

Environmental and Social Data Sheet

Overview

Project Name:	Wastewater Treatment Project in Guayaquil
Project Number:	2014 0055
Country:	Ecuador
Project Description:	The project concerns the construction of a wastewater treatment plant, associated pumping stations and 41 km of major sewage collectors for the southern part of the city of Guayaquil. In addition the project will connect 30 000 households to the sewer system.
EIA required:	Yes.
Project included in Carbon Footprint Exercise ¹ :	No

Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

The project will generally benefit public health, either by increasing or improving access to sanitation services, or by collecting and treating wastewater before discharging into the water bodies, primarily the river Guayas and the estuary (the so-called estero salado). The project will contribute to the environmental improvement of the estuary, a priority of the national and local Government, which will directly benefit some 250 000 people².

The Waste Water Treatment Plant (WWTP) of Las Esclusas and the related pumping stations require a full EIA according to Ecuadorian (and EU) regulations (category IV). A common EIA report for the WWTP and pumping stations has been drafted. Public consultation is still ongoing and final approval from the competent authorities is still pending. The final EIA report, including the results of the public consultation will need to be provided to the Bank for approval. Given the size and nature of the other components (i.e. the rehabilitation of sewers and the construction of house connections) a full EIA is not required according to national (category I and II) nor according to the criteria defined under EU law.

The construction of the WWTP requires the acquisition of 40.74 ha of land (of which 16.74 for the future location of the secondary treatment). An Abbreviate Resettlement Action Plan (ARAP) has been prepared in compliance with the World Bank's operational policy, . The final Resettlement Action Plan (RAP) and the report on the public consultation process will require the approval of the Bank.

The Promoter will ensure that the project is implemented in compliance with the EIB's environmental and social standards, ILO labour standards and with the ESMP, ESAP and RAP.

With the above environmental and social conditions in place the project is considered to be acceptable for Bank financing from an environmental and social perspective

¹ Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO₂e/year absolute (gross) or 20,000 tons CO₂e/year relative (net) – both increases and savings.

² Through the programme "Guayaquil Ecológico – Componente Estero Salado".

Environmental and Social Assessment

Environmental Assessment

The Promoter is committed to respect the WWTP discharge in full compliance with Ecuadorian Regulations (see table below). Although these values are less stringent than in the Urban Waste Water Treatment (UWWT) Directive (91/271/EC) as amended, the project represents a significant improvement comparing with current values.

	Parameter (mg/l)	EU UWWT Directive (91/271/EC) "Sensitive Areas"		Ecuadorian Regulation ³		WWTP Las Esclusas		
		Limit for discharge	Efficiency of the WWTP	Limit for discharge	Efficiency of the WWTP	Limit for discharge	Efficiency of the WWTP	Dilution ⁴ at discharge 33:1
1	Biological Oxygen Demand (BOD5)	25	70-90%	100	36 %	90	40-50 %	2.7
2	Chemical Oxygen Demand (COD)	125	75%	250	N/A	173	25 % +	5.2
3	Nitrogen (tot-N)	10* or 15**	70-80%	15	46 %	26	5 %	0.8
4	Phosphorus (tot-P)	1* or 2**	80%	10	N/A	2	60 %	0.06
5	Suspended Solids (SS)	35	90%	100	23 %	50	60-70 %	1.5
* more than 100 000 p.e.								
** 10 000-100 0000 p.e.								

The river Guayas has a significant flow, varying from 600 m³/s in dry season, to 2 000 m³/s in wet season and 20 000 m³/s with high tide. This will allow for a rapid dilution of the discharge, although not solving sources of pollution. The Promoter envisages enhancing the WWTP at a later stage, to allow for secondary treatment. To this end, land has already been acquired next to the site.

The sludge will be initially disposed of at "Las Iguanas" land-fill. This land-fill of 200 ha located in the northern part of the city (some 14.5km from the centre), is expected to be full soon and another one is planned to be built in the proximity by the Municipality of Guayaquil. Although the EIA does not take into consideration the change in the land-fill, given the location of the new land-fill, the environmental impact is anticipated to be very similar.

It is foreseen that 60% of the WWTP's energy consumption will be covered with cogeneration (around 600 kw/h) from the digester gas produced as a by-product of the sludge stabilization process.

Impact of the project in the decrease of waterborne diseases will be monitored. To this end relevant indicators have been defined. The project will also contribute to the elimination of odours at the existing pumping stations, improving living conditions in adjacent areas, which are amongst the poorest in the city. There may be some negative impacts arising out of the construction process, but most of these will remain temporary, and with careful management will be reduced or resolved.

³ Norma de Calidad Ambiental y de Descarga de Efluentes: Recurso Agua, Tabla 12. Límites de Descarga a un cuerpo de Agua Dulce.

⁴ Dilution 33:1 calculated during the dry season and low tide.

Social Assessment

Involuntary Resettlement -

The construction of the WWTP requires the acquisition of 40.74 ha of land: 6 lots for the primary treatment (24 ha) and 1 lot (16.74 ha) for the future location of the secondary treatment. An Abbreviate Resettlement Action Plan (ARAP) has been prepared in compliance with World Bank's operational policy. According to available information, an agreement has been reached for 5 of the 8 lots, the other 3 expecting court resolution by end of October 2014.

Other social impacts of the project include the disruption to services, noise, temporary occupation of public or private space, traffic disruptions, and safety hazards. Main impacts are estimated for the two long pumping lines (ca. 4 km in total), given the location along an urbanised and relatively densely occupied zone. Effective management will be required to minimise the negative disturbances, inconveniences and impacts. The proposed ESMP for the WWTP and prior experience of Interagua in the rehabilitation of sewers and construction of house connections, suggest that adequate mitigation measures will be put in place.

The land acquisition process has followed national regulations on expropriation. Owners were informed of the declaration of public interest, obtained on 27th January 2011 and had access to legal redress mechanisms. Some additional requirements have been introduced so as to be in line with World Bank's and EIB standards.

As indicated above, the expropriation procedures have not been finalised for three cases. However, the Promoter has received judicial confirmation that works can start.. The Promoter will need to report to the Bank on the effective payment of compensations as soon as these materialise. In addition, an independent audit will verify the satisfactory implementation of the RAP, including payment of compensations 15 months after signature of the loan agreement.

Labour and health and safety standards

Ecuador has ratified all 8 ILO fundamental conventions and significant improvements in labour conditions have been implemented during the last decade, through primarily, advances in regulations and legal enforcement. Given the risk profile of the country, the promoter will be required to introduce appropriate labour clauses in the tendering documents and later on in contracts with the contractors. Special attention will be given to precluding discrimination against afro-Ecuadorians and women, two key concerns of ILO, and to ensuring that national regulations on child labour are rigorously applied to this project (a priority for the national Government and UNICEF).

Public Consultation and Stakeholder Engagement

Public consultation will follow national regulations, as described in Decree 1040 of 22 April 2008, that defines the mechanism to be used as establish in the Environmental Management Law. For the WWPT and the related pumping stations, the Ministry of Environment has appointed a social facilitator, who is responsible for carrying out the consultation process and providing her opinion to the competent authority to consider when issuing the environmental permit. According to the current schedule, the draft of the EIA report was published both in the website of EMAPAG and the Ministry of Environment, and is available at several locations selected in the area of impact of the project during 15 days. A day of public hearing has been fixed for the social liaison facilitator to present the environmental impacts of the project.

During the implementation and operation phases, stakeholders and the community at large can contact Interagua and EMAPAG to request information or file a complaint. Both companies have grievance mechanisms put in place through their Community Management Departments (*Departamentos de Gestión Comunitaria*)