

People Republic of China
Zhejiang Province
Z.U.E.P.O.
Zhejiang Urban Environment Project Office
World Bank
2010 April



Public Disclosure Authorized

Public Disclosure Authorized

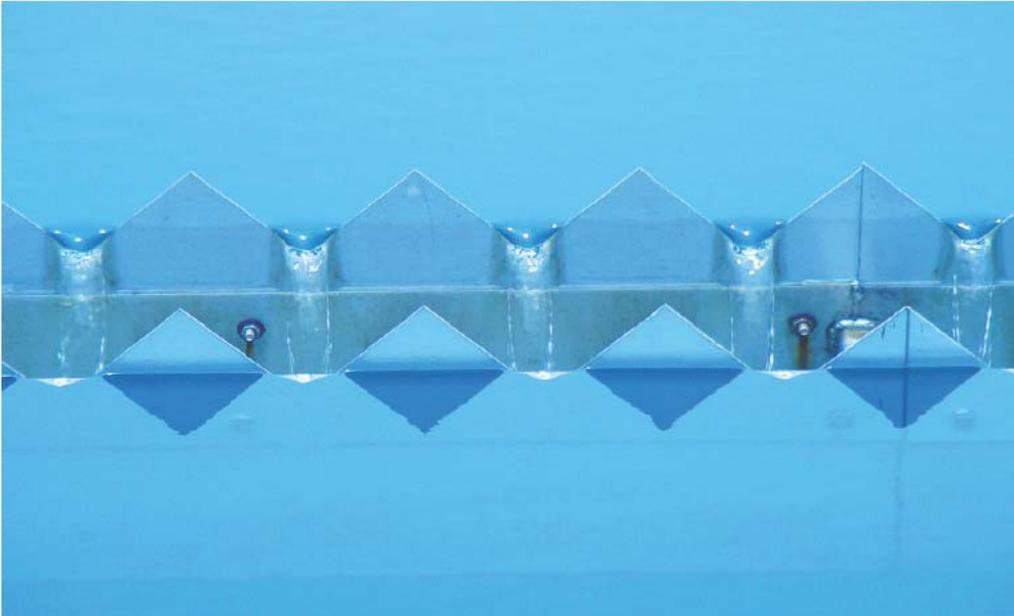
Public Disclosure Authorized

Public Disclosure Authorized



Zhejiang Qiantang River Basin Small Towns Environment Project Consolidated Environmental Assessment Report Executive Summary

 中国水电顾问集团华东勘测设计研究院
HYDROCHINA HUADONG ENGINEERING CORPORATION



People Republic of China
Zhejiang Province
Z.U.E.P.O.
Zhejiang Urban Environment Project Office
World Bank
2010 April

“本文件发行范围受限，收到者仅可用于履行公务。若无浙江省城建环保项目办授权，其内容不得披露”

“This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without Zhejiang Urban Environment Project Office authorization.”

**Zhejiang Qiantang River Basin Small Towns Environment
Project
Consolidated Environmental Assessment Report
Executive Summary**

**ZHEJIANG QIANTANG RIVER BASIN
SMALL TOWNS ENVIRONMENT PROJECT**
Consolidated Environmental Assessment Report :
Executive Summary (updated version of April 04/30)

TABLE OF CONTENTS

1. INTRODUCTION	1
2. ENVIRONMENTAL LEGAL FRAMEWORK	1
3. PROJECT DESCRIPTION	3
4. ENVIRONMENTAL BASELINE	5
5. 5. ENVIRONMENTAL IMPACT AND MITIGATION MEASURES.....	6
5.1 ENVIRONMENTAL BENEFITS	6
5.2 POTENTIAL ENVIRONMENTAL IMPACTS AND THEIR MITIGATION MEASURES	7
5.3 CULTURAL PROPERTY PROTECTION	9
6. ANALYSIS OF ALTERNATIVES.....	10
7. ENVIRONMENTAL MANAGEMENT PLAN	12
8. PUBLIC CONSULTATION & INFORMATION DISCLOSURE.....	13

1. INTRODUCTION

This document summarizes the environment impact assessment of the Zhejiang Qiantang River Basin Small Town Environment Project in China, highlighting the main issues and conclusions of the environment impact assessment and environment management plan of the project.

According to both Chinese Environmental Assessment laws and regulations, and the World Bank's Operational Policy 4.01 Environmental Assessment, the proposed project is Category A for environmental assessment purposes. A full environmental assessment report was required. Environmental Assessments were conducted by accredited EA consulting institutes for each of the eleven subprojects under the project. The subproject EIA reports were prepared following relevant provisions specified in Chinese EA laws, regulations and technical guidelines, as well as the World Bank safeguard policies. Each of the sub-project EA reports has been approved by local EPBs. The HydroChina Huadong Engineering Corporation (HHEC) carried out the consolidation of Environmental Assessment (EA) for the proposed project with the assistance of the EA consulting institutes and an international consulting firm Groupe Huit. This Executive Summary is based on these reports, as well as feasibility studies carried out for the project.

The EA reports and EMP were submitted to the World Bank for review and they conform fully to the World Bank Safeguard policies. All the EA reports have been made available in China and in the InfoShop of the World Bank.

The project will support infrastructure investments in the water supply, wastewater and solid waste sectors in selected cities, districts and towns in the Qiantang River Basin. As designed, the project incorporated effective alternatives analysis and engineering measures to maximize project benefits and minimize potential adverse impact. The project would not cause significant adverse environmental impact that are sensitive, diverse or unprecedented in nature because of the small scale investments, which are scattered across eight cities, districts and towns, and the adequate mitigation measures addressing potential impact which may occur.

2. ENVIRONMENTAL LEGAL FRAMEWORK

A full Environmental Assessment (EA) was carried out in accordance with Chinese EA legal framework, mainly including

State Level Law & Regulation & Guideline

- ▶ Environmental Protection Law, Dec. 26, 1989
- ▶ Environmental Impact Assessment Law, Sep. 1, 2003
- ▶ Water Pollution Prevention Law, Jun. 1, 2008
- ▶ City and County Planning Law, Jan. 1, 2008
- ▶ Prevention and Control of Solid Waste Pollution Law
- ▶ Water Pollution Prevention and Control Law, Oct. 1, 2002
- ▶ Air Pollution Prevention Law, Sep. 1, 2000
- ▶ Noise Pollution Prevention Law, Mar. 1, 1997
- ▶ Water and Soil Conservation Law, Jun. 29, 1991
- ▶ Cultural Property Protection Law, Dec. 29, 2007
- ▶ Regulations on Administration of Environmental Protection for Construction Project, Nov. 18, 1998

- ▶ Regulations Governmental Information Disclosure, Mar. 1, 2008
- ▶ Temporary Method of Public Consultation in Environmental Impact Assessment, Feb. 14, 2006
 - Provincial Level Regulations
- ▶ Regulations of Zhejiang Province on Prevention of Water Pollution, Sep. 19, 2008
- ▶ Regulations of Zhejiang Province on Prevention of Air Pollution, Sep. 1, 2003
- ▶ Regulations of Zhejiang Province on Prevention of Solid Waste Pollution, Jun. 1, 2006
- ▶ Notice Regarding to Strengthening Management of Environmental Impact Assessment, Feb. 14, 2007
- ▶ Regulations of Zhejiang Province on Protection of Cultural Property, Jan. 1, 2006
- ▶ Regulations of Zhejiang Province on Management of Water Source, Jan. 1, 2003
- ▶ Regulations of Zhejiang Province on Management of Qiantang River, Apr. 1, 1998
 - Technical Guideline
- ▶ Technical Guideline of EIA General (HJ/T 2.1-93), April, 1, 1994
- ▶ Technical guideline of EIA for Atmosphere Environment (HJ 2.2-2008), Apr. 1, 2009
- ▶ Technical Guideline of EIA for Surface Water Environment (HJ/T 2.3-93), Apr. 1, 1994
- ▶ Technical Guideline of EIA for Acoustic Environment (HJ/T 2.4-1995) , Jul. 1, 1996
- ▶ Technical Guideline of Environmental Risk Assessment of Construction project (HJ/T169-2004), Dec. 1, 2004

Applicable Chinese EHS Guideline

- ▶ Law of the People's Republic of China on Safe Production
- ▶ Regulation on Safe Production License
- ▶ Regulation on Safe Production Management of Construction Project
- ▶ Decision of the State Council on Further Intensifying Safe Production
- ▶ Guideline of Implementation of ISO 14000 Environment Management System

The World Bank requires that Environmental Assessment (EA) be conducted for projects proposed for financing. The World Bank safeguard policies are listed below:

World Bank Safeguard Policies

- ▶ Operational Policy 4.01, Environmental Assessment, January 1999
- ▶ Operational Policy 4.04, Natural Habitats, June 2001;
- ▶ Operational Policy 4.09, Pest Management, December 1998;
- ▶ Operational Policy 4.11, Physical Cultural Resources, July 2006;
- ▶ Operational Policy 4.36, Forests, November 2002;
- ▶ Operational Policy 4.37, Safety of Dams, October 2001;
- ▶ Operational Policy 4.12, Involuntary Resettlement, December 2001;
- ▶ Operational Policy 4.10 Indigenous Peoples, July 2005;
- ▶ Operational Policy 7.50, Projects on International Waterways, June 2001;
- ▶ Operational Policy 7.60, Projects in Disputed Areas June 2001.
- ▶ World Bank Policy on Disclosure of Information January 2003

The proposed project trigger four safeguards policies, i.e.

- ▶ Operational Policy 4.01, Environmental Assessment;
- ▶ Operational Policy 4.11, Physical Cultural Resources;
- ▶ Operational Policy 4.12, Involuntary Resettlement;
- ▶ Operational Policy 4.37, Safety of Dams.

Applicable WBG EHS Guideline

- ▶ General Environmental, Health, and Safety Guidelines, April 30, 2007
- ▶ EHS Guidelines for Waste Management Facilities, December 10, 2007
- ▶ EHS Guidelines for Water and Sanitation, December 10, 2007

3. PROJECT DESCRIPTION

- ▶ The project consists of four components with an estimated cost of US\$215 million, of which the IBRD loan is US\$100 million.
- ▶ Component 1: Water Supply and Distribution. This component covers Zhuji City and Wucheng District of Jinhua Municipality. Under the proposed component, new water supply facilities with total capacity of 90,000 m³/day and clear water distribution networks will be built to enhance water supply for residents in the Zhuji and Wucheng.
- ▶ Component 2: Wastewater Collection and Treatment . This component consists of seven sub-components in six cities/counties. Under the proposed component, the project will introduce wastewater treatment plants in one city and three towns with a capacity of ~50,000 m³/day that currently discharge untreated wastewater in urban rivers, and increase wastewater collection by 146,000 m³/day.
- ▶ Component 3: Solid Waste Management. This component invests in the construction of the Qingshankejiawu landfill, which will serve five towns and one community of Jiande City, the construction of a tertiary leachate treatment facility, the closure of three existing open dumps; and solid waste collection vehicles and equipment.
- ▶ Component 4: Institutional Strengthening and Training (IST) .
- ▶ The detail investments and geographic location for each cities and counties are shown in Figure 1.



Figure 1 Zhejiang Province Administrative Boundaries



Figure 2 Subproject Location

4. ENVIRONMENTAL BASELINE

Natural Environment. Zhejiang Province (population 51.2 million as of 2008) is one of the smallest province (an area of 103,800 km²) located in the southern wing of the Yangtze River Delta of China. The Province borders the East China Sea to the east, Fujian Province to the south, Jiangxi Province and Anhui Province to the west, and Shanghai and Jiangsu Province to the north.

Water System. Zhejiang Province has many rivers, such as Tiaoxi, Qiantang River, Yongjiang, Jiaojiang, Oujiang, Feiyunjiang and Aojiang, which flow into the sea or to adjacent provinces. The Qiantang River, the largest river in Zhejiang Province, starts from Xiuning County of Anhui and passes by Zhejiang Province then flows to the East China Sea through Hangzhou Bay. Its catchment area in the upstream of Hangzhou Gate is 42,000 km² and its length of main stream 484 km. The catchment within the boundaries of Zhejiang Province is 35,500km², accounting for 36.2% of total land area of the Province.

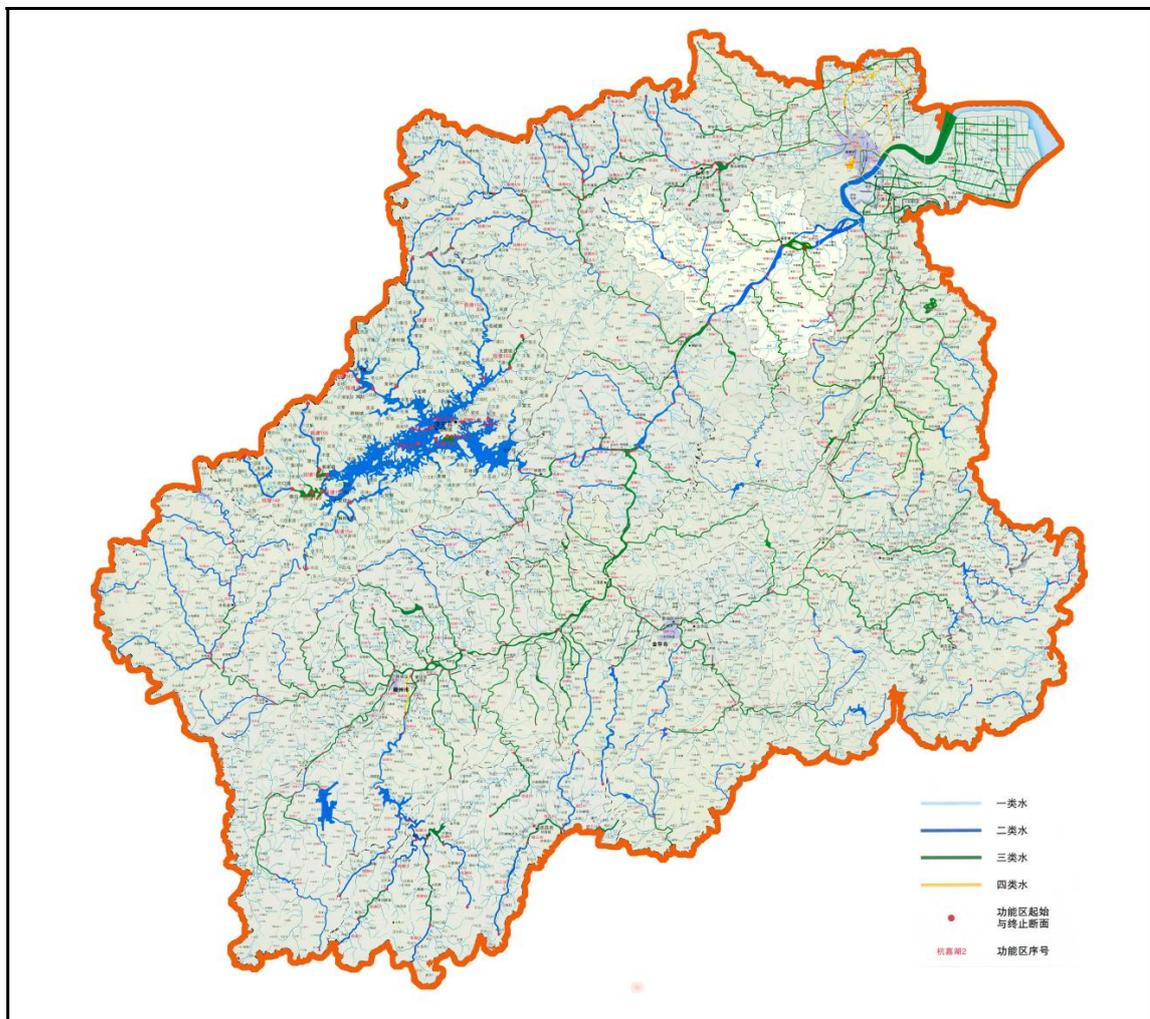


Figure 3 Qiantang River Basin

Climate. The Qiantang River Basin comes under subtropical monsoon humid climate zone where there are four well marked seasons-long period of winter and summer and short period of spring and autumn. The average annual rainfall in the Qiantang River Basin is between 1200 - 2200 mm.

Topography. Zhejiang features mountains and hills accounting for 70.4% of the total land area of the Province, plains for 23.2%, and rivers and lakes for 6.4%.

Aquatic Ecology. In the Qiantang River Basin there are 203 fish species, of which 29 are special species and 79 are of cyprinidae. The river downstream is rich in plankton, organisms and fish; while the middle-reach of the river is rich in plankton, aquatic plants and aquatic insect.

Water Quality. Water resources are generally adequate due to the substantial annual rainfall. The annual mean runoff of the river reaches 40.4 billion cubic meters. Water quality of the mainstream of the river in Zhejiang is generally good. Currently, river sections meeting Grade I-III standards and the sections meeting designated function requirements account for 73.3% of and 62.2% of the total sections.

Environmental Issues. With rapid economic development and population growth, pollution in the Qiantang River Basin, becomes increasingly serious. The river is faced with increasing pollution loads (e.g. NH₃-N, BOD₅, phosphors) from industrial, urban and rural area. Industrial pollution is mainly from paper-making and paper product, chemical and textile industry. In urban area, collection and treatment rate for wastewater and solid waste, particularly in small cities and counties, is relatively low. In 2008, total 2.48 billion cubic meters of wastewater were discharged to the Qiantang River Basin. Approximately 73% of wastewater discharged from cities and counties were collected and then treated, but the wastewater treatment coverage rate in small towns only reached 26.2%. In 2008, total 11.5 million tons of solid wastes were generated in Zhejiang Province. The Province has installed 64 landfills and 21 incineration facilities. Waste management for the Province involves a combination of landfill and incineration. Agricultural non-point source pollution is serious, featuring inadequate management of livestock waste in rural area, insufficient facilities to dispose of sewage and solid waste, and run-off of chemical fertilizer and pesticides from agriculture.

To protect the Qiantang River, Zhejiang Province has formulated a number of policies, regulations, and master plans, e.g. Zhejiang 11th-Five Year Environmental Protection Plan, and the Qiantang River Basin 11th-Five Year Pollution Prevention and Abatement Plan, based on which total discharge amount of COD and NH₃-N have been cut down gradually by implementing a set of pollution abatement program. As part of the program, the project proposes to finance collection and treatment of waste and wastewater in the selected eight small cities and counties.

5. 5. ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

5.1 ENVIRONMENTAL BENEFITS

- ▶ The project brings positive environmental benefits and contributes to Zhejiang's strategy of scaling-up environmental infrastructure provision and improving the water quality of the Qiantang River. The investments on the environmental infrastructure will benefit 896,000 people in short term (2015) and 994,000 people in long-term (2020). Specifically, the benefits include

- ▶ **Wastewater Collection and Treatment.** The investment of this component in six cities and counties will increase wastewater treatment capacity by 51,000 m³/day and collection rate, thus contributing to the reduction of pollution loads in the Qiantang River Basin. It is estimated that total 13,015.9 tons of COD_{Cr} and 597.87 tons of NH₃-N would be reduced annually because of the project. Residents and institutions along the banks of the River in the project influence areas would be benefited from the improved sanitation, which help reduce odor from water bodies and many of the physical vectors that contribute to the transmission of waterborne and water-related diseases. The investment will provide wastewater treatment services to 261,000 people by 2015, and to 345,000 people by 2020. The associated improvement in the living environment in the project areas would improve public health, visual impact, and would be expected to have a positive impact on property values in these areas. The improved infrastructure is important for the sustainable development of the selected cities, counties and towns.
- ▶ **Solid Waste Management.** The investment of this component will provide Jiande city with a high quality and sanitary landfill, at which the municipal solid waste (approximately 176 tons/day) from six towns of Jiande City will be disposed of in an environmentally sound manner. Leachate pollution will be effectively eliminated by the provision of the sanitary landfill site liner, and a leachate collection and treatment facility. In addition, the project will improve solid waste collection and transportation system and enable the city to provide the waste collection service for 501,000 people by 2015 and 511,000 people by 2020, thus ensuring improvements in urban environmental sanitation. By adopting the “Cradle to Grave” approach, the project will close three existing dumps which would not be operated after the commencement of the new landfill. The closure of the dump sites will greatly improve the conditions at the sites and the surrounding areas, minimize the risk of direct contact of people with the waste and the attraction of rats and other insects, seal the odor and avoid the contact of rainwater with the waste and thus generation of wastewater and leachate.
- ▶ **Water Supply and Distribution.** The investment will improve current water treatment capacity by 90,000m³/d, meet future water demand, benefit approximately 443,000 people by 2015 and 472,000 people by 2020 in two cities, and contribute to the health improvement of the residents in these areas.

5.2 POTENTIAL ENVIRONMENTAL IMPACTS AND THEIR MITIGATION MEASURES

- ▶ The project as a whole is substantially positive in environmental terms with the benefits greatly outweighing the negative impacts. Nevertheless some negative impacts have been identified in the EA process. The principal impact and their mitigation measures shown in the EAs/EMPs are summarized as below.

Summary of Principal Impact and Mitigation Measures

Principal Impact/Concerns/Issues	Major Mitigation Measures
Wastewater Treatment and Collection Component	
Sludge Production Treatment of wastewater at the proposed WWTPs will generate a small amount of sludge. It is estimated that the aggregate quantity of sludge produced at the wastewater treatment plants would be 22.4 tons of dewatered sludge cake per day.	-Dewatered sludge and other solid waste will be sent for disposal to the designated landfills which have been approved by local EPBs. -Sludge will be tested regularly to check if the presence of toxic substance.
Outfall Impact. There will be water quality impact in the immediate vicinity of the outfall discharging treated wastewater from WWTPs, and water quality will be affected, to some extent, within the associated mixing zone.	The outfall impact will be minimized -by site selection of outfall to avoid sensitive receptors; -by applying more stringent effluent discharge standard; -by regular monitoring of effluent and water quality of the mixing zone.
Other impacts (e.g. noise and odor) of the operation of WWTPs and associated pump stations.	-The adverse impact will be minimized by the siting of the plants and by the provision of buffer zones and landscaping.

Principal Impact/Concerns/Issues	Major Mitigation Measures
	-The noise emissions will be minimized by acoustic insulation of machinery where there are sensitive noise receptors close to the facilities.
Solid Waste Management	
Leachate Impact.	-Groundwater pollution will be minimized by the installation of an impermeable membrane liner, and a leachate collection and treatment facility.
Landfill Gas Impact.	-Landfill gas will be collected and flared in short term, and will be utilized in long term when there is adequate gas generation at the landfill.
Other impacts (e.g. noise and odor) of the operation of the landfill	-The adverse impact(e.g. noise, odor) will be minimized by the siting of the landfill and by the provision of buffer zones. -The odor emissions will be minimized by timely cover of solid waste at the landfill.
Legacy issues with three existing dump sites which are closed by the project.	-Environmental Monitoring before the closure of dump site, and regular monitoring after the closure of the dump sites will be conducted.
Traffic impact associated with the delivery of solid waste for disposal at the landfill, and with the transport of dewatered wastewater treatment sludge for off-site landfill disposal.	-Sludge will be transported by enclosed trucks to avoid leakage and odor emission. -Traffic impact will be minimized by restrictions on the times of day allowed for these activities and on the designated routes which is away from busy roads, commercial and residential areas, and other sensitive areas.
Water Supply and Distribution	
Chlorine Leakage. A small amount of chlorine will be stored as disinfectant in the water treatment plants.	-Alarm system for chlorine leakage will be equipped in the water treatment plants. -An emergency plan will be prepared for workers who are requested to conduct regular drilling.
Sludge Production. Water treatment plants will generate a small amount of sludge.	-The sludge and other solid waste from the water treatment plants will be sent by enclosed sludge trucks to nearby landfill for final disposal.
Impact during Construction	
Construction spoils. Construction spoils will be generated as a result of excavation for pipeline installation, and for the construction of wastewater and waste treatment facilities. However, the EA indicates that most of the spoils will be re-used on site.	-Spoil disposal plans will be prepared by contractors for each project component where excess spoil will be generated.
Soil erosion	-Install and maintain an adequate drainage system to prevent erosion on the site during and after construction; -Borrow pits will be restored immediately after the construction.
Dust	-Minimize production of dust and particulate materials at all times, including spray water, during dry and windy days, on construction sites.
Noise	-Avoid construction activities at night. -In case of construction at night cannot be avoided, ensure that night work is carefully scheduled and the community is properly informed.
Safety During Construction.	-Conduct safety training for construction workers before commencement of construction, and provide personal protective equipment.
Community Relations	-Inform the project affected people in advance about construction and work schedules. Continue public consultation with project affected people during construction.

5.3 CULTURAL PROPERTY PROTECTION

The investment for Youbu Old Town will support (i) repaving of two streets (now with cement surface) with more appropriate stone slabs to enhance appearance of the streets and provision associated sewers and storm water pipes underneath the streets to intercept discharges from houses; and (ii) rehabilitation of the Youbu Stream through a combination of bank reinforcement, landscaping and provision of sewage interceptors. The investment will improve aquatic environment, public health, visual impact of the Youbu stream and surrounding area.

Four bridges on the Youbu Stream have been identified as Physical Cultural Resources (PCRs) during the Environmental Assessment which is based on both field visits and the PCRs inventory developed by the third PCRs survey for Youbu Town of Lanxi Municipality. The bridges are located in the influence area of the subproject, construction in the vicinity of the bridges may cause temporary impact if mitigation measures are not taken accordingly.



Figure 4. Four Bridges in the Influence Area of Youbu Subproject

To avoid any adverse impact on the bridges, mitigation measures have been proposed in line with the national regulatory and legal framework concerning cultural heritage and agreed by concerned parties. Specific mitigation measures include: (i) local PMO will engage qualified and experienced contractors; (ii) contractors are requested by contract to mitigate vibration, dust, noise, solid and water pollution, avoid night-time construction, minimize traffic in sensitive area, and develop temporary traffic plans to detour traffic around construction sites; (iii) workers will receive training of PCRs and environmental protection before commencement of construction, and (iv) chance finds procedures are included the proposed mitigation measures and in contacts. Public consultation with concerned and affected parties on the proposed measures has been conducted. Their comments and concerns about management of spoil, noise and dust during construction have been incorporated into the EMP.

6. ANALYSIS OF ALTERNATIVES

All investment components have been prepared by domestic design institutes with the assistance of domestic and international consultants (HydroChina Huadong Engineering Corporation and Groupe Huite) who provide DRA services. The DRA consultants also prepared a consolidated feasibility study report.

Technical alternatives were considered for the investment components during the feasibility study and Environmental Assessment to minimize the environmental impact and the project costs. The Environmental Assessment and the feasibility study analyzed alternatives for the Solid Waste Management component in terms of solid waste disposal technology, landfill sites, liner system, leachate treatment, potential environmental and social impacts, and the costs etc.. For the Wastewater and Water Treatment components, the comparative analysis for the sites was carried out taking into consideration the current situation, resettlement, and, in the case of the wastewater treatment plants, outfall impacts, sensitive receptors, sludge disposal and process technology.

During the project preparation, the original proposal for Jiangnan Town of Tonglu county was to build a WWTP at Jiangnan Town. After alternative analysis, this option was rejected as it did not minimize the environmental impact nor was a least cost option. The cost-effective option was selected to collect and transport wastewater generated in Jiangnan town to the existing Fengchuan pumping station of Tonglu county sewerage system which would further pump the wastewater to Tonglu County WWTP.

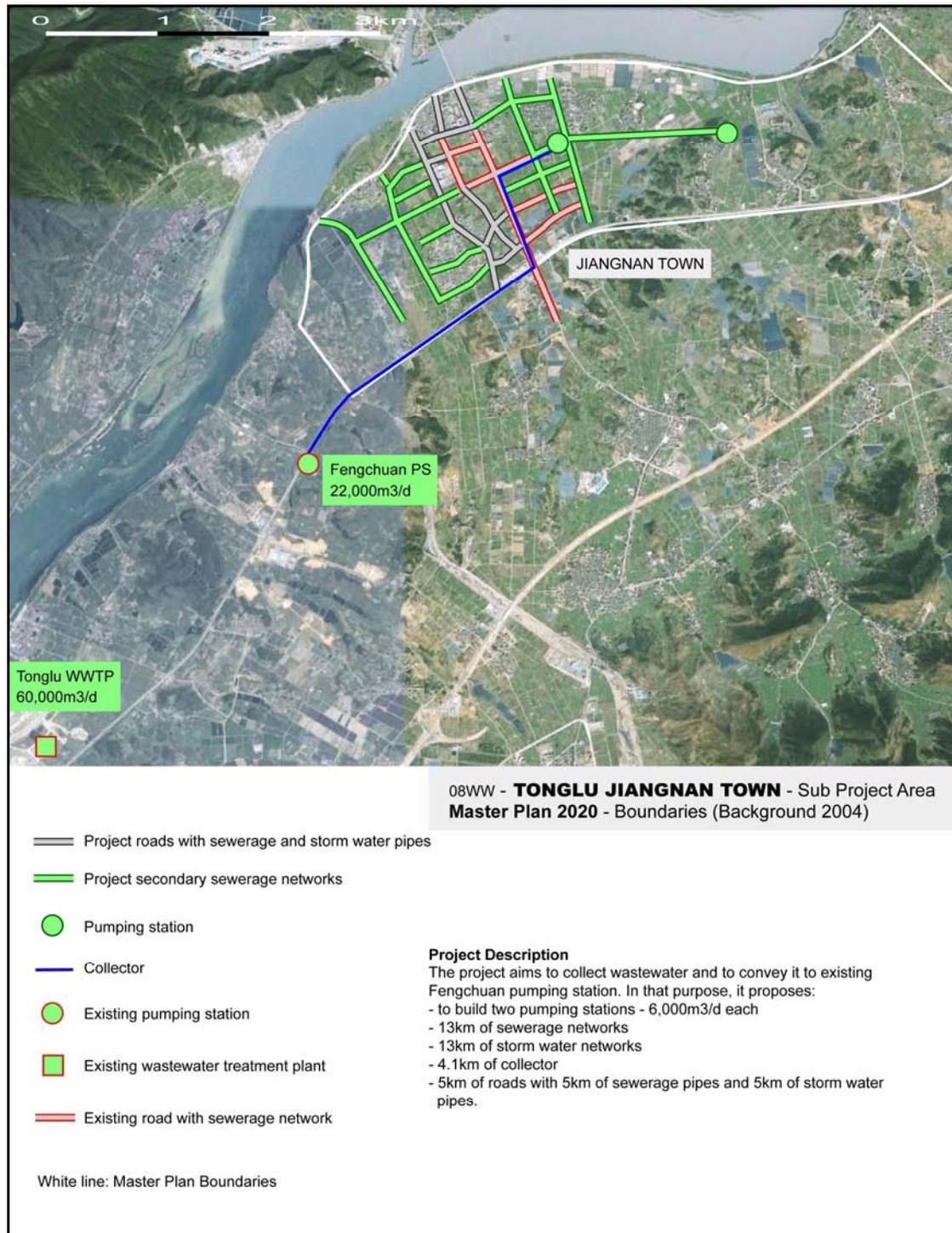


Figure 5. Wastewater Collection for Jiangnan Town of Tonglu County

To meet the effluent discharge standards, the secondary treatment processes that have been evaluated under this project are: (i) A2/O; (ii) oxidation ditches; and (iii) Sequencing Batch Reactors(SBR). Based on the comparison of the above mentioned processes, the technically and environmentally sound process was selected for the wastewater projects taking into account: smaller land occupation and compact layout of the reaction tank compartments; capacity to remove biological nutrients; ability to produce high quality effluent; minimization of costs for civil works and operation; stable effluent quality; and high efficiency of treatment.

7. ENVIRONMENTAL MANAGEMENT PLAN

An environmental management plan (EMP) has been developed as a stand-alone document for each subproject. These EMPs addressing all issues identified in the EIA include mitigation measures, monitoring plans, institutional arrangements, capacity building and estimated budget for the mitigation measures and monitoring programs for both the construction and operation phases.

Institutional Arrangement. Environment management responsibilities have been defined. Environmental management during construction involves Provincial PMO, Project Implementation Units (PIUs), contractors, Environmental Supervision Engineers, Environmental Monitoring Station, local city/county EPBs, Zhejiang provincial EPB. During operation, environmental management responsibilities will rest with local PIUs under the supervision of local EPBs.

Environmental Monitoring. Comprehensive environmental monitoring programs have been designed for both construction and operation phases. Monitoring includes noise, dust, surface water quality, groundwater quality, sludge, construction dust and noise. The PIUs will entrust environmental monitoring stations to carry out these monitoring plans.

All personnel of the PIU Environmental staff, contractors, and environmental Supervision Engineers will receive mandatory environmental training before commencement of construction. Key environmental administrative and other management personnel will also go through training provided by the project.

Environmental Supervision. During construction, environmental supervision shall be carried out by qualified supervision unit reporting to the PIUs and Provincial PMO. Each Supervision Engineer company will be required by contract to assign one Environmental Supervision Engineer, and each contractor shall be required by contract to assign at least one environmental staff at construction site.

8. PUBLIC CONSULTATION & INFORMATION DISCLOSURE

In accordance with the World Bank Safeguard policies and Chinese regulation, public consultations have been conducted during the environmental assessment, including public consultation meetings, and the questionnaire survey on project affected people and other stakeholders to discuss project and their concerns. Their opinions have been taken into account in the EA process and project design.

The EAs & EMPs were locally disclosed through announcements published in the local newspaper and on the internet website of local cities and counties in April 2010 (see Annex). The safeguard documents have been sent to the Bank InfoShop for disclosure prior to the appraisal mission scheduled in early June, 2010.

APPENDIX

Information Disclosure

County/ City	Subproject	Activities Covered in the EA &EMP	Disclosure Date in China	Disclosure
Jiande	Jiande Wastewater Collection and Treatment	Installation of 24 km of sewerage system and the 19,000 m ³ /d expansion of Chendong WWTP (from 30,000 m ³ /d to 49,000 m ³ /d) and a 4,500m ³ /d lifting pumping station.	2010-4-9	"Today Jiande" http://www.jiande.gov.cn Xi'shang village
	Jiande Meicheng Solid Waste Management	Construction of the first phase (210,000 m ³ capacity) of a sanitary landfill; closure of three existing dump site; the construction of tertiary leachate treatment plant; and upgrading of garbage collection fleet.	2010-4-19	"Today Jiande" http://www.jiande.gov.cn Jiangshan village
Tonglu	Tonglu Jiangnan Town Wastewater Collection	Construction of (i) 5 km of road; (ii) 13 km DN300 ~ DN1400 wastewater pipelines and 13km storm water pipelines; and (iii) two pumping stations and 4.1km convey pipes.	2010-4-23	"Today Tonglu" http://www.tonglu.gov.cn Local PIU
Zhuji	Zhuji Water Treatment Plant and Distribution	Construction of (i) a raw water pumping station of 44,000 m ³ /d in existing power room, and 0.50 km x DN800 steel raw water transmission main, (ii) a 40,000 m ³ /d Qingshan water treatment plant; and (iii) 60 km x DN300 ~ DN800 ductile water distribution pipeline and a pumping station.	2010-4-14	"Zhuji Daily" http://www.zhuji.gov.cn
Wucheng	Wucheng Water Treatment Plant and Distribution	Construction of (i) a 0.17 km x DN800 steel main from Xinfan reservoir, (ii) a 50,000 m ³ /d Tangxi water treatment plant; (iii) a 12.7 km x DN800 ~ DN900 water main, (iv) 3.2km water pipe and a 1,500 m ³ water tank ; (v) 15.21km DN110-DN600 secondary pipe in Tangxi town and (vi) 24.38km DN110-DN315 secondary pipes in Jiangtang town.	2009-11-27	"Today Wucheng" http://www.wucheng.gov.cn Local PIU
Lanxi	Youbu Town Wastewater Collection and Treatment	Construction of (i) 12.2km x DN300-DN800 sewer in new area; (ii) a 5,000 m ³ /d waste water treatment plant;	2010-4-9	"Lanjiang Herald" http://www.lanxi.gov.cn Youbu Public Service Center
	Youbu Old Town Infrastructure Project	(iii) upgrading of 1.70 km of ancient roads, storm water pipelines, and sewerage of DN300 ~ DN600 in old town center; (iv) 1.5 km new roads with storm water pipelines and sewerage; and (v) the rehabilitation of 0.74 km of river.	2010-4-9	"Lanjiang Herald" http://www.lanxi.gov.cn Youbu Public Service Center.
Pan'an	Pan'an Wastewater Collection	Construction of (i) 2.30 km Cuxi river embankment and 2 x 2.3km sewage pipes on the two sides of Cuxi river, (ii) 4.3 km of Panjin road expansion and associated sewage and storm water pipelines, and (iii) 2 x 5 km of main sewers from Shenzhe to existing Anwen WWTP. (2) Pan'an County Anwen town Yunshan Tourist Resort Sewerage Project. Construction of a pumping station with capacity of 2,000 m ³ /d; (ii) 17.1 km DN200 ~ 500 sewerage.	2010-4-16 2010-4-19	"Today Pan'an" http://www.pays.gov.cn http://www.pan'an.gov.cn Local PIU
	Pan'an Jianshan Town Wastewater Collection and Treatment	Construction of (i) 4.75 km of sewerage system of Jianshan Town; (ii) three pumping stations; and (iii) Jianshan town wastewater treatment plant with a capacity of 6,000 m ³ /d.	2010-4-14	"Today Pan'an" http://www.pan'an.gov.cn Lou'zai Village
Qujiang	Qujiang Wastewater Collection and Treatment	Construction of about 9.6 km of sewers with DN300 ~ DN1200, 10.5 km of storm water, and Chengdong wastewater treatment plant with a capacity of 20,000 m ³ /d and a 1km discharge pipe; (ii) 30.8 km of sewerage and 22 km of storm water networks in the west of Xiafei Road ; and (iii) 4.2km ww pipes and 3.0km storm pipes in zhengxing/tongjiang road.	2010-4-23	Qujiang Daily http://qj.qz.gov.cn Local PIU
Longyou	Longyou Wastewater Collection	Construction of (i) 7.272 km road with associated sewers, storm water pipelines, industrial water pipeline and drinking water pipeline. (ii) 1.7km of effluent discharge pipe; (iii) 1.42km of water supply pipes, 1.465km of sewerage pipes and 1.445km of discharge pipes to connect surrounding villages; and (iv) 11.81km road with associated sewers, storm water pipelines, industrial water pipeline and drinking water pipeline.	2010-4-21	"Today Longyou" http://www.longyou.gov.cn Local PIU

