

Maragondon River Project



September 2008

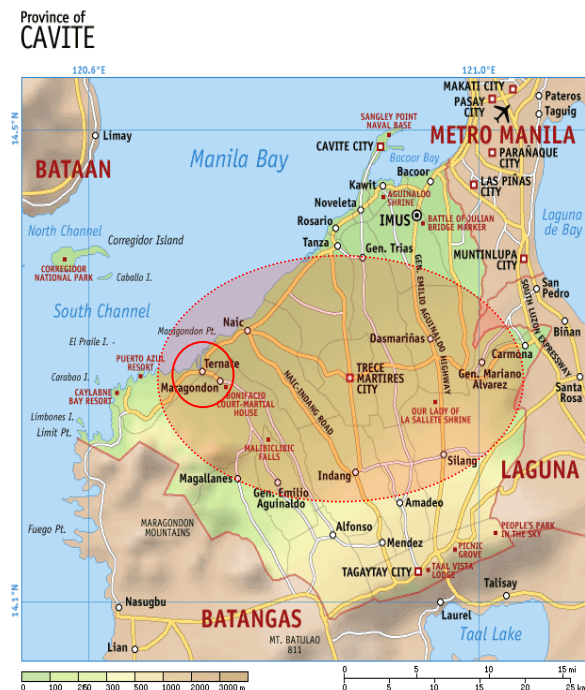
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INFORMATION OF MARAGONDON PROJECT

General Information Maragondon

Maragondon is a densely populated location in Cavite, a province of the Philippines.

Maragondon is located 54 kilometers southeast of Manila. According to the 2007 census, it has a population of 33,604 people.



The closest airport is Manila - Ninoy Aquino International Airport, located 40.0 km north east of Maragondon.

The name “Project Maragondon” is derived from the village Maragondon (see picture small red oval) who is the host of the source of the project: the Maragondon River.

The municipality of Maragondon and its water district have agreed to use its water source for the drinking water supply of a vast part of Cavite province (large red oval).. Maragondon is the host of the project. However, the largest beneficiary of this project will be the city of Dasmariñas with 1 million inhabitants.

Maragondon Water & Renewable Energy Project:

The estimated main flow of the Maragondon River is approximately 500,000 M3/day.

The surface water treatment plant is projected with a capacity of 200,000 M3/day.

The water treatment plant and the booster pumps are powered by an integrated small hydro power facility with a capacity of approx. 4 MW (either “low pressure” or “high pressure” hydro turbines).

This will ensure a sustainable and cost efficient source of energy and hence affordable water rates for the consumers.

Project High Lights:

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|----------------------------------|---------------------------------|
| • Project name: | Maragondon River Project |
| • Mean River Flow | 500,000 M3/day |
| • Project Size: | Up to 200,000 M3/day |
| • Estimated Project Costs | USD 280M. |
| • Project implementation period: | 4-5 years |

Project Scope:

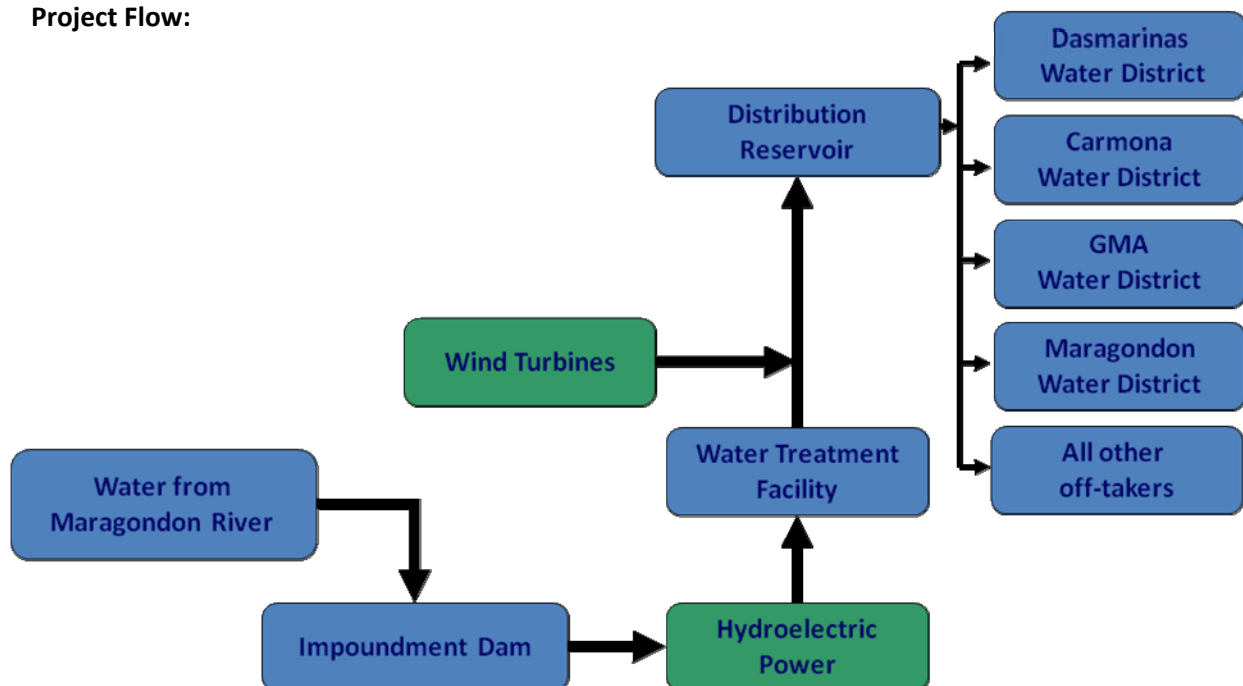
Water:

- 200,000 m³/day water treatment plant
- Pumps and motors
- Pipeline from intake place to treatment plant
- Pipeline from treatment plant to distribution reservoir
- Gravity line from distribution reservoir to intake point to all off-takers
- Clear water reservoir (distribution reservoir)

Energy:

- Hydro power facility
- Wind power facility
- Conventional Energy source as back up (WESM)

Project Flow:



Studies executed by WBS for MARAGONDON PROJECT:

- Pre-studies
- Project Information Summary
- Layout, mapping
- USTDA Definitional Mission Report (USA)
- Project Report / Analyses
- Studies by European Companies
- Project Description for Barangays
- Terms Of References
- Financing Considerations
- Geological Study
- Topographical Study (being executed)

Permits/ Approvals:

- Water rights application – NWRB
- LWUA Certification
- Barangay Clearance Certification
- LGU Certification (Mayor)
- Right of Way
- ECC application
- Maragondon Water District Board Resolution

Endorsement Letters:

- World Bank (IFC)
- Development Bank of the Philippines (DBP)

Memorandum of Agreements / Off Take Agreements:

WBS has signed a Memorandum of Agreements with Maragondon, Dasmariñas, Carmona, Gen. Mariano Alvarez and Silang Water Districts for a joint effort aimed at a study and subsequent implementation of a water resources development project. Specifically, this project involves the diversion of water from the Maragondon River in the Province of Cavite to the water districts indicated above.

Signed Off-Take agreements are in place with:

- Dasmariñas Water District: 40% of the production capacity
- Carmona WD: 20%
- General Mariano Alvarez WD: 20%
- Others 10%
- Non-Revenue Water (NRW) 10%.

Current Water Situation and Planning:

Currently, the municipalities involved in the project are getting their water supply from groundwater sources.

The deep water wells (300 meters or 1,000 feet in depth) within these communities are prone to saline intrusion within a relative short time due to extensive exploitation.

Therefore, surface water utilization from the Maragondon River is the only alternative to avoid a water crisis beyond repair. Thus, the Maragondon River Project is of tremendous importance for the province of Cavite and beyond.

The realization of this project will have a positive developmental impact on the infrastructure and economy of Cavite province, and with its proximity to Manila on the socio-economic situation of entire Metro Manila as well.

More importantly, the wellbeing of the citizens will be protected through cleaner air, potable water and healthier environment.

The project still requires a comprehensive Feasibility Study to determine the actual potential of the project and to ensure its long-term success.

The positive impacts of a feasible project are amongst others:

- A. Averting the existing water crisis in large part of the Cavite province.
- B. The aquifer in some parts of the Province of Cavite, specifically those of the Municipality of Dasmariñas are experiencing shrinkage up to 1 meter each year. This will be reversed as soon as the Maragondon project is realized.
If the exploitation of the deep wells continues to the same extent as in the past sea water intrusion is unavoidable creating a tremendous irreversible environmental crisis.
- C. Providing long term-term affordable water rates due to utilization of applicable renewable energy.
- D. Cleaner air.
- E. To educate the people as responsible citizens who would nurture and protect rainforest and vegetation along the Maragondon River Basin.

Impact and planning:

The planning, design, construction, and operation of the Maragondon water treatment plant using Hydro Power will certainly lead to capacity building and generate technological knowledge and expertise not currently available.

Several professionals will be needed for the operation of the projects. Additionally, local construction companies and specialized contractors such as electrical and electromechanical companies will participate in the construction. These projects will provide training opportunities for technicians and professionals who could later use their expertise in other projects elsewhere in Philippines and the surrounding region.

Project Support:

WBS receives full support from the Local Governments Units (LGU).

The General Managers of Maragondon and Dasmariñas (which is the 2nd largest in the Philippines) are the major drivers of the project locally.

Signing Ceremony at Maragondon

PUBLIC HEARING AND SIGNING BY MAYOR:



MARAGONDON PROJECT FINANCE INFORMATION

Financing of the Maragondon Project

The Maragondon River Project will be developed and implemented by a joint venture between private investors (including the prospective suppliers) and the Water Districts in the province of Cavite which are the potential off-takers of the bulk water.

The project will be financed through equity and loans and will be funded on a stand-alone, limited recourse basis.

The capital structure is based on 70/30 debt-to-equity ratio. Upfront equity will be paid in prior to first draw down.

In addition the major shareholders may agree to provide a certain amount of contingency equity to meet cost overruns or debt service shortfalls.

The generated revenues are in the local currency.

The loan portion of the financing will be raised in Philippine peso. The funding of the project – assumed positive results of the feasibility study – should be a manageable task.

The following core documents have been secured: MOU with Maragondon Water District, Off-Take agreements with the other Water Districts (including Dasmariñas, Cavite), Clearance with Mayor and Barangays in Maragondon, IFC (World Bank) & DPB endorsement letters, Assessment report by USTDA, Environmental Clearance (DENR) and Water Rights secured (NWRB), Geological Study, LWUA Certification, Pre-feasibility studies, Terms of Reference.

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