

5.4 Status of water permit application

The Municipal Government of Esperanza, Sultan Kudarat shall be responsible in securing the water permit when necessary for the construction.

5.5 Monthly water fees collection and other operational policies

Fees collection and operation policies are integrated in operation and maintenance of the project since they have an organization that facilitates the maintenance.

5.6 Implementation schedule of the project

The duration of the proposed project is 270 working days, which includes the first mobilization to moving out.

5.7 Project monitoring and supervision

During the construction phase, the Municipal Engineer shall assign a Project Engineer and Inspectors to supervise and monitor the progress of the project. The assigned personnel are required to submit reports to the Municipal Engineer for reference and review.

5.8 Water system management and sustainability (including training on and actual implementation of watershed management and conservation measures, financial management, etc.)

The municipality of Esperanza, with the coordination of Barangay Dukay officials, conducts training on how the BAWASA members manage, sustain or maintain the water system.

D. Social Assessment

6.1 Project Beneficiaries

The proposed sub-project will benefit the population of Barangay Laguinding Dukay which is composed of Christians and Muslims.

6.2 Indigenous Cultural Community/Indigenous Peoples (ICC/IP)

No Indigenous Cultural Community/Indigenous Peoples (ICC/IP) present in the barangay that maybe affected by the proposed sub-project.

6.3 Site and Right-of-Way acquisition

The Landowners understand that the proposed sub-project will pass through the existing homestead road. Hence, they are willing to cooperate by donating land whenever the government needs it for the project.

6.4 Damage to standing crops, houses and/or properties

The proposed sub-project shall not affect crops, houses and/or properties for it shall be congruent with the homestead road.

6.5 Physical displacement of persons

Proper advocacy, consultations and negotiations to the beneficiaries and landowners were conducted. As per pre implementation process conducted no displaced persons were noted.

6.6 Economic displacement of persons

Since no displaced persons were affected, economic aspect is also absent.

E. Environmental Assessment

7.1 Natural habitat

The proposed sub-project is the expansion of the existing waterworks system. It shall be located in the populated area and no natural habitat is present in the area that may be disturbed.

7.2 Physical Cultural Resources

No physical cultural resources exist in the area.

7.3 Terrain, Soil Types and Rainfall

The proposed sub-project is located in the flat terrain of banga sandy loam soil and moderately good land with evenly distributed rainfall during rainy season.

7.4 Drainage Situations and Flooding Potential

The municipality is continuously developing its drainage system. As of this planning period, drainage situation in the proposed areas are in good condition and still serving its purpose per engineering design and structure. To date, no record of flooding was noted. Flooding potential is very low.

**Mindanao Rural Development Project – Adaptable Loan Program II
Environmental and Social Management Plan Template for Potable Water Supply
Subprojects**

Name of PWS Subproject: Numo to Dukay Potable Water System Level II Phase 2
Location: Barangay Dukay, Esperanza, Sultan Kudarat
Level I or Level II Level II
New or Rehab Construction
Implementing LGU: Municipality of Esperanza, Sultan Kudarat
Number of Households: 1,013
Estimated total Subproject Cost: P 9,813,325.67

A. Site and Design Consideration

1. The PWS involves either: (a) provision of Level I water system; (b) construction of Level II water system; or (c) rehabilitation of existing Level II water system (*c.f. RI Manual, page 24*).
2. The water source is not inside a declared protected area of natural habitat (*c.f. Loan Agreement: MRDP2 will not fund subprojects located inside a declared Protected Area*);
3. The water source is at least 25 meters away from any septic tank or any raw wastewater discharges (*c.f. Code of Sanitation of the Philippines*);
4. Either of the following is true:
 - ✓ There is no prior evidence/s (anecdotal or otherwise) indicating non-potability of the water (such as high coliform, salinity, elevated iron or manganese, etc.) at the proposed water source; or,
 - Or, if there is/are such evidence/s, appropriate preliminary potability test/s conducted on the water has/have disproved it/them; or,
 - Or, if there is evidence that has not been disproved by potability test, said water quality problem can be adequately addressed by the appropriate and acceptable design/technology which will be part of the proposed potable water supply system; and,
5. The subproject will not displace, disfigure or render inoperable/inaccessible any monument or physical structure of known cultural and historical significance.

C. Environmental and Social Management Plan (ESMP)

Issue	Assessment	Mitigation/Management Measure	Instrument (Where this will be addressed) ¹
1. Excessive water abstraction possibly resulting in:	Water abstraction is ___lps while capacity is ___lps. This constitutes: <input type="checkbox"/> a small percentage of the capacity of the water source. <input checked="" type="checkbox"/> a significant percentage of the capacity of the water source but there are no existing competing water uses or no critical aquatic ecosystems to be affected downstream.	<input type="checkbox"/> Redesign the PWS based on feasible rate of water abstraction given information on the sustainable capacity of the source or find another source; <input checked="" type="checkbox"/> Secure NWRB clearance/water permit;	<input type="checkbox"/> DED/POW <input checked="" type="checkbox"/> Preparation (must submit NWRB clearance as part of the procurement docs.)


Issue	Assessment	Mitigation/Management Measure	Instrument (Where this will be addressed) ¹
<input type="checkbox"/> Disruption or deprivation of existing water uses; or,	<input type="checkbox"/> Abstraction rate is a significant percentage of water source capacity and could reduce availability of water for existing uses such as _____ (describe existing uses likely to be affected);	<input type="checkbox"/> Reduce/limit water abstraction rate to _____ lps; <input type="checkbox"/> Include existing uses/users in the proposed water system; <input type="checkbox"/> Redesign PWS or find other source;	<input type="checkbox"/> O&M Plan <input type="checkbox"/> Capacity Building of BAWASA
<input type="checkbox"/> ecological damage;	<input type="checkbox"/> a significant percentage and could cause a nearby aquatic or wetland ecosystem to dry up and the ecosystem is critical for the survival of any important species; <input type="checkbox"/> affected aquatic or wetland ecosystem is not critical.	<input type="checkbox"/> Limit rate of extraction such that aquatic ecosystem is maintained, esp. during dry season; <input type="checkbox"/> No measure required	<input type="checkbox"/> O&M Plan <input type="checkbox"/> Capacity Building of BAWASA
<input type="checkbox"/> saltwater intrusion into groundwater ;	<input type="checkbox"/> rate of groundwater extraction could cause/worsen existing saltwater intrusion in the aquifer; <input type="checkbox"/> groundwater source is far from the coast or saltwater intrusion is unlikely in the area;	<input type="checkbox"/> Reduce or limit water extraction rate during dry season <input type="checkbox"/> No measure required	<input type="checkbox"/> O&M and <input type="checkbox"/> Capacity Building of BAWASA
2. Water at source allegedly not potable or water unsuitable for drinking	<input type="checkbox"/> Historical/anecdotal/ocular evidence of bad water quality <input type="checkbox"/> Source is within highly mineralized area such as mining site and geothermal area, and/or potentially contaminated sites such as areas within or near former or existing chemical factories, recycling plants. <input type="checkbox"/> Presence of abandoned wells due to alleged heavy metal concentration (mercury, arsenic, etc.), taste, color, etc.	<input type="checkbox"/> Conduct standard potability (coliform) test plus additional tests for suspect contaminants: <input type="checkbox"/> Arsenic <input type="checkbox"/> Mercury <input type="checkbox"/> Lead <input type="checkbox"/> Iron <input type="checkbox"/> Magnesium <input type="checkbox"/> Cadmium <input type="checkbox"/> Others _____ before finalizing DED/POW; <input type="checkbox"/> Otherwise look for another source	<input type="checkbox"/> Certificate of Potability and favorable test results submitted as part of the procurement package (For Drinking Water Standards refer to DOH Admin Order No.2007-0012). Otherwise, adequate treatment system should be incorporated in the project design and reflected in the POW/DED.
	<input type="checkbox"/> There is no evidence	<input type="checkbox"/> Conduct standard	<input type="checkbox"/> If test indicate

Issue	Assessment	Mitigation/Management Measure	Instrument (Where this will be addressed) ¹
	and site inspections indicate good water quality from the proposed source.	before operation of PWS;	coliform, LGU to install adequate treatment before operation of PWS;
	[/] Expansion of existing water source used for drinking;	[] No measure required	
3. Ownership issue of site of water source	[] Land is privately own [] Water source structure/s will displace some standing crops	[] Negotiate with landowner for the acquisition of sites for the water source structures through negotiation (e.g. by purchase, or by donation, quit claim.)	Submit to PSO deed of sale or deed of donation as part of procurement package for “no objection”
	[/] Site is public land	[] Secure Special Land Use Permit from DENR [/] Acquire ROW through other means DONATION (specify)	
4. Potential ROW conflicts for the distribution pipes and communal faucet sites	[/] Lands to be traversed by the pipelines are privately owned [] Potential damage to/displacement of properties/structures along the pipeline routes	[/] Secure Quit Claims from owners of lands along the pipeline routes and communal faucet sites [] Prepare compensation plans, through consultations/negotiations with owners of affected properties	Submit to PSO social safeguards documents as part of procurement package for the “no objection”; Implement the compensation plans at least a month prior to start of construction works
5. Potential violation of Indigenous Peoples rights	[] Some structures/ activities of the subproject are located inside any or some IP ancestral domains, or will affect any or some extant IP communities who are not themselves beneficiaries of PWS. Identify the affected IPs: _____.	[] Secure FPIC [] Relocate PWS structures/activities outside IP lands or to areas where they will not affect IP communities	[] FPIC/CP to be submitted as part of the procurement package requirements [] DED
	[] The IPs are themselves beneficiaries of the PWS. Identify the IPs: _____.	[] Ensure IPs were consulted and have given consent for the PWS, by providing documentary evidence of consultations conducted and securing Certificate of Consent	Submit minutes of meetings / consultations and Certificate of Consent to PSO as part of the procurement

Issue	Assessment	Mitigation/Management Measure	Instrument (Where this will be addressed) ¹
		from the local tribal council	package
	[/] The subproject (water source and pipeline) is outside the any IP ancestral domain and will not affect any extant IP community.	[] No measure required	
6. Potential sedimentation of creeks/water channels from the construction excavations / spoils	[] Construction will include clearing and leveling/ excavation of sloping lands involving significant amount of excavated spoils	[] Include slope protection/stabilization works on exposed loose soils and cuts. Describe the slope protection to be employed: _____ [] Include restoration works such as spreading out piles of spoils and boulders, re-vegetation and/or landscaping of exposed areas at construction site.	DED/POW
	[/] Construction works entail very minimal or no excavation	[] No measure required	
7. Potential damage to physical cultural property	[] Presence of physical cultural property (e.g. monuments, structures, archeological sites, etc.) along the pipeline routes and near communal faucets.	[] Relocate water box/faucet area and/or reroute pipeline if possible; If not, [] Observe reporting and conservation protocols based on prior coordination with the National Historical Institute and National Museum.	[] DED [] Reporting protocol included in the Contract
8. Potential drainage issues at communal faucets resulting in the formation of permanent pools of water and muddy soil near the faucets	[] Some communal faucets or water collection points are located in: [] clayey soils or soils that can easily become muddy [] low-lying areas that could easily become waterlogged	[] All communal faucet outfalls/water collection points are provided with concrete platforms and drainage canals	[] POW/DED
	[/] All communal faucets or water collection points are located in sandy, well drained areas	[/] No measure required	
9. Human activities in the DWS	[/] There is a possibility	[/] Strictly implement Sanitation Code of the	O&M Plan; DAWASA

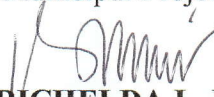
Issue	Assessment	Mitigation/Management Measure	Instrument (Where this will be addressed) ¹
site	activities near and within the PWS water source due to improved access and site development	Philippines such as prohibition of washing/bathing activities within 25 meters from the source	Capacity Building Plan
	[] The PWS source is located far away from human settlements and activities	No measure required	
10. Potential lack of good housekeeping of the water source and the communal faucets/collection point sites	[] There are existing bathing and washing activities near or at the water source site (for spring-based PWS) or at the well sites (for artesian wells) [] Communal faucets/box sites (for Level II PWS) could become cluttered and strewn with garbage and discarded bottles, packages	[] Regular cleaning of the water source (tank/box and vicinities), and the communal faucet/box sites and vicinities;	O&M Plan; BAWAS Capacity Building Plan
11. Potential changes in water quality due to new pollution sources	[] Water could become contaminated with new pollution sources from human activities	[] Regular sampling and potability tests conducted as required under DOH Admin Order No. 2007-0012	O&M Plan; BAWAS Capacity Building Plan
...etc.			
...			

Prepared by:


ARMANDO B. TUERES

 Engineer I

Adopted by the MRDP2 Municipal Project Implementing Unit:


RICHELDA L. LEBRILLA

 Head of the MPMIU