

Environmental and Social Review Summary (ESRS) Rio Cobre Water Treatment Plant – Jamaica

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1. General Information of the Project and Overview of Scope of IDB Invest’s Review

Rio Cobre Water Limited (“RCWL” or the “Client”) is special purpose vehicle (“SPV”) which was created to raise funds to finance, build and commission a water treatment plant (“WTP” or the “Project”) located in Content, St. Catherine, Jamaica. The construction and operation of the treatment plant will be along the Rio Cobre River with the aim to augment the water supply for the Kingston Metropolitan Area (“KMA”). The SPV is owned by VINCI Construction Grands Projets (“VINCI GP”, the “Company” or “the Group”), a multinational firm that operates in more than 100 countries around the world,¹ and by Capital Infrastructure Group (“CIG”) an investment vehicle co-managed by Pan Jamaica Group Limited and Epley Limited, which is focused on infrastructure assets in the English-speaking Caribbean.²

The WTP will be built, operated, and maintained through a public-private partnership agreement (the “Water Purchase Agreement” or “WPA”) between the National Water Commission (“NWC”) and RCWL. The NWC is the main water utility on the island and is required to supply an average of approximately fifty-five (55) million imperial gallons per day (“MiGD”) to meet the water requirements in the KMA during the dry seasons. Once commissioned, RCWL will operate and maintain the WTP for a period of twenty-three (23) years, with an option to renew by mutual agreement with the NWC for an additional five (5) years. The WTP will then be transferred to the NWC.

2. Environmental and Social Categorization and Rationale

The Project has been classified as a Category B operation according with IDB Invest’s Environmental and Social Sustainability Policy since it will likely generate, among others, the following impacts during its construction and operation: i) noise and vibration; ii) liquid and solid waste; iii) dust emissions; iv) traffic disturbance; and v) vegetation clearance. Given pre-existing infrastructural elements, these impacts are deemed to be of medium intensity, are generally limited to the Project site and existing right-of-way (“RoW”), are largely reversible, and can be managed via measures that are readily available and feasible to implement in the context of the operation.

The Performance Standards (PS) triggered by the Project are: i) PS1: Assessment and Management of Environmental and Social Risks and Impacts; ii) PS2: Labor and Working Conditions; iii) PS3: Resource Efficiency and Pollution Prevention; and iv) PS4: Community Health, Safety, and Security.

¹ <https://www.vinci-construction-projets.com/en/the-company/>
² A local company controlled by Epley Ltd and PanJam Group Ltd

3. Environmental and Social Context

3.1 General characteristics of the Project's site

The Project is located on the southeast section of Jamaica within a small rural community known as Content District consisting of approximately forty (40) small residential dwellings (between 1 to 4 rooms). It is divided across two (2) sites roughly 0.2 miles (300 meters) apart, and along an existing RoW connected by a public parochial road with no through traffic. The road is currently in poor condition (marl and stone). The sites are further intersected by a major highway, alongside pre-existing water transfer pipelines, and power lines and poles traversing the site boundaries. Both sites will be leased to RCWL.

The infrastructural layout includes three (3) components across both sites within the Rio Cobre floodway: i) lagoon zone; ii) intake site; and iii) effluent and discharge site.

Site 1 will house the WTP comprising of a treated water tank and pumping station, sludge treatment facilities, administrative, workshop, chemical and chlorine buildings, along with all associated networks (water, drainage, electrical, data). The land parcel (approximately 1.4 hectares or 3.6 acres) is fenced and vacant except for some rudimentary remnants of an incomplete concrete foundation structure. The plot is owned by the NWC. Goats and other domestic animals forage the site, and it is also accessed by persons from the local community to source firewood. The site hosts a small pond due to its naturally low elevation thus creating a waterlogging environment.

Site 2, which will serve as the intake with a raw water pumping station with a linear footprint of approximately 1 acre (0.4 hectares) including easements to accommodate the Project, is owned by the National Land Agency through its Commissioner of Lands³ and has been transferred to the NWC. The existing irrigation dam (locally known as Damhead) located downstream of the intake will not be affected by the Project.

Vegetation for the sites and surrounding areas can be primarily classified as moist (secondary) limestone forest and riparian (riverine) vegetation, with most floral species commonly found in thickets on limestone, or widely seen in open areas and wastelands. The distribution of these plant species may be described as fairly uniform across Jamaica, especially in areas with significant anthropogenic impacts.

On the area where the Project sites are located, sixty-three (63) plant species have been recorded from which only one corresponds to an endemic species.⁴ Several species of lizards and amphibians, in addition to butterflies, arthropods and bats were recorded but, none of them have any special conservation status.⁵ Forty-two (42) species of birds were identified and noted as typical of a limestone forest. Endemic birds within this group were classified as non-forest dependent and

³ <https://jamaicabusinessgateway.com/nla-land>

⁴ Wild Susumber (*Solanum troyanum*)

⁵ 6 tree lizards were identified in the study. 4 were endemic, one native and one introduced. For amphibians, the endemic *Eleutherodactylus gossei* and the introduced species: *Eleutherodactylus johnstonei* and *Rhinella marina* were noted; 5 bat species were recorded all of which are native to Jamaica.

widely spread, while the non-endemics and migrants were least concern.⁶ Several invasive species were noted across the sites. This included two (2) invasive snails and three (3) plants.⁷

The site and surrounding habitat have been impacted by anthropogenic activities. Site 1 (where the WTP will be built) cannot be classified as having significant biodiversity value. Construction activities at Site 2 will be minimal as the Project will capitalize on pre-existing infrastructure and use low profile design elements.

3.2 Contextual risks

According to studies by the IDB,⁸ as a small, open economy with a narrow production base, Jamaica is vulnerable to external shocks, including from natural disasters and climate change, and is one of the most tourism-dependent economies in the world.⁹ The country's productivity has also been in decline for decades and remains below levels which prevailed prior to independence. Research in 2017 puts Jamaica near the bottom of twenty (20) Caribbean and Latin American countries ("LAC") studied as it relates to labor costs and wages. For many, particularly the most vulnerable populations, access to quality basic services is lacking, including quality healthcare, education, vocational training, safe drinking water, and electricity.

Jamaica's cost of living is considered one of the highest in the region with an inflation rate ranked as the third highest. For many, the current price of housing, utilities and food items continue to affect quality of life and the ability to live comfortably.¹⁰ Despite a 20% decrease in murders and other major crimes for the first quarter of the 2023, the country has been ranked tenth on the global list of countries with the highest rates of crime, and, according to the 2023 World Population Review, has a crime index¹¹ of 67.42 crimes. Corruption, high unemployment, and violent crime, especially homicides and rapes of women and girls, are therefore widely perceived as some of the country's most pressing problems.

Linked to continuing high levels of crime and violence and the growing threat and creativity from criminals,¹² the country suffers from high incidences of utility theft (electricity and water). The prevalence of this activity in some areas at times, interferes with both the infrastructure and the service to legal paying customers.

⁶ 6 residents (endemic which included the White-crowned Pigeon (*Patagioenas leucocephala*) and the Jamaican Parakeet (*Eupsittula nana*) both classified as near-threatened species in Jamaica); 24 residents (non-endemic) and 10 migrants (e.g., Parakeets, Hummingbirds, Jamaican Woodpeckers, and Warblers). A least-concern species is a species that has been categorized by the International Union for Conservation of Nature (IUCN) as evaluated as not being a focus of species conservation because the specific species is still plentiful in the wild. They do not qualify as threatened, near threatened, or (before 2001) conservation dependent.

⁷ Snails - *Tarebia granifera* and *Melanoides tuberculata*; Plants - Lead Tree (*Leucaena leucocephala*), Guinea Grass (*Panicum maximum*), and African Tulip (*Spathodea campanulate*)

⁸ Jamaica Country Strategy (2022-2026); IDB publication - Measuring the Cost of Salaried Labour in Latin America and the Caribbean.

⁹ [Mooney et al. 2020](#)

¹⁰ Up to mid-2022, the Country experienced one of the highest levels of price rise increase - Sources: Economic Survey of Latin America and the Caribbean 2022; Statistical Institute of Jamaica (STATIN)

¹¹ Calculated by dividing the total number of reported crimes of any kind, by the total population, then multiplying the result by 100,000.

¹² Such as People who attempt to impersonate service providers, and cybercriminals that employ innovative techniques to disrupt IT operations or gain access to personal or business data.

Though the island is not classified as water scarce¹³, gradual depletion of aquifers (e.g., via river diversion and owing to climate change), and poor watershed management, have adversely impacted water supply. There has been a gradual deterioration of the networks over the years, with significant physical losses, high levels of Nonrevenue Water (“NRW”), unreliable supply with shortfalls in potable water supply during the dry periods, and inefficient equipment, resulting in high energy and operating costs.¹⁴

The Rio Cobre is the island's second-longest river and is subject to several point sources of pollution, including effluent overflows from domestic and industrial activity. Over the years, this has resulted in frequently reported fish kills and livelihood disruption along the river.¹⁵

4. Environmental Risks and Impacts and Proposed Mitigation and Compensation Measures

4.1 Assessment and Management of Environmental and Social Risks

An interim Environmental Impact Assessment¹⁶ (“EIA”) was conducted when the Project was first conceptualized by the NWC. This was followed by a recent Rapid Ecological Assessment¹⁷ (“REA”). Both studies provided an assessment of environmental and social (“E&S”) risks with associated environmental management plans (“EMPs”) to mitigate identified risks and impacts.

The Client has valid environmental permits¹⁸ issued by the National Environment and Planning Agency (“NEPA”), along with a Water Purchase Agreement¹⁹ (“WPA”) which outlines management guidelines for the Project including the appointment of an Independent Engineer (“IE”). Under the WPA, Conditions Precedent to the start of the works involves the granting of an abstraction license²⁰ by the Water Resource Authority (“WRA”) allowing RCWL to abstract the allocated water quantity.

The Client will: i) submit copy of the WRA abstraction license; and ii) ensure that the requirements in all permits and the WPA are regularly monitored and complied with.

4.1.a E&S Assessment and Management System

VINCI GP has procedures for the systematic identification of E&S risks and impacts outlined in a cross-functional integrated management system (“IMS”). This covers all project phases in the Group’s portfolio to ensure that quality standards are maintained.

¹³ Since it has sufficient freshwater resources from surface sources (rivers and streams), as well as from underground (wells and springs).

¹⁴ Jamaica Country Development Challenges Update (CDC Update), 2021

¹⁵ <https://www.nepa.gov.jm/sites/default/files/2022-08/Press-Briefing-Rio-Cobre-Pollution-June-26-to-Aug-4-2022.pdf>; <https://opm.gov.jm/news/statement-by-prime-minister-holness-on-the-pollution-of-rio-cobre/>; <https://jamaica-gleaner.com/article/news/20210118/polluted-flows-rio-cobre#slideshow-1>

¹⁶ Interim Environmental Impact Assessment Construction of The New (Rio Cobre) Water Treatment Plant in Content District, St Catherine (August, 2009)

¹⁷ Rapid Ecological Assessment for Proposed Rio Cobre Water Treatment Plant, St. Catherine, Jamaica (January, 2023)

¹⁸ License No. 2023-14017-EL00013 (License to Discharge Trade Effluent); Permit No. 2023-14017-EP00026 (Permit to Undertake Enterprise, Construction or Development in a Prescribed Area)

¹⁹ Between RCWL and NWC, November 2022

²⁰ The plant will abstract up to 16.5 million gallons per day (MGD) (or 75,000 m³) of raw water from the Rio Cobre River. The WRA has the legal authority to vary, suspend, and revoke any license for the abstraction of water for non-use – if it considers it necessary in the public interest, it may vary a license to abstract and use water in respect of the points or methods of abstraction, or both, for the purpose of ensuring the efficient allocation of water; among other things.

The IMS is certified for the design and implementation of large-scale infrastructure and turnkey equipment projects, and also for the inspection of structures, in accordance with the requirements and compliance under several ISO Certifications (ISO 9001, ISO14001, ISO 45001).²¹

The Client will therefore develop a formal ESMS for the Project based on the Company's existing management systems.

4.1.b Policy

The Company's E&S Policy notes a commitment *to reliable, high-quality, and environmentally friendly projects with maximum local input*. This is detailed further in its Manifesto which outlines eight (8) sustainability commitments.²²

The Client will therefore adopt the Company's E&S management Policy as part of its ESMS.

4.1.c Identification of Risks and Impacts

The identification of risks and impacts is guided at the Group's corporate level as outlined in its Duty of Vigilance Plan²³ ("DOVP"), and as summarized in its Environmental Guidelines.²⁴ Locally contracted projects are screened and reviewed monthly during the construction phase against identified risks and impacts and Key Performance Indicators ("KPIs").²⁵

At the local level, the REA provided an overview of the primary risks and impacts associated with the Project. These elements will be reflected in the ESMS, which will include a risk identification matrix.

4.1.c.i Direct and indirect impacts and risks

The Project is anticipated to generate direct E&S risks and impacts associated with construction and operation such as: i) noise and vibration disturbance; ii) liquid and solid waste; iii) dust emissions; iv) traffic disturbance; and v) vegetation clearance. Some indirect impacts may occur during the operation phase linked to maintenance (e.g., yard works) and routine waste disposal activities, along with flooding given the topography of Site 1.

Guided by the EMP in the REA, these will be managed through the Company's management system requirements for the preparation of a Project Management Plan ("PMP"), alongside the WPA and local permits and licenses. A drainage plan has been prepared for the Project which will be further assessed by the IE.

²¹ ISO 9001 sets out the criteria for a quality management system; ISO 45001 specifies requirements for an Occupational Health and Safety (OHS) management system; and ISO 140000 sets out the criteria for an environmental management system.

²² <https://www.vinci.com/vinci.nsf/en/manifesto/pages/index.htm>

²³ This is a section of the Universal Registration Document aims to satisfy the requirements of Law 2017-399 on the duty of vigilance of parent companies and subcontracting companies to identify risks and prevent severe impacts on human rights and fundamental freedoms, on people's health and safety and on the environment, resulting from the activities of the company, those of its subsidiaries or those of the subcontractors or suppliers with whom they have an established business relationship.

²⁴ <https://www.vinci.com/publi/manifeste/dir-env-2020-11-en.pdf>

²⁵ Through Defect Notification Period (DNP) during monthly management review

4.1.c.ii Analysis of alternatives

The Project sites were selected by the NWC based on alternative analyses carried out via the interim EIA and the REA. Final site selection considered proximity to existing pipeline infrastructure, reduced construction footprint and viable options for effluent release.

4.1.c.iii Cumulative impact analysis

The rapid cumulative impacts assessment considers the incremental effect of past projects already included in the baseline of the environmental components considered in the environmental analysis performed for the Project. There are no projects in execution in the Project's area of influence that could generate material incremental impacts to those generated by the proposed works. As for future water extraction projects, these would be associated with pre-existing irrigation demand and abstraction activities, whose aggregated impacts were assessed via a Water Basin Study ("WBS") commissioned by the NWC.²⁶ Therefore, no cumulative impact mitigation plan was needed.

4.1.c.iv Gender risks

Data from the most recent gender assessment conducted for Jamaica (World Bank, 2023)²⁷ notes that while there has been made significant progress in gender equality, equal access to economic opportunity continues to be an elusive goal due to a variety of factors affecting both genders. Overall, labor force participation of women remains significantly lower than men, and despite a decrease in the unemployment gender gap since 1996, data up to 2019 shows that Jamaican women were: i) more likely to be unemployed than the average women in LAC and upper middle-income ("UMI") countries; and ii) remain unemployed longer than men who are also more likely to find employment during economic upturn.

Women in urban areas make up a larger share of private sector and government workers. However, they remain underrepresented in science, technology, engineering, and mathematics ("STEM") and Information and Communications Technology ("ICT") fields (considered key areas for digital economy development). Average salaries are also 19% lower for women than for men in most sectors, and occupations with gender gap in salaries widens as the level of education rises. Linked to these patterns, brain drain has been a consequence with many educated women unable to find good quality jobs migrating in search of better opportunities.

On a more positive side, Jamaican women are well represented in decision making in the private sector, and though they predominate in lower-ranking positions, the country ranks high (regionally and globally) with greater representation of women (59%) in middle management posts. Literacy rates are also higher among Jamaican women than men which contradicts the pattern observed in other LAC and UMI countries.

²⁶ *Rio Cobre Basin Water Resource Study, National Water Commission, Kingston, Jamaica (August 2018)* – The public water supply takes priority over other sectors where the Minister with portfolio responsibility (on the advice of the WRA) declares an area an "emergency area". The Act states that in such a declaration, the Authority shall have regard to "the need to satisfy the requirements of public water supplies as a matter of priority", among other things.

²⁷ [World Bank Jamaica Gender Assessment](#)

As it relates to critical socio-economic exigencies affecting gender dynamics, the World Bank report notes that the country has one of the highest intentional homicide rates for men in the world, which also disproportionately impacts more men than women. Boys from low-income urban settings often drop out of school because getting a degree is not necessarily considered a guarantee for future employment. As such, incentives for young men to move from secondary to tertiary schooling are low. Some of these factors have contributed to pervasive crime issues within the country which has impacted various aspects of the private sector, such as increased bank fraud, lottery scamming, and cybercrimes. Regarding domestic relations, approximately 25% of Jamaican women have experienced physical violence from a male partner and nearly half (47%) have experienced controlling behaviors. The report notes that the higher a woman's education, the less likely she was to experience intimate partner physical violence ("IPV"). Additionally, high-school girls in some parts of the country regard violence as a major concern. Cases of sexual violence are noted to possibly go unreported due to fear or because victims do not realize such experiences constitute sexual abuse.

Sex trafficking of Jamaican women and children, including boys, reportedly occurs on streets and in nightclubs, bars, massage parlors, hotels, and private homes, including in resort towns. Local observers believe sex trafficking operations have become more clandestine because of the pandemic with traffickers increasingly using social media platforms and false job offers to recruit victims.

4.1.c.v Gender Programs

VINCI GP *is committed to promoting gender diversity and equality in its teams.*²⁸ Per a joint steering committee, concrete actions to establish and implement the promotion of gender diversity in the long term include: i) women's employment in technical and engineering positions; ii) equal pay; iii) equity in career development and access to training; and iv) work/life balance. These are reflected across several policies such as the Group's Manifesto, Guide on Human Rights, and Diversity Action Guide promoting equal opportunities between women and men.

For all Company projects, assessments are done to evaluate the adequacy of Personal Protective Equipment ("PPE) for female workers. As part of its method statement plan and risk analysis during construction, this includes ergonomic assessments to ensure equipment is appropriate and safe for female workers (e.g., if an employee becomes pregnant, her job assignment and conditions are assessed and adjusted as necessary for suitability and safety).

Provisions regarding maternity and paternity leave are aligned with national laws.

Workforce trainings and awareness activities are conducted regarding gender-based violence (GBV) and prohibition of sexual exploitation of minors through sensitization programs during induction and toolbox meetings. Sanctions for employees who have committed sexual harassment or GBV include a formal written warning or immediate dismissal depending on gravity.

Prior to the Project's construction and in keeping with project management requirements, gender risk parameters and KPIs will be outlined in the PMP. These will be reviewed monthly during corporate management review. Gender-specific on-site sanitary facilities (toilets and showers) will

²⁸ <https://www.vinci-construction-projets.com/en/our-commitments/gender-diversity/>

be provided for. During the operation phase about 30% of the Project's team is expected to be women.

4.1.c.vi Climate change exposure

Being in the Atlantic hurricane belt, Jamaica is heavily exposed to both tropical storms and hurricanes from June to November (peak activity often observed between August to October). Though the country has been spared any direct passage of hurricanes in recent years, hazard risk from the impacts of the changing climate has increased the intensity and frequency of not only rain and storm events experienced by the island, but also droughts.

This has resulted in more catastrophic occurrences impacting critical social infrastructure due to flooding, landslides, water intrusion, and reduced seasonal rainfall which affect water supply. Heavy rains can also impact water supply and treatment systems due to increased turbidity and deposits of mud and debris at the intakes.

According to reports from the Office of Disaster Preparedness and Emergency Management ("ODPEM"), between 2002-2012 the country experienced seven (7) named storm events, three (3) major hurricanes, and several flood events, which produced roughly U\$800 million (about 118.7 billion Jamaican Dollars -JMD) in losses, of which infrastructural damage accounted for just less than half of the losses.

Climate projections foresee a decrease of the precipitations (up to 7.2 % by 2030) along with an increased in the evaporation due to rising temperatures. This is expected to further slow recharge rates of aquifers which supply 80% of the country's water demands, thereby increasing the threat to the Jamaican economy.²⁹

The primary hazards identified for the Project are, therefore, related to hurricane winds, flooding from extreme precipitation events (which can trigger landslides), and drought (which can exacerbate water scarcity). Given this exposure profile, the Project is classified as high to moderately exposed to physical climate-related hazards. Therefore, the Client will ensure the Project design includes adequate mitigation and adaptation measures to offset potential impacts primarily due to risk from hurricane and flood.

The Project is considered Paris Agreement aligned based on the analysis conducted in accordance with the IDB Group Paris Alignment Implementation Approach.

4.1.d Management Programs

E&S management programs are addressed through the Group's IMS and ISO certifications which are validated and audited annually. These are extrapolated as part of PMPs developed for projects executed by the Company. At the local level, NEPA permits and licenses outlines requirements for specific E&S action plans according to project scope.

²⁹ IDB Group Country Strategy with Jamaica (2022-2026), November 2022

The Client will articulate these programs including the impact matrix as part of its ESMS.

4.1.e Organizational Capacity and Competency

Projects in the Company's portfolio are managed by a designated Project Manager ("PM"). The PM is supported by staff in the Quality Health Safety and Environment ("QHSE") department. Reporting channels are outlined in the respective PMPs.

During the construction phase, there is an extended project team to further support the PM and QHSE department, which include, but are not limited to: i) an HSE officer; ii) an administration and finance manager; iii) contract, construction, technical and human resources managers; iv) engineers; v) an administrative assistant; vi) mechanics; and vii) auxiliary staff (e.g., drivers, office cleaners, yardmen).

For the operation phase, E&S monitoring will be managed by RCWL. An E&S officer will be hired prior to operation and will be supported by an Operations Manager.

4.1.f Emergency Preparedness and Response

A project specific Emergency Preparedness and Response ("EPR") plan will be developed as part of the Project's ESMS. It will outline at minimum: i) a list and analysis of the most relevant emergency situations; ii) the list of stakeholders that may be impacted; iii) response procedures; iv) details of the equipment and resources needed and their maintenance requirements; v) the responsibilities of each Project employee; v) communication schemes to be followed (including collaboration with appropriate local government agencies) before and during an emergency situation; and vi) a training schedule.

4.1.g Monitoring and Review

E&S issues are integrated in project KPIs and included in monthly, quarterly, and annual E&S reporting by the Company. The Company is also ISO 9001 certified which guides monitoring and auditing procedures.

Local monitoring obligations are outlined in the WPA and NEPA permits and licenses.

4.1.h Stakeholder Engagement

The Group Manifesto and DOVP outlines a commitment to: i) maintaining a continuous community dialogue and engagement by involving all stakeholders (including partners, customers, suppliers, elected officials, local residents, and civil society) in projects as early as possible; and ii) promoting outreach and consultation to ensure partners are closely involved.

However, the Client will develop a structured Stakeholder Engagement Plan ("SEP") as part of its ESMS, and a Liaison Officer will either be hired or appointed at the beginning of construction.

4.1.h.i Disclosure of Information

The Company has a group website and social media accounts which are used to share information on its projects.³⁰ The Project has been disclosed to the relevant local authorities, and via various channels using both traditional³¹ and social media.³²

4.1.h.ii Informed Consultation and Participation

As part of its ESMS development, the Company will outline a process for conducting stakeholder consultation according to activities to be undertaken and as part of the WTP's daily operations.

4.1.h.iii Indigenous Peoples

The Project will not generate any impacts to indigenous communities.

4.1.h.iv Private Sector Responsibilities Under Government-Led Stakeholder Engagement

Public stakeholder consultations and disclosure for environmentally permitted projects is determined in collaboration with NEPA.

For the Project, stakeholder engagement is managed by the NWC³³ in collaboration with community leaders. Public consultation was conducted regarding the WRA abstraction license. The Project description and application for permits and licenses are published in the local gazette³⁴ to facilitate public disclosure and provide opportunity for grievances or concerns to be voiced.

4.1.i External Communication and Grievance Mechanisms

The Company policies prescribe that grievance procedures, including those initiated by end users or local residents, are more effective when managed at the local level. This enables proactive handling of reports, identifying weak areas, improving processes, and reinforcing prevention. Group projects implement a variety of mechanisms which include a dedicated email address, hotline, or digital solutions, and outsourcing the processing of reports to independent bodies.

Based on these mechanisms, the ESMS will include an external grievance mechanism which will capture, and process claims from the community.

4.1.i.i External communication

External communications are centered around several channels including the Group website, press releases, and annual and half year reports which provide information on projects, sustainability

³⁰ <https://www.vinci-construction-projets.com/fr/>

³¹ <https://jis.gov.jm/nwc-to-source-water-from-río-cobre-and-rehabilitated-wells-for-kma/>

³² <https://www.facebook.com/NWCjam/photos/a.122559464470353/2467515606641382/?type=3>

³³ <https://opm.gov.jm/wp-content/uploads/2023/03/FINAL-PMS-SPEECH.pdf>

³⁴ <https://laws.moi.gov.jm/library/gazettes>

commitments and progress, and operational plans and initiatives. For the Project, communication is channeled through the NWC, and social and local media.

4.1.i.ii Community grievance mechanism

As part of local permit obligations, a Complaints Register must be maintained on site and reviewed during monthly management review. Additional procedures will be outlined in the external grievance mechanism that will be developed as part of the ESMS.

4.1.i.iii Provisions for addressing vulnerable groups' grievances

The grievance mechanism to be developed and adopted will have provisions to capture and address grievances from vulnerable groups.

4.1.j Ongoing Reporting to Affected Communities

The SEP will outline steps to ensure ongoing reporting to any communities and stakeholders affected by the Project during construction and operation. The Client will also submit evidence of formal community engagement regarding the Project.

4.2 Labor and Working Conditions

4.2.a Working Conditions and Management of Worker Relationships

During construction, the Project is expected to employ between seventy-five (75) to one hundred and fifty (150) persons via contract over twenty-four (24) months. Construction workers will be sourced from the neighboring communities and provided with staff welfare³⁵ within the temporary site installation. Work hours will be Monday to Friday and every other Saturday (8am to 5pm, with one hour break for lunch). For the operation phase, a core technical team of twenty-five (25) persons will be employed directly, and ten (10) persons indirectly. WTP operating hours will be dictated by the NWC in accordance with their standard operating procedures for such facilities.

4.2.a.i Human Resources Policies and Procedures

Details regarding labor and working conditions are covered comprehensively across various Group policies available in several languages. The latter include: i) the DOVP; ii) the Disciplinary Policy; iii) the Anti-Corruption Code of Conduct; iv) the Guide on Human Rights; v) the Code of Ethics and Conduct; vi) the Declaration on Essential and Fundamental Actions Concerning Occupational Health and Safety ("EAFA-OHS"); vii) the Subcontractor Relations Guidelines; viii) the Equality Diversity and Inclusion Policy alongside Diversity Action Guide; and ix) the Whistleblowing Policy. The policies apply to the Company's entire workforce and its projects (including contractors and subcontractors).

³⁵ Workers welfare facilities will be done in 40ft containers with lockers for changing and holding personal belonging. Shaded rest areas will be provided and equipped with picnic tables, and typical microwave and kettles installed to facilitate staff restoration.

4.2.a.ii Working Conditions and Terms of Employment

Terms of employment for the Project will be guided by local labor laws and VINCI GP's human resources (HR) policies and procedures.³⁶ There will be quarterly site inspections by the Ministry of Labor. Payroll will be managed via the Company's online software human resource platform and linked with its accounting and online banking system.

4.2.a.iii Workers' Organizations

Via its Guide on Human Rights, the Company respects national laws on freedom of association and right to collective bargaining. The Guide contains provisions to ensure no discrimination against workers' representatives or against workers who seek to organize. Moreover, it states that where the right to freedom of association and collective bargaining is restricted under national law, the Company will facilitate the development of parallel means of workers' representation.

4.2.a.iv Non-discrimination and Equal Opportunity

Commitments to non-discrimination and equal opportunity are reflected in the Group's Manifesto, which speaks to fostering equality and diversity. Specific strategies are outlined in the Guide on Human Rights, Code of Ethics and Conduct, Equality Diversity and Inclusion Policy and Diversity Action Guide. The Code of Ethics prohibits all discrimination based on illegal grounds such as gender, age, ways of life, actual or supposed membership of a specific ethnic group or nation, health status, disability, religion, political opinions, or trade union activities. There is an Ethics and Vigilance Department which liaises with operational and functional departments to ensure the Code of Ethics and Conduct is circulated and supports implementation of mechanisms to prevent and manage risks relating to ethics.

The Guide on Human Rights fights all forms of discrimination in hiring, in workplace relations, and in the career paths of employees. It further strives to develop programs to promote diversity and to raise awareness about discrimination among its staff. The Company also has *Inclusion and Diversity Enablers*³⁷ with the objective to deploy VINCI GP's inclusion and diversity policies locally, and interconnect business lines with its geographical footprint.

4.2.a.v Retrenchment

Once the Project's construction phase is ended, it is usual that most of the contractors will reassign their personnel to other projects. Therefore, no retrenchment will be generated.

4.2.a.vi Grievance Mechanism

The Company strives to implement grievance mechanisms so that workers can use them effectively to raise any work-related grievance applicable to all VINCI GP projects. The management of internal

³⁶ In particular, Appendix to The Guide on Internal Implementation Procedures Rights Human covering Labor Migration and Recruitment Practices along with Working and Living Conditions. These guidelines are based on the principles of the Universal Declaration of Human Rights (UDHR), on the eight fundamental Conventions of the International Labor Organization (ILO) and on the OECD Guidelines for Multinational Enterprises.

³⁷ The network was created in 2011. It encourages the sharing of best-practice and tools. All employees in the Group can join the network.

grievances are outlined in the Guide on Human Rights, Code of Ethics and Conduct and the associated Whistleblowing Policy³⁸ for direct employees and members of the supply chain to report anonymously any malpractices they may witness. This can be done via the Company's online integrity platform.³⁹ Additionally, the Ethics Department can be contacted directly by all employees and stakeholders and is entirely confidentially. The mechanism can capture and process anonymous grievances,

4.2.b Protecting the Workforce

Based on its business activities, the Company strives to guarantee optimal safety for employees and external staff working on projects. This is reiterated in its Manifesto and the DOVP. Achieving zero accidents is a priority goal and applies to all individuals working on a VINCI GP worksite or site under operation (employees, temporary staff, or subcontractors). The Company applies laws, regulations, and contractual requirements, along with implementing the organizational structure, processes, and protective measures necessary to preserve the health and safety ("H&S") of employees, subcontractors, and partners.

4.2.b.i Child Labor

The age for recruitment and employment is in keeping with local labor laws (minimum age for formal employment is 15 *if the employee has completed secondary education*, otherwise minimum age is 18). In keeping with Company procedures, a copy of valid government ID is registered for each employee. This also applies to contractors and subcontractors. An HR registration log is maintained for all project participants (direct and indirect). Commitments to the prohibition of child labor are covered under the Guide on Human Rights and the Group's Modern Slavery and Human Trafficking Statement.⁴⁰

4.2.b.ii Forced Labor

Commitments to the prohibition of forced labor are also covered under the DOVP, Guide on Human Rights, and the Modern Slavery and Human Trafficking Statement.⁴¹ Internal audits are implemented with contractors and subcontractors to ensure compliance. VINCI GP is also an active member of Business for Inclusive Growth's⁴² working group for advancing human rights and fighting forced labor.

4.2.c Occupational Health and Safety

The Company notes safety as a core value implemented throughout all projects with a policy promoting a culture of "zero accidents", which applies to all employees, including temporary staff and subcontractors. Initiatives are taken at every level to avoid worksite hazards. These are captured via the Manifesto, DOVP, and Guide on Human Rights, with specific measures outlined in the EAFA-OHS and ISO 45001 requirements.

³⁸ <https://www.vinci.com/vinci.nsf/en/item/whistleblowing-procedure.htm>

³⁹ <https://www.vinci-integrity.com>

⁴⁰ This statement is made in accordance with Section 54 (1) of the United Kingdom Modern Slavery Act 2015

⁴¹ <https://www.vinci-construction-projets.com/en/our-commitments/our-social-policy/>

⁴² [B4IG](#)

Steps are taken to help partners elevate their safety standards and implement more effective actions, especially in countries where the safety culture is not as strong. H&S risk analyses are conducted ahead of any work situation taking into account the work environment, characteristics of the project under consideration and its specific technical requirements.⁴³ Safety audits are carried out by the Group's network of H&S specialists for project operating and work sites. Additionally, an intranet⁴⁴ is used to capture and track all OHS data at the corporate level which includes statistics and analyses of accidents – each project has its own profile and environmental dashboard with KPIs for tracking. Safety Days are also organized annually focused on safety issues in which all employees participate. These tools will be applied to the Project.

For the construction phase, workers will receive induction trainings describing all risk associated with their respective roles and work environment, along with weekly toolbox meetings. All employees are provided with PPE and are mandated to wear these in accordance with a H&S Management Plan which will be developed for the Project along with other procedures within the PMP.

4.2.d Provisions for people with disabilities

Provisions for people with disabilities are covered through the Diversity Action Guide. The Company highlights a commitment to the *inclusion of people with disabilities by promoting their employment and inclusion in the company, consideration of disability to improve the quality of life at work (ergonomics, occupational medicine), and retraining assistance for employees who need it.*

There are also measures to promote the employment of people with disabilities via three (3) main strands: i) the redeployment of incapacitated staff; ii) the recruitment of people with disabilities; and iii) the use of social enterprises and sheltered workshops⁴⁵ that specifically employ people with disabilities.

4.2.e Workers Engaged by Third Parties

The Company makes every effort to ensure that its subcontractors comply with the regulations in force in the countries where these companies operate. Workers engaged by third parties including temporary employment agencies are managed through the Group's Subcontractor Relations Guidelines.⁴⁶ Additionally, established H&S procedures at construction or operating sites make no distinction between company employees and temporary workers or subcontractors. In particular, the Company works with subcontractors who make a commitment to comply with the same values as those set out in the Manifesto and Code of Ethics and Conduct.

As noted in the DOVP, H&S requirements are stated in advance, included in contract clauses, and verified by the Company. Specific criteria is applied during the selection phase which could lead to the disqualification of subcontractors, and a framework agreement has been implemented for use in the approval process for temporary employment agencies, incorporating H&S criteria (e.g., agencies must disclose their H&S data and demonstrate an established safety culture such as a safety training

⁴³ [Using the Company's Safety in Design \(SID\) approach](#)

⁴⁴ BeSafe Platform

⁴⁵ <https://www.ilo.org/public/english/revue/download/pdf/visier.pdf>

⁴⁶ <https://www.vinci.com/publi/manifeste/cst-en.pdf>

program for workers). It is compulsory for Group entities to use approved agencies to recruit their temporary workers. Alongside audit procedures relating to the management, selection, monitoring and assessment of subcontractors, the Company's H&S coordination unit may also hold meetings to assess subcontractor compliance with contractual obligations.

4.2.f Supply Chain

As outlined in its DOVP, the Company, with the support of a responsible purchasing task force, has developed a process to evaluate how suppliers and subcontractors manage various E&S risks (e.g., climate change, depletion of resources, loss of biodiversity and pollution). For purchasing categories that significantly impact revenue or carry high E&S risks, a separate analysis is performed, and a specific questionnaire used to assess suppliers. Based on the results, a supplier may be excluded from a tender process, or requested to set up an action plan, complete with measures to verify its implementation. The Company may also carry out audits of their suppliers, focusing on specific purchasing categories linked with certain associated risks. Its practical guide on responsible purchasing outlines rigorous steps to ensure that contracted workforce wellbeing and human rights are in line with its standards. These expectations are clearly codified and enforced through its Suppliers' Global Performance Commitment Code.

For local purchases, special attention is paid to materials suppliers, which may include requesting information on their environmental footprint (e.g., carbon impact or the use of bio-based materials), during the selection process. Preference is generally given to suppliers who integrate environmental protection in their practices. There is an internal database which rates supplier performance and practices which is regularly audited, particularly when contracts are up for renewal.

4.3 Resource Efficiency and Pollution Prevention

4.3.a Resource Efficiency

Through its Manifesto and as part of its commitments, VINCI GP aims to limit the impact of its activities by moving towards a circular economy. At the ground level, for buildings and worksite facilities, this includes auditing energy efficiency of buildings, stepping up thermal renovation, temperature regulation, and eco-design, along with using more worksite facilities meeting high energy efficiency standards. Where feasible, efforts are made to increase the use of renewable energies (e.g., installing photovoltaic power plants to generate power for use on site).

Steps are taken to promote the use of construction techniques and materials which minimize stress on natural resources, while improving waste management and expanding the offer of recycled materials to limit extraction of virgin materials.

Final designs for the Project will take into account features aligned with the Company's approach for resource efficiency to the most practical degree.

During construction, energy for the Project will be sourced from the grid of the local power provider.⁴⁷ This will be used for general site lighting and powering the site office, workshop, and worker welfare facilities. Similarly, during operation, power will be from the grid and used for the abstraction pumps and pumping water into the distribution system. The current design also includes a back-up diesel generator.⁴⁸ However, the possibility to offset some of the energy consumption with solar panels is being explored (dependent on space availability and footprint requirements in the future).

Overall, the WPA specifically incentivizes parties to optimize water and energy consumption in keeping with operational loss reduction.

4.3.a.i Greenhouse Gases

Due to the nature of the Project, it is expected that GHG emissions will not be material. However, the Company currently monitors GHG emissions as part of its portfolio aiming to reduce both direct (Scopes 1 and 2) and indirect emissions (Scope 3) by 40% by 2030.⁴⁹ For concessions, the target is a 50% reduction over the same period.

The Company currently uses specific inhouse tools⁵⁰ to calculate overall GHG emissions generated by the construction of a project, starting from the tender stage. The Project will be captured in such tool.

4.3.a.ii Water Consumption

As outlined in the WPA, water consumption for the Project will be managed through the NWC, whereby it will make available potable water for the construction, testing and commissioning of the WTP through a metered connection. RCWL will be responsible for any temporary connection and measuring device that may be required, subject to the NWC's approval.

Water consumption during construction will be linked to water for workers welfare facilities, with temporary disposal via septic tanks.⁵¹ It will not impact nor divert any surface water which contributes to aquifer recharge. Both entities will monitor water consumption during the construction phase to ensure that potable water is only used for the approved activities.

Operation of the WTP will be guided by the abstraction license.⁵² The WBS notes that ground water will not be impacted by the works. Potable water usage for the WTP will be generated by the plant treatment process itself. A back-up connection will be installed from the existing distribution system.

⁴⁷ Jamaica Public Service Ltd (JPS) with an estimated consumption of 3000 kWh per month.

⁴⁸ Estimated consumption = 1,160,000 kWh per month (if plant at full capacity)

⁴⁹ Compared with 2018

⁵⁰ [GESTim™ is the result of our R&D work in environmental performance. It has been designed in compliance with the carbon footprint method of the French Environment and Energy Management Agency \(ADEME\) and helps to propose environmentally appropriate variants.](#)

⁵¹ Estimated consumption should be around 10m³ per day.

⁵² Per licensee, the plant may abstract up to 75,000 m³ of raw water from the Rio Cobre River.

4.3.b Pollution Prevention

Construction and worksite activities may discharge material into the air, water, or soil, or cause accidental pollution. Steps are therefore taken to implement environmental management plans and internal control systems which provide for site audits. Such measures will be adopted for the Project along with local permit and license requirements. The Client will also submit water quality monitoring reports.

4.3.b.i Wastes

Solid waste during the construction phase will be primarily associated with construction debris and materials, vegetation clearance, and refuse generated from worker welfare facilities. Liquid waste will also be generated from these facilities.

During operation, solid waste will be mainly from landscape maintenance and daily operations which will be disposed of at the approved landfill⁵³ or repurposed where feasible.⁵⁴ This will include: i) Geotubes⁵⁵ used for dewatering (these will be reused as much as possible before end of life – additional options will be explored for recycling as a geotextile with landfill disposal being the last resort); ii) sludge extracted from the WTP clarifiers which will be treated and returned to a settling lagoon within the plant compound for conversion to dried organic sludge; and iii) scrap metals. Liquid waste will be associated with: i) treated water effluent generated from the treatment process, which will be returned to the river in accordance with the NEPA discharge license⁵⁶; ii) storm water which, will be routed along the boundaries of the plant via designated drainage; and iii) sanitary water which will be disposed via septic tank.

Overall waste management will be managed through the PMP (which will include a construction waste management plan) and NEPA permits and licenses. The Client will also prepare a separate Operational Waste Management Plan (“OWMP”).

4.3.b.ii Hazardous Materials Management

Hazardous materials and storage will be associated with chemical reagents used for the water treatment process (e.g., chlorine cylinders, aluminum sulfate bags and powder lime). These will be managed through the PMP and OWMP.

4.3.b.iii Pesticide Use and Management

The use of pesticides is not anticipated for the Project.

⁵³ Riverton Landfill, St Andrew, Jamaica

⁵⁴ E.g., repurposed by residents for drainage, embankment and retaining walls

⁵⁵ <https://www.tencategeo.eu/en/products/tencate-geotube/Dewatering-Geotube>

⁵⁶ The facility may discharge up to 7,000 m³ per day of coming from the treatment process (filter backwash water, settling tank sludges) back into the river. This will be monitored by NEPA and must match the trade effluent quality requirements.

4.4 Community Health, Safety and Security

4.4.a Community Health and Safety

The Project's interventions are not expected to generate significant E&S impacts given pre-existing infrastructural elements and low construction footprint. However, its daily operations and construction activities may produce small-scale localized impacts associated with: i) noise and vibration; ii) liquid and solid waste; iii) dust emissions; iv) traffic disturbance; and v) vegetation clearance. These impacts will be managed via the WPA, PMP (which will include a Traffic Management Plan), and the NEPA construction and operation permits and discharge license.

During the Project's operation phase, the Client will manage associated risk through the ESMS (which outlines an external grievance mechanism), ISO certifications, the OWMP, and other existing applicable plans and procedures established by the Company.

4.4.a.i Infrastructure and Equipment Design and Safety

The Project design will incorporate: i) resilience measures in the WTP infrastructure especially as it relates to primary climate hazards (e.g., hurricane wind and extreme weather events which can increase turbidity or reduce water supply); ii) adequate drainage to ensure management of flood risk and effluent discharge; and iii) relevant safety and resource efficiency features to ensure optimal operational facility.

As part of the Project the parochial road will also be improved to facilitate vehicular traffic.

In keeping with the WPA, an Operational Management Plan ("OMP") will be prepared for the Project which will incorporate the Maintenance and Contingency Plan required by NEPA.

4.4.a.ii Hazardous Materials Management and Safety

Overall, any hazardous materials associated with the Project will be managed through the PMP, OWMP and NEPA permits.

The Project design will include an automated mechanism to address potential chlorine leaks, thereby enhancing personnel safety.

4.4.a.iii Ecosystem Services

The Project will not cause any material impacts on existing ecosystem services.

The supply of water generated from the WTP is expected to reduce the trucking of water to persons in surrounding communities, thereby providing a constant and reliable supply which is currently lacking.

4.4.a.iv Community Exposure to Disease

Campaigns and actions to raise awareness and prevent transmission of infectious diseases will be made available to workers and contractors via sensitization programs during induction and toolbox meetings.

General exposure risk to communicable disease or other illness will be further managed through the PMP and NEPA permits.

4.4.a.v Emergency Preparedness and Response

An EPR plan will be developed as required by the WPA and will also be captured as part of the ESMS.

4.4.b Security Personnel

The Company's Security Department is responsible for assessing, preventing, and supporting the management of security risks. This includes monitoring and mapping geopolitical and security risks. Security risk assessments are also conducted at the start of the bidding process to ensure security issues are taken into account as early as possible. Solutions are adapted and implemented to protect personnel and property according to local context especially in moderate or high-risk areas.

During the construction phase, the Project will endeavor to hire unarmed watchmen from the community following screening. For the operation phase, formal security will be employed via approved and licensed local security firms who also conduct rigorous background checks and provide armed guards as needed.⁵⁷ There will be at least two (2) guards on site all times.

Additional security measures will be integrated in accordance with other NWC facilities and the NEPA construction and operation permit.

4.5 Land Acquisition and Involuntary Resettlement

Both sites are the property of NWC⁵⁸ leased to RCWL for the duration of the Project via Land Lease Agreement outlined under the WPA.⁵⁹

The Project will therefore not require the acquisition of land and will not cause any physical or economic displacement.

⁵⁷ https://www.prsa.gov.im/Home/Current_Registered_Companies

⁵⁸ Site 1 via private purchase under Compulsory Acquisition); Site 2 was owned by the Commissioner of Land and purchased by the NWC.

⁵⁹ Schedule 15

4.6 Biodiversity Conservation and Natural Habitats

The Rio Cobre River, which is part of the Rio Cobre basin, was identified as the sole source of available water within proximity to the KMA.⁶⁰ The WBS and REA were conducted to guide the required abstraction for the Project. The species richness and assemblage associated with the two Project sites are noted as typical of a riverine habitat impacted by anthropogenic activities.

The Project is not anticipated to have any material impacts to existing biodiversity.

4.7 Indigenous Peoples

The Project will not affect any indigenous community, nor will it intersect any indigenous territory.

4.8 Cultural Heritage

There are no anticipated impacts to cultural heritage based on site assessment. However, measures to mitigate any chance finds are outlined in the WPA.⁶¹

5. Local Access of Project Documentation

For information and documentation relating to the project the following can be contacted:

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⁶⁰ <https://jamaica-gleaner.com/article/news/20221203/rio-cobre-river-blessing-disguise>

⁶¹ Clause 25 on Archaeological Matters and National Monuments