

# 8.5.2 Sanitation

Table 8.5.4 Additional Number of Households to be Served in Phase I (Household Toilets)

Name of Municipality/City	Area	No. of Household Served in the Based Year				Total No. of HHs	Household Coverage				Phase I Coverage (2005)		
		Flush	Pour Flush	VIP/Dry	Total		Flush	Pour Flush	VIP/Dry	Total	Flush	Pour Flush	Additional No. of HHs to be Served
Bago City	Urban	362	3,709	1,417	5,488	6,702	362	3,709	1,417	5,488			
	Rural	25	11,101	6,833	17,959	22,930	917	13,758	3,669	18,344	385		385
	Total	387	14,810	8,250	23,447	29,632	1,279	17,467	5,086	23,832	385		385
	Urban	455	1,740	1,287	3,482	5,091	1,018	2,851	204	4,073	563	28	591
Binalbagan	Rural	155	1,354	2,373	3,882	6,367	255	3,821	1,018	5,094	100	1,112	1,212
	Total	610	3,094	3,660	7,364	11,458	1,273	6,672	1,222	9,167	663	1,140	1,803
	Urban	1,480	1,314	2,493	5,287	7,605	1,521	4,259	304	6,084	41	756	797
	Rural	2,548	4,620	3,536	10,704	19,636	2,548	11,782	1,379	15,709		5,005	5,005
Cadiz City	Total	4,028	5,934	6,029	15,991	27,241	4,069	16,041	1,683	21,793	41	5,761	5,802
	Urban	86	1,131	677	1,894	2,574	515	1,441	103	2,059	165		165
	Rural	18	2,421	6,194	8,633	12,211	488	7,327	1,954	9,769	470	666	1,136
	Total	104	3,552	6,871	10,527	14,785	1,003	8,768	2,057	11,828	635	666	1,301
Candoni	Urban		250	179	429	553	111	309	22	442	13		13
	Rural		552	1,552	2,104	2,817	113	1,691	450	2,254	113	37	150
	Total		802	1,731	2,533	3,370	224	2,000	472	2,696	126	37	163
	Urban	86	2,057	1,371	3,514	4,542	909	2,544	181	3,634	120		120
Cauayan	Rural	148	5,639	3,805	9,592	12,493	500	7,496	1,998	9,994	352	50	402
	Total	234	7,696	5,176	13,106	17,035	1,409	10,040	2,179	13,628	472	50	522
	Urban	9	2,214	1,372	3,595	6,745	1,349	3,777	270	5,396	1,340	461	1,801
	Rural		1,542	1,488	3,030	5,889	236	3,533	942	4,711	236	1,445	1,681
Enrique B. Magalona	Total	9	3,756	2,860	6,625	12,634	1,585	7,310	1,212	10,107	1,576	1,906	3,482
	Urban	50	2,364	3,965	6,379	8,292	1,659	4,644	331	6,634	255		255
	Rural		2,269	5,135	7,404	10,744	430	6,446	1,719	8,595	430	761	1,191
	Total	50	4,633	9,100	13,783	19,036	2,089	11,090	2,050	15,229	685	761	1,446
Escalante	Urban	175	3,155	748	4,078	6,094	1,219	3,413	243	4,875	797		797
	Rural	261	3,476	2,812	6,549	10,072	403	6,044	1,611	8,058	142	1,367	1,509
	Total	436	6,631	3,560	10,627	16,166	1,622	9,457	1,854	12,933	939	1,367	2,306
	Urban	348	745	720	1,813	2,518	504	1,410	100	2,014	156	45	201
Hinigaran	Rural	850	3,527	3,915	8,292	11,893	850	7,136	1,528	9,514		1,222	1,222
	Total	1,198	4,272	4,635	10,105	14,411	1,354	8,546	1,628	11,528	156	1,267	1,423
	Urban	8	1,504	1,249	2,761	3,158	8	1,504	1,249	2,761			
	Rural	7	2,043	2,002	4,052	4,648	7	2,043	2,002	4,052			
Hinoba-an (Asia)	Total	15	3,547	3,251	6,813	7,806	15	3,547	3,251	6,813			
	Urban		4,382		4,382	5,156		4,382		4,382			
	Rural		2,676		2,676	3,227		2,676		2,676			
	Total		7,058		7,058	8,383		7,058		7,058			

Table 8.5.4 Additional Number of Households to be Served in Phase I (Household Toilets) (Cont'd)

Name of Municipality/City	Area	No. of Household Served in the Based Year				Phase I Coverage (2005)						
		Flush	Pour Flush	VIP/Dry	Total	Total No. of HHs	Household Coverage			Additional No. of HHs to be Served		
							Flush	Pour Flush	VIP/Dry	Total	Flush	Pour Flush
Isabela	Urban	129	1,746	97	1,972	2,332	129	1,746	97	1,972		
	Rural	65	5,448	295	5,808	7,955	318	6,046		6,364	253	303
	Total	194	7,194	392	7,780	10,287	447	7,792	97	8,336	253	303
Kabankalan City	Urban	281	2,384	5,925	8,590	10,374	281	2,384	5,925	8,590		
	Rural	64	4,649	9,575	14,288	20,153	806	12,092	3,224	16,122	742	1,092
	Total	345	7,033	15,500	22,878	30,527	1,087	14,476	9,149	24,712	742	1,092
La Carlota City	Urban	449	3,413	59	3,921	4,267	449	3,413	59	3,921		
	Rural	71	4,987	157	5,215	6,413	71	4,987	157	5,215		
	Total	520	8,400	216	9,136	10,680	520	8,400	216	9,136		
La Castellana	Urban	100	1,652	1,133	2,885	4,723	945	2,645	188	3,778	845	48
	Rural	6	2,577	2,851	5,434	9,329	373	5,597	1,493	7,463	367	1,662
	Total	106	4,229	3,984	8,319	14,052	1,318	8,242	1,681	11,241	1,212	1,710
Manapla	Urban	143	776	334	1,253	2,098	420	1,175	83	1,678	277	148
	Rural	481	2,313	1,969	4,703	8,053	481	4,832	1,129	6,442		1,679
	Total	624	3,089	2,303	6,016	10,151	901	6,007	1,212	8,120	277	1,827
Moises Padilla	Urban	19	855	541	1,415	2,208	442	1,236	88	1,766	351	
	Rural		1,022	1,558	2,580	4,161	166	2,497	666	3,329	166	583
	Total	19	1,877	2,099	3,995	6,369	608	3,733	754	5,095	517	583
Murcia	Urban	84	1,201	1,011	2,296	3,946	789	2,210	158	3,157	705	156
	Rural	74	2,619	2,253	4,946	8,843	354	5,306	1,414	7,074	280	1,848
	Total	158	3,820	3,264	7,242	12,789	1,143	7,516	1,572	10,231	985	2,004
Pontevedra	Urban	93	2,471	475	3,039	4,162	833	2,497		3,330	291	
	Rural	22	2,332	1,101	3,455	5,133	205	3,080	821	4,106	183	468
	Total	115	4,803	1,576	6,494	9,295	1,038	5,577	821	7,436	474	468
Pulupandan	Urban	30	845	1,681	2,556	3,517	704	1,970	140	2,814	258	
	Rural	33	820	902	1,755	2,239	90	1,343	358	1,791	36	
	Total	63	1,665	2,583	4,311	5,756	794	3,313	498	4,605	294	
Sagay City	Urban	1,582	2,455	4,381	8,418	11,434	2,287	6,403	457	9,147	705	24
	Rural	620	3,146	9,850	13,616	21,134	845	12,680	3,382	16,907	225	3,066
	Total	2,202	5,601	14,231	22,034	32,568	3,132	19,083	3,839	26,054	930	3,090
Salvador Benedicto	Urban											
	Rural		2,359	463	2,822	3,968		2,381	793	3,174		22
	Total		2,359	463	2,822	3,968		2,381	793	3,174		22
San Carlos City	Urban	502	2,813	1,264	4,669	6,310	1,262	3,534	252	5,048	379	
	Rural	16	5,587	7,180	12,783	17,411	696	10,447	2,786	13,929	680	466
	Total	608	8,400	8,444	17,452	23,721	1,958	13,981	3,038	18,977	1,059	466

Table 8.5.4 Additional Number of Households to be Served in Phase I (Household Toilets) (Cont'd)

Name of Municipality/City	Area	No. of Household Served in the Based Year				Total	Total No. of HHs	Household Coverage				Phase I Coverage (2005)			
		Flush	Pour Flush	VIP/Dry	Total			Flush	Pour Flush	VIP/Dry	Total	Additional No. of HHs to be Served			
												Flush	Total		
San Enrique	Urban	206	1,176	95	1,477	2,100	420	1,176	84	1,680	203			203	
	Rural	163	1,139	323	1,625	2,455	163	1,473	328	1,964		334	5	339	
	Total	369	2,315	418	3,102	4,555	583	2,649	412	3,644	203	334	5	542	
	Urban		9,117	49	9,166	12,009	2,402	7,205		9,607	441			441	
Silay City	Rural		3,750	2,028	5,778	15,239	610	9,143	2,438	12,191	610	5,393	410	6,413	
	Total		12,867	2,077	14,944	27,248	3,012	16,348	2,438	21,798	1,051	5,393	410	6,854	
	Urban	456	1,518	1,597	3,571	4,347	456	1,518	1,597	3,571					
	Rural	822	2,850	1,655	5,327	8,762	822	5,258	930	7,010		1,683		1,683	
Sipalay	Total	1,278	4,368	3,252	8,898	13,109	1,278	6,776	2,527	10,581		1,683		1,683	
	Urban	872	3,000	993	4,865	7,282	1,457	4,078	291	5,826	585	376		961	
	Rural		163	4,755	4,918	8,439	338	5,063	1,350	6,751	338	1,495		1,833	
	Total	872	3,163	5,748	9,783	15,721	1,795	9,141	1,641	12,577	923	1,871		2,794	
Toboso	Urban	20	800	244	1,064	1,685	337	944	67	1,348	284			284	
	Rural	42	1,509	3,180	4,731	7,571	303	4,543	1,211	6,057	261	1,065		1,326	
	Total	62	2,309	3,424	5,795	9,256	640	5,487	1,278	7,405	545	1,065		1,610	
	Urban	75	2,458	380	2,913	4,505	901	2,523	180	3,604	691			691	
Valladolid	Rural	13	1,279	174	1,466	2,425	97	1,455	388	1,940	84	176	214	474	
	Total	88	3,737	554	4,379	6,930	998	3,978	568	5,544	775	176	214	1,165	
	Urban	1,491	5,054	2,430	8,975	13,564	2,713	7,596	542	10,851	1,222	654		1,876	
	Rural	115	1,751	1,572	3,438	5,243	210	3,146	838	4,194	95	661		756	
Victorias City	Total	1,606	6,805	4,002	12,413	18,807	2,923	10,742	1,380	15,045	1,317	1,315		2,632	
	Urban	9,681	68,299	38,167	116,147	159,893	26,402	88,496	14,632	129,530	10,687	2,696		13,383	
	Rural	6,619	91,520	91,486	189,625	287,853	13,695	175,122	41,976	230,793	6,548	33,661	959	41,168	
	Total	16,300	159,819	129,653	305,772	447,746	40,097	263,618	56,608	360,323	17,235	36,357	959	54,551	

Table 8.5.5 Additional Number of Households to be Served in Phase II (Household Toilets)

Name of Municipality/City	Area	No. households Served in 2005				Total No. of HHs	Household Coverage				Phase II Coverage (2010)			
		Flush	Pour Flush	VIP/Dry	Total		Flush	Pour Flush	VIP/Dry	Total	Flush	Pour Flush	VIP/Dry	Total
Bago City	Urban	362	3,709	1,417	5,488	8,953	4,163	2,746	1,417	8,326	3,801			3,801
	Rural	917	13,758	3,669	18,344	33,241	1,224	27,197	1,496	29,917	307	13,439		13,746
	Total	1,279	17,467	5,086	23,832	42,194	5,387	29,943	2,913	38,243	4,108	13,439		17,547
Binalbagan	Urban	1,018	2,851	204	4,073	7,024	3,266	3,062	204	6,532	2,248	211		2,459
	Rural	255	3,821	1,018	5,094	8,575	772	6,560	386	7,718	517	2,739		3,256
	Total	1,273	6,672	1,222	9,167	15,599	4,038	9,622	590	14,250	2,765	2,950		5,715
Cadiz City	Urban	1,521	4,259	304	6,084	10,511	4,888	4,583	304	9,775	3,367	324		3,691
	Rural	2,548	11,782	1,379	15,709	24,622	2,216	18,836	1,108	22,160		7,054		7,054
	Total	4,069	16,041	1,683	21,793	35,133	7,104	23,419	1,412	31,935	3,367	7,378		10,745
Calatrava	Urban	515	1,441	103	2,059	3,257	1,515	1,411	103	3,029	1,000			1,000
	Rural	488	7,327	1,954	9,769	15,933	1,434	12,189	717	14,340	946	4,862		5,808
	Total	1,003	8,768	2,057	11,828	19,190	2,949	13,600	820	17,369	1,946	4,862		6,808
Candoni	Urban	111	309	22	442	735	342	320	22	684	231	11		242
	Rural	113	1,691	450	2,254	4,471	113	3,710	201	4,024		2,019		2,019
	Total	224	2,000	472	2,696	5,206	455	4,030	223	4,708	231	2,030		2,261
Cauayan	Urban	909	2,544	181	3,634	6,309	2,934	2,752	181	5,867	2,025	208		2,233
	Rural	500	7,496	1,998	9,994	17,780	900	14,302	800	16,002	400	6,806		7,206
	Total	1,409	10,040	2,179	13,628	24,089	3,834	17,054	981	21,869	2,425	7,014		9,439
Enrique B. Magalona	Urban	1,349	3,777	270	5,396	9,376	4,360	4,090	270	8,720	3,011	313		3,324
	Rural	236	3,533	942	4,711	8,653	350	7,049	389	7,788	114	3,516		3,630
	Total	1,585	7,310	1,212	10,107	18,029	4,710	11,139	659	16,508	3,125	3,829		6,954
Escalante	Urban	1,659	4,644	331	6,634	12,880	5,989	5,658	331	11,978	4,330	1,014		5,344
	Rural	430	6,446	1,719	8,595	12,171	1,095	9,311	548	10,954	665	2,865		3,530
	Total	2,089	11,090	2,050	15,229	25,051	7,084	14,969	879	22,932	4,995	3,879		8,874
Himamaylan	Urban	1,219	3,413	243	4,875	8,767	4,077	3,833	243	8,153	2,858	420		3,278
	Rural	403	6,044	1,611	8,058	14,490	1,304	11,085	652	13,041	901	5,041		5,942
	Total	1,622	9,457	1,854	12,933	23,257	5,381	14,918	895	21,194	3,759	5,461		9,220
Hinigaran	Urban	504	1,410	100	2,014	3,647	1,696	1,596	100	3,392	1,192	186		1,378
	Rural	850	7,136	1,528	9,514	17,487	1,574	13,377	787	15,738	724	6,241		6,965
	Total	1,354	8,546	1,628	11,528	21,134	3,270	14,973	887	19,130	1,916	6,427		8,343
Hinoba-an (Asia)	Urban	8	1,504	1,249	2,761	4,105	1,909	660	1,249	3,818	1,901			1,901
	Rural	7	2,043	2,002	4,052	6,205	7	5,299	279	5,585		3,256		3,256
	Total	15	3,547	3,251	6,813	10,310	1,916	5,959	1,528	9,403	1,901	3,256		5,157

Table 8.5.5 Additional Number of Households to be Served in Phase II (Household Toilets) (Cont'd)

Name of Municipality/City	Area	No. households Served in 2005				Phase II Coverage (2010)								
		Flush	Pour Flush	VIP/Dry	Total	Total No. of HHs	Household Coverage			Additional No. of HHs to be Served				
							Flush	Pour Flush	VIP/Dry	Total	Flush	Pour Flush	VIP/Dry	Total
Ilog	Urban		4,382		4,382	6,984	3,248	3,247		6,495	3,248			3,248
	Rural		2,676		2,676	4,321		3,695	194	3,889		1,019	194	1,213
	Total		7,058		7,058	11,305	3,248	6,942	194	10,384	3,248	1,019	194	4,461
Isabela	Urban	129	1,746	97	1,972	3,089	1,437	1,339	97	2,873	1,308			1,308
	Rural	318	6,046		6,364	11,183	318	9,244	503	10,065		3,198	503	3,701
	Total	447	7,792	97	8,336	14,272	1,755	10,583	600	12,938	1,308	3,198	503	5,009
Kabankalan City	Urban	281	2,384	5,925	8,590	16,232	7,548	1,623	5,925	15,096	7,267			7,267
	Rural	806	12,092	3,224	16,122	31,821	2,864	24,343	1,432	28,639	2,058	12,251		14,309
	Total	1,087	14,476	9,149	24,712	48,053	10,412	25,966	7,357	43,735	9,325	12,251		21,576
La Carlota City	Urban	449	3,413	59	3,921	5,908	2,747	2,688	59	5,494	2,298			2,298
	Rural	71	4,987	157	5,215	9,240	832	7,068	416	8,316	761	2,081	259	3,101
	Total	520	8,400	216	9,136	15,148	3,579	9,756	475	13,810	3,059	2,081	259	5,399
La Castellana	Urban	945	2,645	188	3,778	7,338	3,412	3,224	188	6,824	2,467	579		3,046
	Rural	373	5,597	1,493	7,463	12,387	373	10,218	557	11,148		4,621		4,621
	Total	1,318	8,242	1,681	11,241	19,725	3,785	13,442	745	17,972	2,467	5,200		7,667
Manapla	Urban	420	1,175	83	1,678	2,887	1,343	1,259	83	2,685	923	84		1,007
	Rural	481	4,832	1,129	6,442	11,008	481	8,931	495	9,907		4,099		4,099
	Total	901	6,007	1,212	8,120	13,895	1,824	10,190	578	12,592	923	4,183		5,106
Moises Padilla	Urban	442	1,236	88	1,766	3,062	1,424	1,336	88	2,848	982	100		1,082
	Rural	166	2,497	666	3,329	5,966	166	4,935	268	5,369		2,438		2,438
	Total	608	3,733	754	5,095	9,028	1,590	6,271	356	8,217	982	2,538		3,520
Murcia	Urban	789	2,210	158	3,157	7,303	3,396	3,238	158	6,792	2,607	1,028		3,635
	Rural	354	5,306	1,414	7,074	10,280	888	7,901	463	9,252	534	2,595		3,129
	Total	1,143	7,516	1,572	10,231	17,583	4,284	11,139	621	16,044	3,141	3,623		6,764
Pontevedra	Urban	833	2,497		3,330	6,603	3,071	3,070		6,141	2,238	573		2,811
	Rural	205	3,080	821	4,106	6,301	567	4,820	284	5,671	362	1,740		2,102
	Total	1,038	5,577	821	7,436	12,904	3,638	7,890	284	11,812	2,600	2,313		4,913
Pulupandan	Urban	704	1,970	140	2,814	4,572	2,126	1,986	140	4,252	1,422	16		1,438
	Rural	90	1,343	358	1,791	2,826	254	2,162	127	2,543	164	819		983
	Total	794	3,313	498	4,605	7,398	2,380	4,148	267	6,795	1,586	835		2,421
Sagay City	Urban	2,287	6,403	457	9,147	15,409	7,165	6,708	457	14,330	4,878	305		5,183
	Rural	845	12,680	3,382	16,907	29,914	2,692	22,885	1,346	26,923	1,847	10,205		12,052
	Total	3,132	19,083	3,839	26,054	45,323	9,857	29,593	1,803	41,253	6,725	10,510		17,235

Table 8.5.5 Additional Number of Households to be Served in Phase II (Household Toilets) (Cont'd)

Name of Municipality/City	Area	No. households Served in 2005				Phase II Coverage (2010)							
		No. households Served in 2005		Total	Total No. of HHs	Household Coverage			Additional No. of HHs to be Served			Total	Total
		Flush	Pour Flush			Flush	Pour Flush	VIP/Dry	Flush	Pour Flush	VIP/Dry		
Salvador Benedicto	Urban												
	Rural		2,381	793	3,174		4,826	254				2,445	2,445
	Total		2,381	793	3,174		4,826	254				2,445	2,445
San Carlos City	Urban	1,262	3,534	252	5,048	3,989	3,736	252	2,727		202		2,929
	Rural	696	10,447	2,786	13,929	770	17,695	972	19,437	74	7,248		7,322
	Total	1,958	13,981	3,038	18,977	4,759	21,431	1,224	27,414	2,801	7,450		10,251
San Enrique	Urban	420	1,176	84	1,680	1,579	1,495	84	3,158	1,159	319		1,478
	Rural	163	1,473	328	1,964	163	2,620	147	2,930		1,147		1,147
	Total	583	2,649	412	3,644	1,742	4,115	231	6,088	1,159	1,466		2,625
Silay City	Urban	2,402	7,205		9,607	18,429	8,570		17,139	6,168	1,364		7,532
	Rural	610	9,143	2,438	12,191	18,588	1,673	836	16,729	1,063	5,077		6,140
	Total	3,012	16,348	2,438	21,798	37,017	10,243	836	33,868	7,231	6,441		13,672
Sipalay	Urban	456	1,518	1,597	3,571	6,069	2,822	1,597	5,644	2,366			2,366
	Rural	822	5,258	930	7,010	12,309	294	554	11,078		4,972		4,972
	Total	1,278	6,776	2,527	10,581	18,378	3,116	2,151	16,722	2,366	4,972		7,338
Talisay City	Urban	1,457	4,078	291	5,826	9,839	4,575	291	9,150	3,118	206		3,324
	Rural	338	5,063	1,350	6,751	11,811	42	532	10,630		4,993		4,993
	Total	1,795	9,141	1,641	12,577	21,650	4,617	823	19,780	3,118	5,199		8,317
Toboso	Urban	337	944	67	1,348	2,147	999	67	1,997	662			662
	Rural	303	4,543	1,211	6,057	10,086	908	454	9,077	605	3,172		3,777
	Total	640	5,487	1,278	7,405	12,233	1,907	521	11,074	1,267	3,172		4,439
Valladolid	Urban	901	2,523	180	3,604	6,375	2,965	180	5,929	2,064	261		2,325
	Rural	97	1,455	388	1,940	3,492	97	157	3,143		1,434		1,434
	Total	998	3,978	568	5,544	9,867	3,062	337	9,072	2,064	1,695		3,759
Victorias City	Urban	2,713	7,596	542	10,851	19,668	9,146	542	18,291	6,433	1,007		7,440
	Rural	210	3,146	838	4,194	7,776	700	350	6,998	490	2,802		3,292
	Total	2,923	10,742	1,380	15,045	27,444	9,846	892	25,289	6,923	3,809		10,732
Provincial Total	Urban	26,402	88,496	14,632	129,530	229,451	106,701	14,632	213,389	80,299	8,731		89,030
	Rural	13,695	175,122	41,976	230,793	393,434	25,071	17,704	354,091	12,532	136,194	956	149,682
	Total	40,097	263,618	56,608	360,323	622,885	131,772	32,336	567,480	92,831	144,925	956	238,712

Table 8.5.6 Additional Number of Public School Students to be Served in Phases I and II (School Toilets)

Name of Municipality/City	Std. No. of Public School Student that can be Served in the Base Year (1998)	Projected No. of Public School Student in 2005	Phase I Coverage (2005)		Projected Number of Public School Students in 2010	Phase II Coverage (2010)	
			Public School Students Coverage	Additional No. of Public School Student to be Served		Public School Students Coverage	Additional No. of Public School Students to be Served
Bago City	13,600	37,500	24,271	10,671	43,062	38,756	14,485
Binalbagan	8,320	15,227	12,653	4,333	16,449	14,804	2,151
Cadiz City	7,600	33,043	17,003	9,403	34,987	31,488	14,485
Calatrava	7,960	16,618	12,689	4,729	19,670	17,703	5,014
Candoni	1,040	5,079	2,485	1,445	5,534	4,981	2,496
Causayan	6,280	22,894	12,795	6,515	25,507	22,956	10,161
Enrique B. Magalona	2,320	9,907	5,139	2,819	11,445	10,301	5,162
Escalante	7,920	26,760	15,535	7,615	26,143	23,529	7,994
Himanaylan	10,280	23,206	16,884	6,604	25,628	23,065	6,181
Hinigaran	14,120	18,249	14,120		20,908	18,817	4,697
Hinoba-an (Asia)	4,480	11,598	7,780	3,300	10,987	9,888	2,108
Ilog	2,640	10,662	5,674	3,034	10,980	9,882	4,208
Isabela	10,240	12,995	10,240		14,608	13,147	2,907
Kabankalan City	6,840	41,409	18,624	11,784	47,037	42,333	23,709
La Carlota City	7,920	14,273	11,982	4,062	15,140	13,626	1,644
La Castellana	15,170	17,460	15,170		20,114	18,103	2,933
Manapla	4,520	11,498	7,792	3,272	12,454	11,209	3,417
Moises Padilla	5,160	4,273	5,160		5,216	4,694	
Murcia	3,360	20,702	9,251	5,891	18,910	17,019	7,768
Pontevedra	760	11,768	4,109	3,349	13,334	12,001	7,892
Pulupandan	4,800	5,932	4,800		6,303	5,673	873
Sagay City	3,880	35,090	13,865	9,985	40,377	36,339	22,474
Salvador Benedicto		3,856	1,097	1,097	4,591	4,132	3,035
San Carlos City	5,840	28,882	14,059	8,219	31,210	28,089	14,030
San Enrique	1,640	4,982	3,058	1,418	5,873	5,286	2,228
Silay City	4,040	25,640	11,336	7,296	28,103	25,293	13,957
Sipalay	6,160	16,424	10,834	4,674	18,592	16,733	5,899
Talisay City	6,240	17,629	11,257	5,017	20,034	18,031	6,774
Toboso	3,440	12,219	6,917	3,477	13,018	11,716	4,799
Valladolid	480	7,033	2,481	2,001	8,391	7,552	5,071
Victorias City	12,040	23,508	18,730	6,690	27,465	24,719	5,989
<b>Provincial Total</b>	<b>189,090</b>	<b>546,316</b>	<b>327,790</b>	<b>138,700</b>	<b>602,070</b>	<b>541,865</b>	<b>214,541</b>

Table 8.5.7 Additional Number of Public Utilities with Sanitary Toilets in Phase I and II

Name of Municipality/City	Type	Coverage in Base Year (1998)			Phase I Coverage (2005)			Phase I Coverage (2010)		
		No. of PU with Toilets Facilities	No. of PU with Sanitary Toilets	No. of PU with Toilets Facilities	Add'l. No. of Public Utilities with Sanitary Toilets	No. of PU with Sanitary Toilets	No. of PU with Toilets Facilities	Add'l. No. of Public Utilities with Sanitary Toilets	No. of PU with Sanitary Toilets	
Bago City	Public Market	12	12	13	1	13	13		13	
	Bus/Jepney Terminal	2	2	2		2	3	1	3	
	Parks/Playground	22	22	23	1	23	23		23	
	Total	36	36	38	2	38	39	1	39	
Binalbagan	Public Market	4	4	5	1	5	5		5	
	Bus/Jepney Terminal	3	3	4	1	4	4		4	
	Parks/Playground	2	2	2		2	3	1	3	
	Total	9	9	11	2	11	12	1	12	
Cadiz City	Public Market	30	30	30		30	30		30	
	Bus/Jepney Terminal	8	8	8		8	9	1	9	
	Parks/Playground	6	6	6		6	7	1	7	
	Total	44	44	44		44	46	2	46	
Calatrava	Public Market	12	6	12	6	12	12		12	
	Bus/Jepney Terminal			1	1	1	1		1	
	Parks/Playground	16	16	16		16	17	1	17	
	Total	28	22	29	7	29	30	1	30	
Candoni	Public Market	2	2	2		2	3	1	3	
	Bus/Jepney Terminal	2	2	2		2	3	1	3	
	Parks/Playground	2	2	2		2	2		2	
	Total	6	6	6		6	8	2	8	
Cauayan	Public Market	16	14	17	3	17	17		17	
	Bus/Jepney Terminal						1	1	1	
	Parks/Playground	3	3	3		3	4	1	4	
	Total	19	17	20	3	20	22	2	22	
Enrique B. Magalona	Public Market	2	2	2		2	2		2	
	Bus/Jepney Terminal			1	1	1	1		1	
	Parks/Playground									
	Total	2	2	3	1	3	3		3	
Escalante	Public Market	6	6	6		6	7	1	7	
	Bus/Jepney Terminal			1	1	1	1		1	
	Parks/Playground	2	2	3	1	3	3		3	
	Total	8	8	10	2	10	11	1	11	



Table 8.5.7 Additional Number of Public Utilities with Sanitary Toilets in Phase I and II (Cont'd)

Name of Municipality/City	Type	Coverage in Base Year (1998)			Phase I Coverage (2005)				Phase I Coverage (2010)			
		No. of PU with Toilets Facilities	No. of PU with Sanitary Toilets	No. of PU with Toilets Facilities	Add'l. No. of Public Utilities with Sanitary Toilets	No. of PU with Sanitary Toilets	No. of PU with Toilets Facilities	Add'l. No. of Public Utilities with Sanitary Toilets	No. of PU with Sanitary Toilets	No. of PU with Toilets Facilities	Add'l. No. of Public Utilities with Sanitary Toilets	No. of PU with Sanitary Toilets
Himamaylan	Public Market	6	6	7	1	7	7		7	7		7
	Bus/Jeepney Terminal			1	1	1	1		1	1		1
	Parks/Playground	6	6	6		6	6		6	6		6
	Total	12	12	14	2	14	14		14	14		14
Hinigaran	Public Market	1	1	2	1	2	2		2	2		2
	Bus/Jeepney Terminal			1	1	1	1		1	1		1
	Parks/Playground	2	2	2		2	3		3	3		3
	Total	3	3	5	2	5	5		5	6		6
Hinoba-an (Asia)	Public Market	2		2	2	2	2		2	2		2
	Bus/Jeepney Terminal			1	1	1	1		1	1		1
	Parks/Playground											
	Total	2		3	3	3	4		4	4		4
Ilog	Public Market	6	6	6		6	7		7	7		7
	Bus/Jeepney Terminal			1	1	1	1		1	1		1
	Parks/Playground											
	Total	6	6	7	1	7	9		9	9		9
Isabela	Public Market	2	2	2		2	3		3	3		3
	Bus/Jeepney Terminal	2	2	2		2	2		2	2		2
	Parks/Playground	6	6	6		6	7		7	7		7
	Total	10	10	10		10	12		12	12		12
Kabankalan City	Public Market	28	14	28	14	28	28		28	28		28
	Bus/Jeepney Terminal	12	12	12		12	14		14	14		14
	Parks/Playground	2	2	3	1	3	3		3	3		3
	Total	42	28	43	15	43	45		45	45		45
La Carlota City	Public Market	10	10	10		10	10		10	10		10
	Bus/Jeepney Terminal	8	8	8		8	8		8	8		8
	Parks/Playground	2	2	2		2	3		3	3		3
	Total	20	20	20		20	21		21	21		21
La Castellana	Public Market	6	6	6		6	6		6	6		6
	Bus/Jeepney Terminal	4	4	4		4	5		5	5		5
	Parks/Playground	5	5	5		5	6		6	6		6
	Total	15	15	15		15	17		17	17		17

Table 8.5.7 Additional Number of Public Utilities with Sanitary Toilets in Phase I and II (Cont'd)

Name of Municipality/City	Type	Coverage in Base Year (1998)			Phase I Coverage (2005)			Phase I Coverage (2010)		
		No. of PU with Toilets Facilities	No. of PU with Sanitary Toilets	No. of PU with Toilets Facilities	Add'l. No. of Public Utilities with Sanitary Toilets	No. of PU with Sanitary Toilets	No. of PU with Toilets Facilities	Add'l. No. of Public Utilities with Sanitary Toilets	No. of PU with Sanitary Toilets	No. of PU with Toilets Facilities
Manapla	Public Market	4	2	4	2	4	4		4	4
	Bus/Jeepee Terminal			1	1	1	1		1	1
	Parks/Playground	4	4	4		4	5	1	5	5
	Total	8	6	9	3	9	10	1	10	10
Moises Padilla	Public Market	2	2	2		2	3	1	3	3
	Bus/Jeepee Terminal						1	1	1	1
	Parks/Playground	6	6	6		6	7	1	7	7
	Total	8	8	8		8	11	3	11	11
Murcia	Public Market	4	4	4		4	5	1	5	5
	Bus/Jeepee Terminal			1	1	1	1		1	1
	Parks/Playground	2	2	2		2	3	1	3	3
	Total	6	6	7	1	7	9	2	9	9
Pontevedra	Public Market	2	2	2		2	3	1	3	3
	Bus/Jeepee Terminal						1	1	1	1
	Parks/Playground	4	4	4		4	5	1	5	5
	Total	6	6	6		6	9	3	9	9
Pulupandan	Public Market	4	4	4		4	4		4	4
	Bus/Jeepee Terminal						1	1	1	1
	Parks/Playground	4	4	4		4	5	1	5	5
	Total	8	8	8		8	10	2	10	10
Sagay City	Public Market	22	12	22	10	22	22		22	22
	Bus/Jeepee Terminal	2	2	2		2	3	1	3	3
	Parks/Playground	10	10	10		10	11	1	11	11
	Total	34	24	34	10	34	36	2	36	36
Salvador Benedicto	Public Market						1	1	1	1
	Bus/Jeepee Terminal						1	1	1	1
	Parks/Playground			1	1	1	1		1	1
	Total			1	1	1	3	2	3	3
San Carlos City	Public Market	9	9	9		9	10	1	10	10
	Bus/Jeepee Terminal	6	6	7	1	7	7		7	7
	Parks/Playground	30	30	30		30	31	1	31	31
	Total	45	45	46	1	46	48	2	48	48

Table 8.5.7 Additional Number of Public Utilities with Sanitary Toilets in Phase I and II (Cont'd)

Name of Municipality/City	Type	Coverage in Base Year (1998)			Phase I Coverage (2005)			Phase I Coverage (2010)		
		No. of PU with Toilets Facilities	No. of PU with Sanitary Toilets	No. of PU with Toilets Facilities	Add'l. No. of Public Utilities with Sanitary Toilets	No. of PU with Sanitary Toilets	No. of PU with Toilets Facilities	Add'l. No. of Public Utilities with Sanitary Toilets	No. of PU with Toilets Facilities	No. of PU with Sanitary Toilets
San Enrique	Public Market	2	2	2		2	2		2	2
	Bus/Jepney Terminal							1	1	1
	Parks/Playground	2	2	2		2	2		2	2
	Total	4	4	4		4	4	1	5	5
Silay City	Public Market	28	28	28		28	28	1	29	29
	Bus/Jepney Terminal	2	2	3	1	3	3		3	3
	Parks/Playground	4	4	5	1	5	6	1	6	6
	Total	34	34	36	2	36	38	2	38	38
Sipalay	Public Market	8	8	8		8	8	1	9	9
	Bus/Jepney Terminal	4	4	4		4	4	1	5	5
	Parks/Playground	2	2	2		2	3	1	3	3
	Total	14	14	14		14	17	3	17	17
Talisay City	Public Market	3	3	4	1	4	4		4	4
	Bus/Jepney Terminal			1	1	1	1		1	1
	Parks/Playground	2	2	2		2	2		2	2
	Total	5	5	7	2	7	7		7	7
Toboso	Public Market	2	2	2		2	2		2	2
	Bus/Jepney Terminal									
	Parks/Playground	2	2	3	1	3	3		3	3
	Total	4	4	5	1	5	5		5	5
Valladolid	Public Market	2	2	2		2	2		2	2
	Bus/Jepney Terminal			1	1	1	1		1	1
	Parks/Playground	6	6	6		6	6		6	6
	Total	8	8	9	1	9	9		9	9
Victorias City	Public Market	2	2	2		2	3	1	3	3
	Bus/Jepney Terminal	4	4	4		4	5	1	5	5
	Parks/Playground	16	16	16		16	17	1	17	17
	Total	22	22	22		22	25	3	25	25
Provincial Total	Public Market	239	203	245	42	245	257	12	257	257
	Bus/Jepney Terminal	59	59	73	14	73	88	15	88	88
	Parks/Playground	170	170	176	6	176	196	20	196	196
	Total	468	432	494	62	494	541	47	541	541

**8.6 Facilities, Equipment and Rehabilitation Required to Meet the Target Services**  
**8.6.1 Water Supply**

**(1) Required water supply facilities**

Urban water supply:

Urban water supply facilities required by target year shown in Table 8.6.1 were estimated as the required number of house connections based on the additional service coverage.

As reference, the following requirements were also estimated:

- daily average water demand at 100 lpcd consumption rate, and
- number of deep wells to meet the daily maximum water demand based on the groundwater productivity.

(daily maximum water demand = 1.3 x daily average water demand)

Information pertaining to the expansion plan of Level III systems was arranged to be indicated in Table 8.6.1 and details presented in Table 8.6.2.

Rural water supply:

Rural water supply facilities required by target year shown in Table 8.6.3(a) were estimated as the number of Level II systems with number of communal faucets and the number of Level I wells broken-down to deep and shallow wells. Sixteen (16) untapped springs suitable for Level II system were confirmed during this PW4SP preparation.

**(2) Required well drilling and rehabilitation equipment**

The 1st DEO (in Talisay City) and 3rd DEO (in Kabankalan City) have a total of 5 units of rotary/percussion drilling rig (6 - 8" of bit diameter and 24 - 150m of depth). Among them, however, only one unit of rotary type drilling rig is operational at present.

Taking into account of the existing equipment, the number of required equipment is estimated as described below.

Applicable type of well drilling equipment is determined considering the geological formation of the province, the easiness to technically operate. Both types of percussion and rotary are suitable for the soft and hard formations, and the percussion type can be easily operated and maintained without special training to drillers compared with the latter, it is very useful to bores in the boulders or cobbles formations. Thus, the drilling equipment of percussion type is recommendable to be selected in the PW4SP preparation.

Table 8.6.1 Urban Water Supply Facilities Required by Target Year

Name of Municipality/City	Reference on Expansion of Existing Level III System					Phase I (2005) Requirements				Phase II (2010) Requirements				
	Name of Operating Body	Area	Coverage in 1998		Type of Water Source	Plan for Expansion	Additional Population to be Served	Number of House Connections	Daily Average Water Demand (m <sup>3</sup> /day)	Number of Spring Dev't./ Deep Well	Additional Population to be Served	Number of House Connections	Daily Average Water Demand (m <sup>3</sup> /day)	Number of Spring Dev't./ Deep Well
			No. of Barangay Served	Served Population										
Bago City	Bago City WD	Urban	2	5,724	DW/SP	No	5,000	958	500	1	23,296	5,824	2,330	4
		Rural	3	1,224										
		Total	5	6,948										
Binalbagan	Binalbagan WD	Urban	5	7,680	DW	No	3,864	728	386	1	15,148	3,787	1,515	2
		Rural	4	5,214										
		Total	9	12,894										
Cadiz City	Cadiz City WD	Urban	6	32,767	DW/SP	No					7,173	1,793	717	1
		Rural												
		Total	6	32,767										
	Cadiz City WW	Urban	1	1,500	DW	No								
		Rural	1	1,500										
		Total	1	1,500										
	Cadiz City WWS	Urban	1	1,500	DW	No								
		Rural	1	1,500										
		Total	1	1,500										
	Municipal Total	Urban	6	32,767										
		Rural	2	3,000										
		Total	8	35,767										
Calatrava	Calatrava WS	Urban	4	10,269	SP	No					2,107	527	211	1
		Rural	1	2,346										
		Total	5	12,615										
Candoni	Not Applicable	Urban	N.A.	N.A.	N.A.	N.A.	418	79	42	1	2,373	593	237	1
		Rural	N.A.	N.A.										
		Total												
Caauyan	Lao Water Assn.	Urban	1	900	SP	No	3,428	649	343	1	20,547	5,137	2,055	3
		Rural	1	900										
		Total	1	900										
Enrique B. Magalona	EBM Waterworks	Urban	3	3,500	DW	No	5,061	964	506	1	27,067	6,767	2,707	4
		Rural	1	350										
		Total	4	3,850										
Escalante	Escalante WD	Urban	1	4,764	D <sub>2</sub> W/SP	No	6,080	1,185	608	1	37,340	9,335	3,734	5
		Rural	5	1,320										
		Total	6	6,084										
	Escalante WW	Urban	1	759	DW/SP	No								
		Rural												
		Total	1	759										
	Municipal Total	Urban	2	5,523										
		Rural	5	1,320										
		Total	7	6,843										

Table 8.6.1 Urban Water Supply Facilities Required by Target Year (Cont'd)

Name of Municipality/City	Reference on Expansion of Existing Level III System					Phase I (2005) Requirements				Phase II (2010) Requirements				
	Name of Operating Body	Area	Coverage in 1998		Type of Water Source	Plan for Expansion	Additional Population to be Served	Number of House Connections	Daily Average Water Demand (m <sup>3</sup> /day)	Number of Spring Dev't./ Deep Well	Additional Population to be Served	Number of House Connections	Daily Average Water Demand (m <sup>3</sup> /day)	Number of Spring Dev't./ Deep Well
			No. of Barangay Served	Served Population										
Himamaylan	Himamaylan WD	Urban	4	4,986	DW	No					28,330	7,083	2,833	4
		Rural	15	4,782										
		Total	19	9,768										
Hinigaran	Hinigaran WD	Urban	4	948	DW	No	1,987	360	199	1	10,923	2,731	1,092	2
		Rural	20	2,142										
		Total	24	3,090										
Hinoba-an (Asia)	Not Applicable	Urban	N.A.	N.A.	N.A.	N.A.	2,347	451	235	1	13,253	3,313	1,325	2
		Rural	N.A.	N.A.										
		Total												
Ilog	Ilog WD	Urban	1	1,200	SP	No	3,877	737	388	1	21,460	5,365	2,146	3
		Rural												
		Total	1	1,200										
Isabela	Not Applicable	Urban	N.A.	N.A.	N.A.	N.A.	1,693	333	169	1	10,045	2,511	1,005	2
		Rural	N.A.	N.A.										
		Total												
Kabankalan City	Kabankalan City WD	Urban	1	180	DW/SP	No	8,170	1,483	817	2	53,333	13,333	5,333	7
		Rural	12	13,782										
		Total	13	13,962										
La Carlota City	La Carlota City WD	Urban	4	16,620	DW/SP	No					5,829	1,457	583	1
		Rural	6	9,360										
		Total	10	25,980										
La Castellana	La Castellana WD	Urban	1	2,958	SP	No	3,551	675	355	1	21,374	5,344	2,137	3
		Rural												
		Total	1	2,958										
Manapla	Manapla WD	Urban	5	4,278	DW	No	1,577	300	158	1	5,117	1,279	512	1
		Rural												
		Total	5	4,278										
Moises Padilla	Moises Padilla WW	Urban	7	2,445	SP	No					9,192	2,298	919	2
		Rural												
		Total	7	2,445										
Murcia	Murcia WW	Urban	5	6,982	DW/SP	No	2,882	564	288	1	17,887	4,472	1,789	3
		Rural	1	888										
		Total	6	7,870										
Pontevedra	Pontevedra WD	Urban	3	7,837	SP	No	3,028	595	303	1	14,225	3,556	1,423	2
		Rural	3	4,534										
		Total	6	12,371										
Pulupandan	Pulupandan WW	Urban	8	1,284	DW	No	2,614	503	261	1	13,474	3,369	1,347	2
		Rural	4	762										
		Total	12	2,046										

Table 8.6.1 Urban Water Supply Facilities Required by Target Year (Cont'd)

Name of Municipality/City	Reference on Expansion of Existing Level III System					Phase I (2005) Requirements				Phase II (2010) Requirements				
	Name of Operating Body	Area	Coverage in 1998		Type of Water Source	Plan for Expansion	Additional Population to be Served	Number of House Connections	Daily Average Water Demand (m <sup>3</sup> /day)	Number of Spring Dev't./ Deep Well	Additional Population to be Served	Number of House Connections	Daily Average Water Demand (m <sup>3</sup> /day)	Number of Spring Dev't./ Deep Well
			No. of Barangay Served	Served Population										
Sagay City	Lopez Sugar Corp.	Urban	1	1,224	DW	No	8,645	1,634	865	2	36,880	9,220	3,688	5
		Rural												
		Total	1	1,224										
	Phil-Sagay WS	Urban	1	1,290	DW	No								
		Rural												
		Total	1	1,290										
	Sagay Central Inc.	Urban	1	2,104	DW/SP	No								
		Rural												
		Total	1	2,104										
	Sagay WD	Urban	4	10,516	DW/SP	No								
		Rural	7	5,593										
		Total	11	16,109										
	Municipal Total	Urban	6	13,030										
		Rural	8	7,697										
		Total	14	20,727										
Salvador Benedicto	Not Applicable	Urban	N.A.	N.A.	N.A.	N.A.								
	Rural	N.A.	N.A.											
	Total													
San Carlos City	SCC Waterworks	Urban	6	13,585	DW/SP	No	4,582	902	458	1	14,424	3,606	1,442	2
		Rural	4	770										
		Total	10	14,355										
San Enrique	Not Applicable	Urban	N.A.	N.A.	N.A.	N.A.	1,561	300	156	1	11,342	2,836	1,134	2
		Rural	N.A.	N.A.										
		Total												
Silay City	Silay City WD	Urban	7	14,445		No	9,252	1,717	925	2	46,331	11,583	4,633	7
		Rural	2	2,917										
		Total	9	17,362										
Sipalay	Sipalay WW	Urban	4	1,410	SP	No	3,237	621	324	1	18,414	4,604	1,841	3
		Rural	1	294										
		Total	5	1,704										
Talisay City	Talisay WD	Urban	14	8,220	DW	No	5,308	1,041	531	1	23,858	5,965	2,386	4
		Rural	1	42										
		Total	15	8,262										
Toboso	LGU-Toboso	Urban	1	954	SP	No	1,216	241	122	1	5,988	1,497	599	1
		Rural	2	936										
		Total	3	1,890										
Valladolid	Valladolid WSA	Urban	1	1,610	DW	No					22,616	5,654	2,262	3
		Rural												
		Total	1	1,610										
Victorias City	Victorias WD	Urban	9	14,400	DW	No	10,159	1,939	1,016	2	50,178	12,545	5,018	7
		Rural	3	3,480										
		Total	12	17,880										
Provincial Total		Urban	113	182,835			99,537	18,959	9,955	28	589,524	147,384	58,953	89
		Rural	99	66,740										
		Total	212	249,575										

**Table 8.6.2 Plan for Expansion of Existing Level III Systems**

Name of Municipality/City	Name of Operating Body	Additional Areas Barangay to be Covered	Additional Population to be Served	Additional Water Sources	
				Type	Capacity (m <sup>3</sup> /day)
Bago City	Bago City WD				
Binalbagan	Binalbagan WD				
Cadiz City	Cadiz City WD				
	Cadiz City WW				
	Cadiz City WWS				
	Municipal Total				
Calatrava	Calatrava WS				
Cauayan	Laa Water Assn.				
Enrique B. Magalona	EBM Waterworks				
Escalante	Escalante WD				
	Escalante WW				
	Municipal Total				
Himamaylan	Himamaylan WD				
Hinigaran	Hinigaran WD				
Ilog	Ilog WD				
Kabankalan City	Kabankalan City WD				
La Carlota City	La Carlota City WD				
La Castellana	La Castellana WD				
Manapla	Manapla WD				
Moises Padilla	Moises Padilla WW				
Murcia	Murcia WW				
Pontevedra	Pontevedra WD				
Pulupandan	Pulupandan WW				
Sagay City	Lopez Sugar Corp.				
	Phil-Sagay WS				
	Sagay Central Inc.				
	Sagay WD				
	Municipal Total				
San Carlos City	SCC Waterworks				
Silay City	Silay City WD				
Sipalay	Sipalay WW				
Talisay City	Talisay WD				
Toboso	LGU-Toboso				
Valladolid	Valladolid WSA				
Victorias City	Victorias WD				



Table 8.6.3(a) Rural Water Supply Facilities Required by Target Year

Name of Municipality/City	Phase I (2005) Requirements										Phase II (2010) Requirements				
	Level II		Level I					Level I					Level I		
	Number of System	No. of Communal Faucets	Number of Deep Wells			No. of Shallow Wells	Total	Number of Deep Wells			No. of Shallow Wells	Total			
			40 m	80 m	120 m			Sub-total	40 m	80 m			120 m	Sub-total	
Bago City	3	60	123			123	81	204	283			283	188	471	
Binalbagan			62			62		62	89			89		89	
Cadiz City	4								91			91	60	151	
Calatrava	5									92		92	22	114	
Candoni				9		9	18	27		27		27	62	89	
Causayan	4	80	38			38	57	95	104			104	154	258	
Enrique B. Magalona			40			40	17	57	95			95	40	135	
Escalante			95			95	10	105							
Himamaylan									171			171		171	
Hinigaran			116			116		116	201			201		201	
Hinoba-an (Asia)							45	45					31	31	
Ilog			20			20	12	32	62			62	41	103	
Isabela				78		78		78		192		192		192	
Kabankalan City				178		178	19	197		774		774	85	859	
La Carlota City				32		32	31	63		27		27	26	53	
La Castellana				10		10	81	91		24		24	216	240	
Manapla	2	40	39			39	26	65	23			23	15	38	
Moises Padilla				29		29	12	41		38					
Murcia				9		9	77	86							
Pontevedra			50			50		50	18			18		18	
Pulupandan									135			135		135	
Sagay City	7	140		144		144	16	160		567		567	62	629	
Salvador Benedicto				136		136	34	170					72	72	
San Carlos City			24			24		24	28	218		218	54	272	
San Enrique			45			45	104	149	31			31	72	103	
Silay City							43	86	33			33	33	66	
Sipalay			43			43	65	82		26		26	103	129	
Talisay City				17		17	7	74		86		86	9	95	
Toboso				67		67			29			29		29	
Valladolid							25	51	62			62	62	124	
Victorias City			26			26									
Provincial Total	25	320	721	709		1,430	780	2,210	1,455	2,071		3,526	1,423	4,949	

Table 8.6.3(b) Rural Water Supply Facilities Required by Target Year

Name of Municipality/City	Phase I (2005) Requirements										Phase II (2010) Requirements									
	Percentage Allocated to Public Facility (50%)										Percentage Allocated to Public Facility (50%)									
	Percentage Allocated for Public Wells (90%) and Percentage Allocated for Public Spring Development (10%)										Percentage Allocated for Public Wells (90%) and Percentage Allocated for Public Spring Development (10%)									
	Number of Deep Wells					No. of Shallow Wells	Total	No. of Spring Dev.	Grand Total	Number of Deep Wells					No. of Shallow Wells	Total	No. of Spring Dev.	Grand Total		
	40 m	80 m	120 m	Sub-total	40 m					80 m	120 m	Sub-total								
Bago City	56			56	36	92	10	102	128				128	84	212	24	236			
Binalbagan	28			28		28	3	31	40				40		40	5	45			
Cadiz City									41				41	27	68	8	76			
Calatrava																				
Candoni		4		4	9	13	1	14					41	10	51	6	57			
Cauayan	18			18	25	43	5	48	47				12	28	40	5	45			
Enrique B. Magalona	19			19	7	26	3	29	43				47	69	116	13	129			
Escalante	44			44	4	48	5	53					43	18	61	7	68			
Himamaylan																				
Hinigaran	52			52		52	6	58	91				77		77	9	86			
Hinoba-an (Asia)					21	21	2	23					91		91	10	101			
Ilog	9			9	5	14	2	16	29				29	18	47	5	52			
Isabela		35		35		35	4	39					86		86	10	96			
Kabankalan City		81		81	8	89	10	99					349	38	387	43	430			
La Carlota City		15		15	14	29	3	32					12	12	24	3	27			
La Castellana		5		5	36	41	5	46					11	97	108	12	120			
Manapla	18			18	12	30	3	33	11				11	6	17	2	19			
Moises Padilla		14		14	5	19	2	21					17	7	24	3	27			
Murcia		4		4	35	39	4	43												
Pontevedra	22			22		22	3	25	8				8							
Pulupandan													61							
Sagay City		65		65	7	72	8	80					255	28	283	32	315			
Salvador Benedicto														32	32	4	36			
San Carlos City		61		61	15	76	9	85					98	24	122	14	136			
San Enrique	11			11		11	1	12	13				13		13	1	14			
Silay City	21			21	46	67	8	75	15				15	32	47	5	52			
Sipalay	20			20	19	39	4	43	15				15	15	30	3	33			
Talisay City		8		8	29	37	4	41					12	46	58	7	65			
Toboso		30		30	3	33	4	37					39	4	43	5	48			
Valladolid													13		13	2	15			
Victorias City	12			12	11	23	3	26	28				28	28	56	6	62			
Provincial Total	330	322		652	347	999			660	932			1,592	637	2,229	254	2,483			

Medium size percussion drilling rig (truck-mounted type for deep well):

Average performance

- 1 well/30 days (5 m/day of drilling rate with finishing work)

Annual accomplishment

- 9 wells/year ( $365 \text{ days/year} \div 30 \text{ days/well} \times 0.75$ )

Required number

- 15 sets for the total 652 deep wells

Well rehabilitation equipment:

Average performance

- 1 well/7 days (well redevelopment and finishing work)

Annual accomplishment

- 39 wells/year ( $365 \text{ days/year} \div 7 \text{ days/well} \times 0.75$ )

Required number

- 2 sets for 10% of 652 Level I deep wells

Support vehicle:

Type - pick-up truck with winch, double cab

Required number

- 2 units for well rehabilitation

Considering the utilization of existing drilling rigs, it is necessary for the province to procure/mobilize 14 units of medium size percussion rig for the medium-term development plan. Likewise the following equipment shall be considered for medium-term development plan to meet the physical targets:

- 2 sets of well rehabilitation equipment for 10% of deep wells (at least 1 set shall be held by the provincial government); and
- 2 units of support vehicle for well rehabilitation (at least 1 set shall be held by the provincial government).

In addition to the above, for long-term plan, each one unit of medium size percussion rig and service truck equipped with crane for hauling drilling tools/water is required.

8.6.2 Sanitation

Table 8.6.4 Urban Household Toilets Required by Target Year

Name of Municipality/City	Phase I (2005) Requirements						Phase II (2010) Requirements					
	Additional HHs to be Served			No. of HHs to be Served			Additional HHs to be Served			No. of HHs to be Served		
	Flush	Pour Flush	VIP/ Dry	Total	Flush	Pour Flush	VIP/ Dry	Total	Flush	Pour Flush	VIP/ Dry	Total
Bago City									3,801			3,801
Binalbagan	563	28		591	563	28		591	2,248	211		2,459
Cadiz City	41	756		797	41	756		797	3,367	324		3,691
Calarava	165			165	165			165	1,000			1,000
Candoni	13			13	13			13	231	11		242
Cauayan	120			120	120			120	2,025	208		2,233
Enrique B. Magalona	1,340	461		1,801	1,340	461		1,801	3,011	313		3,324
Escalante	255			255	255			255	4,330	1,014		5,344
Himamaylan	797			797	797			797	2,858	420		3,278
Hinigaran	156	45		201	156	45		201	1,192	186		1,378
Hinoba-an (Asia)									1,901			1,901
Ilog									3,248			3,248
Isabela									1,308			1,308
Kabankalan City									7,267			7,267
La Carlota City									2,298			2,298
La Castellana	845	48		893	845	48		893	2,467	579		3,046
Manapla	277	148		425	277	148		425	923	84		1,007
Moises Padilla	351			351	351			351	982	100		1,082
Murcia	705	156		861	705	156		861	2,607	1,028		3,635
Pontevedra	291			291	291			291	2,238	573		2,811
Pulupandan	258			258	258			258	1,422	16		1,438
Sagay City	705	24		729	705	24		729	4,878	305		5,183
Salvador Benedicto												
San Carlos City	379			379	379			379	2,727	202		2,929
San Enrique	203			203	203			203	1,159	319		1,478
Silay City	441			441	441			441	6,168	1,364		7,532
Sipalay									2,366			2,366
Talisay City	585	376		961	585	376		961	3,118	206		3,324
Toboso	284			284	284			284	662			662
Valladolid	691			691	691			691	2,064	261		2,325
Victorias City	1,222	654		1,876	1,222	654		1,876	6,433	1,007		7,440
<b>Provincial Total</b>	<b>10,687</b>	<b>2,696</b>		<b>13,383</b>	<b>10,687</b>	<b>2,696</b>		<b>13,383</b>	<b>80,299</b>	<b>8,731</b>		<b>89,030</b>

Table 8.6.5 Rural Household Toilets Required by Target Year

Name of Municipality/City	Phase I (2005) Requirements						Phase II (2010) Requirements					
	Additional HHs to be Served			No. of HHs to be Served			Additional HHs to be Served			No. of HHs to be Served		
	Flush	Pour Flush	VIP/ Dry	Flush	Pour Flush	VIP/ Dry	Flush	Pour Flush	VIP/ Dry	Flush	Pour Flush	VIP/ Dry
Bago City	385			385			385			307	13,439	
Binalagan	100	1,112		1,212	100	1,112	1,212	517	2,739	517	2,739	
Cadiz City		5,005		5,005		5,005	5,005		7,054		7,054	
Calarava	470	666		1,136	470	666	1,136	946	4,862	946	4,862	
Candoni	113	37		150	113	37	150		2,019		2,019	
Cauayan	352	50		402	352	50	402	400	6,806	400	6,806	
Enrique B. Magalona	236	1,445		1,681	236	1,445	1,681	114	3,516	114	3,516	
Escalante	430	761		1,191	430	761	1,191	665	2,865	665	2,865	
Himamaylan	142	1,367		1,509	142	1,367	1,509	901	5,041	901	5,041	
Hinigaran		1,222		1,222		1,222	1,222	724	6,241	724	6,241	
Hinoba-an (Asia)									3,256		3,256	
Ilog									1,019		1,019	
Isabela	253	303		556	253	303	556		3,198		3,198	
Kabankalan City	742	1,092		1,834	742	1,092	1,834	2,058	12,251	2,058	12,251	
La Carlota City								761	2,081	761	2,081	
La Castellana	367	1,662		2,029	367	1,662	2,029		4,621		4,621	
Manapla		1,679		1,679		1,679	1,679		4,099		4,099	
Moises Padilla	166	583		749	166	583	749		2,438		2,438	
Murcia	280	1,848		2,128	280	1,848	2,128	534	2,595	534	2,595	
Pontevedra	183	468		651	183	468	651	362	1,740	362	1,740	
Pulpandan	36			36	36		36	164	819	164	819	
Sagay City	225	3,066		3,291	225	3,066	3,291	1,847	10,205	1,847	10,205	
Salvador Benedicto		22		330		22	330		2,445		2,445	
San Carlos City	680	466		1,146	680	466	1,146	74	7,248	74	7,248	
San Enrique		334		339		334	339		1,147		1,147	
Silay City	610	5,393		6,003	610	5,393	6,003	1,063	5,077	1,063	5,077	
Sipalay		1,683		1,683		1,683	1,683		4,972		4,972	
Talisay City	338	1,495		1,833	338	1,495	1,833		4,993		4,993	
Toboso	261	1,065		1,326	261	1,065	1,326	605	3,172	605	3,172	
Valladolid	84	176		260	84	176	260	474	1,434	474	1,434	
Victorias City	95	661		756	95	661	756	490	2,802	490	2,802	
Provincial Total	6,548	33,661	959	41,168	6,548	33,661	41,168	12,532	136,194	12,532	136,194	956
												149,682

Table 8.6.6 Public School Toilets Required by Target Year

Name of Municipality/City	Phase I (2005) Requirements			Phase II (2010) Requirements		
	Additional Public School Students to be Served	No. of Toilet Unit	No. of Toilet Facilities	Additional Public School Students to be Served	No. of Toilet Unit	No. of Toilet Facilities
Bago City	10,671	267	54	14,485	363	73
Binalbagan	4,333	109	22	2,151	54	11
Cadiz City	9,403	236	48	14,485	363	73
Calatrava	4,729	119	24	5,014	126	26
Candoni	1,445	37	8	2,496	63	13
Cauayan	6,515	163	33	10,161	255	51
Enrique B. Magalona	2,819	71	15	5,162	130	26
Escalante	7,615	191	39	7,994	200	40
Himamaylan	6,604	166	34	6,181	155	31
Hinigaran				4,697	118	24
Hinoba-an (Asia)	3,300	83	17	2,108	53	11
Ilog	3,034	76	16	4,208	106	22
Isabela				2,907	73	15
Kabankalan City	11,784	295	59	23,709	593	119
La Carlota City	4,062	102	21	1,644	42	9
La Castellana				2,933	74	15
Manapla	3,272	82	17	3,417	86	18
Moises Padilla						
Murcia	5,891	148	30	7,768	195	39
Pontevedra	3,349	84	17	7,892	198	40
Pulupandan				873	22	5
Sagay City	9,985	250	50	22,474	562	113
Salvador Benedicto	1,097	28	6	3,035	76	16
San Carlos City	8,219	206	42	14,030	351	71
San Enrique	1,418	36	8	2,228	56	12
Silay City	7,296	183	37	13,957	349	70
Sipalay	4,674	117	24	5,899	148	30
Talisay City	5,017	126	26	6,774	170	34
Toboso	3,477	87	18	4,799	120	24
Valladolid	2,001	51	11	5,071	127	26
Victorias City	6,690	168	34	5,989	150	30
<b>Provincial Total</b>	<b>138,700</b>	<b>3,481</b>	<b>710</b>	<b>214,541</b>	<b>5,378</b>	<b>1,087</b>

Table 8.6.7 Public Toilets Required by Target Year

Name of Municipality/City	Phase I (2005) Requirements					Phase II (2010) Requirements				
	Number of Public Toilets		Number of Public Toilets			Number of Public Toilets		Number of Public Toilets		
	Public Market	Bus/Jeepney Terminal	Parks/Playground	Total	Public Market	Bus/Jeepney Terminal	Parks/Playground	Public Market	Bus/Jeepney Terminal	Parks/Playground
Bago City	1		1	2					1	
Binalbagan	1	1		2						1
Cadiz City									1	
Calatrava	6	1		7						1
Candoni								1		
Cauayan	3			3				1		
Enrique B. Magalona		1		1						
Escalante		1	1	2	1					
Himamaylan	1	1		2						
Hinigaran	1	1		2						1
Himoba-an (Asia)	2	1		3						1
Ilog		1		1	1					1
Isabela					1					1
Kabankalan City	14		1	15					2	
La Carlota City										1
La Castellana									1	
Manapla	2	1		3						1
Moises Padilla					1			1		1
Murcia		1		1	1					1
Pontevedra								1		1
Pulupandan								1		1
Sagay City	10			10					1	
Salvador Benedicto			1	1	1					
San Carlos City		1		1	1					1
San Enrique									1	
Silay City		1	1	2	1					1
Sipalay					1				1	
Talisay City	1	1		2						1
Toboso			1	1						
Valladolid		1		1						
Victorias City					1				1	
<b>Provincial Total</b>	<b>42</b>	<b>14</b>	<b>6</b>	<b>62</b>	<b>12</b>	<b>15</b>	<b>20</b>			
										<b>47</b>

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**SECTOR IMPLEMENTATION  
ARRANGEMENTS**

**C**



## 9. SECTOR MANAGEMENT FOR MEDIUM-TERM DEVELOPMENT

### 9.2 Sector Management

#### Accessing ODA Funds for Level III Systems

When considering sources of financing for new Level III systems or for existing Level III systems that are expanding, LGUs may tap their IRA or they may borrow funds from commercial or ODA institutions. In the case of LGUs that have formed a Water District to operate their system, a ready source of loan funds is the LWUA.

This section discusses how an LGU can access funds from an ODA agency in order to develop its Level III water system. It is presumed that the proposed Level III project has gone through the Project Development process stipulated by the NEDA in Rule 7, Articles 24 – 26 of its IRR of Board Resolution No. 4 (Series of 1994), Clause (G). Specifically, the proposed Level III project must be consistent with the Provincial/City/Municipal Water Supply, Sewerage and Sanitation Sector Plan that has been prepared and annually updated by their respective Planning and Development Office(s). On the basis of these local council approved sector plans, water supply investments will have been identified and developed into a local investment program that includes an appropriate financing plan.

It is worthwhile to reiterate the following NEDA prescriptions regarding project identification:

- “proposed investments shall be developed according to a demand-driven approach that would allow beneficiaries to select from among cost-effective technical options and from financing options. The LGUs may avail of technical assistance from the DILG in the preparation of these project packages (Rule 5).”
- “LGU systems shall be constructed on the basis of choosing among technical options that are affordable through the financial resources made available by users, communities and LGUs. The process of determining demand for a particular service delivery shall be concluded through a negotiated agreement between the LGU, water utility and the users, on how the costs will be shared at the town, barangay, and household levels.”
- “for any Level III service, at least two technical options shall be explored: those of an inter-LGU service delivery organization involving amalgamation of service areas and of single LGU management systems.”

### (1) Project Initiation Stage

Based on their respective approved water sector plans, the province/municipality proposes a specific Level III water system following the NEDA guidelines on project identification. The provinces and component municipalities may submit their respective project proposals for ODA funding to the DILG. The DILG examines such requests and ensures that they are in conformity with the NEDA's Medium Term Public Investment Program (MTPIP), a master list of projects from which ODA agencies can select specific projects that they can fund. From the MTPIP, the ODA loan agency prepares its own short list of potential province and municipality beneficiaries/ grantees of its loan program. The ODA loan agency then proceeds to conduct its own feasibility study concerning its loan program and discusses this extensively with both the NEDA and the DILG (since the DILG will be the implementing agency for the ODA loan).

While the DILG is designated as the implementing agency for the ODA loan program, a domestic lending institution (e.g. the Development Bank of the Philippines or DBP) can be contracted to administer the loan package and on-lend ODA funds to specific LGUs. [Note that the LWUA has served and continues to serve as a conduit for loans to Water Districts.] Under such a working arrangement, the DILG, the ODA agency, and the domestic lending institution affix their signatures on the ODA program loan documents.

The DILG now pre-screens LGUs who have expressed intent to borrow funds from the ODA loan facility. Together with consultants from the ODA agency, the DILG conducts briefings on the loan conditions to make sure that the province/municipality fully understands the financial and institutional commitments they have to make once they contract the loan. The respective local councils (e.g. Sanggunians) deliberate whether they are able to and will partake of the loan. Should the Sanggunian decide that they can meet the loan commitments, they submit an official letter of interest (LOI) to the DILG. The DILG, with assistance provided by the ODA agency, evaluates the various LOIs from different LGUs and selects which specific projects will be eligible to borrow from the ODA loan facility.

### (2) Project Implementation Stage

At this point, the province/municipality with the Level III system project can now sign the loan documents with the designated local on-lending institution. For the construction of the Level III water system, the LGU itself (or the LGU company formed to undertake the project) is expected to bid out the job to contractors from the private sector. The bidding process should be a transparent one with a public announcement of the bidding.

publication of pre-qualified construction companies, and a well-documented decision by the bids and awards committee. During the construction of the Level III water system, the LGU unit tasked to monitor the construction activity should carry out periodic inspections. Final inspection is done upon completion of the construction contract. Throughout the period of the bidding process and actual construction, the DILG can be tapped by the LGU for assistance on various technical and institutional-building matters.

The private sector contractor submits its periodic billings to the LGU. After the necessary inspections are done, the LGU in turn forwards this bill to the domestic lending institution for payment. Given that all documents are in order, the domestic lending institution requests for fund remittance from the ODA agency. Once the funds are remitted, the domestic lending institution settles the bills with the private contractor.

As far as repayment of the loan is concerned, the LGU is responsible for paying the loan since it was the signatory of the loan. Through the operations of the completed Level III water system, the LGU is able to collect the corresponding tariffs from the different consumer households. From these revenues, the LGU re-pays the loan capital and interest to the domestic lending institution, which in turn remits these proceeds to the ODA loan agency. This process is repeated throughout the term of the loan.

#### **9.4 Project Management Arrangements**

##### **9.4.1 Project Approach/Strategy**

###### **Integration of Waterworks**

The province may also initiate the establishment of an Integrated Waterworks (IWW) facility that will merge the management operations of adjoining municipalities, which have existing or proposed Level III water systems. This may not necessarily involve the integration of the physical facilities because of the distance and sparse location of municipalities, but rather only the management aspect of it. Article 8 of the IRR of NEDA Board Resolution No. 4 (Series of 1994), Clause (G) states that: "An LGU may also consider amalgamating or consolidating its system with that of its neighboring LGUs in order to benefit from economies of scale that could expand water supply services to consumers at the lowest possible cost."

The advantages of an IWW facility are as follows:

- Comprehensive water sector planning at the provincial level is facilitated. Investments in developing larger water sources and reservoirs can be considered at the planning stage (in the case of municipalities that are in close proximity with each other).

- The overhead cost involved in maintaining and operating a large waterworks system can be reduced since redundancies in equipment and manpower resources will be eliminated. Municipalities will no longer have to purchase and maintain their own waterworks construction equipment. As a result, there will be greater utilization of such equipment. Engineering and management staff that are currently needed to run the municipal waterworks system can be transferred to other functions.
- The province will be able to hire and retain professional engineering and management staff who will assume greater responsibilities and duties. This will eventually translate to a higher level of service to the communities served by the IWW facility.
- Access to loan funds (from both ODA and commercial sources) for the construction of the waterworks system will be easier since the lending institution will deal with a single entity. Lending institutions prefer such a set-up since the loan evaluation and the corresponding loan monitoring is simpler.
- The IWW facility will be more attractive to more reputable private sector corporations, both local and foreign. The province will be able to generate more interest from private sector players who may want to develop waterworks systems on a BOT/BO/BOO basis or jointly with the LGU. The LGU may also tap these same private sector players to operate and maintain the existing distribution network under any form of contract – service, management, lease, or concession.

The organizational structure of the IWW should contain, at the least, 5 sections – Administration, Finance, Engineering, Operations & Maintenance, and a Meter Reading and Tariff Collection unit. The Administration and Finance departments will handle matters related to human resources development, financial planning and control, and other related concerns. The Engineering section is expected to concentrate on water system planning and design. The Operations & Maintenance unit will ensure that the water system is operating efficiently (e.g. minimal system losses) and that water quality is always satisfactory by conducting strict monitoring activities. Any construction activity, including the installation of water meters, will be contracted out to the private sector so there will be no need for a large pool of both equipment and manpower. Water samples can be tested in existing private or government laboratories if the IWW will not maintain its own laboratory. The Meter Reading and Tariff Collection unit will be in charge of the all-important task of determining individual household consumption and collecting the corresponding tariff due. The actual conduct of these two activities can be contracted out to the private sector through a service contract.

The financial and operating condition of the IWW facility should be reported periodically to the provincial and municipal governments. In addition, the rates that the IWW will charge

consumers will be set under the supervision of a regulatory authority and any proposed changes should first be presented and discussed in a public hearing.

The success of the IWW facility depends on the full support of the local governments of both the province and the component municipalities. Such support shall be in the form of strengthening the management and engineering capabilities of the IWW staff. Any loan needed by the IWW should be endorsed, and if possible guaranteed, by the LGUs concerned. Initial capital requirements can even be sourced from these LGUs.

#### **9.4.2 Project Implementation Arrangements**

##### **Project Implementation Arrangement and Procedure**

Together with the Figures (Figure 9.4.1 and 9.4.2), the following are the project implementation arrangement and procedure for Level I and sanitation from national level to barangay levels, which are designed to encourage active participation of implementers and beneficiaries in undertaking the project.

##### **(1) National Government Level**

Project Planning/Launching Workshop as start-up activity will be conducted to introduce and orient the implementers on the Project, define their roles, responsibilities and relationships among them and formulate provincial action plans. The Consultant, upon completion of the training needs assessment and development of appropriate training programs shall conduct capacity enhancement for the WSS-PMO Staff, NGOs, DPWH and DOH representatives. This activity aims to strengthen their competence in technical, managerial, training and community organizing and gender responsiveness. The trained members are responsible to facilitate the organization/reactivation of the PWSU and information dissemination for the provincial officials to secure their support and commitment to the Project. With the assistance from the Consultant, they will enhance the capacity of the PWSU, the MSLT and COs/NGOs in planning, implementing, monitoring and evaluating the project.

##### **(2) Local Government Level**

The PWSU shall assist the MSLT in each municipality and conduct information dissemination for the municipal officials to orient them on the project and obtain their support and commitment. With the PWSU assistance, the trained MSLT members shall select priority barangays, in coordination with the municipal development council. The Team will be responsible for facilitating barangay activities such as consultation meetings with barangay officials and community members, barangay survey and spot mapping,

formation of BWSA/RWSA, pre-construction conference, and supervision of construction. Skills training will be conducted for the operating body in maintaining and managing the project. They shall also provide continuing assistance and monitor the activities of the beneficiaries and status of the project.

### (3) Barangay Level

The barangay officials/development councils shall provide support to the PWSU and MSLT members in conducting activities and mobilizing resources in the barangay. Men and women volunteer shall conduct barangay survey and spot mapping to confirm their demand for the level of service, HH latrines and willingness to operate and maintain the facilities and counterpart. The community members decide on the operating body, tap existing community-based organization or organize a BWSA/RWSA. They have also to agree on the monthly water fees and provide labor and local materials during the construction of facilities. The BOD/Officers, Bookkeeper and Caretaker of the operating body shall attend skills training to develop their competence in performing their jobs. The beneficiaries shall provide information and request assistance from the PWSU/MSLT members, if necessary.

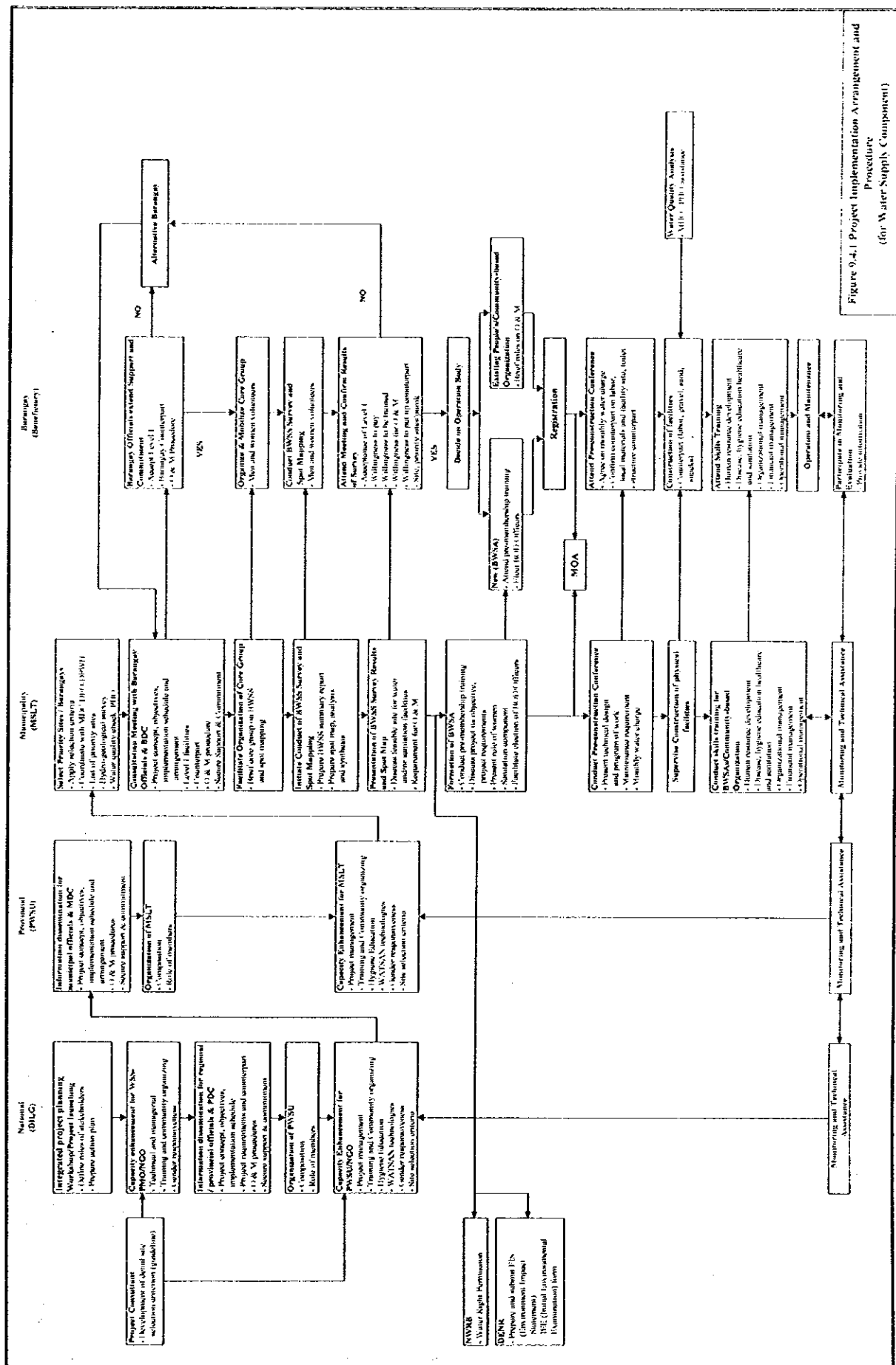
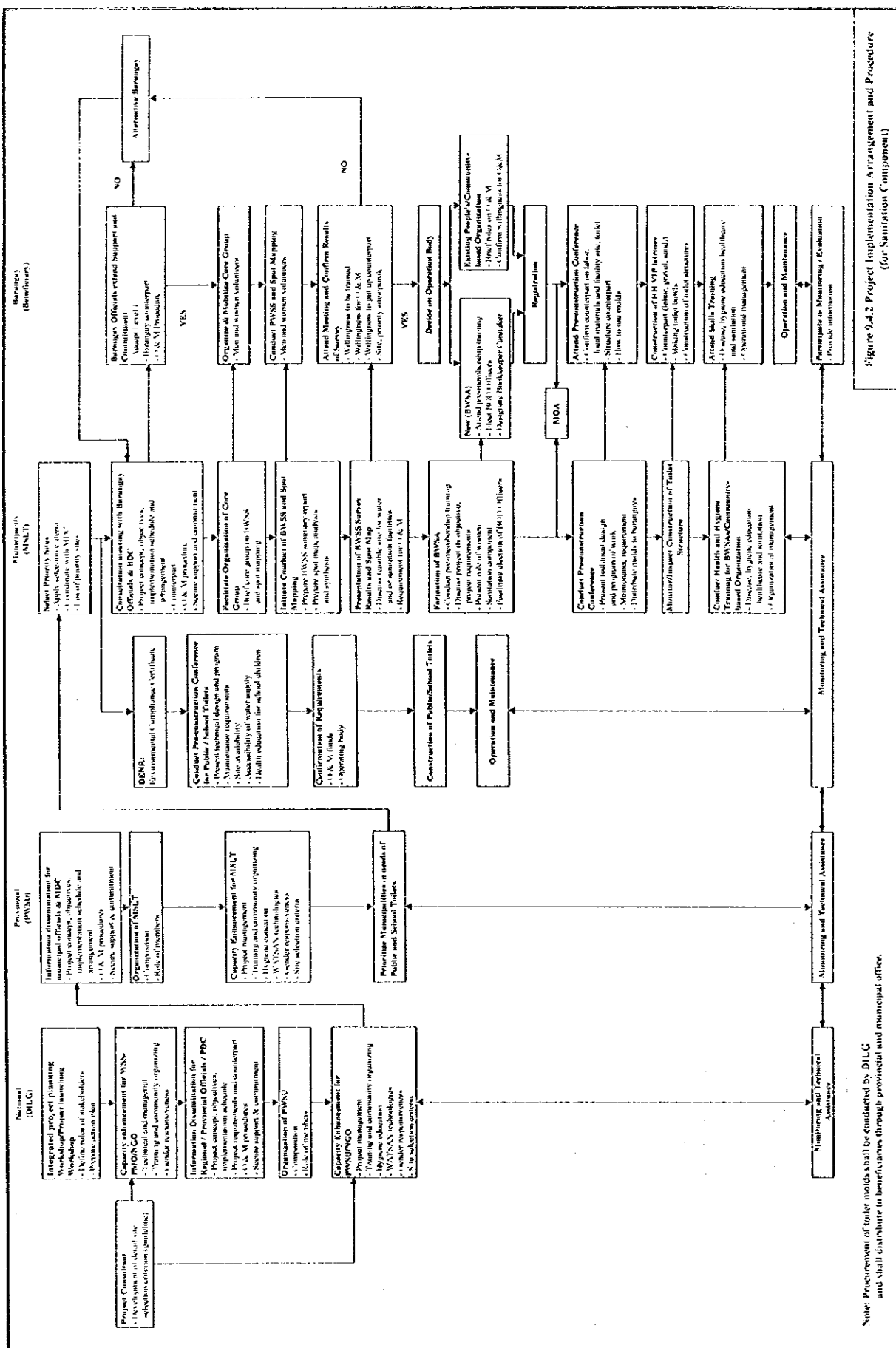


Figure 9.4.1 Project Implementation Arrangement and Procedure (for Water Supply Component)



Note: Procurement of tender molds shall be conducted by DILG and shall distribute to beneficiaries through provincial and



## PROPOSED SITE SELECTION CRITERIA

Barangay: \_\_\_\_\_ Municipality: \_\_\_\_\_ Province: \_\_\_\_\_

### (1). Required Items

Item No.	Description	Score
1.	No alternative water source except ground water	OK or Not
2.	Acceptance of Level I facility	OK or Not

### (2) Technical & Socio Economical Requirements 60%

Item No.	Description	Score
1.	Water source availability (quality and quantity)	20%
2.	Incidence of water-borne disease	25%
3.	Accessibility of well drilling machine to water source	15%

### (3) Community Interest and Involvement 40%

Item No.	Description	Score
1.	Willingness to assume responsibility for operating and maintenance of the facility/ies	10%
2.	Willingness to be trained on O&M	5%
3.	Willingness to pay for water fees	15%
4.	Willingness to put up counterpart	10%

### (4) Total Score

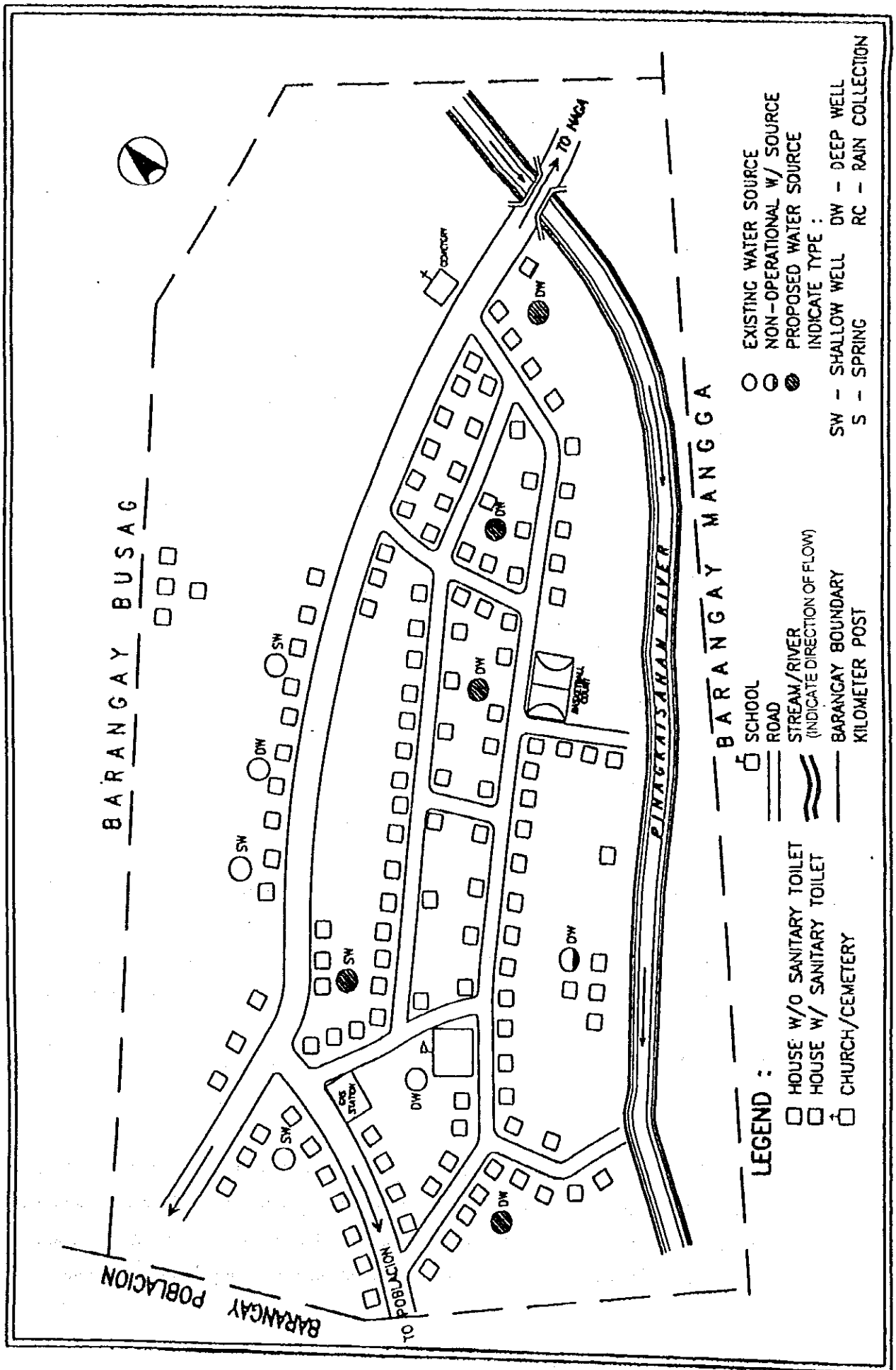
Item No.	Description	Score
(1)	Required items	OK or Not
(2)	Physical requirements	
(3)	Community interest and involvement	

Total Score

## Proposed Capacity Enhancement Program

Activity/Participation	Course Content
<b>1. Project Planning/Launching Workshop</b> DILG (WSS-PMO) DPWH, DOH, NWRB NEDA, DOF, OECF	1. Project Concept, Objective, Project Requirements, Implementation schedule and arrangements 2. Role and responsibility of national government agencies, LGUs (provide and municipalities and project beneficiaries) 3. Action Plan by province
<b>2. Capacity Enhancement for WSS-PMO, NGOs, DOH and DPWH</b>	1. Project Concept (objectives, components, requirements, implementation arrangement, O&M systems and procedure, etc.) 2. Sector Development and existing Policies 3. Project Planning, Management and Control 4. Team Building Exercise 5. Presentation and Facilitating Skills 6. Methods of Instruction 7. Community Organization/Community Development 8. Barangay Surveys and Spot Mapping 9. Formulation of BWSA 10. Health and Hygiene Education 11. Technical Training <ul style="list-style-type: none"> <li>- Designing and Construction</li> <li>- Water Source Investigation</li> </ul> 12. Skills Training for Operating Body <ul style="list-style-type: none"> <li>- Organizational Management</li> <li>- Financial Management</li> <li>- Operational Management</li> </ul> 13. Gender Responsiveness 14. Monitoring
<b>3. Capacity Enhancement for LGUs (PWSU, MSLT, CO/NGOs)</b>	1. Project Concept (objectives, components, requirements, implementation arrangement, O&M systems and procedure, etc.) 2. Sector Development and existing Policies 3. Project Planning, Management and Control 4. Team Building Exercise 5. Methods of Instruction 6. Presentation and Facilitating Skills 7. Community Organization/Community Development 8. Barangay Surveys and Spot Mapping 9. Formulation of BWSA 10. Health and Hygiene Education 11. Technical Training <ul style="list-style-type: none"> <li>- Designing and Construction of WATSAN facilities</li> <li>- Water Source Investigation</li> </ul> 12. Skills Training for Operating Body <ul style="list-style-type: none"> <li>- Organizational Management</li> <li>- Financial Management</li> <li>- Operational Management</li> </ul> 13. Gender Responsiveness 14. Monitoring
<b>4. Capacity Enhancement for Operating body (BOD/Officers, Bookkeeper, Caretakers)</b>	1. Project concept (objectives, components, requirements, implementation arrangements, O&M systems and procedures, etc.) 2. Human Resources Development (Team Building, Leadership and Value Formation) 3. Disease, Hygiene, Education, Health Care and Sanitation (Excreta, Liquid and Solid Waste Disposal) 4. Organizational Management (BWSA Management Skills) 5. Operational Management (Operation, repair and maintenance skills) 6. Financial Management (Simplified Bookkeeping Procedures) 7. Greater Participation of Women 8. Monitoring and Evaluation

# SPOT MAP



### **Instructions for Completing Barangay Map**

This sample barangay map is a rough sketch of an entire barangay showing the households, with and without sanitation facilities. The map also shows location, type and condition of existing water facilities and plot location of proposed water sources.

- 1) The map will be used for BWSA planning
- 2) The map can be used as a planning tool to determine best locations for future water sources.
- 3) The map can also be used to support funding request for other water and/or sanitation facilities.
- 4) The map may also be entered into a national data base.

To make a map of your barangay, use the legend at the bottom of the sample to indicate information and landmarks. Follows these procedures when completing the map:

- 1) Indicate location of highways and road, including name and number of road if any.
- 2) Draw approximate boundaries for your barangay and indicate names of adjacent barangays
- 3) Indicate direction of north line.
- 4) Locate public building, cemeteries, schools, or other prominent landmarks.
- 5) Locate natural land features (like river, rice field, hills, etc.) and animal pens.
- 6) Show households by drawing a clear square.
- 7) Show all sanitation facilities in households by darkening bottom of square.
- 8) Show water sources location and condition by drawing a clear circle for existing water sources, a half dark circle if source is not in operation and a darkened circle for proposed facility. (Proposed facilities should be at least thirty (30) meters away from the nearest latrine and animal pen).
- 9) Show water source type like deepwell, shallow well, spring, etc. Following legend on the map.
- 10) Next to existing facilities, write the distance in meters to the nearest latrine or animal pen. Proposed facilities should be at least 30 meters away from the nearest latrine and animal pen.
- 11) Show kilometer posts along the road by drawing a darkened small square.

### **BWSA Formation**

A BWSA (Barangay Waterworks and Sanitation Association) is an organization of water supply and sanitation beneficiaries in a barangay whose objective is to own, operate and maintain the water systems. RA 6716 requires its formation to ensure the provision of adequate, potable and accessible water supply to its members through proper operation and

maintenance of the water facilities. The organizational structure of BWSA is quite simple and depends on the number of facilities, need, culture and situation in a particular barangay.

The decision to tap existing community-based organization, merge/consolidate with the existing water association or to form a new association is lodged with the community members. Should the decision is to form a new association as operating body of the facilities, it shall be known as BWSA.

The formation activities of the BWSA are divided into three phases: pre-formation/social preparation, formation and post formation (refer to Proposed Community Management Program attached here for the detailed activities in each phase). During the formation phase, pre-membership training and election of BDO and Officers are held. In this phase, individual member interest and community commitment are manifested through application for membership in the association and signing of Manifesto Resolution (refer to the sample formats attached hereafter).

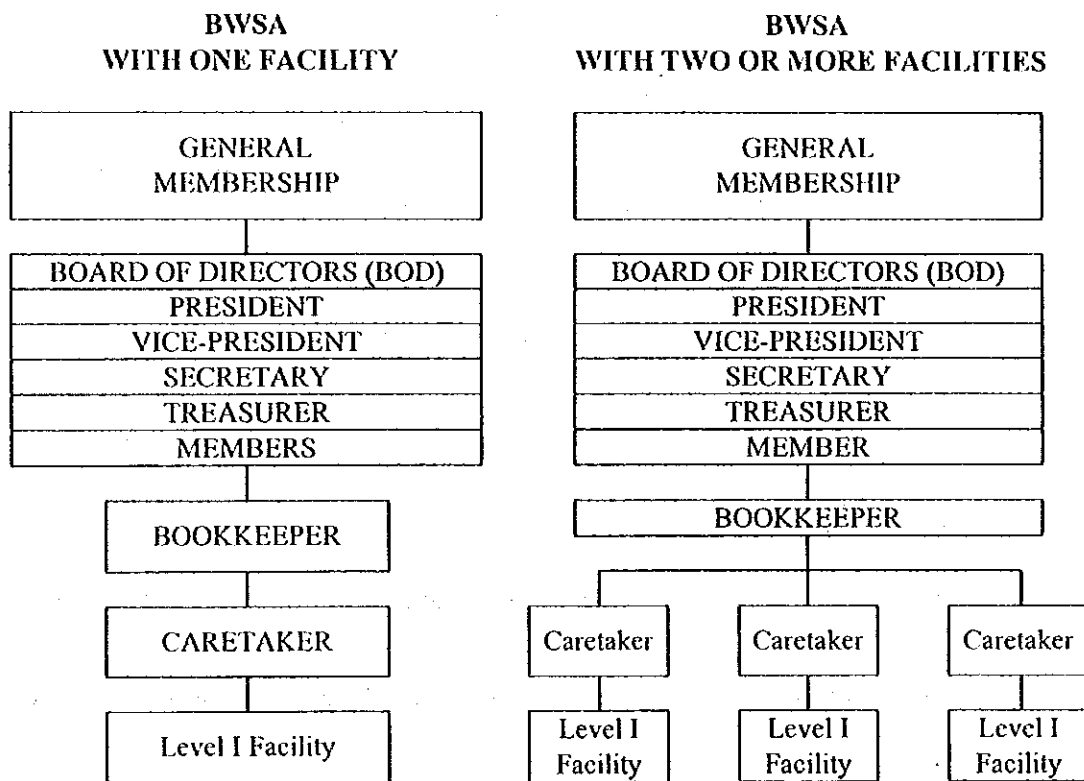
**Proposed Community Management Program**

Barangay Activities		Responsible Party	Duration (Day)	Cost
<b>A. Pre-Formation/Social Preparation Phase</b>				
<b>1. Consultation with barangay officials/development councils (First Meeting)</b>				
The activity aims to obtain the support, commitment and active participation in planning, implementation and managing the project. They are primarily responsible for the identification and prioritization of community needs. The decision on the acceptance of Level I water facility and barangay counterpart shall emanate from them.		CONGO; PWSU/MSLT; Barangay Officials Development Council	0.5	
<b>2. Barangay Water Supply and Sanitation Survey/Spot Map</b>				
A core group composed of men and women volunteers will conduct BWSS and spot mapping. The BWSS results provide information on the prospective users willingness to undertake the responsibility for the O&M as well as provision of counterpart. Spot map will identify the most feasible site for Level I facilities, HH latrines, school and public toilets.		CONGO; PWSU/MSLT; Men and Women Volunteers	5	P600
<b>3. Presentation of survey results and spot map (Second Meeting)</b>				
The survey results and spot map will be presented to the barangay officials, core group and prospective water users of the facilities. The decisions of the community members will be confirmed in terms of acceptance of Level I water facilities, site of the water facility/ies, willingness to contribute for water fee, operate and maintain the facilities, to be trained and to put up counterpart such as labor, site, and local materials. The results of the survey and spot map are discussed relative to the most feasible site of the water facilities in the barangay as well as the most feasible site of sanitation facilities and houses in need of latrine. The community members will decide among themselves which sitios/puroks will be given priority in the provision of water and sanitation facilities. The community members will also decide on the operating body, whether to tap existing community-based organization, form a new one (BWSA) or merge/consolidate with existing water association.		CONGO; PWSU/MSLT; Prospective Users	0.5	P500

Barangay Activities		Responsible Party	Duration (Day)	Cost
<b>B. Formation Phase</b>				
<b>4. Pre-membership Training and election of BOD and Officers (Third Meeting)</b> A core group will be mobilized to conduct house to house campaign to ensure membership attendance in the Pre-membership Training. The training is conducted for prospective water users of the facilities. The project concept is discussed including its objectives, importance and role of BWSA and members. Other modules such as women's role, sanitation, technical aspects, success factors, etc. are discussed during the pre-membership training.  The Board of Directors is elected by the general membership and the Board elects among themselves the officers of the BWSA. Bookkeeper and Caretaker are designated by the President. With the initiative of the newly elected officers, the organizational documents are accomplished.		CONGO; PWSU/MSLT; Prospective Water Users	1	P1,000
<b>5. Meeting of the Board of Directors (Fourth Meeting)</b> The first meeting of the BOD is conducted to discuss in details the duties and responsibilities of the Board /Officers, how to conduct a meeting, formulate administrative and operational policies (collection of water fees, dates and place of regular meetings, etc.) and prepare an action plan. The registration procedures and requirements are also discussed.		CONGO; PWSU/MSLT; BOD/Officers	1	P1,000
<b>6. Registration</b> The operating body (existing community organization or BWSA is registered to give it legal personality to enter into a contractual obligation)		BOD/Officers CONGO; PWSU/MSLT;		
<b>7. Pre-construction Conference (Fifth Meeting)</b> The technical design and program of work for the construction of water and sanitation facilities are presented to the officers and members of the operating body. Based on the technical design, the financial computation to determine the operation and maintenance requirements of the facilities is discussed. The proposed estimates on monthly water fees are presented and the beneficiaries must agree among themselves the monthly water charge to be collected. The commitment of the beneficiaries to actively participate in the construction and counterpart shall be confirmed.		CONGO; PWSU/MSLT; BOD/Officers members	5	P500

Barangay Activities		Responsible	Duration (Day)	Cost
8. Construction of Water and Sanitation Facilities	The operating body shall ensure that the materials delivered are all accounted for and in accordance with the approved specifications in the technical design. Labor, local materials such as gravel and sand, and snacks are provided as counterpart. The prospective users actively participate during construction and test run of water facilities. Upon completion, the facility is turned-over to the operating body. The President, in behalf of the association, shall receive the water systems from the LGUs. Simple turn-over ceremony is held witnessed by barangay officials/leaders, BOD/officers and members of the association and P/MSLT members.	CONGO; PWSU/MSLT; BOD/Officers members	10	
9. Skills Training (Sixth Meeting)	Skills training aims to build the capacity of project beneficiaries in planning, proper operation, repair and maintenance of water and sanitation facilities. This will also create an awareness among the project beneficiaries on the importance of proper hygiene and the need to maintain a healthy environment. BOD/officers will be trained on organizational management, bookkeeper on financial management/bookkeeping and caretaker on operational management (operation, maintenance and repair of wells hand-pumps, etc).	CONGO; PWSU/MSLT; BOD/Officers Bookkeeper/Caretaker	5	P4,400
10. Health and Hygiene Education	Health and hygiene education services shall be continuously provided to the community members focusing on the interdependence of safe water supply and sanitary toilet facilities to achieve overall health and environmental benefits.	MSLT/RHW/BHW	Continuous	P1,800
<b>C. Post Formation Phase</b>				
11. Monitoring, Evaluation and Technical Assistance	Periodic monitoring and evaluation will be conducted in partnership between MSLT and beneficiaries. M&E will start from project implementation. Technical assistance will be provided, if necessary.	PWSU/MSLT; BOD/Officers	Continuous	
<b>TOTAL</b>			23.5	





**Figure 9.4.3 Organization Structure of BWSA**

## Sample Manifesto

### MANIFESTO RESOLUTION

We, household heads (men or women) of Barangay \_\_\_\_\_, Municipality of \_\_\_\_\_, Province of \_\_\_\_\_, seek the assistance of the Provincial Government in putting up a Level I water system in our area.

Conscious of the attendant responsibilities in operating and maintaining the facilities, we constitute ourselves into an association in accordance with R.A. 6716 and hereby declare:

1. That the name of the association shall be \_\_\_\_\_ Barangay Waterworks and Sanitation Association;
2. That the association is formed primarily to own, operate and maintain the water facilities and provide members with adequate supply of water for domestic use;
3. That the association shall maintain office of Barangay \_\_\_\_\_;
4. That the following shall maintain office at Barangay \_\_\_\_\_;

President \_\_\_\_\_

Vice-President \_\_\_\_\_

Secretary \_\_\_\_\_

Treasurer \_\_\_\_\_

Board Member \_\_\_\_\_

5. That membership shall be open to household heads (men or women) who shall use the water facilities; and
6. That this Resolution may be amended or repealed by majority vote of all members of the association.

To ensure the construction, smooth operation and proper maintenance of the water supply system, we bind ourselves to the following:

1. That we will provide a suitable site for the project;
2. That we will collect monthly contributions for water fees to raise funds for the repair, maintenance and cost recovery of the system;
3. That we will attend meetings and seminars conducted by PWSU/MSLT for the association;
4. That we will provide counterpart needed for the water facilities;

5. That we will exercise the following rights:

- a. Right to vote
- b. Right to hold elective office
- c. Right to be informed of the association's affairs
- d. Right to use the association's facilities

6. That we will hold an annual meeting every \_\_\_\_\_, to discuss the association's business and to elect officers for one year.

NOW, THEREFORE, we hereunto set our hands this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

	PRINTED NAME	SIGNATURE	CTN
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
13.	_____	_____	_____
14.	_____	_____	_____
15.	_____	_____	_____
16.	_____	_____	_____
17.	_____	_____	_____
18.	_____	_____	_____

\_\_\_\_\_  
(Name of BWSA)

\_\_\_\_\_  
(Barangay, Municipality)

\_\_\_\_\_  
(Province)

The Board of Directors  
\_\_\_\_\_  
Barangay Waterworks  
and Sanitation Association

Date \_\_\_\_\_

Gentlemen:

I hereby apply for membership in \_\_\_\_\_ Barangay Waterworks and Sanitation Association to avail of its services of providing potable water for domestic use. I pledge to faithfully obey and comply with the rules and regulations, which may be promulgated by the Board of Directors.

I hereby further pledge to:

1. Attend all meetings which will be called by the BWSA Board of Directors/Officers;
2. Attend training/seminars which will be conducted by PWSU/MSLT for BWSA members;
3. Pay monthly water fee contributions for operation, repair, maintenance and cost recovery of the facilities as may be prescribed by the Board;
4. Observe proper utilization of water and preventive maintenance of facilities as required by the Association;
5. Assist in the installation of the water facility by providing labor, local materials and snacks, and
6. Help attain the objectives of the Association.

For information about myself and my household, please refer to my information sheet at the back page.

\_\_\_\_\_  
Signature of Applicant  
Over Name in Print

Right Thumbmark

**BWSA Member Information Sheet**

Name of Prospective Member: \_\_\_\_\_

Age: \_\_\_\_\_ Civil Status: \_\_\_\_\_ Sex: \_\_\_\_\_

Place of Birth: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

Household Members (include household help):

Name	Age	Relation to Member
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Present Water Source used by Household (Please Check):

Handpump	_____	Artesian Well	_____
Dug Well	_____	Spring	_____
Others	_____		_____

Present Expenses for Water per Month \_\_\_\_\_

Distance of Water Source to the House \_\_\_\_\_ meters

I hereby certify that the information above are true and correct to the best of my knowledge.

\_\_\_\_\_  
Signature Date

### **Duties and Responsibilities of BOD/Officers and Members**

The management of the BWSA rests on the Board of Directors/Officers who are elected by the general membership. The Board elects from among themselves the Officers of the association: President, Vice-President, Treasurer and Secretary. The President designates the Bookkeeper and Caretaker of the BWSA. The duties and responsibilities of the Board/Officers, Bookkeeper and Caretakers are shown below.

#### **(1) Duties and responsibilities of the Board of Directors**

- Oversee the activities of the BWSA
- Formulate policies and procedures to carry out the affairs of the BWSA
- Elect the BWSA officers
- Attend all meetings of the Board and the General Assembly
- Attend training for BOD/Officers conducted by PWSU/MSLT

#### **(2) Duties and responsibilities of the President**

- Conduct/Preside over all meetings of the General Assembly and BOD meetings
- Execute policies relative to the management of the Association and the maintenance of the water facility
- Act as arbitrator in settling conflicts among members regarding BWSA operations
- Represent the Association in any activity involving BWSA operations
- Investigate the current condition of the Association and recommend measures for its improvement or solutions to its problems
- Perform such other duties as may be assigned by the Board of Directors

#### **(3) Duties and responsibilities of the Vice-President**

In the event of death, incapacity or refusal of the President to perform higher duties and responsibilities, the Vice-President shall assume the Presidency. He shall perform the duties of the President and such other duties as may be assigned by the BOD.

#### **(4) Duties and responsibilities of the Secretary**

- Attend all meetings and record the minutes
- Call meetings in the absence of the President and the Vice-President and preside until a temporary presiding officer is chosen
- Prepare and send notice to all Association meetings
- Keep all papers/documents pertinent to the Association
- Perform such other duties as may be assigned by the Board of Directors

- (5) Duties and responsibilities of the Treasurer
- Attend all meetings of the Board and the General Assembly
  - Take proper custody of all funds and properties of the Association
  - Ensure the proper issuance of official receipts for money received by the Association
  - Ensure that all expenses are authorized by the Board and covered by official receipts
  - Deposit all funds of the Association in a bank designated by the Board; and
  - Produce periodic reports and account reconciliation as prescribed
  - Perform such other duties as may be assigned by the Board of Directors
- (6) Duties and responsibilities of Bookkeeper
- Keep the financial records of the Association;
  - Collect water fee contributions from and issue receipts to user members;
  - Remit collected water contributions to the BWSA treasurer;
  - Submit a quarterly financial status report to the Board of Directors or as often as the Board may require;
  - Attend BOD meetings and BWSA training/activities conducted by the PWSU/MSLT
  - Perform such other duties as may be assigned by the Board of Directors
- (7) Duties and responsibilities of Caretaker
- Remind the members of the proper use of the facility
  - Ensure that the water facility is in good operating condition
  - Keep the record of the operation and maintenance of the water facility
  - Report to the Board of Directors (BOD) any damage or repair needs of the facility
  - Perform minor repairs of the water facility
  - Assist in the collection of water fee contributions
  - Attend meetings of the Board as may be required
  - Attend skills training on operation and maintenance conducted by the PWSU/MSLT
  - Perform such other duties as may be assigned by the Board of Directors
- (8) Duties and responsibilities of Members
- Pay monthly water fee contribution;
  - Attend meetings and training activities designed for members;
  - Observe rules and regulations and policies approved by the BOD/Officers;
  - Remind other water users to use the facility properly;
  - Keep the premises of the water facility clean, sanitary and free from excess water which may cause contamination of the water source; and
  - Adopt proper health and sanitation practices.

### **Procedures for BWSA Financial Operations**

Bookkeeping records an organization's financial transactions involving the receipt and expenditure of money in an organization. The organization may be a small business or large corporation. It may be government or a non-government organization. Regardless of the size of the organization, it provides a standard method for recording and reporting financial transactions of all kinds. The information obtained from accurate and timely bookkeeping provides timely information on the financial health of the operation.

The information contained herein will enable the BWSA bookkeepers to record financial transactions and prepare financial reports. The manual presents the overall picture, through the General Accounting Plan procedures. A step-by-step guide follows the General Accounting Plan through all the transactions, entries and reports. Each transactions, entry and report has a corresponding form. Each form is presented with explanations on its function and how it relates to the other forms. Instructions are provided line-by-line for a clear understanding.

#### **(1) BWSA Business Operation**

The BWSA business operation is simple. Funds are generated through water fees. Although there may be other sources of income, user fees will be the main source of income. Money is spent to maintain the barangay water system and other properties owned by the association. Other funds spent include expenses for administration, parts and supplies.

With only a few sources of income and expenses, financial transaction entries can be made quickly as they occur. If transactions pile up, even a simple operation can become very complicated. It is recommended that all transactions be recorded daily. If this is done regularly, periodic reports can be prepared quickly and accurately.

#### **(2) Maintenance and Custody of Documents and Records**

Safekeeping the books of accounts, related records, accounting forms and reports is a major responsibility of the bookkeeper. Accounting forms used as the basis for recording should be arranged and filed separately in sequence. All records and documents should be locked up and access should be limited to authorized BWSA officers and personnel.

The BWSA officers should agree on the reports to be prepared, who receives the reports and how frequently. It is recommended that certain records be maintained and certain reports be compiled. It is up to the BWSA officers to determine how often these reports are to be made and if



additional reports are necessary. Some larger BWSAs may need monthly reports. Smaller BWSAs may only require quarterly reports.

### (3) General Accounting Plan (GAP)

The flow of accounting and reporting is shown in the General Accounting Plan, Figure 1. The GAP will guide users through this section as each procedure is explained. The GAP contains four columns of boxes. Columns are headed:

- Transactions - consisting of cash and non-cash transactions
- Document - for recording different types of financial transactions
- Books - to maintain a record of financial transactions
- Reports - to summarize all financial transactions for given period.

### (4) Transaction Defined

The BWSA financial transactions are classified as:

- Cash Transactions
  - Cash-In (cash receipts)
  - Cash Out (cash disbursements)
- Non-Cash Transactions

Money, incoming and outgoing, is classified as cash transactions. The GAP shows two kinds of cash transactions, cash-in (cash receipts) and cash-out (disbursement). There are also non-cash transactions, which document money owed to the BWSA or money that the BWSA owes.

#### 1) Documents for Cash Transactions

The Official Receipt (OR), (See Figure 2) and the Voucher (See Figure 3) are the source documents for cash transactions. ORs and vouchers are called source document because they initiate the bookkeeping process.

Each time a person gives money or its equivalent to the BWSA, an OR is issued to the person. Each time the BWSA pays money to a person, a voucher is completed to show that it is an authorized expenditure. The voucher also records to whom the money was given and for what purpose.

Both the OR and voucher are numbered and all numbered documents should be accounted-for. This means that if an OR or a voucher has been incorrectly filled out, it must be kept for the record.

- a) The OR records all money received by the BWSA and must specify:
  - The date funds are actually received
  - The name and address of the person paying the money
  - The amount received, both in words and in figures
  - An explanation or purpose of the payment
  - Confirmation of receipt as shown by the authorized collector's signature, usually the bookkeeper
  - The billing form number, if money is for payment of water fees
- b) The voucher records all money paid out by the BWSA. Each numbered voucher must specify:
  - The date money is actually paid
  - The name and address of the person receiving the money
  - The total amount of money paid, in words and in figures
  - Details of payment, including invoice number
  - Signature of person authorized to approve payment
  - Confirmation of receipt as shown by the authorized collector's signature, usually the bookkeeper, of the person paying money
  - Signature of person receiving the money and date received

## 2) Document for Non-Cash Transactions

The sources for recording non-cash transactions are the billing form and the invoices. The billing form documents money that is owed to the BWSA. Invoices or statements of account are documents made by others showing money owed by the BWSA. These are transactions, which do not involve cash collection or payments, and therefore, are not to be recorded in the Cash Record Book.

- a) The Billing Form (See Figure 4) is used to notify water consumers of the fees owed to the BWSA covering a certain billing period. Billing forms may be made monthly or quarterly as the Association decides. Billing forms must specify:
  - List of services rendered
  - The name and address of the person being billed
  - Period covered by this bill, beginning and ending dates

- The total amount of money owed
- Date of billing
- Date the bill should be paid
- Official signature, usually the bookkeeper

Unaccounted Water Fees are examples of non-cash transactions which should be recorded in the Receivable Book.

b) The Invoice or Statement of Account (See Figure 5) is a document prepared by the seller and presented to the BWSA showing money owed to the seller by the BWSA. Invoices usually contain:

- An invoice number
- The person or company sending the invoice
- The name of the BWSA that owes the money
- Particulars of goods or service provided
- The breakdown of money owed and total amount due
- A payment due date
- Name or signature of the person requesting payment

Unpaid invoices on repair and maintenance and other unpaid expenses, such as honoraria are recorded in the Payable Book.

#### (5) Book of Accounts

The book of accounts are basic records used to record all financial transactions. Three books of accounts are maintained as described below.

##### 1) Cash Record Book

The Cash Record Book is used to record all cash incoming and out-going transactions. The OR is recorded in the Credit column (Money Received). The voucher is recorded in the Debit Column (Money Disbursed). All entries are recorded by date, including all cancelled forms, properly noted. After each credit or debit entry, the amount is added or subtracted from the Daily Balance. At the end of the month, the entries form the bases for preparing the Statement of Operation and the Cash Position Statement.

##### 2) Receivable Book

Unaccounted accounts from the members and outside parties are recorded in the Receivable Book (See Figure 7). This book shows the transaction date, the billing number, household head, the amount and explanation or remarks about the nature/condition of the account.

### 3) Payable Book

Unpaid accounts on the expenses incurred by the BWSA such as salaries or wages, repair and maintenance and other expenses are recorded in the Payable Book (See Figure 8). This book shows the transaction date, the payee, the nature/explanation of the unpaid account and the amount.

## (6) Financial Reports

The BWSA reports are usually prepared monthly or quarterly. The financial reports are prepared to inform the BWSA financial members of the Association's financial status. In preparing the BWSA financial reports, the bookkeeper reviews all source documents supporting the transaction to countercheck the amount appearing in the books. The recorded transactions should be summarized and arranged chronologically to produce a report easily understood by BWSA officers and members.

### 1) Statement of Operations

The statement of Operations (See Figure 9) is prepared monthly to record the income and expenses incurred by the Association in its operation during the period. The statement shows the revenues earned, the operating expenses incurred and the income or loss as a result of operation.

### 2) Cash Position Statement

The sources of information when preparing the Cash Position Statement (See Figure 10) are the cash record books and the statement of operations. The report is prepared to determine if the Association can cover its operating expenses. This statement shows the beginning cash balance, the cash receipts for the period, the cash disbursement, and the cash balance ending for the period.

### 3) Financial Summary Report (Annual Report)

The financial Summary Report (See Figure 11) is prepared to summarize the periodic reports prepared during the year and the supporting schedules.

## (7) Bookkeeping Procedures

A step-by-step review of all BWSA transactions can be accomplished by following the accounting entries and reports.

# GENERAL ACCOUNTING PLAN (GAP) FOR BWSA TRANSACTIONS

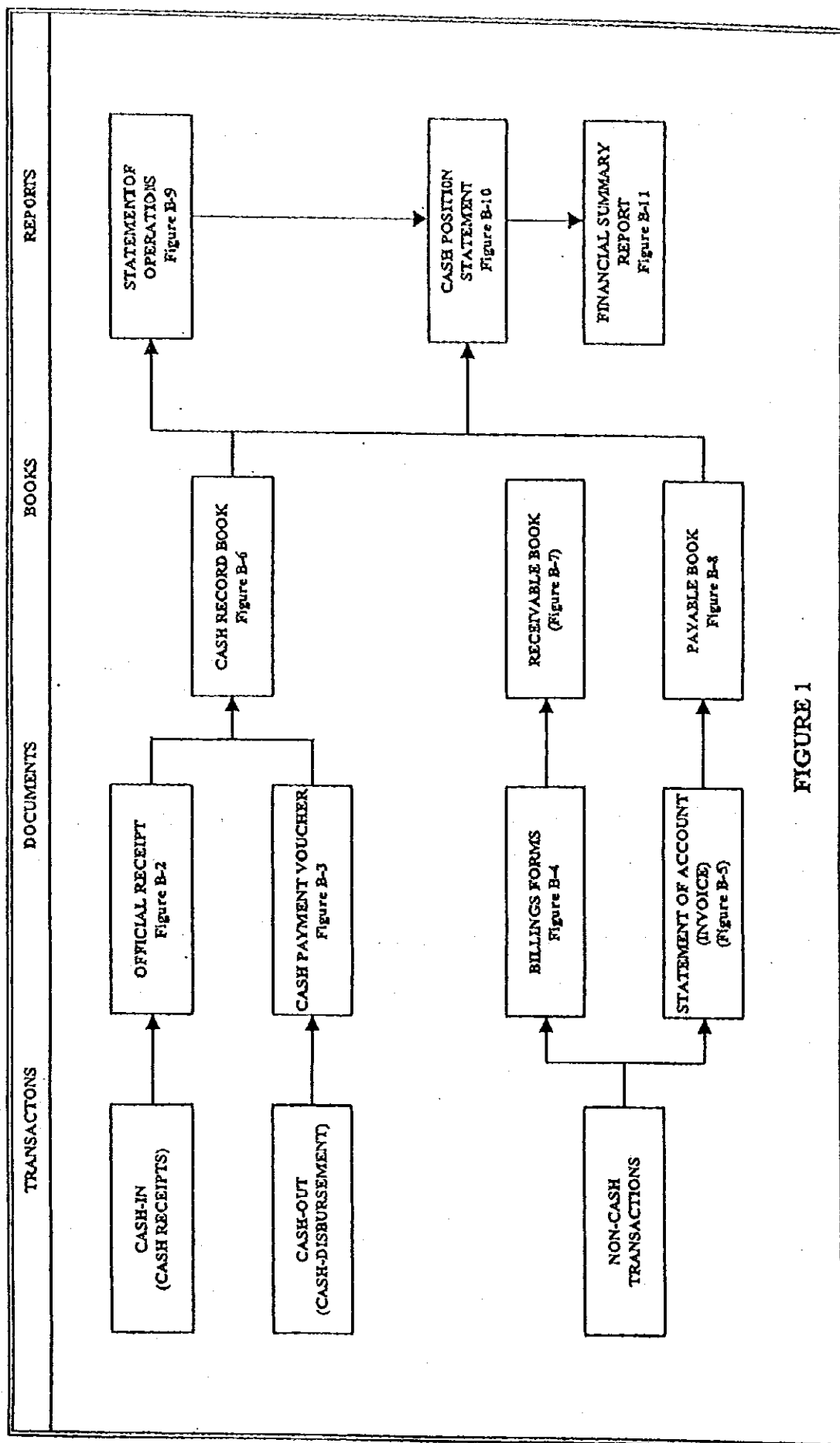


FIGURE 1

**OFFICIAL RECEIPT**

**BWSA** \_\_\_\_\_

**OR. NO.** \_\_\_\_\_

**Date:** \_\_\_\_\_

Received from \_\_\_\_\_

the sum of \_\_\_\_\_ (P \_\_\_\_\_)

in payment of \_\_\_\_\_

Billing Form # \_\_\_\_\_ (For payment of water fees only).

\_\_\_\_\_  
Treasurer/Collector  
(Bookkeeper)

**Note: Print Name Below Signature**

**(IN TRIPLICATE)**

Complete Official Receipt in Triplicate

Official Receipt must be issued for all payments received by the Bookkeeper.

**FIGURE 2**

**CASH PAYMENT  
VOUCHER**

CPV No. \_\_\_\_\_

Date: \_\_\_\_\_

Paid to : \_\_\_\_\_

Address : \_\_\_\_\_

In the sum of : \_\_\_\_\_ (P \_\_\_\_\_)

PARTICULARS	AMOUNT

Approved By: \_\_\_\_\_

Received from \_\_\_\_\_

The amount of \_\_\_\_\_

As payment for the above described.

Received By \_\_\_\_\_

Date Received \_\_\_\_\_

Note: Print Name Below Signature

**VOUCHER  
(IN TRIPLICATE)**

Each time a disbursement is made, a cash payment voucher must be prepared to support such disbursement.

**FIGURE 3**

\_\_\_\_\_  
Name of BWSA

\_\_\_\_\_  
Barangay, Municipality

\_\_\_\_\_  
Province

**BILLING FORM**  
  
for  
**WATER CONSUMPTION**

Name of Member \_\_\_\_\_

Address: \_\_\_\_\_

No. \_\_\_\_\_

PERIOD COVERED					AMOUNT
FROM		TO			
MONTH	DAY	MONTH	DAY	YEAR	

Date of Billing: \_\_\_\_\_ Please pay On or Before: \_\_\_\_\_

Please pay your bill at the Office on or before the date shown above.

\_\_\_\_\_  
BWSA Treasurer

Note: Print Name Below Signature

Billing must be prepared and sent to all BWSA members for their monthly dues as their monthly obligation to the Association.

**FIGURE 4**





BWSA \_\_\_\_\_

**CASH RECORD BOOK  
COLLECTION/DISBURSEMENT**

Month: \_\_\_\_\_ Year: \_\_\_\_\_

DATE	PARTICULARS	CREDIT (Money Received)	DEBIT (Money Disbursed)	DAILY BALANCE

This book records all cash transactions (collection/disbursements) made by the BWSA, and calculates a daily balance.

**FIGURE 6**

Name of BWSA
Barangay, Municipality
Province

### RECEIVABLE BOOK

DATE	BILLING FORM NO.	HOUSEHOLD HEAD (Family Name)	AMOUNT DUE	REMARKS

This form records all accounts due to the Association

**FIGURE 7**

BWSA \_\_\_\_\_

Barangay, Municipality

Province

## PAYABLE BOOK

DATE	INVOICE NO. AND DATE	CREDITOR	EXPLANATION	AMOUNT DUE	VOUCHER NO. DATE PAID

**This form records all incoming invoices that have not been paid by the Association.**

**FIGURE 8**

_____
Name of BWSA
_____
Barangay, Municipality
_____
Province

**STATEMENT OF OPERATIONS**  
For the Month \_\_\_\_\_, \_\_\_\_\_

<b>Revenues:</b>			
Water Fees	_____	P	_____
Others (Specify)	_____	.	_____
	_____		_____
<b>Total Revenues</b>	_____	P	_____
<b>Operating Expenses:</b>			
Salaries	_____	P	_____
Supplies	_____		_____
Repair and Maintenance	_____		_____
Others (Specify)	_____		_____
	_____		_____
<b>Total Operating Expenses</b>	_____	P	_____
<b>Net Income/Loss</b>		P	_____

<b>Prepared By:</b> _____	<b>Date Prepared:</b> _____
 _____	 _____
<b>Certified true and correct:</b>	<b>Date Certified:</b>
_____	_____
BWSA Treasurer	

**Note: Print Name below signature**

At the end of each month, the bookkeeper prepares the Statement of Operations for the previous month.

**FIGURE 9**

_____ Name of BWSA
_____ Barangay, Municipality
_____ Province

**CASH POSITION STATEMENT**  
For the Month \_\_\_\_\_, \_\_\_\_\_

**Revenues:**

Water Fees	_____	P	_____
Contribution	_____		_____
Others (Specify)	_____		_____
<b>Total Revenues</b>	_____	P	_____

**Less: Operating Expenses:**

Salaries	_____	P	_____
Supplies	_____		_____
Repair and Maintenance	_____		_____
Others (Specify)	_____		_____
<b>Total Operating Expenses</b>	_____	P	_____

Cash Balance, During the Period	_____	P	_____
Add: Cash Balance, Beginning	_____	P	_____
Cash Balance, Ending	_____	P	_____

Prepared By: \_\_\_\_\_

Date Prepared: \_\_\_\_\_

\_\_\_\_\_  
BWSA Bookkeeper

**Note: Print Name below signature**

Cash Position Statement summarizes the Association's transactions for the month ended. The Bookkeeper fills up this form every end of the month.

**FIGURE 10**

\_\_\_\_\_  
Name of BWSA

\_\_\_\_\_  
Barangay, Municipality

\_\_\_\_\_  
Province

**FINANCIAL SUMMARY REPORT**  
Year End \_\_\_\_\_

**I. Financial Results**

1. Total Revenues	_____	P	_____
2. Total Expenditures	_____	P	_____
3. Total Cash on Hand	_____	P	_____
4. Total Cash in Bank	_____	P	_____
5. Total Accounts Receivable	_____	P	_____
6. Total Accounts Payable	_____	P	_____

**II. Findings/Recommendations:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Prepared By:

\_\_\_\_\_

Date Prepared:

\_\_\_\_\_

BWSA Bookkeeper

Note: Print Name below signature

Financial summary report is made after a year of operation. It provides information to show whether the association profited or not.

**FIGURE 11**

Table 9.4.1 Format for Level I Project Data

Form \_\_\_\_\_

PROPOSED LEVEL I PROJECT DATA	
Notice : This form shall be accomplished upon instruction of PST/PWSD	
LOCATION	1.1 Barangay/Sitio _____
	1.2 Municipality _____
POP. DATA	1.3 Province _____
	1.4 Region _____
POP. DATA	2.1 Total Community/Barangay Population _____
	2.2 Total Number of Households _____
POP. DATA	2.3 Proposed Population to be Served _____
	2.4 Proposed Number of Households to be Served _____
INFORMATION ON THE WELL SITE	3.1 Ownership : <input type="checkbox"/> Public <input type="checkbox"/> Private
	3.2 Description :  
INFORMATION ON THE WELL SITE	3.3 Location:  
	3.4 Donor (If Private Lot):  
DESCRIPTION OF EXISTING NEARBY SOURCE(S) (Use separate sheets if necessary)	4.1 Type of Point Source: <input type="checkbox"/> Deep Well <input type="checkbox"/> Shallow Well <input type="checkbox"/> Spring <input type="checkbox"/> Others (dug well pond)
	4.2 Ownership : <input type="checkbox"/> Public <input type="checkbox"/> Private
4.3 For wells : Casing diameter _____ in. or _____ m. Casing depth _____ ft. or _____ m. Water level Well _____ ft. or _____ m. Well capacity/yield _____ gpm. or _____ lps. 4.4 For Springs : Capacity/yield _____ gpm. or _____ lps. Approx. elevation above or below _____ Service Area _____ ft. or _____ m. Location <input type="checkbox"/> Inside of service area <input type="checkbox"/> Outside of service area Approximate distance from center of service area _____ km.	
Prepared by : _____ _____ Municipal Liason Staff      Date _____	



Table 9.4.2 Format for Level II Feasibility Study

FEASIBILITY STUDY (Level II)		Form	
		Barangay	Municipality
Notice: This form shall be accomplished upon instruction of the PST/PWSO.		Province	Region
<b>PROJECT SUMMARY</b>			
POPULATION DATA	1. Present Population	2. Design Population	3. Number of Households
			6. Number of Faucets
TECHNICAL DATA	4. Type of Source <input type="checkbox"/> Spring <input type="checkbox"/> Well <input type="checkbox"/> Surface Water	5. Type of System <input type="checkbox"/> Gravity <input type="checkbox"/> Pumped	
		7. Pump Horsepower _____ HP	8. Pumping Time _____ Hours per Day
	9. Total Average Daily Demand _____ Liters	10. Storage Tank Capacity _____ Liters	11. Pump Discharge Capacity _____ LPS
FINANCIAL DATA	12. Total System Cost P _____	13. Maximum Loan Amount P _____	14. Interest Rate _____
	15. Local Equity P _____	16. Funding Cost per Household P _____	17. Repayment Period (months) _____
	18. Type of Local Equity <input type="checkbox"/> Cash <input type="checkbox"/> Labor <input type="checkbox"/> Materials <input type="checkbox"/> Others, _____		
	19. Total Monthly Expenses P _____	20. Monthly Fee Per Household P _____	
ANNEXES	<input type="checkbox"/> 1 Survey Form <input type="checkbox"/> 5 Design of Pipe Lines <input type="checkbox"/> 9A Fittings Schedule <input type="checkbox"/> 12 Financial Analysis <input type="checkbox"/> 2 Map of the Project Area <input type="checkbox"/> 6 Design of Reservoir (G.I. Pipes) <input type="checkbox"/> 13 Availability of Local <input type="checkbox"/> 3 Design Criteria and Basic Design Data      and Pump <input type="checkbox"/> 9B Fittings Schedule      Equity <input type="checkbox"/> 4 Schematic Diagram of the System <input type="checkbox"/> 7 Detailed Design Plan <input type="checkbox"/> 10 Bill of Materials <input type="checkbox"/> 8 Pipes Schedule <input type="checkbox"/> 11 Cost Summary		
Prepared by : _____  Municipal Liason Staff      Date _____		Endorsed by : _____  PST/PWSO Coordinator      Date _____	

# Annex 1

## SURVEY FORM Rural Water Supply Project

### A. LOCATION

Barangay : \_\_\_\_\_  
Municipality : \_\_\_\_\_

Province : \_\_\_\_\_  
Region Number : \_\_\_\_\_

### B. GENERAL INFORMATION

1. Population \_\_\_\_\_
2. Number of households \_\_\_\_\_
3. Distance from poblacion \_\_\_\_\_ kilometers
4. Availability of electricity Yes ☐ No ☐
5. Distance from electric line \_\_\_\_\_ kilometers
6. Power cost per kilowatt hour P. \_\_\_\_\_
7. Availability of public transportation \_\_\_\_\_
8. Main livelihood of residents
 

<input type="checkbox"/>	Land transport	
<input type="checkbox"/>	Water transport	
<input type="checkbox"/>	Farming	
<input type="checkbox"/>	Industry	<input type="checkbox"/> Others
<input type="checkbox"/>	Fishing	

### C. TECHNICAL INFORMATION

1. Are there reliable sources of potable water?

☐ Yes ☐ No

#### a) For Wells

Well capacity : \_\_\_\_\_ lps

Casing diameter : \_\_\_\_\_

Casing depth : \_\_\_\_\_

Water level from top of well : \_\_\_\_\_

Location : ☐ Within service area  
☐ Outside \_\_\_\_\_ M. from service area

#### b) For Springs

Average dry season flow : \_\_\_\_\_ ☐ GPM ☐ LPS

Relative elevation of spring

a. \_\_\_\_\_ ☐ ft. ☐ m. above service area  
b. \_\_\_\_\_ ☐ ft. ☐ m. below service area

Location : ☐ Within service area  
☐ Outside \_\_\_\_\_ m. from service area

2. Are there water supply system materials and equipment (pumps, pipes, fittings) which can be donated for this project from other source?

☐ Yes ☐ No

For pumps : Type : \_\_\_\_\_ Power : \_\_\_\_\_ HP

For pipes : ☐ Galvanized Iron ☐ PVC  
☐ Others, specify \_\_\_\_\_

3. Is there an existing water tank that can be used? ☐ Yes ☐ No

Type : ☐ Steel ☐ Reinforced Concrete

Capacity : \_\_\_\_\_ ☐ Gallons ☐ Cubic Meters

Location: (Please indicate in the map of the project area)

Relative elevation with respect to service area \_\_\_\_\_ ☐ ft. \_\_\_\_\_ ☐ m.

4. Are there other sites where water tanks may be erected? ☐ Yes ☐ No

Location : (please indicate in the map of the project area)

Relative elevation with respect to service area \_\_\_\_\_ ☐ ft. \_\_\_\_\_ ☐ m.

5. Does the barangay have skilled personnel? ☐ Yes ☐ No

If yes, how many? Estimated Number

Plumbers : \_\_\_\_\_  
Masons : \_\_\_\_\_  
Carpenters : \_\_\_\_\_  
Others : \_\_\_\_\_

If no, are there competent contractors near the area?

Plumbing contractor : ☐ Yes ☐ No

Tank fabricator : ☐ Yes ☐ No

Are there suppliers of materials (pumps, pipes, fittings) in the municipality?

☐ Yes ☐ No

## D. FINANCIAL INFORMATION

1. What can the barangay provide as local equity?

Cash : P \_\_\_\_\_  
 Labor : \_\_\_\_\_ man-days  
 Materials :  
     Sand : \_\_\_\_\_ cu. m.  
     Gravel : \_\_\_\_\_ cu. m.  
     Cement : \_\_\_\_\_ bags  
     Others, specify : \_\_\_\_\_

2. Have the people been informed of the current financing policies for Level II systems, particularly the monthly fees required to repay loan & provide for O & M?

☐ Yes

☐ No

3. How much are the people willing to pay per household per month as a water fee?

Below P 6.00 ☐ P 10.00 - 15.00 ☐ Others ☐  
 P 6.00 - 10.00 ☐ 15.00 - 20.00 ☐ Specify : \_\_\_\_\_

4. Average income per household P \_\_\_\_\_ per month

## E. INSTITUTIONAL INFORMATION

1. Is there an existing association who is ready, willing and able to manage the system

☐ Yes

☐ No

If yes, please specify. \_\_\_\_\_

2. Are people willing to join a water association to operate and manage a water supply system?

☐ Yes

☐ No

3. How many households are willing to be members? \_\_\_\_\_ households.

4. Name at least three (3) leaders of the community who can act as officers of the association, if required.

Name

Address

_____	_____
_____	_____
_____	_____
_____	_____

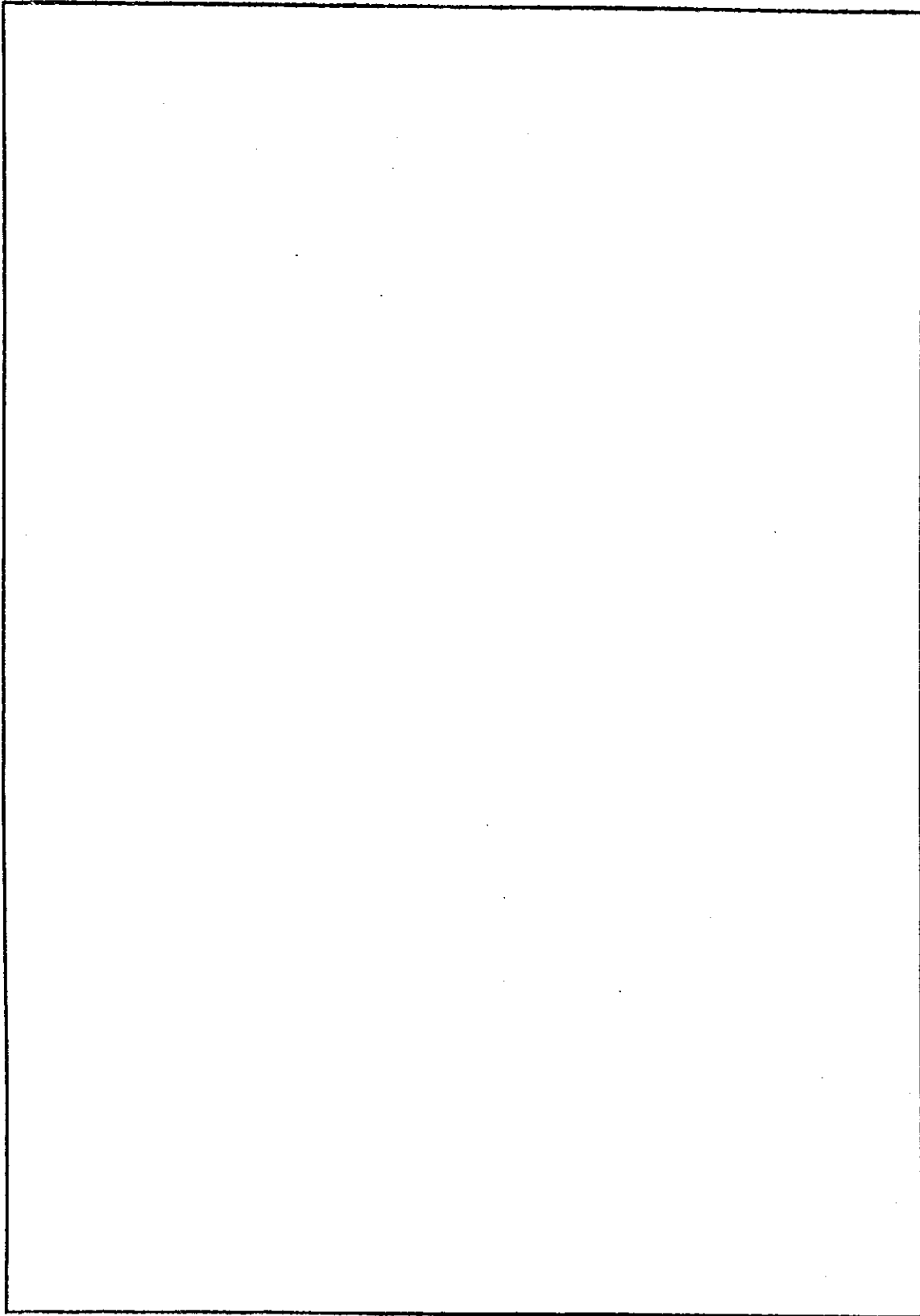
#### F. MAP OF THE AREA

Please attach map of the area proposed to be served. Indicate location of houses, buildings and other structures to be served including roads, the water source(s) and possible locations of storage tanks. The map should preferably be drawn to scale.

Important : If map cannot be drawn to scale, indicate distance measurements between important points along roads, or possible routes of distribution pipes with households properly indicated. For rolling terrain, indicate elevation differences between measurement points.

#### G. REMARKS :

Annex 2  
MAP OF THE PROJECT AREA  
Rural Water Supply Project



## Annex 3

### DESIGN CRITERIA AND BASIC DESIGN DATA

\_\_\_\_\_ Rural Water Supply Project

#### I. Design Criteria

1. Design Period : 5 years
2. Population
  - Annual Growth : 3%
  - Average Household Size : 6 persons/HH
  - Design Population : Present Population x 1.16
3. Per Capita Water Consumption
  - Level II : 60 lpcd
  - Level II with garden : 75 lpcd
  - Level III : 100 lpcd
4. Water Demand
  - Average Day Demand : Design Population X Per Capita Consumption
  - Maximum Day Demand : 1.3 X Average Day Demand
  - Maximum Hour Demand : 2.5 X Average Day Demand
5. Pump Operation
  - Pumping Hours : 8 -15 hours
  - Pumping Rate : Maximum Day Demand/PumpingHrs. = \_\_\_\_\_
6. Storage Capacity : 1/4 of Average Day Demand
7. System Pressure : 5 - 10 psi at faucet
8. Households Served Per Faucet : 4 - 6 HH

#### II. Basic Design Data

1. Present Population : \_\_\_\_\_
2. Design Population (Present Population X 1.16) : \_\_\_\_\_
3. Average Day Demand: \_\_\_\_\_ X \_\_\_\_\_ : \_\_\_\_\_  
 (Per Capita Consumption) (Design Pop.)
4. Maximum Day Demand: 1.3 X \_\_\_\_\_ : \_\_\_\_\_  
 (Average Day Demand)

## DESIGN OF PIPE LINES

### Rural Water Supply Project

9 - 48



Annex 6  
DESIGN OF RESERVOIR AND PUMP  
Rural Water Supply Project

A. DESIGN

1. Determine Capacity of Reservoir, (C<sub>r</sub>)

$$C_r = 1/4 \times \text{Average Day Demand}$$

$$C_r = 1/4 \times D_d \text{ (LPD)}$$

$$C_r = \text{_____ liters}$$

2. Determine Minimum Water Elevation, (WL<sub>m</sub>)

$$WL_m = \text{total head loss} + \text{Minimum Pressure in Main (Meters)}$$

For Barangay System, Min. Pressure = 5 psi (use 3M.)

For Poblacion System, Min. Pressure = 10 psi (use 7M.)

$$WL_m = \text{_____ M.}$$

Note : The bottom of the storage tank should be higher than this elevation.

B. DESIGN OF PUMP

1. Determine Pump Capacity, Q<sub>p</sub> (LPS)

$$Q_p = \text{Max. Day Demand (LPD)} / \text{Operating Time (Sec.)}$$

$$Q_p = 78 P_d / T \quad \text{where: } P_d = \text{Design Population}$$

T = Operating Time in Seconds

$$Q_p = \text{_____ LPS}$$

2. Calculate Total Dynamic Head, TDH (Meters)

$$TDH = \text{Depth of Pumping Level} + \text{by Maximum Reservoir Elevation} + \text{friction loss}$$

$$TDH = \text{_____ m}$$

3. Calculate Brake Horsepower Requirement :

$$\text{Brake Horsepower} = \frac{Q_p \times TDH}{75 \times \text{Efficiency}}$$

$$\text{Brake Horsepower} = \text{_____ Hp}$$

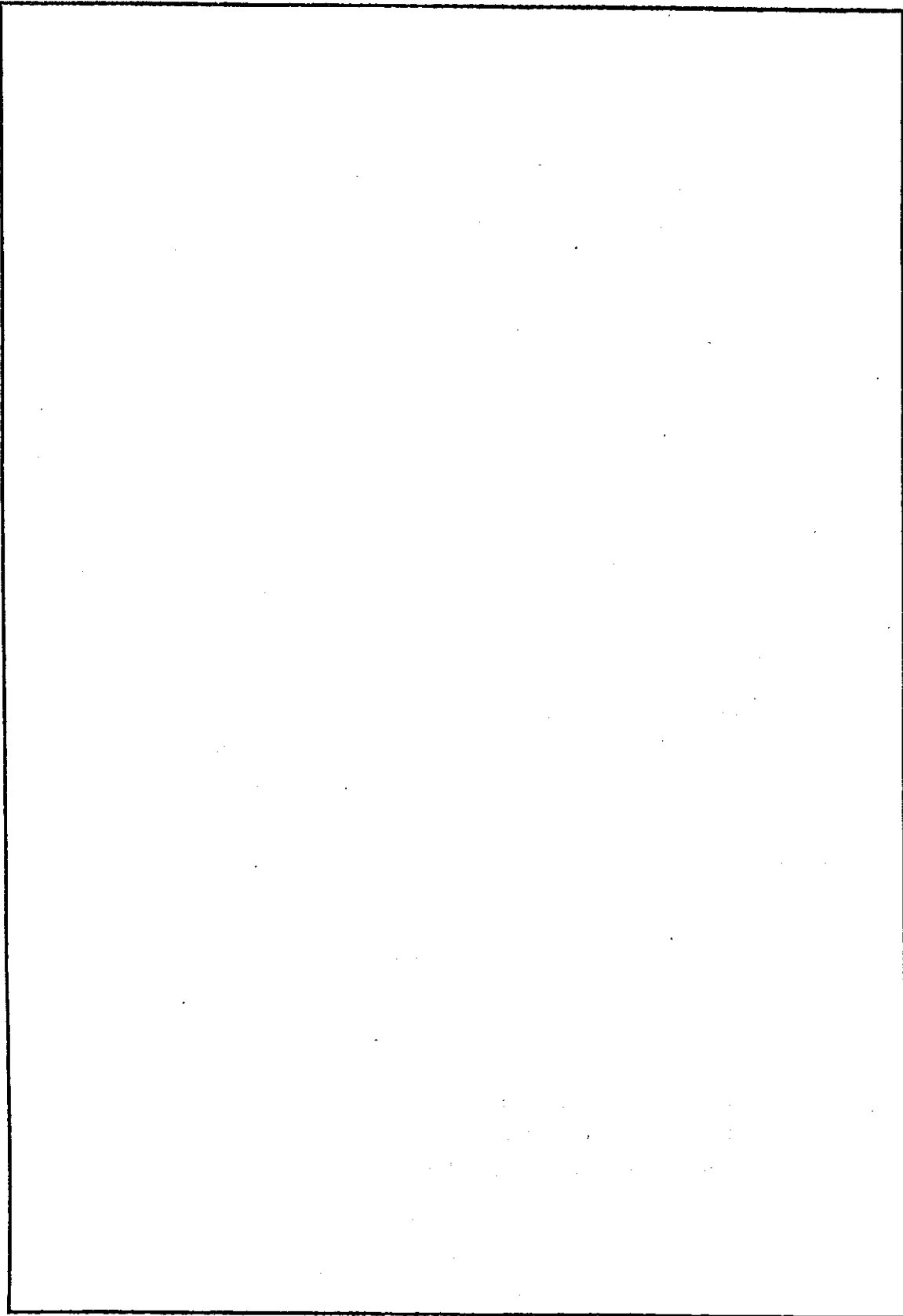
Where :

Efficiency for Centrifugal Pump, 30-60 %

Efficiency for Submersible Pump, 50-60 %

Efficiency for Jetmatic Pump, 20-30 %

Annex 7  
DETAILED DESIGN PLAN  
\_\_\_\_\_ Rural Water Supply Project



## Kuraj Water Supply Project

[illegible]

## Rural Water Supply Project

[illegible]

**Annex 9B**

[illegible]

## Rural Water Supply Project

\_\_\_\_\_

Annex 11  
COST SUMMARY

Rural Water Supply Project

I. ESTIMATED COST OF THE SYSTEM

- |  |   |                             |
|--|---|-----------------------------|
| 1. a) Cost of Pipes                            | P | <u>                    </u> |
| b) Cost of Fittings                            |   | <u>                    </u> |
| Total Cost of Pipes and Fittings               | P | <u>                    </u> |
| 2. Cost of Reservoir                           |   | <u>                    </u> |
| 3. Cost of Pump                                |   | <u>                    </u> |
| 4. Labor Cost                                  |   | <u>                    </u> |
| a) 10% of Pipes & Fittings (For G.I. Pipes)    |   | <u>                    </u> |
| b) 25% of Pipes & Fittings (For PVC Pipes)     |   | <u>                    </u> |
| 5. Cost of Freight and Handling                |   | <u>                    </u> |
| 6. Contingencies 5% (Pipes & Fittings - Labor) |   | <u>                    </u> |
| Total Cost of the System                       | P | <u>                    </u> |

For gravity system, omit cost of pump.

II. FINANCIAL DATA

- |                             |   |                             |
|-----------------------------|---|-----------------------------|
| 1. Total Cost of the System | P | <u>                    </u> |
| 2. Local Equity             |   | <u>                    </u> |
| 3. Amount of Loan           |   | <u>                    </u> |

Annex 12  
FINANCIAL ANALYSIS  
Rural Water Supply Project

A. RELEVANT DATA

1. Pumping Hours : \_\_\_\_\_ hrs.
2. Pump Horsepower : \_\_\_\_\_ HP
3. Cost/KWH : P \_\_\_\_\_
4. Pump Cost : P \_\_\_\_\_
5. Amount of Loan : P \_\_\_\_\_
6. Loan Terms : \_\_\_\_\_ % (interest per annum)  
: \_\_\_\_\_ years (Repayment Period)
7. Number of Households : \_\_\_\_\_

B. COMPUTATION OF MONTHLY EXPENSES (Omit non-applicable items)

1. Operations
  - a. Salaries \_\_\_\_\_ x \_\_\_\_\_ = P \_\_\_\_\_
  - b. Office Supplies \_\_\_\_\_ x \_\_\_\_\_ = P \_\_\_\_\_
  - c. Power \_\_\_\_\_ x \_\_\_\_\_ = P \_\_\_\_\_
  - d. Chemical \_\_\_\_\_ x \_\_\_\_\_ = P \_\_\_\_\_
  - e. Miscellaneous \_\_\_\_\_ x \_\_\_\_\_ = P \_\_\_\_\_
2. Asset Replacement
  - a. Pump \_\_\_\_\_ / \_\_\_\_\_ = P \_\_\_\_\_  
Life (mos.)
  - b. Pipelines \_\_\_\_\_ / \_\_\_\_\_ = P \_\_\_\_\_  
Life (mos.)
  - c. Tank \_\_\_\_\_ / \_\_\_\_\_ = P \_\_\_\_\_  
Life (mos.)
  - d. Others \_\_\_\_\_ / \_\_\_\_\_ = P \_\_\_\_\_  
Life (mos.)
3. Amortization \_\_\_\_\_ x \_\_\_\_\_ = P \_\_\_\_\_  
(CRF) (Loan Amt.)
4. Maintenance ( 2% of Capital Equipt.costs annually)  
.02 X \_\_\_\_\_ /12 = P \_\_\_\_\_
6. Total Monthly Expenses = P \_\_\_\_\_

C. COMPUTATION OF WATER FEE

Monthly Water Fee Per Household :

$$\frac{\text{Total Monthly Expenses}}{\text{(No. of HH)}} = P \text{ _____}$$



**Annex 13**  
**AVAILABILITY OF LOCAL EQUITY**

Item	Amount
<b>I. Cash</b>	P _____

**II. Labor**

Type of Labor	No. of Workers	No. of Days	Rate Per Day

**III. Materials**

Type of Materials	Quantity	Unit Cost

**TOTAL**

P \_\_\_\_\_

<p>I certify that the items listed above represent the local share of the project cost.</p>   <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <span>_____ Association President</span> <span>_____ Date</span> </div>	<p>Noted by :</p>   <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <span>_____ Municipal Sector Liason</span> <span>_____ Date</span> </div>
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