



Second Party Opinion

EXECUTIVE SUMMARY

ISSUER

West County Facilities Financing Authority

OPINION ON

2021 Wastewater Revenue Bonds (Green Bonds)

GREEN STANDARD AND CATEGORIES



- Renewable Energy
- Sustainable Wastewater Management

EVALUATION DATE

September 9, 2021

SUMMARY

Kestrel Verifiers is of the opinion that the 2021 Wastewater Revenue Bonds (Green Bonds) ("Bonds") conform with the four core components of the Green Bond Principles 2021 as follows:

▪ Use of Proceeds

The Bonds will finance multiple capital improvement projects ("Project") for the West County Wastewater District ("District"). The Project will increase storage capacity to accommodate large storm events, reduce potential for release of untreated water across the system, install solar arrays, improve biosolids recovery and upgrade the anaerobic digester and cogeneration systems. The Project is expected to reduce wastewater treatment plant greenhouse gas emissions by approximately 93% and solar arrays are expected to reduce grid energy demand by approximately 20%. The Bonds align with the *Sustainable Wastewater Management* and *Renewable Energy* eligible project categories under the Green Bond Principles.

▪ Process for Project Evaluation and Selection

The Bonds finance activities which directly align with the District's core mission, goals to eliminate greenhouse gas emissions by 2031, goals to become a carbon negative enterprise, and strategic goals related to environmental stewardship. Projects were originally identified through an integrated master planning process.

▪ Management of Proceeds

Bond proceeds shall be allocated to a separately managed subaccount and used to pay for the Project. A portion of proceeds will also finance costs of issuance. Proceeds may be held in temporary investments in accordance with the Permitted Investments defined in the Indenture.

▪ Reporting

The District and the Authority commit to posting continuing disclosures to the Municipal Securities Rulemaking Board annually through the Electronic Municipal Market Access ("EMMA") system. The District will also produce annual reports on the allocation of Bond proceeds and post these reports on EMMA until all proceeds have been spent, or approximately 18 months. After the Project is operational, reports on renewable energy generation from the cogeneration and solar systems are expected to be available on the District's website.

▪ Impact and Alignment with United Nation Sustainable Development Goals

By financing digester upgrades, resource recovery infrastructure, solar arrays, and upgrades to the wastewater collection and treatment system, the Bonds support and advance multiple UN SDGs, including

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Goals 6: *Clean Water and Sanitation*, 7: *Affordable and Clean Energy*, 9: *Industry, Innovation and Infrastructure*, and 12: *Responsible Consumption and Production*.



Second Party Opinion

Issuer:	West County Facilities Financing Authority
Issue Description:	2021 Wastewater Revenue Bonds (Green Bonds)
Project:	Wastewater System Improvements
Green Standard:	Green Bond Principles
Green Categories:	Sustainable Wastewater Management Renewable Energy
Par:	\$79,575,000
Evaluation Date:	September 9, 2021

GREEN BONDS DESIGNATION

Kestrel Verifiers, an Approved Verifier accredited by the Climate Bonds Initiative, conducted an independent external review of this bond to evaluate conformance with the Green Bond Principles (June 2021) established by the International Capital Market Association.

This Second Party Opinion reflects our review of the uses and allocation of proceeds and oversight and conformance of the bonds with the Green Bond Principles. In our opinion, the 2021 Wastewater Revenue Bonds ("Bonds") are aligned with the four core components of the Green Bond Principles and qualify for green bonds designation.

ABOUT THE ISSUER

The West County Facilities Financing Authority ("Authority") was created in 2021 under a joint exercise of powers agreement between West County Wastewater District (the "District") and the California Statewide Communities Development Authority for the purpose of financing and refinancing capital improvement projects for the District. The Bonds issued by the Authority will directly benefit the District and the system it operates. California Statewide Communities Development Authority will have no other role in the bond financing.

The District was founded in 1921 with a primary purpose of collecting and treating wastewater in its service area. Located entirely in western Contra Costa County, the District serves the City of San Pablo and parts of the City of Pinole, City of Richmond, the communities of Tara Hills, North Richmond, East Richmond Heights, El Sobrante, Rollingwood, and Bayview and unincorporated areas of the county. The system serves approximately 34,000 residential accounts and 900 commercial and industrial businesses.

The District operates 249 miles of sewer pipelines, 17 lift stations, six miles of pressure force mains, and one wastewater treatment plant, the Water Quality Resource and Recovery Plant ("WQRRP"), that has a capacity of 12.5 million gallons per day. Water treated at the WQRRP is delivered to East Bay Municipal Utility District, specifically to the Richmond Treatment Plant, for additional treatment and distribution as recycled water for irrigation, industrial, and other non-potable uses.

The District has a history of environmental stewardship, as evidenced by reliable conformance with strict regulations and by its pursuit of innovative projects to reduce impacts. The District received the *Platinum Peak Performance Award* from National Association of Clean Water Agencies (“NACWA”) in 2019. The award is the highest possible recognition from NACWA and demonstrates complete compliance the EPA’s National Pollutant Discharge Elimination System regulations for 14 consecutive years. A recent solar development also illustrates the District’s commitment to stewardship; through a collaboration with Premier Power and Solar Power Partners, Inc, a site contaminated from historic use as sludge storage was repurposed for stormwater detention and a 10-acre solar farm.

ALIGNMENT TO GREEN STANDARDS

Green Bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or refinance, in part or in full, new and/or existing eligible Green Projects and which are aligned with the four core components of the Green Bond Principles (International Capital Market Association definition).

Use of Proceeds

The Bonds will be used to finance the Comprehensive Energy and Sustainability Upgrades Project which includes replacement and modernization of equipment and infrastructure at the WQRRP, as well as installation of solar photovoltaic generation facilities and upgrades to increase sustainability of operations (“Project”). The purpose of the Project is to reduce energy consumption and improve operational efficiency.

The activities are eligible projects as defined by the Green Bond Principles in the project categories of *Sustainable Wastewater Management* and *Renewable Energy*.

Approximately \$71 million of Bond proceeds will be used for the Energy and Sustainability Upgrades Project (Table 1) which is expected to result in annual energy savings of 26,247 kWh at the headquarters office and 129,683 kWh at the WQRRP. Approximately \$19 million will finance replacement of force mains and gravity sewer mains. Appendix B provides a more detailed breakdown of uses of proceeds of the Bonds. The environmental benefits of the Project are discussed in detail in Table 1 and include the following:

- Decrease wastewater treatment plant greenhouse gas emissions by 93%¹
- Maximize biogas yield from anaerobic digesters
- Increase storage capacity to accommodate a 100-year storm event
- Reduce potential for sewage overflows and release of untreated water across the system
- Maximize resource recovery through production of biosolids for soil amendment
- Maximize resource recovery through cogeneration facilities to harness waste heat
- Reduce energy demand by approximately 20% through installation of solar arrays and energy efficiency upgrades

Table 1. Purpose and environmental benefit of projects to be fully or partially financed with the Bonds. The majority of activities are part of the District’s Comprehensive Energy and Sustainability Upgrades Project.

Bond-Financed Project	Description
Influent Pumps Upgrade	Pumps raise wastewater to allow it to flow through the WQRRP by gravity. New influent pumps will and more reliably adapt to changes in influent flow and reduce energy use.
Grit Removal System Upgrade	Upgrades will more effectively remove sand and other particles larger than 75 microns (approximately the size of a human hair). Grit removal reduces wear on equipment and supports efficient operation of biogas digesters.

¹ Based on the Biosolids Emissions Assessment Model (BEAM), annual emissions are expected to decrease from 6,313 Mt CO₂e to 430 Mt CO₂e.

Bond-Financed Project	Description
Carbon Redirection in the Primary Clarifiers	Reducing biochemical oxygen demand improves the production of primary sludge, and ultimately, increases potential biogas yield.
High Efficiency Turbo Blowers Install	Blowers are used to stimulate breakdown of waste by microorganisms through aeration of the activated sludge. The existing blowers require replacement. Upgrades will reduce maintenance costs and increase efficiencies.
Redundant Rotary Drum Thickener Install	Sludge is thickened prior to digestion by microorganisms to produce biogas. Two new rotary drum thickeners will be installed to maximize biogas production.
Anaerobic Digester Install	Two existing digesters will be replaced with new digesters (approximately 68 feet in diameter, each).
Biogas Cogeneration System Install	Any biogas produced through the digester requires treatment to remove hydrogen sulfide (metal corrosion concern) and siloxanes (becomes abrasive when combusted). Installation of two new cogeneration systems (450 kilowatt each) will (1) generate power from treated biogas and (2) harness waste heat that will be used to heat the digester and to dry biosolids. The cogeneration building will be approximately 10 feet wide and 78 feet long.
Centrifuge Install	Currently, dewatering (removing liquids) from remaining sludge after digestion is achieved by leaving sludge in sludge ponds. Install of two new centrifuges will allow for faster separation of liquids and solids and eliminate greenhouse gas emissions associated with the open-air sludge ponds.
Install of Thermal Dryer for Digested Sludge	A thermal dryer will be installed to dry biosolids that remain after digestion. Waste heat from the cogeneration system will be used to operate the dryer. Dried biosolids meet "Class A" standards so the product can be used as a soil amendment for non-food crops.
Increase Capacity of the Influent Equalization Basins	Influent storage capacity in equalization basin will be increased from 53 million gallons to 76 million gallons. Increased storage is necessary to accommodate large rain events and related stormwater influx.
Solar Photovoltaic Facility Install	Install of solar panels at the headquarters building, WQRRP, and three pump stations will increase generation of renewables. The total installed capacity of the planned arrays is approximately 1.1 MW.
LED Lighting Improvements	Lighting upgrades in the headquarters building and WQRRP will reduce energy use and maintenance costs.
Electric Vehicle Charging Stations	Two electric vehicle charging stations will be installed at the headquarters building.
Force Main Upgrades*	Replacement of aging and inadequate force mains will reduce need for emergency repairs. Assessments of all force mains are in progress.
Gravity Sewer Upgrades*	Maintenance and improvements on gravity sewer mains are necessary to ensure system reliability and reduce inflow and infiltration of stormwater, which can

* Activities are not part of the Energy and Sustainability Upgrades Project

Bond-Financed Project	Description
	overwhelm the collection system. A comprehensive inflow and infiltration study identified priority areas for maintenance across the 249 mile collection system.

Process for Project Evaluation and Selection

The bond-financed Project was identified through a master planning process initiated in 2011 and directly aligns with the environmental stewardship objectives articulated in the District's Strategic Goals and Climate Action Plan.

The District uses an integrated master planning approach to ensure all facets of facilities and operations are considered in the project prioritization process. The District-wide Master Plan was initiated in 2011 to evaluate existing infrastructure, including the WQRRP, the collection system, and supporting facilities. The Master Plan, which was adopted in December 2014, included a recommended 20 year Capital Improvement Plan. The Project to be financed by the Bonds was identified in this Capital Improvement Plan.

Parallel to the Master Plan, the District uses the Effective Utility Management ("EUM") framework to measure its effectiveness in achieving the utility's primary mission. The EUM framework was developed by the American Water Works Association, Water Environment Federation, National Association of Clean Water Agencies, and the US Environmental Protection Agency. Through use of the EUM framework, the District's mission, goals, and objectives are frequently re-evaluated and documented in the Strategic Plan.

The Project directly aligns with the District's Strategic Goals 1 and 2 and the objectives of each that are outlined in the Strategic Plan. By financing the sustainability improvements and upgrades to increase reliability and energy efficiency, the Project advances these goals:

- *Strategic Goal 1:* Adopt infrastructure maintenance and modernization strategies that maximize performance, reduce risk and ensure reliable service in collaboration with local, regional and national partners to further the mission of the District
- *Strategic Goal 2:* Be an environmental steward in our community through a commitment to reducing carbon emissions, maximizing resource recovery, minimizing our environmental footprint and making significant strides toward becoming a carbon-neutral enterprise.

In addition to advancing the vision in the Strategic Plan, the Project is a direct implementation of the District's Climate Action Plan which was adopted in April 2019. The Climate Action Plan set an organizational goal of eliminating the District's carbon footprint entirely by December 31, 2031, and establishing its status as a Carbon Negative enterprise.

Management of Proceeds

Bond proceeds shall be allocated to a separately managed subaccount (Project Fund) and used to pay for the Project. A portion of proceeds will also finance costs of issuance. Proceeds may be held in temporary investments in accordance with the Permitted Investments defined in the Indenture. These allowable temporary investments consist of instruments including, but not limited to, money market funds, certificates of deposit, and bonds or notes guaranteed by US federal agencies or the US government.

Reporting

The District and the Authority intend to submit continuing disclosures to the Municipal Securities Rulemaking Board ("MSRB") so long as the Bonds are outstanding. The Authority will also provide reports in the event of material developments. This reporting will be done annually on the Electronic Municipal Market Access ("EMMA") system operated by the MSRB.

The Authority has also committed to preparing a Green Bond Project Report to provide assurance on the allocation of proceeds to the wastewater sustainability and energy efficiency projects. This reporting will be completed annually until all proceeds have been spent, or approximately 18 months. The form of this report is included in Appendix G of the official statement. Additionally, reports on renewable energy generation





from the cogeneration and solar systems are expected to be available on the District’s website once the Project is operational.

IMPACT AND ALIGNMENT WITH UN SDGS

By financing projects that increase the reliability, sustainability and efficiency of the wastewater treatment system the Bonds are helping to address UN Sustainable Development Goals 6, 7, 9, and 12. By funding the installation of approximately 1.1 MW of solar generation capacity, the Bonds advance Target 7.2. By funding energy efficiency improvements at the WQRRP and in the headquarters building the Bonds support Target 7.3. The resource recovery projects and upgrades to ensure efficient system operation and prevent sewer system overflows directly advance Targets 6.3, 6.5, 9.4, and 12.2.

Full text of the Targets for Goals 6, 7, 9, and 12 is available in Appendix A, and additional information is available on the United Nations website: www.un.org/sustainabledevelopment



 <p>6 CLEAN WATER AND SANITATION</p>	<p>Clean Water and Sanitation (Targets 6.3, 6.5)</p> <p><u>Possible Indicators</u></p> <ul style="list-style-type: none">▪ Increased storage capacity for influent▪ Amount of treated wastewater▪ Documentation of integrated water resource management
 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p>Affordable and Clean Energy (Targets 7.2, 7.3)</p> <p><u>Possible Indicators</u></p> <ul style="list-style-type: none">▪ Installed renewable generation capacity▪ Reduction in greenhouse gas emissions as a result of on-site power generation or energy efficiency improvements
 <p>9 INDUSTRY INNOVATION AND INFRASTRUCTURE</p>	<p>Sustainable Infrastructure (Target 9.4)</p> <p><u>Possible Indicators</u></p> <ul style="list-style-type: none">▪ Increased resource-use efficiency (energy or other)
 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<p>Sustainable Use of Natural Resources (Target 12.2)</p> <p><u>Possible Indicators</u></p> <ul style="list-style-type: none">▪ Increased energy use efficiency▪ Reduction in inflow and infiltration▪ Reduction in grid energy demand due to digesters and cogeneration facilities

CONCLUSION

Based on our independent external review, the Bonds (Green Bonds) conform, in all material respects, with the Green Bond Principles (2021) and are in complete alignment with two eligible project categories: *Sustainable Wastewater Management* and *Renewable Energy*. The Bonds will be used to finance an exemplary set of projects to advance the energy efficiency and sustainability of the District’s system. The District is demonstrating leadership by integrating the best practices for wastewater utilities to exceed compliance requirements and advance environmental stewardship goals.

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ABOUT KESTREL VERIFIERS



For 20 years Kestrel has been a trusted consultant in sustainable finance. Kestrel Verifiers, a division of Kestrel 360, Inc. is a Climate Bonds Initiative Approved Verifier qualified to verify transactions in all asset classes worldwide. Kestrel is a US-based certified Women's Business Enterprise.

For more information, visit www.kestrelverifiers.com

DISCLAIMER

This Opinion aims to explain how and why the discussed financing meets the ICMA Green Bond Principles based on the information which was available to us during the time of this engagement (September 2021) only. By providing this Opinion, Kestrel Verifiers is not certifying the materiality of the projects financed by the Green Bonds. It was beyond Kestrel Verifiers' scope of work to review for regulatory compliance and no surveys or site visits were conducted. Furthermore, we are not responsible for surveillance on the project or use of proceeds. Kestrel Verifiers relied on information provided by the Authority and publicly available information. The Opinion delivered by Kestrel Verifiers does not address financial performance of the Green Bonds or the effectiveness of allocation of its proceeds. This Opinion does not make any assessment of the creditworthiness of the Authority, or its ability to pay principal and interest when due. This is not a recommendation to buy, sell or hold the Bonds. Kestrel Verifiers is not liable for consequences when third parties use this Opinion either to make investment decisions or to undertake any other business transactions. This Opinion may not be altered without the written consent of Kestrel Verifiers. Kestrel Verifiers reserves the right to revoke or withdraw this Opinion at any time. Kestrel Verifiers certifies that there is no affiliation, involvement, financial or non-financial interest in the Authority or the projects discussed. Language in the offering disclosure supersedes any language included in this Second Party Opinion.

Use of the United Nations Sustainable Development Goal (SDG) logo and icons does not imply United Nations endorsement of the products, services or bond-financed activities. The logo and icons are not being used for promotion or financial gain. Rather, use of the logo and icons is primarily illustrative, to communicate SDG-related activities.

Appendix A.

UN SDG TARGET DEFINITIONS

Target 6.3

By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

Target 6.5

By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate

Target 7.2

By 2030, increase substantially the share of renewable energy in the global energy mix

Target 7.3

By 2030, double the global rate of improvement in energy efficiency

Target 9.4

By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

Target 12.2

By 2030, achieve the sustainable management and efficient use of natural resources

Appendix B.

PROJECT BUDGET

Table 1. Estimated cost of the Project to be financed with the Bonds, including Energy and Sustainability Upgrades Project activities, gravity sewer, and force main projects.

Bond-Financed Project	Cost
Replacement of Influent Pumps and Motors	\$639,326
New Grit Separation System	\$5,997,016
Carbon Redirection System	\$985,006
Primary Sludge Pumps and Comminutors	\$605,359
Rotary Drum Thickeners	\$4,679,605
High Efficiency Aeration Blower	\$1,527,446
New Digesters	\$18,337,697
Cogeneration System	\$4,995,053
Sludge Centrifugal Dewatering System	\$3,981,725
Sludge Thermal Dryer System	\$11,828,100
Richmond Sludge Piping Upgrade	\$89,683
Equalization Basins	\$4,686,705
Solar - 57 kW at the District Office	\$333,258
Solar - 27 kW at Atlas Road Pump Station	\$161,204
Solar - 61 kW at Lakeside Pump Station	\$260,091
Solar - 136 kW at Tara Hills Pump Station	\$462,962
Solar - 849 kW at Wastewater Treatment Plant	\$2,511,688
Electric Vehicle Charging Stations	\$54,729
LED Lighting Upgrades - District Office	\$94,206
LED Lighting Upgrades - WWTP	\$197,369
Project Management for Energy and Sustainability Upgrades	\$1,800,000
Construction Management/Inspection for Energy and Sustainability Upgrades	\$6,800,000
Gravity Sewer Main Projects	\$10,000,000
Force Main Projects	\$9,000,000