

**MANAGEMENT RESPONSE TO  
REQUEST FOR INSPECTION PANEL REVIEW OF THE  
COLOMBIA: RIO BOGOTÁ ENVIRONMENTAL RECUPERATION AND  
FLOOD CONTROL PROJECT (P111479)**

Management has reviewed the Request for Inspection of the Colombia: Rio Bogotá Environmental Recuperation and Flood Control Project (P111479), received by the Inspection Panel on June 23 and 29, 2016, with a second request on September 30 and October 5, 2016, and registered on October 13, 2016 (RQ16/03). Management has prepared the following response.

**November 11, 2016**



## **CONTENTS**

<b>Abbreviations and Acronyms .....</b>	<b>iv</b>
<b>Executive Summary .....</b>	<b>v</b>
<b>I. INTRODUCTION.....</b>	<b>1</b>
<b>II. THE REQUEST .....</b>	<b>1</b>
<b>III. THE PROJECT .....</b>	<b>4</b>
<b>IV. MANAGEMENT’S RESPONSE.....</b>	<b>6</b>

### **Annexes**

- Annex 1. Claims and Responses
- Annex 2. Additional Project Background and Litigation History
- Annex 3. Citizen Engagement Activities related to the Salitre WWTP

### **Figures**

- Figure 1. Map of the UPZ 72 (IBRD No. 42594)
- Figure 2. Salitre Project Site
- Figure 3. Pictures of the Cortijo-Tibaguya “Wetland” (2015-2016)
- Figure 4. Environmental Enhancement Projects – Salitre Roundtable Agreement (IBRD No. 42591)
- Figure 5. Salitre Metropolitan Park Area
- Figure 6. New Park Design

## ABBREVIATIONS AND ACRONYMS

BOD	Biochemical Oxygen Demand
CAR	Environmental Authority of Cundinamarca ( <i>Corporación Autónoma de Cundinamarca</i> )
CONPES	National Political and Economic Council ( <i>Concejo Nacional de Política Económica y Social</i> )
EA	Environmental Assessment
EAAB	Bogotá Water Supply and Sewerage Company ( <i>Empresa de Acueducto y Alcantarillado de Bogotá</i> )
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
IPN	Inspection Panel
JAC	Community Action Board ( <i>Junta de Acción Comunal</i> )
JAL	Local Administrative Board ( <i>Junta Administradora Local</i> )
MEA	Multilateral Environmental Agreements
O&M	Operation and maintenance
PAD	Project Appraisal Document
PIU	Project Implementation Unit
PSMV	EAAB Wastewater Management Plan
RAS	Technical Guidelines for the Design of Water and Sanitation Systems ( <i>Reglamento de Agua y Saneamiento</i> )
SDA	District Environmental Department ( <i>Secretaría Distrital del Ambiente</i> )
SMP	Salitre Metropolitan Park
SSMP	Salitre Social Management Plan
TSS	Total Suspended Solids
UNCCC	United Nations Framework Convention on Climate Change
US\$	United States Dollar
WWTP	Wastewater Treatment Plant

## EXECUTIVE SUMMARY

### ***Inspection Panel Request and Background***

i. ***The Colombia Rio Bogotá Environmental Recuperation and Flood Control Project (P111479) aims to help Colombia transform the Bogotá River, currently one of the most polluted rivers in the world, into an environmental asset for the Bogotá Distrito Capital metropolitan region, by improving water quality, reducing flood risks and creating multi-functional areas along the river.*** The Project will contribute to generating substantial environmental gains by, among other things, improving water quality, reducing domestic pollution, and increasing dissolved oxygen in the water so that fish and other riverine life might return to the Bogotá River.

ii. ***No construction activities have been undertaken at this point.*** A contract has been awarded, which includes obligations to implement environmental and social measures that would address many of the Requesters' concerns. Construction work is expected to commence in the second quarter of 2017. The Project is currently scheduled to close on December 31, 2017. Six months prior to closing, Management will take a decision on a possible Project extension, based on construction progress and Project performance.

iii. The Requesters allege that a component of the Project – the upgrade and expansion of the Salitre Wastewater Treatment Plant (Salitre II WWTP) – will cause significant environmental impacts to the plant site and social and health impacts on approximately 20,000 families.

### ***Management Response***

iv. ***Management understands the concerns of the Requesters regarding potential impacts that might arise from this Project. However, Management is confident that any potential environmental, health or safety impacts from the Project have been thoroughly studied and will be effectively mitigated through the Project's design, Environmental Management Plan and the Salitre Social Management Plan.*** Management has also agreed on an action plan with the Borrower to address concerns raised in the Request. Management therefore believes that the concerns raised by the Requesters are appropriately addressed by adequate design as well as the prevention and mitigation measures that the Project has established.

v. ***The Project has conducted extensive stakeholder consultation and information disclosure associated with the preparation of the Project Environmental Assessment (EA). Stakeholder consultation and engagement will continue during Project implementation.*** Additionally, prior to the Bank's involvement, significant public consultation and stakeholder participation occurred during the development of the planning instruments that determined the construction of Salitre II.

vi. ***Management also notes that the Request reflects significant misunderstandings or misconceptions about the Project's technology, impacts, and risks.*** There is also substantial misinformation regarding the nature and quality of the existing habitats in the

area that would be directly affected by Salitre II. Management is working with the Borrower to address this misinformation.

vii. ***Management emphasizes the crucial development benefits of the Project. The Bogotá River is one of the most polluted rivers in the world.*** Serious adverse environmental and human health impacts and risks continue to result from this situation and affect residents. The Project is expected to contribute directly to improving many of these impacts and generating significant environmental benefits.

viii. ***The Request for Inspection is, in large part, about the Project's proximity to the Requesters' residences.*** Among the Requesters' concerns is that the proximity of Salitre II will, allegedly, negatively affect their property values. While appreciating the Requesters' concern, Management believes it is unfounded. There will be specific measures for noise reduction, odor collection and treatment, and visual impacts will be addressed through reforestation and landscaping. In Management's view, there is no evidence that real estate located near the Salitre WWTP are depreciating; in fact, they show a steady increase in value since 2010.

ix. ***Management notes that while two lawsuits have been filed to contest Salitre II by the organizations representing the Requesters, none of these have been successful, including an appeal that was decided recently by the Supreme Court for Criminal Matters on September 15, 2016*** (see Annex 2 for details on the referred lawsuits). Management is not aware that the Project contravenes Colombian law and is of the view that the Bank should not interfere with the functions of the Colombian judiciary to administer justice concerning a review to ascertain the compliance of government decisions with Colombian national legislation, including the Colombian Constitution. ***Without prejudice to this, Management underscores that the obligation of the Government, including CAR, to clean up the Bogotá River and to expand the Salitre WWTP emanates from a judicial decision affirmed by Colombia's Supreme Court on Administrative Litigation in 2014.***

x. ***As noted above, the Bank and the Borrower have agreed on an action plan to continue engagement with residents of nearby communities and improve the overall Project communication strategy and Project outreach.*** Further, the Bank team has increased the frequency of implementation support missions to follow up on the implementation of these actions.

xi. ***In conclusion, it is Management's view that the Requesters have not demonstrated that their rights or interests have been, or will be, directly and adversely affected by the Bank's failure to apply its policies and procedures under Salitre II.*** Management is confident that the applicable Bank policies and procedures have been adequately followed.

## **I. INTRODUCTION**

1. On October 13, 2016, the Inspection Panel registered a Request for Inspection, IPN Request RQ 16/03 (hereafter referred to as “the Request”), concerning the Colombia: Rio Bogotá Environmental Recuperation and Flood Control Project (P111479, the Project), financed by the International Bank for Reconstruction and Development (the Bank).

2. Two Requests (registered together) were submitted by members of the “Mesa Ciudadana Cortijo Tibaguya” and “Fundación Colectivo Somos Uno” (“the Requesters”), respectively, who asked the Panel to keep individual identities confidential. The following documents were attached to the Request:

- Right to Petition and Request for Registration and Inclusion on the Consultation and Monitoring Panel, World Bank Investments in Colombia on the Salitre WWTP Expansion Project in Bogotá – Colombia – South America, submitted by the Mesa Ciudadana Cortijo Tibaguya; and
- Complaint about the Salitre Water [Wastewater] Treatment Plant Expansion Project, submitted by the Fundación Colectivo Somos Uno.

## **II. THE REQUEST**

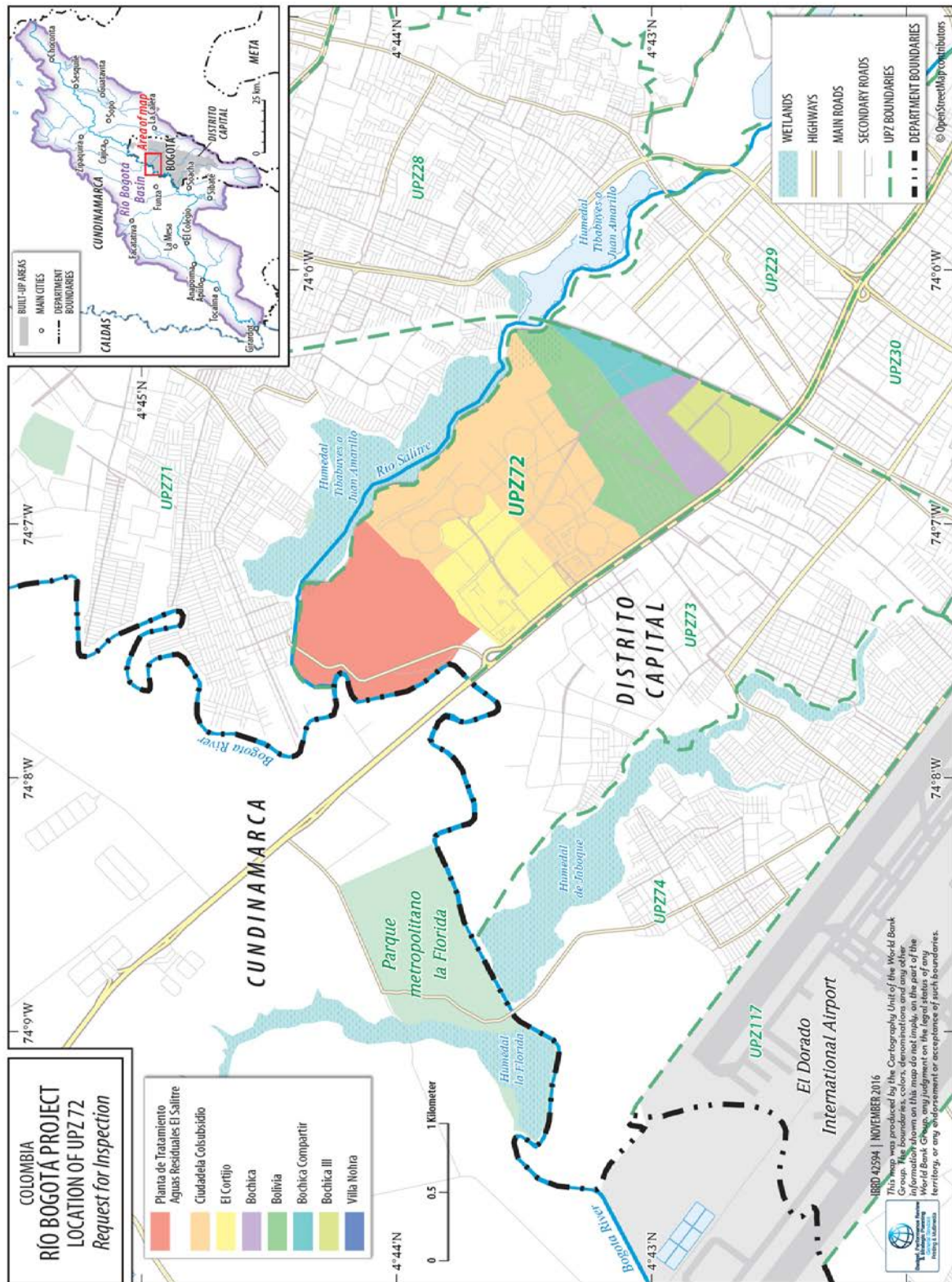
3. On June 23, 2016, the Panel received a Request for Inspection related to the Project from the “Mesa Ciudadana Cortijo Tibaguya (MCCT),” a neighborhood association that represents some residents of the UPZ 72 community<sup>1</sup>. The initial request was signed by 12 people, but subsequently the Panel received an additional 1,215 signatures in support of it. On June 29, 2016, the Panel received a separate Request for Inspection of the same Project from the “Fundación Colectivo Somos Uno,” representing members from the El Cortijo neighborhood in Bogotá. The Requesters allege that the upgrading and expansion of the Salitre Wastewater Treatment Plant (Salitre II) will have significant environmental impacts on the existing plant site (referred as the Tibaguya reserve by the Requesters) and social and health impacts on approximately 20,000 families (a total of 60,000 to 80,000 people) that reside in the UPZ 72 community of the Engativá locality.<sup>2</sup> Figure 1 includes a map of the UPZ 72. Figure 2 illustrates the existing and future layouts of the Salitre site.

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<sup>1</sup> The UPZ 72 is a zonal planning unit in the Engativá locality and includes the neighborhoods of Bochica, Bochica III, Bolivia, El Cortijo, Ciudadela Colsubsidio, and Bochica Compartir. The UPZ 72 has a population of 88,308 (Bogotá Ciudad de Estadísticas, Boletín 31, 2011).

<sup>2</sup> Engativá is one of the 20 localities (districts) of the city of Bogotá.

Figure 1. Map of the UPZ 72





**Figure 2. Salitre Project Site (Left: existing situation with “wetland” circled in yellow. Right: future site layout in red and environmental and recreational areas in yellow/green)<sup>3</sup>**



4. The concerns raised in the Request can be broadly organized in five categories:
- The Requesters allege that the Bank and the Borrower did not comply with relevant Bank policies and national law, in particular related to the preparation of the *environmental assessment and the consultation process*.
  - The Requesters allege that Salitre II would result in the *destruction of the Tibaguya reserve*, which includes the Cortijo-Tibaguya “wetland,” the Tibaguya forest, and the Bogotá River floodplain, *increasing the risk of flooding and affecting ecosystems of the area*.<sup>4</sup>
  - The Requesters allege that the *proposed “compensation project” supported under the Project*, including the Salitre Metropolitan Park (SMP) and the Nuevo Cortijo constructed wetland, *is inadequate to offset environmental impacts*.
  - The Requesters allege that *potential adverse impacts on nearby communities during the construction and operation of Salitre II*, including noise, odor, depression of property values, etc., have not been adequately addressed.
  - The Requesters allege *technical shortfalls in the design of Salitre II*, such as (i) a 10-years old plant design that does not take into account significant population growth and treatment of all waters, including wet weather flows; (ii) inadequate proposed technology (conventional activated sludge plant) to meet water quality objectives; and (iii) inability to resolve longstanding pollution

<sup>3</sup> Site distribution: Salitre WWTP (48 hectares), Environmental buffer (4 hectares), Salitre Metropolitan Park (31 hectares), and Nuevo Cortijo Wetland (10 hectares).

<sup>4</sup> The name Cortijo wetland is also used when referring to the cited wetland.

challenges in the Bogotá River, the Juan Amarillo River, and the Tibabuyes Wetland (also known as the “Juan Amarillo Wetland”).

### III. THE PROJECT

5. *The Request refers to activities financed under the Colombia: Rio Bogotá Environmental Recuperation and Flood Control Project (P111479).* The Bank-financed Project is a key element of the Bogotá City Wastewater Management Program and the Bogotá River Environmental Recuperation Program, and is a flagship engagement between Colombia and the Bank. On December 14, 2010, the World Bank’s Board of Executive Directors (“the Board”) approved a US\$250 million loan in support of the Project. The Project includes another US\$237 million in financing from the Borrower, the Corporación Autónoma de Cundinamarca (CAR), which is the departmental environmental authority responsible for the Bogotá River Basin. The loan is guaranteed by the Republic of Colombia. The current closing date is December 31, 2017, which may need to be extended.

6. The objective of the Project is to assist the Borrower to transform the Bogotá River into an environmental asset for the *Bogotá Distrito Capital* metropolitan region by improving water quality, reducing flood risks and creating multi-functional areas along the river. It has four components: Component 1 finances the upgrading and expansion of the existing Salitre I Wastewater Treatment Plant (WWTP) (US\$335 million); Component 2 finances improved flood control works and restored riparian habitats, meanders, and wetlands along the Bogotá River (US\$140 million); Component 3 finances studies to assist in the environmental sustainability of the Bogotá River (US\$7 million); and Component 4 finances project management and administration (US\$5 million). (See Annex 2 for Project background and history.)<sup>5</sup>

7. It is important to note that no construction activities for Component 1 (Salitre II) have been undertaken at this point. A turnkey contract for US\$400 million has been awarded and became effective in October 2016. Construction activities are expected to commence in the second quarter of 2017, with the detailed design completed in October 2017. The turnkey contract consists of developing the final detailed design for and constructing Salitre II at the existing site, as well as implementing technical improvements to the existing plant (Salitre I). The turnkey contractor is currently preparing the detailed engineering design based on the preliminary design included in the contract. The contractor is further required to update the EMP to reflect the final Project design and submit it to CAR for approval, and to the Bank for its no objection. The layout for Salitre II and the proposed main technologies have been specified to a significant level. Some aspects of the final design need further definition, such as the odor control system and the biosolids management system. The intent in the contract documents is to allow the turnkey contractor to further define the solutions for these subsystems as part of its detailed design responsibilities. Construction is currently scheduled to be completed by October 2021. Management will take a decision on a possible Project extension beyond the current closing

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<sup>5</sup> US\$ amounts are based on the Project Appraisal Document.

date of December 31, 2017 based on the Project's status and performance six months prior to Project closing.

#### IV. MANAGEMENT'S RESPONSE

8. ***At present, the Bogotá River is one of the most polluted rivers in the world. Significant adverse environmental and human health impacts and risks result from the current condition of the Bogotá River.*** The quality of life for riverine communities and municipalities located downstream of Bogotá are seriously reduced by the high degree of river pollution, which (i) results in significant noxious odors, (ii) exposes people to an increased risk of disease due to bacteria and viruses present in sewage, and (iii) greatly diminishes the recreational and aesthetic value of the river. One of the biggest environmental problems for the River is untreated domestic wastewater that is released into the river as it flows through the western boundary of Bogotá City. In this section, which has a population of around seven million, the City of Bogotá discharges all of its wastewater into the Bogotá River through three main tributaries: the Juan Amarillo, Fucha, and Tunjuelo rivers. Wastewater with almost twice the average volume of the river is discharged as the river passes through Bogotá. Only 20 percent of this discharged wastewater receives primary treatment at the existing Salitre I. As a consequence, the Bogotá River is highly polluted. It contains zero dissolved oxygen along a stretch of about 60 km, meaning that no aquatic organisms can survive in it. The river also contains high levels of pathogens (i.e., bacteria, viruses, fungi) that are harmful to humans.

9. ***The Project is expected to directly contribute to improving many of the above problems and generating significant environmental benefits compared to the current situation,*** including reduced exposure to existing high levels of contaminants, improved environmental conditions in the river's riparian zones and other areas adjacent to the river, and reduced flood risks for communities living along the river. A video on CAR's website<sup>6</sup> illustrates the existing situation and the overall benefits of the Project.

10. ***Salitre II is a key element of the Bogotá City Wastewater Program and is embedded in a complex legal and regulatory framework*** derived from extensive consultations, planning and technical studies over the past 20 years.<sup>7</sup> The legal and regulatory framework includes the Salitre environmental license and its several resolutions (amendments), the Bogotá land use plan, and a 2014 Supreme Court decision that mandates CAR to implement Salitre II at the existing site to support the clean-up of the Bogotá River.

11. ***Management understands the concerns of the Requesters regarding potential environmental, health and safety impacts that might arise from a project of this size. In Management's view, however, any potential adverse impacts from the Project have been thoroughly studied and will be effectively mitigated through the Project's design, Environmental Management (EMP) and Salitre Social Management Plan (SSMP).***

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<sup>6</sup> The English language version of the video can be found here:

<https://www.youtube.com/watch?v=kjkRSFHnws0&feature=youtu.be>.

<sup>7</sup> The Bogotá City wastewater management program calls for expanding the Salitre WWTP to a 7 m<sup>3</sup>/s secondary treatment plant and constructing interceptors and a large plant (14 m<sup>3</sup>/s) downstream of Bogotá, called Canoas, to achieve 100 percent wastewater treatment. The program also includes other activities, such as reduction of illegal wastewater connections to storm water systems and industrial pollution control measures.

Moreover, Management submits that the applied technology is well known and tested and plant design was based on recent studies conducted by the Borrower.<sup>8,9</sup> The proposed site adjoins the existing Salitre I, where the wastewater collection network arrives prior to discharge to the Bogotá River, and reuses an area that is significantly degraded due to its past use as a municipal waste dump site. Management will continue supervision to ensure that Salitre II complies with all relevant Bank environmental and social policies, and that factual and accurate information about the Project is made accessible to the adjacent communities, which is an important element of the SSMP.

12. ***Management believes that the concerns raised by the Requesters are appropriately and adequately addressed by the design, prevention and mitigation measures that the Project has established.*** Management also notes that there appear to be significant misunderstandings or misconceptions regarding the Project's technology, impacts, and risks; and also regarding the nature and quality of the existing habitats in the area that would be directly affected by Salitre II. Further, some of the concerns raised by the Requesters relate directly to the highly polluted rivers and other water bodies in the vicinity.

13. ***Management underlines that Salitre II is technically sound and its design is based on thorough studies that were reviewed by the Bank and a group of international experts.***<sup>10</sup> The feasibility study conducted in 2011 and preliminary engineering design prepared in 2014 for Salitre II were developed by a reputable international engineering firm, and have been reviewed by international experts who validated the proposed design, including the selected treatment technology and population and wastewater projections. The turnkey contractor will conduct a review of the preliminary design and adjust it as necessary and feasible in the development of the detailed final design. The Project EA followed Bank policy and international good practice for large WWTPs and the draft was reviewed by an independent panel of experts who provided comments, which CAR addressed. Management considers that the mitigation measures of the EMP have been fully and properly implemented to date and will ensure that they continue to be as the plant becomes operational.

14. ***Management considers that CAR has adequate capacity to implement Salitre II and its related safeguard measures, and that the Bogotá Water Supply and Sewerage Company (EAAB) is equipped for its operation.*** CAR has a Project Implementation Unit (PIU) dedicated to the Project, composed of an interdisciplinary team of professionals. CAR also contracted an international consultant firm (Project Manager) to provide quality control, monitoring and inspection, contract administration, and general coordination and management activities under the Salitre turnkey contract. The Project Manager and contractor's scope of works includes specific activities for the implementation of the EMP

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<sup>8</sup> The conventional activated sludge process has been applied worldwide and is known for its performance reliability. Medium to large WWTPs under construction or recently completed in Santiago, Chile; Valley of Mexico (Atotonilco WWTP); and Medellín have opted for this technology.

<sup>9</sup> The Borrower contracted Hazen & Sawyer to conduct a feasibility study (2011) and prepare preliminary designs for Salitre II (2014).

<sup>10</sup> CAR and EAAB constituted a panel of three international experts with experience in design, construction and operation of large WWTPs.



and SSMP, as well as requirements for environmental and social teams. In addition, following discussions with the Bank, CAR will strengthen its social and communication team to implement the EMP and SSMP and expand its overall communications now that the turnkey contract has been signed. EAAB is currently operating Salitre I in a satisfactory manner and has the institutional and technical capacity to run Salitre II. Training for EAAB is also part of the turnkey contract to ensure an adequate transition after plant construction is completed.

**15. *Stakeholder consultation and information disclosure associated with the preparation of the Project EA was conducted in line with Bank policies and will continue during Project implementation, as established in the SSMP.*** Additionally, prior to Bank involvement, significant public consultation and stakeholder participation took place during the development of the planning instruments that determined the construction of the Salitre WWTPs (both Phases) at the existing site, including the Bogotá and UPZ 72 land use plans and the Salitre environmental license. Feedback received from consultations was used to inform the project EMP, preliminary design of Salitre II, environmental enhancement activities, and outreach efforts. Annex 3 provides a list of the community engagement activities conducted by CAR and other Government agencies. Records indicate that the local communities, including residents and representatives of the UPZ 72, participated in consultation meetings.

**16. *Bank Management and CAR have made significant efforts to address local community concerns.*** CAR has established a citizen's oversight committee (*veedurias ciudadanas*) and responded to more than 100 rights-to-information petitions (*Derecho de Petición*, a constitutional right that every Colombian citizen has to request information of a public agency), including several petitions from the Requesters. CAR has actively engaged with local stakeholders through the Salitre Roundtable and the UPZ 72 Roundtable,<sup>11</sup> to maintain open channels of communication with it. Management notes that CAR, with the support of the Bank team, has made significant efforts to provide more factual information about the Project and its expected impacts to nearby communities and to discuss their concerns. Unfortunately, some of these outreach efforts have been rejected by groups within the community and could not be carried out as planned.<sup>12</sup>

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<sup>11</sup> On December 22, 2014, CAR created the Salitre Roundtable (Mesa de Concertación) at the request of citizens of the Engativá locality, to initiate a dialogue on the Salitre WWTP project and its environmental impact on the Cortijo-Tibaguya wetland. The Roundtable is comprised of community representatives (including residents of the UPZ 72), environmental leaders and Government officials (from CAR, EAAB, and the District Environmental Department, SDA). In February 2015, as a result of this Roundtable, a document recording "environmental agreements on El Cortijo-Salitre WWTP" was agreed to by Government officials. The agreements include several environmental enhancement projects close to the site area, modifications to the original Metropolitan Park to include more environmental features, and citizen participation and oversight regarding these actions and implementation of Salitre II. See <https://www.car.gov.co/index.php?idcategoria=45546> for more information. The UPZ 72 Roundtable is comprised of residents of the UPZ 72 that do not agree with the Salitre II, the Metropolitan Park or the agreements resulting from the Salitre Roundtable.

<sup>12</sup> The Borrower indicated and showed evidence, including e-mail communication, that some members of the Mesa Ciudadana Cortijo Tibaguya have opposed and interfered with CAR's outreach and consultation

17. ***Management notes that while two lawsuits have been filed to contest Salitre II by the organizations representing the Requesters, none of these have been successful.*** While the Supreme Court on Criminal Matters has rejected one claim submitted by the Requesters, another lawsuit filed by the Requesters is currently pending decision by the Supreme Court for Administrative Litigation. ***Management is not aware that the Project contravenes Colombian law and is of the view that the Bank should not interfere with the functions of the Colombian judiciary*** to administer justice concerning a review to ascertain the compliance of government decisions with Colombian national legislation law, including the Colombian Constitution. The Bank is not the competent authority to undertake such a review.

18. ***Without prejudice to this, Management underscores that the obligation of the Government, including CAR, to clean up the Bogotá River and to expand the Salitre WWTP emanates from a judicial decision affirmed by Colombia's Supreme Court on Administrative Litigation.***<sup>13 14</sup>

19. ***Salitre II will address potential odor and noise impacts through implementation of appropriate mitigation measures*** (contained in the EMP), including the following: (i) enhancement of the environmental buffer zones; (ii) isolation of noise-generating equipment; (iii) installation of appropriate technology for odor control; (iv) introduction of performance guarantees for the contractor to ensure compliance with noise and odor emission limits at the perimeter of the plant; (v) implementation of an air emission monitoring program and development of an odor and air emission model. The contractor will also address existing odor issues at the Salitre I site by closing and improving the operation of the influent channel and replacing the open influent pumps with a closed system. Concerns about the management of chemicals are addressed through the application of international and national safety standards included in the EMP, which also includes a contingency plan for emergencies.

20. ***The Request for Inspection is in large part about Salitre II's proximity to the Requesters' residences.*** Among the Requesters' concerns is that the proximity of Salitre II will, allegedly, negatively affect their property values. In fact, data on the value of real estate properties located near the Salitre WWTP show a steady increase since 2010, contrary to the concern raised by the Requesters. This pattern of property value appreciation has continued over the last two years even though the proposed expansion of the Salitre WWTP has become well known. Thus, while appreciating the Requesters' concern, Management believes it is unfounded. In Management's view this concern illustrates the challenge of supporting development of essential infrastructure in a densely populated urban setting, such as Bogotá. This is especially the case for infrastructure components that require a specific location to function and which cannot be moved outside the city or away from residences. This may at times compete with residents' preferences.

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activities in the UPZ 72 by removing invitation flyers, sending e-mails asking people not to attend CAR events, and protesting loudly during CAR's presentation to the community.

<sup>13</sup> A copy of the sentence can be found in <http://wbdocs.worldbank.org/wbdocs/drl/objectId/090224b08470217c>

<sup>14</sup> See Annex 2 more detailed information on the relevant lawsuits.

In the Requesters' own words, the acceptable solution to their concerns is *to not build Salitre II at the proposed location, but rather somewhere else*. Management notes that CAR is obliged under the 2014 Supreme Court Ruling to build Salitre II on the project site.

21. ***Management submits that wastewater treatment plants are a common and essential infrastructure in urban settings worldwide, and that their components are a known and tested technology that has been in use for a long time.*** This facility stands to bring substantial health and environmental gains to millions of people in the Bogotá Distrito Capital metropolitan region. The Bank-supported Project follows international good practice in avoiding or mitigating and impacts, such as installation of noise and odor control equipment and odor and air emission modeling and monitoring, and will observe relevant Colombian safety regulations.

22. ***In Management's view, the Requesters are not able to demonstrate that their rights or interests have been, or will be, directly and adversely affected by a failure of the Bank to implement its policies and procedures under the Salitre II Project.***

### **Specific Issues Raised in the Request**

- a. *Allegation: Non-compliance with Bank environmental and social policies, and relevant national safeguards policies, in particular related to the preparation of the environmental assessment and consultation process.*

23. ***Management has reviewed the issue and is confident that the EA for the Project complies with the pertinent Bank policies.*** The EA for the Project was developed in 2009 and the Bank issued its no-objection in 2010. The EA is divided in three main volumes: Volume I addresses strategic planning and water quality management objectives for the basin, and describes baseline conditions, trends, and strategic alternatives. At the strategic level, in addition to the no-project alternative, the EA Volume I evaluates the risks of not achieving Class IV Water Quality in the middle basin through various scenarios, including wastewater treatment levels and the operation of other wastewater programs outside the Project scope.<sup>15</sup> In addition, the three wastewater treatment schemes for Bogotá City, one-plant, two-plant, and three-plant, developed in various technical documents over a period of 30 years, were summarized in the EA. In 2004, the Government of Colombia selected the two-plant scheme (one at Salitre and the other one at Canoas). Considering the existing infrastructure in Salitre, it represented the least cost option, and a shorter implementation period. At appraisal, the proposed two-plant approach was demonstrated to be economically justified, particularly if sunk economic costs were taken into account. Furthermore, the benefits of having reclaimed water flows in the river during dry weather were also considered. Volume II addresses specific benefits, risks and impacts under all components of the Project. It provides baseline data, trends and conditions at specific sites and evaluates the likely impacts and risks using systematic methodologies. The assessment of the potential environmental and social impacts and risks included those related to odors,

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<sup>15</sup> Water quality objective set in the Bogotá River middle basin: Class IV water quality standards suitable for agricultural use, which corresponds to 50 mg/L BOD5, 40 mg/L TSS, and 20,000 Total Coliforms.



noise, flora and fauna, and water resources. The EA concluded that there would be no significant conversion of natural habitats and no significant impacts on noise or flooding. The EA considered as input information from a previous Environmental Impact Assessment (EIA, 1995) and the 1996 environmental license and its several amendments. In addition, the EA considered more recent technical reports prepared by other consulting engineers, and conducted a separate impact analysis and proposed mitigation measures based on good international practice for large WWTPs.<sup>16</sup> As part of the Bank's overall quality assurance an independent panel of experts reviewed and commented on the draft EA (see Annex 1 for additional information).

24. ***The Project EMP contained in Volume III includes specific mitigation measures and monitoring arrangements for construction and operation phase impacts, including control of odors and noise; forest and visual management plans; contingency plans; communications; institutional strengthening and a separate and more detailed SSMP.*** It describes in detail the institutional responsibilities, scope of work during implementation, and budget resources allocated. The key environmental impacts that will need to be mitigated at the Salitre plant include the typical impacts associated with large-scale construction of civil works, including management of dust, noise, construction staging, waste management, traffic, and public safety, among other issues. During operation of the Salitre plant, the main environmental risks relate to odor control, potential visual impairment and aesthetics, and the risk of industrial accidents. The EMP includes specific measures for addressing chance archeological finds, given the long history of human settlement along the river. It also includes a description of the contingency management plan in the event of unexpected construction and operation accidents, in particular related to occupational health and public safety. A manual on environmental specifications for construction is included as an annex. The EMP defines the construction contractor's responsibilities, including requirements to develop and implement site-specific management plans. The contractor is further required to update the EMP to reflect the final Project design and submit it to CAR for approval, and to the Bank for its no objection. The Project Manager will be responsible for supervision and monitoring of EMP compliance.

25. ***There have been at least 41 consultation meetings held between 2008 and 2016.*** In fact, the Project has benefitted from extensive consultations beginning in 1996 and continuing to the present. Multiple rounds of public consultations and community engagement activities have been undertaken by Government entities, including the Ministry of Environment, CAR, City of Bogotá, and others, both before and after Bank involvement in the Project. Consultations have been carried out in line with applicable Colombian laws and regulations and Bank safeguards policies as relevant and community meetings have been occurring on a bi-annual basis at a minimum. Project design has incorporated the feedback from these consultations. Since the Bank's involvement, there have been in-person consultations on the preparation of the detailed terms of reference and preliminary draft for the Project EA, a community perceptions survey, and an ongoing process (described below) that will continue during implementation of Salitre II based on

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<sup>16</sup> The methodology used to evaluate risks, impacts and benefits was systematic and followed recognized good practice. The scoping and evaluation of risks included the use of a detailed Leopold matrix, checklists, independent peer reviews, public consultations, and expert opinion.

the SSMP and 2016 Action Plan. The consultations covered all components of the Project, including Salitre II.

26. ***In an effort to continually engage the community living in the vicinity of the Salitre WWTP, CAR has been conducting ongoing stakeholder participation activities.*** The SSMP has required extensive community engagement activities, focusing on communities near the Salitre II site. These discussion sessions have been open to the general public and residents of the UPZ 72 were invited. The Borrower has established multiple mechanisms to foster continuous dialogue with the community throughout Project implementation. This includes organizing the roundtable groups comprised of community members and CAR staff that have met regularly to discuss particular Project activities and overall progress. In addition, CAR has launched a social media communication campaign in 2015 as a result of the successful community dialogue initiative, the Salitre Roundtable (see Footnote 11). The campaign maintains a website, [www.humedalnuevocortijo.com](http://www.humedalnuevocortijo.com), and associated social media profiles on Twitter and Facebook (upwards of 1600 and 440 followers, respectively) to disseminate updates and contextual information about the WWTP expansion.

*b. Allegation: The expansion of the Salitre WWTP will result in the destruction of the Tibaguya reserve, which includes the Cortijo-Tibaguya “wetland”, the Tibaguya forest, and the Bogotá River floodplain, increasing the risk of flooding and affecting ecosystems of the area.*

27. Management wishes to clarify that what the Requesters refer to as “Tibaguya forest” and “Cortijo-Tibaguya wetland” (together referred to in the Request as the “Tibaguya reserve” are neither a recognized reserve, nor a formally designated or protected environmental area. The area directly affected by Salitre II consists mainly of grassland with some bushes and trees. The area had been used as a dumping ground until 1987. Since then, some natural revegetation has developed on this significantly degraded area, partially due to the extensive tree planting undertaken to create an environmental buffer for Salitre I. The potential impacts on flora and fauna at the proposed site were considered as part of the Project EA, which did not identify the presence of any significant or sensitive natural habitats or any critical natural habitats in the directly affected area of the Project. Moreover, no significant environmental impacts (including significant conversion or degradation) of natural habitats were identified. The Project design and EMP include various relevant measures, such as maintaining and enhancing the environmental buffer (existing trees planted by the EAAB per the environmental license) and also a plan for identification and management of fauna during plant construction. The Project requires the contractor to conduct a forest inventory before starting construction and to implement a management plan to take steps to minimize alien invasive species, which are common in the area.

28. ***Management considers that this “wetland” area does not consist of any unaffected natural habitats or sensitive or critical habitats per Bank policy, and hence Salitre II will not result in significant conversion of wetland natural habitats or significant conversion or degradation of natural habitats.*** In 2000, EAAB constructed an influent channel for Salitre I, which, combined with existing site conditions, affected the drainage of the site causing accumulation of water runoff in a nearby low-lying area

(approximately 1.5 ha with a 0.5 ha water body, or pond). This area is what the Requesters referred to as the “Cortijo-Tibaguya wetland”). The amount of water reportedly varies during the year and a recent water quality analysis shows contamination stemming most likely from the fact that the “wetland” is located on the previous dump site. A 2016 SDA report confirms that this “wetland” area is not part of the protected areas system of the Bogotá District, nor part of the special areas – with limited biodiversity values, ecosystems and habitats where the presence of flora and fauna is of temporal nature determined by the presence of water – where the SDA conducts environmental management actions. The potential impacts on natural habitats and flora and fauna (including wetlands) were considered as part of the Project EA. Figure 3 shows pictures of the area.<sup>17</sup>

**Figure 3. Pictures of the Cortijo-Tibaguya “wetland” (2015 – 2016)**



29. ***Salitre II will not increase the risk of flooding in the UPZ 72 as the construction site is not part of the floodplains.*** On the contrary, Component 2 of the Project supports new river works that have significantly improved flood protection in the area by widening

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<sup>17</sup> Additional pictures and information about the “wetland” can be found in this link:  
<https://humedalnuevocortijo.com/tag/humedal-el-cortijo/>

the channels and improving the embankment structure. Salitre II is designed to manage a peak storm water flow that would occur in a 100-year flood.<sup>18</sup>

- c. *Allegation: The proposed “compensation” activities of the Project, including the Salitre Metropolitan Park and the Nuevo Cortijo constructed wetland, are inadequate to offset environmental impacts.*

30. ***There is no requirement per Bank policy or the Project EMP to create an “environmental offset” for loss of vegetation, including for the area referred to as “wetland” in the Request.*** As noted above, the area does not consist of unaffected natural habitats or sensitive or critical habitats per Bank policy, and Salitre II will not result in significant conversion or degradation of natural habitats.

31. ***However, CAR recognizes that Salitre II site has some environmental and scenic value to the adjacent communities.*** Therefore, with input from relevant stakeholders, CAR has been working to develop alternative recreational outlets and restoration of environmental areas in nearby locations. These environmental enhancement features include: (i) ecological features in a Metropolitan Park adjoining the Salitre II site (80 percent of 31 hectares assigned to the park is designed for ecological use); (ii) a newly constructed wetland (Nuevo Cortijo) next to the Tibabuyes Wetland (approximate area of the new wetland is 10 hectares); and (iii) restoration of a Juan Amarillo meander (Neuque, 15 hectares).<sup>19</sup> These enhancements were developed as part of the agreements made by the Salitre Roundtable, which includes residents and NGOs from the localities of Engativá; residents from the UPZ 72 have participated in several meetings. Figure 4 indicates the location of these areas and the Bogotá River wetland restoration project (*filtros de humedales*), which is part of Component 2.

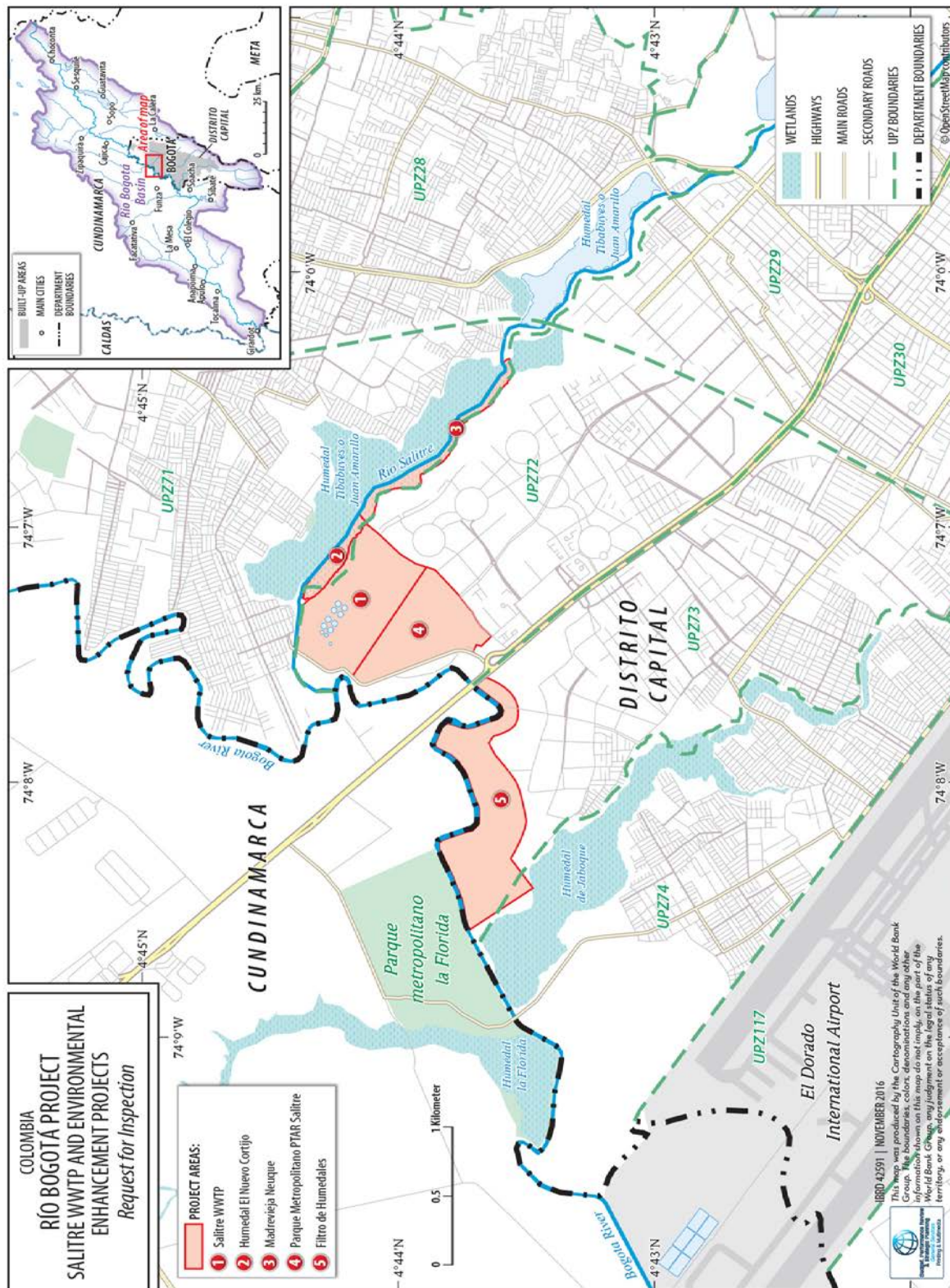
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<sup>18</sup> A one-hundred-year flood is a flood event that has a 1 percent probability of occurring in any given year.

<sup>19</sup> The Cortijo-Tibaguya “wetland” estimated area is 1.5 hectare.



Figure 4. Environmental Enhancement Projects – Salitre Roundtable Agreement



32. The proposed Salitre Metropolitan Park is part of the 2004 Bogotá and UPZ 72 land use plans. The Park is a strategic project to meet Bogotá City's objectives to increase recreational opportunities and green open spaces for the enjoyment of its residents. The Park is not designed to serve only the UPZ 72 but a larger population that lives in the northern part of the city (Suba and Engativa localities). The planning processes for the Park have included community consultations with local authorities and community representatives. At the request of local NGOs and community representatives in the Salitre Roundtable the approved Park design was modified, to include proposals from that group for enhanced ecological and environmental features of the park. The new park will approximately double the green area and ecological space of the previous design. The Metropolitan Park will be constructed in an area of 31 hectares. The active recreational area will make up 20 percent of the park area; the remaining 80 percent is dedicated to increasing vegetation and creating passive ecological recreation. Figure 5 indicates the situation of the park area and Figure 6 includes the new design layout of the park.<sup>20</sup>

***Figure 5. Proposed Salitre Metropolitan Park Area (yellow boundary)***



<sup>20</sup> Additional information on the Metropolitan Park can be found in the master plan – Memoria Técnica Plan Director PM PTAR Salitre. (<http://wbdocs.worldbank.org/wbdocs/component/main>).



**Figure 6. New Park Design**



33. ***In Management's view the Project provides significant benefits, including the expansion and enhancement of the space for residents' recreation and enjoyment.*** Management notes that the Project will result in very important environmental and human health benefits that will translate into improved quality of life for all local communities, including the UPZ 72 and municipalities downstream of Bogotá.

d. ***Allegation: There are potential adverse impacts on nearby communities during the construction and operation of the Salitre WWTP, including noise, odor, depreciation of property values, etc., that have not been adequately addressed.***

34. ***The potential noise and odor impacts due to the Salitre WWTP II were assessed in the Project EA and effective mitigation measures have been developed and included in the Project's design and EMP.*** The measures in the EMP will mitigate not only relevant Project-related impacts, but will also reduce some pre-existing impacts, which stem in part from Salitre I.

- **Noise.** The EA did not identify significant increases in noise levels above ambient conditions. Ambient noise levels are significantly affected by the road traffic from nearby major roads (e.g., Calle 80). The design of the WWTP II

includes isolation of noise-generating equipment, which will reduce noise impacts from the project. A performance guarantee to meet noise limits is included in the Salitre turnkey contract.

- *Odor.* Salitre II will be equipped with an appropriate odor collection and treatment system, which will significantly reduce any odor emissions generated during operation. The Project will also retrofit the existing Salitre I plant, thereby addressing a pre-existing source of odor. There are significant odor impacts already present in the area from existing sources, mainly the Salitre influent channel and nearby water bodies. A performance guarantee to meet odor limits is included in the Salitre turnkey contract.
- *Visual impacts.* The EMP and turnkey contract require implementation of a Reforestation and Landscaping Plan at the Project site to improve the environmental buffer zones, which will assist in mitigation of potential visual, noise and odor impacts generated by the plant. This plan enhances the existing tree buffer around the site.

35. ***Data on the value of real estate properties located near the Salitre WWTP show a steady increase since 2010, contrary to the concern raised by the Requesters.*** An informal review by Management of property values from neighboring areas, including others from Bogotá's northeast sector, indicates similar within-year seasonality and general appreciation of home values across years. This pattern of property value appreciation has continued over the last two years even though the proposed expansion of the Salitre WWTP has become well known.

36. ***In Management's view the Project will likely lead to a significant improvement of the overall neighborhood though the benefits generated by the Project:*** retrofitting of the existing WWTP with odor removing technology, cleanup of the highly polluted river, development of environmental enhancements, including more park land.

37. ***The preliminary engineering design of the Salitre WWTP expansion follows best practices and international standards for preventing and mitigating noise and odor impacts of the plant.*** The mitigation measures also include monitoring and modeling of air emissions, and a performance guarantee to meet noise and odor limits included in the Salitre turnkey contract.

- e. *Allegation: Technical shortfalls in the construction and planned operation of the Salitre WWTP and the proposed technology are inadequate to meet water quality objectives and resolve longstanding pollution challenges.*

38. The Requesters allege technical shortfalls in the design of Salitre II, such as: (i) the plant design was developed 10 years ago and did not take into account significant population growth and treatment of all waters, including wet weather flows; (ii) the proposed technology (conventional activated sludge plant) is inadequate to meet water quality objectives; and (iii) Salitre II will not resolve longstanding pollution challenges in the Bogotá River, the Juan Amarillo River, and the Tibabuyes Wetland.



39. ***The Project's technical design is sound and uses the appropriate technology.*** The technical design has been carefully prepared with the support of a top-level engineering firm and experts from the private and public sectors. The preliminary engineering design was developed in 2014 based on a 2011 feasibility study,<sup>21</sup> and development of the final detailed design and construction planning are currently underway.<sup>22</sup> The design capacity is based on historical data, and projected residential and commercial/industrial effluent contributions. The Salitre WWTP is designed for a 30-year planning period equivalent to the saturation of the sewer service areas (Jaboque, Torca and Salitre). This corresponds to a population of 3.5 million in the year 2040.<sup>23</sup> The new Salitre plant will treat 30 percent of the entire wastewater generated in Bogotá. The other 70 percent will be treated in the future Canoas WWTP downstream (see Annex 2).

40. ***The proposed technology for Salitre II is state of the art and will significantly reduce the pollution of the Bogotá River.*** Management notes that while the Project will significantly reduce pollution in the river, it cannot – nor is it intended to – fully eliminate any pollution from the Bogotá River, as criticized by the Requesters. Management notes that this would not be technically feasible with a single project.

41. ***The conventional activated sludge process, with diffused aeration, is neither obsolete nor inefficient, as claimed in the Request.*** This technology was selected to meet the effluent pollutant discharge limits in a reliable, cost-effective manner, while providing flexibility for future treatment expansion. The activated sludge process is a proven technology, in particular for large WWTPs. It has been applied worldwide and is known for its performance reliability. The activated sludge process has a proven removal efficiency of 90 percent of Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS),<sup>24</sup> not 60 percent as claimed by the Requesters.

42. ***The chosen technology has been selected based on a comprehensive evaluation of alternatives in the 2011 feasibility study. The selected technology became part of the preliminary engineering design for the Salitre WWTP expansion which was completed in 2014.*** The comprehensive evaluation process included economic (capital and O&M costs) and non-economic criteria (technical, environmental and social criteria). In total, 27 technologies were initially screened, 17 technologies were assessed in more detail, and 3 technologies were further evaluated, which resulted in the selected technology. In addition, CAR and EAAB established a panel of experts to contribute to the discussions during technical workshops related to the technology evaluations. The Bank team, technical staff from CAR and EAAB, and international experts all participated in the various workshops

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<sup>21</sup> While the Request refers to much older studies, the most recent feasibility study, which is the basis for the engineering design, is from 2011.

<sup>22</sup> CAR contracted the consulting services of Hazen & Sawyer to conduct a feasibility study, preliminary design and prepare bidding documents for the Salitre WWTP turnkey contract.

<sup>23</sup> The estimated 2040 population of the area of Bogotá to be serviced by the Salitre WWTP is 3.5 million.

<sup>24</sup> Total suspended solids (TSS) is the dry-weight of particles trapped by a filter and Biochemical oxygen demand (BOD is the amount of dissolved oxygen needed (i.e., demanded) by aerobic biological organisms to break down organic material present in a given water sample at certain temperature over a specific time period. Both are water quality parameters used to assess the quality of wastewater after treatment.

and meetings to build consensus on the technology, environmental mitigation measures, construction methodology and scheduling.

43. ***There are many different interventions that will contribute to the overall cleanup of the Juan Amarillo River, the Tibabuyes Wetland, and the Bogotá River.*** The Salitre WWTP expansion is an essential component of the overall Bogotá City Wastewater Program. The collection and conveyance systems that feed into the Salitre WWTP will prevent wastewater from reaching the Juan Amarillo River. However, the Juan Amarillo River and the Tibabuyes Wetland will still be contaminated by some untreated wastewater from illegal connections, where sewers empty into storm water drainage systems, as well as by urban storm water runoff. To address this issue, EAAB has embarked on a comprehensive program to reduce such illegal connections. This program includes sewer line rehabilitation and connection improvements, control and monitoring, and public information campaigns. The program and other industrial pollution control actions are part of the Bogotá City Wastewater Program and the Bogotá River Environmental Restoration Program, which are part of the 2014 Supreme Court ruling (see Annex 2).

### **Proposed Actions**

44. ***Management acknowledges that communication and information around the Project may not have been effective enough to achieve the desired results.*** Accordingly, and in response to the Request brought to the Project team by the Requesters, the Bank and Borrower agreed on an action plan to address stakeholder concerns, in particular to secure the participation of the Requesters in the Salitre Roundtable, and to improve the overall Project communication strategy and outreach. Below is a summary of the action plan and CAR's progress made to date:

- *Action 1:* Strengthen the PIU team by hiring two field-based social experts and a communication expert by the end of August 2016. *Progress:* The PIU has added these experts to the team. The communication expert is currently working on the production of a video about the Salitre WWTP to improve overall communication about the Project. In addition, the PIU will engage the services of a specialized communication agency to develop and implement a communication strategy. Terms of reference have been reviewed by the Bank team and comments have been shared with CAR.
- *Action 2:* Improve the Project website, so it provides more technical and environmental information about the Project, and make it accessible in a user-friendly manner by November 2016. *Progress:* The CAR website has Project information<sup>25</sup> and has included info graphs about the Salitre WWTP and the Salitre Roundtable's agreements. The PIU has started working on revising the overall webpage with additional technical and environmental information. The

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<sup>25</sup> <https://www.car.gov.co/index.php?idcategoria=45534>

Project website would also provide links to EAAB's website, which displays the monthly Progress Reports<sup>26</sup> on the existing Salitre WWTP.

- *Action 3:* Fully implement the SSMP, which is under the responsibility of the Salitre WWTP turnkey contractor and the supervision of the Salitre WWTP Project Manager. *Progress:* The PIU has been implementing some of the SSMP actions with its own team and is currently conducting planning meetings with the contractor and the Project Manager to fully engage them to implement the plan.
- *Action 4:* Continue working with the *Veeduría Ciudadana* in monitoring Project compliance. *Progress:* The *Veeduría Ciudadana Salitre WWTP* <sup>27</sup> was established in 2014 to monitor Salitre II and the additional activities. It has been active and has met three times since its establishment. It also participated in the Salitre WWTP Roundtable and consultations conducted by CAR.
- *Action 5:* Continue the dialogue with the Mesa Ciudadana Cortijo Tibaguya, facilitated by an external party, and conduct community consultations (including with Fundacion Colectivo Somos Uno) in the UPZ 72 to ensure that the entire community is indeed informed and has the opportunity to provide feedback. Follow up on actions derived from these meetings in a timely fashion. *Progress:* These activities are ongoing, see more detail in Annex 2.

45. ***Management notes that the action plan, which has strong commitment from CAR's senior management, seeks to address the Requesters' concerns.*** In recent missions, the Bank team observed good progress in the implementation of each of the main components of the action plan.

46. ***The Bank team has increased the frequency of supervision missions to follow up on the implementation of the above actions.*** The Bank team will participate as observers in follow-up meetings organized by CAR with the Mesa Ciudadana Cortijo Tibaguya to provide more details on technical aspects, environmental and social impacts, and proposed mitigation measures; and will facilitate access to information about performance of similar WWTPs under operation.

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<sup>26</sup> [http://www.acueducto.com.co/wpsv61/wps/portal/!ut/p/c5/hY7LDoIwEEW\\_hS-YofQBS1QEEqBqo1I2pDEEMTxcGBP-XogbN8jM8tx7ZqCAaXvzbmrzaobetJBDwUvXVqkSEUEpyA5jPwhc7tANPdGJa15uQz-ilkGU5IIMqaOeFYOxs5K-zrf-0mEbO9hLJmXyDS0EdmX\\_PPHBfGR8iioavgvGLRHuQcNBRi8Vthg26r2txGeHY5Nof7Y6wt6wOnZo0y/dl3/d3/L0IJSklna2shL0ICakFBQ3IBQkVSQ0IBISEvWUZOQzFOS18yN3chLzdfODFTTVM3SDIwTzcyRDBJQUVFODYzNEI0NzE!/?WCM\\_PORTLET=PC\\_7\\_81SMS7H20Q72D0IAEE8634B471\\_WCM&WCM\\_GLOBAL\\_CONTEXT=\wps\wcm\connect\eaabv6\sacueducto\ambiental\ambsecsecundaria\ambientalinformesdeactividadesptarsalitre](http://www.acueducto.com.co/wpsv61/wps/portal/!ut/p/c5/hY7LDoIwEEW_hS-YofQBS1QEEqBqo1I2pDEEMTxcGBP-XogbN8jM8tx7ZqCAaXvzbmrzaobetJBDwUvXVqkSEUEpyA5jPwhc7tANPdGJa15uQz-ilkGU5IIMqaOeFYOxs5K-zrf-0mEbO9hLJmXyDS0EdmX_PPHBfGR8iioavgvGLRHuQcNBRi8Vthg26r2txGeHY5Nof7Y6wt6wOnZo0y/dl3/d3/L0IJSklna2shL0ICakFBQ3IBQkVSQ0IBISEvWUZOQzFOS18yN3chLzdfODFTTVM3SDIwTzcyRDBJQUVFODYzNEI0NzE!/?WCM_PORTLET=PC_7_81SMS7H20Q72D0IAEE8634B471_WCM&WCM_GLOBAL_CONTEXT=\wps\wcm\connect\eaabv6\sacueducto\ambiental\ambsecsecundaria\ambientalinformesdeactividadesptarsalitre)

<sup>27</sup> [https://www.facebook.com/Veeduria-PTAR-Salitre-446882625469850/about/?entry\\_point=page\\_nav\\_about\\_item&tab=page\\_info](https://www.facebook.com/Veeduria-PTAR-Salitre-446882625469850/about/?entry_point=page_nav_about_item&tab=page_info)

# ANNEX 1

## CLAIMS AND RESPONSES

No.	Claim	Response
<b>General Comments</b>		
1.	<p><b>Project site location and Environmental Destruction</b></p> <p>The expanded Salitre WWTP and the proposed Metropolitan Park will be built at the site known as "El Cortijo" or "El Dorado", which currently <b>is an ecological reserve (referred as the Tibaguya reserve) for the community and has environmental characteristics of invaluable ecological value.</b> The reserve is part of the floodplain of the Bogotá River and its groundwater, aquifers, several springs and wetlands. The Tibaguya Reserve extends approximately 113 hectares and is composed of 35 hectares of forest (Tibaguya forest), the Cortijo Tibaguya wetland, endemic and migratory birds, with fauna of small mammals and biodiversity of micro-fauna and abundant flora that gives oxygen to the area.</p> <p>The Salitre WWTP project and the Metropolitan Park, that would replace much of the forest area, will take more than 80 hectares, as shown in the designs supplied by CAR, so the wetlands will disappear completely; and to allow this to <b>happen in the Colombia's capital is an open invitation to ecological, environmental, and habitat destruction anywhere in the country and from here to around the world;</b> importing more cement and iron, than water, oxygen and life itself is to give way to economic interests of industrial empires to the detriment of communities.</p>	<p><i>Based on the Project EA, Management notes at the outset that the Project site is <u>not</u> an ecological reserve, it is <u>not</u> part of the Bogotá River floodplain, and it does not have "environmental characteristics of invaluable ecological value." The site is owned by the District and is in an area that was previously significantly degraded and used as an open dump for waste disposal for many years.</i></p> <p><i>The habitats referred to by the Requesters resulted from human interventions on the previous dump site and are not considered sensitive habitats or unaffected habitats under Bank policy.</i> The so called "Tibaguya forest" consists mainly of trees planted by the Bogotá Water Company as an environmental buffer during the construction of the Salitre I and some natural revegetation. With regard to the "Cortijo-Tibaguya wetland," in 2000 EAAB constructed an influent channel for Salitre I, which combined with existing site conditions, affected the drainage of the site, causing accumulation of water runoff in a nearby low-lying area (approximately 1.5 ha, with a 0.5 ha water body, or pond). While both these habitats contain natural revegetation on the site of the old waste dump, neither is considered part of any official forest reserve or district wetlands under national or district environmental regulations, nor do they consist of unaffected natural habitats or sensitive or critical habitats per Bank policy. Neither the 1996 environmental license, and associated 1995 EIA, nor the 2010 EA identified sensitive or critical terrestrial natural habitats in the project site. In addition, monitoring reports for the environmental license and amendments to the license do not identify sensitive or critical terrestrial natural habitats in the project site.</p> <p><i>Management does not agree with the Requesters' statement that allowing the disappearance of the alleged "wetland" constitutes an invitation to ecological, environmental and habitat destruction in Colombia. The area is not recognized or protected under Colombian law and the site clearing will not violate any laws. In Management's view the Project provides very important environmental and human health benefits compared to the current situation, including (i) reduced exposure to existing high levels of contaminants; (ii) improved environmental conditions in the Bogotá River's riparian zones and other areas adjacent to the river; (iii) reduced flood risks for communities living along the river; and (iv)</i></p>

No.	Claim	Response
	<p><b>Affected Community</b></p> <p>UPZ 72 is adjacent to the wetland and impact area and all communities in the <b>riparian area thereof will be affected</b>, including the districts of Bochica, Bolivia, Ciudadela Colsubsidio, especially the urbanized areas near the wetland such as Quintas de Santa Bárbara in the adjacent neighborhood, and the Residential Complexes: Los Alcaparros, Eucaliptos, Los Cerezos, Los Manzanos, Los Ciruelos, Los Duraznos, Los Arces Rojos, Los Almendros, Parques de La Ciudadela, and others adjacent to the wetlands, <b>with + - 15,000 families<sup>28</sup> (60,000 people)</b></p>	<p>expansion and enhancement of the space for residents' recreation and enjoyment. It is important to note that the Project has been praised in Colombia and internationally for the integration of ecological design features into infrastructure works.</p> <p><b>Alleged impacts to the UPZ 72 community</b></p> <p><i><b>There is no indication that construction and operation of Salitre II will result in direct adverse impacts for the nearby community. The Project includes design and operational measures to help prevent and control odors, in particular from pre-treatment and sludge handling facilities.. An EMP is in place with appropriate mitigation and safety measures, as well as supervision, including biosolids management, vegetation buffer zone and monitoring. The Project design will also help address existing odor issues at Salitre I.</b></i></p>
<b>Alleged Inadequate Compliance with Bank and in Country Safeguards Policies</b>		
2.	<p><b>Compliance with Bank environmental policy (OP 4.10) - Environmental Assessment</b></p> <p>On March 18, 2010, the World Bank approved the Environmental Assessment – EA prepared by CAR- through publication of a summary of the project's environmental assessment in InfoShop report No. AC467. However:</p> <p><b>Insufficient studies to analyze and mitigate negative impacts</b></p> <p>No specific and detailed environmental assessment of the <u>effects on the ecosystems</u> from the Salitre WWTP project has been made. The studies were generally made for all components of the Rio Bogotá Environmental Recuperation and Flood Control Project.</p> <p>No new studies were conducted. All information presented in the EA was from the Environmental Impact Study -EIA- prepared by the Technical Administrative Department of the Environment -DAMA- in 1995 for the granting of the environmental license for the Salitre WWTP, Phase I.</p> <p>The CAR omitted information and studies in the - Environmental Assessment regarding (i) existence of Tibaguya Wetland, (ii) presence of endemic birds, existence of groundwater in the soil, (iii) existence of the Forest, (iv) destruction of the Bogotá River floodplain, destruction of animal habitats and nests, and (v) displacement and death of animals. No studies were undertaken on the reptiles, mammals, amphibians and insects in the Cortijo-Tibaguya wetland. There was only a study of birds, that only took into account Tibaguya wetland birds (1.5h) and diurnal birds.</p> <p>The destruction of the floodplain was not studied in the Environmental Assessment of the project. The document</p>	<p><i><b>A comprehensive EA was completed in 2010 to assess the potential environmental and social impacts of the Project. This EA considered all aspects of the Project, including issues raised by the Requesters. The Bank has reviewed and issued its no-objection to the EA, which it found to be consistent with the requirements of OP 4.01 and 4.04. As part of the Bank's overall quality assurance and to obtain an additional independent review, a panel of experts was hired to review the draft EA report and to provide comments and recommendations to CAR and the Bank to enhance the quality of the EA report. These were taken into account.</b></i></p> <p><i><b>Earlier work.</b></i> An EIA for Waste Water Treatment in Santa Fe Bogotá Program was first developed in 1995. That EIA assessed the impacts of a wastewater treatment project that at the time sought to construct 3 WWTPS: Salitre, Fucha, and Tunjuelo. The EIA included the regulatory framework, project description, analyses of alternatives, environmental and social conditions, environmental and social impact evaluation, environmental management plan, contingency plan, and monitoring and supervision plan. The analysis of alternatives assessed various potential alternatives, including alternative waste water collection and treatment/disposal systems, site locations, and treatment systems for waste water and sludge management. The assessment considered technical, environmental, and economic factors. The EIA included environmental and social impacts during construction and operation of a Salitre WWTP (Phase 1 and II), including biological treatment, water resources, noise, and odor. The EIA environmental management plan includes various measures, including specifically for noise and odor</p>

<sup>28</sup> According to Bank calculations, 20,000 families live close to the Salitre II site.

No.	Claim	Response
	<p>does not mention that the plant will be built in the floodplain of the Bogotá River and merely indicates only that the site was approved under an environmental license in 1996 and subsequently by Article 111 of Decree District -POT-190 in 2004.</p> <p>The EA does not really address or analyze the seriousness of the impacts caused by offensive odors and contaminating substance, including distance of the community from the plant or the effectiveness of the measures taken to mitigate odors. In the EA- no studies and / or analysis address winds in the area of influence of the plant, the number of hours in which the people will be exposed to offensive odors and toxic substances and negative health impacts involved with the expansion.</p>	<p>control, and a revegetation plan. An environmental license was issued in 1996 (Resolution 817) by the Ministry of Environment approving the EIA and the EMP specifically for the construction and operation of the Salitre WWTP. Since 1996, the Ministry of Environment has issued nine amendments to the environmental license as part of the monitoring and control to ensure compliance with the license and the EMP. The 2007 Amendment (Resolución 1929 de 2007) includes additional provisions to monitor odor, air emissions, and noise, a biosolids management study, and additional supervision reports and data.<sup>29</sup></p> <p><i>2010 EA.</i> In connection with the present Project, CAR then developed the 2010 EA to assess the potential environmental and social impacts associated with the Project as required by Bank safeguard policies. The 2010 EA considered as input information from the previous EIA, environmental license and EMP, and the various license amendments. The 2010 EA conducted a separate impact analysis and proposed mitigation actions based on standard guidelines for environmental assessment of wastewater treatment plants, to ensure consistency with international good practice. In addition, a substantial part of the EA included a review and analysis of recent technical reports prepared by other consulting engineers, water resource managers and universities. The EA also included a risk scenario analysis based on a water quality model. It recommended additional studies to be conducted during implementation, such as the biosolids management plan and the river management plan, which includes feasibility studies to create/improve wetland areas and riparian zones along the 68-km stretch of the river. The biosolids management study is expected to be contracted in early 2017 and the river management plan in mid-2017.</p> <p>The Project EA consisted of three volumes. <u>Volume I</u> provides a strategic overview of water quality challenges, constraints and opportunities at the Bogotá River basin level. It addresses the main strategic vision of the Government, including a summary of the key planning documents, policies, and legal framework that apply to the basin as a whole. Volume I also provides baseline data on the state of the basin, including water quality, along with key parameters such as land use, sensitive habitat areas, settlement trends, threats and risks. <u>Volume II</u> addresses the environmental impacts of the Project components. It describes the Project area of influence, the baseline conditions at each Project site, and the main risks and benefits. It also provides detailed assessment and prioritization of adverse impacts for both the Salitre WWTP expansion and other Project components (flood protection works). <u>Volume III</u> contains the EMP for the</p>

<sup>29</sup> A summary of the all the amendments and actions issued by the Ministry of Environment is included in the Project files. <http://wbdocs.worldbank.org/wbdocs/drl/objectId/090224b0847084cc>



No.	Claim	Response
		<p>Project.</p> <p>As part of the Bank's overall quality assurance review and to ensure independent quality review, a panel of experts was hired to review the draft EA report and to provide comments and recommendations to CAR and the Bank in order to improve the quality of the EA report. The comments of the panel of experts were used to improve the final version of the EA.</p> <p>During preparation of the proposed Project, CAR undertook water quality studies and modeling to evaluate the different collection, treatment and effluent management strategies. At the Project level, the analysis of alternatives was constrained by the need to support the expansion of the existing plant at Salitre. Technical alternatives such as wastewater capacity, treatment technology to meet effluent standards, and management of biosolids were considered in the 2011 feasibility study. The EA assesses the potential environmental and social impacts and risks, including those related to odors, noise, flora and fauna, and water resources.</p> <p><b><i>The Project EMP in Volume III of the EA covers the management and mitigation of potential environmental and social impacts. The EMP includes specific mitigation measures and monitoring arrangements for construction and operation phase impacts, including control of odors and noise; forest and visual management plans; contingency plans; communications; institutional strengthening and a separate and more detailed SSMP.</i></b> It describes in detail the institutional responsibilities, scope of work during implementation, and budget resources allocated. The EMP incorporates the environmental management plan from the 1995 EIA, which was approved as part of the environmental license issued by the Government for the Salitre WWTP. The EMP also includes as an annex a manual on environmental specifications for construction. The EMP defines the construction contractor's responsibilities, including requirements to develop and implement site-specific management plans.</p> <p>The layout for Salitre II and the proposed main technologies have been specified to a significant level. Some aspects of the final design need further definition, such as the odor control system, and the biosolids management system. The intent in the contract documents is to allow the turnkey contractor to further define the solutions for these subsystems as part of its detailed design responsibilities. The final detailed design is currently expected to be completed by October 2017. The contractor is further required to update the EMP to reflect the final detailed engineering design and submit it to CAR for approval, and to the Bank for its no objection. Portions of the EMP must also be updated, and approved by the</p>

No.	Claim	Response
		Ministry of Environment, per requirements established under resolutions associated with the environmental license.
3.	<p><b>Compliance with Domestic and International Laws</b></p> <p>The Project overlooked the Constitution of Colombia and international treaties signed and ratified by Colombia on environmental matters, biodiversity protection, etc. are being disregarded:</p> <p>Domestic Articles of the Constitution and other Laws that were not considered: Articles 2, 3, 4, 8, 13, 20, 29, 23, 79, 87, 89, 95-8, Law 21 of 1991, Law 99 of 1993, Law 134 of 1994, <u>Law 165 of 1994</u>, <u>Law 472 of 1998 - Art. 4 12</u>; the RAS Technical Standards such as 1 - 2 - 4 - 5 - 7 - 8 - 10 - 12 - 13 - 14 - 15 - 20 - 21- 22, Decree 330 of 2007 which regulates public hearings on environmental matters, and the repealed Decree 2762 of 2005 has not been complied with here.</p> <p>International Treaties signed and ratified by Colombia on Environmental Matters concerning Protection of Biodiversity, such as the Ramsar Convention, and the recent Paris Agreement to the decision of the Council of State of Colombia indicating that any project that is intended to be developed for decontaminating the river must be done provided river banks, wetlands, lakes, lagoons, flora and fauna of the environment, etc.) are protected, The Project violate the principles and agreements enshrined in Law 164 of October 27, 1994 (ratifying the country's adherence to the United Nations Framework Convention on Climate Change); the same applies to Law 629 of December 27, 2000 ratifying the country's adherence to the Kyoto Protocol on GHG (Greenhouse Gases).</p>	<p>The Requesters allege that the Government of Colombia is in violation of a range of its international and domestic legal obligations. Management is not aware of such violations. While such issues are for the Colombian Judiciary to determine, Management would like to point out that the Requesters' attempts to legally challenge Salitre II have been unsuccessful. Sovereign states have the authority to make such judgments, and in this case, the judgments are based on an essential effort to preserve Colombia's environment.</p> <p>Recent changes agreed on by the World Bank Board of Directors when it approved the Environmental and Social Framework (ESF) in August 2016 by not including in the relevant new standard the requirement of OP 4.01 for the Bank to opine on the "contravention" of multilateral environmental agreements (MEA), recognized the lack of the Bank's competence to judge a member state's compliance with national or international law.</p> <p>Management has carefully reviewed the cited international environmental treaties signed and ratified by Colombia and has found that there is absolutely no nexus between the various environmental treaties that are referred to, and the claims that are raised, as shown below. Management believes rather that the efforts to clean up the Bogotá River are supportive of the objectives of said MEA.</p> <p><b><u>UN Framework Convention on Climate Change (the UNCCC)</u></b>  Direct website link:  <a href="http://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf">http://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf</a>  Version with Annexes:  <a href="http://unfccc.int/files/essential_background/convention/background/application/pdf/convention_text_with_annexes_english_for_posting.pdf">http://unfccc.int/files/essential_background/convention/background/application/pdf/convention_text_with_annexes_english_for_posting.pdf</a>  The Republic of Colombia ratified the UNCCC on March 22, 1995. As a Non-Annex I Party, Colombia is required to report in more general terms on its actions both to address climate change and to adapt to its impacts and its reporting is contingent on getting funding for the preparation of the reports.</p> <p><i>Neither the decision to expand a WWTP nor its location have a profound impact on Colombia's actions to address climate change and to adapt to the impacts of climate change. There are no concrete obligations arising out of the UNCCC that should have been taken into account in the Project.</i></p>



No.	Claim	Response
		<p><b><u>Kyoto Protocol to the UN Framework Convention on Climate Change</u></b>  Direct website link:  <a href="http://unfccc.int/resource/docs/convkp/kpeng.pdf">http://unfccc.int/resource/docs/convkp/kpeng.pdf</a>  Main website:  <a href="http://unfccc.int/kyoto_protocol/items/2830.php">http://unfccc.int/kyoto_protocol/items/2830.php</a>  The Kyoto Protocol to the UNCCC was ratified by Colombia on November 30, 2001. The Kyoto Protocol mainly derives obligations related to emissions reductions for Annex 1 countries. Through the Bali Action Plan, parties to the UNCCC agreed on the principle of applying measurement, reporting and verification for developing country parties, which would include Colombia, <i>but even in this case, there is no relationship between the Project and any principles to which Colombia agreed to under the Kyoto Protocol.</i></p> <p><b><u>Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat</u></b>  <a href="http://www.ramsar.org/document/the-convention-on-wetlands-text-as-amended-in-1982-and-1987">http://www.ramsar.org/document/the-convention-on-wetlands-text-as-amended-in-1982-and-1987</a>  The Ramsar convention has been in force in Colombia since October 18, 1998. Colombia has six sites designated as wetlands of international importance under the Ramsar convention. <i>The alleged wetland and site for Salitre WWTP are not included among those six sites.</i></p> <p><b><u>Paris Agreement</u></b>  In the context of the Paris Agreement, Colombia has presented its intended national determined contributions, and its mitigation and adaptation goals. All these goals and intended contributions involve broad policy actions and measures to address climate change. <i>The agreement does not relate to the Project.</i>  Direct website link:  <a href="https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf">https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf</a> Main website:  <a href="http://unfccc.int/paris_agreement/items/9485.php">http://unfccc.int/paris_agreement/items/9485.php</a></p> <p><b><u>“Rio Protocol” – (This may refer to the Rio Conventions).</u></b>  It is not entirely clear to what the Requesters refer when mentioning the “Rio Protocol”. This could be the Convention on Biological Diversity, the UN Framework CCC, the UN Convention to Combat Desertification or the Rio Declaration on Environment and Development. From among those, the Convention on Biological Diversity is addressed below, the UN Framework CCC has been addressed above, and the UN Convention to Combat Desertification is not applicable to this Project. The Rio Declaration on Environment and Development is a generic document which contains principles intended to guide countries in sustainable development. <i>None of these</i></p>

No.	Claim	Response
		<p><i>conventions contain any specific provisions that could relate to the Project.</i></p> <p>Convention on Biological Diversity (<a href="https://www.cbd.int/doc/legal/cbd-en.pdf">https://www.cbd.int/doc/legal/cbd-en.pdf</a>) , UN Convention to Combat Desertification (<a href="http://www.unccd.int/Lists/SiteDocumentLibrary/conventionText/conv-eng.pdf">http://www.unccd.int/Lists/SiteDocumentLibrary/conventionText/conv-eng.pdf</a>) and annex V (<a href="http://www.unccd.int/Lists/SiteDocumentLibrary/conventionText/annex5eng.pdf">http://www.unccd.int/Lists/SiteDocumentLibrary/conventionText/annex5eng.pdf</a>) and UN Framework Convention on Climate Change</p> <p>Source: <a href="https://www.cbd.int/rio/">https://www.cbd.int/rio/</a></p> <p>Rio Declaration on Environment and Development <a href="http://www.unep.org/documents.multilingual/default.asp?documentid=78&amp;articleid=1163">http://www.unep.org/documents.multilingual/default.asp?documentid=78&amp;articleid=1163</a>)</p> <p><b><u>UN Convention on Biological Diversity</u></b></p> <p>Main site for access to convention text: <a href="https://www.cbd.int/convention/text/default.shtml">https://www.cbd.int/convention/text/default.shtml</a></p> <p>As in the case of all other international treaties and conventions cited by the Requesters, it is not clear which article of the UN Convention on Biological Diversity is alleged to have been violated by CAR. The UN Convention on Biological Diversity requires signatories to introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity. <i>An appropriate environmental impact assessment was carried out for the Project. .</i></p> <p><b><u>Domestic law-</u></b></p> <p>As required by OP 4.01, the 1995 EIA and its update of 2010 for the expansion of the Salitre WWTP includes a thorough analysis of all relevant constitutional, legal, regulatory and administrative provisions that apply to it. Other updates of the impact assessment include Ministry of Environment's technical statement (<i>concepto tecnico</i>) No 1692 of October 2, 2007 (referred in Resolution 1929 of 2007).</p> <p><i>As for any other analysis regarding compliance with Colombian national legislation, it is not up to the Bank to do so. This is subject to the jurisdiction of Colombian Courts.</i></p>
4.	<p><b>Evaluation of Wastewater Schemes for Bogotá City</b></p> <p>If WWTPs are the only technology solution that can be found, why not think about making plants in rural areas, in what is thought to be a <u>conurbation in the geographical triangle between Cota - Chía - Suba (one WWTP there), the Triángulo Fontibón - Funza - Mosquera, one there and another in southern Bogotá with Soacha and El Muña.</u></p> <p><u>The integration of these WWTPs with those in the upper river basin, if they are optimized and start to work well, with</u></p>	<p><i>It is economically and technically not feasible to change the location of the Salitre WWTP since the entire sewer collection system, including the main interceptors, is constructed to convey the wastewater from the northern side of the city to the existing Salitre I. The wastewater system design (collection, interceptors, and treatment) took into account not only the 10-year planning period indicated by the Requesters but also the growth of population over the next 30 years. <b>Changing the plant location would require rerouting large parts of Bogotá's</b></i></p>

No.	Claim	Response
	<p>collectors and interceptors in those municipalities headed for their WWTPs, would indeed cover all areas of origin of the pollution of the river in its three basins; the joint work of the three WWTPs suggested plus the others, would indeed yield a positive result in an integrated project, <u>thinking not only about ten years from the present but up to 200 years</u>; also in rural areas as can be seen by Google Earth satellite maps, there is room for it, without affecting wetlands and reserve areas by making them far from communities and urban areas.</p>	<p><b><i>main sewer network and would render the Project unfeasible. Additionally, the delays would continue the significant environmental and human health impacts associated with discharge of wastewater that is not properly treated into the Bogotá River.</i></b></p> <p><b><i>Management notes that wastewater management in the upper basin is part of the overall strategy to clean up the Bogotá River and not part of this specific Project.</i></b> The municipalities in the upper basin (Chia, Cota, etc.) are responsible under public service law for providing wastewater collection and treatment. CAR and EAAB are responsible for implementing the Bogotá City Wastewater Program to reduce domestic wastewater contamination in the middle basin. The Project focuses on this middle basin, where domestic wastewater contamination is the worst. The EA risk analysis (Volume 1) concluded that the poor functioning of the WWTP upstream of Salitre will not affect the water quality objectives envisioned in the Project. The total pollution generated by the upper basin municipalities is around 20 percent (3.5 m<sup>3</sup>/s) of the wastewater generated by Bogotá City, and the overall existing treatment rate is around 40 percent. Water pollution from these small municipalities is therefore an important, but not major, factor influencing water quality within Bogotá. The 2014 Supreme Court also includes specific actions for the municipalities to improve wastewater management in the Bogotá upper basin.</p> <p><b><i>Approach to Analysis of Alternatives.</i></b> The analysis of alternatives carried out for the Project has taken place both at the strategic level and at the site-specific level through the evaluation of alternatives for each of the proposed civil works. At the strategic level, in addition to the no-project alternative, the EA Volume I evaluates the risks of not achieving <i>Class IV Water Quality</i> in the middle basin through various scenarios, including wastewater treatment levels and the operation of other wastewater programs outside the Project scope. In addition, the three wastewater treatment schemes for Bogotá City – one-plant, two-plant, and three plant – developed in various technical documents over a period of 30 years, were summarized in the EA. At the Project level, alternatives were discussed for each of the specific civil works investments under Component 1 and Component 2 with respect to their technical configurations, such as location, design standards, and treatment level.</p> <p><b><i>Alternatives Considered.</i></b> Options considered included the proposed construction of one, two or three treatment plants. Specific alternatives were discussed in the context of regional and water resources planning and options were assessed at the level of the treatment plant and flood control works.</p> <p><b><i>The Selected Alternative.</i></b> The Government of Colombia</p>

No.	Claim	Response
		<p>initially decided that the preferred option was to have two wastewater treatment plants (one at Salitre and the other at Canoas) to serve the wastewater treatment needs of Bogotá City, based on a technical study conducted in 2003 by EAAB.<sup>30</sup> This plan was later supported by the National Planning Department (DNP) in the National Political and Economic Council (CONPES) 3320 document. The 1995 EIA also assessed the evaluation of alternatives. The selected alternative was approved as part of the 1996 environmental license for the wastewater treatment program for Bogotá, and reconfirmed in subsequent governmental reauthorizations (amendments) of the environmental license. At appraisal, the Bank team reviewed existing technical considerations for the two-plant decision and concluded that this was the best approach based on economic, environmental, and policy and regulatory issues. Regarding the plant treatment level, EA water quality modeling results supported the environmental license decision to expand the plant to a secondary treatment level to meet water quality objectives. It was also determined that the activated sludge process was the most likely option for a plant this size, as it is a proven technology, in particular for large WWTPs. In 2011, a Salitre II feasibility study updated population growth and wastewater flows and loadings, evaluated alternatives and prepared a conceptual design.</p>
5.	<p><b>Community's right to participation and Information</b></p> <p>The World Bank requires both public consultations be held with the community affected and that ongoing consultation with the community be maintained. It requires that the draft Environment Assessment for the project be made public for such consultations so that communities can present their objections for the entity in charge to appropriately include in the Final Evaluation. Consultations for the proposed expansion of the Salitre WWTP were made five years before the project contract, in 2009, and <u>were held without the presence of the community surrounding the plant</u>. The community was not invited by suitable means such as radio, television, billboards in the territory of the community, posts information or frills. Likewise, the hearing was not held in the territory of the community but at the headquarters of CAR.</p> <p>To date much of the community does not know the details of the Salitre WWTP expansion project and its negative environmental and public health impacts.</p> <p>CAR and Bogotá Water Company have held merely informative meetings in the community. These meetings reported the designs of the works but negative impacts are</p>	<p><b><i>The Project followed Bank policies and Colombian legislation for stakeholder consultation and access to information.</i></b></p> <p>Details on specific consultations are included in Annex 3. Major consultation events that occurred before Bank involvement include community engagement activities as part of the Salitre WWTP Phase 1, preparation of the 2004 Bogotá and UPZ 72 land use plans, and, issuance of the environmental license. Since the Bank's involvement, consultations have occurred on the preparation of the terms of reference for the Project EA, a community perceptions survey, and an ongoing process that will continue during implementation of the Salitre WWTP Phase 2 based on the SSMP and 2016 Action Plan.</p>

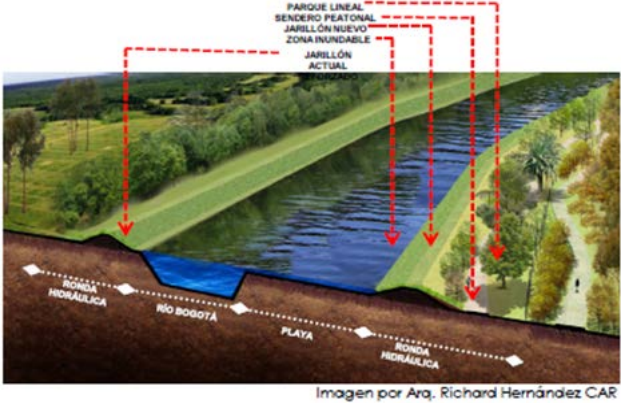
<sup>30</sup> This study was conducted by the water company to support changing the wastewater scheme from three plants to two plants. The 2011 feasibility study, which is the basis for the engineering design, includes updated data on population, wastewater flows and loads, and revised the proposed technology.

*Rio Bogotá Environmental Recuperation and Flood Control Project*

No.	Claim	Response
	<p>not mentioned and the community is not asked their opinion. The core of the meetings has been limited to saying "what is going to be done" but has not guaranteed the fundamental rights of participation and administrative due process of the community in the area of direct influence.</p> <p>The community was not invited to participate through the proper media such as newspapers, radio, television, flyers, community billboards, emails, or notices posted at housing complexes.</p>	
	<p>On December 22, 2014, CAR, created process "reconciliation" (Salitre Roundtable) process to which the community was not invited. Because in order to do so it must use appropriate means as radio, television, and advertising on billboards or flyers territory. The consultation process was not carried out in the territory of the community but held at the headquarters of CAR, which is located an hour's drive away.</p> <p>To date, the community within area of influence of the project has not participated in any roundtable on the design of the metropolitan park.</p> <p>Organizations, supervisory authorities, and citizens participating in the SALITRE WWTP roundtables and signatories of the agreements for compensation for the execution of the project are not residents in the community or nor are they numerically significant when compared with the total population of the territory.</p>	<p><b><i>Consultation records show that members of adjacent communities and local authorities, including residents of the UPZ 72, have participated in several meetings around the Salitre Roundtable.</i></b> In addition, several consultations were carried out in the area and appropriate means of advertising were used, including newspapers, contacts with the municipality and local representatives, and flyers). The Borrower indicated that some members of the Mesa Ciudadana Cortijo Tibaguya have opposed and interfered with CAR's outreach and consultation activities in the UPZ 72 by removing invitation flyers, sending e-mails asking people not to attend CAR events, and protesting loudly during CAR's presentation to the community.</p> <p>The Engativa Municipality, CAR and the SDA coordinated the meeting in December to initiate the Salitre Roundtable. Invitations were issued by e-mail and telephone to recipients included in a database provided by the Municipality of Engativa. Records indicate that the JAC Cortijo in UPZ 72 was invited and participated in this meeting. Records also indicate meetings conducted in community sites and with participation of the UPZ 72.</p>
	<p><u>The Colombian Constitutional Court in its binding judgment 348 in 2012 established socialization and consultation parameters with communities for megaprojects.</u> It has not yet been recognized that participation, the environment and information are fundamental rights, as developed by the decided cases of the Colombian Constitutional Court. When we are faced with megaprojects, rights are not only vested in ethnic communities, but in all communities in the direct area of influence of the projects, regardless of gender, race, social, political, or economic status, inter alia. To date CAR has not met any of the provisions ordered by the Court:</p> <ul style="list-style-type: none"> <li>• Make a detailed and comprehensive census of persons affected by the project.</li> <li>• Establish a consultation process on the project design with the community. This process not meant to simply inform the community of "what will be done" because the judgment clearly indicates that entities must report on the project in detail to the community, including the work to be done, motivations, studies, negative impacts</li> </ul>	<p><b><i>See Item 5 above.</i></b></p> <p><b><i>While it is not up to the Bank to interpret Colombian legislation or Colombian judicial decisions,</i></b> Management notes that the case quoted by the Requesters relates to a group of fisherman in Cartagena, not to the case discussed by the Requesters, and there is no reference in the case quoted by the Requesters about said decision having any effect other than on the parties in the particular case (no reference to effects <i>inter comunis</i>).</p>

No.	Claim	Response
	<p>and damages the environment.</p> <ul style="list-style-type: none"> <li>• The institutions also have a duty to listen and take their views of the community into account on the project.</li> <li>• To constitute a consultation process, the community must be sufficiently broadly informed on the formation of the process, using advertising, newspaper ads, community radio stations and private radio stations, advertisements in mass media communications and all methods that are useful to convene all the people in the affected community.</li> <li>• Only valid if consultations are made with free and informed consent of the community within the area of influence.</li> <li>• State entities should listen to the views of the people in the area of influence and should take them into account in the draft.</li> <li>• The foregoing notwithstanding whether or not the project is required to ask for an environmental license, because the sentence is quite clear in stating that all projects affecting the environment and life of the community, must necessarily exhaust the participation requirements identified by the Court and mentioned in the previous paragraphs.</li> </ul>	
<b>Alleged Adverse Impact on ecosystems in the Project site</b>		
4.	<p>The CAR disregard the report of the District Department of Environment (SDA) dated April 25, 2014, and states in its conclusions that the whole area has characteristics of a wetland and therefore its preservation is recommended; in that location there is a certified inventory and count of more than 30 kinds of birds (study by an ornithology company from the capital) and other ecosystems and aerial photographs show the wetland with its bodies and pools of water existing there (today 2016 there are 4) which after nearly six (6) months of intense summer by the “El Niño phenomenon” have not dried up, why?; because they are fed by aquifers fed by groundwater, water systems characteristic of wetlands according to the interconnection of which they are part, as is known from the Cerros Orientales, the Van Der Hammen, Torca, Guaymaral, La Conejera, Tibabuyes, Tibaguya (Cortijo) and Jabóque.</p>	<p><b><i>Management understands that CAR reviewed and considered this report.</i></b> However, in a communication to CAR, the SDA indicates that is not aware of the cited document and that the agency did not recommend protection of the area. In a document dated May 17, 2016, the SDA rejected a proposal to incorporate the “Cortijo Wetland” as an ecological district wetland. A July 2016 SDA report confirms that this “wetland” area is not part of the protected areas system of the Bogotá District, nor part of the special areas – with limited biodiversity values, ecosystems and habitats where the presence of flora and fauna is of temporal nature determined by the presence of water – where the SDA conducts environmental management actions. It also highlights that during the process of verifying the biodiversity characteristics of the area designated for the expansion of the Salitre WWTP, an area that experiences temporary flooding (the alleged wetland area) was identified, with the presence of flora and fauna that is temporary in nature, as it is determined by the temporary flooding.</p> <p>Regardless of this, however, CAR has recognized that the Salitre II site has some environmental and scenic value to the adjacent communities and therefore, with input from relevant stakeholders, CAR has been working to develop alternative ecological recreational outlets and restoration of environmental areas in nearby locations. See Item 9</p>




No.	Claim	Response
		<p>below.</p> <p><i>These additional efforts undertaken by CAR, however, are not required by Bank policy.</i></p>
5.	<p><b>The Tibaguya Reserve</b></p> <p>The project <u>site area is part of the Rio Bogotá floodplain, which is an ecosystem of the river itself and is part of the district capital's protected areas and is integrated in the Main Ecological Network of the city by decree 190 in 2004.</u></p> <p><u>The neighborhoods of Ciudadela Colsubsidio, Quintas de Santa Barbara and Cortijo were built in the flood zones of the Juan Amarillo and Bogotá Rivers. The destruction of much of the floodplain by the construction of the Salitre WWTP increases the risk of flooding for the Cortijo, Quintas and Ciudadela neighborhoods because it eliminates the ecosystem that naturally receives and stores the waters overflow the product rising and flooding.</u></p> <p>Based on the analysis included in the Request (Somos Uno Pag 12 -14), the flood protection structure of the plant is not sufficient since it is designed for a level of risk that has already occurred in the Bogotá Savannah during the La Niña phenomenon in 2010-2011, which increases risk because the structure is intended to be built in the floodplain of the river that is the ecosystem that serves the function of receiving the rising river. The Salitre WWTP Phase II flood reduction system does not offer the same level of protection as the Tibaguya Reserve.</p> <p>According to bidding documents, the total influent system is designed for peak flow events of 24m<sup>3</sup> / s. <u>The structure of the channels measuring treated water from the Phase I Plant has elevated to 43.64 m<sup>3</sup>/s, a higher level of flow than expected for a flood event with a return period of 10 to 100 years.</u></p>	<p>As indicated earlier, the “Tibaguya reserve” is not part of the Bogotá District’s protected areas and is not integrated into the main ecological network of wetlands.</p> <p><b>Rio Bogotá Flood Control Works.</b> The Bogotá River’s floodplain has changed since completion of the flood control works (Project Component 2).<sup>31</sup> With the new river works, flood protection has improved significantly in the area, from around a 20-year flood to a 100-year flood, and the floodplain will be contained within the new flood control structure. The embankment elevation is 1.7 meters above the elevation of a 100-year flood providing a safety margin (see Figure A.1).</p> <p><b>Figure A.1. Flood control profile – Bogotá River</b></p>  <p><b>Salitre II.</b> The plant is designed to manage a peak storm water flow that enters the influent channel in a 100-year storm. This peak flow is estimated at 26 m<sup>3</sup>/s. The plant will be able to operate at 21.5 m<sup>3</sup>/s and for higher flows there will be an operational protocol to adequately manage the excess. The Requesters incorrectly cite an elevation of 43.64 meters as a flow rate measurement and from that conclude that the plant will not have the capacity to manage peak storm flows. This measurement corresponds to the elevation of the embankment in the Salitre influent channel. At the 26 m<sup>3</sup>/s peak flow, the water level in the channel would be 43.25 meters; therefore, channel overflow is not expected. Furthermore, backflow from the Bogotá River to the influent and effluent channels is not expected as the water level in the Bogotá River is at 42.98</p>


<sup>31</sup> Floodplain is defined as the area subject to a one percent chance of flooding in any given year (also referred to as the 100-year floodplain).

No.	Claim	Response
		<p>meters.<sup>32</sup></p> <p>Based on the above explanation, Management does not agree that the UPZ 72 is located in a floodplain and that the construction of the Salitre WWP will increase the community's risk of flooding.</p>
6.	<p><b>The Tibaguya Forest</b></p> <p>The project will harm 35 hectares of forest, which provides oxygen to the area and to Bogotá, in exchange for 9 synthetic fields for soccer and other sports, when there are already in the area more than 15 mini parks with more than 9 soccer fields and other abandoned sports facilities.</p> <p>The forest ecosystem consists of species of trees planted by the water company (EAAB) in 1998 by order of the Ministry of Environment as part of the Environmental Management Plan for the environmental license issued for the SALITRE WWTP (Resolution 817 of July 24, 1996) with the primary objective of reducing the impact of odors generated by the wastewater treatment at Salitre in order to improve the landscape.</p> <p>The sector's air quality is affected by vehicles traveling every day along Avenida Calle 80 and the discharge of pollutants made by companies and industries in the Cota Township Industrial Zone that borders our community. The reserve is a lung that can reduce air pollution levels and improve the quality of life and health of the inhabitants.</p> <p>The forest directly influences the health of other ecosystems in the area, which are the Tibaguya wetland and Tibabuyes Wetland, because it allows wildlife to move between wetlands in the locality. It is also a bank of seeds and genetic material and maintains the microclimate stability and rainfall. The rainwater feeds three wetlands bordering the reserve: Jaboque, Tibabuyes and Tibaguya. There is no vegetation cover in the Jaboque or Tibabuyes Wetlands of the same quality, lushness and diversity, features that influence the isolation and protection the animals seek in the forest to live and reproduce. For this reason the reserve becomes an ideal habitat for many species and a strategic ecosystem for conservation of the diversity of the city and the savannah of Bogotá.</p> <p>The forest reserve has proved very effective in recovering the soil after being a garbage dump. Currently we note trees, shrubs and plants of various species and of all ages and an understory full of a variety of plants and organic matter.</p> <p>The community of UPZ 72 usually frequents the woodlands on weekends when tours and bird sightings are organized. The activities are guided by community residents, last about</p>	<p><i><b>The trees and vegetation referred to as “Tibaguya forest” are not a forest reserve or a formally designated or protected environmental area. The area directly affected by Salitre II consists mainly of grassland with some bushes and trees. The area had been used as a dumping ground until 1987. Since then, some natural revegetation has developed on this significantly degraded area where dumping was carried out, partially due to the extensive tree planting undertaken to create an environmental buffer for Salitre I.</b></i></p> <p><i><b>It should also be noted that the area of the “Tibaguya forest” is not designated for public use since, as a former dump, it may present potential health risks. The Project includes provisions to enhance the environmental buffer zone around the Salitre WWTP and improve the vegetation by replanting native tree species and removing invasive species.</b></i></p> <p>Salitre II requires approximately 33 ha, in a location that was already degraded as an open dump site. The Project EA and earlier EIA did not identify the presence of any significant or sensitive natural habitats or any critical natural habitats in the directly affected area; nor did they identify any significant environmental impacts (including significant conversion or degradation) of natural habitats.</p> <p>The area of the Salitre plant Phase II consists of mainly grassland with some bushes and trees. The trees are located mostly along the site boundary, which is part of the environmental buffer zone, and will not be affected. Adjoining the WWTP is the area planned for the metropolitan park (31 hectares) and additional environmental buffer. Approximately 57 percent of the area assigned for the park site contains trees, of which reportedly about 90 percent are alien invasive species. Forest inventory will be conducted to confirm.</p> <p>The Project design and EMP include various relevant measures, such as maintaining and enhancing the existing trees that are part of the environmental buffer, and also a plan for management (including relocation) of fauna during plant construction.</p>

<sup>32</sup>Reference: (i) Estudio Adecuación Hidráulica Rio Bogotá, Figura 8, Monsalve 2008 and (ii) Annex 2, Estructura de Entrada and Annex 4 – Entrega de Aguas Efluente Final, Preliminary Design, Hazen & Sawyer.



No.	Claim	Response
	<p>2 hours and in them people are informed about the history and importance of the ecosystem. The reserve is an outdoor classroom where the community has been able to observe and learn the process of decomposition of organic matter, the recovery process of nature and the impacts to the environment from human consumption and waste. The reserve embellishes and adorns the landscape of the area, it becomes a place of peace and calm. In general, the perception of people around the reserve is welcoming, affectionate, surprised at its beauty, joy and concerned that it may be destroyed.</p>	<p><b>Figure A.2. Environmental Buffer Zone</b></p>  <p>The Project requires the contractor to conduct a forest inventory before starting construction and to implement a management plan (reforestation is part of the EMP) to take steps to minimize alien invasive species, per environmental regulations. The Project will enhance the environmental buffer zone by planting additional trees. The trees in the proposed park will be replaced with native vegetation improving environmental conditions of the site.</p>
7.	<p><b>Tibaguya Wetland and Identification of Aquifers</b></p> <p>The expansion of the Salitre WWTP will destroy the Cortijo Tibaguya wetland. Over time the size of the wetland has increased to its current size, with a water surface of 307.04 meters long and 33 meters at its widest part</p> <p>The “El Cortijo” or Tibaguya water body is fed by groundwater and is a remnant of the ancient wetlands of the area. Its ecosystem recovery has been ongoing for 30 years now.</p> <p>Aquifers have been identified in the ground. The presence of aquifers and groundwater flows in the reserve is supported by three studies: (i) study about Dona Juana dump, (ii) INGESAM URS, and the EIA Phase I Salitre WWTP.</p> <p>The wetland is the home of over 50 species of wildlife and more than 35 species of flora to build in its place storage tanks for sludge and methane.</p>	<p>See also Item 1 regarding the “Cortijo-Tibaguya wetland” (and Figure A.3 below).</p> <p>The presence of water varies during the year. The potential impacts on natural habitats and flora and fauna (including wetlands) were considered as part of the Project EA. As with the “Tibaguya reserve” no significant or sensitive wetland natural habitats were identified nor were any significant environmental impacts (including significant conversion or degradation) of wetland natural habitats found. Water quality analysis suggests contamination in the “wetland,” likely from leachate from the old dump on the site.</p> <p>See also Item 5.</p>

No.	Claim	Response
		<p><b>Figure A.3. Water in the "Cortijo-Tibaguya wetland"</b></p>  <p>With regard to groundwater, neither the Project EA nor the earlier EIA identified any negative impacts on groundwater due to the Project. According to the geotechnical investigations carried out for these studies and for the preliminary engineering design, the soil below the site consists of solid waste (varies from 2 to 7.5 meters) and a layer of clay to significant depths. No significant aquifers were identified at less than 100 meters' depth, except for some shallow phreatic ground water. According to the geotechnical studies, the permeability in the site is low.<sup>33</sup></p>
8.	<p><b>Fauna in the Reserve</b></p> <p>The Tibaguya reserve is the habitat of several species of native Bogotá wetlands and it functions as an ecological corridor. The reserve strengthens the city's system of ecological corridors because of its extension and its location, it is in a transition zone between the savannah and the city near several ecosystems of great importance.</p>	<p>The Project EA assessed potential impacts on fauna due to the Salitre WWTP. The EMP includes a plan for identification and management of fauna during plan construction, such as identification of terrestrial fauna (amphibians, reptiles, birds, mammals in directly affected area), capture and release to other locations, and monitoring. Based upon the available information, Management considers that Salitre II will not result in significant conversion of natural habitats and will not significantly impact fauna.</p>
<p><b>Alleged inadequate proposed compensation activities, including the Metropolitan Park and the Nuevo Cortijo constructed wetland, to offset environmental impacts</b></p>		
9.	<p><b>Shortcomings to the approved compensation for the destruction of the Ecosystem</b></p> <p><b>Compensation agreement with the Salitre Roundtable</b></p>	<p><i>There is no requirement per Bank policy or the Project EIA and EMP to create an "offset" for loss of vegetation, including for the area referred to as "wetland" in the Request. As noted above, the area does</i></p>


<sup>33</sup> Studies include geotechnical study (Hazen & Sawyer 2010), Plan Maestro de Recursos Hídricos, Nippon Koi – INAR.

No.	Claim	Response
	<p><b>did not include affected communities.</b></p> <p>On February 9, 2014, CAR, the Ministry of Environment, and the EAAB, signed the agreement "Roundtable Agreement of compensation for the affects to the wetland in the development of the Salitre WWTP optimization and expansion project" with the signatures of 23 people from NGOS and in a process that was not overseen by members of the community from the project's direct area of influence. This agreement proves the design of the park is enshrined in Decree 470 of 2006. The design is harmful to wildlife and the ecosystem of the reserve because the design includes the installation of hard cement areas, skateboard ramps, climbing walls, lighting, parking, bathrooms, administrative areas and bike paths and destroys the ecological corridor connecting the La Florida, Jaboque, Tibaguya, Tibabuyes, Hutch wetlands and the Cerro Majuy.</p> <p>In that agreement, the compensation measures were accepted for the construction of the project and it accepted, on behalf of the community, the destruction of the Tibaguya-Cortijo wetland.</p> <p><b>Inadequate wildlife relocation plan</b></p> <p>The study of transfer of wildlife and wildlife characterization studies prepared by the Bogotá Ornithological Association ABO as part of their contract with CAR on Tibaguya Wetland are incomplete because they only <u>identified bird species</u>, i.e. the different species of mammals, reptiles, arachnids and amphibians that inhabit Tibaguya reserve and the number of each are unknown. The transfer of curies and the number and way of life of this species in the reserve have not been analyzed by CAR.</p> <p>The species in the Tibaguya reserve were not identified and were limited to the Tibaguya-Cortijo body of water representing only 1.5 hectares of total 113 hectares of wetland reserve. The search and rescue protocol leaves out the species living in the planted trees, scrubland, other aquifers, pastures and general throughout the reserve where guinea pigs, frogs, snakes and various species of birds live.</p> <p>Wildlife from the Tibaguya Wetland will be transferred to the following ecosystems: (i)South Western Sector Tibabuyes Wetland, (ii) Madre Vieja del Neuque, (iii) "New Cortijo" Filter wetlands, and (iv) Chucua los Curies. These ecosystems have high levels of human intervention and low vegetation cover, poor water quality, reduced food and refuge for the species and limited possibilities of subsistence (ABO Final report. 2015)</p> <p>The ABO recommends Chucua Los Curies be excluded from the wildlife transfer zones on the grounds that it presents high anthropic intervention (Human), limited supply of food and shelter for animals and little mulch. With respect to all ecosystems proposed to transport fauna, ABO concludes, like us, that there is no ecosystem that can provide the plant</p>	<p>not consist of unaffected natural habitats or sensitive or critical habitats per Bank policy, and Salitre II will not result in significant conversion or degradation of natural habitats.</p> <p><i><b>However, CAR recognizes that the Project site offers some environmental and scenic value to the adjacent communities.</b></i> Therefore, with input from relevant stakeholders, it has been working to develop alternative recreational outlets and restoration of environmental areas in nearby locations. These environmental enhancement features include: (i) ecological features in a Metropolitan Park adjoining Salitre II (approximately 80 percent of the 31 hectares are assigned for ecological use); (ii) a newly constructed wetland (Nuevo Cortijo) next to the Tibabuyes Wetland (approximately 10 hectares); and (iii) restoration of a Juan Amarillo meander (Neuque). These enhancements were developed as part of the Salitre Roundtable agreement, which includes residents from the localities of Engativá; residents from the UPZ 72 have participated in several meetings. The agreement also includes the Bogotá River wetland restoration project (<i>filtros de humedales</i>), which is included in Component 2.</p> <p>In terms of the sites proposed for relocation of animals during construction, this is the responsibility of the Colombian regulatory agency. Salitre II will not result in significant conversion or degradation of natural habitats per Bank policy, thus no offset is required. CAR has indicated that it is open to discussion on which areas could be used. It should be noted that during construction, some fauna will be able to relocate naturally (e.g., some birds, etc.). The suggestions in the Request will be passed on to CAR for its consideration. <i><b>CAR also agreed in the Salitre Roundtable to conduct a fauna assessment to complement the bird study in the project site, for which it is developing a work program.</b></i></p>

No.	Claim	Response
	<p>cover and shelter offerings available at the Tibaguya reserve. The report argues that none of the ecosystems pro-posed for the transfer of species that are part of the compensation proposal have the important elements for maintaining a high diversity of species: diversity of composition and structure of the vegetation cover, the presence of herbal and arboreal vegetation in the hard parts of the area, diverse plants in the wetland areas, and bodies of water,” silence and lack of negative impacts caused by humans.</p> <p>The places for compensation are not much more than a strip of land, some only have a width of only 11 meters (about), it is difficult to ensure that mammals can survive without vegetation cover which would have to be planted and the trees must reach the same size, thickness, height diversity as the reserve. Added to this, the zones of compensation will be infiltrated with trail construction or hydromorphological reformation and dredging, which are extremely invasive works that cause the death and displacement of wildlife. That is to say, it seems it is planned to move wildlife to a place that will also be impacted by interventions.</p>	
10.	<p><b>Parks</b></p> <p><u>Why is the IDRD thinking of creating new Metropolitan Parks (MP-10) in the area of the referenced wetland, when for years it has not done maintenance work, or provided sports infrastructure in over 50 mini parks in Locality 10 of Engativá? On this point, the UPZ 72 area has more than 20 mini parks, abandoned and totally lacking in maintenance of its physical infrastructure, funding, and community sports grounds; This community states that it does not need more parks; what we do want, require, and request is the maintenance, restoration and improvement of existing ones.</u></p>	<p>The proposed Salitre Metropolitan Park is part of the 2004 Bogotá and UPZ 72 land use plans. The Park is a strategic project to meet Bogotá City’s objectives to increase recreational opportunities and green open spaces for the enjoyment of its residents. The Park is not designed to serve only the UPZ 72 but a larger population that lives in the northern part of the city. According to the Park master plan, the Park will benefit around two million people in the Suba and Engativa localities. The planning processes for the Park have included community consultations with local authorities and community representatives. The Salitre WWTP environmental license includes plans for the construction of a recreational area on approximately 31 hectares adjoining the Salitre WWTP. The original park design was approved by the District in 2016, by Decree 470 of 2006.</p> <p>At the request of local NGOs and community representatives in the Salitre Roundtable, the approved Park design was modified to include proposals from that group for enhanced ecological and environmental features of the Park. The new Park will approximately double the green area and ecological space in the previous design.</p> <p>Management notes that the Metropolitan Park will be constructed in an area of 31 hectares. The purely active recreational area will only represent 20 percent of the area; the remaining 80 percent is dedicated to increasing vegetation and creating passive ecological recreation.</p> <p><i>Management notes that there was strong participation of local NGOs and community representatives during discussions about the design of the Metropolitan Park in the Salitre Roundtable, which contributed to the enhanced ecological features. While the organizations</i></p>

No.	Claim	Response
		<p><i>representing the Requesters opposed the Park, other community members welcomed it.</i></p> <p>Management does not have sufficient information to comment on the condition of the mini-parks. The Metropolitan Park will be maintained by the District, as this is one of its responsibilities.</p>
<b>Alleged adverse health and economic impacts on the communities due to the construction and operation of the Salitre WWTP</b>		
11.	<p><b>Salitre WWTP Impacts</b></p> <p><b>Plant distance from the community</b></p> <p>Once expanded, the plant will be less than 100 meters from community housing and the Tibabuyes Wetland (Juan Amarillo Wetland).</p> <p><b>Annex I of the Protocol for Monitoring, Control and Supervision of Offensive Odors prepared by the Ministry of Environment and Sustainable Development, which states that the minimum distance to prevent and mitigate offensive odors generated by wastewater treatment plants is 500 meters for aerobic systems and 1000 meters for anaerobic treatment systems.</b> The Salitre WWTP will employ a system that includes an anaerobic section and another aerobic section and therefore the <b>minimum distance should be greater than 1000 meters.</b></p> <p>Technical Norm of the Water and Sanitation Sector in Colombia – RAS (Resolution 1096 of November 17, 2000) states that the plants shall not be located close to special habitats such as natural wetlands or other critical ecosystems or close to recreation areas unless it can ensure there will be no impacts. Where deemed necessary, it is recommended that an assessment be made about the presence of cultural, historical or archaeological resources on the site.</p> <p>The operation of the plant will generate odors and cause diseases carried by vectors such as mosquitoes, flies, and chemicals used in the treatment process.</p> <p>The final distance between the plant and the community is very important to determining the level of air pollution impact as the toxic odors and pollutants only dissolve in the air at an appropriate distance. Consequently the people closest to the source of the emissions with suffer more from the effects.</p> <p><b>Chemicals used in the operation of the Salitre WWTP</b></p> <p>Water treatment, according to the Ministry of Health and Social Protection and the Pan American Health Organization in 2012, generates substances like ammonia, dimethyl sulfide, sulfur dichloride, methylamine, trimethylamine and hydrogen sulfide.</p>	<p><i>Management maintains that this Project complies with Bank policies, is technically sound and uses the appropriate technology. The technical design has been carefully prepared with the support of an international engineering firm and experts from the private and public sectors.</i> The Project has been designed in such a way as to provide an environmentally and socially sound solution to problems of contamination and wastewater management in Bogotá City and surrounding areas, taking into account the urbanization of the future plant perimeter. This response is organized in three main sections: (i) distance, (ii) impacts from the operation and construction of the Salitre WWTP, and (iii) odor treatment system.</p> <p><b>Distance from the community</b></p> <p>The Requesters’ analysis of the minimum distance is not completely accurate. Management notes that the allegation is based on a selective reading of the applicable regulations. For example, when citing the Technical Norm of the Water and Sanitation Sector in Colombia – RAS (Resolution 1096 of November 17, 2000) in Article 163, the Request fails to mention that the minimum distance from <i>a wastewater treatment plant to a residential area is 75 meters, not 1,000 meters as mentioned in the Request.</i> As indicated in the Salitre WWTP engineering design, all distances to main plant processes are greater than 75 meter (Refer to Figure A.4). It is important to mention that the RAS Technical Norm is the standard of engineering design in Colombia.</p> <p><a href="http://www.minvivienda.gov.co/ResolucionesAgua/1096percent20-percent202000.pdf">http://www.minvivienda.gov.co/ResolucionesAgua/1096percent20-percent202000.pdf</a></p>



No.	Claim	Response
	<p>Additionally the Bidding Document for process BM_LPI_01_2013, page 88, indicated that the final effluent will be disinfected with sodium hypochlorite (NaOCl) solution. This implies the transport, storage and release of the substance in the environment.</p> <p>For the treatment of odors the Plant will use:</p> <p>"The system selected for treating odors in the Salitre WWTP is a countercurrent chemical gas scrubber with multiple stages (Multiple Stage Chemical Scrubber), due to their cost-effectiveness, low area requirements, and its excellent performance and process control."</p> <p>"However, the (activated sludge system) will allow for alternative odor control systems versus the scrubbers recommended by the consortium. The alternative technology is Biofilters, known as Biorem."</p> <p>(...) "The initial operator must remove and treat hydrogen sulfide among other pollutants using sodium hydroxide (NaOH) and sodium hypochlorite (NaOCl). In addition, a third storage tank and chemical feed must be installed. If required in the future the chemical feed and odor removal system should have the ability to remove ammonia.</p> <p>The Protocol for Monitoring, Control and Supervision of Offensive Odors issued by the Ministry of Environment, Housing and Territorial Development of Colombia, (Page 54), indicates that the use <u>of industrial odor control technologies should be the last option and that the first step that must be respected, is to keep safe distances because it is the most efficient and safe way to ensure that no negative impacts occur in the communities and the environment:</u></p> <p><i>"The (...) masking compounds of neutralizing agents (...) are products for the treatment of diffuse odors from places like (...) wastewater treatment plants, (...) and general <b>activities with a large area. However, this should be a method to be implemented as a last resort after odor-management practices by using damping distances.</b></i></p> <p>The substances used for the treatment of odors are sodium hydroxide (NaOH) and sodium hypochlorite (NaOCl). The byproducts of odor treatment are sulfate and sodium chloride. According to Annex No. 13, substances resulting from treatment in the scrubber will be discharged into the atmosphere.</p> <p>The CAR argues that the scrubber technology was chosen due to its low cost relative to its effectiveness, low area requirements and excellent performance and process control. However, during selection no exercise was done to compare the advantages against the disadvantages and failures that occur in these systems.</p> <p>According to the Ministry of Health and Social Protection these systems do not have a high level of performance because they require constant maintenance and form odors in</p>	<p><b>Figure A.4. Distances from Salitre WWTP Expansion to Residential Area. Minimum distance is 75 m per technical guidelines (RAS)</b></p>  <p>The Protocol for Monitoring, Control and Supervision of Offensive Odors (Resolution 2087 of 2014) issued by the Ministry of Environment <b>does not include an annex 1 with suggested distances</b>. The Requesters may be referencing a draft protocol that was published on the Ministry web site for consultation purposes; however, the approved version does not include the cited distances. The approved Protocol can be found here: <a href="http://www.minambiente.gov.co/images/Asuntosambientales/SectorialyUrbana/pdf/emisiones_atmosfericas_contaminantes/Resoluci%C3%B3n_2087_de_2014_-_Protocolo_Olores_Ofensivos.pdf">http://www.minambiente.gov.co/images/Asuntosambientales/SectorialyUrbana/pdf/emisiones_atmosfericas_contaminantes/Resoluci%C3%B3n_2087_de_2014_-_Protocolo_Olores_Ofensivos.pdf</a>.</p> <p><b>Noise and odor impacts generated by the construction and operation of the Salitre WWTP.</b></p> <p>The 2014 preliminary engineering design of Salitre II, which is the basis for the Salitre turnkey contract, followed good practices and international standards for preventing and mitigating noise and odor impacts of the plant. The design established measures to prevent and reduce the presence of offensive odors, measures to reduce the generation of ambient noise and measures to prevent air emissions. The Salitre II contract includes:</p> <ul style="list-style-type: none"> <li>• The implementation of the Reforestation and Landscaping Plan at the Project site to improve the environmental buffer zones, which will assist in mitigation of potential visual, noise and odor impacts generated by the plant.</li> <li>• Technical specifications for the plant take into account isolation of noise-generating equipment, and appropriate technologies for collection and treatment of odor generating gases.</li> </ul>



No.	Claim	Response
	<p>the process: "The main drawback of these processes is the difficulty to maintain effective feed rates (...), (since) saturation of the bed is frequent; also the formation of chlorinated odorous compounds in the treated effluent (...). " The performance and effectiveness of the scrubber is moderate and not high, because of the constant maintenance and strict control requirements and in any case the treatment process produces odorous substances. The disadvantages of using a scrubber system are that in certain cases scrubbers will require the use of more chemicals to treat odors, which implies the transport, discharge to the environment and storage of these chemical substances near the community. More byproducts and contaminants compounds are also generated.</p> <p>The disadvantages of scrubbers are greater than the levels of efficiency and economy expected because they must first meet the high efficiency and safety standards for which costly investments are required for permanent installation and maintenance. Second, decontaminating the scrubbers requires the use of natural resources such as water and clean air that will enter the environment altered and the treatment produces substances that generate odors. Third, they create an additional condition of risk to communities and environment as they are a source of chemical contamination and odor.</p> <p>According to the Agency for Toxic Substances and Disease Registry of the United States of America -ATSDR- (English acronym), sodium hydroxide (NaOH), sodium hypochlorite (NaOCl), ammonia and hydrogen sulfide are dangerous substances to health and the integrity of humans and animals. Regarding inhalation, they produce serious conditions and even prolonged exposure causes inflammation of the airways and fluid retention in lungs.</p>	<ul style="list-style-type: none"> <li>• The contract includes five strict performance guarantee measures that the contractor will need to meet. Two are for noise and odor emission limits at the perimeter of the plant. This includes specific test guidelines and emission limits that the contractor will need demonstrate to obtain a Certification of Operational Completion. These limits are within international and national standards for the operation of WWTPs. The contract also requires use of mathematical modeling and monitoring to further assess potential impacts.</li> <li>• The contract includes a comprehensive odor control plan with (i) adequate technology for odor treatment in key processes (preliminary treatment and sludge management facilities), (ii) implementation of an air emission monitoring program for the existing and new plants during the contract duration, (iii) development of an odor and air emission model, and (iv) transfer of and training on the odor control model to EAAB. The contractor will also address existing odor issues by covering and improving the operation of the Salitre influent channel, eliminating the open influent pumps with a closed system.</li> </ul> <p>The CAR Project Manager will provide adequate oversight to ensure that the contractor meets the contract specifications; furthermore, the Ministry of Environment requires EAAB to monitor and report odor emissions to verify compliance with the environmental license.</p> <p><b>Odor Control System.</b> Management notes that the scrubber technology for odor control proposed in the preliminary engineering design has been widely used in wastewater treatment plants in the United States, Europe and Japan. This is an established and proven method of odor control which is working well, with no harm known to human health. Engineering studies and real-time plant operations conclude that the scrubber system is an efficient and safe method to control odor if properly managed, as will be the case for the Salitre WWPT expansion.</p> <p>The scrubber system was selected during the evaluation of technologies for the preparation of the preliminary engineering design. Four different technologies were evaluated, based on technical, economic and environmental criteria. The minimum efficiency removal is 95 percent, corresponding to 0.1 ppm H<sub>2</sub>S. It is important to note that the turnkey contractor has the possibility to propose a different technology than scrubbers during the preparation of the plant detailed design.</p>

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		<p><b>Chemicals.</b> The Salitre II Project's detailed engineering design and EMP will take into consideration chemical handling and safety following national and international standards. Specific provisions at the plant to ensure employee safety include keeping Material Safety Data Sheets and providing employee training on how to safely handle the chemicals and take protective measures. Technical standards will take into consideration adequate storage and protective barriers in case of chemical spills. With respect to the community, the contractor is responsible for preparing a risk management plan that includes an analysis of potential offsite consequences for a worst-case accidental release, prevention program and emergency planning.</p> <p><b>Vectors.</b> The EMP has adequate measures to control vectors. Vectors might be a temporary issue during construction as a result of site preparation activities, which the EMP addresses. However, they are not expected to be a significant issue during plant operation.</p>
12.	The expansion of the Salitre WWTP will cause a devaluation of local property values and owners have begun to sell property in the area to avoid losing money.	<p><b>Home values in the Cortijo area, located near the Salitre WWTP have risen steadily since 2010.</b> An informal comparison of property values from neighboring areas performed by the Bank team, including others from Bogotá's northeast sector, plotted with dashed lines, indicates similar within-year seasonality and general appreciation of home values across years (see Figure A.5). This pattern of property value appreciation has continued over the last two years even though the proposed expansion of the Salitre WWTP has become known. Thus, the data do not substantiate the notion presented in the Requests that the Salitre WWTP has driven down property values.</p> <p>In Management's view the Project will likely lead to a significant improvement of the overall neighborhood though the benefits generated by the Project: retrofitting of the existing WWTP with odor removing technology, cleanup of the highly polluted river, development of environmental enhancements, including more park land.</p>

No.	Claim	Response
		<p><b>Figure A.5. Development of Property Values</b></p>
<b>Alleged Deficient Design and Inappropriate Selection of Technology</b>		
13.	<p><b>Wastewater treatment capacity</b></p> <p>The Project does not include treating the waters of the Juan Amarillo River, nor those of the Tibabuyes Wetland that contribute to pollution of the River, and which are close to the WWTP. <b>Why is it expected that the project will not construct interceptors to collect wastewater from Suba and other neighborhoods that pollute the Bogotá River more to the north of the city which is discharged into the River, and as is verified flows into the Tibabuyes Wetland and from there to the Juan Amarillo River, and then to the Bogotá River.</b></p> <p>If the design of the expanded plant is to treat + - 7.5 to 8 mts<sup>3</sup> and the flow of the Salitre River with the Wastewater is greater, and even more so in the rainy season with flows from the Kennedy and Engativá interceptors; why insist on a project that will not have the actual treatment capacity and efficiency required for the task given the discharge by the Box Culvert with its inflows.</p> <p><b>Design population</b></p> <p><u>Why would one carry out projects with designs 8 or 10 years old and for a population of 8 million residents; when we are currently more than 9 million and would be more than 12 million residents,</u> with the city region that is intended to be developed, therefore one can foresee that this project would be impractical given its final objective of decontaminating the Bogotá River.</p> <p><b>Plant technology issues</b></p> <p>Why does CAR and other entities insist on using WWTPs, which are obsolete technologies, compared with what countries like Japan and Europe are doing today.</p> <p>Other technologies do not generate impacts on health and the environment for communities; they give over 95 percent guarantees o effectiveness in terms of depolluting the river</p>	<p><i>Management notes that there are many different interventions that will contribute to the overall clean-up of Bogotá's urban rivers and wetlands, such as the Juan Amarillo River, the Tibabuyes Wetland, and the Bogotá River.</i> These interventions are part of the Bogotá City Wastewater Management Program and the Bogotá River Environmental Clean Up Program, both of which are covered under the 2014 Supreme Court ruling.</p> <p><i>The Salitre WWTP expansion is an essential component of the overall clean up strategy, because it will treat wastewater from the northern part of Bogotá (about 30 percent of total domestic wastewater generated in Bogotá City).</i> Wastewater from the rest of Bogotá will be collected and conveyed downstream to the future Canoas plant, which is located approximately 8 km south of Bogotá. The Salitre WWTP will treat about 7 m<sup>3</sup>/s average design flow generated from the Salitre, Torca and Jaboque micro basins. The collection and conveyance (i.e., main interceptor) systems that feed into the Salitre WWTP will prevent wastewater from reaching the Juan Amarillo River.</p> <p>The wastewater is collected by a system of sewers and interceptors that transport the wastewater from the Salitre, Torca and Jaboque basins to the Salitre WWTP. EAAB constructed the sewer system, which includes three main wastewater interceptors (Incor, Gabilanes, and IRB).</p> <p>However, the Juan Amarillo River and Wetland will still be contaminated by some untreated wastewater from illegal connections (sewer connections that empty to stormwater systems), and urban stormwater runoff. To address this issue, EAAB has embarked on a</p>

No.	Claim	Response
	<p>compared with what CAR is offering us with Oxidation Ponds and Activated Sludge Treatment technology that do not exceed the actual proposal of <u>65 percent effectiveness</u>.</p> <p>The director of CAR himself said this in radio interviews in Colombia in which he stated that said WWTP will be used provided the operator is guaranteed that only domestic wastewater would reach it; but it gives no guarantee if it receives mixed waters (i.e. domestic wastewater mixed with industrial wastewater); so the project in this and other ways is totally unworkable and if it goes ahead, not only will it subject the community to serious impacts but it will lead to a patrimonial detriment of huge proportions; it will also have serious impacts on the public treasury with respect to taxes and rate increases for water and sewage for which our communities will have to pay for decades.</p> <p><b>Wastewater treatment plants in the upper basin</b></p> <p>The CAR itself state that on the upper basin, in the middle and lower part of the river there are + - 28 WWTPs and most are not working and those that are, are not working well; so their impact - identified - in the decontamination of the river is not meeting its goals. That is why the Attorney General and Comptroller are investigating CAR, to determine its responsibility in all the malfunctions in those WWTPs, which are becoming a white elephant beside which it wants to expand in Bogotá. How then can one believe that a Mega-Project like this will be done well?</p> <p><b>Use of treated wastewater effluent</b></p> <p>CAR along with other entities involved in the Salitre wastewater treatment plant project argue that they are doing it there to decontaminate the River, and that part of the waters of the river “supposedly decontaminated” will be used for the Riego la Ramada (Ramada District); What a fallacy; because the River will not be decontaminated as can be shown by how it is working currently with the 2nd Phase designs supplied by CAR because of its placement and the flow.</p> <p><b>Implementation of the Bogotá wastewater master plan</b></p> <p>Why before starting any work or expanding or installing new WWTPs, are the works under the Sewerage Master Plan on sewers, interceptors and inter-connectors for residential, commercial, and industrial wastewater done, which it has owed for more than 30 years to all citizens of Bogotá, not done according to the primary study that was conducted in 1985, which included 16 alternatives to decontaminate the River and the Construction of a Plant in Alicachín and clearly, as they have failed the city since that time, now they want to improvise with more than 15-year old studies to solve a current problem but only for 5 or 10 years.</p>	<p>comprehensive program to reduce such illegal connections (<i>conexiones erradas</i>) to stormwater channels. This program, which is included in EAAB’s Wastewater Management Plan (PSMV), includes sewer line rehabilitation and connection improvements, control and monitoring and public information campaigns.</p> <p>It is important to mention that the risk analysis conducted as part of EA Regional Strategy (Volume I) concluded throughout various water quality modeling scenarios that water quality objectives of BOD and TSS will be achieved with the operation of the Salitre WWTP and the Fucha and Tunjuelo interceptors. In addition, it highlights the importance of controlling urban stormwater runoff and pollution in stormwater systems to meet coliform standards. Volume I of the EA also discusses the Project impact from other external factors, such as wastewater management from the upper basin and industrial pollution.</p> <p><b>Design Population.</b> Extensive studies were conducted in 2010 during the preparation of the preliminary design for the Salitre WWTP expansion to define design population, wastewater flows and pollutant loadings. <u>The Salitre WWTP is designed for a 30-year planning period equivalent to the saturation of the sewer service areas (Jaboque, Torca and Salitre).</u> This corresponds to a population of 3.5 million in the year 2040. The design flows and loadings are based on historical data, projected residential, commercial industrial contributions, and inflow and infiltration estimates. The population projections were obtained from the National Census Department (Departamento Administrativo Nacional de Estadística). As mentioned before Salitre will only treat about 30 percent of the wastewater generated by Bogotá City. The rest will be treated by the Canoas wastewater system.</p> <p><b>Treatment technologies and industrial contributions.</b> The selected treatment technology, a conventional activated sludge process with diffused aeration, is neither obsolete nor inefficient, as claimed in the Request. This technology was selected to meet the effluent pollutant discharge limits in a reliable, cost-effective manner, while providing flexibility for future treatment expansion. The activated sludge process is a proven technology, in particular, for large WWTPs. It has been applied worldwide and is known for its performance reliability. The activated sludge process has proven removal efficiency of 90 percent of BOD and TSS, not 60 percent as claimed by the Requesters.</p> <p>The chosen technology has been selected based on a comprehensive evaluation of alternatives conducted in</p>

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		<p>2011 as part of the feasibility studies that preceded the preliminary design for the Salitre expansion. The selection of technology was part of a comprehensive evaluation process that included economic (capital and O&amp;M costs) and non-economic criteria (technical, social and environmental criteria). Twenty-seven (27) technologies were initially screened, 17 technologies were assessed in more detail, and three technologies were further evaluated, which resulted in the selected technology. In addition, CAR and EAAB established a panel of experts to contribute to the discussions during technical workshops related to the technology evaluations. The Bank team, technical staff from CAR and EAAB, and international experts all participated in the various workshops and meetings to build consensus on the technology, environmental mitigation measures, construction methodology and scheduling.</p> <p>Regarding industrial wastewater affecting negatively the Salitre WWTP, both Bogotá City and CAR have strong control measures and initiatives to control industrial pollution. Users who discharge wastewater to water bodies or the sewer system are required to have a discharge license and an implementation plan to reduce pollution based on objectives established in the PSMV. CAR is conducting a strong campaign to work with industries and producers to legalize wastewater discharges. In the Bogotá District, industrial discharges are controlled and monitored by the District Environment Secretary through a similar model. CAR and the Bogotá District are promoting a cleaner production program to reduce water, energy and raw material consumption in industries. Furthermore, the Salitre WWTP will have wastewater influent monitoring and controls to prevent unmanageable levels of industrial pollution. In addition, the Salitre service area is mostly domestic and commercial wastewater contributions with limited industrial wastewater contribution.</p> <p><b>Ramada.</b> The PAD indicates that the Salitre WWTP will discharge reclaimed wastewater to the Bogotá River to maintain environmental flows and alternatively to Ramada for water reuse. The loan agreement includes a covenant that requires the Borrower to undertake the additional necessary technical, financial, economic, social and environmental studies under terms of reference acceptable to the Bank. The plant will be designed to discharge to Bogotá River.</p> <p><b>Bogotá City Wastewater Management Program.</b> The collection and conveyance system is not part of the Project and is the responsibility of EAAB. Significant progress has been made with the construction of the main interceptors to connect the wastewater flows to the two plants, to achieve 100 percent treatment. As indicated earlier, CAR contracted Hazen &amp; Sawyer to conduct a</p>

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		feasibility study, preliminary designs, and bidding documents. The contractor will rely on recent studies. Many studies have been conducted for the Bogotá City Wastewater Program. The two-plant approach has been supported by various studies, as well as by several local laws and regulations, including the 2014 Supreme Court ruling.



## **Annex 2. Additional Project Background and Litigation History**

(i) ***After several failed attempts to establish a comprehensive solution to clean up the Bogotá River over the past 20 years, the Government of Colombia undertook a renewed effort in the mid-2000s, jointly with the Bogotá River Basin Regional Environmental Authority (Corporación Autónoma de Cundinamarca – CAR, the Borrower and implementing agency)<sup>1</sup> and Bogotá Water Supply and Sewerage Company (EAAB), to embark on a comprehensive program to recuperate the river (the Bogotá River Environmental Recuperation Program).*** This program consisted of several projects: small municipal wastewater treatment plants in the upper basin, flood control works and environmental restoration of riparian zones, industrial pollution control, and the Bogotá City Wastewater Program. This last project was essential to improving water quality in the Bogotá River since Bogotá City accounts for about 80 percent of the domestic wastewater generated in the Bogotá River Basin. The Bogotá City Wastewater Program calls for a two-plant scheme to treat 100 percent of the wastewater generated in the city: (i) expansion of the Salitre WWTP to serve the northern part of the city; and (ii) construction of a new, larger plant downstream of Bogotá City called Canoas (Canoas WWTP), located approximately 8 km south of the city. As per a 2007 inter-institutional agreement (Convenio 171) and a 2014 Supreme Court ruling, CAR is responsible for the construction of the Salitre WWTP and EAAB is responsible for the construction of large interceptors and the Canoas WWTP. EAAB has completed the construction of all collection and conveyance systems to channel wastewater to these two plants.

(ii) ***Component 1 of Salitre II, which is the subject of the Requests to the Panel, is part of the Bank-financed Project.*** The Salitre II turnkey contract (US\$400 million), consists of the upgrading and expansion of the existing Salitre WWTP, from a 4m<sup>3</sup>/s chemically enhanced primary treatment plant to a secondary treatment<sup>2</sup> plant functioning at about 7 m<sup>3</sup>/s design capacity to treat, convey and discharge the wastewater from the Salitre, Torca and Jaboque micro-basins to the Bogotá River. The other components of the Project include flood control and environmental restoration works along 68 km of the Bogotá River (Component 2); environmental and water studies (Component 3); and project management and administration (Component 4). Component 2 focuses on enhancing the environmental benefits of the river by widening and protecting the riparian zone, restoring the river meanders, and hydraulically connecting the river with its floodplain, which will contribute to upgrading wetlands alongside the river. A summary of the Project benefits is depicted in the Rio Bogotá video.<sup>3</sup>

(iii) ***The preliminary engineering design was contained in the Project design and description considered in the 2010 Environmental Assessment of the Project (Project***

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<sup>1</sup> In this particular case, the regional environmental agency is the Borrower, not the Government itself. The national government is providing the guarantee for the loan.

<sup>2</sup> Secondary treatment is a biological process to remove dissolved organic matter that escapes primary treatment. The biological process is then followed by additional settling tanks to eliminate more of the suspended solids. About 90 percent of the TSS and BOD can be removed by a well running plant with secondary treatment.

<sup>3</sup> <https://www.car.gov.co/index.php?idcategoria=45546>

**EA).** The design included various measures to help prevent or minimize potential adverse environmental impacts. An Environmental Management Plan (EMP) and Salitre Social Management Plan (SSMP) for Salitre II, acceptable to the Bank and applicable Colombian regulatory authorities are to be implemented by the contractor under the turnkey contract.<sup>4</sup> The EMP includes measures to avoid, minimize, mitigate and monitor potential impacts during construction and operation of Salitre II, and the SSMP includes project information dissemination, citizen participation in the project cycle, water education, citizen oversight committees, and grievance redress mechanisms focusing on the UPZ 71 and UPZ 72. The turnkey contract has an implementation schedule of five years.

### **Historical Legal and Regulatory Context of the Bogotá Waste Water Master Plan and the Bogotá River Environmental Recuperation Program**

(iv) *The Bogotá City Wastewater Program is embedded in a complex legal and regulatory framework in Colombia that supports construction of Salitre II on the existing site.* Important city planning documents, including the Bogotá land use plan (Decree 619 of 2000 and Decree 190 of 2004) and the UPZ 72 land use regulation (Decree 309 of 2004), include specific articles for the implementation of Salitre II and the SSMP. A strategic planning document for the environmental management of Bogotá River (CONPES 3320 in 2004) of the National Planning Department is also part of this framework. In 1996, the Ministry of Environment issued an environmental license i (Resolution 817) approving the construction of the Salitre WWTP (Phases I and II) at the present site. Since then, several modifications have been made to the license by the Ministry as part of its monitoring and control. Salitre II was affirmed by a 2014 Supreme Court Ruling (see below) after extensive analysis of several studies, evaluation of existing wastewater facilities and technical and financial decisions made over several years. During Project appraisal, the Bank also concluded that the two-plant approach was the best approach based on economic, environmental, and existing policy and regulatory issues.<sup>5</sup>

(v) *The Bogotá River Environmental Recuperation Program has a long history of litigation in Colombian courts.* A class action law suit (*acción popular*) initiated in 1992 was decided on August 25, 2004 by the Cundinamarca Court for Administrative Litigation (*Tribunal Administrativo de Cundinamarca, Sección Cuarta, Subsección B*) regarding the clean-up of the Bogotá River. In particular, the judgement approved Salitre II. The judgement was affirmed by the Supreme Court for Administrative Litigation (*Consejo de Estado*) on March 28, 2014. This Court is the highest court for administrative litigation (*jurisdicción contencioso-administrativa*) in Colombia. CAR, the Bogotá Municipality, EAAB, and various national Government agencies are, therefore, obliged under the 2014

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<sup>4</sup> Links to the EMP (<http://documents.worldbank.org/curated/en/docsearch/report/E2218>) and the SSMP (<https://www.car.gov.co/index.php?idcategoria=45546>).

<sup>5</sup> As indicated in the Project Appraisal Document (PAD), the Bank task team reviewed existing technical considerations for the two-plant decision and concluded that this was the best approach. The PAD and the concept note also included a cost-effectiveness analysis that affirmed the two-approach as the preferred option considering the sunk cost from the recently constructed conveyance system (main interceptors) and the environmental benefits from treated effluent that would help maintain healthy river flows, provide flexibility for future water use, and allow for development of multi-functional parks along the Bogotá River.

Supreme Court Ruling to implement the clean-up of the Bogotá River, which includes the construction of Salitre II.

(vi) ***On August 2, 2016, a judgement was issued by the Bogotá District Court in connection with a request for injunction (tutela) filed by a representative of 72 residents of the UPZ 72 (specifically, the “Los Alcaparros y Eucaliptos” Housing Group in UPZ 72).*** The plaintiffs argued that their rights to due process, health, housing and healthy environment had been violated as a result of: (a) inadequate consultation of the Salitre II expansion, (b) the disappearance of important ecosystems from Salitre II, and (c) the impacts on nearby communities during the construction and operation of the Salitre WWTP, including health, noise, odor, depression of real estate values, etc. The Bogotá District Court rejected the request for the injunction on the basis of lack of evidence supporting the claims of contamination for bad odors, as well as the claims of negative impacts on health and property values. The decision of the Bogotá District Court was affirmed by the Supreme Court on Criminal Matters (highest judicial authority to decide on these actions for legal protection) on September 15, 2016. As part of said ruling, the Supreme Court on Criminal Matters rejected the claim of lack of consultations explaining that the expansion of Salitre II was issued pursuant to an environmental license which included a public consultation, and that there have been multiple instances of public consultation, a list of which was submitted to the court by the Colombian authority for environmental licenses, the *Autoridad Nacional de Licencias Ambientales*.

(vii) ***Finally, a new<sup>6</sup> class action (acción popular) law suit was filed by the Somos Uno Fundacion Colectiva against the Ministry of Environment and other Government agencies on April 28, 2016.*** The first court level rejected this request in May 2016, and the plaintiffs appealed to the Supreme Court for Administrative Litigation (*Consejo de Estado*), where the decision on this case is currently pending.

### **Salitre WWTP Project Site**

(viii) ***The site of the Salitre WWTP (for Salitre I and proposed Salitre II) was acquired by the Bogotá District in 1995 and 1996 and transferred to EAAB in 2000.*** The site was obtained for the specific purpose of constructing the Salitre plants. During the 1970s and 1980s, the site had been used by Bogotá City and neighboring municipalities as an open dump, where uncontrolled waste disposal occurred (the approximately 100 ha site was known as the El Cortijo dump). There were reportedly environmental problems associated with the open dumping there of various types of waste. Around 1987, the dump was closed and over a period of a few years was covered with construction debris and soil. Following this the site was abandoned until 1997, when the construction of Salitre I started, for which approximately 153,000 m<sup>3</sup> of waste materials had to be moved. Operation of the WWTP started in 2000. During construction of Phase I, portions of the area proposed for Phase II were affected by the works (e.g., clearing, temporary work areas, etc.).

(ix) Per the Bogotá land use plan and the Salitre WWTP environmental license, the site, approximately 100 ha, has specific land use designations and is distributed in three main

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<sup>6</sup> Not to be confused with the class action law suit from 1992 (see paragraph v above).

sub-areas: (i) Salitre WWTP (Phase I and Phase II), (ii) environmental protection zones, and (ii) a recreational area (SSMP).

(x) ***The site designated for Salitre II adjoins the existing plant and as a previous dump site, the area is considered degraded.*** At the time of Project appraisal, and as recorded in the Project EA, no known sensitive or critical terrestrial natural habitats were found in the expansion area for the Salitre WWTP. Construction of the Phase I plant changed some conditions on the site and the passage of time has also led to other changes. For example, an environmental buffer of trees was planted in 2000; these have grown and some natural revegetation of the previous dump area has occurred. Due to poor site drainage, water accumulates in a low-lying depression, forming a small pond. The pond and surrounding vegetation harbor local species.<sup>7</sup> It is this area that is referred to by the Requesters as the “Cortijo-Tibaguya wetland.” These habitats, which have developed on the degraded site over the last twenty years, are not considered part of any official forest reserves or district wetlands under national and district environmental regulations, and do not consist unaffected natural habitats or sensitive or critical habitats per Bank policy. The Bank and the Borrower understand that these habitats have become valued by local inhabitants, although this did not become apparent until 2014.

(xi) ***In 2014, the Borrower reported to the Bank about community complaints regarding the alleged Cortijo-Tibaguya wetland and Salitre II. On December 22, 2014, CAR created the Salitre Roundtable (Mesa de Concertación) at the request of citizens of the Engativá locality, to initiate a dialogue on the issue.*** The Roundtable is comprised of community representatives (including residents of the UPZ 72), environmental leaders and Government officials (from CAR, EAAB, and SDA). In February 2015, as a result of this Roundtable, a document recording “environmental agreements on El Cortijo-Salitre WWTP” was agreed to by Government officials. The agreements include (i) several environmental enhancement projects close to the site area, (ii) modifications to the original Salitre Metropolitan Park to include more environmental features, and (iii) citizen participation and oversight regarding these actions and implementation of Salitre II. However, a group of UPZ 72 residents continued to oppose the Project and rejected the agreements of the Salitre Roundtable. Since May 2016, CAR, assisted by a local representative, has engaged in a separate roundtable (UPZ 72 Roundtable) with the Mesa Ciudadana Cortijo Tibaguya in order to provide an open space to discuss and resolve issues brought by representatives of the UPZ 72, but productive discussions have been difficult due to the strong opposition to Salitre II, as reported to the Bank by the Borrower in June of this year.

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<sup>7</sup> The low-lying area is about 1.5 hectare and has a water body of about 0.5 hectares. The measurements vary based on weather conditions.

### **Annex 3. Citizen Engagement Activities related to the Salitre WWTP**

(i) ***The Rio Bogotá Project has benefitted from extensive consultations beginning in 1996 and continuing to the present.*** Multiple rounds of public consultations and community engagement activities were undertaken by Government entities, including the Ministry of Environment, CAR, City of Bogotá, and others, both before and after Bank involvement in the Project. Consultations have been carried out in line with Colombian regulations and Bank safeguards policies as relevant and community meetings have been occurring on a bi-annual basis at a minimum. Project design has incorporated the feedback from these consultations.

(ii) ***Details on specific consultations are listed below. Major consultation events that occurred before Bank involvement include community engagement activities as part of Salitre I, preparation of the 2004 Bogotá and UPZ 72 land use plans, and, issuance of the environmental license by the Government.*** Since the Bank's involvement, consultations have occurred on the preparation of the Project EA, a community perceptions survey, and an ongoing process that will continue during implementation of Salitre II based on the SSMP and 2016 Action Plan. Somos Uno and Mesa Ciudadana Cortijo Tibaguya were recently created, so records of their participation in consultations can only be demonstrated after 2014.

(iii) ***Consultations prior to Bank involvement for the issuance of the environmental license—1996.*** The Ministry of Environment conducted consultations prior to the issuance of the environmental license for the expansion of the Salitre WWTP with political leaders of the Engativá and Suba localities, as well as community members and NGOs.<sup>1</sup> The results of the consultation are included in the background information of the environmental license. Following the consultations and in accordance with Colombian regulations, the Ministry of Environment issued the environmental license through Resolution 817 on July 24, 1996. In accordance with the terms of the environmental license, the EAAB has developed and is implementing a social engagement plan for operation of the existing WWTP focusing on the residents of the UPZ 71 and UPZ 72. Additionally, the Government conducts annual interviews with the community as part of its monitoring of the environmental license; no issues relating to odor from the existing WWTP were documented in the latest round of interviews.

(iv) ***Consultation on the terms of reference for the preparation of the EA and Preliminary Draft of the EA—2009.*** CAR conducted an in-person consultation session on March 5, 2009 to gather feedback on the detailed terms of reference for the preparation of the EA, in accordance with Colombian regulations and Bank safeguard policies. CAR invited a total of 152 institutional actors to participate in the consultation session, including political leadership of the Engativá locality, a local hospital, the Engativa *edil* (councilperson) organizations, institutions, and interested parties via e-mail, telephone, written correspondence, and CAR's website. The documentation to be discussed was shared with participants via e-mail and disclosed on CAR's public internet site. A total of

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<sup>1</sup> UPZ 72 was created in 2004 and thus did not participate as a formal entity, though community members of the neighborhoods that later became the UPZ 72 participated.

63 people attended the consultation session representing 43 different entities spanning the public sector, academia, and social organizations. Session participants discussed the importance of learning from previous environmental restoration initiatives, the technology proposed for the WWTP, the impact on formally recognized protected areas outside the Project site, and the institutional arrangements. CAR conducted a public meeting on September 14, 2009 to present the preliminary draft of the EA, to which it invited a total of 152 representatives of civil society organizations, institutions, and interested parties via e-mail (40 invitations sent), telephone (36 invitations), and written correspondence (76 invitations). The EA and the consultation results are recorded in the PAD<sup>2</sup> and in the EA volume II<sup>3</sup> and in this Annex.<sup>4</sup> CAR and the Bank publicly disclosed the draft EA and final versions on CAR's website and in the InfoShop, respectively. Records do not show the participation of UPZ 72 residents; however, they participated in other activities related to the Salitre WWTP. A summary of the consultation process and results are summarized in the EA.

(v) ***CAR carried out a community perceptions survey in 2012 with residents in the Project's area of influence (UPZ 71 and UPZ 72) regarding the expansion of the Salitre WWTP as part of the social management plan of the Project.*** The survey was applied in the UPZ 72 neighborhoods of El Cortijo, Quintas de Santa Barbara, and Ciudadela Colsubsidio, as well as other neighborhoods in the vicinity. Opinions were gathered from 163 respondents in Engativá, of which UPZ 72 is a part. The results indicated that 55 percent of respondents were aware of the functions of the Salitre WWTP; 97 percent indicated that they did not feel harmed by the presence of the Salitre WWTP; and 95 percent indicated that they were not affected by the Salitre WWTP. In sum, the survey indicated that the impact of Salitre I on the lives of local residents was benign.

(vi) ***Stakeholder participation, consultations, and outreach since completion of the EA. CAR conducted or participated in some 41 in-person consultation sessions, workshops, and presentations to the community and interested stakeholders related to the Project.*** The Borrower established multiple mechanisms to foster ongoing dialogue with the community throughout implementation, including roundtable groups comprised of community members and CAR staff that meet regularly to discuss particular Project activities and overall progress. These consultation sessions were open to the Requesters, and members of UPZ 72 and Engativá locality did participate on multiple occasions. Table 1 includes a full list of consultation sessions carried out since 2008. Moreover, the Borrower has established several citizen engagement platforms regarding implementation of the Project. A summary is provided below:

- a. Salitre Roundtable (Mesa de Concentración). CAR and the SDA established the Salitre Roundtable in response to a request from the community of

<sup>2</sup> <http://documents.worldbank.org/curated/en/2010/11/13184855/colombia-rio-Bogotá-environmental-recuperation-flood-control-project>

<sup>3</sup> <http://documents.worldbank.org/curated/en/627931468262131190/pdf/E22180v20Box3414790Spanish01PUBLIC1.pdf>

<sup>4</sup> EA consultation reports and files are included in <http://wbdocs.worldbank.org/wbdocs/drl/objectId/090224b08470a341>



Engativá to discuss the Salitre WWTP expansion project and its environmental impact on the alleged wetland. The Roundtable was established in December 2014 and residents of the UPZ 72 attended the meetings, according to CAR records. Activities included meetings and attending conferences as well as site visits in the Project area that allowed participants to establish criteria for environmental protection actions. An agreement was reached between CAR, SDA and the Salitre Roundtable in February 2015.

- b. UPZ 72 Roundtable (including members of Somos Uno and Mesa Ciudadana Cortijo Tibaguya). Since May 2016, CAR, assisted by an Engativa commissioner, has engaged in a separate roundtable with the Mesa Ciudadana Cortijo Tibaguya in order to provide an open space to discuss and resolve issues brought by residents of the UPZ 72. Several meetings have taken place since then and agreed actions to be undertaken by CAR and the community have been carried out. However, productive discussions have been difficult due to the strong opposition to Salitre II.
- c. The Veeduría Ciudadana Salitre WWTP (a citizen group – third party monitoring) was established in 2014 to monitor the Salitre WWTP Expansion Project and the Compensation Project. This group has met several times since its establishment. It has also participated in the Salitre WWTP Roundtable and consultation events conducted by CAR.

(vii) ***CAR launched a social media communications campaign in 2015 as a result of the successful Salitre Roundtable.*** The campaign maintains a website, [www.humedalnuevocortijo.com](http://www.humedalnuevocortijo.com), and associated social media profiles on Twitter and Facebook (upwards of 1600 and 440 followers, respectively) to disseminate updates and contextual information about the WWTP expansion, as well as produced a flyer for distribution at events and articles published by media outlets in December 2015 including ‘El Hormiguero’ and ‘rpt—Radio, Televisión y Prensa.’ Furthermore, the SSMP and Action Plan developed in 2016 with CAR includes extensive community engagement activities going forward with particular focus on communities near the Project site. Activities focus on four categories: (i) information, consultation, and communications; (ii) employment generation; (iii) community participation and operationalization of the question and complaint mechanism; and (iv) oversight and feedback program. All community engagement activities have been assigned a budget in the SSMP. Additionally, the Action Plan contains measures to, inter alia, strengthen the community engagement capacity of the PIU; launch a more user-friendly website to better disseminate information; and reinforce the ongoing community consultation process through involving a third-party facilitator.

**Table 1. Consultation and Outreach Sessions**

Number	Event	Date
1.	Presentation of the proposed river works and Salitre WWTP expansion to the conference	January 31, 2008

	“Working for a Bogotá River as an Environmental Link for the City and Region”	
2.	Presentation of the proposed river works and Salitre WWTP expansion to the Local Mayor and Community of Suba	August 11, 2008
3.	Consultation of the Terms of Reference for the Project EA	March 5, 2009
4.	Public Meeting to present the Project EA	September 14, 2009
5.	Citizen workshop to present an update on Project preparation	December 15, 2011
6.	Presentation of the Project to the <i>Community Action Board</i> (JAC) of the El Cortijo neighborhood	August 26, 2014
7.	Presentation of the Project to representatives of the mayors of the Engativá and Suba localities, District Government Secretariat	August 29, 2014
8.	Presentation of the Project to the Local Mayor of Suba and team	September 5, 2014
9.	Presentation of the Project to the community of Engativá	September 17, 2014
10.	Meeting with representatives from the NGO ASOMARANDU and the Engativá Social Network ( <i>Red de Control Social de Engativá</i> ) to provide information regarding compliance with the State Council Ruling	September 25, 2014
11.	Meeting with the Local Mayor of Suba to plan the consultation for the Project	October 1, 2014
12.	Second presentation of the Project to the Engativá community	November 12, 2014
13.	Creation of the Salitre Roundtable with local NGOs, Colombian agencies, and civil society to discuss the Salitre WWTP Project and the Cortijo Wetland. The Roundtable continues to be active and several meetings have been conducted.	December 22, 2014
14.	Presentation of the Project to the El Cortijo neighborhood in response to a request from the president of the JAC	January 19, 2015
15.	Presentation of the Project to the <i>Local Administrative Board</i> (JAL) of Engativá at the request of the local <i>edil</i> (councilperson)	February 13, 2015
16.	The Salitre Roundtable signed the agreement Acuerdos Ambientales Cortijo – PTAR Salitre	February 9, 2015
17.	Presentation of the Project to the Mayor of Engativá and team, walking tour of the Project area	March 27, 2015

18.	Presentation of the Project to the Engativá community, JAC, Administradores Conjuntos Residenciales,	April 21, 2015
19.	Presentation of the Project to the UPZ 72 community at the “Tinguafest” Environmental Festival using CAR mobile classroom	June 13, 2015
20.	Presentation of the Project to the <i>Fundación Magnánima</i>	July 16, 2015
21.	Meeting with UPZ 72 resident to discuss the Project and clarify doubts	August 10, 2015
22.	Meeting with UPZ 72 resident to discuss the Project and clarify doubts	September 10, 2015
23.	Walking tour of the Project site and compensation areas with the group Agenda Bogotá	October 4, 2015
24.	Presentation of the Project to the group Vivienda Los Eucaliptos of the UPZ 72	October 29, 2015
25.	Meeting with JAL opposition group to discuss the Project	December 16, 2015
26.	Meeting with the Director of CAR and the JAL of Engativá to present the Project	March 1, 2016
27.	Presentation of the Project to the CAL	April 1, 2016
28.	Presentation of the Project to the CAL	April 5, 2016
29.	Presentation of the Project to the Santa Rita community of the Suba locality	April 7, 2016
30.	Meeting with JAL opposition group to discuss the Project	April 8, 2016
31.	Presentation of the Project to the new mayor of Engativá and team	May 11, 2016
32.	First meeting of the UPZ 72 Roundtable convened by the <i>edil</i> (councilperson) of the Engativá JAL to discuss the Project; this is a space created by CAR to dialogue with oppositions groups about the Project	May 20, 2016
33.	Second meeting of the UPZ 72 Roundtable convened by the <i>edil</i> (councilperson) of the Engativá JAL to discuss the Project	June 24, 2016
34.	Presentation of the Project to the presidents of the JACs of the UPZ 73 of Suba	July 14, 2016
35.	Third meeting of the UPZ 72 Roundtable convened by the <i>edil</i> (councilperson) of the Engativá JAL to discuss the Project	July 14, 2016
36.	Forth meeting of the UPZ 72 Roundtable convened by the <i>edil</i> (councilperson) of the Engativá JAL to discuss the Project	July 28, 2016

37.	Presentation of the Project to the Bolivia neighborhood, located in the UPZ 72	August 8, 2016
38.	Community meeting with the residential council of the Quintas de Santa Barbará neighborhood, located in the UPZ 72	August 27, 2016
39.	Fifth meeting of the UPZ 72 Roundtable convened by the <i>edil</i> (councilperson) of the Engativá JAL to discuss the Project	September 7, 2016
40.	Sixth meeting of the UPZ 72 Roundtable convened by the <i>edil</i> (councilperson) of the Engativá JAL to discuss the Project	October 11, 2016
41.	Seventh meeting of the UPZ 72 Roundtable convened by the <i>edil</i> (councilperson) of the Engativá JAL to discuss the Project	October 27, 2016