



## Second Party Opinion

<b>Issuer:</b>	<b>City of Tacoma, Washington</b>
<b>Issue Description:</b>	Regional Water Supply System Revenue Refunding Bonds, Series 2024 (Green Bonds)
<b>Project:</b>	Second Supply Project
<b>Green Standard:</b>	ICMA Green Bond Principles
<b>Green Categories:</b>	1. Climate Change Adaptation 2. Sustainable Water Management
<b>Keywords:</b>	Drinking water, regional water supply, resilient supply, climate adaptation, Green River watershed, fish habitat, Washington
<b>Par:</b>	\$32,350,000
<b>Evaluation Date:</b>	December 26, 2023

### GREEN BONDS DESIGNATION

Kestrel, an Approved Verifier accredited by the Climate Bonds Initiative, conducted an independent external review of the City of Tacoma, Washington, Regional Water Supply System Revenue Refunding Bonds, Series 2024 (Green Bonds) ("Bonds") to evaluate conformance with the Green Bond Principles (June 2021 with June 2022 Appendix 1) established by the International Capital Market Association. Our team for this engagement included analysts with backgrounds in environmental science and social science.

This Second Party Opinion reflects our review of the uses and allocation of proceeds, oversight, and conformance of the Bonds with the Green Bond Principles. In our opinion, the Bonds are impactful and conform with the four core components of the Green Bond Principles, and qualify for Green Bonds designation.

### ABOUT THE ISSUER

Tacoma, Washington, is located 32 miles south of Seattle and has a population of nearly 221,000. The City of Tacoma (the "City") provides drinking water services through the Water Division of the Department of Public Utilities ("Tacoma Water"), which serves approximately 375,000 people in the city and nearby communities of Pierce and King Counties. Tacoma Water provides potable drinking water to residential, commercial, and industrial accounts, and serves 15 wholesale customers in the Puget Sound region. The City has also established a separate utility system known as the Regional Water Supply System ("Regional System") in partnership with the City of Kent, Lakehaven Water and Sewer District, and Covington Water District. The Regional System was formed to construct and operate the Second Supply Project, an

additional supply pipeline from the Green River. The City has water rights on the Green River, including for the Second Supply Project. Under the terms of the 2002 Second Supply Project Agreement, each participant in the Regional System has a right to project capacity share. Water is primarily sourced from the Green River, with a watershed that consists of approximately 230 square miles of forested and mountainous terrain located northeast of Tacoma in the Cascade Range. Drinking water from the watershed is treated at the Green River Filtration Facility, which has a treatment capacity of up to 150 million gallons per day. Tacoma Water also owns and operates groundwater wells that provide approximately 8% of the supply, used primarily in the summer or fall when demand increases.<sup>1</sup>

Tacoma Water plans for drought and climate change resiliency through data modeling and has an Integrated Resource Plan to guide decisions related to water supply security. Tacoma Water proactively plans for declines in water supply due to climate change and explores alternative options, such as enhancing groundwater production, implementing demand management strategies, and developing a water storage project at Eagle Gorge Reservoir. Additionally, the City published the 2030 Tacoma Climate Action Plan which describes a pathway for Tacoma to reach net zero greenhouse gas emissions by 2050.

Tacoma Water ensures high water quality for customers through watershed stewardship. Tacoma Water owns a portion of the upper Green River watershed and implements watershed protection programs and monitoring upstream of the diversion.<sup>2</sup> Green River diversions are managed under a Habitat Conservation Plan and an agreement with the Muckleshoot Indian Tribe. Key strategies of this plan include fish and wildlife habitat conservation, including upland forest and riparian management.

In 2020, Tacoma Water began upgrading and replacing water meters with Advanced Metering Infrastructure (“AMI”) to capture water usage data, improve billing, detect leaks and better manage outages. To implement AMI projects, Tacoma Water utilizes the City of Tacoma Equity Index<sup>3</sup> to identify underserved communities and areas with historically low investments in drinking water infrastructure. Tacoma Water also offers grants and deferred loans to help customers finance water line repairs.

## ALIGNMENT TO GREEN STANDARDS<sup>4</sup>

### Use of Proceeds

The Bonds refund the Regional Water Supply System Revenue Refunding Bonds, 2013, that financed a portion of the Second Supply Project. The Bonds also pay costs of issuance. The Second Supply Project has improved resilience of the drinking water system and is an eligible project as defined by the Green Bond Principles in the project categories of *Climate Change Adaptation* and *Sustainable Water Management*.



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<sup>1</sup> Groundwater and surface water supplies are treated separately for drinking water.

<sup>2</sup> A diversion is a structure designed to divert river water for drinking water treatment and distribution.

<sup>3</sup> The Equity Index is a data-driven tool used to identify locations, projects, and policies where there are opportunities to address disparities in community conditions.

<sup>4</sup> Green Bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or refinance eligible Green Projects which are aligned with the four core components of ICMA Green Bond Principles.

The 2013 Bonds refunded bonds that financed a portion of capital improvements necessary to increase water available during dry summer months and provide reliable drinking water to a growing population. This project (the “Second Supply Project”) is a major, multi-year, regional supply project consisting of water rights to 65 million gallons per day from the Green River and infrastructure necessary to divert and deliver this water. Infrastructure improvements consist of a diversion on the Green River, pipeline upgrades, watershed enhancements, and expansion of water storage behind the Howard Hanson Dam. Tacoma Water is the operator of the Second Supply Project.<sup>5</sup>

The Second Supply Project illustrates a proactive commitment to establishing and maintaining a diverse water supply that is resilient to climate change-related supply fluctuations. It enables sustainable growth of the water system by maximizing water supply reliability and creating redundancy. Major components of the Second Supply Project are described below.

- **Second Supply Pipeline:** A 34-mile pipeline constructed from the existing headworks facility near the diversion on the Green River to Pipeline No. 4 near Portland Avenue Reservoir.
- **Headworks:** Upgrades to headworks at the diversion infrastructure including raising the diversion dam; constructing a new and larger intake; and installing a fish ladder and screening structures.
- **Howard Hanson Dam Additional Storage Project:** As part of the Second Supply Project, an additional 20,000 acre-feet of water is stored in the reservoir behind the Howard Hanson Dam. Included with this added storage are improvements to intake and outlet structures necessary for downstream fish passage. As of 2023, these improvements are ongoing, and until they are completed, Tacoma Water is constrained in the amount of water it may divert (10,000 acre-feet). Availability of the full water right is contingent upon downstream flows for fish and other ecosystem requirements. The Howard Hanson Dam is located three river miles upstream from the Green River Diversion and is owned and operated by the US Army Corps of Engineers.
- **Muckleshoot Fisheries Restoration Facility:** The Muckleshoot Indian Tribe holds treaty rights to certain natural resources in the Green River watershed. As part of the Second Supply Project, a fish hatchery will be constructed to incubate and rear salmon and to ensure fish access in the upper Green River watershed. The facility is owned and operated by the Muckleshoot Tribe. Development of this facility and other aspects of the Second Supply Project are partially governed by a 1995 agreement between Tacoma Water and the Muckleshoot Tribe pertaining to management of natural resources in the watershed. The agreement has since been strengthened through approval of the Green River Habitat Conservation Plan (described in the following section).

The majority of the Second Supply Project is complete, except as described above, and water began flowing through the diversion and pipeline in October 2005.

#### Sustainable Watershed Management

Tacoma Water has improved stewardship of natural resources in the Green River watershed while also maintaining a reliable water supply in the service area. The Tacoma Water Habitat Conservation Plan, watershed modeling, and partnership with the US Army Corps of Engineers have all supported sustainable operation of the Second Supply Project and sustainability in the entire Green River watershed.

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<sup>5</sup> The Second Supply Project was developed through a partnership among Tacoma Water, the City of Kent, Covington Water District, and Lakehaven Utility District.

The Tacoma Water Habitat Conservation Plan<sup>6</sup> (“Plan”) is a significant commitment to restoration and stewardship in the watershed. Approved in 2001, the Plan was developed as part of the application to the National Marine Fisheries Service and US Fish and Wildlife Service for the Second Supply Project and describes plans for operations and improvements necessary to ensure consistency with the federal Endangered Species Act. The Plan outlines steps to add upstream and downstream fish passage to the Howard Hanson Dam, add large woody debris downstream of the new diversion for healthy ecosystem function, and move gravel from upstream of the dam to downstream below the dam to improve salmon spawning habitat. Activities in the Plan also include set-asides of approximately 40% of the watershed owned by Tacoma Water for no active forest management and approximately 25% of the land for development of more mature forests.

In addition to ongoing activities in the Habitat Conservation Plan that support sustainability of the Second Supply Project, Tacoma Water has developed a sophisticated modeling tool called the “Water Yield, Supply, and Demand Model” to evaluate long- and short-term management scenarios. The model generated climate risk assessments from simulated weather years and informed Tacoma Water’s Integrated Resource Plan (2018). Consideration of climate change for planning scenarios is critical to proactive climate adaptation and resilience.

Tacoma Water works with the US Army Corps of Engineers to monitor reservoir storage, conduct risk assessments, and implement forecast-informed reservoir operations (“FIRO”). Forecast-informed reservoir operation is a relatively novel approach to reservoir management that uses real-time meteorological data to manage reservoir storage and maximize water availability for downstream flow requirements in dry months of the year. More precise management of the reservoir improves sustainability of the Second Supply Project.

### Advancing the Just Transition

The Bonds also finance activities which align with the *just transition*, characterized by the equitable inclusion and accommodation of all individuals, with a special focus on disadvantaged groups who may be directly or indirectly affected by the structural changes necessary for the transition to a low-carbon economy. By financing proactive projects that ensure a long-term, reliable source of drinking water for all residents, the Bonds support the just transition. The Projects address climate transition risks by planning for variability in water supply and adding redundancy in a region experiencing unique water resource challenges amidst regional population growth. Acquisition of additional water rights and construction of a new reservoir increases resilience of the entire system.

### **Process for Project Evaluation and Selection**

Tacoma Water uses several key planning documents to identify and prioritize projects that support a resilient, reliable, and sustainable water system. The Integrated Resource Plan (2018) also provides a framework for prioritizing projects that support and advance the Comprehensive Water System Plan (2018).<sup>7</sup>

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<sup>6</sup> “Tacoma Water Habitat Conservation Plan: Green River Water Supply Operations and Watershed Protection,” R2 Resource Consultants, Tacoma Water, July 2001, <https://www.mytpu.org/wp-content/uploads/habitat-conservation-plan-executive-summary.pdf>.

<sup>7</sup> The Washington State Department of Health requires Tacoma Water to update this water system plan every ten years. This plan includes a capital program needs assessment based on various analyses of the system and regional water supply. Other key documents which inform Tacoma Water’s activities include the Water Conservation Plan and the Water Shortage Response Plan.

Tacoma Water leadership ensures that all bond-financed projects are aligned with and advance the goals of the Tacoma Water Habitat Conservation Plan, the 2020-2025 Tacoma Water Strategic Plan, and regional water infrastructure goals laid out in the Tacoma Climate Change Resilience Study (2016).

**Management of Proceeds**

Bond proceeds will solely be used to refund all or a portion of the Regional Water Supply System Revenue Refunding Bonds, 2013, and to pay costs of issuance. Proceeds will not be held in temporary investments prior to refunding the outstanding bonds. The Finance Department is responsible for disbursement of funds and the City Treasurer will oversee the refunding.

**Reporting**

Tacoma Water provides multiple forms of ongoing reporting. A long-range financial plan is produced annually and includes updates on the water system and ongoing capital projects. The most recent long-range financial plan is available here: [mytpu.org/about-tpu/investors/water-investor-information](https://mytpu.org/about-tpu/investors/water-investor-information). Tacoma Water reports quarterly on Strategic Directives, which are made publicly available. The Tacoma Public Utilities annual report includes a dedicated Tacoma Water section with information about environmental stewardship. These Tacoma Public Utilities annual reports are available at [mytpu.org/about-tpu/tpu-publications](https://mytpu.org/about-tpu/tpu-publications).

In addition to these reporting efforts, Kestrel will provide one update report on the Bonds within 12 months of issuance. This report is expected to be produced after all proceeds have been spent and will include confirmation of continued alignment with the Green Bond Principles and relevant updates on financed projects including allocation of proceeds.

Tacoma Water will also submit continuing financial disclosures to the Municipal Securities Rulemaking Board (“MSRB”) as long as the Bonds are outstanding, as well as 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.

**ALIGNMENT WITH UN SDGs**



The Bonds support and advance the vision of the United Nations Sustainable Development Goals (“UN SDGs”), including:



**Clean Water and Sanitation (Targets 6.1, 6.5)**

Provide access to clean and reliable drinking water and use integrated water resource planning



**Industry, Innovation and Infrastructure (Target 9.4)**

Implement capital improvements to improve resilience and resource-use efficiency



**Responsible Consumption and Production (Target 12.2)**

Sustainable management of the Green River watershed and regional water supplies



### Climate Action (Target 13.1)

Climate adaptation and resiliency as a result of diverse water supply

Full text of the Targets for Goals 6, 9, 12 and 13 is available in Appendix A, with additional information available on the United Nations website: [un.org/sustainabledevelopment](https://un.org/sustainabledevelopment)

## CONCLUSION

Based on our independent external review, the City of Tacoma, Washington, Regional Water Supply System Revenue Refunding Bonds, Series 2024 (Green Bonds) are impactful and conform, in all material respects, with the Green Bond Principles (2021) and are in complete alignment with two eligible project categories: *Climate Change Adaptation* and *Sustainable Water Management*. By financing construction of the Second Supply Project to diversify the water supply, Tacoma Water has improved resilience to extreme weather events and other unpredictable impacts on the drinking water system. Lasting, efficient, and reliable infrastructure is critical to the sustainability of a municipal water system.

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### About

Kestrel provides Sustainability Intelligence and verification services designed to bring greater transparency and insight to fixed income, helping to set the market standard for sustainable finance.

Kestrel is a leading provider of external reviews for green, social and sustainability bond transactions. We are qualified to evaluate corporate and municipal bonds in all asset classes worldwide for conformance with international green and social bond standards.

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**Disclaimer**

This Opinion aims to explain how and why the discussed financing meets the ICMA Green Bond Principles based on the information that was provided by Tacoma Water or made publicly available by Tacoma Water and relied upon by Kestrel only during the time of this engagement (July – December 2023), and only for purposes of providing this Opinion.

We have relied on information obtained from sources believed to be reliable, and assumed the information to be accurate and complete. However, Kestrel can make no warranty, express or implied, nor can we guarantee the accuracy, comprehensive nature, merchantability, or fitness for a particular purpose of the information we were provided or obtained.

By providing this Opinion, Kestrel is neither addressing nor certifying the credit risk, liquidity risk, market value risk or price volatility of the projects financed by the Green Bonds. It was beyond Kestrel's scope of work to review for regulatory compliance, and no surveys or site visits were conducted by us. Furthermore, we are not responsible for surveillance, monitoring, or implementation of the project, or use of proceeds.

The Opinion delivered by Kestrel is for informational purposes only, is current as of the date of issuance, and 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 Tacoma Water, nor its ability to pay principal and interest when due. This Opinion does not address the suitability of a Bond as an investment, and contains no offer, solicitation, endorsement of the Bonds nor any recommendation to buy, sell or hold the Bonds. Kestrel accepts no liability for direct, indirect, special, punitive, consequential or any other damages (including lost profits), for any 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. Kestrel reserves the right to revoke or withdraw this Opinion at any time. Kestrel certifies that there is no affiliation, involvement, financial or non-financial interest in Tacoma Water or the projects discussed. We are 100% independent. 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 6.1**

By 2030, achieve universal and equitable access to safe and affordable drinking water for all

### **Target 6.5**

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

### **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

### **Target 13.1**

Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries