council Approves Public works Renewable Resource Management Plan
2. Organic waste recycling at RWQCP can support **SB 1383 compliance** and enhance project impact
3. RWQCP infrastructure and **biogas currently underutilized**
4. RWQCP upgrades can **optimize infrastructure** and **generate revenue** from byproducts (biogas & digestate)
5. Biosolids **disposal options and costs are uncertain** and pose long-term risk to the RWQCP
6. Experienced partner would provide financing, infrastructure, and operations, **reducing project risk** to City



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REQUEST FOR PROPOSALS 2222

Date	Action	Outcome
March 2022	Request for Qualification 2144	Pre-qualification of entities with related experience
December 2022	Request for Proposals 2222	Two proposals received
February 2023	Proposal Presentations	Selection committee received presentations
February 2023	Highest ranked proposer released	Authorization to begin negotiation
April 2023	City Council	Resolution authorizing \$10M grant application to CalRecycle
May 2023	City Council Mobility and Infrastructure Committee	Receive and file update on project and P3 approach
December 2023	City Council Approved	Lease and Energy Services Agreement (Riverside Bioenergy Facility)



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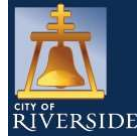
PROJECT VISION

Biogas Opportunity:

Upgrade RWQCP biogas to Renewable Natural Gas for SoCal Gas pipeline injection and sale

Digester No. 5 Rehabilitation:

Return digester to service to enable digestion of food waste, leveraging \$2M in awarded CalRecycle grant funds



Riverside Bioenergy Facility

Digestate Management:

Process and manage biosolids from anaerobic digestion for sale

Position the City of Riverside:

Capitalize on future regional need & demand for organic waste disposal options

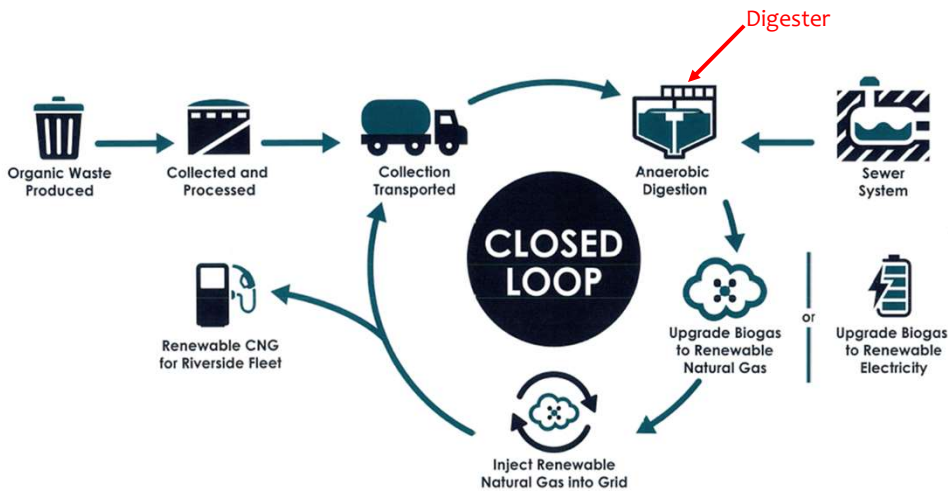


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SUSTAINABLE AND SELF-RELIANT RIVERSIDE



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DIGESTER 5

- One of the five digesters at the RWQCP.
- 75-ft diameter with 1.1MG capacity.
- Constructed in 1982. Retired in 2017.
- Assessment study by Carollo Engineers, Inc.—structural integrity, mechanical, electrical, and instrumentation.
 - Internal walls rehabilitation and seismic retrofits.
 - Removal of standby mixing pump.
 - New instrumentations and valves.
 - Electrical modifications.



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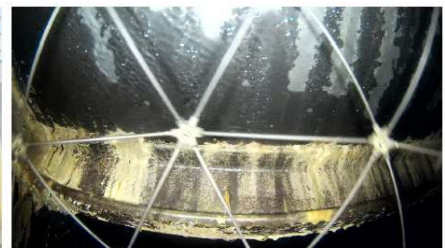
DIGESTER 5 EXISTING CONDITIONS



Roof view of Digester 5



Concrete crack of Digester 5



Interior View of Digester 5



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DIGESTER 5 REHABILITATION PROJECT

- Remove and the replace the existing dome.
- Retrofit the digester's wall.
- Install new mixers.
- Improve heat exchangers.
- New Electrical equipment and Instrumentation.



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DIGESTER 5 REHABILITATION PROJECT

- Carollo's estimate - \$1.99M in 2019 → \$2.4M in 2024.
 - Processing capacity: 100 Wet Tons Per Day (WTPD)
 - Biogas Production: 175 standard cubic feet per minute (scfm)
 - High Strength Waste output: 10 tons per day (tpd)
- Design-Build Agreement - \$9,508,000
 - Processing capacity: 353 WTPD (3.5 times increase)
 - Biogas Production: 502 scfm (2.9 times increase)
 - High Strength Waste output: 30 tpd (3 times increase)
- Digester 5 → Regional Facility



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PROJECT COST AND GRANTS

- Design-Build Contract, Contingency, Construction Engineering, Inspection, Survey, and Material Testing: \$10,934,200.
- CalRecycle Grant: \$2,000,000
- Incentive Tax Credit Benefit up to (40%): \$4,183,520.
- Anticipated net cost: \$4,275,280



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STRATEGIC PLAN ALIGNMENT

Strategic Priority 4 – Environmental Stewardship

Goal 4.6: Implement the requisite measures to achieve citywide carbon neutrality no later than 2040.

Strategic Priority 5 – High Performing Government

Goal 5.2: Utilize technology, data and process improvement strategies to increase efficiencies, guide decision making and ensure services are accessible and distributed equitably throughout all geographic areas of the City.

Strategic Priority 6 – Infrastructure, Mobility, and Connectivity

Goal 6.3 Identify and pursue new and unique funding opportunities to develop, operate, maintain, and renew infrastructure and programs that meet the community's needs.



Community Trust



Fiscal Responsibility



Sustainability & Resiliency



Equity



Innovation



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RECOMMENDATIONS

That the City Council:

1. Award a Design–Build agreement for the rehabilitation of Digester No. 5 to Anaergia Services, LLC a Delaware limited liability company, DBA Riverside Bioenergy Facility, LLC, a Delaware LLC in the amount of \$9,508,000.00;
2. Authorize a 10% change order authority in the amount of \$950,800.00 for the Design – Build agreement to rehabilitate Digester No. 5 to Anaergia Services, LLC a Delaware limited liability company, DBA Riverside Bioenergy Facility, LLC, a Delaware LLC for a total contract not to exceed \$10,458,800;



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RECOMMENDATIONS

3. Authorize the City Manager, or designee, to execute the Design–Build Agreement with Riverside Bioenergy Facility, LLC, including making minor and non-substantive changes, subject to the availability of budgeted funds; and
4. By at least five affirmative votes, authorize the Chief Financial Officer, or designee, to record a supplemental appropriation in the amount of \$8,434,200.00 from available Sewer Working Capital to the Digester 5 Rehabilitation expenditure account.



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