Public Utilities Commission of the City and County of San Francisco

# Wastewater Enterprise

## Green Bonds Annual Report

For Fiscal Year Ending June 30, 2018

*Photo: Stormwater Management, Spofford Living Alley, Chinatown San Francisco, Ca*

San Francisco Water Power Sewer

Services of the San Francisco Public Utilities Commission

**Introduction**

This annual green bonds spending report provides project spending details on the projects funded by the following bond issuance of the Wastewater Enterprise of the Public Utilities Commission of the City and County of San Francisco (SFPUC):

- **Wastewater Revenue Bonds Series 2016 A (Green Bonds)**

The SFPUC is a department of the City and County of San Francisco and provides drinking water to the City of San Francisco and wholesale water agencies located in three Bay Area counties, wastewater services to the City of San Francisco, and green hydroelectric and solar power to retail customers and the City's municipal departments. The SFPUC's Wastewater Enterprise maintains a combined sewage and stormwater collection, treatment and disposal system, and operates and maintains 993 miles of combined sewers for homes, businesses, and street run-off. Three treatment plants treat sewage and stormwater, reducing pollution in the bay and ocean.

**Certified Green Bonds for Sewer System Improvement Program Projects**

The SFPUC retained an independent consultant, Sustainalytics, to review and verify that the above referenced bonds meet the requirements of the Climate Bonds Initiative (CBI) Water Bonds Standard. The proceeds have been allocated to finance projects within the Sewer System Improvement Program (SSIP) and Sustainalytics determined that all SSIP projects are eligible to be financed with green bonds (report attached).

**Sewer System Improvement Program**

The SFPUC has embarked on a comprehensive $7.045 billion Sewer System Improvement Program to be implemented in three overlapping phases over approximately 20 years. The SSIP is a series of major capital improvement projects that are necessary to bring the City's wastewater and stormwater system into a state of good repair, and to meet the Commission-endorsed goals and levels of service, which include the following:

1. Provide a compliant, reliable, resilient and flexible system that can respond to catastrophic events;
2. Integrate grey and green infrastructure to manage stormwater and minimize flooding;
3. Provide benefits to impacted communities;
4. Modify the system to adapt to climate change;
5. Achieve economic and environmental sustainability; and
6. Maintain ratepayer affordability.

Program Scope

The SSIP is further broken into three major subprograms: Treatment Plants, Collection System, and Land Reuse. Due to the size of the overall program, a three-phased approach was developed for affordability and to simplify implementation of the SSIP projects. The timing of the three phases overlap to correspond with the duration and completion of specific major projects. These projects include but are not limited to:

Wastewater Treatment Projects

- Replacing existing and aged and failing facilities with new Biosolids Digester Facilities
- Improving the level of screening and grit removal in existing facilities
- Replacing the antiquated oxygen generation plants
- Condition assessment and rehabilitation of building structures
- Replacing mechanical and electrical equipment
- Seismic retrofitting

Sewer Collection System Improvement Projects

- Enhancing conveyance in the Channel and Islais Creek watershed to provide redundancy and increase capacity to manage storm events
- Rehabilitating and replacing interceptors, tunnels, pump stations, force mains and Transport/Storage (T/S) boxes
- Rehabilitating Combined Sewer Discharge (CSD) structures and preventing backflow of bay water through CSDs due to sea level rise

Stormwater Management/Flood Control Improvement Projects

- Green infrastructure (bioretention planters for stormwater runoff, permeable paving)
- Flood resilience (analysis of flooding risks, stormwater detention and conveyance concepts, flood barriers)
- Hydraulic and drainage sewer improvements in flood prone neighborhoods
- Advanced rainfall and operational decision systems (automated real time forecasts with increased accuracy)

**Green Bond Spending Details**

The proceeds from the green bond issuance are separately tracked and allocated to designated eligible projects. Spending by bond and eligible project is detailed in the table below.

**Table 1: Green Bond Proceeds Spending Detail**
**Wastewater Series 2016 A**
**As of June 30, 2018**

| Project* | Estimated Use of Proceeds | FY 15-16 | FY 16-17 | FY 17-18 | Total Expended | Total Remaining |
|---|---|---|---|---|---|---|
| Collection System Improvements | $ 62,076,000 | $ 5,746,065 | $ 6,199,388 | $ 24,388,007 | $36,333,460 | $25,742,540 |
| Central Bayside System Improvements | 19,800,000 | 4,996,497 | 4,086,856 | 7,780,658 | 16,864,011 | 2,935,989 |
| Stormwater Management/Flood Control (SIPFC)** | 49,417,066 | 16,083,159 | 8,277,028 | 13,165,634 | 37,525,821 | 11,891,245 |
| Northshore To Channel Force Main | 20,270,000 | 6,364,327 | 322,058 | 16,096 | 6,702,481 | 13,567,519 |
| SSIP Program-Wide Management | 94,000,000 | 59,786,468 | 9,160,159 | 25,053,373 | 111,746,806 | - |
| Urban Watershed Assessment Project | 13,000,000 | 12,315,605 | 671,572 | (29,716) | 12,957,461 | 42,539 |
| Total | $ 258,563,066 | $ 105,292,121 | $ 28,717,061 | $70,374,053 | $222,130,040 | $54,179,831 |

**Eligible projects include all SSIP, subset only listed*

# SAN FRANCISCO PUBLIC UTILITIES COMMISSION GREEN BOND

## FRAMEWORK OVERVIEW AND SECOND OPINION BY SUSTAINALYTICS

May 2016

SUSTAINALYTICS

www.sustainalytics.com

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# 1. PREFACE

Sustainalytics has been retained by San Francisco Public Utilities Commission (SFPUC) to support, review, and provide an opinion on its green bond framework and its alignment with the Green Bond Principles 2015 and compatibility with the draft Water Climate Bonds Standard requirements. As part of this engagement, Sustainalytics reviewed relevant public and internal documents, and held conversations with SFPUC's legal, finance, operational and sustainability teams to understand the planned use of proceeds, project selection process, and management and reporting for its green bond.

This document contains two sections:
1) Framework Overview, which includes a summary of SFPUC's green bond framework; and
2) Sustainalytics' Opinion, which is a second party opinion on the framework.

# 2. INTRODUCTION

The SFPUC, a public utility, is a department of the City of San Francisco, and provides drinking water to the City of San Francisco and wholesale water agencies located in three Bay Area counties, wastewater services to the City of San Francisco, and green hydroelectric and solar power to retail customers and the City's municipal departments. The SFPUC's Wastewater Enterprise maintains a combined sewage and stormwater collection, treatment and disposal system, and operates and maintains 993 miles of combined sewers for homes, businesses, and street runoff. Three treatment plants treat sewage and stormwater, reducing pollution in the bay and ocean.[1]

SFPUC has decided to issue a green bond to finance sustainable stormwater management and wastewater projects in San Francisco. The following framework outlines the alignment of the bond to the water climate bonds standard, outlines the eligibility criteria for the use of proceeds, describes the project selection process and management of proceeds, and finally describes how the impact of the bond will be reported by SFPUC.

# 3. FRAMEWORK OVERVIEW

For this green bond issued by SFPUC a framework has been created that follows the four key pillars of the Green Bond Principles ("GBP"):

- Use of Proceeds
- Project Selection Process
- Management of Proceeds
- Reporting

## 3.1 Use of Proceeds

To be eligible for the green bond proceeds, the projects funded must meet one or more of the following business activity criteria:

[1] SFPUC About Us http://www.sfwater.org/index.aspx?page=6

### 3.1.1 Eligibility Criteria

To be eligible for the green bond proceeds, the projects funded must meet one or more of the following business activity criteria:

1. Wastewater treatment upgrades
2. Sewer collection system improvements
3. Stormwater management/flood control improvements

**The context:** The San Francisco sewer system was not constructed to withstand major earthquakes or the impacts of climate change, such as sea level rise and intense rainstorms that could overwhelm the sewer system, as it treats both sewage and stormwater runoff. Currently, more than 300 miles of sewers are more than 100 years old. SFPUC recognizes the significant challenge of operating an aging sewer system, and states that it is crucial that the system be updated before it becomes a threat to public health. The SFPUC has therefore identified wastewater treatment, sewer collection system improvements, and stormwater management as vital to climate change adaptation and to ensure the effectiveness and sustainability of the sewer system.

**Use of proceeds:** SFPUC has identified numerous projects under the Sewer System Improvement Program (SSIP) aimed at improving and strengthening wastewater treatment and sewer collection systems. These projects include, but are not limited to:

**Wastewater treatment projects**

- Replacing existing and aged and failing facilities with new Biosolids Digester Facilities
- Improving the level of screening and grit removal in existing facilities
- Replacing the antiquated oxygen generation plants
- Condition assessment and rehabilitation of building structures
- Replacing mechanical and electrical equipment
- Seismic retrofitting

**Sewer collection system improvements projects**

- Enhancing conveyance in the Channel and Islais Creek watershed to provide redundancy and increase capacity to manage storm events
- Rehabilitating and replacing interceptors, tunnels, pump stations, force mains and Transport/Storage (T/S) boxes
- Rehabilitating Combined Sewer Discharge (CSD) structures and preventing backflow of bay water through CSDs due to sea level rise

**Stormwater management/flood control improvements projects**

- Green infrastructure (bioretention planters for stormwater runoff, permeable paving)
- Flood resilience (analysis of flooding risks, stormwater detention and conveyance concepts, flood barriers)
- Hydraulic and drainage sewer improvements in flood prone neighborhoods

- Advanced rainfall and operational decision systems (automated real time forecasts with increased accuracy)

Any project that meets the business activity criteria listed above, including the new and ongoing developments of such projects, are eligible to be funded in whole or in part by an allocation of the green bond proceeds. SFPUC has selected the projects listed in Appendix A for the allocation of green bond proceeds.

## 3.2 Project Evaluation and Selection Process

The projects included in the bond sale are part of the Sewer System Improvement Program (SSIP) Phase 1. The SSIP is a multi-billion and multi-year capital program to upgrade the City of San Francisco's aging sewer system. The program will not only modernize the system but also takes into account changes related to storm intensity and sea level rise. The projects in this bond sale are part of the $2.9B SSIP Phase 1 and has been approved by the Commission.

Beginning in 2003, the SFPUC staff assessed the need for wastewater collection and treatment system improvements to help the SFPUC continue to meet its core mission and Wastewater Enterprise specific goals for climate change adaptation, regulatory permit compliance, system reliability and functionality, and sustainable operations. From 2009-2010 seven intensive workshops were held with the Commission that culminated in the endorsement of the Goals and Levels of Service provided in the Sewer System Improvement Program Report. In 2011 there was a presentation and discussion of the SSIP, 10-year Capital Request, and Associated Rate Impacts where the Commission authorized staff to move forward with the procurement of a Program Management Consultant (PMC) to validate the proposed program scope, schedule, and budget. The PMC started work in 2011 and conducted a detailed validation effort of the proposed SSIP projects. Three Commission validation workshops were conducted in 2012 to update both the Commission and the public on the proposed treatment and collection system projects' scope, schedule, and budget; as well as, revisions to the SSIP Goals and Levels of Service. The Program Validation workshops resulted in endorsement of the 2012 SSIP Goals and Levels of Service, validation of the staff's project scope and phased implementation process, and authorization for staff to proceed with planning and developing the proposed Phase 1 projects of the SSIP.

Over the past three years since the Commission has endorsed Phase 1 of the program, significant progress in program planning and project development of both the treatment and collection systems have occurred. The baselining efforts included a thorough review of the Goals and Levels of Service; prioritization of project scopes and costs to determine if deferral or elimination of scope was acceptable; refinement of projects, namely as a result of the receiving water model results; and, Central Bayside System Improvement Project tunnel sizing.

This effort has resulted in updated 2016 Goals, Levels of Service, Program and Phase 1 Strategies that will inform and guide project teams and a revised Program Baseline that contains better definition of project scopes, refinement of costs, and updated project schedules. In addition, other collection system needs (for example, climate change adaption to sea level rise and intense storms) and opportunities have arisen that have triggered the inclusion of Interdepartmental and Flooding projects to the SSIP. To best capture

and reflect all of these changes, SSIP staff has revised the overall Program Baseline Cost Summary and Phase 1 Project Schedules.

## 3.3 Management of Proceeds

The amount raised through the issuance of the green bond will be equal to or less than amounts budgeted for the eligible projects listed in Appendix A.

The proceeds of the bond will be held in a dedicated bond sub-fund set up to manage and track the disbursements of the bond proceeds for eligible green projects. All the funding and disbursement for each project is recorded in an accounting system – FAMIS (Financial Accounting Management Information System), managed by the City of San Francisco.

## 3.4 Reporting

**Funds:** SFPUC plans to report on an annual basis the amount funds allocated to eligible project and the balance remaining.

**Climate Mitigation:** SFPUC plans to report on the following KPIs at an aggregate level by facility:

- Energy generated (kW) through the new Biosolids Digester Facilities Project at the Southeast Plant and upgrades to the digester gas improvements at Oceanside Treatment Plant
- Energy saved (kW) per unit of biosolids treated to measure efficacy of energy-reducing equipment and system upgrades
- Energy saved (kW) per gallon of liquids treated to measure efficacy of energy-reducing equipment and system upgrades
- Volume of wastewater treated
- Volume of recycled water used from the new recycled water pump station at Southeast Plant

**Climate Change Adaptation Plans:** As one of the projects listed in Appendix A, SFPUC is undertaking a comprehensive climate change vulnerability and risk assessment related to the wastewater and stormwater assets, culminating in an SSIP Climate Change Adaptation Plan. Part of this plan has been applied to Phase 1 SSIP projects by providing insight to inform design and operation strategies and manage climate change risks. SFPUC may provide descriptions and details of climate change adaption plans and strategies, and which projects will be implemented to achieve them.
Examples include:

- Reduce climate change impacts by constructing and modifying facilities to meet sea level rise projections, as well as modifying combined sewer discharges to prevent backflow due to sea level rise.
- Address water diversion/navigation, flood management, and stormwater runoff by upgrading the system to meet the Level of Service storm. These systems include conveyance (tunnels, sewers, pump stations, force mains), green infrastructure, stormwater detainment, and rainfall prediction. Combined sewer reductions and flooding reduction impacts are computer-modeled as part of project planning.

For a detailed list of reporting commitments, please refer to Appendix B

# 4 SUSTAINALYTICS' OPINION

***Impact of climate change on wastewater management:*** According to the Intergovernmental Panel on Climate Change (IPCC), wastewater management is "an important sustainable development goal because it can lead directly to improved health, productivity of human resources, and better living conditions."[2] In its 2007 Annual Report, the IPCC stated that improving wastewater treatment and storm water management can provide multiple benefits for climate change mitigation and adaptation, including GHG emissions reduction through the use of energy-efficient facilities, conservation of water resources and water and soil pollution reduction.[3]

Wastewater treatment and storm water management are projected to become even more difficult due to climate change and the associated changes in temperatures, precipitation patterns, sea level rise and storm-related damages. Climate conditions in the San Francisco Bay Area will change over the next century, posing a unique challenge. Changes in precipitation patterns may result in severe rainfall events, which, together with sea level rise, may overwhelm stormwater run-off systems and impact water qualities or result in localized flooding. Inadequate storm-proofing will likely cause significant risk to life, damage to property, infrastructure and environment.

To address these challenges, the sewer improvement projects financed under the San Francisco Public Utilities Commission green bond are expected to provide multiple opportunities for climate mitigation and adaptation. New "green" facilities will help reduce GHG emissions, contributing climate mitigation. Treatment and reuse of wastewater and storm water, as well as storm-proofing will serve as effective climate adaptation measures in the coastal environment, which is also prone to severe droughts and water scarcity.

***Water Climate Bond Certified:*** In issuing the green bond aligned with the Water Climate Bonds Standard, the SFPUC is demonstrating its commitment to addressing the climate change risks on water infrastructure and a strong commitment to transparency. The bond has been verified against criteria that examined SFPUC's vulnerability assessment and climate change adaptation plan, and is the first bond to receive certification under this new water standard.

***Alignment with Green Bond Principles:***

| Principle | In line with GBP 2015? | Comments |
|---|---|---|
| **Use of Proceeds** | Yes | The Use of Proceeds of this bond are clearly described in the public offering statement. Furthermore, sustainable water management is one of the broad categories recognized by the GBP as offering clear environmental benefits. Based on Sustainalytics' review, these projects help in mitigating climate change impacts by GHG emissions reduction through the use of energy- |

[2] https://www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4_wg3_full_report.pdf
[3] https://www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4_wg3_full_report.pdf

| | | |
|---|---|---|
| | | efficient facilities and conservation of water resources. In addition, all these project have been evaluated against climate change risks with emphasis on climate change adaptation and projects adjusted or modified to deal with long-term impacts of climate changes such as sea level rise. |
| **Project selection process** | Yes | The projects selected for the bond are part of SSIP Phase1. The current SSIP program was a result of a multi-year assessment that included, among other things, climate change mitigation and adaptation considerations. |
| **Management of Proceeds** | Yes | A sub-account specific to the bond will be set up and the disbursement to corresponding project will be tracked in the FAMIS system. |
| **Reporting** | Yes | SFPUC will report the KPIs mentioned in the reporting section above on an aggregate level and where possible at a project level. In addition, SFPUC will share details about climate change adaptation plans for the eligible projects. Providing such detailed reporting on climate change mitigation and adaptation is a best practice within water green bond issuances. |

## Conclusion

By financing projects in wastewater treatment and stormwater management, SFPUC aims to reduce GHG emissions in its facilities, improve water conservation, and manage climate change risks by addressing system vulnerabilities, actions recognized by the Intergovernmental Panel on Climate Change as effective climate mitigation and adaptation measures.

SFPUC's approach to selecting projects and managing green bond proceeds is robust, and its reporting on the use of proceeds, with KPIs that capture energy and water impacts, is transparent. SFPUC's green bond follows the guidance provided by the Green Bond Principles 2015 and is in alignment with its four pillars – the use of proceeds, process of project evaluation and selection, management of proceeds and reporting. Furthermore, the SFPUC's Green Bond has been certified according to the Water Climate Bond Standard, the first green bond to achieve this certification. Based on the above considerations, Sustainalytics is of the view that SFPUC's green bond is robust and credible.

# APPENDICES

## Appendix A: Eligible projects examples

| Wastewater Bonds Series 2016 - Project List | | | |
|---|---|---|---|
| **PROJECT** | | **TITLE** | **2016 Bonds** |
| **Sewer System Improvement Program (SSIP)** | | | |
| | CWWSIPCS | COLLECTION SYSTEM IMPROVEMENTS | 62,076,000 |
| | CWWSIPCT | CENTRAL BAYSIDE SYSTEM IMPROVEMENTS | 19,800,000 |
| | CWWSIPDP | SSIP BIOSOLIDS/DIGESTER PROJECT | 65,600,000 |
| | CWWSIPFC | STORMWATER MANAGEMENT | 61,770,000 |
| | CWWSIPNC | NORTHSHORE TO CHANNEL FORCE MAIN | 20,270,000 |
| | CWWSIPPR | SSIP PROGRAM-WIDE MANAGEMENT | 94,000,000 |
| | CWWSIPSE | TREATMENT PLANT IMPROVEMENTS-SOUTHEAST | 104,920,000 |
| | CWWSIPTP | TREATMENT PLANT IMPROVEMENTS | 55,200,000 |
| | CWWSIPUW | URBAN WATERSHED ASSESSMENT PROJECT | 11,900,000 |
| | CWWBAE00 | BIOFUEL ALTERNATIVE ENERGY PROJECT | 5,000,000 |
| | **TOTAL** | | **500,536,000** |

## Appendix B: Reporting Details

| | CLIMATE MITIGATION | | | | CLIMATE ADAPTATION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Phase 1 only*** | **Energy generation** | **Energy efficiency** | **Wastewater storage / treatment** | **Water supply/ treatment** | **Water diversion/ navigation** | **Reduce climate change impacts** | **Flood management** | **Rainwater harvesting** | **Watershed protection** | **Stormwater/ runoff management** |
| **Sewer System Improvement Program** | | | | | | | | | | |
| Program Wide Efforts | | | | | | *Sea level rise adaptation plan* | | | | |
| Land Reuse | | | | | | | | | | |
| **Treatment Facilities** | | | | | | | | | | |
| Southeast Plant | *kW of biogas created* | *kW of energy saved per unit of biosolids treated (before vs. after)*<br><br>*kW of energy saved per gallon of liquids treated (before vs. after)* | *Volume of wastewater treated* | *Volume of recycled water used at new W3 Pump Station* | | *GHG offset from production and use of biogas* | | | | |
| North Point Facility | | *kW of energy saved per gallon of influent wastewater pumped (before vs. after)* | *Volume of wastewater treated* | | | | | | | |

| | CLIMATE MITIGATION | | | | CLIMATE ADAPTATION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Phase 1 only*** | **Energy generation** | **Energy efficiency** | **Wastewater storage / treatment** | **Water supply/ treatment** | **Water diversion/ navigation** | **Reduce climate change impacts** | **Flood management** | **Rainwater harvesting** | **Watershed protection** | **Stormwater/ runoff management** |
| Westside Pump Station and Force Main | | *kW of energy saved per gallon of influent wastewater pumped (before vs. after)* | *Volume of wastewater treated* | | | | | | | |
| Oceanside Plant | *kW of biogas created* | *kW of energy saved for odor control and per cubic feet of biogas produced* | *Volume of wastewater treated* | | | | | | | |
| **Sewer/Collection System** | | | | | | | | | | |
| Central Bayside System Improvements | | | | | ✓ | | ✓ | | | ✓ |
| Collection System - Interceptors/Tunnels/Odor Control | | | | | ✓ | | | | | ✓ |
| Transport/Storage & Combined Sewer Discharge Structures | | | | | ✓ | ✓ | | | | ✓ |
| Pump Stations / Force Main Improvements | | | | | ✓ | | | | | ✓ |

| | CLIMATE MITIGATION | | | | CLIMATE ADAPTATION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Phase 1 only*** | **Energy generation** | **Energy efficiency** | **Wastewater storage / treatment** | **Water supply/ treatment** | **Water diversion/ navigation** | **Reduce climate change impacts** | **Flood management** | **Rainwater harvesting** | **Watershed protection** | **Stormwater/ runoff management** |
| **Stormwater Management/Flood Control** | | | | | | | | | | |
| Drainage Basin / Early Implementation Projects | | *kW of energy saved from new street light fixtures (before vs. after)* | | | | | ✓ | ✓ | ✓ | ✓ |
| Flood Resilience | | | | | | | ✓ | | ✓ | ✓ |
| Collection System - Hydraulic Improvements | | | | | | | ✓ | | ✓ | ✓ |
| Low Impact Design Program | | *kW of energy saved from new street light fixtures (before vs. after)* | | | | | ✓ | ✓ | ✓ | ✓ |
| Green Infrastructure Projects | | | | | | | ✓ | | ✓ | ✓ |
| Advance Rainfall Predictions & Operational Decision System | | | | | | | ✓ | | ✓ | ✓ |

# DOCUMENTS REVIEWED

Sustainalytics reviewed the following documents for the purposes of writing this report.

| No. | Document Name |
|---|---|
| 1 | 2016 Revised SSIP Goals and Phase 1 Strategies |
| 2 | 2016 SSIP Summary Project Descriptions |
| 3 | Climate Water Bond SSIP (Excel file) |
| 4 | Wastewater Enterprise Capital Improvement Program Quarterly Report Q2 2015-2016 |
| 5 | 2016 SSIP Phase 1 Summary of Proposed Cost |
| 6 | 2016 SSIP Phase 1 Proposed Project-Level Schedules |
| 7 | Wastewater Enterprise FY 2017-2026 Ten Year CIP (Excel file) |
| 8 | 2014- SFPUC Incorporating Sea Level Rise into Capital Planning |
| 9 | 2014- City of San Francisco Sea Level Rise Report |

# SUSTAINALYTICS CONTACTS

**Vikram Puppala**
**Associate Director, Advisory Services**
**Toronto**
vikram.puppala@sustainalytics.com
(+1) 647 317 3694

**Marion Oliver**
**Manager, Advisory Services**
**Toronto**
marion.oliver@sustainalytics.com
(+1) 647 317 3644

**Charlotte Peyraud**
**Senior Advisor, Institutional Relations**
**New York**
charlotte.peyraud@sustainalytics.com
(+1) 646 518 0184

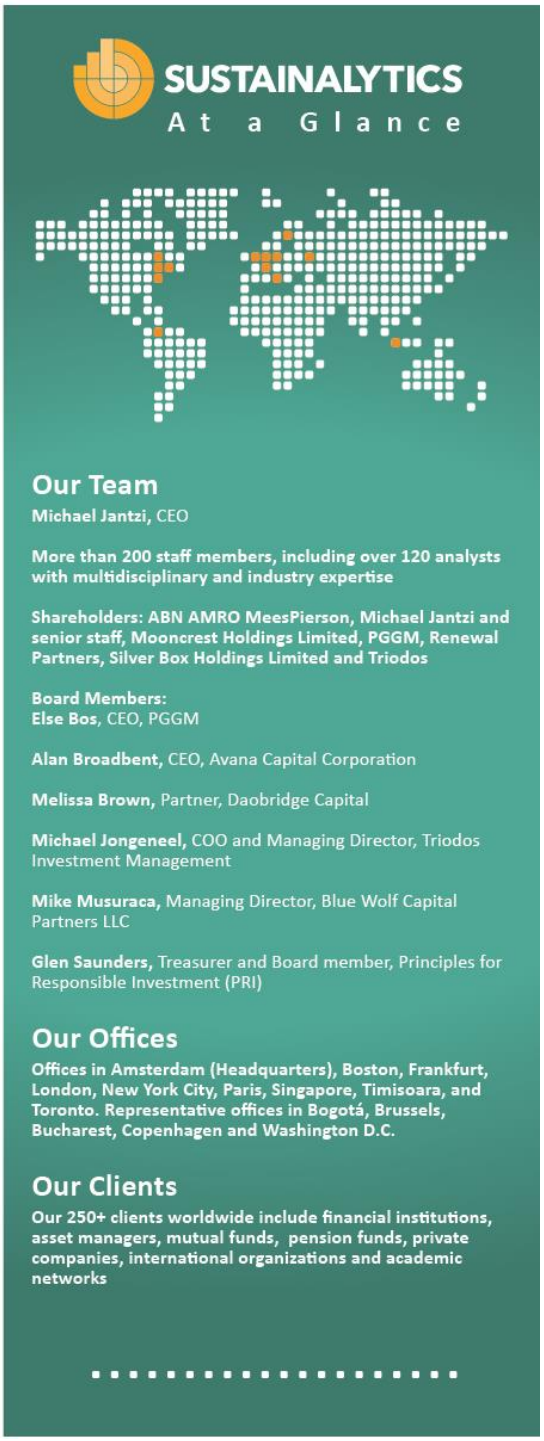
# SUSTAINALYTICS

Sustainalytics is the largest independent provider of sustainability research, analysis, and services to investors. We serve over 250 institutional investors which include some of the world's largest asset owners and asset managers. Through over 20 years of experience serving the responsible investment (RI) market, we have gained a reputation for providing high-quality ESG research solutions and excellent client service.

Sustainalytics is headed by seasoned professionals in the field of business, finance, and sustainability, with a wealth of experience in the Responsible Investment area. After more than 20 years of local experience and expertise in the Responsible Investment (RI) market Sustainalytics has developed a comprehensive understanding of trends and best practices and a solid process to assist organisations in integrating ESG considerations into their policies and strategies. We have worked with some of the world's financial institutions including pension plans, investment managers and banks providing customised support to help them achieve their RI objectives. Clients include ABN AMRO, APG, BBVA, BNP Paribas, Deutsche Bank, ING Bank, Lombard Odier, Lloyds Bank, Triodos Bank, UBS and over 250 other financial institutions and organisations.

Sustainalytics now has a staff of 250 employees globally, including over 120 analysts, with operations in Amsterdam, Boston, Bucharest, Frankfurt, New York, Paris, London, Singapore, Sydney, Timisoara, and Toronto, and representation in Brussels and Washington DC.


In 2015, Sustainalytics was named the Best SRI or Green Bond Research Firm by GlobalCapital. In December 2014, for the third year in a row, Sustainalytics was named best sustainable and responsible investment research firm in the Independent Research in Responsible Investment (IRRI) Survey, conducted by Thomson Reuters and SRI-CONNECT.



***Disclaimer***



*The Opinion was drawn up with the aim to explain why the analyzed bond is considered sustainable and responsible. Consequently, this Opinion is for information purposes only and Sustainalytics will not accept any form of liability for the substance of the opinion and/or any liability for damage arising from the use of this Opinion and/or the information provided in it.*

*As the Opinion is based on information made available by the client, Sustainalytics does not warrant that the information presented in this Opinion is complete, accurate or up to date.*

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*The client is fully responsible for certifying and ensuring its commitments` compliance, implementation and monitoring.*