Annex A

**NEDA Board Resolution No. 5 (series of 1998)**

**APPROVING THE IRR ONTHE DELINEATION OF RESPONSIBILITIES IN THE DEVELOPMENT AND IMPLENTATION OF WATER SUPPLY PROJECTS**

On motion duly seconded,

BE IT RESOLVED, as it is hereby resolved, to approve as it is hereby approved, the Implementing Rules and Regulations (IRR) on the Delineation of Responsibilities in the Development and Implementation of Water Supply Projects.

**UNANIMOUSLY APPROVED, 17 March 1998.**

Annex B

NEDA Board Resolution No. 4 (series of 1994)

# APPROVING THE RECOMMENDATION OF THE INFRASTRUCTURE COMMITTEE (INFRACOM) ON THE REFORMS IN THE WATER SUPPLY SECTOR

On motion duly seconded,

BE ITS RESOLVED, as it is hereby resolved, to approve and confirm, as the same is hereby approved and confirmed the following recommendations of the INFRACOM:

a. Registration with the National Water Resources board (NWRB) of all drilling and the extraction of water therefrom, irrespective of the use of extracted water and ownership of the land where the well is to be drilled. Amendment to Article 6 of the Water Code (PD No. 1067) shall be initiate by NWRB to this effect. Subsequently, NWRB shall formulate rules and regulations for the effective enforcement of this requirements within sixty (60) days after approval of the proposed amendment.

b. Strengthening of the NWRB staff in order to effectively cope with the planning, monitoring and implementation activities of the water resources sector. NWRB shall submit an action plan to this effect to INFRACOM for review and endorsement to the President of the NEDA Board.

c. Reorientation of the Local Water Utilities Administration (LWUA) to its original corporate mission as a "specialized lending institution" financing only viable water supply projects with tariff levels formulated towards full cost recovery. LWUA shall therefore upgrade its banking and finance expertise and immediately complete its financial restructuring. Further, it should radically improve its collection efficiency as well as its database and accounting systems.

d. Privatization of all existing Water Districts (WDs) should be vigorously pursued whenever feasible and large commercially viable water services areas like Metro Manila, Cebu, Zamboanga, Davao should be formed or converted into SEC-style private water corporations, independent of LWUA and other government funding institutions by subject to regulation by NWRB.

e. Procurement needs of WDs should bed provided based on a competitive basis and not centrally imposed.

f. LWUA shall submit an action plan to INFRACOM to effect the recommended reforms for review and endorsement.

g. With respect to the delineation of responsibilities in the sector, NEDA Board Resolution No. 5 (series of 1998) is proposed to be amended to allow local government units (LGUs) to implement all levels of water supply projects consistent with government's decentralization and devolution process, mandating LWUA to implement only financially viable projects and further defining the roles of the agencies in the sector. The proposed amendment is as follows:

"Level I (point source system), Level II (communal faucet) and Level III (house connections?) water supply projects may be implemented by the concerned LGUs within their jurisdiction. LWUA shall implement only financially viable Level III water supply projects in areas outside the MWSS jurisdiction. DILG's participation will consist of general administration and institution building, such as assistance to the LGUs in the formation of Rural and/or Barangay Waterworks and Sanitation Associations (RWSAs/BWSAs) as well as in the identification of water supply systems. MWSS will be responsible for Level II water systems in Metro Manila and adjacent areas. DPWH, together with DILG and DOH, will provide technical assistance (within a period of about 2 years) to LGUs in the planning, implementation and operation and maintenance of water supply facilities".

**UNANIMOUSLY APPROVED, 15 March 1994.**

Annex C

NEDA Board Resolution No. 6 (series of 1996)

# APPROVING THE RECOMMENDATIONS OF THE INFRASTRUCTURE COMMITTEE (INFRACOM) ON THE EXECUTING AGENCY ARRANGEMENT FOR THE DEVOLVED INFRASTRUCTURE ACTIVITIES/FACILITIES

On motion duly seconded,

BE IT RESOLVED as it is hereby resolved, to approve and confirm as the same is hereby approved and confirmed, the following recommendations of INFRACOM on national government (NG) assistance to Local Government Units (LGUs) in the implementation of devolved infrastructure activities/facilities under the Local Government Code in support of national priority programs in order to ensure efficiency, effectivity and more focused implementation consistent with the Government's decentralization and devolution objectives:

a. DILG, which has administrative supervision over LGUs, shall be the lead national government agency (NGA) to oversee/administer NG assistance to LGUs in the implementation of devolved infrastructure programs/projects with the collaboration/participation of other concerned agencies. The identification and formulation of infrastructure programs/projects devolved to LGUs proposed for NG assistance shall therefore be coordinated with DILG to rationalize their development;

b. The implementation of identified devolved infrastructure programs/projects shall be undertaken by the LGUs with DILG providing assistance in institution, capacity and capability building of the LGUs and with DPWH and other technical agencies providing and transferring technical expertise to the LGUs as necessary. The levels of capacities and capabilities of LGUs shall be determined by the DILG in coordination and collaboration with DPWH and other concerned agencies to determine, among others, the extent of support and assistance that these national agencies should provide in order to effect the successful implementation of devolved NG-assisted infrastructure programs/projects:

c. DILG, as the lead agency, shall include in its annual budget the financial requirements necessary for the implementation of the identified and approved devolved infrastructure programs/projects.

This shall be without prejudice to any future funds arrangement that the national government may adopt with regard to NG assistance to LGUs for devolved projects particularly funds source from foreign loans and grants;

d. For on-going and already committed devolved infrastructure programs/projects with NG assistance, the same shall be implemented with the previously identified NGA as lead in order not to disrupt is prosecution. However, there shall be phasing in at DILG and LGUs in the implementation arrangements for these devolved infrastructure projects in accordance with the provisions of this Resolution for purposes of policy and operational consistency and thus, effect a smooth transition;

e. To efficiency and effectively implement the provisions of this Resolution, the INFRACOM shall formulate and periodically review the guidelines, rules and regulations that will already define the specific roles of the various concerned agencies in the implementation of NG assistance to LGUs for devolved infrastructure activities/utilities as well as the appropriate implementing mechanisms. In addition, INFRACOM shall likewise formulate the criteria and program for phasing out NG assistance to LGUs for devolved infrastructure activities/facilities;

f. To carry out its tasks, the INFRACOM may request for financial and technical assistance form participating government agencies as well as from multilateral and bilateral sources; and

g. The provisions of this Resolution shall apply to all NG assistance for devolved infrastructure activities/utilities unless otherwise explicitly provided for under the existing and future laws, such as the General Appropriations Act (GAA).

**UNANIMOUSLY APPROVED, 12 March 1996.**

Annex D

## MATRIX OF FINANCING AND MANAGEMENT OPTIONS

| OPTION | DESCRIPTION |
|---|---|
| LGU-Financed and Managed | The LGU finances the investment from its income and other resources available to it (e.g., URA, locally-generated taxes, grants) or borrows from a financial institution. It then establishes a profit center within the LGU office with a separate cost accounting system. Under this arrangement, the LGU directly manages the operations of the system. The LGU assumes the commercial risk. |
| Service Contract | The LGU finances the investment and directly operates and manages the system. It enters into contract with a private party to undertake billing and collection and/or repair and maintenance activities for a fee. The LGU maintains a profit center within the LGU office and assumes the commercial risk. |
| Management Contract | The LGU finances the investment and enters into contract with a private party to manage the system. The private party collects the water tariffs set by the LGU, operates and manages the system and in turn, is paid a management fee by the LGU. The LGU maintains a profit center within the LGU office and assumes the commercial risk. |
| Lease Contract | The LGU finances the capital expenditures and leases the facility to the private sector. The private sector assumes the commercial risks and the responsibility for operation and maintenance. To recover its costs, the private party is allowed to collect user fees as well as any other charges on behalf of the LGU. |
| Concession Contract | The LGU enters into contract with a private party to |

| | |
|---|---|
| | undertake the investment. The private party assumes the assets of the LGU and undertakes to expand the services according to the terms and conditions of the contract. The private party is allowed to operate the system and to collect user fees to recover its costs and earn a reasonable return on its investment. After the contract expires, the system reverts to the LGU or may be contracted out again by the LGU. |
| Creation of a Local Water District | The LGU may create a local water district. The local water district finances the investment from a loan from the Local Water Utilities Administration (LWUA) and operates and manages the system. The local water district is then supervised by LWUA. |
| LGU Company | The LGU may form a water company to handle the provision of the service. The water company shall be duly registered with the Securities and Exchange Commission (SEC) and shall have share holdings which can be sold to the private sector in the future. The LGU appoints the board members to be selected from the private sector who would then manage the company along commercial principles. |
| Build-Operate-Transfer or any of its variants (per RA 6970 as amended) | Under the BOT scheme, the private sector finances the investment, operates it for a certain period of time after which the asset is transferred to the LGU. The private party is allowed to collect user fees to recover its costs and earn a reasonable rate of return on its investment. The LGU and the BOT proponent negotiate on the risk sharing. |
| Joint Venture Agreement | Under a joint venture agreement, the LGU and the private party share in the risks of the project and operate the system through a shared management and organizational structure. |

NEDA BOARD RESOLUTION
No. 5 (s. 1994)

# APPROVING THE RECOMMENDATION OF THE INFRASTRUCTURE COMMITTEE (INFRACOM) ON THE NATIONAL POLICY, STRATEGY AND ACTION PLAN FOR URBAN SEWERAGE (LIQUID WASTE) AND SANITATION

On motion duly seconded,

BE IT RESOLVED, as it hereby resolved to approve as the same is hereby approved and confirmed the following recommendations of the INFRACOM:

## A. NATIONAL POLICY

1. Provision of improved sewerage/sanitation services in urban areas shall be considered a high priority.
2. On-site sanitation facilities for all urban households / establishments readily adaptable to further sewerage systems shall be required.
3. All new subdivisions/housing developments shall provide simplified or conventional sewerage system/sanitation facilities.
4. Conventional or low-cost sewerage for central business districts and for potentially high-income residential areas where economically and financially viable shall be provided.
5. Treatment of industrial as well as collected city/municipality wastewater to established standards set forth by the DENR prior to disposal into the drainage system shall be required.
6. Provision of services shall be based on consumer demand and willingness to pay.

## B. NATIONAL STRATEGY

1. A sanitation/sewerage program and a Central Sanitation/Sewerage program Support Office (CPSO) to coordinate subsector activities at the national level and to assist LGUs to plan and manage sanitation/sewerage programs at the community level shall be established.

2. External sources of assistance shall be explored provided as may be appropriate to enable Municipal Development Fund (MDF) facility or other financing sources to extend loans to LGUs for sanitation and sewerage projects.

3. LGUs shall primarily be the implementors of the sanitation/sewerage programs with the national government providing assistance to develop their capacities in the following areas: community participation, sub-sector planning, program management, regulation of development, selection of technologies, financial management, construction supervision, O&M, monitoring and reporting.

C. ACTION PLAN

1. A CPSO shall be created and housed at LWUA with the LWUA Board exercising over-all jurisdiction over its operations. An Inter-departmental Advisory Committee (IAC) composed of representatives from DPWH, DOH, DILG, DOF, DBM, LWUA, DENR, MWSS and NEDA shall likewise be created and act as the coordination body in the implementation and monitoring of urban sewerage and sanitation programs particularly the five (5) pilot areas (Davao City, Calamba, Dagupan City, Roxas City and Cotabato City). The representatives to the IAC shall preferably be Asst. Sec. or Dir. level. The Chairman of the IAC and the Dir. of the CPSO shall be appointed by the LWUA Board.

2. LWUA shall fully staff the CPSO from within its existing manpower as soon as possible. An international institutional development consultant shall be engaged to assist the CPSO to design and implement the activities. The CPSO shall exist for a period of about 3 to 5 years or until after its functions have been fully devolved to the LGUs.

UNANIMOUSLY APPROVED, 15 March 1994.

Certified true copy:

**FORTUNATO R. ABRENILLA**
Acting Board Secretary
and Director, Legal Staff

# 7. WATER SOURCE DEVELOPMENT

## 7.1 General

### Table 7.1.1 Water Sources Information

| Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP) | | | | Page: 1 of 13 |
|---|---|---|---|---|
| Content: **Water Source - General Information** | | | Date: | |
| Data Collection Level: **Provincial** | | Province No.: 0826 | Filename: Water Source.xls | |
| Region Number: VIII | | Province Name: Eastern Samar | | Form Number: P.4.1 |
| | Type of Water Source | | Shallow Well | Deep Well | Spring |
| | Total number of water sources | Number | 3,367 | 323 | 164 |
| Imple-mentor | Government Agency | Number | 1,336 | 235 | 164 |
| | Private | Number | 2,031 | 88 | |
| Level | Level I | Number | 3,367 | 318 | 99 |
| | Level II | Number | | 3 | 61 |
| | Level III | Number | | 2 | 4 |
| Ownership | Water District | Number | | 1 | 1 |
| | MEO/CEO | Number | | 2 | 23 |
| | RWSA | Number | | | |
| | BWSA | Number | | 1 | 18 |
| | Institution | Number | | | |
| | Commercial Establishment | Number | | | |
| | Industrial/Agricultural Undertaking | Number | | | |
| | Public (Domestic) | Number | 1,336 | 231 | 122 |
| | Private (Domestic) | Number | 2,031 | 88 | |
| Abstraction | Submersible/Turbine | Number | | | |
| | Centrifugal | Number | | | |
| | Handpump | Number | | | |
| | Bucket & Rope | Number | | | |
| | Free Flowing | Number | | | |
| Usage | Drinking | Number | | | |
| | Washing/Bathing | Number | | | |
| | Gardening/Irrigation | Number | | | |
| | Big-Scale Irrigation | Number | | | |
| | Production | Number | | | |
| Water Quality | No Quality Problem | Number | | | |
| | High Iron/Mag. Content | Number | | | |
| | High Chloride Content | Number | | | |
| | Turbidity/Colored/Smell | Number | | | |
| | Polluted/Contaminated | Number | | | |
| | Chlorinated | Number | | | |
| | Treated | Number | | | |
| Production | Seasonal Production | Number | | | |
| | Average Capacity < 240 $m^3$/day | Number | | 3 | 39 |
| | Average Capacity >= 240 $m^3$/day | Number | 3,367 | 320 | 125 |
| | Number of Household < 5 | Number | | | |
| | Number of Household >= 5 | Number | | | |

## Table 7.1.1 Water Sources Information

| Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP) | | | | | | | | Page: 2 of 13 |
|---|---|---|---|---|---|---|---|---|
| Content: **Water Source - General Information** | | | | | | Date: | | |
| Data Collection Level: **Provincial** | | Province No.: 0826 | | | | Filename: Water Source.xls | | |
| Region Number: VIII | | Province Name: Eastern Samar | | | | Form Number: P.4.1 | | |
| | Name of Municipalities | Character | Arteche | | | Balangiga | | |
| | Type of Water Source | Number | Shallow Well | Deep Well | Spring | Shallow Well | Deep Well | Spring |
| | Total number of water sources | Number | 147 | | 2 | 160 | | 8 |
| Implementor | Government Agency | Number | 37 | | 2 | 32 | | 8 |
| | Private | Number | 110 | | | 128 | | |
| Level | Level I | Number | 147 | | 2 | 160 | | 5 |
| | Level II | Number | | | | | | 3 |
| | Level III | Number | | | | | | |
| Ownership | Water District | Number | | | | | | |
| | MEO/CEO | Number | | | | | | |
| | RWSA | Number | | | | | | |
| | BWSA | Number | | | | | | |
| | Institution | Number | | | | | | |
| | Commercial Establishment | Number | | | | | | |
| | Industrial/Agricultural Undertaking | Number | | | | | | |
| | Public (Domestic) | Number | 37 | | 2 | 32 | | 8 |
| | Private (Domestic) | Number | 110 | | | 128 | | |
| Abstraction | Submersible/Turbine | Number | | | | | | |
| | Centrifugal | Number | | | | | | |
| | Handpump | Number | | | | | | |
| | Bucket & Rope | Number | | | | | | |
| | Free Flowing | Number | | | | | | |
| Usage | Drinking | Number | | | | | | |
| | Washing/Bathing | Number | | | | | | |
| | Gardening/Irrigation | Number | | | | | | |
| | Big-Scale Irrigation | Number | | | | | | |
| | Production | Number | | | | | | |
| Water Quality | No Quality Problem | Number | | | | | | |
| | High Iron/Manganese Content | Number | | | | | | |
| | High Chloride Content | Number | | | | | | |
| | Turbidity/Colored/Smell | Number | | | | | | |
| | Polluted/Contaminated | Number | | | | | | |
| | Chlorinated | Number | | | | | | |
| | Treated | Number | | | | | | |
| Production | Seasonal Production | Number | | | | | | |
| | Average Capacity < 240 $m^3$/day | Number | | | | | | |
| | Average Capacity >= 240 $m^3$/day | Number | 147 | | 2 | 160 | | 8 |
| | Number of Household < 5 | Number | | | | | | |
| | Number of Household >= 5 | Number | | | | | | |

## Table 7.1.1 Water Sources Information

| Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP) | | | | | | | | Page: 3 of 13 |
|---|---|---|---|---|---|---|---|---|
| Content: **Water Source - General Information** | | | | | | Date: | | |
| Data Collection Level: **Provincial** | | Province No.: 0826 | | | | Filename: Water Source xls | | |
| Region Number: VIII | | Province Name: Eastern Samar | | | | Form Number: P.4.1 | | |
| | Name of Municipalities | Character | Balangkayan | | | Borongan (Capital) | | |
| | Type of Water Source | Number | Shallow Well | Deep Well | Spring | Shallow Well | Deep Well | Spring |
| | Total number of water sources | Number | 71 | | 1 | 1,204 | 42 | 21 |
| Imple-mentor | Government Agency | Number | 67 | | 1 | 318 | 40 | 21 |
| | Private | Number | 4 | | | 886 | 2 | |
| Level | Level I | Number | 71 | | 1 | 1,204 | 42 | 11 |
| | Level II | Number | | | | | | 9 |
| | Level III | Number | | | | | | 1 |
| Ownership | Water District | Number | | | | | | |
| | MEO/CEO | Number | | | | | | |
| | RWSA | Number | | | | | | |
| | BWSA | Number | | | | | | 2 |
| | Institution | Number | | | | | | |
| | Commercial Establishment | Number | | | | | | |
| | Industrial/Agricultural Undertaking | Number | | | | | | |
| | Public (Domestic) | Number | 67 | | 1 | 318 | 40 | 19 |
| | Private (Domestic) | Number | 4 | | | 886 | 2 | |
| Abstraction | Submersible/Turbine | Number | | | | | | |
| | Centrifugal | Number | | | | | | |
| | Handpump | Number | | | | | | |
| | Bucket & Rope | Number | | | | | | |
| | Free Flowing | Number | | | | | | |
| Usage | Drinking | Number | | | | | | |
| | Washing/Bathing | Number | | | | | | |
| | Gardening/Irrigation | Number | | | | | | |
| | Big-Scale Irrigation | Number | | | | | | |
| | Production | Number | | | | | | |
| Water Quality | No Quality Problem | Number | | | | | | |
| | High Iron/Manganese Content | Number | | | | | | |
| | High Chloride Content | Number | | | | | | |
| | Turbidity/Colored/Smell | Number | | | | | | |
| | Polluted/Contaminated | Number | | | | | | |
| | Chlorinated | Number | | | | | | |
| | Treated | Number | | | | | | |
| Production | Seasonal Production | Number | | | | | | |
| | Average Capacity < 240 $m^3$/day | Number | | | | | | 5 |
| | Average Capacity >= 240 $m^3$/day | Number | 71 | | 1 | 1,204 | 42 | 16 |
| | Number of Household < 5 | Number | | | | | | |
| | Number of Household >= 5 | Number | | | | | | |

## Table 7.1.1 Water Sources Information

| Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP) | | | | | | | | Page: 4 of 13 |
|---|---|---|---|---|---|---|---|---|
| Content: **Water Source - General Information** | | | | | | Date: | | |
| Data Collection Level: **Provincial** | | Province No.: 0826 | | | Filename: Water Source xls | | | |
| Region Number: VIII | | Province Name: Eastern Samar | | | Form Number: P.4.1 | | | |
| | Name of Municipalities | Character | Can-avid | | | Dolores | | |
| | Type of Water Source | Number | Shallow Well | Deep Well | Spring | Shallow Well | Deep Well | Spring |
| | Total number of water sources | Number | 223 | 2 | 13 | 180 | 19 | 9 |
| Imple-mentor | Government Agency | Number | 118 | 2 | 13 | 84 | 9 | 9 |
| | Private | Number | 105 | | | 96 | 10 | |
| Level | Level I | Number | 223 | 2 | | 180 | 19 | 9 |
| | Level II | Number | | | 13 | | | |
| | Level III | Number | | | | | | |
| Ownership | Water District | Number | | | | | | |
| | MEO/CEO | Number | | | 8 | | | |
| | RWSA | Number | | | | | | |
| | BWSA | Number | | | 5 | | | |
| | Institution | Number | | | | | | |
| | Commercial Establishment | Number | | | | | | |
| | Industrial/Agricultural Undertaking | Number | | | | | | |
| | Public (Domestic) | Number | 118 | 2 | | 84 | 9 | 9 |
| | Private (Domestic) | Number | 105 | | | 96 | 10 | |
| Abstraction | Submersible/Turbine | Number | | | | | | |
| | Centrifugal | Number | | | | | | |
| | Handpump | Number | | | | | | |
| | Bucket & Rope | Number | | | | | | |
| | Free Flowing | Number | | | | | | |
| Usage | Drinking | Number | | | | | | |
| | Washing/Bathing | Number | | | | | | |
| | Gardening/Irrigation | Number | | | | | | |
| | Big-Scale Irrigation | Number | | | | | | |
| | Production | Number | | | | | | |
| Water Quality | No Quality Problem | Number | | | | | | |
| | High Iron/Manganese Content | Number | | | | | | |
| | High Chloride Content | Number | | | | | | |
| | Turbidity/Colored/Smell | Number | | | | | | |
| | Polluted/Contaminated | Number | | | | | | |
| | Chlorinated | Number | | | | | | |
| | Treated | Number | | | | | | |
| Production | Seasonal Production | Number | | | | | | |
| | Average Capacity < 240 $m^3$/day | Number | | | 11 | | | |
| | Average Capacity >= 240 $m^3$/day | Number | 223 | 2 | 2 | 180 | 19 | 9 |
| | Number of Household < 5 | Number | | | | | | |
| | Number of Household >= 5 | Number | | | | | | |

## Table 7.1.1 Water Sources Information

| Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP) | | | | | | | Page: 5 of 13 | |
|---|---|---|---|---|---|---|---|---|
| Content: **Water Source - General Information** | | | | | | Date: | | |
| Data Collection Level: **Provincial** | | Province No.: 0826 | | | Filename: Water Source xls | | | |
| Region Number: VIII | | Province Name: Eastern Samar | | | Form Number: P.4.1 | | | |
| | Name of Municipalities | Character | General Macarthur | | | Giporlos | | |
| | Type of Water Source | Number | Shallow Well | Deep Well | Spring | Shallow Well | Deep Well | Spring |
| | Total number of water sources | Number | | 12 | | 120 | 3 | 1 |
| Imple-mentor | Government Agency | Number | | 12 | | 44 | 2 | 1 |
| | Private | Number | | | | 76 | 1 | |
| Level | Level I | Number | | 12 | | 120 | 3 | 1 |
| | Level II | Number | | | | | | |
| | Level III | Number | | | | | | |
| Ownership | Water District | Number | | | | | | |
| | MEO/CEO | Number | | | | | | |
| | RWSA | Number | | | | | | |
| | BWSA | Number | | | | | | |
| | Institution | Number | | | | | | |
| | Commercial Establishment | Number | | | | | | |
| | Industrial/Agricultural Undertaking | Number | | | | | | |
| | Public (Domestic) | Number | | 12 | | 44 | 2 | 1 |
| | Private (Domestic) | Number | | | | 76 | 1 | |
| Abstraction | Submersible/Turbine | Number | | | | | | |
| | Centrifugal | Number | | | | | | |
| | Handpump | Number | | | | | | |
| | Bucket & Rope | Number | | | | | | |
| | Free Flowing | Number | | | | | | |
| Usage | Drinking | Number | | | | | | |
| | Washing/Bathing | Number | | | | | | |
| | Gardening/Irrigation | Number | | | | | | |
| | Big-Scale Irrigation | Number | | | | | | |
| | Production | Number | | | | | | |
| Water Quality | No Quality Problem | Number | | | | | | |
| | High Iron/Manganese Content | Number | | | | | | |
| | High Chloride Content | Number | | | | | | |
| | Turbidity/Colored/Smell | Number | | | | | | |
| | Polluted/Contaminated | Number | | | | | | |
| | Chlorinated | Number | | | | | | |
| | Treated | Number | | | | | | |
| Production | Seasonal Production | Number | | | | | | |
| | Average Capacity < 240 $m^3$/day | Number | | | | | | |
| | Average Capacity >= 240 $m^3$/day | Number | | 12 | | 120 | 3 | 1 |
| | Number of Household < 5 | Number | | | | | | |
| | Number of Household >= 5 | Number | | | | | | |

## Table 7.1.1 Water Sources Information

| Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP) | | | | | Page: 6 of 13 | | | |
|---|---|---|---|---|---|---|---|---|
| Content: **Water Source - General Information** | | | | | Date: | | | |
| Data Collection Level: **Provincial** | | Province No.: 0826 | | | Filename: Water Source.xls | | | |
| Region Number: VIII | | Province Name: Eastern Samar | | | Form Number: P.4.1 | | | |
| | Name of Municipalities | Character | Guiuan | | | Hernani | | |
| | Type of Water Source | Number | Shallow Well | Deep Well | Spring | Shallow Well | Deep Well | Spring |
| | Total number of water sources | Number | 415 | 39 | 8 | 120 | 6 | 8 |
| Implementer | Government Agency | Number | 180 | 38 | 8 | 62 | 6 | 8 |
| | Private | Number | 235 | 1 | | 58 | | |
| Level | Level I | Number | 415 | 39 | 7 | 120 | 6 | 7 |
| | Level II | Number | | | 1 | | | 1 |
| | Level III | Number | | | | | | |
| Ownership | Water District | Number | | | | | | |
| | MEO/CEO | Number | | | | | | |
| | RWSA | Number | | | | | | |
| | BWSA | Number | | | | | | |
| | Institution | Number | | | | | | |
| | Commercial Establishment | Number | | | | | | |
| | Industrial/Agricultural Undertaking | Number | | | | | | |
| | Public (Domestic) | Number | 180 | 38 | 8 | 62 | 6 | 8 |
| | Private (Domestic) | Number | 235 | 1 | | 58 | | |
| Abstraction | Submersible/Turbine | Number | | | | | | |
| | Centrifugal | Number | | | | | | |
| | Handpump | Number | | | | | | |
| | Bucket & Rope | Number | | | | | | |
| | Free Flowing | Number | | | | | | |
| Usage | Drinking | Number | | | | | | |
| | Washing/Bathing | Number | | | | | | |
| | Gardening/Irrigation | Number | | | | | | |
| | Big-Scale Irrigation | Number | | | | | | |
| | Production | Number | | | | | | |
| Water Quality | No Quality Problem | Number | | | | | | |
| | High Iron/Manganese Content | Number | | | | | | |
| | High Chloride Content | Number | | | | | | |
| | Turbidity/Colored/Smell | Number | | | | | | |
| | Polluted/Contaminated | Number | | | | | | |
| | Chlorinated | Number | | | | | | |
| | Treated | Number | | | | | | |
| Production | Seasonal Production | Number | | | | | | |
| | Average Capacity < 240 $m^3$/day | Number | | | 1 | | | 1 |
| | Average Capacity >= 240 $m^3$/day | Number | 415 | 39 | 7 | 120 | 6 | 7 |
| | Number of Household < 5 | Number | | | | | | |
| | Number of Household >= 5 | Number | | | | | | |

## Table 7.1.1 Water Sources Information

| Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP) | | | | | | | | Page: 7 of 13 |
|---|---|---|---|---|---|---|---|---|
| Content: **Water Source - General Information** | | | | | | Date: | | |
| Data Collection Level: **Provincial** | | Province No.: 0826 | | | | Filename: Water Source.xls | | |
| Region Number: VIII | | Province Name: Eastern Samar | | | | Form Number: P.4.1 | | |
| | Name of Municipalities | Character | Dipapad | | | Lawaan | | |
| | Type of Water Source | Number | Shallow Well | Deep Well | Spring | Shallow Well | Deep Well | Spring |
| | Total number of water sources | Number | 4 | 4 | 1 | 138 | | |
| Imple-mentor | Government Agency | Number | 3 | | 1 | 53 | | |
| | Private | Number | 1 | 4 | | 85 | | |
| Level | Level I | Number | 4 | 4 | 1 | 138 | | |
| | Level II | Number | | | | | | |
| | Level III | Number | | | | | | |
| Ownership | Water District | Number | | | | | | |
| | MEO/CEO | Number | | | | | | |
| | RWSA | Number | | | | | | |
| | BWSA | Number | | | | | | |
| | Institution | Number | | | | | | |
| | Commercial Establishment | Number | | | | | | |
| | Industrial/Agricultural Undertaking | Number | | | | | | |
| | Public (Domestic) | Number | 3 | | 1 | 53 | | |
| | Private (Domestic) | Number | 1 | 4 | | 85 | | |
| Abstraction | Submersible/Turbine | Number | | | | | | |
| | Centrifugal | Number | | | | | | |
| | Handpump | Number | | | | | | |
| | Bucket & Rope | Number | | | | | | |
| | Free Flowing | Number | | | | | | |
| Usage | Drinking | Number | | | | | | |
| | Washing/Bathing | Number | | | | | | |
| | Gardening/Irrigation | Number | | | | | | |
| | Big-Scale Irrigation | Number | | | | | | |
| | Production | Number | | | | | | |
| Water Quality | No Quality Problem | Number | | | | | | |
| | High Iron/Manganese Content | Number | | | | | | |
| | High Chloride Content | Number | | | | | | |
| | Turbidity/Colored/Smell | Number | | | | | | |
| | Polluted/Contaminated | Number | | | | | | |
| | Chlorinated | Number | | | | | | |
| | Treated | Number | | | | | | |
| Production | Seasonal Production | Number | | | | | | |
| | Average Capacity < 240 $m^3$/day | Number | | | | | | |
| | Average Capacity >= 240 $m^3$/day | Number | 4 | 4 | 1 | 138 | | |
| | Number of Household < 5 | Number | | | | | | |
| | Number of Household >= 5 | Number | | | | | | |

## Table 7.1.1 Water Sources Information

| Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP) | | | | | Page: 8 of 13 | | | |
|---|---|---|---|---|---|---|---|---|
| Content: **Water Source - General Information** | | | | | Date: | | | |
| Data Collection Level: **Provincial** | | Province No.: 0826 | | | Filename: Water Source xls | | | |
| Region Number: VIII | | Province Name: Eastern Samar | | | Form Number: P.4.1 | | | |
| | Name of Municipalities | Character | Llorente | | | Maslog | | |
| | Type of Water Source | Number | Shallow Well | Deep Well | Spring | Shallow Well | Deep Well | Spring |
| | Total number of water sources | Number | 54 | 2 | 8 | | | 4 |
| Implementor | Government Agency | Number | 25 | 2 | 8 | | | 4 |
| | Private | Number | 29 | | | | | |
| Level | Level I | Number | 54 | 1 | 7 | | | |
| | Level II | Number | | 1 | | | | 4 |
| | Level III | Number | | | 1 | | | |
| Ownership | Water District | Number | | | 1 | | | |
| | MEO/CEO | Number | | | | | | |
| | RWSA | Number | | | | | | |
| | BWSA | Number | | 1 | | | | |
| | Institution | Number | | | | | | |
| | Commercial Establishment | Number | | | | | | |
| | Industrial/Agricultural Undertaking | Number | | | | | | |
| | Public (Domestic) | Number | 25 | 1 | 7 | | | 4 |
| | Private (Domestic) | Number | 29 | | | | | |
| Abstraction | Submersible/Turbine | Number | | | | | | |
| | Centrifugal | Number | | | | | | |
| | Handpump | Number | | | | | | |
| | Bucket & Rope | Number | | | | | | |
| | Free Flowing | Number | | | | | | |
| Usage | Drinking | Number | | | | | | |
| | Washing/Bathing | Number | | | | | | |
| | Gardening/Irrigation | Number | | | | | | |
| | Big-Scale Irrigation | Number | | | | | | |
| | Production | Number | | | | | | |
| Water Quality | No Quality Problem | Number | | | | | | |
| | High Iron/Manganese Content | Number | | | | | | |
| | High Chloride Content | Number | | | | | | |
| | Turbidity/Colored/Smell | Number | | | | | | |
| | Polluted/Contaminated | Number | | | | | | |
| | Chlorinated | Number | | | | | | |
| | Treated | Number | | | | | | |
| Production | Seasonal Production | Number | | | | | | |
| | Average Capacity < 240 $m^3$/day | Number | | 1 | 1 | | | 4 |
| | Average Capacity >= 240 $m^3$/day | Number | 54 | 1 | 7 | | | |
| | Number of Household < 5 | Number | | | | | | |
| | Number of Household >= 5 | Number | | | | | | |

## Table 7.1.1 Water Sources Information

| Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP) | | | | | Page:9 of 13 | | | |
|---|---|---|---|---|---|---|---|---|
| Content: **Water Source - General Information** | | | | | Date: | | | |
| Data Collection Level: **Provincial** | | | Province No.: 0826 | | Filename: Water Source.xls | | | |
| Region Number: **VIII** | | | Province Name: Eastern Samar | | Form Number: P.4.1 | | | |
| | Name of Municipalities | Character | Maydolong | | | Mercedes | | |
| | Type of Water Source | Number | Shallow Well | Deep Well | Spring | Shallow Well | Deep Well | Spring |
| | Total number of water sources | Number | 35 | | 3 | 30 | 30 | 1 |
| Implementor | Government Agency | Number | | | 3 | 24 | 30 | 1 |
| | Private | Number | 35 | | | 6 | | |
| Level | Level I | Number | 35 | | 1 | 30 | 30 | 1 |
| | Level II | Number | | | 1 | | | |
| | Level III | Number | | | 1 | | | |
| Ownership | Water District | Number | | | | | | |
| | MEO/CEO | Number | | | 1 | | | |
| | RWSA | Number | | | | | | |
| | BWSA | Number | | | | | | |
| | Institution | Number | | | | | | |
| | Commercial Establishment | Number | | | | | | |
| | Industrial/Agricultural Undertaking | Number | | | | | | |
| | Public (Domestic) | Number | | | 2 | 24 | 30 | 1 |
| | Private (Domestic) | Number | 35 | | | 6 | | |
| Abstraction | Submersible/Turbine | Number | | | | | | |
| | Centrifugal | Number | | | | | | |
| | Handpump | Number | | | | | | |
| | Bucket & Rope | Number | | | | | | |
| | Free Flowing | Number | | | | | | |
| Usage | Drinking | Number | | | | | | |
| | Washing/Bathing | Number | | | | | | |
| | Gardening/Irrigation | Number | | | | | | |
| | Big-Scale Irrigation | Number | | | | | | |
| | Production | Number | | | | | | |
| Water Quality | No Quality Problem | Number | | | | | | |
| | High Iron/Manganese Content | Number | | | | | | |
| | High Chloride Content | Number | | | | | | |
| | Turbidity/Colored/Smell | Number | | | | | | |
| | Polluted/Contaminated | Number | | | | | | |
| | Chlorinated | Number | | | | | | |
| | Treated | Number | | | | | | |
| Production | Seasonal Production | Number | | | | | | |
| | Average Capacity < 240 $m^3$/day | Number | | | | | | |
| | Average Capacity >= 240 $m^3$/day | Number | 35 | | 3 | 30 | 30 | 1 |
| | Number of Household < 5 | Number | | | | | | |
| | Number of Household >= 5 | Number | | | | | | |

## Table 7.1.1 Water Sources Information

| Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP) | | | | | | | | Page: 10 of 13 |
|---|---|---|---|---|---|---|---|---|
| Content: **Water Source - General Information** | | | | | | Date: | | |
| Data Collection Level: **Provincial** | | Province No.: 0826 | | | | Filename: Water Source.xls | | |
| Region Number: VIII | | Province Name: Eastern Samar | | | | Form Number: P.4.1 | | |
| | Name of Municipalities | Character | Oras | | | Quinapondan | | |
| | Type of Water Source | Number | Shallow Well | Deep Well | Spring | Shallow Well | Deep Well | Spring |
| | Total number of water sources | Number | 154 | 125 | 21 | 2 | | 13 |
| Implementor | Government Agency | Number | 111 | 55 | 21 | 2 | | 13 |
| | Private | Number | 43 | 70 | | | | |
| Level | Level I | Number | 154 | 123 | 21 | 2 | | 6 |
| | Level II | Number | | 2 | | | | 7 |
| | Level III | Number | | | | | | |
| Ownership | Water District | Number | | | | | | |
| | MEO/CEO | Number | | 2 | | | | 1 |
| | RWSA | Number | | | | | | |
| | BWSA | Number | | | | | | 6 |
| | Institution | Number | | | | | | |
| | Commercial Establishment | Number | | | | | | |
| | Industrial/Agricultural Undertaking | Number | | | | | | |
| | Public (Domestic) | Number | 111 | 53 | 21 | 2 | | 6 |
| | Private (Domestic) | Number | 43 | 70 | | | | |
| Abstraction | Submersible/Turbine | Number | | | | | | |
| | Centrifugal | Number | | | | | | |
| | Handpump | Number | | | | | | |
| | Bucket & Rope | Number | | | | | | |
| | Free Flowing | Number | | | | | | |
| Usage | Drinking | Number | | | | | | |
| | Washing/Bathing | Number | | | | | | |
| | Gardening/Irrigation | Number | | | | | | |
| | Big-Scale Irrigation | Number | | | | | | |
| | Production | Number | | | | | | |
| Water Quality | No Quality Problem | Number | | | | | | |
| | High Iron/Manganese Content | Number | | | | | | |
| | High Chloride Content | Number | | | | | | |
| | Turbidity/Colored/Smell | Number | | | | | | |
| | Polluted/Contaminated | Number | | | | | | |
| | Chlorinated | Number | | | | | | |
| | Treated | Number | | | | | | |
| Production | Seasonal Production | Number | | | | | | |
| | Average Capacity < 240 $m^3$/day | Number | | 2 | | | | 5 |
| | Average Capacity >= 240 $m^3$/day | Number | 154 | 123 | 21 | 2 | | 8 |
| | Number of Household < 5 | Number | | | | | | |
| | Number of Household >= 5 | Number | | | | | | |

## Table 7.1.1 Water Sources Information

| Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP) | | | | | | | | Page: 11 of 13 |
|---|---|---|---|---|---|---|---|---|
| Content: **Water Source - General Information** | | | | | | Date: | | |
| Data Collection Level: **Provincial** | | Province No.: 0826 | | | | Filename: Water Source xls | | |
| Region Number: VIII | | Province Name: Eastern Samar | | | | Form Number: P.4.1 | | |
| | Name of Municipalities | Character | Salcedo | | | San Julian | | |
| | Type of Water Source | Number | Shallow Well | Deep Well | Spring | Shallow Well | Deep Well | Spring |
| | Total number of water sources | Number | | 5 | 6 | 57 | 8 | 12 |
| Implementor | Government Agency | Number | | 5 | 6 | 36 | 8 | 12 |
| | Private | Number | | | | 21 | | |
| Level | Level I | Number | | 4 | | 57 | 8 | 7 |
| | Level II | Number | | | 5 | | | 5 |
| | Level III | Number | | 1 | 1 | | | |
| Ownership | Water District | Number | | | | | | |
| | MEO/CEO | Number | | | 5 | | | |
| | RWSA | Number | | | | | | |
| | BWSA | Number | | | | | | 5 |
| | Institution | Number | | | | | | |
| | Commercial Establishment | Number | | | | | | |
| | Industrial/Agricultural Undertaking | Number | | | | | | |
| | Public (Domestic) | Number | | 5 | 1 | 36 | 8 | 7 |
| | Private (Domestic) | Number | | | | 21 | | |
| Abstraction | Submersible/Turbine | Number | | | | | | |
| | Centrifugal | Number | | | | | | |
| | Handpump | Number | | | | | | |
| | Bucket & Rope | Number | | | | | | |
| | Free Flowing | Number | | | | | | |
| Usage | Drinking | Number | | | | | | |
| | Washing/Bathing | Number | | | | | | |
| | Gardening/Irrigation | Number | | | | | | |
| | Big-Scale Irrigation | Number | | | | | | |
| | Production | Number | | | | | | |
| Water Quality | No Quality Problem | Number | | | | | | |
| | High Iron/Manganese Content | Number | | | | | | |
| | High Chloride Content | Number | | | | | | |
| | Turbidity/Colored/Smell | Number | | | | | | |
| | Polluted/Contaminated | Number | | | | | | |
| | Chlorinated | Number | | | | | | |
| | Treated | Number | | | | | | |
| Production | Seasonal Production | Number | | | | | | |
| | Average Capacity < 240 $m^3$/day | Number | | | 5 | | | 5 |
| | Average Capacity >= 240 $m^3$/day | Number | | 5 | 1 | 57 | 8 | 7 |
| | Number of Household < 5 | Number | | | | | | |
| | Number of Household >= 5 | Number | | | | | | |

## Table 7.1.1 Water Sources Information

| Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP) | | | | | | | | Page: 12 of 13 |
|---|---|---|---|---|---|---|---|---|
| Content: **Water Source - General Information** | | | | | | Date: | | |
| Data Collection Level: **Provincial** | | Province No.: 0826 | | | | Filename: Water Source xls | | |
| Region Number: VIII | | Province Name: Eastern Samar | | | | Form Number: P.4.1 | | |
| | Name of Municipalities | Character | San Policarpio | | | Sulat | | |
| | Type of Water Source | Number | Shallow Well | Deep Well | Spring | Shallow Well | Deep Well | Spring |
| | Total number of water sources | Number | 60 | 9 | 2 | 127 | 6 | 13 |
| Implementor | Government Agency | Number | 43 | 9 | 2 | 31 | 6 | 13 |
| | Private | Number | 17 | | | 96 | | |
| Level | Level I | Number | 60 | 9 | 2 | 127 | 5 | 9 |
| | Level II | Number | | | | | | 4 |
| | Level III | Number | | | | | 1 | |
| Ownership | Water District | Number | | | | | 1 | |
| | MEO/CEO | Number | | | | | | |
| | RWSA | Number | | | | | | |
| | BWSA | Number | | | | | | |
| | Institution | Number | | | | | | |
| | Commercial Establishment | Number | | | | | | |
| | Industrial/Agricultural Undertaking | Number | | | | | | |
| | Public (Domestic) | Number | 43 | 9 | 2 | 31 | 5 | 13 |
| | Private (Domestic) | Number | 17 | | | 96 | | |
| Abstraction | Submersible/Turbine | Number | | | | | | |
| | Centrifugal | Number | | | | | | |
| | Handpump | Number | | | | | | |
| | Bucket & Rope | Number | | | | | | |
| | Free Flowing | Number | | | | | | |
| Usage | Drinking | Number | | | | | | |
| | Washing/Bathing | Number | | | | | | |
| | Gardening/Irrigation | Number | | | | | | |
| | Big-Scale Irrigation | Number | | | | | | |
| | Production | Number | | | | | | |
| Water Quality | No Quality Problem | Number | | | | | | |
| | High Iron/Manganese Content | Number | | | | | | |
| | High Chloride Content | Number | | | | | | |
| | Turbidity/Colored/Smell | Number | | | | | | |
| | Polluted/Contaminated | Number | | | | | | |
| | Chlorinated | Number | | | | | | |
| | Treated | Number | | | | | | |
| Production | Seasonal Production | Number | | | | | | |
| | Average Capacity < 240 $m^3$/day | Number | | | | | | |
| | Average Capacity >= 240 $m^3$/day | Number | 60 | 9 | 2 | 127 | 6 | 13 |
| | Number of Household < 5 | Number | | | | | | |
| | Number of Household >= 5 | Number | | | | | | |

## Table 7.1.1 Water Sources Information

| Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP) | | | | | | | | Page: 13 of 13 |
|---|---|---|---|---|---|---|---|---|
| Content: **Water Source - General Information** | | | | | | Date: | | |
| Data Collection Level: **Provincial** | | | Province No.: 0826 | | | Filename: Water Source xls | | |
| Region Number: VIII | | | Province Name: Eastern Samar | | | Form Number: P.4.1 | | |
| | Name of Municipalities | Character | Taft | | | | | |
| | Type of Water Source | Number | Shallow Well | Deep Well | Spring | Shallow Well | Deep Well | Spring |
| | Total number of water sources | Number | 66 | 11 | 9 | | | |
| Imple-mentor | Government Agency | Number | 66 | 11 | 9 | | | |
| | Private | Number | | | | | | |
| Level | Level I | Number | 66 | 11 | 1 | | | |
| | Level II | Number | | | 8 | | | |
| | Level III | Number | | | | | | |
| Ownership | Water District | Number | | | | | | |
| | MEO/CEO | Number | | | 8 | | | |
| | RWSA | Number | | | | | | |
| | BWSA | Number | | | | | | |
| | Institution | Number | | | | | | |
| | Commercial Establishment | Number | | | | | | |
| | Industrial/Agricultural Undertaking | Number | | | | | | |
| | Public (Domestic) | Number | 66 | 11 | 1 | | | |
| | Private (Domestic) | Number | | | | | | |
| Abstraction | Submersible/Turbine | Number | | | | | | |
| | Centrifugal | Number | | | | | | |
| | Handpump | Number | | | | | | |
| | Bucket & Rope | Number | | | | | | |
| | Free Flowing | Number | | | | | | |
| Usage | Drinking | Number | | | | | | |
| | Washing/Bathing | Number | | | | | | |
| | Gardening/Irrigation | Number | | | | | | |
| | Big-Scale Irrigation | Number | | | | | | |
| | Production | Number | | | | | | |
| Water Quality | No Quality Problem | Number | | | | | | |
| | High Iron/Manganese Content | Number | | | | | | |
| | High Chloride Content | Number | | | | | | |
| | Turbidity/Colored/Smell | Number | | | | | | |
| | Polluted/Contaminated | Number | | | | | | |
| | Chlorinated | Number | | | | | | |
| | Treated | Number | | | | | | |
| Production | Seasonal Production | Number | | | | | | |
| | Average Capacity < 240 $m^3$/day | Number | | | 1 | | | |
| | Average Capacity >= 240 $m^3$/day | Number | 66 | 11 | 8 | | | |
| | Number of Household < 5 | Number | | | | | | |
| | Number of Household >= 5 | Number | | | | | | |

**Table 7.1.2 Major References**

| Report/Information | Agency/Author | Contents | Reference Data/Description | Output |
|---|---|---|---|---|
| 1. Topographic Map (1:250,000) | NAMRIA | political boundary, topographic contour, river, road, etc. | major river basins & road | Location Map (Base Map of the Province) |
| 2. Rapid Assessment of Water Supply Sources | NWRB | groundwater availability, well inventory | well depth, static water level, specific capacity, etc. | Groundwater Availability Map |
| 3. Individual Well Information Database | NWRB | location & well inventory | location with well depths & water levels | Individual Well Location Map |
| 4. Groundwater Resources Investigation | NWRB | groundwater potential | high yielding and water quality problem areas | Groundwater Availability Map |
| 5. Geological Map of the Philippines | BMGS | lithologic distribution and structures | aquifers distribution | Groundwater Availability Map |
| 6. Philippine Water Resources Summary Data | NWRB | location map & runoff records | runoff record & statistical data | River Flow Duration Curve & Probability of Surface Water |
| 7. Road Network Map of the Province | PPDC | major road & municipality boundaries | municipal boundaries | Distribution Map of Urban & Rural Areas |
| 8. Feasibility Study Reports of the Water Districts | LWUA | well field information | groundwater potential & quality | Groundwater Availability Map |
| 9. Water Quality Analysis Result | Water Districts | water quality results | water sources quality | Groundwater Availability Map & Groundwater Quality |
| 10. Water Quality Analysis Result | PHO, PSPT | water quality results | water sources quality | Groundwater Availability Map & Water Sources Quality |
| 11. Assessment of the Mineral Production | DENR | location, activity of the mining sites | location & activity of the mining sites | River Network Map |
| 12. General Information of Groundwater | DEO, PSPT | groundwater availability | low yielding and water quality problem area | Groundwater Availability Map |
| 13. Well Inventory | DEO, PSPT | location and well information | well depth, static water level, specific capacity, etc. | Existing Well Inventory |
| 14. Spring Inventory | DEO, PSPT | location and spring information | discharge, distance & elevation | Water Sources Information |
| 15. Pumping Test Data | DEO | pumping test results | well capacity | Groundwater Availability Map |

## 7.3 Groundwater Sources

### 7.3.1 Classification of Groundwater Availability

**Table 7.3.1 Well Inventory by Municipality**

| Municipality | Barangay | Utilization | Type | Depth (m) | SWL (mbgs) | Spe. Cap. (lpsm) |
|---|---|---|---|---|---|---|
| Arteche | Aguinaldo | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Balud (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Balud (Pob.) | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Bato (San Luis) | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Beri | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Beri | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Bigo | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Buenavista | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Cagsalay | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Campacion | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Carapdapan | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Carapdapan | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Casidman | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Catumsan | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Central (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Central (Pob.) | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Concepcion | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Concepcion | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Garden (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Garden (Pob.) | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Inayawan | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Macarthur | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Rawis (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Rawis (Pob.) | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Tangbo | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Tawagan | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Tebalawon | Level-I | SW | 6.0 | 6.0 | 0.2 |
| Balangiga | Barangay Poblacion I | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay Poblacion II | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay Poblacion III | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay Poblacion IV | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay Poblacion V | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay Poblacion VI | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Cansumangcay | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | San Miguel | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Alang-alang | Level-I | DW | 21.0 | 3.0 | 0.2 |
| | Alang-alang | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Amantacop | Level-I | SW | 10.0 | 3.0 | 0.2 |
| | Ando | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Ando | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Balud | Level-I | SW | 6.5 | 3.0 | 0.2 |
| | Banuyo | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Banuyo | Level-I | SW | 6.5 | 6.0 | 0.2 |
| | Bato | Level-I | DW | 21.0 | 3.0 | 0.2 |
| | Bato | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Bayobay | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Bugas | Level-I | DW | 22.0 | 3.0 | 0.2 |

## Table 7.3.1 Well Inventory by Municipality

| Municipality | Barangay | Utilization | Type | Depth (m) | SWL (mbgs) | Spe. Cap. (lpsm) |
|---|---|---|---|---|---|---|
| Borongan | Bugas | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Cabong | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Cabong | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Cabong | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Cagbonga | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Cagbonga | Level-I | SW | 7.5 | 6.0 | 0.2 |
| | Campesao | Level-I | DW | 24.0 | 3.0 | 0.2 |
| | Campesao | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Campesao | Level-I | SW | 6.5 | 3.0 | 0.2 |
| | Can-abong | Level-I | SW | 6.5 | 3.0 | 0.2 |
| | Can-abong | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Can-aga | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Can-aga | Level-I | DW | 22.5 | 3.0 | 0.2 |
| | Canjaway | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Canjaway | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Canlaray | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Canlaray | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Divinubo | Level-I | DW | 21.0 | 3.0 | 0.2 |
| | Divinubo | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Divinubo | Level-I | SW | 6.5 | 3.0 | 0.2 |
| | Hebacong | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Hebacong | Level-I | SW | 7.0 | 6.0 | 0.2 |
| | Hindang | Level-I | DW | 23.0 | 3.0 | 0.2 |
| | Hindang | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Lalawigan | Level-I | DW | 21.0 | 3.0 | 0.2 |
| | Lalawigan | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Libuton | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Locso-on | Level-I | DW | 21.0 | 3.0 | 0.2 |
| | Locso-on | Level-I | SW | 6.6 | 3.0 | 0.2 |
| | Maybacong | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Maybacong | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Maypangdan | Level-I | DW | 21.0 | 6.0 | 0.2 |
| | Maypangdan | Level-I | SW | 6.5 | 3.0 | 0.2 |
| | Pepelitan | Level-I | SW | 6.5 | 3.0 | 0.2 |
| | Punta Maria | Level-I | DW | 21.0 | 3.0 | 0.2 |
| | Punta Maria | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Punta Maria | Level-I | SW | 6.5 | 3.0 | 0.2 |
| | Purok A (Pob.) | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Purok B (Pob.) | Level-I | SW | 6.5 | 3.0 | 0.2 |
| | Purok C (Pob.) | Level-I | DW | 21.0 | 3.0 | 0.2 |
| | Purok C (Pob.) | Level-I | SW | 6.5 | 3.0 | 0.2 |
| | Purok D1 (Pob.) | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Purok D1 (Pob.) | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Purok D2 (Pob.) | Level-I | DW | 21.5 | 3.0 | 0.2 |
| | Purok D2 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Purok E (Pob.) | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Purok E (Pob.) | Level-I | SW | 6.5 | 3.0 | 0.2 |

## Table 7.3.1 Well Inventory by Municipality

| Municipality | Barangay | Utilization | Type | Depth (m) | SWL (mbgs) | Spe. Cap. (lpsm) |
|---|---|---|---|---|---|---|
| Borongan | Purok F (Pob.) | Level-I | DW | 21.0 | 3.0 | 0.2 |
| | Purok F (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Purok G (Pob.) | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Purok H (Pob.) | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Purok H (Pob.) | Level-I | SW | 6.5 | 3.0 | 0.2 |
| | Sabang North | Level-I | DW | 21.0 | 3.0 | 0.2 |
| | Sabang North | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Sabang South | Level-I | DW | 21.0 | 3.0 | 0.2 |
| | Sabang South | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | San Gregorio | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | San Pablo | Level-I | DW | 21.0 | 3.0 | 0.2 |
| | San Saturnino | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Santa Fe | Level-I | DW | 22.0 | 3.0 | 0.2 |
| | Santa Fe | Level-I | SW | 10.0 | 6.0 | 0.2 |
| | Songco | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Songco | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Surok | Level-I | DW | 22.5 | 3.0 | 0.2 |
| | Taboc | Level-I | DW | 21.0 | 3.0 | 0.2 |
| | Taboc | Level-I | SW | 7.0 | 6.0 | 0.2 |
| | Tamoso | Level-I | DW | 21.0 | 6.0 | 0.2 |
| | Tamoso | Level-I | SW | 6.0 | 6.0 | 0.2 |
| Can-Avid | Barangay 01 Poblacion | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Barangay 01 Poblacion | Level-I | DW | 60.0 | 3.0 | 0.2 |
| | Barangay 02 Poblacion | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Barangay 02 Poblacion | Level-I | DW | 60.0 | 3.0 | 0.2 |
| | Barangay 03 Poblacion | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Barangay 04 Poblacion | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Barangay 04 Poblacion | Level-I | DW | 30.0 | 3.0 | 0.2 |
| | Barangay 05 Poblacion | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Barangay 06 Poblacion | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Barangay 07 Poblacion | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Barangay 08 Poblacion | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Barangay 09 Poblacion | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Barangay 10 Poblacion | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Cansangaya | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Canteros | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Carolina | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Rawis | Level-I | DW | 20.0 | 3.0 | 0.2 |
| Dolores | Aroganga | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 01 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 02 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 03 (Pob.) | Level-II | SW | 6.0 | 5.5 | 8.8 |
| | Barangay 04 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 05 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 06 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 07 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 08 (Pob.) | Level-II | SW | 6.0 | 5.5 | 10.7 |

## Table 7.3.1 Well Inventory by Municipality

| Municipality | Barangay | Utilization | Type | Depth (m) | SWL (mbgs) | Spe. Cap. (lpsm) |
|---|---|---|---|---|---|---|
| Dolores | Barangay 09 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 10 (Pob.) | Level-I | DW | 40.0 | - | 0.2 |
| | Barangay 10 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 11 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Bonghon | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Buenavista | Level-I | DW | 40.0 | 3.0 | 0.2 |
| | Buenavista | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Cabago-an | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Caglao-an | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Cagtabon | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Dampigan | Level-I | DW | 40.0 | - | 0.2 |
| | Dapdap | Level-I | DW | 40.0 | - | 0.2 |
| | Del Pilar | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Denigpian | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Gap-ang | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Hilabaan | Level-I | DW | 40.0 | - | 0.2 |
| | Hilabaan | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Hinolaso | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Japitan | Level-I | DW | 40.0 | - | 0.2 |
| | Japitan | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Jicontol | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Libertad | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Magongbong | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Magsaysay | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Malaintos | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Malobago | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Osmena | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Rizal | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | San Isidro (Malabag) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | San Pascual | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | San Roque | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | San Vicente | Level-I | DW | 40.0 | - | 0.2 |
| | San Vicente | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Santa Cruz | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Santo Nino | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Tanauan | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Tikling | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Villahermosa | Level-I | SW | 6.0 | 3.0 | 0.2 |
| General MacArthur | Poblacion Barangay 1 | Level-I | SW | 6.0 | - | 0.2 |
| | Poblacion Barangay 2 | Level-I | SW | 9.0 | - | 0.2 |
| | Poblacion Barangay 5 | Level-I | SW | 6.0 | - | 0.2 |
| Giporlos | Barangay 1 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 2 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 3 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 4 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 5 (Pob.) | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Barangay 6 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |

## Table 7.3.1 Well Inventory by Municipality

| Municipality | Barangay | Utilization | Type | Depth (m) | SWL (mbgs) | Spc. Cap. (lpsm) |
|---|---|---|---|---|---|---|
| Giporlos | Barangay 7 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 8 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Biga | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Coticot | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Parena | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Paya | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | San Isidro (Malabag) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | San Miguel | Level-I | SW | 6.0 | 3.0 | 0.2 |
| Guiuan | Alingarog | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Bagua | Level-I | SW | 9.0 | 3.0 | 0.2 |
| | Banaag | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Banahao | Level-I | SW | 9.0 | 3.0 | 0.2 |
| | Baras | Level-I | SW | 8.0 | 3.0 | 0.2 |
| | Barbo | Level-I | SW | 8.0 | 3.0 | 0.2 |
| | Bucao | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Cagdara-o | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Camparang | Level-I | SW | 7.0 | 6.0 | 0.2 |
| | Campoyong | Level-II | SW | 12.0 | 1.8 | |
| | Cantahay | Level-I | SW | 9.0 | 3.0 | 0.2 |
| | Cogon | Level-I | SW | 9.0 | 3.0 | 0.2 |
| | Dalaragan | Level-I | SW | 5.0 | 3.0 | 0.2 |
| | Gahoy | Level-I | SW | 8.0 | 3.0 | 0.2 |
| | Habag | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Hollywood | Level-I | SW | 5.0 | 3.0 | 0.2 |
| | Lupok (Pob.) | Level-I | SW | 5.0 | 3.0 | 0.2 |
| | Mayana | Level-I | SW | 9.0 | 3.0 | 0.2 |
| | Ngolos | Level-I | SW | 8.0 | 3.0 | 0.2 |
| | Pagnamitan | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Poblacion Ward 01 | Level-I | SW | 4.0 | 3.0 | 0.2 |
| | Poblacion Ward 02 | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Poblacion Ward 03 | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Poblacion Ward 04 | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Poblacion Ward 04-A | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Poblacion Ward 05 | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Poblacion Ward 06 | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Poblacion Ward 07 | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Poblacion Ward 08 | Level-I | SW | 9.0 | 3.0 | 0.2 |
| | Poblacion Ward 09 | Level-I | SW | 4.0 | 3.0 | 0.2 |
| | Poblacion Ward 09-A | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Poblacion Ward 10 | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Poblacion Ward 11 | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Poblacion Ward 12 | Level-I | SW | 5.0 | 3.0 | 0.2 |
| | Salug | Level-I | SW | 8.0 | 3.0 | 0.2 |
| | San Antonio | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | San Juan | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | San Pedro | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Santo Nino | Level-I | SW | 6.0 | 3.0 | 0.2 |

## Table 7.3.1 Well Inventory by Municipality

| Municipality | Barangay | Utilization | Type | Depth (m) | SWL (mbgs) | Spe. Cap. (lpsm) |
|---|---|---|---|---|---|---|
| Guiuan | Sapao | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Sulangan | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Suluan | Level-I | SW | 4.0 | 3.0 | 0.2 |
| | Surok | Level-I | SW | 9.0 | 3.0 | 0.2 |
| | Tagporo | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Taytay | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Timala | Level-I | SW | 9.0 | 3.0 | 0.2 |
| | Trinidad | Level-I | SW | 5.0 | 3.0 | 0.2 |
| Hernani | Barangay 1 (Pob.) | Level-I | SW | 4.5 | - | 0.2 |
| | Barangay 1 (Pob.) | Level-I | SW | 6.0 | - | 0.2 |
| | Barangay 2 (Pob.) | Level-I | SW | 4.5 | 3.0 | 0.2 |
| | Barangay 2 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 3 (Pob.) | Level-I | SW | 4.5 | 3.0 | 0.2 |
| | Barangay 3 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 4 (Pob.) | Level-I | SW | 4.5 | 3.0 | 0.2 |
| | Barangay 4 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Batang | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Canciledes | Level-I | SW | 4.5 | - | 0.2 |
| | Carmen | Level-I | SW | 4.5 | 3.0 | 0.2 |
| | Carmen | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Garawon | Level-I | SW | 4.5 | 3.0 | 0.2 |
| | Garawon | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Nagaja | Level-I | SW | 4.5 | 3.0 | 0.2 |
| | Nagaja | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Padang | Level-I | SW | 4.5 | 3.0 | 0.2 |
| | Padang | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | San Isidro | Level-I | SW | 4.5 | 3.0 | 0.2 |
| | San Isidro | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | San Miguel | Level-I | SW | 4.5 | 3.0 | 0.2 |
| | San Miguel | Level-I | SW | 6.0 | 3.0 | 0.2 |
| Jipapad | Barangay 1 (Pob.) | Level-I | DW | 25.0 | 6.0 | 0.2 |
| | Barangay 2 (Pob.) | Level-I | DW | 25.0 | 6.0 | 0.2 |
| | Barangay 3 (Pob.) | Level-I | DW | 25.0 | 6.0 | 0.2 |
| Lawaan | Barangay Poblacion 01 | Level-I | SW | 3.6 | 3.0 | 0.2 |
| | Barangay Poblacion 01 | Level-II | SW | 6.1 | 2.0 | - |
| | Barangay Poblacion 02 | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Barangay Poblacion 03 | Level-I | SW | 3.5 | 3.0 | 0.2 |
| | Barangay Poblacion 04 | Level-I | SW | 3.5 | 3.0 | 0.2 |
| | Barangay Poblacion 05 | Level-I | SW | 3.6 | 3.0 | 0.2 |
| | Barangay Poblacion 06 | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Barangay Poblacion 07 | Level-I | SW | 3.6 | 3.0 | 0.2 |
| | Barangay Poblacion 08 | Level-I | SW | 5.5 | 3.0 | 0.2 |
| | Barangay Poblacion 09 | Level-I | SW | 5.0 | 3.0 | 0.2 |
| | Barangay Poblacion 10 | Level-I | SW | 5.0 | 3.0 | 0.2 |
| | Betaog | Level-I | SW | 5.5 | 3.0 | 0.2 |
| | Bolusao | Level-I | SW | 4.5 | 3.0 | 0.2 |
| | Guinob-an | Level-I | DW | 20.0 | 3.0 | 0.2 |

## Table 7.3.1 Well Inventory by Municipality

| Municipality | Barangay | Utilization | Type | Depth (m) | SWL (mbgs) | Spe. Cap. (lpsm) |
|---|---|---|---|---|---|---|
| Lawaan | Guinob-an | Level-I | SW | 5.5 | 3.0 | 0.2 |
| | Maslog | Level-I | SW | 5.0 | 3.0 | 0.2 |
| | Taguite | Level-I | SW | 4.0 | 3.0 | 0.2 |
| Llorente | Antipolo | Level-II | DW | 20.0 | 7.0 | 0.5 |
| | Antipolo | Level-II | DW | 37.0 | 27.8 | 0.5 |
| | Babanikhon | Level-II | DW | 20.0 | 7.0 | 0.5 |
| | Babanikhon | Level-II | DW | 39.0 | 29.8 | 0.5 |
| | Bacayawan | Level-II | DW | 23.0 | 6.0 | 0.6 |
| | Bacayawan | Level-II | DW | 40.0 | 36.6 | 0.6 |
| | Barobo | Level-II | DW | 20.0 | 7.0 | 0.6 |
| | Barobo | Level-II | DW | 36.0 | 28.7 | 0.6 |
| | Borak | Level-II | DW | 20.0 | 7.0 | 0.6 |
| | Borak | Level-II | DW | 36.0 | 28.7 | 0.6 |
| | Can-ato | Level-II | DW | 20.0 | 7.0 | 0.6 |
| | Can-ato | Level-II | DW | 36.0 | 28.7 | 0.6 |
| | Candoros | Level-II | DW | 20.0 | 7.0 | 0.6 |
| | Candoros | Level-II | DW | 36.0 | 28.7 | 0.6 |
| | Canliwag | Level-II | DW | 23.0 | 6.0 | 0.6 |
| | Canliwag | Level-II | DW | 40.0 | 36.6 | 0.6 |
| | Cantomco | Level-II | DW | 20.0 | 7.0 | 0.6 |
| | Cantomco | Level-II | DW | 39.0 | 29.3 | 0.6 |
| | Hugpa | Level-II | DW | 23.0 | 8.0 | 0.6 |
| | Hugpa | Level-II | DW | 43.0 | 30.5 | 0.6 |
| | Maca-anga | Level-II | DW | 23.0 | - | 0.6 |
| | Maca-anga | Level-II | DW | 39.0 | 29.3 | 0.6 |
| | Magtino | Level-II | DW | 24.0 | 7.0 | 0.6 |
| | Magtino | Level-II | DW | 39.0 | 29.5 | 0.6 |
| | Mina-anod | Level-II | DW | 20.0 | 6.0 | 0.5 |
| | Mina-anod | Level-II | DW | 41.0 | 30.5 | 0.5 |
| | Naubay | Level-II | DW | 23.0 | 8.0 | 0.6 |
| | Naubay | Level-II | DW | 40.0 | 36.6 | 0.6 |
| | Piliw | Level-II | DW | 23.0 | 7.0 | 0.6 |
| | Piliw | Level-II | DW | 40.0 | 36.6 | 0.6 |
| | San Jose | Level-II | DW | 23.0 | 6.0 | 0.6 |
| | San Jose | Level-II | DW | 40.0 | 36.6 | 0.6 |
| | San Miguel | Level-II | DW | 23.0 | 6.0 | 0.5 |
| | San Miguel | Level-II | DW | 40.0 | 27.2 | 0.5 |
| | San Roque | Level-II | DW | 23.0 | 6.0 | 0.6 |
| | San Roque | Level-II | DW | 40.0 | 36.6 | 0.6 |
| | So-ong | Level-II | DW | 23.0 | 6.0 | 0.5 |
| | So-ong | Level-II | DW | 41.0 | 27.2 | 0.5 |
| | Tabok | Level-II | DW | 23.0 | 8.0 | 0.5 |
| | Tabok | Level-II | DW | 41.0 | 37.2 | 0.5 |
| | Waso | Level-II | DW | 24.0 | 7.0 | 0.6 |
| | Waso | Level-II | DW | 43.0 | 20.5 | 0.6 |
| Maydolong | Barangay Poblacion 1 | Level-I | SW | 10.0 | 3.0 | 0.2 |
| | Barangay Poblacion 6 | Level-I | SW | 8.0 | 3.0 | 0.2 |

## Table 7.3.1 Well Inventory by Municipality

| Municipality | Barangay | Utilization | Type | Depth (m) | SWL (mbgs) | Spe. Cap. (lpsm) |
|---|---|---|---|---|---|---|
| Maydolong | Barangay Poblacion 7 | Level-I | SW | 8.0 | 3.0 | 0.2 |
| | Camada | Level-I | SW | 12.0 | 3.0 | 0.2 |
| | Campakerit (Botay) | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Guindalitan | Level-I | SW | 8.0 | 3.0 | 0.2 |
| | Lapgap | Level-I | DW | 20.0 | 6.0 | 0.2 |
| | Malobago | Level-I | SW | 8.0 | 3.0 | 0.2 |
| | Maybocog | Level-I | SW | 12.0 | 3.0 | 0.2 |
| | Maytigbao | Level-I | SW | 7.0 | 3.0 | 0.2 |
| | Omawas | Level-I | SW | 12.0 | 3.0 | 0.2 |
| Mercedes | Anuron | Level-I | DW | 45.0 | 3.0 | 0.2 |
| | Banuyo | Level-I | DW | 45.0 | 3.0 | 0.2 |
| | Barangay I Poblacion | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Barangay 2 Poblacion | Level-I | DW | 45.0 | 3.0 | 0.2 |
| | Barangay 3 Poblacion | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay 4 Poblacion | Level-I | DW | 45.0 | 3.0 | 0.2 |
| | Bobon | Level-I | DW | 45.0 | 3.0 | 0.2 |
| | Bobon | Level-I | SW | 10.0 | 3.0 | 0.2 |
| | Busay | Level-I | DW | 45.0 | 3.0 | 0.2 |
| | Buyayawon | Level-I | DW | 45.0 | 3.0 | 0.2 |
| | Buyayawon | Level-I | SW | 10.0 | 3.0 | 0.2 |
| | Cabunga-an | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Cambante | Level-I | SW | 10.0 | 3.0 | 0.2 |
| | Palamrag (Cabiliri-an) | Level-I | DW | 45.0 | 3.0 | 0.2 |
| | Port Kennedy | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | San Jose | Level-I | DW | 45.0 | 3.0 | 0.2 |
| | San Jose | Level-I | SW | 10.0 | 3.0 | 0.2 |
| | San Roque | Level-I | DW | 45.0 | 3.0 | 0.2 |
| | Sung-an | Level-I | DW | 45.0 | 3.0 | 0.2 |
| Oras | Agsam | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Alang-alang | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Balocawe (Pob.) | Level-I | DW | 35.0 | 3.0 | 0.2 |
| | Bantayan | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Bato | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Binalayan | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Buntay | Level-I | SW | 10.0 | 3.0 | 0.2 |
| | Burak | Level-I | SW | 12.0 | 3.0 | 0.2 |
| | Butnga (Pob.) | Level-I | DW | 25.0 | 3.0 | 0.2 |
| | Cadian | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Cagpile | Level-I | DW | 27.0 | 3.0 | 0.2 |
| | Cagtoog | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Camanga (Pob.) | Level-I | DW | 25.0 | 3.0 | 0.2 |
| | Dalid | Level-II | DW | 40.0 | 21.0 | 1.0 |
| | Dalid | Level-II | SW | 10.0 | - | 0.5 |
| | Dao | Level-I | SW | 10.0 | 3.0 | 0.2 |
| | Factoria | Level-I | SW | 12.0 | 3.0 | 0.2 |
| | Gamot | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Mabuhay | Level-I | SW | 15.0 | 3.0 | 0.2 |

## Table 7.3.1 Well Inventory by Municipality

| Municipality | Barangay | Utilization | Type | Depth (m) | SWL (mbgs) | Spe. Cap. (lpsm) |
|---|---|---|---|---|---|---|
| Oras | Malingon | Level-I | SW | 18.0 | 3.0 | 0.2 |
| | Nadacpan | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Pangudtan | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Paypayon (Pob.) | Level-I | DW | 50.0 | 3.0 | 0.2 |
| | Riverside (Pob.) | Level-I | DW | 25.0 | 3.0 | 0.2 |
| | Sabang | Level-I | SW | 12.0 | 3.0 | 0.2 |
| | San Eduardo | Level-I | SW | 12.0 | 3.0 | 0.2 |
| | San Roque (Pob.) | Level-I | DW | 25.0 | 3.0 | 0.2 |
| | Saugan | Level-I | SW | 18.0 | 3.0 | 0.2 |
| | Saurong | Level-II | SW | 11.0 | | 0.5 |
| | Tawagan (Pob.) | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Tiguib (Pob.) | Level-I | SW | 10.0 | 3.0 | 0.2 |
| | Trinidad (Maycorot) | Level-I | SW | 12.0 | 3.0 | 0.2 |
| Quinapondan | Alang-alang | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Anislag | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Bagte | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Barangay No. 5 (Pob.) | Level-I | SW | 4.0 | 3.0 | 0.2 |
| | Barangay No. 6 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Buenavista | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Caculangan | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Cagdaja | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Cambilla | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Cantenio | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Naga | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Palactad (Valley) | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | Rizal (Pana-ugan) | Level-I | SW | 15.0 | 3.0 | 0.2 |
| | San Isidro | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Santa Margarita | Level-I | SW | 10.0 | 3.0 | 0.2 |
| Salcedo | Asgad | Level-I | SW | 4.0 | 3.0 | 0.2 |
| | Bagtong | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Balud | Level-I | SW | 4.0 | 3.0 | 0.2 |
| | Buabua | Level-I | SW | 14.0 | 3.0 | 0.2 |
| | Burak | Level-I | SW | 4.0 | 3.0 | 0.2 |
| | Butig | Level-I | SW | 4.0 | 3.0 | 0.2 |
| | Cantomoja | Level-I | SW | 4.0 | 3.0 | 0.2 |
| | Carapdapan | Level-I | SW | 4.0 | 3.0 | 0.2 |
| | Caridad | Level-I | SW | 8.0 | 3.0 | 0.2 |
| | Casili-on | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Maliwaliw | Level-I | SW | 4.0 | 3.0 | 0.2 |
| | Matarinao | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Naparaan | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Palanas | Level-I | SW | 4.0 | 3.0 | 0.2 |
| | San Roque (Bugay) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Santa Cruz | Level-I | SW | 4.0 | 3.0 | 0.2 |
| | Tagbacan | Level-I | SW | 3.0 | 3.0 | 0.2 |
| | Talangdawan | Level-I | SW | 12.0 | 3.0 | 0.2 |
| San Julian | Barangay No. 1 Poblacion | Level-I | SW | 8.0 | 3.0 | 0.2 |

## Table 7.3.1 Well Inventory by Municipality

| Municipality | Barangay | Utilization | Type | Depth (m) | SWL (mbgs) | Spe. Cap. (lpsm) |
|---|---|---|---|---|---|---|
| San Julian | Barangay No. 2 Poblacion | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Barangay No. 2 Poblacion | Level-I | SW | 10.0 | 3.0 | 0.2 |
| | Barangay No. 3 Poblacion | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Barangay No. 3 Poblacion | Level-I | SW | 8.0 | 3.0 | 0.2 |
| | Barangay No. 4 Poblacion | Level-I | SW | 12.0 | 3.0 | 0.2 |
| | Barangay No. 5 Poblacion | Level-I | SW | 12.0 | 3.0 | 0.2 |
| | Barangay No. 6 Poblacion | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Barangay No. 6 Poblacion | Level-I | SW | 12.0 | 3.0 | 0.2 |
| | Bunacan | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Bunacan | Level-I | SW | 12.0 | 3.0 | 0.2 |
| | Campidhan | Level-I | SW | 12.0 | 3.0 | 0.2 |
| | Casoroy | Level-I | DW | 53.0 | 3.0 | 0.2 |
| | Casoroy | Level-I | SW | 10.0 | 3.0 | 0.2 |
| | Nena (Luna) | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Pagbabangnan | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Pagbabangnan | Level-I | SW | 10.0 | 3.0 | 0.2 |
| | San Isidro | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | San Isidro | Level-I | SW | 12.0 | 3.0 | 0.2 |
| | San Miguel | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | San Miguel | Level-I | SW | 10.0 | 3.0 | 0.2 |
| San Policarpo | Alugan | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Bahay | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Bangon | Level-I | DW | 30.0 | 3.0 | 0.2 |
| | Barangay No. 1 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay No. 2 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay No. 3 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay No. 4 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Barangay No. 5 (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Baras (Lipata) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Binogawan | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Cajagwayan | Level-I | SW | 10.0 | 3.0 | 0.2 |
| | Japunan | Level-I | DW | 30.0 | 3.0 | 0.2 |
| | Natividad | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Santa Cruz | Level-I | DW | 30.0 | 3.0 | 0.2 |
| | Tabo | Level-I | DW | 25.0 | 3.0 | 0.2 |
| | Tan-awan | Level-I | DW | 30.0 | 3.0 | 0.2 |
| Sulat | Abucay (Pob.) | Level-II | DW | 20.0 | 10.0 | - |
| | A-et | Level-II | DW | 20.0 | 5.0 | - |
| | Baybay (Pob.) | Level-I | SW | 5.0 | 3.0 | 0.2 |
| | Del Remedio | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Kandalakit | Level-II | DW | 20.0 | 5.0 | - |
| | Loyola Heights (Pob.) | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Mabini | Level-II | DW | 20.0 | 10.0 | - |
| | Maglipay (Pob.) | Level-I | SW | 5.0 | 5.0 | 0.2 |
| | Maramara (Pob.) | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Riverside (Pob.) | Level-I | SW | 5.0 | 5.0 | 0.2 |
| | San Francisco | Level-II | DW | 20.0 | 10.0 | - |

## Table 7.3.1 Well Inventory by Municipality

| Municipality | Barangay | Utilization | Type | Depth (m) | SWL (mbgs) | Spe. Cap. (lpsm) |
|---|---|---|---|---|---|---|
| Sulat | San Isidro | Level-II | DW | 20.0 | 10.0 | - |
| | San Juan | Level-I | SW | 4.0 | 4.0 | 0.2 |
| | San Mateo | Level-I | SW | 5.0 | 3.0 | 0.2 |
| | San Vicente | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Santo Nino | Level-II | DW | 20.0 | 5.0 | - |
| | Santo Tomas | Level-II | DW | 20.0 | 5.0 | - |
| | Tabi (Pob.) | Level-I | SW | 5.0 | 3.0 | 0.2 |
| Taft | Batiawan | Level-I | DW | 30.0 | 3.0 | 0.2 |
| | Beto | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Binaloan | Level-I | DW | 40.0 | 3.0 | 0.2 |
| | Danao | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Gayam | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Malinao | Level-I | DW | 36.0 | 3.0 | 0.2 |
| | Mantang | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Pangabutan | Level-I | SW | 6.0 | 6.0 | 0.2 |
| | Poblacion Barangay 1 | Level-I | SW | 6.0 | 3.0 | 0.2 |
| | Poblacion Barangay 2 | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Poblacion Barangay 3 | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Poblacion Barangay 4 | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Poblacion Barangay 5 | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Poblacion Barangay 6 | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | Polangi | Level-I | DW | 20.0 | 3.0 | 0.2 |
| | San Luis | Level-I | DW | 20.0 | 3.0 | 0.2 |

## Table 7.3.2 Groundwater Quality

| No. | Municipality | Type | Bacterio. | | Physical Analysis | | | | | | Chemical Analysis | | | | Major Cations | | | | Major Anions | | | | Trace Ele. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Coli. Cnt. | Bact. Cnt. | T C | NTU - | TCU - | Odor - | TDS mg/l | EC mmpc | pH - | TH mg/l | Alka. mg/l | Acid. mg/l | Na mg/l | K mg/l | Ca mg/l | Mg mg/l | CO3 mg/l | HCO3 mg/l | Cl mg/l | SO4 mg/l | Fe mg/l | Mn mg/l |
| Philippine National Standard for Drinking Water -1994- | | | 0 | 0 | - | 5> | 5> | unobj. | 500> | - | 6.5 to 8.5 | 300> | - | - | - | 200> | - | - | - | - | 200> | 250> | 1> | 0.5> |
| 1 | Borongan | DW | 0 | 6 | - | 0.6 | 0.0 | - | - | - | 6.9 | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0.0 |
| 2 | San Julian | DW | 0 | 13 | - | 2.4 | 0.0 | - | - | - | 7.5 | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0.0 |
| 3 | Sulat | DW | 0 | 57 | - | 9.5 | 66.0 | - | - | - | 7.4 | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 0.1 |
| 4 | Canavid | DW | 0 | 36 | - | 0.7 | 1.0 | - | - | - | 7.6 | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0.0 |
| 5 | Dolores | DW | 0 | 96 | - | 0.0 | 0.0 | - | - | - | 7.4 | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 0.3 |
| 6 | Balangiga | DW | - | 129 | - | 0.0 | 47.0 | - | - | - | 7.6 | - | - | - | - | - | - | - | - | - | - | - | 0.2 | 0.0 |
| 7 | Oras | DW | 8 | 73 | - | 0.0 | 14.0 | - | - | - | 7.0 | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0.0 |
| 8 | San Policarpo | DW | - | 154 | - | 0.0 | 44.0 | - | - | - | 7.4 | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 0.0 |
| 9 | Arteche | DW | - | 141 | - | 0.0 | 6.0 | - | - | - | 7.3 | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0.0 |
| 10 | Borongan | SP | 0 | 0 | - | 1.4 | 0.0 | - | - | - | 7.5 | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0.0 |
| 11 | -ditto- | SP | 0 | 12 | - | 1.6 | 52.0 | - | - | - | 7.3 | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0.0 |
| 12 | Quinapondan | SP | 0 | 80 | - | 7.4 | 0.0 | - | - | - | 6.9 | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 0.1 |
| 13 | Gen. Macarthur | SP | 0 | 67 | - | 2.5 | 25.0 | - | - | - | 7.5 | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0.0 |
| 14 | Llorente | SP | 0 | 71 | - | 0.1 | 0.0 | - | - | - | 7.2 | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0.0 |
| 15 | Hernani | SP | 0 | 87 | - | 4.2 | 40.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0.0 |
| 16 | Maydolong | SP | 0 | 33 | - | 0.6 | 16.0 | - | - | - | 7.3 | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 0.0 |
| 17 | Balangkayan | SP | 0 | 47 | - | 0.0 | 0.0 | - | - | - | 7.4 | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0.0 |
| 18 | Giporlos | SP | 0 | TNTC | - | 33.2 | 275.0 | - | - | - | 7.6 | - | - | - | - | - | - | - | - | - | - | - | 0.3 | 0.2 |
| 19 | Balangiga | SP | - | 96 | - | 4.7 | 55.0 | - | - | - | 7.8 | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0.0 |
| 20 | Laawan | SP | - | 158 | - | 21.6 | 150.0 | - | - | - | 7.4 | - | - | - | - | - | - | - | - | - | - | - | 0.2 | 0.0 |
| 21 | -ditto- | SP | - | 98 | - | 22.6 | 180.0 | - | - | - | 7.3 | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 0.1 |

Source; Water quality results were collected from respective Water Districts or analyzed by PSPT on site in the field survey using procured instruments.

Notes; Sampling point is located at handpump (L-I) or submersible pump (L-II/III).

## Table 7.5.1 Surface Water Quality

| Surface Water Information | | | | Parameter | | | | | | | | | | | | PNSDW-1994 | | | Surface Water Pollutants |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Major Surface Water | Stream & Main Systems | Sampling Location | Date (m/d/y) | Color TCU | pH - | D.Oxy. mg/l | BOD mg/l | SS mg/l | TDS mg/l | MBAS mg/l | O/G mg/l | N mg/l | P mg/l | Coli. MPN/100ml | Cl mg/l | Cu mg/l | Tur. NTU | Fe mg/l | Mn mg/l | |
| DENR Water Quality Criteria for Fresh Water | | | Class AA | 15 | 6.5-8.5 | 70 | 1 | 25 | 500 | nil | nil | 1 | nil | 50 | 250 | 1 | 5> | 1> | 0.5> | in upstream |
| | | | Class A | 50 | 6.5-8.5 | 70 | 5 | 50 | 1,000 | 0.2 | 1 | 10 | 0.1 | 1,000 | 250 | 1 | | | | |
| Oras | | Jipapad | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| | | Arteche | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| | | Oras | | 71 | 7.5 | - | - | - | - | - | - | - | - | 7 | - | - | 3.6 | 0.0 | 0.0 | |
| Dolores | Dolores | Arteche | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| | | Oras | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| | | Dolores | | 53 | 7.7 | - | - | - | - | - | - | - | - | 8 | - | - | 5.3 | 0.1 | 0.0 | |
| | | Can-avid | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| | Jicontrol | Maslog | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| | | Dolores | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| | | Can-avid | | 4 | 7.6 | - | - | - | - | - | - | - | - | 1 | - | - | 6.4 | 0.1 | 0.1 | |
| Ulut | | Taft | | 175 | 7.6 | - | - | - | - | - | - | - | - | 0 | - | - | 26.4 | 0.2 | 0.1 | |
| | | Can-avid | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| Tubig | | Sulat | | 159 | 7.8 | - | - | - | - | - | - | - | - | 0 | - | - | 19.6 | 0.2 | 0.1 | |
| | | Taft | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| Borongan | | San Julian | | 214 | 7.4 | - | - | - | - | - | - | - | - | 0 | - | - | 0.7 | 0.2 | 0.0 | |
| | | Borongan | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| Suribao | | Maydolong | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| Llorente | | Balangkayan | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| | | Llorente | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| Balangiga | | Lawa-an | | | | - | - | - | - | - | - | - | - | | - | - | | | | |
| | | Balangiga | | | | - | - | - | - | - | - | - | - | | - | - | | | | |

Source; Water quality results were collected from respective Water Districts or analyzed by PSPT on site in the field survey using procured instruments.

Notes; Sampling point is located at upstream boundary of each river in respective municipalities.
If several streams are present in an area, the stream nearest from populated area was selected.
If these is no upstream, sampling point was selected near populated area.

Remarks; Class AA - Public Water Supply Class-I.
; Intended for waters having watersheds which are uninhabited and otherwise protected and which require only approved disinfection in order to meet the PNSDW.
Class A - Public Water Supply Class-II.
; Sources of water supply that will require complete treatment (coagulation, sedimentation, filtration & disinfection) in order to meet the PNSDW.

## 7.6 Future Development Potential of Water Sources

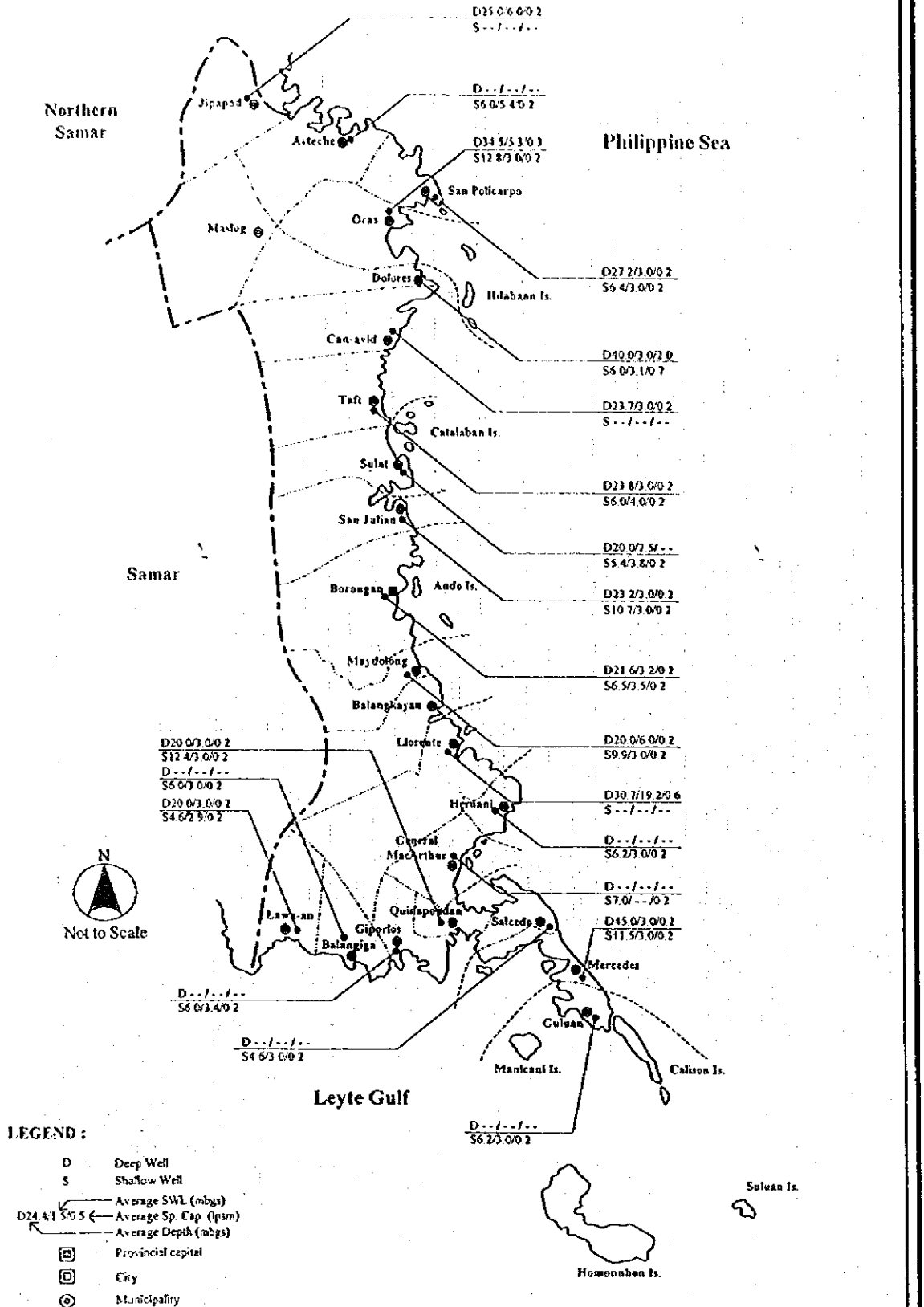


**Figure 7.6.1 Typical Well Specification Map**
**Province of Eastern Samar**