ملاحق الفصل 9

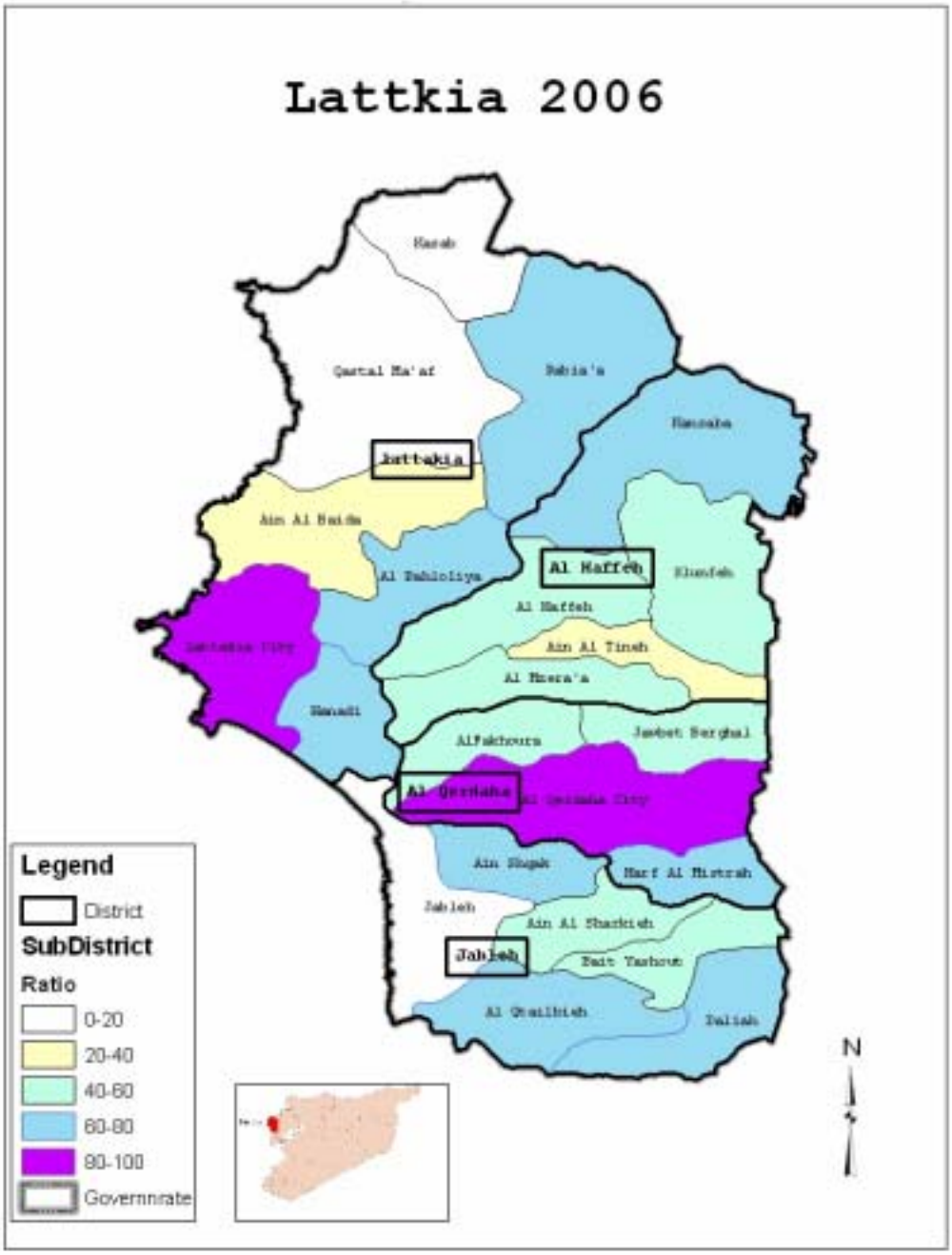
الملحق 9.1 قاعدة بيانات نظام الصرف الصحي

قائمة الأشكال **بيانات نظام الصرف الصحي**

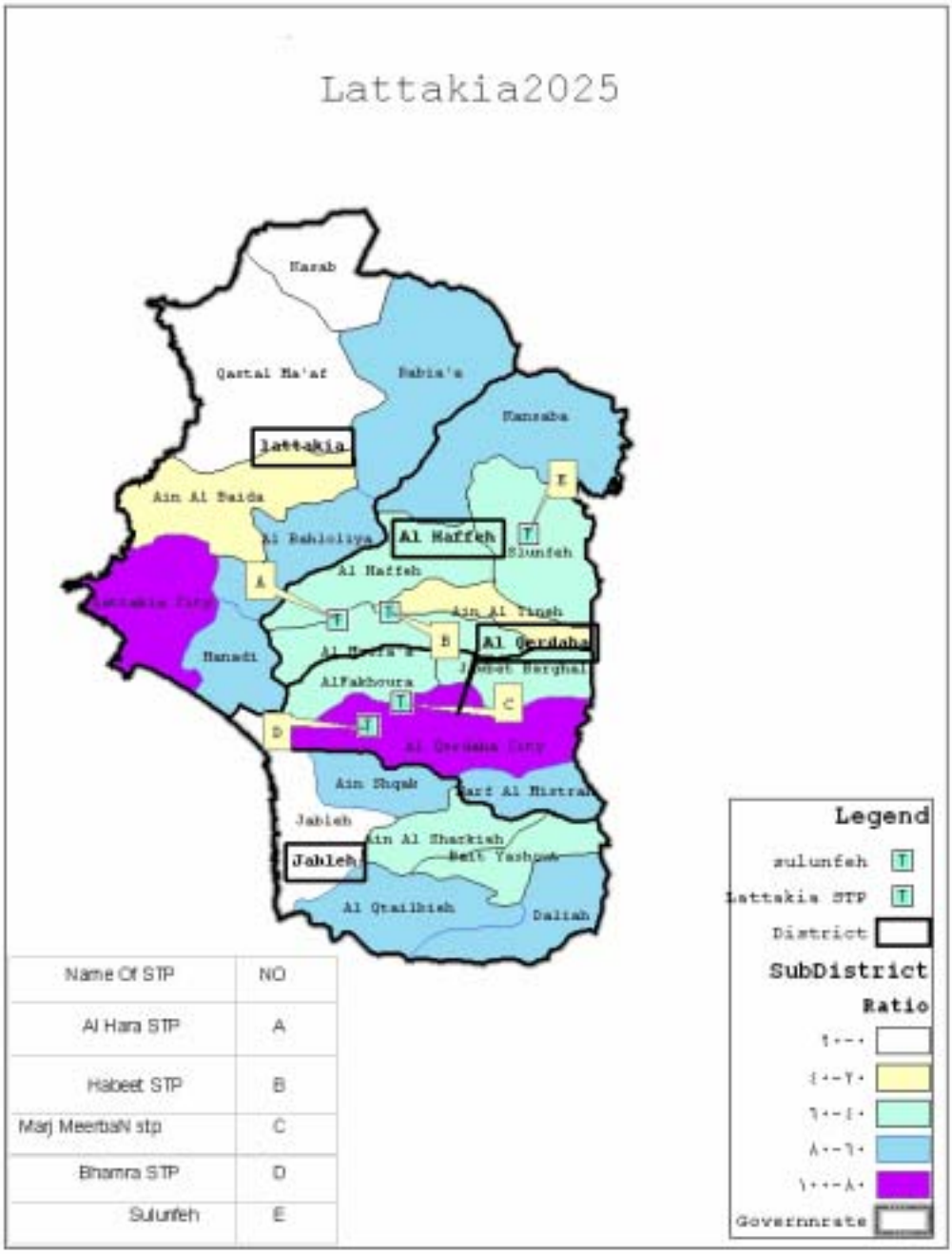
رقم الشكل	المحافظات
A9.1.1	اللاذقية في عام 2006
A9.1.2	اللاذقية في عام 2025
A9.1.3	طرطوس في عام 2006
A9.1.4	طرطوس في عام 2025
A9.1.5	دير الزور في عام 2006
A9.1.6	دير الزور في عام 2025
A9.1.7	الحسكة في عام 2006
A9.1.8	الحسكة في عام 2025
A9.1.9	الرقة في عام 2006
A9.1.10	الرقة في عام 2025
A9.1.11	درعا في عام 2006
A9.1.12	درعا في عام 2006
A9.1.13	ريف دمشق في عام 2006
A9.1.14	ريف دمشق في عام 2025

قائمة الجداول **ظروف نظام الصرف الصحي**

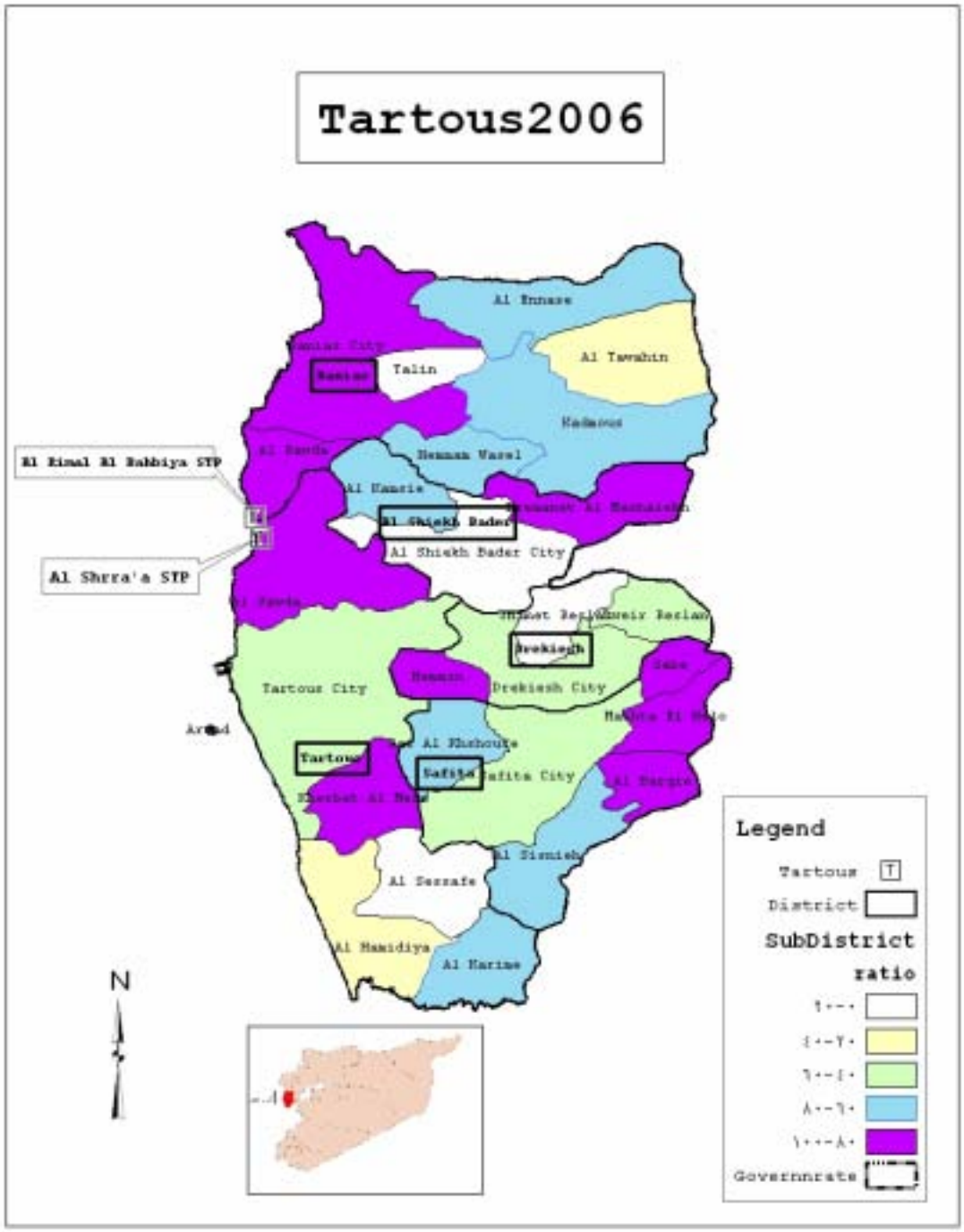
رقم الجدول	المحافظات
A9.1.1	اللاذقية
A9.1.2	طرطوس
A9.1.3	دير الزور
A9.1.4	الحسكة
A9.1.5	الرقة
A9.1.6	درعا
A9.1.7	ريف دمشق
A9.1.8	حلب
A9.1.9	حماة
A9.1.10	حمص
A9.1.11	إدلب
A9.1.12	السويداء
A9.1.13	القنيطرة



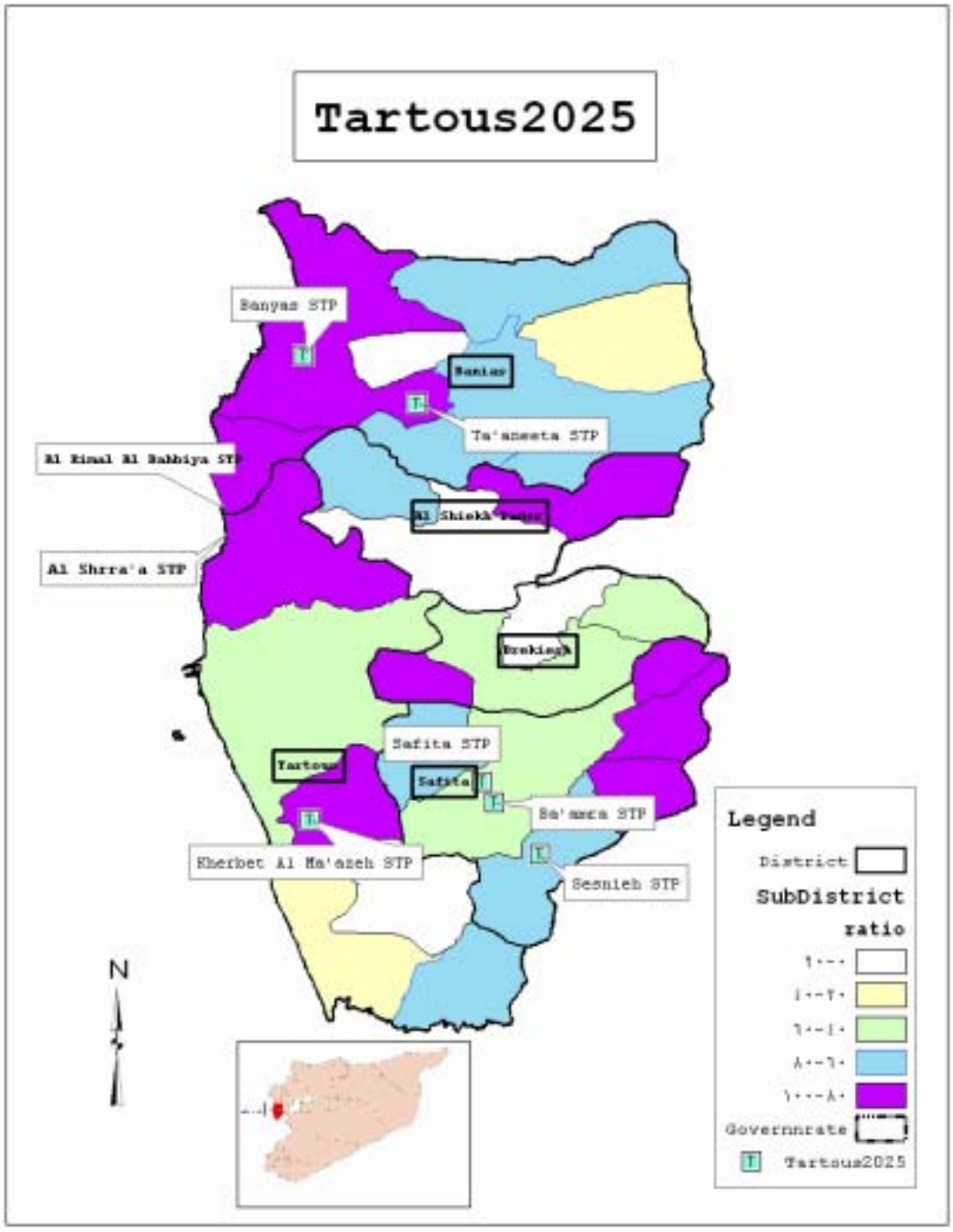
الشكل A9.1.1 قاعدة بيانات نظام الصرف الصحي في محافظة اللاذقية عام 2006



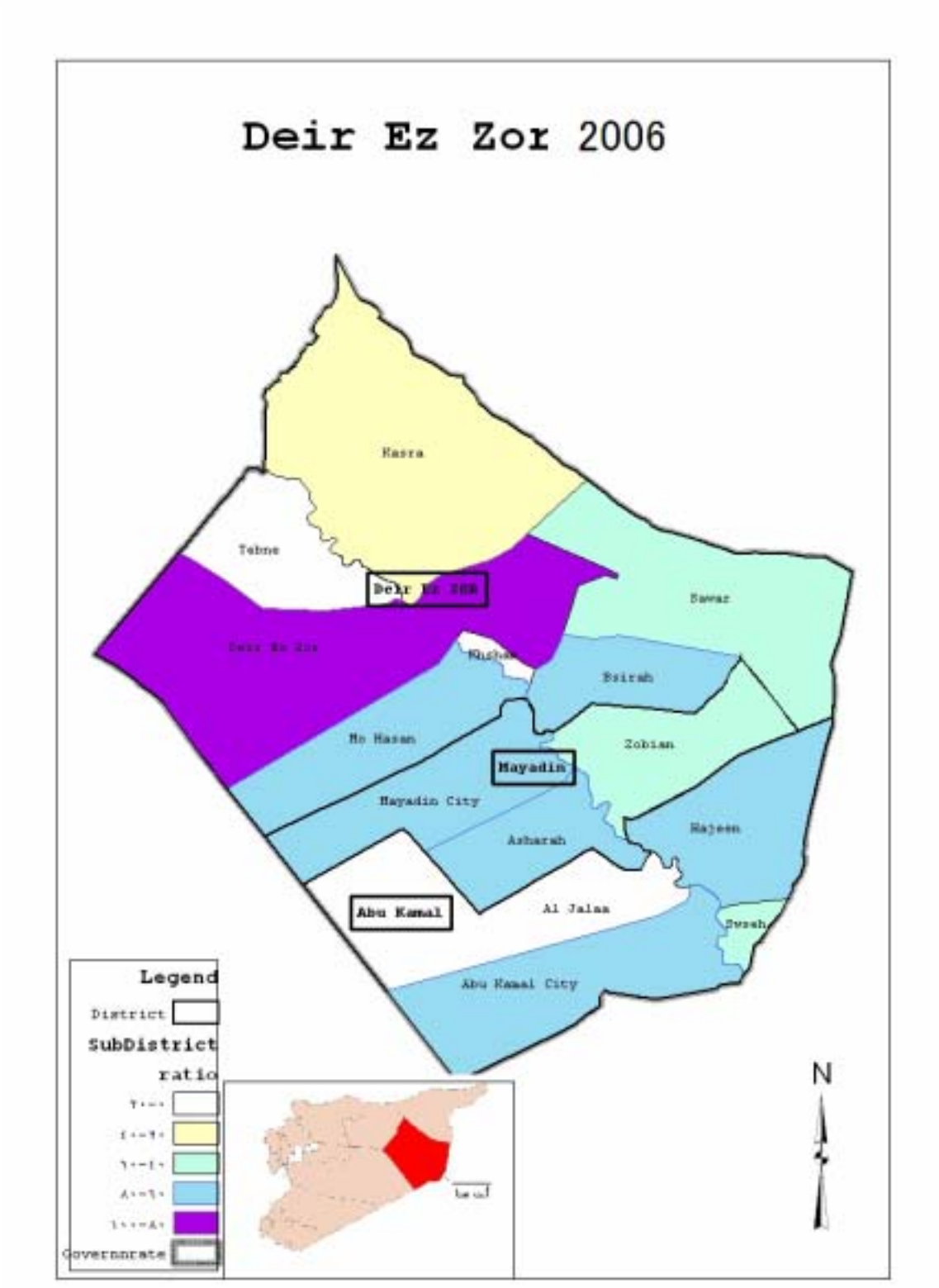
الشكل A9.1.2 قاعدة بيانات نظام الصرف الصحي في محافظة اللاذقية عام 2025



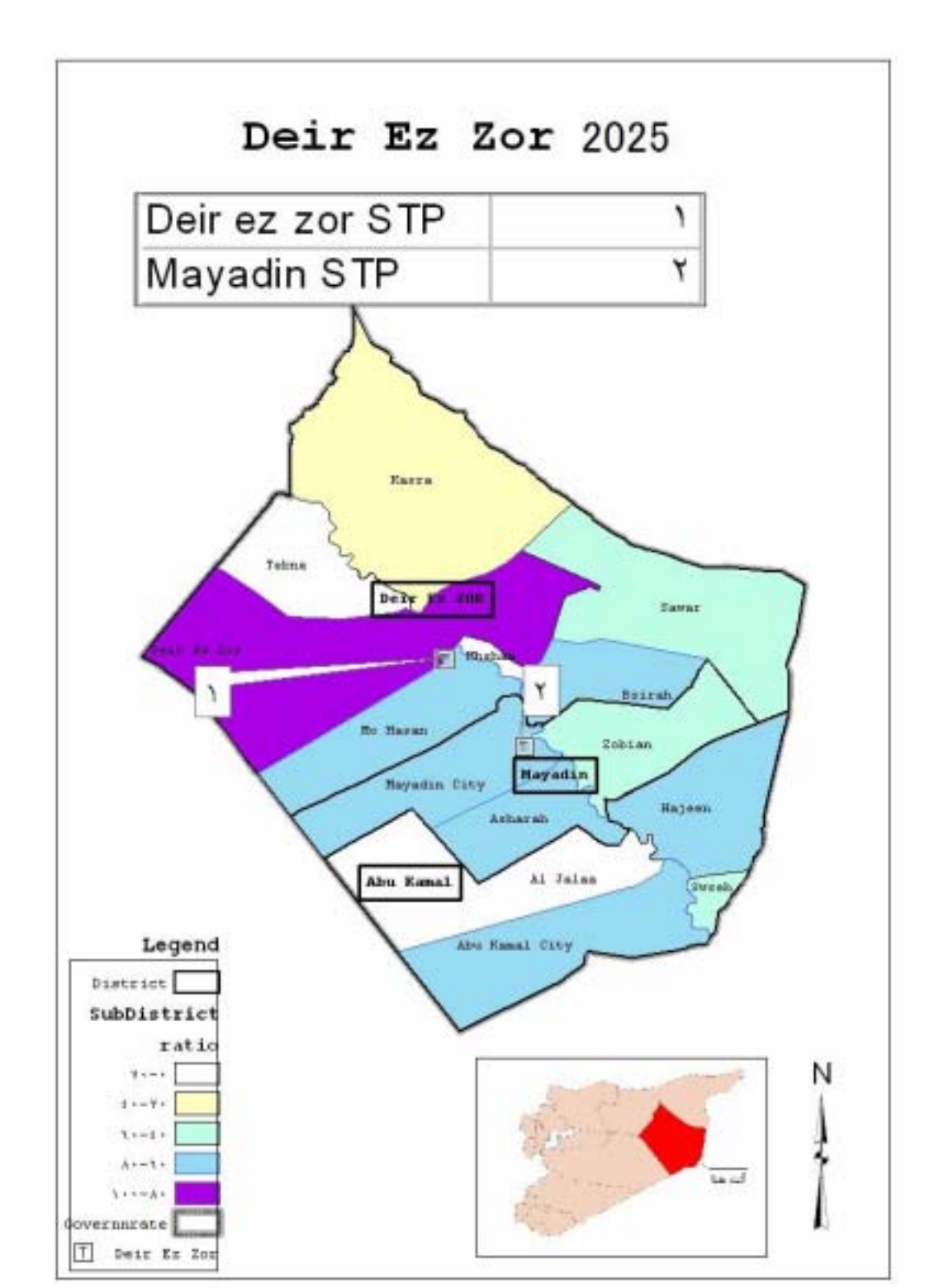
الشكل A9.1.3 قاعدة بيانات نظام الصرف الصحي في محافظة طرطوس عام 2006



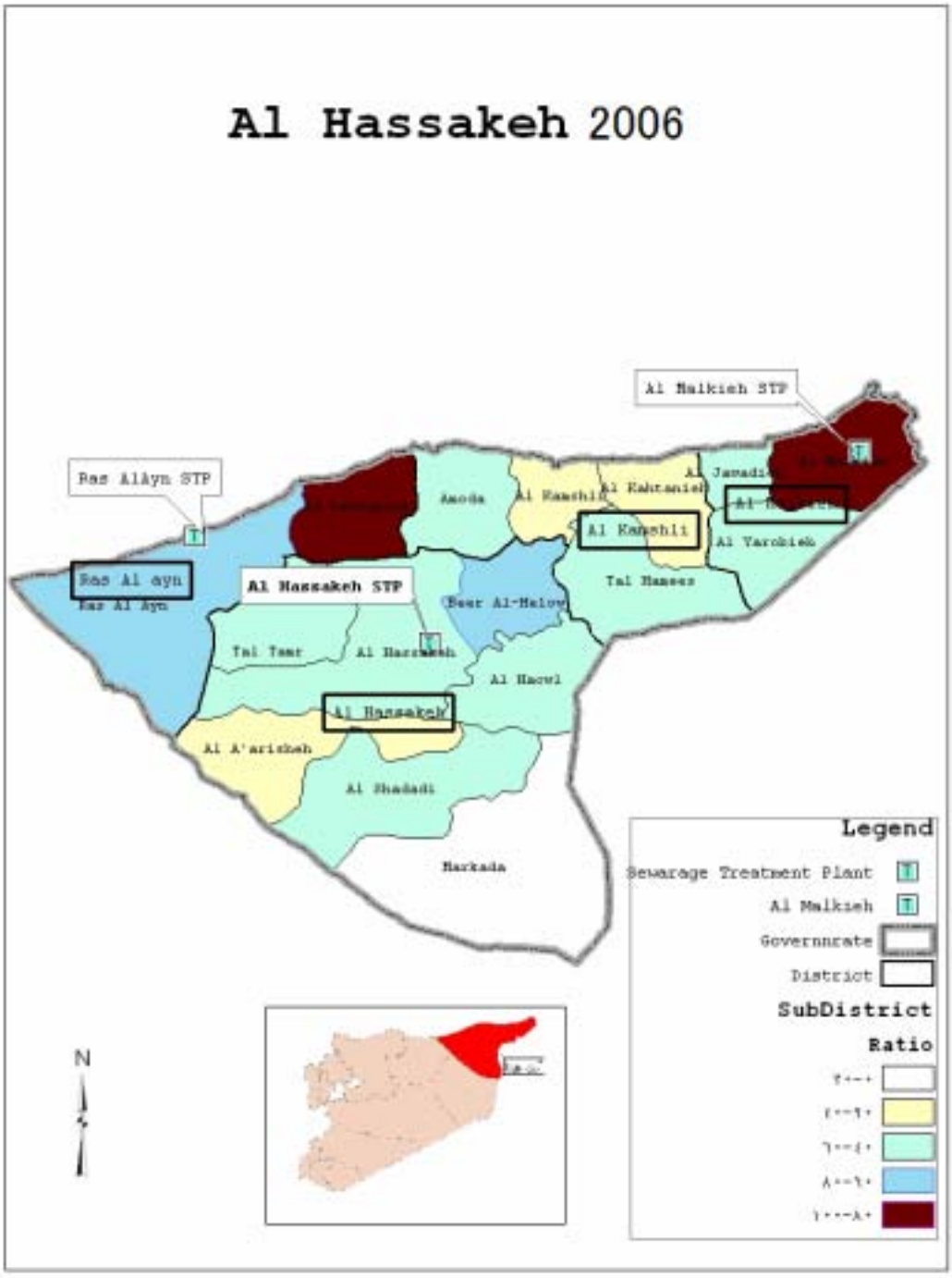
الشكل A9.1.4 قاعدة بيانات نظام الصرف الصحي في محافظة طرطوس عام 2025



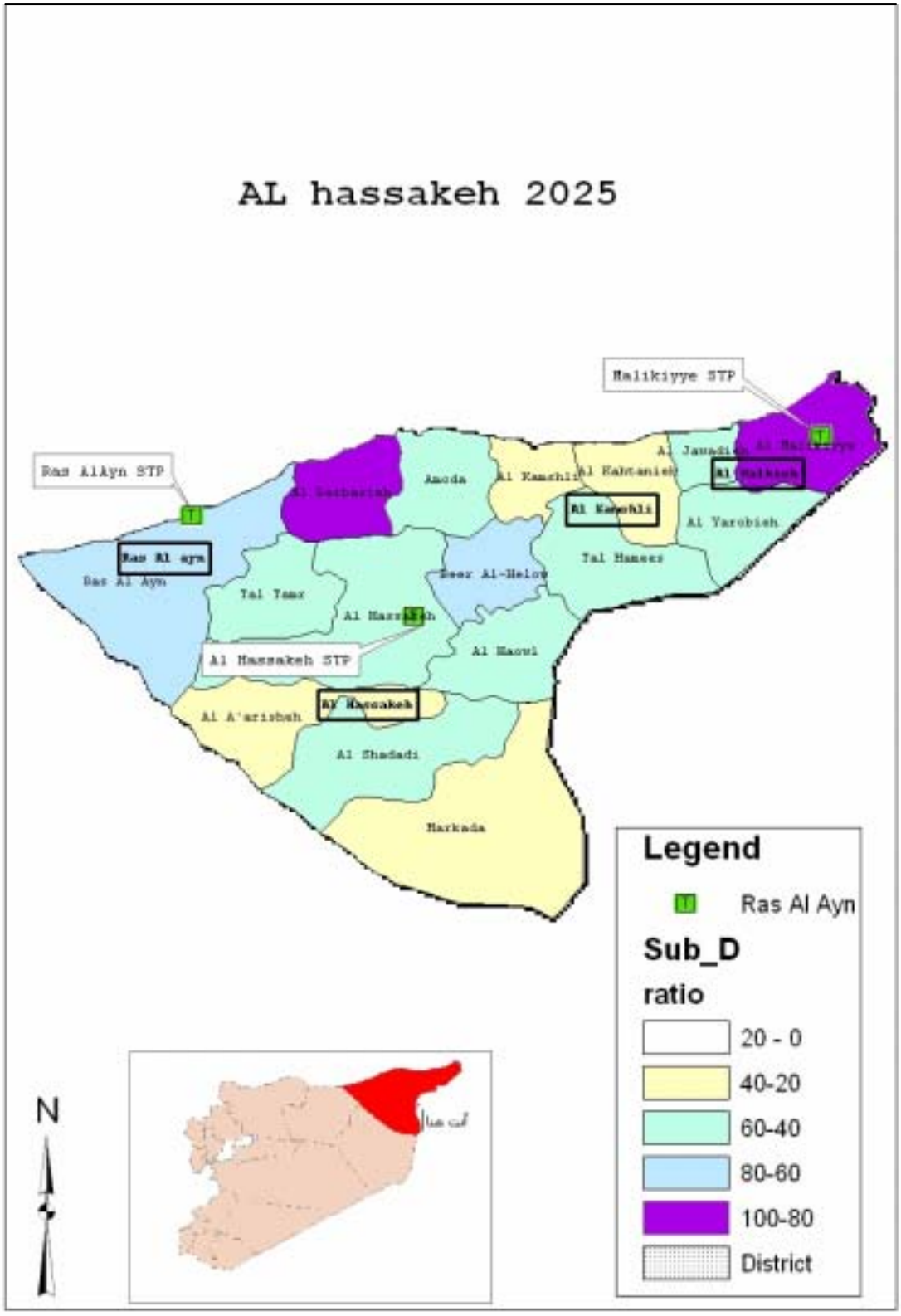
الشكل A9.1.5 قاعدة بيانات نظام الصرف الصحي في محافظة دير الزور عام 2006



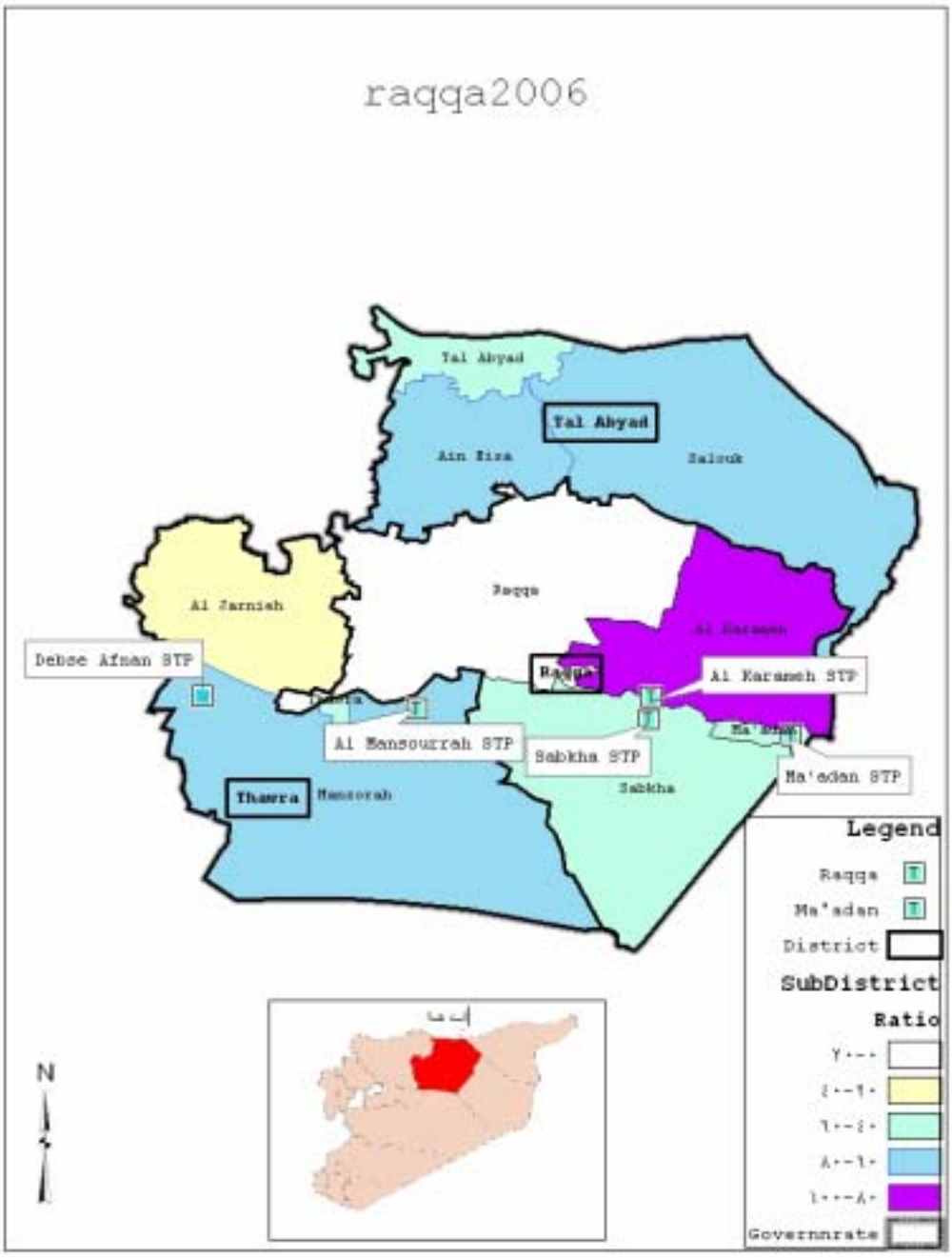
الشكل A9.1.5 قاعدة بيانات نظام الصرف الصحي في محافظة دير الزور عام 2025



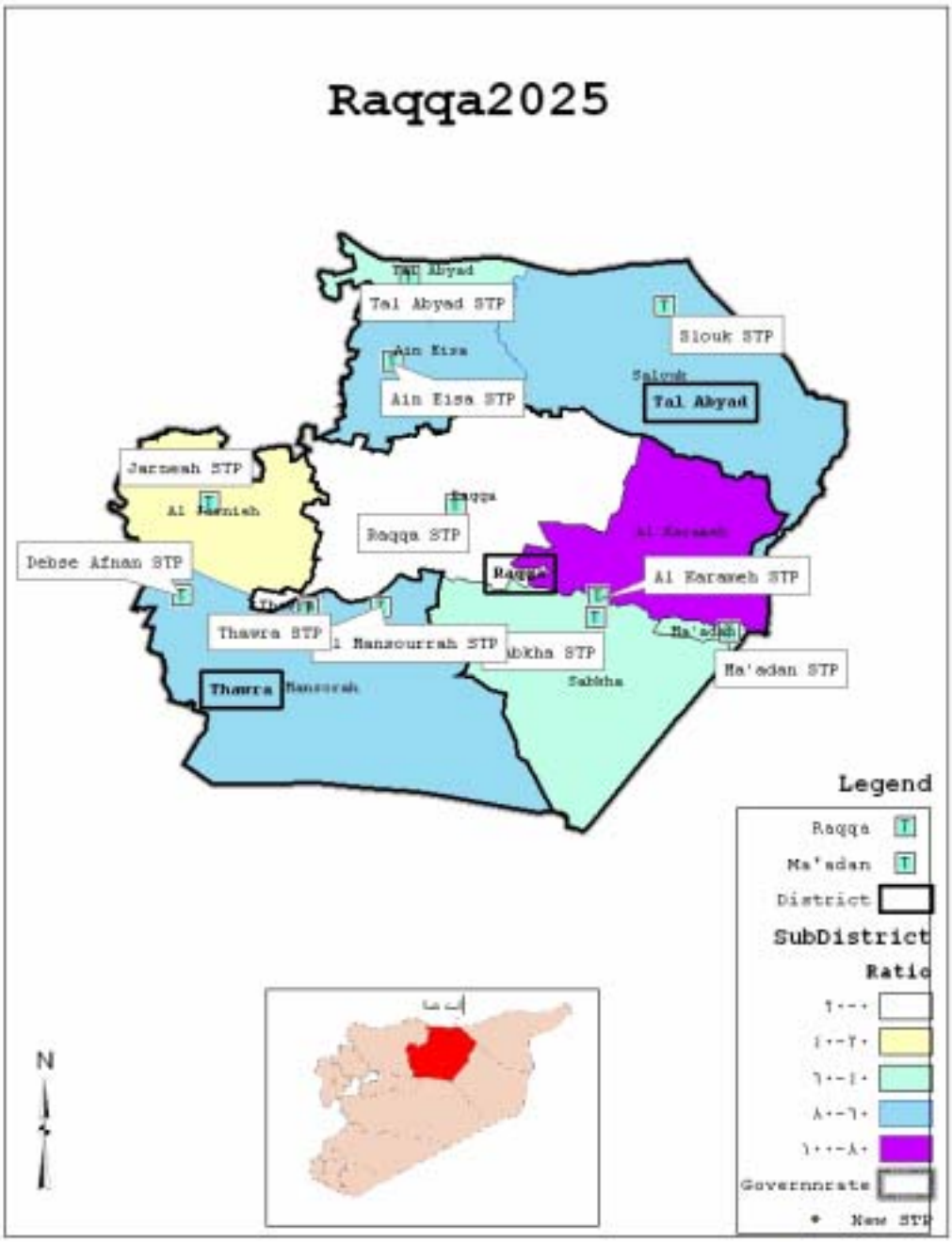
الشكل A9.1.5 قاعدة بيانات نظام الصرف الصحي في محافظة الحسكة عام 2006



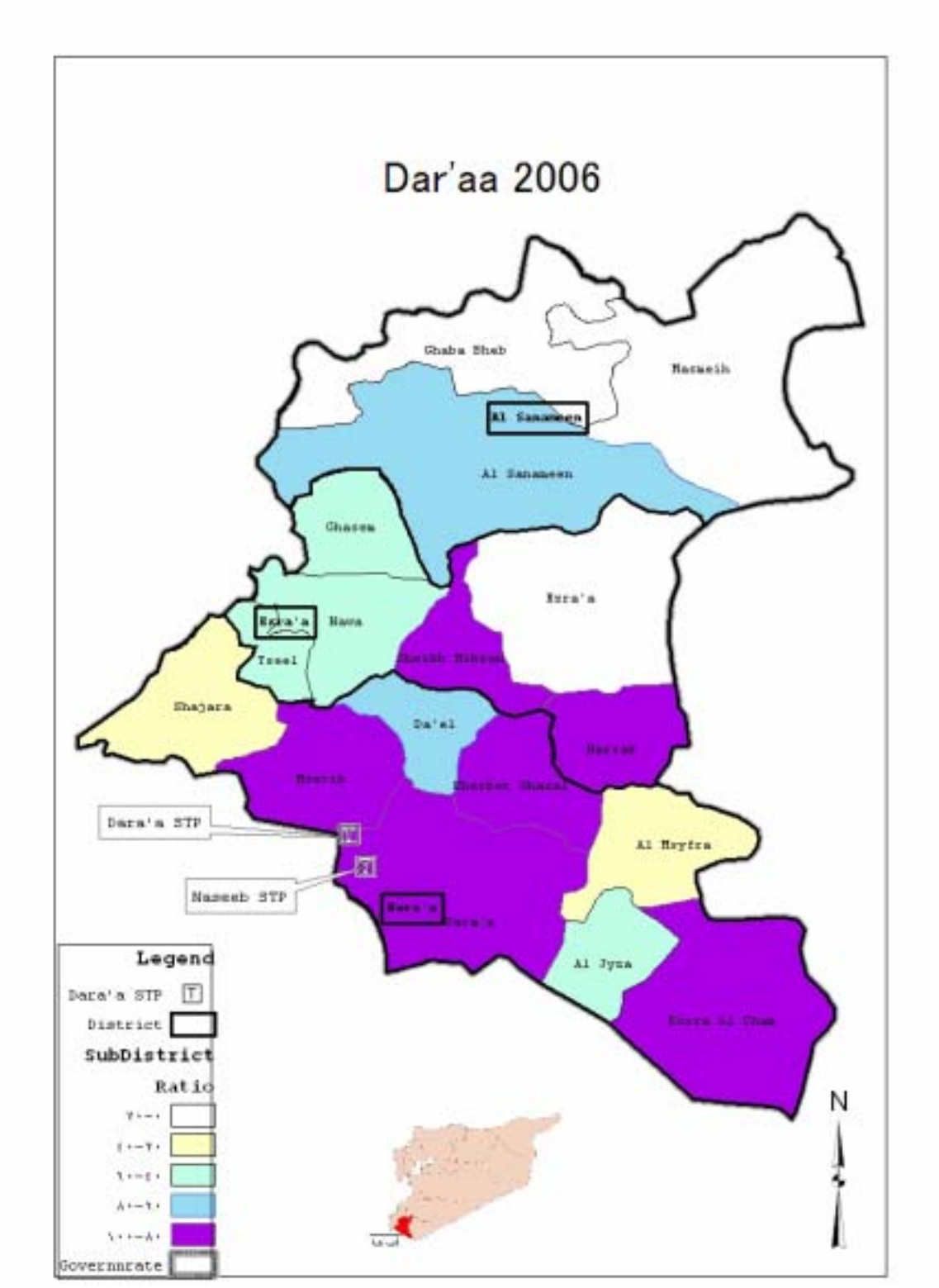
الشكل A9.1.5 قاعدة بيانات نظام الصرف الصحي في محافظة الحسكة عام 2025



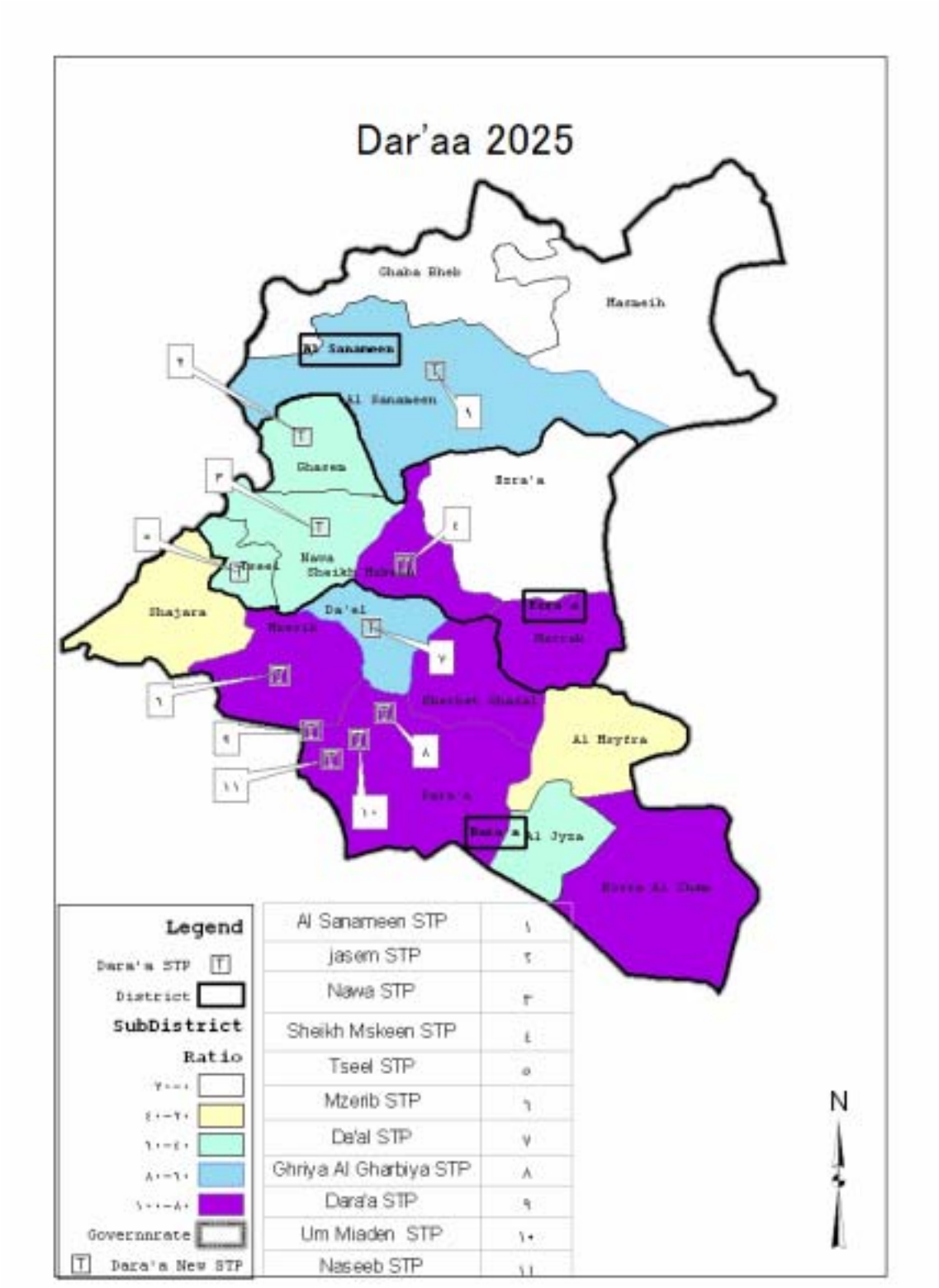
الشكل A9.1.5 قاعدة بيانات نظام الصرف الصحي في محافظة الرقة عام 2006



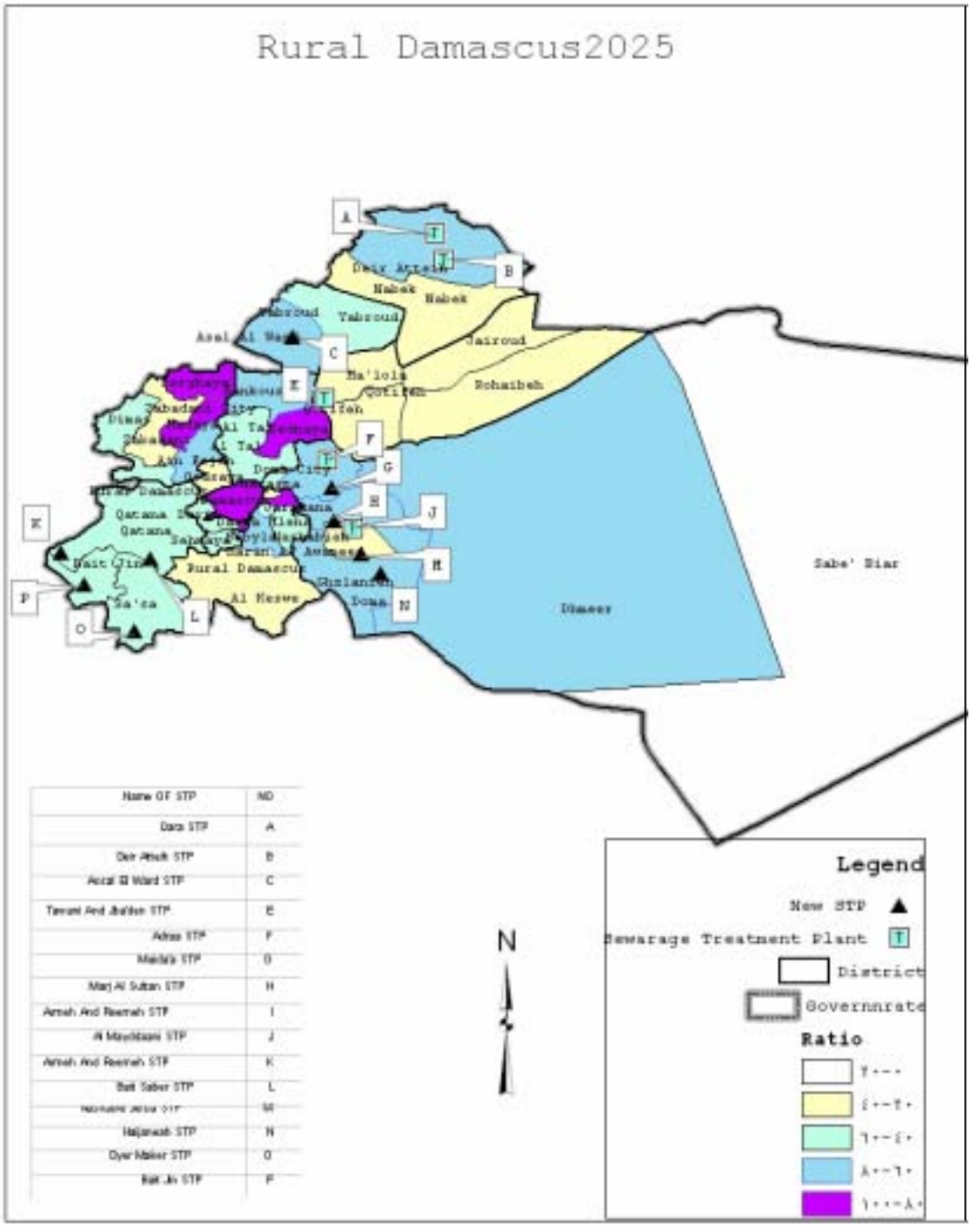
الشكل A9.1.5 قاعدة بيانات نظام الصرف الصحي في محافظة الرقة عام 2025



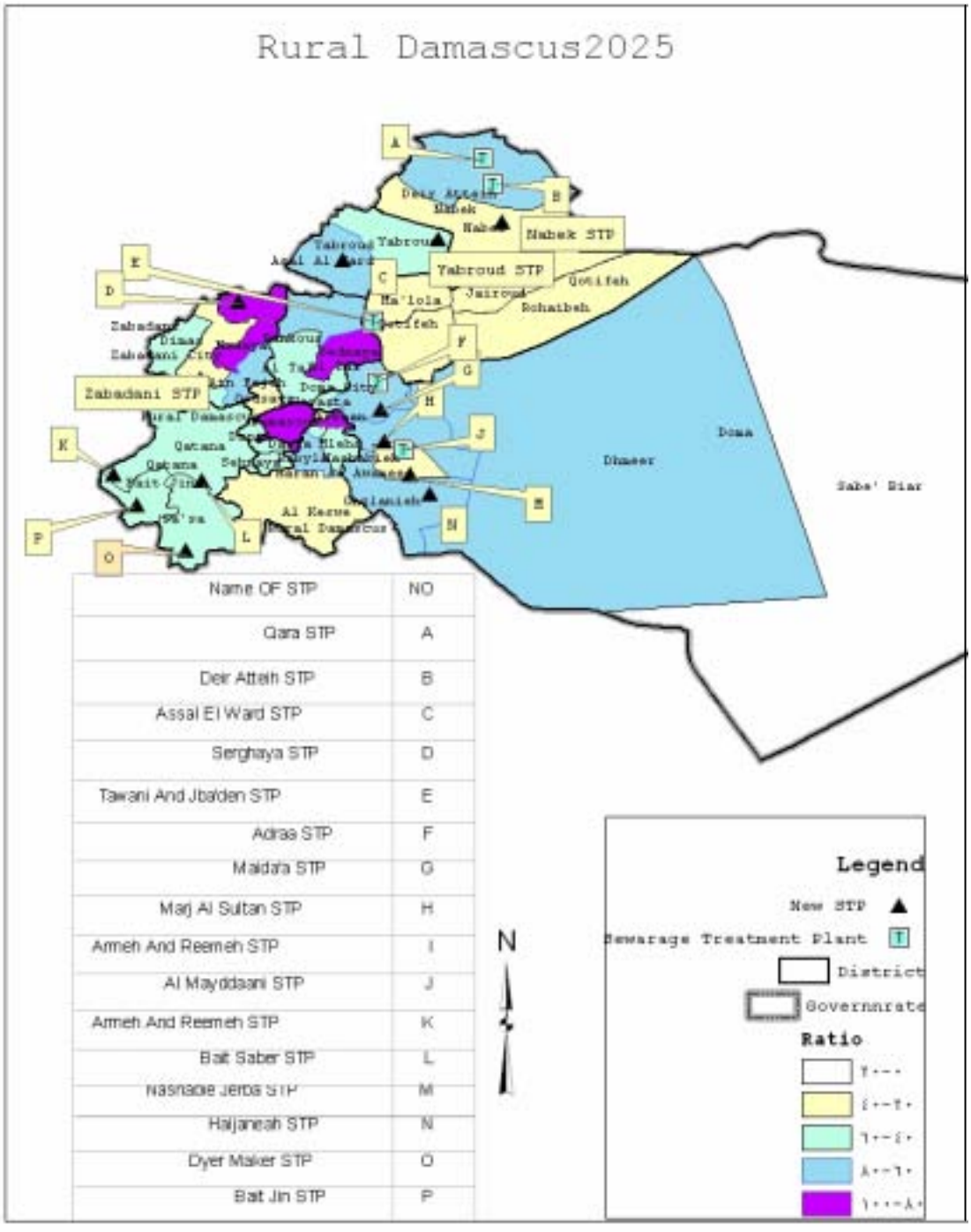
الشكل A9.1.5 قاعدة بيانات نظام الصرف الصحي في محافظة درعا عام 2006



الشكل A9.1.5 قاعدة بيانات نظام الصرف الصحي في محافظة درعا عام 2025



الشكل A9.1.5 قاعدة بيانات نظام الصرف الصحي في محافظة ريف دمشق عام 2006



الشكل A9.1.5 قاعدة بيانات نظام الصرف الصحي في محافظة ريف دمشق عام 2025

ظروف نظام الصرف الصحي في محافظة الحسكةA9.1.1الجدول

Code	Community Name	Subordination	Area Name	District Name	Classification	Current Discharge	Served average	Served population	STP
800	Al-Hasakah City	Al-Hasakah City	Al-Hasakah	Al-Hasakah District	1	Al-Khaboor River	42%	200,000	Require a Treatment Plant
801	Al-Kamshli City	Al-Kamshli City	Al-Kamshli	Al-Kamshli District	1	Al-JaghJagh River	37%	19,771	Require a Treatment Plant
803	Ras Ala'an City	Ras Ala'an City	Ras Ala'ain	Ras Ala'ain District	1	Treatment Plant	55%	31,116	Require a Treatment Plant
802	Amoda City	Amoda City	Al-Kamshli	Amoda District	1	Winter Torrent	33%	32,943	Require a Treatment Plant
804	Al-Malkieh City	Al-Malkieh City	Al-Malkieh	Al-Malkieh District	1	Winter Torrent	49%	30,389	Require a Treatment Plant
805	Al-Derbasieh City	Al-Derbasieh City	Ras Ala'ain	Al-Derbasieh	1	Winter Torrent	24%	16,220	Require a Treatment Plant
807	Al-Shadadi Town	Al-Shadadi Town	Al-Hasakah	Al-Shadadi	2	Al-Khaboor River	41%	14,141	Require a Treatment Plant
810	Markada Town	Markada Town	Al-Hasakah	Markada	2	Al-Khaboor River	27%	3,562	Require a Treatment Plant
811	Ala'ariesheh Town	Ala'ariesheh Town	Al-Hasakah	Ala'ariesheh	2	Al-Khaboor River	23%	4,484	Require a Treatment Plant
812	Beer Al-Helow Town	Beer Al-Helow Town	Al-Hasakah	Beer Al-Helow	2	Al-JaghJagh River	39%	2,267	Require a Treatment Plant
808	Tal Tamr Town	Tal Tamr Town	Al-Hasakah	Tal Tamr	2	Al-Khaboor River	49%	7,836	Require a Treatment Plant
806	Al-Kahtanieh Town	Al-Kahtanieh Town	Al-Kamshli	Al-Kahtanieh	2	Al-Jarah River	42%	19,035	Require a Treatment Plant
813	Tal Hamees Town	Tal Hamees Town	Al-Kamshli	Tal Hamees	2	Winter Torrent	33%	3,778	Require a Treatment Plant
809	Al-Ya'aroubieh Town	Al-Ya'aroubieh Town	Al-Malkieh	Al-Ya'aroubieh	2	No Debouchment	33%	6,014	Require a Treatment Plant
814	Al-Jawadieh Town	Al-Jawadieh Town	Al-Malkieh	Al-Jawadieh	2	Dried Vally	46%	3,687	Require a Treatment Plant
815	Al-Haowl Town	Al-Haowl Town	Al-Hasakah	Al-Haowl	2	Dried Vally	33%	3,510	Require a Treatment Plant
897357	Sfieha Town	Sfieha Town	Al-Hasakah	Al-Hasakah District	4	Al-JaghJagh River	33%	2,185	Require a Treatment Plant
897003	Twienh Municipality	Twienh Municipality	Al-Hasakah	Al-Hasakah District	4	Al-Khaboor River	36%	3,352	Require a Treatment Plant
897087	Tal Hmnz Municipality	Tal Hmnz Municipality	Al-Hasakah	Tal Tamr	4	Al-Khaboor River	18%	875	Require a Treatment Plant
897023	Al-Manajeer Municipality	Al-Manajeer Municipality	Ras Ala'ain	Ras Ala'ain District	4	Al-Khaboor River	46%	2,219	Require a Treatment Plant
897062	Abou Rassien Municipality Ras Ala'ain	Abou Rassien Municipality Ras Ala'ain	Ras Ala'ain	Ras Ala'ain District	4	Zarkan River	55%	1,941	Require a Treatment Plant
897850	Tal ahl-Ward al gharbi Municipality	Tal ahl-Ward al gharbi Municipality	Ras Ala'ain	Ras Ala'ain District	4	Sedimentation Basin	17%	1,403	Require a Treatment Plant
897002	Tal Ma'arouf Municipality	Tal Ma'arouf Municipality	Al-Kamshli	Tal Hamees	4	Winter Torrent	48%	3,443	Require a Treatment Plant
897211	Al-Yarmouk Municipality	Al-Yarmouk Municipality	Al-Kamshli	Tal Hamees	4	Winet River	33%	581	Require a Treatment Plant
897001	Al-Moua'abadeh Municipality	Al-Moua'abadeh Municipality	Al-Malkieh	Al-Malkieh District	4	Winet River	63%	1,548	Require a Treatment Plant
897133	Smyhan Gharbi Municipality	Smyhan Gharbi Municipality	Al-Hasakah	Beer Al-Helow	4	Al-JaghJagh River	25%	1,780	Require a Treatment Plant
897006	Tal Juma'a Municipality	Tal Juma'a Municipality	Al-Hasakah	Tal Tamr	4	Al-JaghJagh River	32%	2,506	Require a Treatment Plant
897017	Deisr Al-Ghousson	Deisr Al-Ghousson	Al-Malkieh	Al-Jawadieh	4	Winter Torrent	30%	1,346	Require a Treatment Plant
897035	Helweh Municipality	Helweh Municipality	Al-Kamshli	Al-Kahtanieh	4	Winter Torrent	33%	1,780	Require a Treatment Plant
897076	Tal Half Municipality	Tal Half Municipality	Ras Ala'ain	Ras Ala'ain District	4	Al-Khaboor River	55%	4,013	Require a Treatment Plant
897025	Uom Al-Foursan Municipality	Uom Al-Foursan Municipality	Al-Kamshli	Al-Kamshli	4	Winter Torrent	25%	1,528	Require a Treatment Plant
897005	Swaideh Foukani Municipality	Swaideh Foukani Municipality	Al-Malkieh	Al-Malkieh District	4	Winter Torrent	25%	2,521	Require a Treatment Plant
897009	Ma'ashouk Municipality	Ma'ashouk Municipality	Al-Malkieh	Al-Jawadieh	4	Winter Torrent	27%	2,836	Require a Treatment Plant
897050	Al-Tanouneh Municipality	Al-Tanouneh Municipality	Al-Kamshli	Al-Kahtanieh	4	Winter Torrent	34%	2,795	Require a Treatment Plant
897031	Rayeh Gharbi Municipality	Rayeh Gharbi Municipality	Al-Kamshli	Amoda	4	Winter Torrent	35%	1,459	Require a Treatment Plant

Code	Community Name	Subordination	Area Name	District Name	Classification	Current Discharge	Served average	Served population	STP
897030	Al-Manatherah Municipality	Al-Manatherah Municipality	Al-Kamshli	Al-Kahtanieh	4	Winter Torrent	33%	2,277	Require a Treatment Plant
897016	Al-Hajieh Municipality	Al-Hajieh Municipality	Al-Hasakah	Al-A'areesheh	4	Al-Khaboor River	18%	3,500	Require a Treatment Plant
897013	Ia'atbariet Al-Ghuri Village	Ia'atbariet Al-Ghuri Village	Al-Hasakah	Al-Shadadi	3	Al-Khaboor River	19%	2,153	Require a Treatment Plant
897102	Al-Heneh Al-sharkieh Municipality	Al-Heneh Al-sharkieh Municipality	Al-Hasakah	Al-Shadadi	4	Al-Khaboor River	11%	2,686	Require a Treatment Plant
897132	KashKash Zayanat	KashKash Zayanat	Al-Hasakah	Markada	4	Al-Khaboor River	6%	1,675	Require a Treatment Plant
897059	Eain Al-Teineh Municipality	Eain Al-Teineh Municipality	Al-Hasakah	Tal Tamr	4	Winter Torrent	14%	1,118	Require a Treatment Plant
897024	Abou Zowel Municipality	Abou Zowel Municipality	Al-Kamshli	Al-Kamshli	4	Al-JaghJagh River	9%	1,258	Require a Treatment Plant
897012	Abou Rassien Municipality	Abou Rassien Municipality	Al-Kamshli	Al-Kamshli	4	Winter Torrent	30%	1,335	Require a Treatment Plant
897392	Hanadi Municipality	Hanadi Municipality	Al-Kamshli	Al-Kamshli	4	Winter Torrent	20%	2,466	Require a Treatment Plant
897027	Khaznet Kabeireh Municipality	Khaznet Kabeireh	Al-Kamshli	Al-Kahtanieh	4	Winter Torrent	21%	1,741	Require a Treatment Plant
897048	Al-Hamraa Municipality	Al-Hamraa Municipality	Al-Malkieh	Al-Malkieh District	4	Winter Torrent	X	1,126	Require a Treatment Plant
897047	Al-Moustafawieh Municipality	Al-Moustafawieh Municipality	Al-Malkieh	Al-Malkieh District	4	Winter Torrent	X	1,188	Require a Treatment Plant
897383	Hawwiet Foukani Kabeer Municipality	Hawwiet Foukani Kabeer Municipality	Al-Kamshli	Tal Hamees	4	Winter Torrent	X	1,072	Require a Treatment Plant
897067	Khwietlet Al-Jawaleh Municipality	Khwietlet Al-Jawaleh Municipality	Al-Kamshli	Al-Kahtanieh	4	Winter Torrent	19%	1,437	Require a Treatment Plant
897018	Tal A'adass Municipality	Tal A'adass Municipality	Al-Malkieh	Al-Malkieh District	4	Sedimentation Basin	X	1,649	Require a Treatment Plant
897039	Makhroom Municipality	Makhroom Municipality	Al-Hasakah	Al-Hasakah District	4	Sedimentation Basin	X	1,029	Require a Treatment Plant
897100	Hamoo Municipality	Hamoo Municipality	Al-Kamshli	Al-Kamshli	4	Al-JaghJagh River	X	1,927	Require a Treatment Plant
897501	Tal Mghass Municipality	Tal Mghass Municipality	Al-Hasakah	Tal Tamr	4	Al-Khaboor River	X	195	Require a Treatment Plant
897134	Tal Baydar Municipality	Tal Baydar Municipality	Al-Hasakah	Al-Hasakah District	4	Winter Torrent	14%	909	Require a Treatment Plant
897193	Jmuz Gharbi Municipality	Jmuz Gharbi Municipality	Al-Hasakah	Al-Shadadi	4	Winter Torrent	X	5,641	Require a Treatment Plant
897124	Tal Al-A'atshan Municipality	Tal Al-A'atshan Municipality	Al-Malkieh	Al-Jawadieh	4	Sedimentation Basin	X	1,157	Require a Treatment Plant
897107	Al-Ehsaaa Municipality	Al-Ehsaaa Municipality	Al-Kamshli	Al-Kahtanieh	4	Winter Torrent	X	1,055	Require a Treatment Plant
897014	Etbareit Tal Majdal	Etbareit Tal Majdal	Al-Hasakah	Al-Hasakah District	4	Winter Torrent	22%	2,104	Require a Treatment Plant
897084	Tal Aoudeh Municipality	Tal Aoudeh Municipality	Al-Kamshli	Al-Kamshli	4	Winter Torrent	6%	1,440	Require a Treatment Plant
897082	Ein Dewar Municipality	Ein Dewar Municipality	Al-Malkieh	Al-Malkieh District	4	Dajleh River	25%	870	Require a Treatment Plant
897061	Farfarah Municipality	Farfarah Municipality	Al-Kamshli	Tal Hamees	4	Winter Torrent	X	911	Require a Treatment Plant
897230	Kairwan Municipality	Kairwan Municipality	Ras Ala'ain	Al-Derbasieh	4	Winter Torrent	X	1,646	Require a Treatment Plant
897029	Al-Sieha Foukani Municipality	Al-Sieha Foukani Municipality	Al-Kamshli	Al-Kahtanieh	4	Winter Torrent	X	831	Require a Treatment Plant
897135	Abou Fera'a Municipality	Abou Fera'a Municipality	Al-Kamshli	Al-Kahtanieh	4	Winter Torrent	X	778	Require a Treatment Plant
897219	East Palestine Municipality	East Palestine Municipality	Al-Kamshli	Tal Hamees	4	Winter Torrent	10%	840	Require a Treatment Plant
897137	Ein al-Khadra'a Municipality	Ein al-Khadra'a Municipality	Al-Malkieh	Al-Malkieh District	4	Winter Torrent	20%	645	Require a Treatment Plant
897241	Al-Ghnamieh Municipality	Al-Ghnamieh Municipality	Ras Ala'ain	Al-Derbasieh	4	Winter Torrent	11%	473	Require a Treatment Plant
897060	Al-Fadghmi Municipality	Al-Fadghmi Municipality	Al-Hasakah	Markada	4	Al-Khaboor River	10%	5,161	Require a Treatment Plant
897624	Al-Shiekh Hamad Municipality	Al-Shiekh Hamad	Al-Hasakah	Markada	4	Winter Torrent	12%	2,686	Require a Treatment Plant

Code	Community Name	Subordination	Area Name	District Name	Classification	Current Discharge	Served average	Served population	STP
897275	Etebarieah Village Tal	Etebarieah Village Tal	Al-Hasakah	Tal Helwo	3	Sedimentation Basin	25%	615	Require a Treatment Plant
897139	Baheerah Municipality	Baheerah Municipality	Al-Kamshli	Amoda	4	Winter Torrent	30%	735	Require a Treatment Plant
897040	Al-Rehaibeh Municipality	Al-Rehaibeh Municipality	Al-Malkieh	Al-Malkieh District	4	Winter Torrent	30%	1,483	Require a Treatment Plant
897033	Kherbet A'amo Municipality	Kherbet A'amo Municipality	Al-Kamshli	Al-Kamshli	4	Winter Torrent	11%	1,898	Require a Treatment Plant
897028	A'abrah Municipality	A'abrah Municipality	Al-Malkieh	Al-Jawadieh	4	Winter Torrent	30%	1,403	Require a Treatment Plant
897126	Erbaniet Al-Safeh Village	Erbaniet Al-Safeh Village	Ras Ala'ain	Ras Ala'ain District	3	Jarjar River	35%	1,841	Require a Treatment Plant
897045	Al-Sa'aideh Municipality	Al-Sa'adeh Municipality	Al-Malkieh	Al-Malkieh District	4	Winter Torrent	35%	999	Require a Treatment Plant
897159	Etebarieah Dshiesheh Gharbi Village	Etebarieah Dshiesheh Gharbi Village	Al-Hasakah	Markada	3	Al-Khaboor River	18%	3,233	Require a Treatment Plant
897055	Al-Yousfieh Municipality	Al-Yousfieh Municipality	Al-Malkieh	Al-Malkieh District	4	Winter Torrent	18%	1,570	Require a Treatment Plant
897165	Um AL-Rabyia'a Municipality	Um AL-Rabyia'a Municipality	Al-Kamshli	Amoda	4	Winter Torrent	13%	652	Require a Treatment Plant
897136	Al-Haramoon Municipality	Al-Haramoon Municipality	Al-Kamshli	Al-Kahtanieh	4	Al-Jarah River	19%	983	Require a Treatment Plant
897192	Khowiled Foukani	Khowiled Foukani	Al-Hasakah	Beer Al-Helow	4	Al-JaghJagh River	23%	799	Require a Treatment Plant
897378	Tal Ruman Municipality	Tal Ruman Municipality	Al-Hasakah	Tal Tamr	4	Al-Khaboor River	24%	349	Require a Treatment Plant
897217	Khass Jancobi Municipality	Khass Jancobi Municipality	Ras Ala'ain	Al-Derbasieh	4	Winter Torrent	24%	685	Require a Treatment Plant
897450	Al-Shamsani Municipality	Al-Shamsani Municipality	Al-Hasakah	Markada	4	Al-Khaboor River	9%	937	Require a Treatment Plant
897044	Al-Wadi Municipality	Al-Wadi Municipality	Al-Malkieh	Al-Yarobieh	4	Winter Torrent	25%	1,527	Require a Treatment Plant
897117	Tal Mshhan Municipality	Tal Mshhan Municipality	Al-Malkieh	Al-Yarobieh	4	Winter Torrent	16%	1,065	Require a Treatment Plant
897083	Al-Amaneh Municipality	Al-Amaneh Municipality	Ras Ala'ain	Al-Derbasieh	4	Winter Torrent	30%	949	Require a Treatment Plant
897094	Rahyieh Municipality	Rahyieh Municipality	Al-Kamshli	Al-Kamshli	4	Winter Torrent	16%	619	Require a Treatment Plant
897125	Damkhieh Kabiereh	Damkhieh Kabiereh	Al-Kamshli	Al-Kamshli	4	Al-JaghJagh River	35%	689	Require a Treatment Plant
897276	Hajeehh Kabiereh Municipality	Hajeehh Kabiereh Municipality	Al-Kamshli	Tal Hamees	4	Winter Torrent	14%	578	Require a Treatment Plant
897114	Tal Zewan Municipality	Tal Zewan Municipality	Al-Kamshli	Al-Kahtanieh	4	Winter Torrent	19%	536	Require a Treatment Plant
897176	AL-Henieh Municipality	AL-Henieh Municipality	Al-Kamshli	Amoda	4	Winter Torrent	25%	649	Require a Treatment Plant
897228	Al-Sa'adeh Municipality	Al-Sa'adeh Municipality	Al-Hasakah	Markada	4	Al-Khaboor River	14%	2,877	Require a Treatment Plant
897215	Al-Tawieleh Municipality	Al-Tawieleh Municipality	Al-Hasakah	Tal Tamr	4	Al-Khaboor River	20%	714	Require a Treatment Plant
897077	Al-Muthna Municipality	Al-Muthna Municipality	Ras Ala'ain	Ras Ala'ain District	4	Al-Khaboor River	30%	2,203	Require a Treatment Plant
897154	Zeherieh Municipality	Zeherieh Municipality	Al-Malkieh	Al-Malkieh District	4	Dajleh River	24%	1,522	Require a Treatment Plant
897325	Al-A'alieh Al-Sharkieh Municipality	Al-A'alieh Al-Sharkieh Municipality	Ras Ala'ain	Ras Ala'ain District	4	Al-Jarjab River	20%	604	Require a Treatment Plant
897402	A'alianeh Municipality	A'alianeh Municipality	Al-Malkieh	Al-Malkieh District	4	Winter Torrent	14%	514	Require a Treatment Plant
897065	Al-Asadeh Municipality	Al-Asadeh Municipality	Ras Ala'ain	Ras Ala'ain District	4	Al-Zarkan River	14%	1,167	Require a Treatment Plant
897379	Al-Asaybakh Municipality	Al-Asaybakh Municipality	Al-Hasakah	Beer Al-Helow	4	Al-JaghJagh River	20%	709	Require a Treatment Plant
897359	Al-Bajarieh Municipality	Al-Bajarieh Municipality	Al-Kamshli	Al-Kamshli	4	Winter Torrent	1%	430	Require a Treatment Plant
897301	Tal Stieh Gharbi Municipality	Tal Stieh Gharbi Municipality	Al-Kamshli	Al-Kamshli	4	Winter Torrent	18%	606	Require a Treatment Plant
897231	Hareset Al-Rad Al-Sharki	Hareset Al-Rad Al-Sharki	Al-Kamshli	Tal Hamees	4	Winter Torrent	10%	888	Require a Treatment Plant
897181	Khatouniet Al-Bahra	Khatouniet Al-Bahra	Al-Hasakah	Al-Hawl	4	Winter Torrent	40%	694	Require a Treatment Plant

Code	Community Name	Subordination	Area Name	District Name	Classification	Current Discharge	Served average	Served population	STP
897141	Tal Jaber Municipality	Tal Jaber Municipality	Al-Hasakah	Al-Shadadi	4	Winter Torrent	1%	375	Require a Treatment Plant
897058	AL-Hamra'a Al-Jadiedeh Municipality	AL-Hamra'a Al-Jadiedeh Municipality	Al-Malkieh	Al-Jawadieh	4	Winter Torrent	19%	978	Require a Treatment Plant
897156	Okaz Municipality	Okaz Municipality	Al-Kamshli	Tal Hamees	4	Winter Torrent	14%	541	Require a Treatment Plant
898139	Ethariet Al-Elweh Village	Ethariet Al-Elweh Village	Al-Hasakah	Al-Shadadi	4	Al-Khaboor River	12%	1,431	Require a Treatment Plant
897138	Zain Amoubrej Municipality	Zain Amoubrej Municipality	Al-Hasakah	Al-Ariesheh	4	Winter Torrent	1%	1,100	Require a Treatment Plant
897343	AL-Enadeh Municipality	AL-Enadeh Municipality	Ras Ala'ain	Ras Ala'ain District	4	Winter Torrent	12%	1,025	Require a Treatment Plant
897020	Tal Al-Taweel Al-Gharbi Municipality	Tal Al-Taweel Al-Gharbi Municipality	Al-Hasakah	Al-Hasakah District	4	Al-JaghJagh River	20%	1,837	Require a Treatment Plant
897004	Al-Atshaneh Municipality	Al-Atshaneh Municipality	Al-Hasakah	Beer Al-Helow	4	Winter Torrent	12%	805	Require a Treatment Plant
897232	Um Khaief Foukani	Um Khaief Foukani	Al-Malkieh	Al-Yarobieh	4	Winter Torrent	X	580	Require a Treatment Plant
897175	Sharm Al-Shiekh Municipality	Sharm Al-Shiekh Municipality	Al-Malkieh	Al-Malkieh District	4	Winter Torrent	12%	858	Require a Treatment Plant
897254	Kherbet Al-Beer Tahtani Municipality	Kherbet Al-Beer Tahtani Municipality	Al-Malkieh	Al-Yarobieh	4	Winter Torrent	12%	968	Require a Treatment Plant
897175	Tawarej Al-Gharqaneh Municipality	Tawarej Al-Gharqaneh Municipality	Al-Kamshli	Tal Hamees	4	Winter Torrent	7%	764	Require a Treatment Plant
897046	AL-Taleen Municipality	AL-Taleen Municipality	Al-Malkieh	Al-Malkieh District	4	Winter Torrent	12%	1,089	Require a Treatment Plant
897158	Tal Habash Municipality	Tal Habash Municipality	Al-Kamshli	Amoda	4	Winter Torrent	20%	534	Require a Treatment Plant
897121	Al-Sa'adeh Municipality	Al-Sa'adeh Municipality	Al-Kamshli	Tal Hamees	4	Winter Torrent	15%		Require a Treatment Plant
897097	Kasmieh Municipality	Kasmieh Municipality	Al-Malkieh	Al-Jawadieh	4	Winter Torrent	10%	1,200	Require a Treatment Plant
897125	Mabroukeh Municipality	Mabroukeh Municipality	Ras Ala'ain	Ras Ala'ain District	4	Winter Torrent	9%	6,457	Require a Treatment Plant
897336	Al-Dardarah Municipality	Al-Dardarah Municipality	Al-Malkieh	Al-Yarobieh	4	Winter Torrent	Newly Established Municipality	571	Require a Treatment Plant
897153	Al-Khnael Municipality	Al-Khnael Municipality	Al-Hasakah	Al-Hasakah District	4	Winter Torrent	Newly Established Municipality	1,345	Require a Treatment Plant
897289	Tal Sha'aeer Municipality	Tal Sha'aeer Municipality	Al-Kamshli	Al-Kahtanieh	4	Winter Torrent	Newly Established Municipality	825	Require a Treatment Plant
897171	Al-Jabrieh Municipality	Al-Jabrieh Municipality	Al-Kamshli	Amoda	4	Winter Torrent	Newly Establis het Municipality	945	Require a Treatment Plant
897043	Abou Hjeret Khawatneh Municipality	Abou Hjeret Khawatneh Municipality	Al-Hasakah	Al-Hawl	4	Winter Torrent	Newly Establis het Municipality	930	Require a Treatment Plant

الجدول A9.1.2 ظروف نظام الصرف الصحي في محافظة حلب

No	Code	community name	district name	area name	classification	current discharge point (DP)	sewage serving	served residents	STP
1	0200	Aleppo	Jabal Sama'n area	Jabal Sama'n	1	STP in Al Shiekh Sied	86%	1,920,000	exist
2	0203	Manbej	Manbej area	Manbej	1	open to the valley	70%	130,480	not exist
3	0201	Al Bab	Al Bab area	Al Bab	1	4 disharge points to Al Dahab river	80%	97,520	not exist
4	0202	Al Safira	Al Safira	Al Safira	1	open to the valley	75%	69,341	not exist
5	0204	Ezaz	Ezaz area	Ezaz	1	open to the valley	80%	56,559	not exist
6	0206	Efrine	Efrine area	Efrine	1	some that discharge directly to Efrine river	93%	43,314	not exist
7	0209	Mare'	Mare'	Ezaz	1	pumping is used to push water , DP is end near Shahba lake dam	95%	38,444	not exist
8	0211	Jarablus	Jarablus	Jarablus	1	directly to Euphrates river	90%	38,178	not exist
9	0208	Daret Azah	Daret Azah	Jabal Sama'n	1	DP is 1500 m / 2x1.5 m , to a valley southern city	80%	32,528	not exist
10	0205	Ain Al Arab	Ain Al Arab	Ain Al	1	open to the valley	70%	32,491	not exist
11	0210	Nabel	Nabel	Ezaz	1	to septic tank then pump to the valley	90%	28,125	not exist
12	0207	Tadef	Tadef	Al Bab	1	open to the valley	75%	26,143	not exist
13	0212	Tal Refa'at	Tal Refa'at	Ezaz	1	to a swamp	75%	23,587	not exist
14	0221	Jandieras	Jandieras	Efrine	2	open to the valley	85%	21,250	not exist
15	0213	Dier Hafer	Dier Hafer	Al Bab	1	open to the valley	70%	20,319	not exist
16	0218	Al Tareb	Al Tareb	Jabal Sama'n	2	DP is 2km ,60 x 70 cm south west the town ,	85%	16,789	not exist
17	0297025	Al Shyokh Foukani	Shyoukh Tahtani	Ain Al Arab	3	to a septic tank	90%	16,648	not exist
18	0225	Maskane	Maskane	Manbej	2	3 DP to a valley	65%	16,250	not exist
19	0215	Andan	Hraitan	Jabal Sama'n	2	3 open DP to Nabel vally in north east & south west	80%	14,800	not exist
20	0214	Bza'a	Al Bab area	Al Bab	2	open DP to a stream	70%	13,033	not exist
21	0216	Hraitan	Hraitan	Jabal Sama'n	2	to a septic tank south of the town : 155 m / 80 x	75%	12,862	not exist
22	0224	Al Khafse	Al Khafse	Manbej	2	open to the valley	90%	12,514	not exist
23	0232	Shyoukh Tahtani	Shyoukh Tahtani	Ain Al Arab	2	to a septic tank then the water is pumped to a	65%	12,405	not exist
24	0219	Kabbasin	Al Bab area	Al Bab	2	open to the valley	80%	12,181	not exist
25	0217	Tal Aran	Al Safira	Al Safira	2	to a septic tank	60%	11,736	not exist
26	0245	Al Hader	Al Hader	Jabal Sama'n	2	first DP southof the town 1500 m/ 60 x 100 cm , the second on north 2300 m / 60 x 100 cm	90%	10,506	not exist
27	0220	Al Zahra	Nabel	Ezaz	2	2 open DP to the stream	70%	10,032	not exist
28	0297009	Kaljibrin	Ezaz area	Ezaz	3	open DP to an open valley	100%	9,951	not exist
29	0250	Ma'ret Al Artik	Hraitan	Jabal Sama'n	2	Dp is implemented 60 x 50 cm south west the village to Kefer Da'el	90%	9,806	not exist
30	0244	Hasan	Jabal Sama'n area	Jabal Sama'n	2	implemented to natural stream , open , west of th town	95%	9,500	not exist
31	0234	Bulbul	Bulbul	Efrine	2	open to valley stream	85%	9,129	not exist
32	0246	Anjara	Daret Azah	Jabal Sama'n	2	the first one is south Al Balkrieh 1500 m , 80 x 100 cm , the scond is north west 850 m , 80 x 70cm	70%	8,850	not exist
33	0230	Al Raei	Al Raei	Al Bab	2	implemented west north the town to a septic tank	80%	8,778	not exist
34	0248	Al Farazdak	Ain Al	Ain Al	2	implemented to a septic	75%	8,421	not exist
35	0247	Mank	Ezaz	Ezaz	2	open implemented to a septic tank	80%	8,353	not exist
36	0297013	Kabtan Al Jabal	Daret Azah	Jabal Sama'n	3	open to an open valley stream	90%	8,352	not exist
37	0223	Akhtrin	Akhtrin	Ezaz	2	implemented to STP	65%	7,920	not exist
38	0222	Souran	Souran	Ezaz	2	To septic tanks far of the planning 150m	65%	7,800	not exist

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39	0251	Talshghaib	Jabal Sama'n	Jabal Sama'n	2	the first one is south east thetown to a septic tank , the second is north east to agricultural lands	65%	7,800	not exist
40	0297064	Talalin	Mare'	Ezaz	4	open implemntd to an open valley	90%	7,650	not exist
41	0229	Sarin	Sarin	Ain Al	2	2 implemented to a valley	70%	7,350	not exist
42	0249	Hayan	Hraitan	Jabal Sama'n	2	2 km , 50 x60cm , double , south the village to Nabel valley	65%	7,025	not exist
43	0297012	Dier Jamal	Tal Refa'at	Ezaz	3	open implemntd to an open valley	80%	6,600	not exist
44	0297076	Haj Khalil	Rajo	Efrine	4	open implemntd to an open valley	95%	6,512	not exist
45	0240	Khanaser	Khanaser	Al Safira	2	open implemntd to a	65%	6,410	not exist
46	0243	Tal Al Daman	Tal Al Daman	Jabal Sama'n	2	to the valley 500 m , DIA 80cm	75%	6,333	not exist
47	0297021	Mayer	Nabel	Ezaz	3	open to the valley	82%	5,998	not exist
48	0297014	Ehtimlat	Souran	Ezaz	3	to Kwaik river	70%	5,950	not exist
49	0297230	Zamar	Al Zerbeh	Jabal	4	to a septic tank	80%	5,835	not exist
50	0231	Al	Al	Efrine	2	open to valley stream	70%	5,796	not exist
51	0228	Rasem Al Harmal	Rasem Al Harmal	Al Bab	2	to a septic tank east the town	60%	5,744	not exist
52	0233	Banan	Banan	Al Safira	2	to a septic tank in the town	80%	5,640	not exist
53	0297015	Kefer Henna	Hraitan	Jabal Sama'n	3	there are 4 DP , 1st to Aleppo city public sewer , 2nd to Hraitan town , 3rd+4th to Ma'ret Al Artik	65%	5,558	not exist
54	0297028	Al Shiekh	Tal Refa'at	Ezaz	3	open to a septic tank	90%	5,554	not exist
55	0297051	Arran	Tadef	Al Bab	4	open to a Al Dahab river	75%	5,535	not exist
56	0297033	Abtin	Jabal Sama'n	Jabal Sama'n	3	DIA 80cm south the village to open valley	90%	5,426	not exist
57	0297020	Kefer Naya	Tal Refa'at	Ezaz	3	open to an open valley stream	70%	5,345	not exist
58	0297225	Al Fusha	Jandieras	Efrine	4	to the valley	90%	5,206	not exist
59	0226	Shiekh Al Hadid	Shiekh Al Hadid	Efrine	2	3 to the valley stream and agricultural lands	55%	5,128	not exist
60	0297023	Tkad	Daret Azah	Jabal	3	3 to the valley stream	75%	5,115	not exist
61	0297017	Al Abezmo	Al Atareb	Jabal	3	5 to the valleys	65%	5,096	not exist
62	0297104	Awrem Al Kubra	Al Atareb	Jabal Sama'n	4	open to an open valley stream	80%	5,083	not exist
63	0297044	Tal Houzan	Al Khafse	Manbej	3	open to an open valley stream	95%	5,074	not exist
64	0297330	Rasem Al Abed Mestaha	Al Khafse	Manbej	4	to a septic tank and the second to Al Assad lake	70%	5,000	not exist
65	0297129	Tal Aar Gharbie	Akhtrin	Ezaz	4	to a septic tank	75%	4,941	not exist
66	0297041	Al Jiena	Al Atareb	Jabal Sama'n	4	open to an open valley stream	95%	4,884	not exist
67	0297026	Al Wdaihi	Jabal	Jabal	3	to Kwaik river	70%	4,872	not exist
68	0297062	Al Ghasane-Ain Al Arab	Ain Al Arab	Ain Al Arab	4	to a septic tank	77%	4,778	not exist
69	0237	Abu Kalakl	Abu Kalakl	Manbej	2	open to valley stream	90%	4,751	not exist
70	0297048	Dodian	Akhtrin	Ezaz	4	to a septic tank	95%	4,715	not exist
71	0297018	Fah	Hraitan	Jabal Sama'n	3	open to an open valley stream	60%	4,684	not exist
72	0297178	Blas	Tal Al Daman	Jabal Sama'n	4	open to valley stream west of the village	65%	4,622	not exist
73	0297035	Biet Adin	Rajo	Efrine	4	open to an open valley stream	85%	4,400	not exist
74	0297120	Al Jamel	Jarablus	Jarablus	4	open to an open valley stream	70%	4,364	not exist
75	0297075	Kefer nouran	Al Atareb	Jabal Sama'n	4	there are 2 , one is to Idleb river and the second is to the agricultural lands	90%	4,351	not exist

No	Code	community name	district name	area name	classification	current discharge point (DP)	sewage serving	served residents	STP
76	0297069	Kefra	Souran	Ezaz	4	open to an open valley stream	90%	4,347	not exist
77	0297059	Tal Hadieh	Al Zerbeh	Jabal	4	to agricultural lands	90%	4,329	not exist
78	0297150	Snara	Shiekh Al Hadid	Efrine	4	2 DP to valley streams	95%	4,329	not exist
79	0297022	Abin - Sama'n	Al Atareb	Jabal Sama'n	3	the first is west 2 km , 1 x 1 m to ldlb river , the second is east 2,2 km DIA 80m , under construction	60%	4,317	not exist
80	0297011	Tal Hasel	Al Safira	Al Safira	3	to a septic tank then to agricultural discharging	45%	4,159	not exist
81	0235	Al Zerbeh	Al Zerbeh	Jabal Sama'n	2	to irrigation net south the town 2 km90 x 120 cm	90%	4,143	not exist
82	0297055	Kefer Ghan	Souran	Ezaz	4	open to an open valley stream	90%	4,140	not exist
83	0238	Rajo	Rajo	Efrine	2	open to valley stream	90%	4,067	not exist
84	0297092	Ehres	Tal Refa'at	Ezaz	4	open to an open valley stream	90%	4,016	not exist
85	0297031	Al Khadra	Efrine	Efrine	4	to a local river	65%	4,000	not exist
86	0297396	Berde	Tal Al Daman	Jabal Sama'n	4	open to an open valley stream	60%	4,000	not exist
87	0297060	Abu Taltal	Tadef	Al Bab	4	open to an open valley stream	85%	3,995	not exist
88	0297016	Abu Jrien-Al Safira	Al Safira	Al Safira	3	open to an open valley stream	50%	3,991	not exist
89	0297049	Dabek	Akhtrin	Ezaz	4	to a septic tank then to Kwaik river	80%	3,974	not exist
90	0297038	Al Eis	Al Hader	Jabal	3	to Kwaik river	70%	3,966	not exist
91	0297058	Kefer Kalbine	Ezaz	Ezaz	4	open to an open valley stream	85%	3,962	not exist
92	0297110	Okaiba	Efrine	Efrine	4	open to an open valley stream	55%	3,898	not exist
93	0297061	Al Salame	Ezaz	Ezaz	4	open to an open valley stream	85%	3,782	not exist
94	0297065	Tal Jbain	Tal Refa'at	Ezaz	4	open to an open valley stream	80%	3,593	not exist
95	0297027	Al Hawa	Efrine	Efrine	3	open to an open valley stream	60%	3,567	not exist
96	0297043	Al Shara	Al Atareb	Jabal Sama'n	4	open to the valley west the village 2 km 60 x 60 cm double	70%	3,517	not exist
97	0297091	Ma'raset Al Khan	Nabel	Ezaz	4	to a septic tank	90%	3,510	not exist
98	0297071	Basouta	Efrine	Efrine	4	to Efrine river	90%	3,471	not exist
99	0297045	Terkman Bareh	Akhtrin	Ezaz	3	to a septic tank	65%	3,460	not exist
100	0236	Kwaires Sharki	Kwaires Sharki	Al Bab	2	open to valley stream	70%	3,407	not exist
101	0241	Al Hajb	Al Hajb	Al Safira	2	open to valley stream	40%	3,388	not exist
102	0297054	Fejdan	Al Safira	Al Safira	4	open to valley stream	70%	3,372	not exist
103	0297057	Hazwan	Al Bab	Al Bab	4	to a septic tank	60%	3,360	not exist
104	297029	Meriamin-Efrine	Efrine	Efrine	3	open to an open valley stream	50%	3,342	not exist
105	0297575	Midan Akbes	Rajo	Efrine	4	open to an open valley stream	95%	3,339	not exist
106	0297082	Dwaibek	Souran	Ezaz	4	to septic tanks then to Kwaik river	90%	3,232	not exist
107	0297047	kefer karmin	Al Atareb	Jabal Sama'n	4	open to the valley west Al Atareb	65%	3,220	not exist
108	0297085	Sousian	Al Bab	Al Bab	4	to agricultural lands	70%	3,214	not exist
109	0297034	Otmeh-Efrine	Sharan	Efrine	3	open to an open valley stream	60%	3,201	not exist
110	0297068	Batbo	Al Atareb	Jabal Sama'n	4	open to an open valley stream	70%	3,134	not exist
111	0297073	Abbin-Efrine	Efrine	Efrine	4	open to an open valley stream	80%	3,088	not exist

No	Code	community name	district name	area name	classification	current discharge point (DP)	sewage serving	served residents	STP
112	0297050	Meran	Al Bab	Al Bab	4	open to a septic tank then to the valley	60%	3,056	not exist
113	0297713	Shiekh Muhammed	Rajo	Efrine	4	open to an open valley stream	55%	3,000	not exist
114	0297030	Harbel	Mare'	Ezaz	3	open to a stream	50%	2,940	not exist
115	0297080	Kefer Safra	Jendiras	Efrine	4	open to Al Zahra village then to Jendiras village	60%	2,880	not exist
116	0297101	Tal Krah	Mare'	Ezaz	4	open to valley stream	80%	2,800	not exist
117	0297039	Al Meedan-Efrine	Sharan	Efrine	4	directly to 17 Nisan lake	60%	2,791	not exist
118	0297115	Zeyadieh	Akhtrin	Ezaz	4	to a septic tank	80%	2,626	not exist
119	0297078	Anab	Efrine	Efrine	4	to agricultural lands	60%	2,574	not exist
120	0297112	Kefer Halab	Al Atareb	Jabal Sama'n	4	open to an open valley stream	45%	2,568	not exist
121	0297084	Shwairine	Souran	Ezaz	5	to a septic tank	75%	2,532	not exist
122	0297094	Zietan	Al Zerbeh	Jabal	4	to Kwaik river	65%	2,287	not exist
123	0242	Al Ghandoura	Al Ghandoura	Jarablus	2	there are 2 to Al Sajour river	90%	2,280	not exist
124	0297070	Yaked Al Adas	Hraitan	Jabal Sama'n	4	open to an open valley stream	50%	2,184	not exist
125	0297096	Malha	Serin	Ain Al	4	to Euphrates river	25%	2,150	not exist
126	0297151	Barkoum	Al Zerbeh	Jabal	4	to a septic tank	70%	2,100	not exist
127	0297089	Me'rata Em Housh	Mare'	Ezaz	4	to a septic tank	60%	2,098	not exist
128	0239	Al Arimeh	Al Arimeh	Al Bab	2	2 to valley stream	55%	2,060	not exist
129	0297019	Al Jboul	Kwares Sharki	Al Bab	3	to Al Jabboul lake	25%	2,000	not exist
130	0297171	Shmarekh	Ezaz	Ezaz	4	to the valley	80%	2,000	not exist
131	0297433	Frerieh	Jendiras	Efrine	4	to the valley	100%	2,000	not exist
132	0297200	Tadil	Al Atareb	Jabal	4	there are 2 DP to the	80%	1,927	not exist
133	0297052	Al Tawameh	Al Atareb	Jabal Sama'n	4	open to an open valley stream	40%	1,916	not exist
134	0297098	Ra'el	Souran	Ezaz	4	open to an open valley stream	55%	1,907	not exist
135	0227	Sharan	Sharan	Efrine	2	open to an open valley stream	75%	1,827	not exist
136	0297088	Jelme	Jendiras	Efrine	4	open to an open valley stream	40%	1,822	not exist
137	0297148	Bawabieh	Al Zerbeh	Jabal	5	to agricultural lands	60%	1,800	not exist
138	0297214	Al Swaideh	Al Ghandoura	Jarablus	5	to Al Sajour river	80%	1,800	not exist
139	0297279	Ghazawiet Efrine	Efrine	Efrine	4	to Efrine river	65%	1,800	not exist
140	0297083	Al Shiekh	Al Atareb	Jabal	4	to Idleb river	40%	1,788	not exist
141	0297261	Kefer Naseh - Al Atareb	Al Atareb	Jabal Sama'n	5	to the valley	80%	1,760	not exist
142	0297077	Babis	Hraitan	Jabal Sama'n	4	open to an open valley stream	40%	1,743	not exist
143	0297138	Talafeh	Al Zerbeh	Jabal	4	not exist	55%	1,730	not exist
144	0297090	Fafin	Mare'	Ezaz	4	open to an open valley stream	50%	1,712	not exist
145	0297343	makta hajar kabir	Manbej	Manbej	4	to a septic tank	40%	1,700	not exist
146	0297113	marma al	Jarablus	Jarablus	5	to Euphrates river	60%	1,686	not exist
147	0297215	Al Amerieh	Tal Al Daman	Jabal Sama'n	4	open to a valley stream west the village	75%	1,671	not exist
148	0297121	Kefer Ta'al	Al Atareb	Jabal	4	there are 2 DP to the	55%	1,611	not exist
149	0297109	Berneh	Al Zerbeh	Jabal Sama'n	4	To irrigation net then to Kwaik river	45%	1,571	not exist
150	0297024	yari foukani Al Bab	Maskane	Manbej	3	to Al Assad lake	25%	1,557	not exist
151	0297144	Arshaf	Akhtrin	Ezaz	4	to a septic tank then to Kwaik river	50%	1,531	not exist
152	0297186	Nabelas	Mare'	Ezaz	4	to Kwaik river	30%	1,500	not exist
153	0297254	Otman	Rajo	Efrine	5	to Rajo DP	60%	1,500	not exist
154	0297284	Al Wakef	Al Raei	Al Bab	5	to the valley	60%	1,500	not exist
155	0297465	meske	Jendiras	Efrine	4	to the valley	30%	1,500	not exist

No	Code	community name	district name	area name	classification	current discharge point (DP)	sewage serving	served residents	STP
156	0297522	khan tooman	Jabal	Jabal	4	to the valley	30%	1,500	not exist
157	0297165	retyan	Nabel	Ezaz	4	open to an open valley stream	50%	1,450	not exist
158	0297237	braghida	Souran	Ezaz	4	open to an open valley stream	60%	1,381	not exist
159	0297203	Bilat	Al Safira	Al Safira	4	to agricultural discharging	30%	1,353	not exist
160	0297252	Al Shiekh Reeh	Souran	Ezaz	5	to stream	40%	1,350	not exist
161	0297046	Me'rata	Efrine	Efrine	4	open to an open valley stream	30%	1,340	not exist
162	0297172	Tal Refa'at-kefer Naseh	Tal Refa'at	Ezaz	5	to agricultural lands	50%	1,331	not exist
163	0297316	Al Be'ren	Rajo	Efrine	5	to the valley	70%	1,300	not exist
164	0297349	Al Bel	Souran	Ezaz	5	to the valley	70%	1,260	not exist
165	0297079	Bsartoon	Daret Azah	Jabal Sama'n	4	open to an open valley stream	30%	1,226	not exist
166	0297154	Me'aret Atareb	Al Atareb	Jabal Sama'n	4	open to an open valley stream	45%	1,215	not exist
167	0297184	Eisha	Tadef	Al Bab	4	to Al Dahab river	45%	1,207	not exist
168	0297053	Raddeh Kbiere	Maskane	Manbej	4	to the valley	20%	1,200	not exist
169	0297162	Kefer Abid	Tal Al	Jabal	5	to the valley	40%	1,200	not exist
170	0297481	Sheirkan	Al Mu'betli	Efrine	5	to the valley	45%	1,200	not exist
171	0297618	Kabtan	Akhtrin	Ezaz	5	to a septic tank	75%	1,200	not exist
172	0297124	Baselhaya	Efrine	Efrine	4	open to an open valley stream	40%	1,126	not exist
173	0297156	Al Farat	Manbej	Manbej	4	to the valley	35%	1,085	not exist
174	0297037	Jezraya	Al Zerbeh	Jabal	3	to a septic tank	60%	1,080	not exist
175	0297336	Atshaneh Sharkieh	Tal Al Daman	Jabal Sama'n	5	to the valley	20%	1,048	not exist
176	0297146	Kefer Bseen	Hraitan	Jabal	5	there are 2 to the valley	35%	1,040	not exist
177	0297247	Mskan	Tal Refa'at	Ezaz	5	to the valley	40%	1,000	not exist
178	0297805	Shghaidleh	Al Hader	Jabal	5	to a septic tank	40%	1,000	not exist
179	0298410	Huttien	Maskane	Manbej	5	to Al Assad lake	25%	1,000	not exist
180	0297087	Al Ma'amel	Rajo	Efrine	4	to the valley	30%	981	not exist
181	0297095	Hoor	Daret Azah	Jabal Sama'n	4	open to an open valley stream	25%	944	not exist
182	0297292	Nyara	Ezaz	Ezaz	5	to the valley	45%	925	not exist
183	0297391	Za'rah	Bulbul	Efrine	5	to the valley	60%	919	not exist
184	0297668	Kebet Al Turkman	Al Ghandoura	Jarablus	5	to Al Sajour river	80%	876	not exist
185	0297132	Dier Sawan	Sharan	Efrine	4	to a valley that discharges to 17 Nisan dam lake	25%	868	not exist
186	0297102	Hawier Al	Al Zerbeh	Jabal	4	to Kwaik river	25%	850	not exist
187	0297206	Al Mdallaleh-Akrabeh	Bulbul	Efrine	4	to the valley	35%	816	not exist
188	0297185	Al Safira	Al Safira	Al Safira	4	to the valley	15%	800	not exist
189	0297242	Saidieh	Manbej	Manbej	5	not exist	25%	800	not exist
190	0297253	Kastal Jund	Sharan	Efrine	5	to the valley	25%	800	not exist
191	0297300	Erjul	Tal Al	Jabal	5	to the valley	20%	800	not exist
192	0297047	Atshane	Al Khafse	Manbej	4	to the valley	15%	800	not exist
193	0297639	Tlailat	Al Hader	Jabal	5	to a septic tank	70%	798	not exist
194	0297802	Bhorteh	Akhtrin	Ezaz	5	to the valley	90%	791	not exist
195	0297711	Jib Kas	Al Zerbeh	Jabal	5	to the valley	60%	780	not exist
196	0297097	Karziebel	Efrine	Efrine	4	to the valley	25%	778	not exist
197	0297417	Al Zahra	Jendiras	Efrine	5	To Jendiras DP	50%	750	not exist
198	0297228	Kaffine	Nabel	Ezaz	5	to Mayer DP	30%	711	not exist
199	0297123	Shiekh Khourez	Bulbul	Efrine	4	to the valley	10%	700	not exist
200	0297378	Mara'anaz	Ezaz	Ezaz	5	to the valley	40%	691	not exist
201	0297388	Jalbal	Efrine	Efrine	5	to the valley	45%	669	not exist
202	0297287	Hard Tennin	Nabel	Ezaz	5	to a septic tank	30%	661	not exist
203	0297278	Babke	Al Atareb	Jabal Sama'n	5	to the valley west fo the municipality	30%	630	not exist
204	0297423	Jalek	Jendiras	Efrine	5	to the valley	25%	600	not exist
205	0297428	Ghrour	Akhtrin	Ezaz	5	to a septic tank	35%	595	not exist

No	Code	community name	district name	area name	classification	current discharge point (DP)	sewage serving	served residents	STP
206	0297100	Abu Jbar	Tadef	Al Bab	4	open to an open valley stream	10%	550	not exist
207	0297945	Kefer Janneh	Sharan	Efrine	5	to the valley	75%	550	not exist
208	0297473	Mreighel	Souran	Ezaz	5	to a septic tank	35%	525	not exist
209	0297809	Naddeh	Ezaz	Ezaz	5	to the valley	55%	522	not exist
210	0297032	Jarablus Tahtani	Jarablus	Jarablus	5	to Euphrates river	50%	501	not exist
211	0297004	Rasem Al Nafel	Khanaser	Al Safira	4	to the valley	10%	500	not exist
212	0297107	Awlad Al Arab	Al Mou'abetli	Efrine	4	to the valley	10%	500	not exist
213	0297256	tal hajeb	Ain Al	Ain Al	4	to the valley	10%	500	not exist
214	0297403	barouze	Akhtrin	Ezaz	4	to a septic tank	10%	500	not exist
215	0297610	bshantra	Daret Azah	Jabal Sama'n	5	to Kefer Da'el stream with Hoor DP	20%	500	not exist
216	0297972	al said Ali	Mare'	Ezaz	5	to the valley	75%	499	not exist
217	0297563	jmiameh	Al Hader	Jabal	5	to the valley	40%	490	not exist
218	0297501	kourneh	Bulbul	Efrine	5	to the valley	35%	477	not exist
219	0297298	keret mazra'a	Akhtrin	Ezaz	5	to the valley	25%	475	not exist
220	0297122	ain al bat al kabir	Ain Al Arab	Ain Al Arab	4	to the valley	15%	472	not exist
221	0297796	kefer joom ghar'bieh	Al Atareb	Jabal Sama'n	5	to the valley	35%	465	not exist
222	0297485	menbth	Tal Al	Jabal	5	to the valley	30%	399	not exist
223	0297063	yakhour	Al	Efrine	4	to the valley	10%	388	not exist
224	0297093	al merwieh	Bulbul	Efrine	4	to the valley	10%	379	not exist
225	0297361	Hamsho	Rajo	Efrine	5	to the valley	25%	375	not exist
226	0297623	jib khamis	Al Khafse	Manbej	5	to Al Assad lake	35%	350	not exist
227	0297105	Al Sawan Al Kabir	Rajo	Efrine	4	to the valley	10%	299	not exist
228	0297182	Ja'ara	Banan	Al Safira	4	to the valley	10%	252	not exist
229	0297674	Al	Jabal	Jabal	5	to the stream	25%	250	not exist
230	0298104	Ain Dara	Efrine	Efrine	5	to Efrine river	40%	232	not exist
231	0297875	Al Azizieh	Akhtrin	Ezaz	5	to a septic tank	25%	214	not exist
232	0297536	beshkatin	Daret Azah	Jabal Sama'n	5	to Kefer Da'el stream with Hoor DP	10%	150	not exist
233	0298155	bghiedine	Akhtrin	Ezaz	5	to the valley	25%	137	not exist
234	0298010	kefr shoush	Souran	Ezaz	5	to Ezaz	20%	120	not exist
235	0298210	behbieneh	Daret Azah	Jabal	5	to Bashkatin DP	5%	75	not exist
236	0297036	Byanon	Nabel	Ezaz	3	open to an open valley stream	70%	66	not exist

الجدول A9.1.3 ظروف نظام الصرف الصحي في محافظة حمص

Municipality name	Subordinate to area	Subordinated villages	Population number according to the last census	sewage serving	STP
Mheen	-	-	13,210	60%	-
Al Nasera	Talkalakh	-	2,155	55%	-
Al Sekhneh city	Palmyra	Qatqat - Steh	25,495	0%	The study is exist but not implemented
		Twenaan		-	-
				-	-
Sheen	Talkalakh	-	15,222	45%	-
Al Qabo	Homs	-	8,801	55%	-
Sadad	Homs	-	12,651	65%	-
Al Msharfeh	-	-	22,000	70%	Under
Al Rastan	Al Rastan	-	52,000	70%	-
Al Karyaten	Homs	-	32,500	43%	-
Al Madabea	Al Reqama	-	4,000	30%	The study is exist but not implemented
Hab Al Nemra	Talkalakh	-	5,348	40%	-
Al Shneyeh	Al Qabo	-	4,095	54%	-
Al Fekelles	Homs	-	7,340	60%	-
Tedlo	Al Holeh	-	21,021	23%	The study is exist but not implemented
Al Hwaash	Talkalakh	-	5,401	80%	-
Al Reqama	Center	-	4,542	65%	-
Kherbet Al Teen Noor	-	-	8,000	-	-
Jab Al Hraaj	Al Mkharam	Bani Khaled	12,600	50%	-
Talbeseh City	Al Rastan	-	39,900	30%	-
Kefer Laha	Homs	-	23,000	31%	The study is exist but not implemented
Al Hosen	Talkalakh	-	13,000	70%	-
Al Hosen	Talkalakh	-	-	-	
Al Hosen	Talkalakh	-	-	-	
Tal Dabab	-	-	14,853	44%	The study is exist but not implemented
Al Mkharam	-	-	9,403	58%	-
Mamareeta	Talkalakh	-	5,324	70%	-
Ein Al Neser	-	-	2,036	60%	-
Al Damneyeh Al Sharqeyeh	Al Qser	Al Damneyeh Al Sharqeyeh	2,617	%50%	-
Al Damneyeh Al Sharqeyeh	Al Qser	Al Dyabeyeh	664	%60%	The study is exist but not implemented
Al Damneyeh Al Sharqeyeh	Al Qser	Al Hamraa	612	50%	-
Al Damneyeh Al Sharqeyeh	Al Qser	Dherej	227	-	-
Al Damneyeh Al Sharqeyeh	Al Qser	Kokraan	-	-	-
Al Damneyeh Al Sharqeyeh	Al Qser	Mazraet Al Safa	-	-	-
Om Al Dawaly	Talkalakh	Om Al Dawaly	1,879	20%	0
Om Al Dawaly	Talkalakh	Om Al Mais	851	45%	0
Om Al Dawaly	Talkalakh	Beznaya	1,398	22%	0

Municipality name	Subordinate to area	Subordinated villages	Population number according to the last census	sewage serving	STP
Hesya	Homs	-	6,802	79%	-
Hesya	Homs	Al Kashef	131	0	0
Al Zara	Talkalakh	Al Zara	5,285	0	0
Al Zara	Talkalakh	Al Heserjeyeh Wa Al Hakkeyeh	945	0	0
Al Zara	Talkalakh	Qmery	956	There's no organizational area	0
Al Qser	-	-	45,000	97%	
Al Qser	-	-	-	-	
Al Qser	-	-	-	-	
Al Gabreyah	Ein Al Neser	Al Gabreyah	3,498	50%	No
		Bado	792	30%	
Al Sankary	Al Mkharam	Not Exist	5,616	65%	Not Exist
Der Fool	Al Rastan	Der Fool	1,964	71%	0
		Aseleh	715	19%	0
		Mreh Al Der	781	0	0
Al Hraky	Al Mkharam	Al Hraky	3,627	60%	Not Exist
		Tal Shnaan	2,136	70%	Not Exist
		Jab Abbas	1,997	49%	Not Exist
		Al Jamaleya	260	Not Exist	Not Exist
Woredeh	Ein Al Neser	Woredeh	1,524	According to the organizational	0
Woredeh	Ein Al Neser	Al Hamedeya	838	-	-
Woredeh	Ein Al Neser	Al Medaan	876	-	-
Woredeh	Ein Al Neser	Barzeh	387	-	-
Woredeh	Ein Al Neser	Al Shekh Hmed	795	-	-
Woredeh	Ein Al Neser	Al Bwer	495	-	-
Woredeh	Ein Al Neser	Al Wazeyah	47	-	-
Woredeh	Ein Al Neser	Al Jasmeyeh	120	-	-
Al Nazha	Al Reqama	Al Nazha	1,631	90%	
		Al Aaleyaat	1,271	10%	-
		Al Mathareyh	837	-	-
		Al Aawar	399	-	-
Balqaseh	Center	Balqaseh	3,608	35%	Not Exist
		AlGhzeleh	2,053	35%	Not Exist
Al Ashrafeyeh	Homs	Al Ashrafeyeh	4,033	65%	0
		Kefer Abd	1,525	There's no organizational area	0
		Al Najmeh	1,260	There's no organizational area	0
		Al Waha	615	There's no organizational area	0
		Al Reyad	530	There's no organizational area	0
Ram Al Enz	Homs	Ram Al Enz	2,946	70%	0
		Om Al Ethaam	2,749	65%	0
		Marj Al Qata	1,540	80%	0
		Ram Jeel	769	75%	0
		Al Redwaneyeh	110	-	
Maskaneh	Homs	-	4,686	75%	-

Municipality name	Subordinate to area	Subordinated villages	Population number according to the last census	sewage serving	STP
Taladay	Al Mkharam	Taladay	1,677	65%	0
		Tal Qata	2,057	20%	0
		Om Harten	251	0	0
Kazhal	Center	Kazhal	3,501	33%	Yes
Kazhal	Center	Al Tannonah	1,399	4.50%	Yes
Kazhal	Center	Kherbet Al Teen Mahmood	1,220	7.70%	Yes
Tannoreen	Talkalakh	Tannoreen	2,178	60%	0
		Jwar Al Afes	1,076	55%	0
		Ein Al Bardeh	1,517	25%	0
Al Hazzeh	Homs	Al Hazzeh	1,882	60%	0
		Al Shatayeh	788	0	0
		Aefeer	471	0	0
		Al Nasereyeh	363	0	0
Om Sharshooh	Al Rastan	Om Sharshooh	1,515	92%	The study is exist،Not implemented
		Al Farhaneyeh Al Gharbeyeh	2,310	88%	0
		Al Shabaaneyeh	395	20%	The study is exist،Not implemented
		Al Thawra	368	0	0
		Al Manaara	644	0	0
		Al Sabeel	Not Exist	0	0
Al Makerkeyeh	Al Rastan	Al Makerkeyeh	1,973	95%	0
		Al Saaen Al Aswad	1,099	0	0
		Al Hashemeyeh	541	0	0
		Ein Al Basha	167	0	0
Hasoor	Talkalakh	Hasoor	1,767	Not	0
		Heddeyeh	1,135	Not	0
		Bteset Al Jerd	580	Not	0
Naara	Talkalakh	Tal Hosh	11,887	95%	0
		Borj Arab	0	0	0
		Al Zenbeyeh	0	0	0
		Al Masyadeh	0	0	0
		Kafreesh	0	0	0
		Ein Al Teneh Al Gharbeyeh	0	0	0
		Shalooh	0	0	0
Kefer Raam	Tedlo	0	4,468	98%	0
Al Tebeh Al Sharqeyeh	Palmyra	-	1,436	45%	0
Al Ismaeeleyeh	Homs	Al Ismaeeleyeh	3,555	According to the	0
		Al Karamah	1,275	0	0
		Al Shallal	441	0	0
Al Manzool	Al Rqamah	Al Rawda	3,830	8%	0
Al Tebeh Al Gharbeyeh	Tedlo	-	4,434	50%	-
Bweda	Al Qser	Bweda Gharbeyeh	4,265	%75	0
		Al Fadleyeh	298	%65	0
		Haweek	222	%5	0
		Blozeh	790	0	0
		Akwam	1,098	0	0

Municipality name	Subordinate to area	Subordinated villages	Population number according to the last census	sewage serving	STP
Al Azezeyeh	Al Rqamah	Al Balha - Al Qanyeh Al Sharqeyeh	0	-	The study is exist but not implemented
Smekeh	Talkalakh	Smekeh	2,173	95%	0
		Al Shabroneyeh	2,012	95%	0
		Al Aamreyeh	445	90%	0
		Maarbo	395	0	0
		Adleen	782	0	0
		Abu Al Mashaeeb	347	0	0
Talkalakh		Talkalakh	31,024	90%	Al Dabboseyeh community
		Ein Al Khadraa	1,522	90%	Al Dabboseyeh community
		Hajar Al Abyad	2,434	80%	Al Dabboseyeh community
		AL Mekhetbeyeh	1,259	90%	Al Dabboseyeh community
Al Hooz	Al Qser	Al Hooz	3,184	75%	0
		Erjoon	1,842	70%	0
		Modaan	1,214	60%	0
Al Zaafaraneh	Al Rastan	Al Zaafaraneh	5,123	60%	0
		Al Majdal	No Census	0	0
		Al Nasoob	No Census	0	0
Al Smaqeyat Al Gharbeyeh	Al Qser	Al Smaqeyat Al Gharbeyeh	752	20%	The study is exist but not implemented
		Al Smaqeyat Al Sharqeyeh	275	15%	The study is exist but not implemented
		Het	1,818	0	The study is exist but not implemented
		Om Harten	755	0	The study is exist but not implemented
		Al Bwest	512	40%	The study is exist but not implemented
Al Akkary	Talkalakh	Ein Al Sodaa	924	According to the organizational	Not Exist
		Bet Qreen	1,500	0	Not Exist
		Seteh Al Efreet	470	0	Not Exist
		Al Wardeyaat	662	0	Not Exist
		Borj Al Maksoor Wa Al Hetmeyeh	2,183	0	Not Exist
		Al jaafareyaat	575	0	Not Exist
		Al Ryaaf	405	0	Not Exist
		Al Msharfeh Al Mastoora aglaya	957	0	Not Exist
		Al Akkary	1,264	0	Not Exist
Qattena	Homs	-	7,500	-	-
Kefer Naan	Al Rastan	Kefer Naan - Kseen Tesneen - aglaya	0	65%	0

Municipality name	Subordinate to area	Subordinated villages	Population number according to the last census	sewage serving	STP
Jablaya	Talkalakh		4,885	70%	Not Exist
		Al Safsafeh	226	Not Exist	Not Exist
		Einata	525	Not Exist	Not Exist
		Jo	202	Not Exist	Not Exist
		Al Khwegeh	809	Not Exist	Not Exist
		Al Qeqaneyeh	445	Not Exist	Not Exist
Al Rayan	Center	-	7,024	98%	Not Exist
Al Ghasaneyeh	Al Qser	Al Ghasaneyeh	6,000	60	Related to the
		Al Hamedeya	3,000	60%	0
		Al Slomeyeh	1,200	60%	0
		Al Shomareyeh	1,000	0	0
		Al Haydareyeh	800	0	0
Kefer Aaya	Homs	0	5,420	50%	Not Exist
Al Rabweh	Kherbet Al Teen	0	6,217	45%	0
palmyra	palmyra	0	000 66	According to the organizational	The study is exist
Om Al Amd	Al Mkharam	Om Al Amd	5,318	70%	0
		Om Al Teen	1,317	0	0
		Nawa	1,800	0	0
		Al Shokatleyeh	1,268	15%	0
Rableh	Al Qser	Rableh	4,817	90%	0
		Al Zeraa'	2,319	90%	0
		Goseyeh	1,549	—	0
		Al Nezareyeh	1,351	—	0
		Al Shyahaat	286	50%	0
		Ras Al Ein	293	—	0
Aabel	Aabel	Aabel	4,105	63%	The study is exist but not implemented
		Al Mobarkeyeh	2,846	63%	0
Leftaya	Homs	Leftaya	2,070	25%	0
		Qabu Al Amereyeh	909	0	0
		Sannon	762	0	0
		Wajeh Al Hajar	413	0	0
		Bolaad	0	0	0
Al Sayed		Al Sayed	3,375	80%	yes
		Ftem Al Azzooz	1,638	35%	yes
		Om Egreen	172	0	0
		Khrejet Al Sleby	144	0	0
Nweha	Kherbet Al Teen Noor	Nweha	1,558	35%	0
		Danha	1,364	16%	0
		Zoor Baqraya	688	Not Exist	0
Om Harten	Talkalakh	Om Harten	1,368	75 %	Yes
		Tal Al Safa	2,111	65 %	Yes
		Al Zahera	184	65 %	Yes
		Al Manqola	827	70 %	Yes
		Al Rgeleyah	722	65 %	Not Exist
		Wady Al Mawla	268	80 %	Yes
		Om Jamea'	1,183	60 %	No
		Al Naaoura	615	55 %	Yes
Jobar	Center	Jobar	1,786	45%	0
		Nqea	1,602	70%	0

Municipality name	Subordinate to area	Subordinated villages	Population number according to the last census	sewage serving	STP
Ter Maaleh	-	-	7,943	0	
Khalfeh	Al Mkharam Al Fokany	Khalfeh	3,030	70%	0
		Mentaar Al Abel	801		
Airqaya	Tedlo	Airqaya	1,834	60%	0
		Zebaq	1,035	70%	0
		Hadathah	943	70%	0
		Herkel	883	60%	0
		Hmemeh	767	75%	0
		Jarnaya Al	300	0	0
		Jarnaya Al	290	Not Exist	0
		Mjedel	550	Not Exist	0
Al Mahfoora	Talkalakh	Al Mahfoora	2,235	70%	0
		Al Motaa'red	1,102	65%	0
Fayrooza	Homs	-	5,601	70%	-
Mkharam Al Tahtany	Al Mkharam	Mkharam Al Tahtany	3,787	Mkharam Al Tahtany 70 0/0	0
		Bwedat Al Salameyeh	2,389	Bwedat Al Salameyeh 14 0/0	The study is exist but not implemented
		Mazraaet Al Daymeyeh	0	Mazraaet Al ----- Daymeyeh	0
Al Bweda Sharqeyea	Al Qser	Al Bweda Sharqeyea	5,167	70%	0
		Al Dabaa	2,738	0	0
		Al Dmeneh Al Gharbeyah	1,853	5%	0
		Kmaam	939	0	0
Ein Hsean Al Shmaly	Center	Ein Hsean Al Shmaly	2,184	50/	The study is exist and Not implemented
Ein Hsean Al Shmaly	Center	Tal Amry	1,455	40/	0
Ein Hsean Al Shmaly	Center	Mazraaet Al Bshaara	29	0	0
Ghemata	Al Rastan	Ghemata	4,090	50%	The study is exist
		Zmemer	594	20%	Not Exist
Al Hafer	0	0	2,996	38%	0
Al Maraneh	Talkalakh	Al Maraneh	677	36%	Not Exist
		Otaan	1,107	60%	Not Exist
		Ein Al Fawaar	1,101	25%	Not Exist
		Bhoor	576	16%	Not Exist
Jabboreen	Al Rastan	Jabboreen	2,468	0/027	Yes
		Qanyet Al Aasy	1,570	0/00	Yes
Barooha	Talkalakh	Al Sendyaneh Al Gharbeyeh	500	0	0
		Barooha	995	26.32%	0
		Kherbet Al Jbaab	722	19.66%	0
		Qnoota	695	0	0
		Kherbet Saoud	307	0	0
Halaat	Talkalakh	Halaat	2,265	65%	0
		Oyoun Al Shaara	373	Not Exist	0
Al Naaem	Al Qser	Al Naaem	2,085	50%	0
		Dbeen	1,039	45.00%	0
		Al Jobaneyeh	1,269	75.00%	0
		Al Kerneyeh	1,296	30%	0

Municipality name	Subordinate to area	Subordinated villages	Population number according to the last census	sewage serving	STP
Amad Al Hosen	Talkalakh	0	1,721	95%	0
Jdedeh	Homs	Jdedeh Sharqeyeh	5,576	0	0
		Al Jameleyeh	1,119	0	0
		Tal Zobayda	690	0	0
		Mazraaet Al Akrameyeh	160	0	0
Al Zhoreyeh	Homs	Al Zhoreyeh	1,424	0	0
		Al Hazmeyeh	728	0	0
		Al Kathmeyeh	1,185	0	0
		Al Houreyeh	660	0	0
Qerb Ali	Talkalakh	Bedar Rfea	1,456	45%	Not Exist
		Jankamra	1,253	65%	Not Exist
		Qerb Ali	2,569	65%	Not Exist
Al	Talkalakh	Al Bahlawaneyeh	2,925	0	0
		Qaryaat	896	0	0
		Aziz	748	Not Exist	0
		Telsareen	1,283	0	0
		Jabaq	521	0	0
Al Khansaa	Talkalakh	Al Khansaa	1,830	56%	0
		Rawdwt Aa Waaer	1,519	37.80%	0
		Al Wabedah	1,113	21.30%	0
		Al Barodeyah	923		0
Om Al Sareg Al Shmaaly	Al Mkharam	Om Al Sareg Al Shmaaly	1,696	20%	0
		Abu Khashabeh	804	0	0
		Bab Al Hawa	803	0	0
		Tal Ward	727	0	0
		Om Al Sarg Al	844	0	0
		'Om Jamea	362	0	0
		Al Batmeh	1,342	0	0
Om Jbaab	Al Mkharam	Om Jbaab	2,590	15%	0
		Tal Agharr	2,341	24%	0
		Al Jnenaat	1,590	0	0
		Om Daaly	307	0	0
		Al Jnenaat Al Gharbeyah	347	0	0
		Mazraaet Mreaan		0	0
		Mazraaet Al Hammodeyah		0	0
		Mazraaet Al Msherfeh		0	0
Al Sharqleyeh		Al Sharqleyeh	2,683	50%	0
		Al Qanaqeyeh	1,871	80%	0
Al Ghor Al Gharbeya	Tedlo	Al Ghor Al Gharbeya	4,926	60%	0
		Al Samaleel	1,380	30%	0
		Borj Qaee	1,800	0	0
Hawareen	Homs	Hawareen	2,742	15%	0
		Al Fanthar	529	0	0
		Al Mazraa	341	70%	0
		Al Hadath	311	0	0
Shanshaar	Al Qser	Shanshaar	3,108	48%	0
		Al Hseneyeh	795	32%	0
		Tal Al Shekh	136	36%	0
		Wady Al Henneh	306	0	0

Municipality name	Subordinate to area	Subordinated villages	Population number according to the last census	sewage serving	STP
		Al Andalos	0	0	0
Al Borhaneya	Al Qser	Al Borhaneya	1,490	40%	The study is exist
		Seqarja	499	20%	The study is exist
		Zeta Al Gharbeya	333	0	The study is exist
		Tal Al Naby Mando	1,940	12%	0
		Abu Hoory	256	0	0
		Al Sawadeyeh	245	0	0
Al Dardaa	Al Reqama	Al Harebeh	2,226	25%	0
Tal Al Shoor	0	Tal Al Shoor	5,137	100%	0
		Hadedeh Al Aasy		99%	0
		Ein Al Zarqaa		0	0
Abu Hekfeh Al Janooby	Mkharam	Abu Hekfeh Al Janooby	2,603	90%	0
		Abu Hakfa Al Shmaaly	1,456	90%	0
Al Othmaneya	Mkharam	Al Othmaneya	2,460	50%	The study is exist
		Bweda Rehaneya	1,560	65%	The study is exist
		Al Asaadeya	100	0	0
		Al Nasereyeh	200	0	0
		Kherbet Abbas	337	0	0
		Kherbet Raya	100	0	0
		Om Jern	237	0	0
Al Swery	Talkalakh	Al Swery	4,900	85%	0
		Al Zaafaraneyah	1,236	90%	0
		Al Thahabeyah	780	90%	0
		Al Sendyanah	973	85%	0
		Habb Al Bestaan	912	90%	0
		Safar	870	85%	0
Zaydal	Homs	-	6,701	53%	
Al Shaeraat	Homs	Al Shaeraat	0	95%	0
		Naajeyeh	0	0	0
		Al Rdefaat	0	0	0
		Al Wazeyah	0	0	0
Al Kemeh	Talkalakh	Al Kemeh	1,413	75%	0
		Al Qellateyeh	1,032	75%	0
		Al Daghleh	960	75%	0
		dwer Allen	167	75%	0
		Haret Mahfood	315	75%	0
		Mazraaet	355	75%	0
		Mqaabara	371	75%	There's no STP
Al Mzeneh	Talkalakh	Al Mzeneh	3,498	85%	0
		Balat	1,081	80%	0
		Ein Al Ghara	1,125	80%	0
		Qalea Al Saqqa	740	75%	0
		Haret Domat	324	80%	0
Eiz Al Deen	Al Rastan	Eiz Al Deen	4,224	75%	0
		Abu Homamah	1,339	70%	0
		Saleem	4,101	75%	0
		Al Ghadbeyeh	3,148	80%	0
		Al Qnetraat	12,252	75%	0
		Al Wazeyah		75%	0
		Delfeen		Under endorse	0
		Al Thahreyeh		Under Topographec checking	0

Municipality name	Subordinate to area	Subordinated villages	Population number according to the last census	sewage serving	STP
fahel	Tedlo	-	9,301	Expansion is not inhabited and served	No study
Al Derdareyeh	Talkalakh	Al Derdareyeh	1,530	5 50	0
		Al Rehaneyeh	610	5 40	0
		Ein Al Teneh Al Sharqeyeh	1,314	35%	0
		Al Rabeyeh	1,150	40%	0
Al Fheleh	Homs	Al Fheleh	2,875	50%	0
		Ein Al Khadraa	1,000	0	0
Al Shameh	Tedlo	Al Shameh	2,855	0%	There's no study
		Refeen	705	0%	There's no study
		Al Heshmeh	941	0%	There's no study
		Al Hesa	576	0%	There's no study
Al Dar Al	Center villages	Hoboob Al Reeh	7,892	5%	0
		Al Khaldeya	0	0	0
Einaaz	Talkalakh	Einaaz	2,190	70%	0
	Talkalakh	Al Tallah	808	70%	0
	Talkalakh	Esh Al Shoha	872	75%	0
	Talkalakh	Basas	362	20%	0
	Talkalakh	'Bsoma	1,069	50%	0
Ein Al Dananeer		Ein Al Dananeer		32%	The study is exist
		Ein Hsein		27%	0
		Al Yamaamah		Not Exist	0
		Al Hamemeya		Not Exist	0
		Mazraaet Al Noora		Not Exist	0
		Mazraaet Al Ferdos		Not Exist	0
		Mazraaet Al		Not Exist	0
Hadedeh	Talkalakh	0	2,772	70%	Not Exist
Tareen	Kherbet Al Teen Noor	Tareen- Bteseh - Sendyaneh -	7800	15%	0
Tal Al Naqa	Homs	Tal Al Naqa	3,069	0	7th stage 30 m
		Al Saboneyeh	1,575	0	0
		Al Abseyeh	279	0	0
		Holaya	868	0	0
Al Meshtayeh	Talkalakh	Kafra - Al Meshtayeh	4,096	50%	The study is exist , Not
Braabo	Kherbet Al Teen Noor district	Braabo	1,000	0	0
		Aesoon	1,500	15%	0
		Rabeeaa	800	0	0
		Al Fayzeh	2,000	0	0
		Al Hayek	1,000	0	0
		Om Harten	2,000	7%	0
Wady Al Hel	palmyra	-	3,000	0	0
Kherbet Al Hamam	Kherbet Al Teen Noor	-	8,000	95%	0
Al Masaodeyeh	Al Mkharam	Al Masaodeyeh	4,206	50%	Not Exist
		Abu Al Alaaya	491	0	Not Exist
		Om Al Tweneh	581	0	Not Exist
		Om Al Reesh	493	0	Not Exist
		Om Harten	88	0	0
		Mseaed	112	0	0
		Al Tarfawy	21	0	0
		Sheeha	25	0	0

Municipality name	Subordinate to area	Subordinated villages	Population number according to the last census	sewage serving	STP
		Masaada	194	0	0
		Salam Sharqy	34	0	0
		Asmad	269	0	0
		Rasm Al Amab	120	0	0
		Al Laj Al Awsat	209	0	0
		Al Dwebeyeh	98	0	0
		Rasm Al Naqa	135	0	0
		Krezo	110	0	0
		Al Gabreyah	339	0	0
		Tal Shaab	207	0	0
		Al Wodehy	186	0	0
		Al Khansaa	63	0	0
Bayarat Gharbeyeh	palmyra	Al Maqsam	3,000	0	0
		Terfeh Sharqeyeh	0	0	0
		Terfeh Gharbeyeh	0	0	0
		Al Kallabeyeh	0	0	0
		Wady Al Ramel	0	0	0
		Al Bada Al Sharqeyeh	0	0	0
Sekra	Homs	Sekra	4,481	47%	
		Abu Daly	3,681	30%	
		Al Thabteyeh	3,188	25%	
		Tal Ahmar	1,251	68%	
Al Brej	-	-	3,660	80%	0
Maksar Al	Al Mkharam	Maksar Al Hesaan	1,962	57%	
		Dweaer Sharqa	645	56%	0
		Dweaer Gharby	699	0	0
		Mezyen Al Baqar	309	0	0
		Om Sahreej	210	0	0
		Faw Shaweesh	80	0	0
		Al Jaqaa	39	0	0
Jandar	Center	Jandar	3,669	40%	-
		Shamseen	876	75%	-
		Al Debeyeh	1,213	50%	-
		Al Maamoora	with Jandar	7%	-
		Jab Al Sada Wo Kaf Al Kalb	534	-	-
Rabaah	-	-	6,072	50%	0
Al Zwesteneyeh	Talkalakh	Behzeena	2,000	25%	0
		Ein Al Raheb	1,500	35%	0
		Al Zwesteneyeh	5,000	60%	0
		Mashta Azaar	3,000	25%	0
Al Aareda	Talkalakh	Shmeseh	3,027	100%	0
		Mazraet Mashta Mahally		100%	0
		Mazraaet Al		10%	0
Kherbet Ghazy	Kherbet Al Teen Noor	Kherbet Ghazy	5,005	0/0 40	Not Exist
		Al Sayadeyeh	493		Not Exist
		Zety Al Bahra	561		Not Exist

الجدول A9.1.4 ظروف نظام الصرف الصحي في محافظة إدلب

Community Name	Subordination	Area name	District name	Classification	Current discharge point	Sewage serving average	Served residents	STP
Idleb city		Idleb	Idleb area	City	Bansh	95	107,695	Not exist
Ma'ret Al No'man		Ma'ret Al No'man	Ma'ret Al No'man area center	City	North Al Ma'ra	81	77,163	Not exist
Khan Shiekhon		Ma'ret Al No'man	Khan Shiekhon	City	East of the city	82	37,742	Not exist
Ariha		Ariha	Ariha area center	City	Bansh	96	37,534	Not exist
Jiser Al Shoghur		Jiser Al Shoghur	Jiser Al Shoghur center	City	Al Kale'	94	40,250	Not exist
Jeflelek Ahmad Tabea'a	Jiser Al Shoghur	Jiser Al Shoghur	Jiser Al Shoghur center	Farm	-	-	-	Not exist
Jeflelek Al Semmakieh	Jiser Al Shoghur	Jiser Al Shoghur	Jiser Al Shoghur center	Farm	-	-	-	Not exist
Al Khattab	Jiser Al Shoghur	Jiser Al Shoghur	Jiser Al Shoghur center	Farm	-	-	-	Not exist
Al Mkanset	Jiser Al Shoghur	Jiser Al Shoghur	Jiser Al Shoghur center	Farm	-	-	-	Not exist
Sarakeb		Idleb	Sarakeb	City	-	85	30,464	Not exist
Ma'ret Alya	Sarakeb	Idleb	Sarakeb	Farm	-	-	-	Not exist
Tal Al Rumman	Sarakeb city	Idleb	Sarakeb	Farm	-	-	-	Not exist
Salkin		Harem	Salkin	City	-	97.5	23,729	Not exist
Sefsafeh	Salkine	Harem	Salkin	Farm	-	-	-	Not exist
Al Onairieh	Salkine	Harem	Salkin	Farm	-	-	-	Not exist
Ma'ret Tammesrine		Idleb	Ma'ret Tammesrine	City	Al Faw'a	98	19,402	Not exist
Al Mashhad	Ma'ret Tammesrine	Idleb	Ma'ret Tammesrine	Farm	-	-	-	Not exist
Yahmoul	Ma'ret Tammesrine	Idleb	Ma'ret Tammesrine	Farm	-	85	3,094	Not exist
Bansh		Idleb	Bansh	City	Bansh	90	51,592	Not exist
Teerz	Bansh city	Idleb	Bansh	Farm	-	-	-	Not exist
Harem city		Harem	Harem area center	City	-	100	11,262	Not exist
Al Mzouk	Harem area center	Harem	Harem area center	Farm	-	-	-	Not exist
Kefer Nabel city		Maret Al No'man	Kefer Nabel	City	-	86.5	13,417	Not exist
Kefer Takharim		Harem	Kefer	City	Kabteh	95	10,260	Not exist
Shmies	Kefer	Harem	Kefer	Farm	-	-	-	Not exist
Kefer Natteh	Kefer	Harem	Kefer	Farm	-	-	-	Not exist
Al Fawa'a town		Idleb	Bansh	Town	Al Fawa'a	46	5,716	Not exist
Khreibe	Al Fawa'a	Idleb	Bansh	Farm	-	-	-	Not exist
Al Dier	Al Fawa'a	Idleb	Bansh	Farm	-	-	-	Not exist
Swaghieh	Al Fawa'a	Idleb	Bansh	Farm	-	-	-	Not exist
Al Danah		Harem	Al Danah	City	-	85	11,507	Not exist
Bab Al Hawa	Al Danah	Harem	Al Danah	Farm	-	-	-	Not exist
Sargielh	Al Danah	Harem	Al Danah	Farm	-	-	-	Not exist
Al Zyara	Al Danah	Harem	Al Danah	Farm	-	-	-	Not exist
Al Wahleh	Al Danah	Harem	Al Danah	Farm	-	-	-	Not exist
Tal Al Darae'	Al Danah	Harem	Al Danah	Farm	-	-	-	Not exist
Al Onranieh	Al Danah	Harem	Al Danah	Farm	-	-	-	Not exist
Kashafa'a	Al Danah	Harem	Al Danah	Farm	-	-	-	Not exist
Armanaz		Harem	Armanaz	Town	Kabteh	91	8,490	Not exist
Abo Ekr	Armanaz	Harem	Armanaz	Farm	-	-	-	Not exist
Kherbet Wahbe	Armanaz	Harem	Armanaz	Farm	-	-	-	Not exist
Al Safeh /Safeh Al Tin	Armanaz	Harem	Armanaz	Farm	-	-	-	Not exist
Sha'bouk	Armanaz	Harem	Armanaz	Farm	-	-	-	Not exist
Al Shiekh Bader	Armanaz	Harem	Armanaz	Farm	-	-	-	Not exist
Magher Al Saf	Armanaz	Harem	Armanaz	Farm	-	-	-	Not exist
Yaghleh	Armanaz	Harem	Armanaz	Farm	-	-	-	Not exist
Al Mansoura	Armanaz	Harem	Armanaz	Farm	-	-	-	Not exist
Sarmine		Idleb	Sarmine	Town	Sarmine	80	12,048	Not exist

Community Name	Subordination	Area name	District name	Classification	Current discharge point	Sewage serving average	Served residents	STP
Bjarez	Sarmine	Idleb	Sarmine	Farm	-	-	-	Not exist
Al Salhieh	Sarmine	Idleb	Sarmine	Farm	-	-	-	Not exist
Al Hbaibat	Sarmine	Idleb	Sarmine	Farm	-	-	-	Not exist
Al Janoudieh		Jiser Al Shoghur	Jiser Al Shoghur center	Town	-	98	8,828	Not exist
Taftanaz		Idleb	Taftanaz	Town	-	77	6,600	Not exist
Darkoush		Jiser Al Shoghur	Darkoush	Town	-	95	5,221	Not exist
Balkat		Jiser Al Shoghur	Darkoush	Farm	-	-	-	Not exist
Malek - Sharki	Darkoush	Jiser Al Shoghur	Darkoush	Farm	-	-	-	Not exist
Hiesh		Maret Al No'man	Hiesh	Town	-	75	5,991	Not exist
Mouzdeh	Hiesh	Maret Al No'man	Hiesh	Farm	-	-	-	Not exist
Abu Al Zuhor		Idleb	Abu Al Zuhor	Town	-	81	775	Not exist
Al Jafer	Abu Al Zuhor	Idleb	Abu Al Zuhor	Farm	-	-	-	Not exist
Hmaimat	Abu Al Zuhor	Idleb	Abu Al Zuhor	Farm	-	-	-	Not exist
Kourkina		Harem	Kourkina	Town	-	96	2,177	Not exist
Ahsam		Ariha	Oshum	Town	-	87	5,147	Not exist
Dallouza	Ahsam	Ariha	Oshum	Farm	-	-	-	Not exist
Al Karame	Ahsam	Ariha	Oshum	Farm	-	-	-	Not exist
Mahmil		Ariha	Mahmil	Town	-	90	4,812	Not exist
Bdama		Jiser Al Shoghur	Bdama	Town	-	95	4,692	Not exist
Baidar Hadid	Bdama	Jiser Al Shoghur	Bdama	Farm	-	-	-	Not exist
Senjar		Maret Al No'man	Senjar	Town	-	66	1,300	Not exist
Rasem Al Sha'er	Senjar	Maret Al No'man	Senjar	Farm	-	-	-	Not exist
Kafrouma		Maret Al No'man	Maret Al No'man	Town	-	87.5	9,957	Not exist
Al Howe	Kafrouma	Maret Al No'man	Maret Al No'man	Farm	-	-	-	Not exist
Talmens		Maret Al No'man	Maret Al No'man	Town	-	88	10,478	Not exist
Sarmada		Harem	Al Danah	Town	-	90	10,933	Not exist
Ba'oda	Sarmada	Harem	Al Danah	Farm	-	-	-	Not exist
Berj Al Ghazal	Sarmada	Harem	Al Danah	Farm	-	-	-	Not exist
Wadi Al Kabir	Sarmada	Harem	Al Danah	Farm	-	-	-	Not exist
Jerjnaz		Maret Al No'man	Maret Al No'man	Town	-	85	8,721	Not exist
Al Fa'loul	Jerjnaz	Maret Al No'man	Maret Al No'man	Farm	-	-	-	Not exist
Al Tman'a		Maret Al No'man	Al Tman'a	Town	-	77	5,681	Not exist
Al Sikiat	Al Tman'a	Maret Al No'man	Al Tman'a	Farm	-	-	-	Not exist
Sidi Ali	Al Tman'a	Maret Al No'man	Al Tman'a	Farm	-	-	-	Not exist
Al Azizieh	Al Tman'a	Maret Al No'man	Al Tman'a	Farm	-	-	-	Not exist
Kelli		Idleb	Ma'ret Tammesrin	Town	-	90	6,787	Not exist
Ra'a	Kelli	Idleb	Ma'ret Tammesrin	Farm	-	-	-	Not exist
Al Habet		Maret Al No'man	Khan	Town	-	75	7,128	Not exist
Al Thawra	Al Habet	Maret Al No'man	Khan	Farm	-	-	-	Not exist
Al Khaledieh	Al Habet	Maret Al No'man	Khan	Farm	-	-	-	Not exist
Bsalya	Al Habet	Maret Al No'man	Khan	Farm	-	-	-	Not exist
Al Aboud	Al Habet	Maret Al No'man	Khan	Farm	-	-	-	Not exist
Ma'ret Herme		Maret Al No'man	Kafer Nabel	Town	-	75	5,685	Not exist
Hasamieh	Ma'ret Herme	Maret Al No'man	Kafer Nabel	Farm	-	-	-	Not exist
Arinba	Ma'ret Herme	Maret Al No'man	Kafer Nabel	Farm	-	-	-	Not exist
Al bara		Ariha	Osbem	Town	-	75	6,937	Not exist
Termanin		Harem	Al Danah	Village	-	78	45,044	Not exist
Mashhad Rohin	Termanin	Harem	Al Danah	Farm	-	-	-	Not exist
Ashrafiet	Termanin	Harem	Al Danah	Farm	-	-	-	Not exist
Has		Maret Al No'man	Kafer Nabel	Village	-	86	6,960	Not exist
Al Teh		Maret Al No'man	Hiesh	Village	-	90	8,126	Not exist
Eastern Al Teh	Al Teh	Maret Al No'man	Hiesh	Farm	-	-	-	Not exist
Northern Al Teh	Al Teh	Maret Al No'man	Hiesh	Farm	-	-	-	Not exist
Kefer Sajneh		Maret Al No'man	Hiesh	Village	-	90	8,340	Not exist
Syaghieh	Kefer Sajneh	Maret Al No'man	Hiesh	Farm	-	-	-	Not exist

Community Name	Subordination	Area name	District name	Classification	Current discharge point	Sewage serving average	Served residents	STP
Ma'rtah	Kefer Sajneh	Maret Al No'man	Hiesh	Farm	-	-	-	Not exist
Hafsarje		Harem	Kefer	Village	-	99	3,276	Not exist
Khrab Kais	Hafsarje	Harem	Kefer	Farm	-	-	-	Not exist
Dara	Hafsarje	Harem	Kefer	Farm	-	-	-	Not exist
Omaishan	Hafsarje	Harem	Kefer	Farm	-	-	-	Not exist
Tal Beshmaroon	Hafsarje	Harem	Armanaz	Farm	-	-	-	Not exist
Betra'el	Hafsarje	Harem	Kefer	Farm	-	-	-	Not exist
Kansafra		Ariha	Oshem	Village	-	22	1,624	Not exist
Ma'saran		Maret Al No'man	Maret Al No'man	Village	-	99	7,723	Not exist
Aiban	Ma'saran	Maret Al No'man	Maret Al No'man	Farm	-	-	-	Not exist
Karam Al Tabk	Ma'saran	Maret Al No'man	Maret Al No'man	Farm	-	-	-	Not exist
Kafraya	Ma'ret Tamsrin	Idleb	Ma'ret Tammesrin	Village	Al Faw'a	95	4,825	Not exist
Al Abbasieh	Kafraya Ma'ret	Idleb	Ma'ret Tammesrin	Farm	-	-	-	Not exist
Tal Al Sous	Kafraya Ma'ret	Idleb	Ma'ret Tammesrin	Farm	-	-	-	Not exist
Abu Al Jamous	Kafraya Ma'ret	Idleb	Ma'ret Tammesrin	Farm	-	-	-	Not exist
Ma'ret Al Na'san /Al Khaski		Idleb	Tafetenaz	Village	-	90	7,270	Not exist
Jedraya	Ma'ret Al Na'san /Al Khaski	Idleb	Tafetenaz	Farm	-	-	-	Not exist
Al Sinieh	Ma'ret Al Na'san /Al Khaski	Idleb	Tafetenaz	Farm	-	-	-	Not exist
Arbiekh	Ma'ret Al Na'san /Al Khaski	Idleb	Tafetenaz	Farm	-	-	-	Not exist
Al Rami		Ariha	Oshem	Village	-	75	3,907	Not exist
Sebe	Al Rami	Ariha	Oshem	Farm	-	-	-	Not exist
Kefr Daryan		Harem	Al Danah	Village	-	29	1,343	Not exist
Sarfoud	Kefr Daryan	Harem	Al Danah	Farm	-	-	-	Not exist
Kfier	Kefr Daryan	Harem	Al Danah	Farm	-	-	-	Not exist
Ma'ez	Kefr Daryan	Harem	Al Danah	Farm	-	-	-	Not exist
Kefer Awied		Maret Al No'man	Kefer Nebel	Village	-	60	7,978	Not exist
Al Halloubi	Kefer Awied	Maret Al No'man	Kefer Nebel	Farm	-	-	-	Not exist
Ma'er Debsi		Idleb	Sarakb	Village	-	-	-	Not exist
Bel'youn		Ariha	Oshem	Village	-	38	2,446	Not exist
Askat Al Zahera		Harem	Salkin	Village	-	-	-	Not exist
Betia	Askat Al Zahera	Harem	Salkin	Farm	-	-	-	Not exist
Seti Ateka	Askat Al Zahera	Harem	Salkin	Farm	-	-	-	Not exist
Al Manbou'	Askat Al Zahera	Harem	Salkin	Farm	-	-	-	Not exist
Ain Al Barda	Askat Al Zahera	Harem	Salkin	Farm	-	-	-	Not exist
Khan Al subul		Idleb	Sarakeb	Village	-	-	-	Not exist
Al Kamhaneh	Khan Al	Idleb	Sarakeb	Farm	-	-	-	Not exist
Afes		Idleb	Sarakeb	Village	-	97	6,031	Not exist
Ram Hamdan		Idleb	Ma'ret Tammesrin	Village	-	97	1,931	Not exist
Bsames		Ariha	Oshem	Village	-	50	2,871	Not exist
Al Hamameh		Jiser Al Shoghur	Jiser Al Shoghur	Village	-	90	5,800	Not exist
Al Bouz	Al Hamameh	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist

Community Name	Subordination	Area name	District name	Classification	Current discharge point	Sewage serving average	Served residents	STP
Merze - Al Merje	Al Hamameh	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Hamam Al Shiekh Isa	Al Hamameh	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Nahle		Ariha	Ariha center	Village	-	80	800	Not exist
Ma'lli	Nahle	Ariha	Ariha center	Farm	-	-	-	Not exist
Kourin		Ariha	Ariha center	Village	-	94	4,897	Not exist
Al Asadieh	Kourin	Ariha	Ariha center	Farm	-	-	-	Not exist
Tala'de		Harem	Al Danah	Village	-	18	1,604	Not exist
Ma'ershourine		Maret Al No'man	Maret Al No'man	Village	-	78	5,541	Not exist
Tal Ma'ershourine	Ma'ershourine	Maret Al No'man	Maret Al No'man	Farm	-	-	-	Not exist
Me'rata Al Shalef		Harem	Kourkanya	Municipality	-	70	1,101	Not exist
Al Jwanieh	Me'rata Al Shalef	Harem	Kourkanya	Farm	-	-	-	Not exist
Al Khraibat	Me'rata Al Shalef	Harem	Kourkanya	Farm	-	-	-	Not exist
KefrShamsa	Me'rata Al Shalef	Harem	Kourkanya	Farm	-	-	-	Not exist
Zerdana		Idleb	Ma'ret	Village	-	85	5,472	Not exist
Al Wardat	Zerdana	Idleb	Ma'ret	Farm	-	-	-	Not exist
Marayan		Ariha	Oshem	Village	-	65	1,828	Not exist
Otmeh		Harem	Al Danah	Village	-	73	1,665	Not exist
Kafaldine	Otmeh	Harem	Al Danah	Farm	-	-	-	Not exist
Keferlata		Ariha	Ariha center	Village	-	70	3,059	Not exist
Ma'er Tabie	Keferlata	Ariha	Ariha center	Farm	-	-	-	Not exist
Al Ghadka		Maret Al No'man	Maret Al No'man	Village	-	70	3,149	Not exist
Barka	Al Ghadka	Maret Al No'man	Maret Al No'man	Farm	-	-	-	Not exist
Abu Dafneh	Al Ghadka	Maret Al No'man	Maret Al No'man	Farm	-	-	-	Not exist
Al Marj Al Akhdar		Jiser Al Shoghur	Jiser Al Shoghur	Village	-	71	7,500	Not exist
Tal Al Karame		Harem	Al Danah	Village	-	-	-	Not exist
Wadi Haj Khalid	Tal Al	Harem	Al Danah	Farm	-	-	-	Not exist
Al Saharieh	Tal Al	Harem	Al Danah	Farm	-	-	-	Not exist
Ftiere		Maret Al No'man	Kefer Nebel	Village	-	35	1,225	Not exist
Hezarine		Maret Al No'man	Kefer Nebel	Village	-	85	25,224	Not exist
Ma'er Jala'	Hezarine	Maret Al No'man	Kefer Nebel	Farm	-	-	-	Not exist
Ma'er tasin	Hezarine	Maret Al No'man	Kefer Nebel	Farm	-	-	-	Not exist
Hzano		Idleb	Ma'ret Temesrin	Municipality	-	97	3,583	Not exist
Tal Sandal	Hzano	Idleb	Ma'ret	Farm	-	-	-	Not exist
Balshoun		Ariha	Oshem	Municipality	-	75	1,613	Not exist
Al mouzreh		Ariha	Oshem	Municipality	-	40	3,200	Not exist
Basel Al Assad	Al Mouzreh	Ariha	Oshem	Farm	-	-	-	Not exist
Hazmarin		Harem	Salkin	Municipality	-	93	3,325	Not exist
Al Hamzawat	Hazmarin	Harem	Salkin	Farm	-	-	-	Not exist
Al Malend		Jiser Al Shoghur	Jiser Al Shoghur	Municipality	-	90	2,925	Not exist
Al Asfourieh	Al Malend	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Ain Al Bustan	Al Malend	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Ain Al Jamal	Al Malend	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Mira	Al Malend	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist

Community Name	Subordination	Area name	District name	Classification	Current discharge point	Sewage serving average	Served residents	STP
Al Mastome		Idleb	Idleb	Municipality	-	70	3,302	Not exist
Al Hraje	Al Mastome	Idleb	Idleb	Farm	-	-	-	Not exist
Sarje		Ariha	Ariha	Municipality	-	-	-	Not exist
Bshiema'a	Sarje	Ariha	Ariha	Farm	-	-	-	Not exist
Tal Al Markab	Sarje	Ariha	Ariha	Farm	-	-	-	Not exist
Al Malja'	Sarje	Ariha	Ariha	Farm	-	-	-	Not exist
Taraan	Sarje	Ariha	Ariha	Farm	-	-	-	Not exist
Al Tajieh		Jiser Al Shoghur	Bdama	Municipality	-	90	4,212	Not exist
Bsabt	Al Tajieh	Jiser Al Shoghur	Bdama	Farm	-	-	-	Not exist
Al Kamle	Al Tajieh	Jiser Al Shoghur	Bdama	Farm	-	-	-	Not exist
Al Kinda	Al Tajieh	Jiser Al Shoghur	Bdama	Farm	-	-	-	Not exist
Josef		Ariha	Oshem	Municipality	-	92	3,023	Not exist
Bsakla		Maret Al No'man	Kefer Nabel	Municipality	-	11	355	Not exist
Al Shiekh Habash	Bsakla	Maret Al No'man	Kefer Nabel	Farm	-	-	-	Not exist
Mals		Harem	Armanaz	Municipality	Kabte	98	3,204	Not exist
Al Fasouk	Mals	Harem	Armanaz	Farm	-	-	-	Not exist
Sha'ban	Mals	Harem	Armanaz	Farm	-	-	-	Not exist
Al Ma'laka		Jiser Al Shoghur	Jiser Al Shoghur	Municipality	-	75	2,919	Not exist
Jeftelek Balkoush	Al Ma'laka	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Al Shiekh Yasin	Al Ma'laka	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Louzin	Al Ma'laka	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Al Danah		Maret Al No'man	Maret Al No'man	Village	-	-	-	Not exist
Al Nairab		Idleb	Idleb	Municipality	Sarmin	92	4,038	Not exist
Zarzour		Jiser Al Shoghur	Darkoush	Municipality	-	90	3,037	Not exist
Al Abedih	Zarzour	Jiser Al Shoghur	Darkoush	Farm	-	-	-	Not exist
Tin Jourieh	Zarzour	Jiser Al Shoghur	Darkoush	Farm	-	-	-	Not exist
Bsankoul		Ariha	Muhambal	Municipality	-	70	2,265	Not exist
Ainata	Bsankoul	Ariha	Muhambal	Farm	-	-	-	Not exist
Sankara	Bsankoul	Ariha	Muhambal	Farm	-	-	-	Not exist
Kefer Amim		Idleb	Sarakeb	Municipality	-	-	-	Not exist
Me'sheran	Kefer Amim	Idleb	Sarakeb	Farm	-	-	-	Not exist
Salweh		Harem	Al Danah	Municipality	-	-	-	Not exist
Kabila	Salweh	Harem	Al Danah	Farm	-	-	-	Not exist
Dier Hasan		Harem	Al Danah	Municipality	-	40	3,000	Not exist
Kefer Hewar	Dier Hasan	Harem	Al Danah	Farm	-	-	-	Not exist
Shiekh Idries		Idleb	Sarakeb	Municipality	-	80	2,400	Not exist
Barisha		Harem	Kourkania	Municipality	-	-	-	Not exist
Kherbt Hasan	Barisha	Harem	Kourkania	Farm	-	-	-	Not exist
Kherbet Al	Barisha	Harem	Kourkania	Farm	-	-	-	Not exist
Kharbo Kosiek	Barisha	Harem	Kourkania	Farm	-	-	-	Not exist
Haramboush		Idleb	Ma'ret Temesrin	Municipality	-	70	2,905	Not exist
Barhisa	Haramboush	Idleb	Ma'ret	Farm	-	-	-	Not exist
Ma'rbouna	Haramboush	Idleb	Ma'ret	Farm	-	-	-	Not exist
Al Majed	Haramboush	Idleb	Ma'ret	Farm	-	-	-	Not exist

Community Name	Subordination	Area name	District name	Classification	Current discharge point	Sewage serving average	Served residents	STP
Al Oroba	Haranboush	Idleb	Ma'ret	Farm	-	-	-	Not exist
Rasha	Haranboush	Idleb	Ma'ret	Farm	-	-	-	Not exist
Darsita	Haranboush	Idleb	Ma'ret	Farm	-	-	-	Not exist
Mardiekh		Idleb	Sarakeb	Municipality	-	-	-	Not exist
Nahlya		Ariha	Ariha	Municipality	-	91	2,776	Not exist
Mukbela	Nahlya	Ariha	Ariha	Farm	-	-	-	Not exist
Dier Sharki		Maret Al No'man	Maret Al No'man	Municipality	-	50	2,000	Not exist
Me'rata	Dier Sharki	Maret Al No'man	Maret Al No'man	Farm	-	-	-	Not exist
Omar bin Abdul Aziz	Dier Sharki	Maret Al No'man	Maret Al No'man	Farm	-	-	-	Not exist
Al Nake'ih	Dier Sharki	Maret Al No'man	Maret Al No'man	Farm	-	-	-	Not exist
Shughor Foukani		Jiser Al Shoghur	Jiser Al Shoghur	Municipality	-	80	1,828	Not exist
Jeftelek Al Haj Seigari	Shughor Foukani	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Jeftelk Said	Shughor Foukani	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Jeftlek Shughor	Shughor Foukani	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Jeftelk Mustafa	Shughor Foukani	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Bziet		Jiser Al Shoghur	Jiser Al Shoghur	Municipality	-	-	-	Not exist
Al Fouz		Jiser Al Shoghur	Jiser Al Shoghur	Village	-	-	-	Not exist
Al Tahone	Al Fouz	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Ain Al Jouze	Al Fouz	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Al Yousfie	Al Fouz	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Kefer Yahmoul		Idleb	Ma'ret Temesrin	Municipality	Idleb	85	3,094	Not exist
Al Mesharfeh	Kefer	Idleb	Ma'ret	Farm	-	-	-	Not exist
Jbala		Maret Al No'man	Kefer Nabel	Village	-	-	-	Not exist
Ma'rtmater		Maret Al No'man	Kefer Nabel	Municipality	-	8	190	Not exist
Bsieka	Ma'rtmater	Maret Al No'man	Kefer Nabel	Farm	-	-	-	Not exist
Tal E'mar		Harem	Salkin	Municipality	-	87	1,400	Not exist
Blat	Tal E'mar	Harem	Salkin	Farm	-	-	-	Not exist
Ain Tiebe	Tal E'mar	Harem	Salkin	Farm	-	-	-	Not exist
Qattinei	Tal E'mar	Harem	Salkin	Farm	-	-	-	Not exist
Mugharet Jkouri	Tal E'mar	Harem	Salkin	Farm	-	-	-	Not exist
Kefer Shlaya		Ariha	Ariha	Municipality	-	-	-	Not exist
Al Kiasat	Kefer Shlaya	Ariha	Ariha	Farm	-	-	-	Not exist
Mantaf		Ariha	Ariha	Municipality	-	60	1,795	Not exist
Rwaiha	Mantaf	Ariha	Ariha	Farm	-	-	-	Not exist
Kadoura	Mantaf	Ariha	Ariha	Farm	-	-	-	Not exist
Eblin		Ariha	Oshem	Municipality	-	15	477	Not exist
Wadi al gouz	Eblin	Ariha	Oshem	Farm	-	-	-	Not exist
Hatan		Harem	Kourkania	Municipality	-	-	-	Not exist
Ashrak	Hatan	Harem	Kourkania	Farm	-	-	-	Not exist
Bnakfora	Hatan	Harem	Kourkania	Farm	-	-	-	Not exist
Mersaba	Hatan	Harem	Kourkania	Farm	-	-	-	Not exist

Community Name	Subordination	Area name	District name	Classification	Current discharge point	Sewage serving average	Served residents	STP
Al kanayes		Maret Al No'man	Maret Al No'man	Village	-	-	-	Not exist
Al jaberieh	Al kanayes	Maret Al No'man	Maret Al No'man	Farm	-	-	-	Not exist
Al husienieh		Idleb	Abu Al Zuhour	Municipality	-	-	-	Not exist
Masa'de	Al husienieh	Idleb	Abu Al Zuhour	Farm	-	-	-	Not exist
Sukarieh- tal kalbe	Al husienieh	Idleb	Abu Al Zuhour	Farm	-	-	-	Not exist
Ain al sheikh	Al husienieh	Idleb	Abu Al Zuhour	Farm	-	-	-	Not exist
Twien	Al husienieh	Idleb	Abu Al Zuhour	Farm	-	-	-	Not exist
Al zahara	Al husienieh	Idleb	Abu Al Zuhour	Farm	-	-	-	Not exist
Ain al sawda		Jiser Al Shoghur	Jiser Al Shoghur	Village	-	-	-	Not exist
Al Zahra	Ain Al Sawda	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Ma'rzieta		Maret Al No'man	Kefer Nabel	Municipality	-	-	-	Not exist
Hawa		Maret Al No'man	Senjar	Municipality	-	50	995	Not exist
Al Mansoura	Hawa	Maret Al No'man	Senjar	Farm	-	-	-	Not exist
Me'rata		Ariha	Oshem	Municipality	-	80	1,955	Not exist
Eshtabrak		Jiser Al Shoghur	Jiser Al Shoghur	Municipality	-	95	1,505	Not exist
Al Zahra		Jiser Al Shoghur	Darkoush	Municipality	-	93	1,263	Not exist
Sardin		Harem	Kourkania	Village	-	-	-	Not exist
Tal Al Toukan		Idleb	Abu Al Zuhour	Municipality	-	75	2,701	Not exist
Ebn Al Awam	Tal Al	Idleb	Abu Al Zuhour	Farm	-	-	-	Not exist
Al Rabieh	Tal Al	Idleb	Abu Al Zuhour	Farm	-	-	-	Not exist
Al Zahera	Tal Al	Idleb	Abu Al Zuhour	Farm	-	-	-	Not exist
Shoha	Tal Al	Idleb	Abu Al Zuhour	Farm	-	-	-	Not exist
Zeno	Tal Al	Idleb	Abu Al Zuhour	Farm	-	-	-	Not exist
Al Hasna	Tal Al	Idleb	Abu Al Zuhour	Farm	-	-	-	Not exist
Al Baraghithi		Idleb	Abu Al Zuhour	Village	-	-	-	Not exist
Al Wasita	Al Baraghithi	Idleb	Abu Al Zuhour	Farm	-	-	-	Not exist
Al Bashierieh		Jiser Al Shoghur	Jiser Al Shoghur	Municipality	-	-	-	Not exist
Bashir	Al Bashierieh	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Tabel Al Baz	Al Bashierieh	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Al Shiekh Ibrahim	Al Bashierieh	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Sfohn		Maret Al No'man	Kefer Nabel	Municipality	-	-	-	Not exist
Arla	Sfohn	Maret Al No'man	Kefer Nabel	Farm	-	-	-	Not exist
Al Meghara		Ariha	Oshem	Municipality	-	-	-	Not exist
Kafer Battikh		Idleb	Sarakeb	Municipality	-	-	-	Not exist
Shnan		Ariha	Ariha	Village	-	-	-	Not exist
Rajem Al Asfour	Shnan	Ariha	Ariha	Farm	-	-	-	Not exist
Shughor Tahtani		Jiser Al Shoghur	Jiser Al Shoghur	Village	-	-	-	Not exist
Khaled Haj Khaled	Shughor Tahtani	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Kieboush	Shughor Tahtani	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Jeftlek Lutfi	Shughor Tahtani	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Kafer Orouk		Harem	Kourkania	Municipality	-	60	944	Not exist

Community Name	Subordination	Area name	District name	Classification	Current discharge point	Sewage serving average	Served residents	STP
Kherbt Ma'ez	Kafer Orouk	Harem	Kourkania	Farm	-	-	-	Not exist
Ain Lazoer		Ariha	Oshem	Municipality	-	-	-	Not exist
Magher Abo	Ain Lazoer	Ariha	Oshem	Farm	-	-	-	Not exist
Mo'taerm		Ariha	Ariha	Village	-	-	-	Not exist
Ma'letaya	Ma'tram	Ariha	Ariha	Farm	-	-	-	Not exist
Ma'yan	Ma'tram	Ariha	Ariha	Farm	-	-	-	Not exist
Ma'ershmarin		Maret Al No'man	Maret Al No'man	Village	-	-	-	Not exist
Al Amliea	Ma'ershmarin	Maret Al No'man	Maret Al No'man	Farm	-	-	-	Not exist
Al Husine	Ma'ershmarin	Maret Al No'man	Maret Al No'man	Farm	-	-	-	Not exist
Bieret Armanaz		Harem	Armanaz	Municipality	-	92	1,070	Not exist
Al Briej	Bieret	Harem	Armanaz	Farm	-	-	-	Not exist
Kah		Harem	Al Danah	Municipality	-	-	-	Not exist
Al Midan	Kah	Harem	Al Danah	Farm	-	-	-	Not exist
Wadi al ghazal	Kah	Harem	Al Danah	Farm	-	-	-	Not exist
Dadikh		Idleb	Saraked	Village	-	-	-	Not exist
Ma'rbalat		Ariha	Ariha	Village	-	-	-	Not exist
Al hassanie		Jiser Al Shoghur	Jiser Al Shoghur	Village	-	-	-	Not exist
Friekeh		Jiser Al Shoghur	Jiser Al Shoghur	Municipality	-	-	-	Not exist
Hamadi	Friekeh	Jiser Al Shoghur	Jiser Al Shoghur	Farm	-	-	-	Not exist
Filoun		Idleb	Idleb	Municipality	-	-	-	Not exist
Bkafloun	Filoun	Idleb	Idleb	Farm	-	-	-	Not exist
Alwadi al akhdar	Filoun	Idleb	Idleb	Farm	-	-	-	Not exist
Al allani		Harem	Salkin	Municipality	-	70	2,189	Not exist
Siegar -bkasmateh		Idleb	Idleb	Municipality	-	70	3,320	Not exist
Kanieh		Jiser Al Shoghur	Jiser Al Shoghur	Municipality	-	95	1,608	Not exist
Kefer zaiba		Ariha	Ariha	Village	-	-	-	Not exist
Abu dali		Maret Al No'man	Al Tamana'a	Municipality	-	-	-	Not exist
Al malkie	Abu dali	Maret Al No'man	Al Tamana'a	Farm	-	-	-	Not exist
Ketyan		Idleb	Taftenaz	Village	-	-	-	Not exist
Al basel	Ketyan	Idleb	Taftenaz	Farm	-	-	-	Not exist
Ma'ret al ekhwan		Idleb	Ma'ret	Farm	-	80	1,648	Not exist
Kefer benni		Idleb	Ma'ret Temesrin	Municipality	-	65	1,344	Not exist
Knieset nakhle		Jiser Al Shoghur	Jiser Al Shoghur	Village	-	-	-	Not exist
Kaflen		Idleb	Ma'ret Temesrin	Municipality	-	30	599	Not exist
Al Ya'koubieh		Jiser Al Shoghur	Jiser Al Shoghur	Village	-	95	1,608	Not exist
Kefer Jales		Idleb	Ma'ret Temesrin	Municipality	-	20	523	Not exist
Al Ghasanih		Jiser Al Shoghur	Jiser Al Shoghur	Municipality	-	75	669	Not exist

الجدول A9.1.5 ظروف نظام الصرف الصحي في محافظة القنيطرة

No.	Community name	Area name	District name	classification	Current discharge point	Sewage served methods	Served population (percentage	STP
1	Kusaibe	Alqunaitira	Alkhushniyya	town	Karkas valley	net	80%	Not existed
2	Karkas	Alqunaitira	Alkhushniyya	village	Alullan valley	net	60%	Not existed
3	Alrafid	Alqunaitira	Alkhushniyya	village	valley	net	60%	Not existed
4	Ghadir albustan	Alqunaitira	Alkhushniyya	village	Alruqad valley	net	50%	Not existed
5	Hadar	Alqunaitira	Khan arnaba	town	In the lands	net	70%	Not existed
6	Tranja	Alqunaitira	Khan arnaba	village	Valley stream	net	70%	Not existed
7	Jibata alkhashab	Alqunaitira	Khan arnaba	town	Alruqad valley	net	60%	Not existed
8	Albaath city	Alqunaitira	Khan arnaba	village	Alruqad valley	net	90%	Not existed
9	Khan arnaba	Alqunaitira	Khan arnaba	town	Alruqad valley	net	80%	Not existed
10	Jiba	Alqunaitira	Khan arnaba	town	Valley stream	net	80%	Not existed
11	Naba alsakher	Alqunaitira	Khan arnaba	town	Alruqad valley	net	70%	Not existed
12	Mashara	Alqunaitira	Khan arnaba	village	Agricultural lands	net	30%	Not existed
13	Mumtana	Alqunaitira	Khan arnaba	village	Un served	Un served	-	Not existed
14	Um batina	Alqunaitira	Khan arnaba	village	Agricultural lands	Un served	-	Not existed
15	Alhamidiyya	Alqunaitira	Alhamidyya center	village	Alruqad valley	Un served	80%	Not existed
16	Suwesa	Alqunaitira	Alkhushniyya	village	valley	net	50%	Not existed
17	Kodna	Alqunaitira	Alkhushniyya	village	Un served	Septic tank	-	Not existed
18	Ein alziwan	Alqunaitira	Alkhushniyya	village	Un served	Septic tank	-	Not existed
19	Ein fureikha	Alqunaitira	Alkhushniyya	village	Alnasiriyya valley	Septic tank	-	Not existed
20	Alhujja	Alqunaitira	Alkhushniyya	village	Alullan valley	Septic tank	-	Not existed
21	Ein altina	Alqunaitira	Alkhushniyya	village	Alullan valley	net	60%	Not existed
22	Alasbah	Alqunaitira	Alkhushniyya	village	valley	net	60%	Not existed
23	Alussha	Alqunaitira	Alkhushniyya	village	valley	net	20%	Not existed
24	Almuallaqa	Alqunaitira	Alkhushniyya	village	valley	net	50%	Not existed
25	Saida	Alqunaitira	fiiq	village	valley	net	50%	Not existed
26	Ofaniya	Alqunaitira	Khan arnaba	village	Alruqad valley	net	70%	Not existed
27	Ein almuriyya	Alqunaitira	Khan arnaba	village	Un served	Un served	-	Not existed
28	Almurabbaat	Alqunaitira	Khan arnaba	village	Un served	Manhole		
	-	Not existed						
29	Majduliyya	Alqunaitira	Khan arnaba	village	Un served	Manhole		
	-	Not existed						
30	Alkom	Alqunaitira	Khan arnaba	town	valley	net	30%	Not existed
31	Alsamdaniyya algharbiyya	Alqunaitira	Alhamidyya center	village	Alruqad valley	net	80%	Not existed
32	Alkahtaniyya	Alqunaitira	Alhamidyya center	village	Alruqad valley	net	80%	Not existed
33	Ruehina	Alqunaitira	Alhamidyya center	village	Alruqad valley	net	50%	Not existed
34	Buraiqa	Alqunaitira	Alhamidyya center	village	Alruqad valley	net	50%	Not existed
35	Bier ajam	Alqunaitira	Alhamidyya center	village	Alruqad valley	net	50%	Not existed

الملحق 9.2 معايير الأرض الرطبة

الأرض الرطبة في حران العواميد والمصممة من قبل ألمانيا، بدأت بالتشغيل بـ 2,000 باستطاعة 300 m^3/d لـ 7,000 ساكن حسب معايير تلك المساحة وتم إعادة وضع المعدات لأسرّة القصب بـ 0.5 م^2/الفرد.

بالوقت الحالي معالجة الصرف الصحي 400 m^3/d لـ 7,000 ساكن. وهذه الاستطاعة بمقدار مرة ونصف عن استطاعة المعالجة السابقة. تم معالجة BOD، COD، SS بشكل جيد جداً، ولكن لم تتم معالجة مكونات النتروجين.

البيانات غير كافية لتقييم الطريقة بشكل كاف، كما نرى في الصورة A9.2.1 و.A9.2.2 فإن الأرض الرطبة يمكن أن تكون مناسبة لمحطات المعالجة الصغيرة في سوريا، عند تشغيل المشروع نجدها طريقة سهلة اقتصادياً وتشغيلياً.

وكنتيجة، يجب تطبيق معايير التصميم لأسرّة القصب بـ 0.5 م^2/ الفرد، لأن تحديد عامل الاستطاعة حول أسرّة القصب سيكون حمل تلوث عضوي للفرد، وحمل التلوث العضوي ثابت للصرف الصحي المنزلي الأساسي في جميع أنحاء سوريا، وبما أن أسرّة القصب لها مجال واسع من نسبة الفلترة فإن تحديد العامل لن يكون تدفق الصرف الصحي.

ولكننا توقعنا محاكاة أكبر للبيانات، ومراجعة المعايير، بحيث يكون المخطط التوجيهي آمناً للحمل في حال الطوارئ في مخطط المرافق.

Photo-A9.2.1 Treated sewage flow at discharge in Thawra on Euphraties River

Photo-A9.2.2 Treated sewage on Harron Al Awameed

الجدول A9.2.1 نوعية مياه الصرف في حران العواميد

	2006/7/4			2006/3/5	notes
	Inlet	Outlet	Removal rate (%)	Outlet	
BOD(mg/l)	240	26	89	12	
NH_4(mg/l)		32.4		9	
COD(mg/l)	780	80	90	18.2	
SS(mg/l)		27.2		27.2	
NO_3(mg/l)	50.6	42	17	14	
TN(mg/l)	46.3	40.6		17.5	
TP(mg/l)	0.49	0.82		1.98	
PO_4(mg/l)	2	3.5		6	
Q（m^3/D）	400	400		400	from interview

الملحق 9.3 حساب الاستطاعة للمرافق ومخطط مرافق محطات المعالجة

OD (1

سيتم اعتماد طريقة OD في الزبداني، بانياس، الميادين، والمالكية. صفحات حساب التصاميم هي كالتالي:
الاعتبارات عند حساب التصاميم هي كالتالي:

حمل BOD-SS للمفاعل في محطات معالجة الزبداني والمالكية حوالي 0.04 kg-BOD/kg-SS•D
والذي يعد متوسط لـ 0.03 حتى 0.05، المواصفة اليابانية
بسبب إزالة T-N عند حفظ مصادر المياه

حمل BOD-SS للمفاعل في محطات معالجة بانياس والميادين أقل من 0.07 kg-BOD/kg-SS•D
والذي يعد متوسط لـ 0.04 وحتى 0.1، متكالف وإدي
لأن سبب اختيار هذه الطريقة هو فقط توقع سهولة التشغيل والصيانة

المكان الاحتياطي في الزبداني يجب أن يكون آمناً بسبب بعض المواضيع كالتالية:

a) عدد السكان السياح غير دقيق.
b) . الوضع الفعلي لاستهلاك المياه غير محدد
c) التدفق الزراعي أو النبع ممكن أن يكون محتوى في الصرف الصحي

(2الأرض الرطبة
سيتم تبني طريقة الأرض الرطبة في مزيريب والثورة
اعتبارات حساب التصاميم هي كالتالي:

المكان الاحتياطي لأسرّة القصب في مزيريب يجب أن تكون آمنة، بسبب المراجعة المستقبلية للمعايير
ارجع إلى الملحق 9.3 معايير الأرض الرطبة.

3) عملية النمو المتصلة المغمورة
تم تبني هذه العملية في صلنفة.
اعتبارات حساب التصاميم هي كالتالي:

المكان الاحتياطي في محطة معالجة الصلنفة يجب أن تكون آمنة للأسباب ذاتها في محطة الزبداني.

(1)صلنفة

1. Flow

	m^3/d	m^3/hr 0	m^3/min 0	m^3/sec 0
	610	25	0.42	0.007
	1,180	49	0.82	0.014

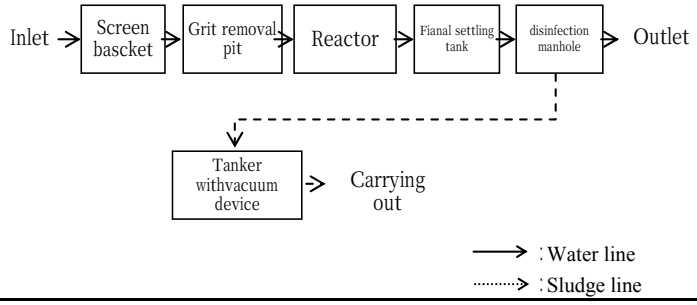
2. Treatment process & Efficiency

Submerged Attached Growth Process

unit:quality(mg/l),removal rate(%)

	raw	treated	removal
BOD	310	40	87
SS	360	30	92

3. Process



(Sewage treatment)

1. Inlet

Ground level	EL	
Diameter	φ200	
Grade	3 ‰	
Bottom level of Pipe		
water depth	0.13 m	average 0.3m

2. Grit removal pit

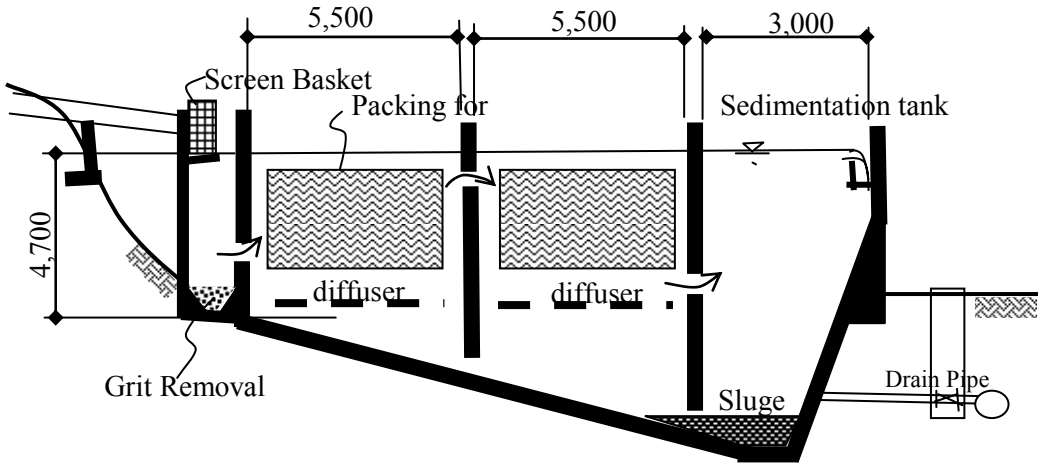
Flow	1,180	m^3/d (peak flow)
No. of chamber	1	no.
Width	1.0	m
length	1.0	m
Velocity	0.11	m/sec (Typically0.3)
Surface load	1,180	$m^3/m^2 \cdot d$ (Typically 1,800)
Retention time		sec

4. Reactor

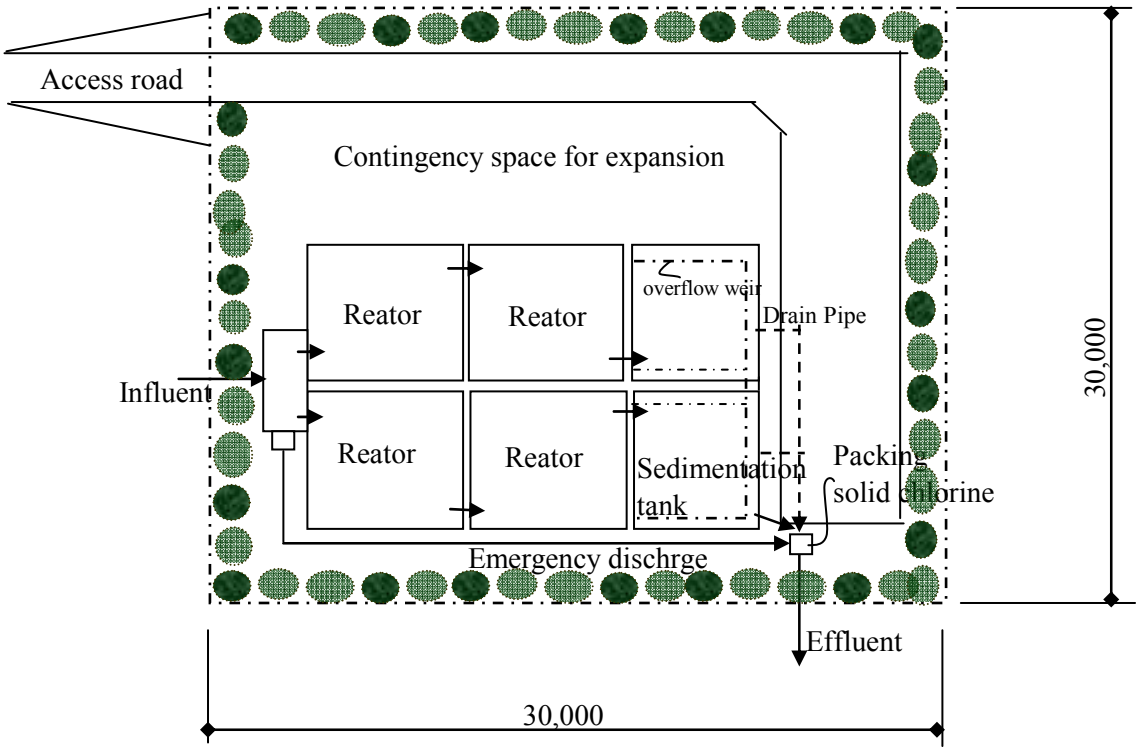
Capacity	610	m^3/d
Inlet quality		
BOD	310	mg/l
SS	360	mg/l

Figuration/dimension		
No. of tank	2	No.
Capacity of one tank	305	m^3/d
Width	5.5	m
Length	12	m (divided in two compartment)
Depth	5	m
Section	27.5	m^2
Volume of tank	330	m3/one tank
Retention time	26	hr
BOD Loading	0.29	kg-BOD/m3·D(Japanese Standard 0.3)

5. Equipment for aeration	
Actual Oxgen Requirement	
AOR/BOD	1.80 kg-O_2/kg-BOD(1.4 to 2.2)
Removal BOD	164.7 kg/D
Standard Oxgen Requirement	
SOR	296.46 kg-O_2/D
6. Final settling tank	
Figuration/dimension	
No. of tank	2 No.
Capacity of one tank	305 m3/D
Figuration	rectangle
Width	5.5 m
length	3 m
Depth	4.7 m
Surface area/one	16.5 m^2
Wear plate length	10.3 m
Volume/one	77.6 m^3
Sedimentation time	6 hr (6 to 12)
Surface loard	18.5 $m^3/m^2 \cdot D$ (20 to 30)
Overflow rate	29.6 $m^3/m \cdot D$ (<150)
7. Disinfection manhole	
Capacity	610 m^3/D
Figuration/dimension	
Diameter	φ0.9 m m m
No. of Manhole	1 No. m^3
Contact time	min (15min and above)
Chlorine injection rate	Packing solid chlorine
8. Outlet	
Diameter	φ200
9. Sludge Volume	
Sludge density	8.0 %
Sludge generated rate	37.0 % of Removed SS (90 % of VSS which is 70 % of TSS,
Removed SS	Inlet SS - Outlet SS will be out to air into gas) 201.3 kg/D
Dry solid	Removed SS*50% 74.5 kg/D 6703.3 kg/3 months(from July to Sep)
Sludge Volume	0.9 m^3/D 83.8 m^3/3 months



الشكل A9.3.1 مقطع تخطيطي لمحطة المعالجة في صلنفة



الشكل A9.3.2 ملخص خطة محطة معالجة صلنفة

(2)بانياس

1. Flow

	m^3/d	m^3/hr 0	m^3/min 0	m^3/sec 0
	19,560	815	13.58	0.226
	37,850	1,577	26.28	0.438

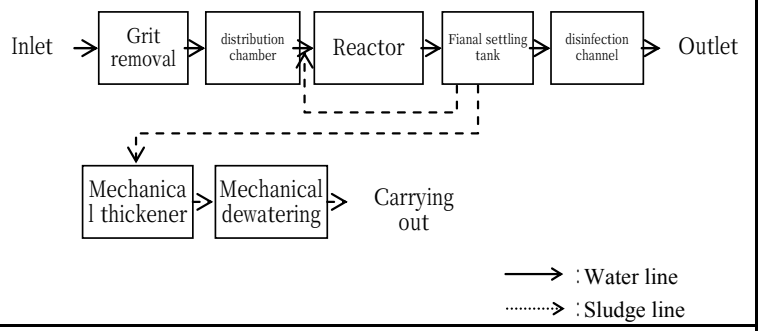
2. Treatment process & Efficiency

OD

unit:quality(mg/l),removal rate(%)

	raw	treated	removal
BOD	310	60	81
SS	360	60	83

3. Process



〔Sewage treatment〕

1. Inlet

Ground level	EL
Diameter	φ800
Grade	1.9 ‰
Bottom level of Pipe	
water depth	0.53 m

2. Grit chamber

Flow	37,850	m^3/d (peak flow)
No. of chamber	2	no.
Width	1.5	m
length	7	m 25.4
Velocity	0.28	m/sec (Typically0.3)
Surface load	1,802	$m^3/m^2 \cdot d$ (Typically 1,800)
Retention time		sec (30 to 60)

3. Main pump (reference)

Three pumping stations will be placed at city.
So main pump is not required in STP. This is only for reference.

Folw	26.28 m^3/min
Type of Pump	Submerged pump
No. of Pump	6 No.(one is backup)
Pumping capacity	5.26 m^3/min
Diameter of Pump	200 φ

$D = 146 \times \sqrt{(Q/V)}$

D : Diameter(mm)

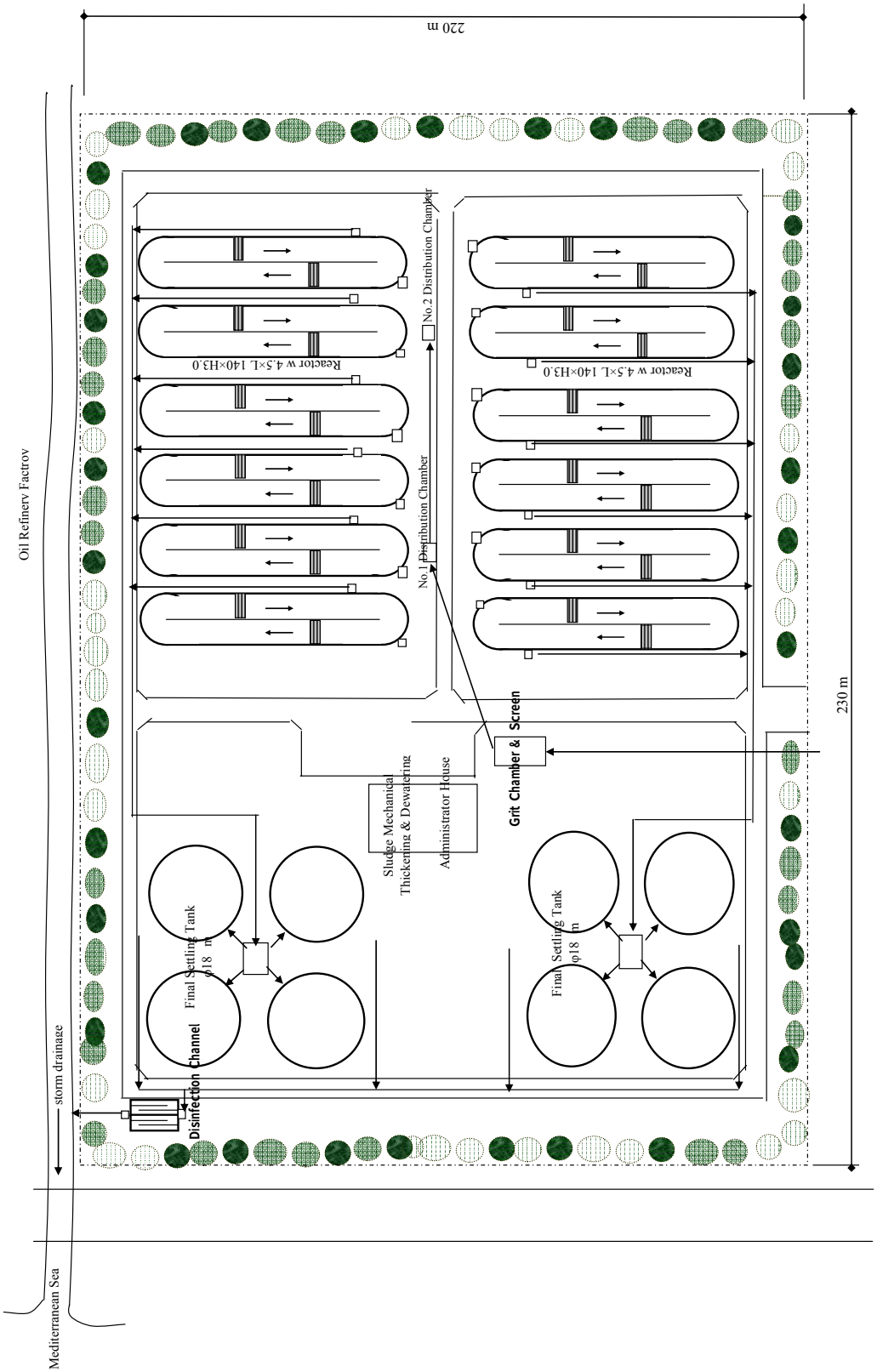
Q : Pump discharge(m^3/min)

V : Suction velocity(1.5～3.0 m/sec)

$=146 * \sqrt{(5.26/3)}=193$

Pump head	Actual head 5 m head loss 1 m Total head 6 m
Output power	11 kw P＝0.163×Q×H/η×(1+α) = 9.8524 P：Output power (kw) Q：Pump discharge(m^3/min) H：Total head(m) η：Pump efficiecy(0.6) α：Margin(0.15)
Specification	φ200×4.91m^3/min×H6.0m×10kw×6No.
4. Reactor	
Capacity	19,560 m^3/d
Inlet quality	
BOD	310 mg/l
SS	360 mg/l
RAS Concentration	6,000 mg/l
Rate of RAS	150 % (100 to 200)
Volume of RAS	29,340 m^3/d
Target MLSS	3,000 mg/l (3,000 to 4,000)
MLSS	3,744 mg/l
Figuration/dimension	
No. of tank	12 No.
Capacity of one tank	1,630 m^3/d
Width	4.5 m
Length	140 m
Depth	3 m
Section	13.5 m^2
Volume of tank	1,890 m^3/one tank
Retention time	28 hr (24 to 48)
BOD-SS Loading	0.071 kg-BOD/kg-SS･D(Japanese standard 0.03 to 0.05) high rate (Metcalf & Eddy 0.04 to 0.1) BOD-SS Loard＝Capacity･BOD/(MLSS･Volume)
BOD Loading	0.27 kg-BOD/m^3･D(Japanese Standard 0.15 to 0.25) (Metcalf & Eddy 0.1 to 0.3)
5. Equipment for aeration	
Actual Oxgen Requirement	
AOR/BOD	1.80 kg-O_2/kg-BOD(1.4 to 2.2)
Removal BOD	4890 kg/D
Standard Oxgen Requirement	
SOR	8802 kg-O_2/D
No. of Aerator	24 No. (Two for One tank)

6. Final settling tank	
Figuration/dimension	
No. of tank	8 No.
Capacity of one tank	2,445 m3/D
Figuration	Circular
Diameter	18 m
Depth	3.5 m
Surface area/one	254.3 m^2
Wear plate length	54.6 m
Volume/one	890.2 m^3
Sedimentation time	9 hr (6 to 12)
Surface loard	9.6 $m^3/m^2 \cdot D$ (8 to 12)
Overflow rate	22.4 $m^3/m \cdot D$ (<150)
7. Disinfection channel	
Capacity	19,560 m^3/D
Figuration/dimension	
Width	2.0 m
Length	24 m
Depth	2.1 m
No. of Channel	2 No.
Volume	201.6 m^3
Contact time	15.0 min (15min and above)
Chlorine injection rate	
8. Outlet	
Diameter	φ800
9. Sudge Volume	
Sludge density	1.0 %
Sludge generated rate	75.0 % of Removed SS
Removed SS	Inlet SS - Outlet SS
	5868.0 kg/D
Dry solid	Removed SS*75%
	4401.0 kg/D
Sludge Volume	440.1 m^3/D
10.Gravity thickener	
Figuration/dimension	
No. of tank	2 No.
	2,201 kg/D
Capacity of one tank	220 m3/D
Figuration	rectangular tank
Length and width	5 m
Depth	3.5 m
Surface area/one	25 m^2
Volume/one	87.5 m^3
Sedimentation time	10 hr
Surface loard	88.0 $kg/m^2 \cdot D$
Sludge density	1.5 %
Sludge Volume	293.4 m^3/D
11.Mechanical dewatering	
Type of Machine	Centrifugal dewatering
No.	2 No.
Capacity for one machine	2200.5 kg/D
Moisture content	80 %
Sludge Volume	22 m^3/D



الشكل A9.3.3. ملخص خطة محطة معالجة باتياس

(3)الميادين

1. Flow

	m^3/d	m^3/hr 0	m^3/min 0	m^3/sec 0
	15,300	638	10.63	0.177
	29,610	1,234	20.56	0.343

Proposed areas are Mayadeen and Taiba where STP is located.

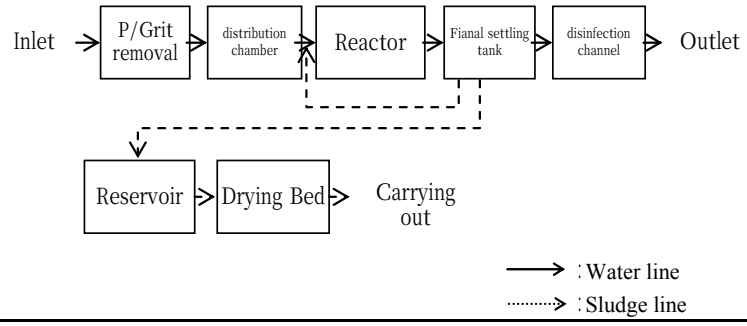
2. Treatment process & Efficiency

OD

unit:quality(mg/l),removal rate(%)

	raw	treated	removal
BOD	310	40	87
SS	360	30	92

3. Process



〔Sewage treatment〕

1. Inlet

Ground level	EL	
Diameter	φ700	
Grade	2.3 ‰	
Bottom level of Pipe		
water depth	0.46	m

2. Grit chamber

Flow	29,610	m^3/d (peak flow)
No. of chamber	2	no.
Width	1.4	m
length	6	m 22.5
Velocity	0.27	m/sec (Typically0.3)
Surface load	1,763	$m^3/m^2 \cdot d$ (Typically 1,800)
Retention time	22.53	sec

3. Main pump

Folw	20.56 m^3/min
Type of Pump	Submerged pump
No. of Pump	5 No.(one is backup)
Pumping capacity	5.14 m^3/min
Diameter of Pump	200 φ

$D = 146 \times \sqrt{(Q/V)}$

D : Diameter(mm)

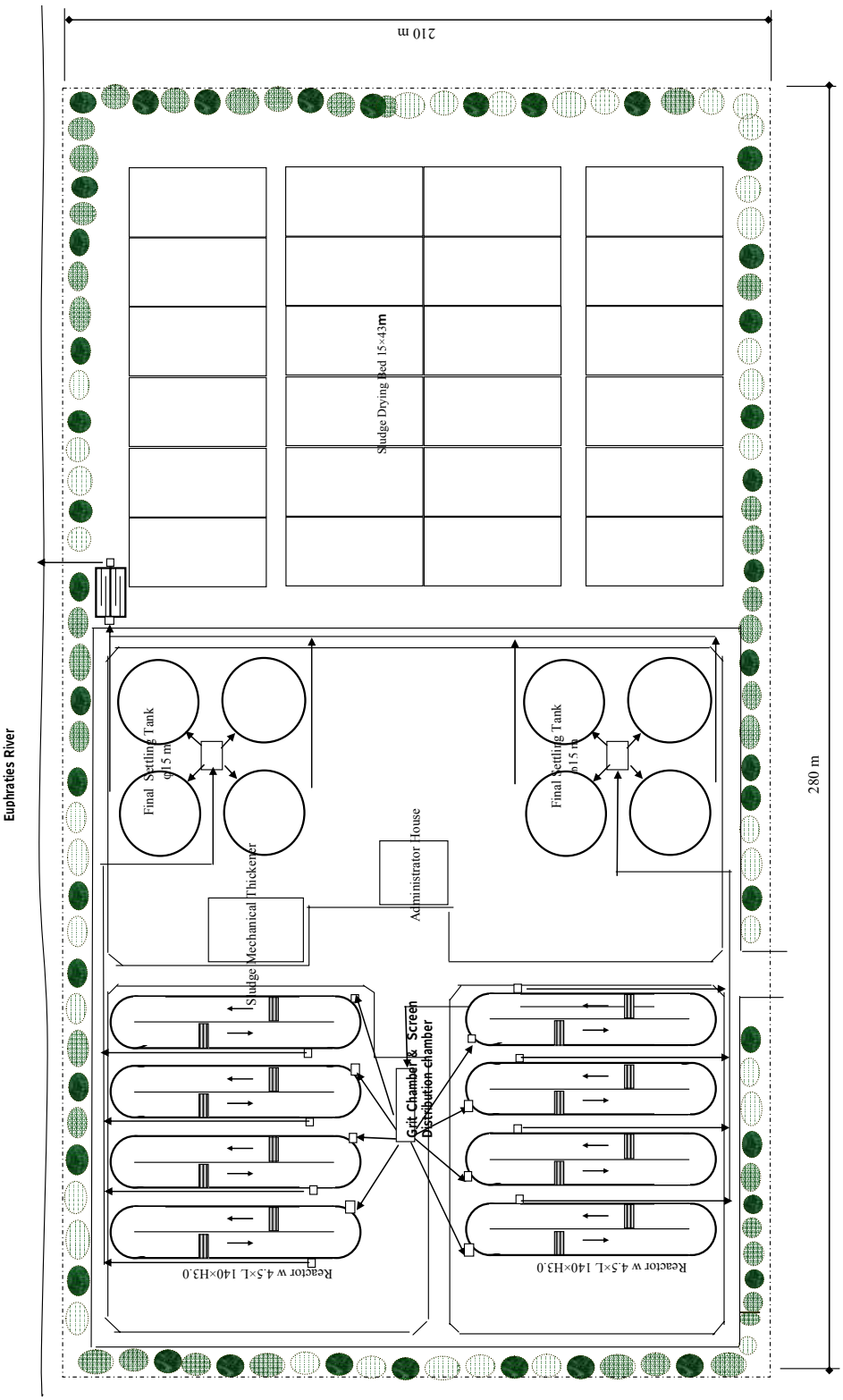
Q : Pump discharge(m^3/min)

V : Suction velocity(1.5～3.0 m/sec)

$=146^* \sqrt{(5.14/3)}=191$

Pump head	Actual head 4 m head loss 1 m Total head 5 m
Output power	11 kw P＝0.163×Q×H/η×(1+α) ＝ 8.0291 P：Output power (kw) Q：Pump discharge(m^3/min) H：Total head(m) η：Pump efficiecy(0.6) α：Margin(0.15)
Specification	φ200×5.14m^3/min×H5.0m×11kw×5No.
4. Reactor	
Capacity	15,300 m^3/d
Inlet quality	
BOD	310 mg/l
SS	360 mg/l
RAS Concentration	6,000 mg/l
Rate of RAS	150 % (100 to 200)
Volume of RAS	22,950 m^3/d
Target MLSS	3,000 mg/l (3,000 to 4,000)
MLSS	3,744 mg/l
Figuration/dimension	
No. of tank	8 No.
Capacity of one tank	1,913 m^3/d
Width	4.5 m
Length	140 m
Depth	3 m
Section	13.5 m^2
Volume of tank	1,890 m3/one tank
Retention time	24 hr (24 to 48)
BOD-SS Loading	0.084 kg-BOD/kg-SS･D(Japanese standard 0.03 to 0.05) high rate (Metcalf & Eddy 0.04 to 0.1) BOD-SS Loard＝Capacity･BOD/(MLSS･Volume)
BOD Loading	0.31 kg-BOD/m^3･D(Japanese Standard 0.15 to 0.25) (Metcalf & Eddy 0.1 to 0.3)
5. Equipment for aeration	
Actual Oxgen Requirement	
AOR/BOD	1.80 kg-O_2/kg-BOD(1.4 to 2.2)
Removal BOD	4131 kg/D
Standard Oxgen Requirement	
SOR	7435.8 kg-O_2/D
No. of Aerator	16 No. (Two for One tank)

6. Final settling tank	
Figuration/dimension	
No. of tank	8 No.
Capacity of one tank	1,913 m3/D
Figuration	Circular
Diameter	15 m
Depth	3.5 m
Surface area/one	176.6 m^2
Wear plate length	45.2 m
Volume/one	618.2 m^3
Sedimentation time	8 hr (6 to 12)
Surface loard	10.8 $m^3/m^2 \cdot D$ (8 to 12)
Overflow rate	21.2 $m^3/m \cdot D$ (<150)
7. Disinfection channel	
Capacity	15,300 m^3/D
Figuration/dimension	
Width	2.0 m
Length	21 m
Depth	1.9 m
No. of Channel	2 No.
Volume	159.6 m^3
Contact time	15.0 min (15min and above)
Chlorine injection rate	
8. Outlet	
Diameter	φ700
9. Sludge Volume	
Sludge density	1.0 %
Sludge generated rate	75.0 % of Removed SS
Removed SS	Inlet SS - Outlet SS
	5049.0 kg/D
Dry solid	Removed SS*75%
	3786.8 kg/D
Sludge Volume	378.7 m^3/D
11.Mechanical thickener	
Type of Machine	Centrifugal thickener
No.	2 No.
Capacity for one machine	1893.375 kg/D
12.Sludge Drying Bed	
Sludge loading rate	90 kg·dry solid/m^2·yr (60 to 100)
Surface of Drying Bed	Dry solid*365days/Sludge louding rate
	15357 m^2
No. of Drying Bed	24 No.
Dimension	
Width	15.0 m (6 to 15)
length	43.0 m (20 to 45)
Moisture content	60 %
Sludge Volume	9.5 m^3/D



الشكل A9.3.4. ملخص خطة محطة معالجة الميادين

(4)المالكية

1. Flow

	m^3/d	m^3/hr 0	m^3/min 0	m^3/sec 0
	4,520	188	3.14	0.052
	8,740	364	6.07	0.101

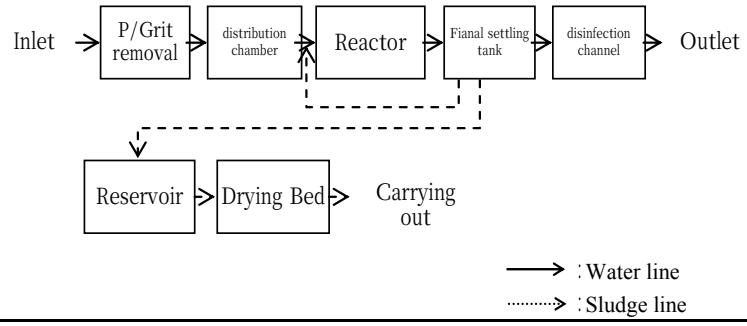
2. Treatment process & Efficiency

OD

unit:quality(mg/l),removal rate(%)

	raw	treated	removal
BOD	310	40	87
SS	360	30	92

3. Process



〔Sewage treatment〕

1. Inlet

Ground level	EL
Diameter	φ400
Grade	4 ‰
Bottom level of Pipe	
water depth	0.26 m

2. Grit chamber

Flow	8,740	m^3/d (peak flow)
No. of chamber	1	no.
Width	1.3	m
length	4	m 13.4
Velocity	0.30	m/sec (Typically0.3)
Surface load	1,681	$m^3/m^2 \cdot d$ (Typically 1,800)
Retention time	13.39	sec

3. Main pump

Folw	6.07 m^3/min
Type of Pump	Submerged pump
No. of Pump	3 No.(one is backup)
Pumping capacity	3.04 m^3/min
Diameter of Pump	150 φ

$D = 146 \times \sqrt{(Q/V)}$

D : Diameter(mm)

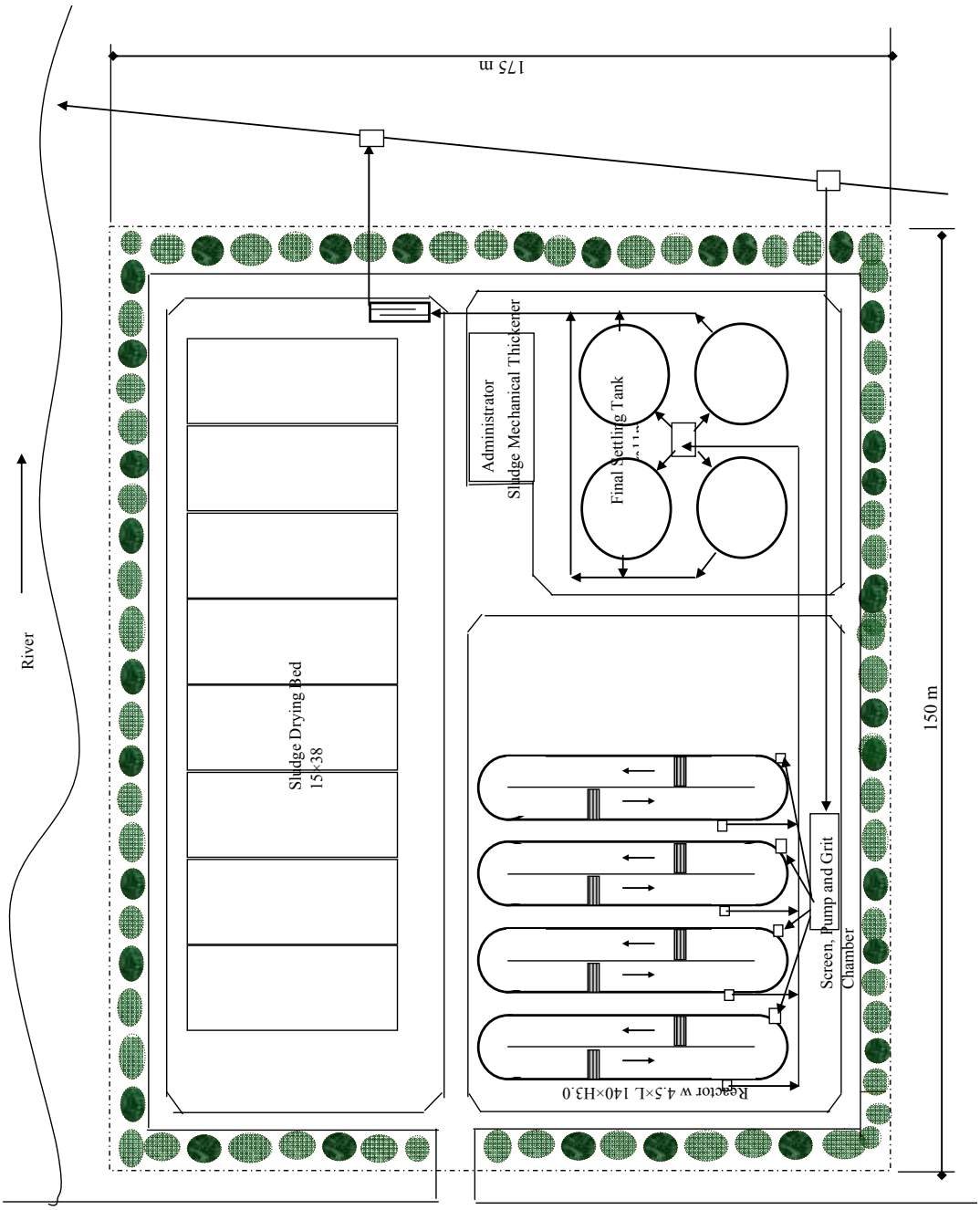
Q : Pump discharge(m^3/min)

V : Suction velocity(1.5～3.0 m/sec)

$=146 * \sqrt{(3.04/3)}=147$

Pump head	Actual head 3 m head loss 1 m Total head 4 m
Output power	3.7 kw P＝0.163×Q×H/η×(1+α) = 3.7927 P：Output power (kw) Q：Pump discharge(m^3/min) H：Total head(m) η：Pump efficiecy(0.6) α：Margin(0.15)
Specification	φ150×3.04m^3/min×H4.0m×3.7kw×3No.
4. Reactor	
Capacity	4,520 m^3/d
Inlet quality	
BOD	310 mg/l
SS	360 mg/l
RAS Concentration	6,000 mg/l
Rate of RAS	150 % (100 to 200)
Volume of RAS	6,780 m^3/d
Target MLSS	3,000 mg/l (3,000 to 4,000)
MLSS	3,744 mg/l
Figuration/dimension	
No. of tank	4 No.
Capacity of one tank	1,130 m^3/d
Width	4.5 m
Length	140 m
Depth	3 m
Section	13.5 m^2
Volume of tank	1,890 m3/one tank
Retention time	40 hr (24 to 48)
BOD-SS Loading	0.050 kg-BOD/kg-SS･D(Japanese standard 0.03 to 0.05) (Metcalf & Eddy 0.04 to 0.1) BOD-SS Loard＝Capacity･BOD/(MLSS･Volume)
BOD Loading	0.19 kg-BOD/m^3･D(Japanese Standard 0.15 to 0.25) (Metcalf & Eddy 0.1 to 0.3)
5. Equipment for aeration	
Actual Oxgen Requirement	
AOR/BOD	1.80 kg-O_2/kg-BOD(1.4 to 2.2)
Removal BOD	1220.4 kg/D
Standard Oxgen Requirement	
SOR	2196.7 kg-O_2/D
No. of Aerator	8 No. (Two for One tank)

6. Final settling tank	
Figuration/dimension	
No. of tank	4 No.
Capacity of one tank	1,130 m3/D
Figuration	Circular
Diameter	11 m
Depth	3.5 m
Surface area/one	95 m^2
Wear plate length	32.7 m
Volume/one	332.4 m^3
Sedimentation time	7 hr (6 to 12)
Surface loard	11.9 $m^3/m^2 \cdot D$ (8 to 12)
Overflow rate	34.6 m3/m·D (<150)
7. Disinfection channel	
Method	UV
Capacity	8,740 m^3/D
UV efficiency	70 %
Dose(D)	300 J/m^2
UV Intensity(I)	175 W/m^2
Dosing Time(T=D/I))	1.71 sec
Effective volume(V)	7.6 litre
Capacity per one lamp (q=V/T)	383 m^3/d
Required Number of lamp(n=Q/q)	22.8 No.
Module No.	6 No.
Actual Number of lamp	24
Figuration/dimension	
Width	0.9 m
Length	3.5 m
Depth	0.8 m
No. of Channel	1 No.
8. Outlet	
Diameter	φ400
9. Sludge Volume	
Sludge density	1.0 %
Sludge generated rate	75.0 % of Removed SS
Removed SS	Inlet SS - Outlet SS
	1491.6 kg/D 544434 kg/yr
Dry solid	Removed SS*75%
	1118.7 kg/D
Sludge Volume	111.9 m^3/D
10.Mechanical thickener	
Type of Machine	Centrifugal thickener
No.	1 No.
Capacity for one machine	1118.7 kg/D
11.Sludge Drying Bed	
Sludge loading rate	90 kg·dry solid/m^2·yr (60 to 100)
Surface of Drying Bed	Dry solid*365days/Sludge louding rate
	4537 m^2
No. of Drying Bed	8 No.
Dimension	
Width	15.0 m (6 to 15)
length	38.0 m (20 to 45)
Total area	4560 m^2
Moisture content	60 %
Sludge Volume	2.8 m^3/D



الشكل A9.3.5. ملخص خطة محطة معالجة المالكية

(5)الثورة

1. Flow and Population

Flow

	m^3/d	m^3/hr 0	m^3/min 0	m^3/sec 0
Average	17,890	745	12.42	0.207
Hourly Max	34,630	1,443	24.05	0.401

Population 115,600

*1.2= 138,720

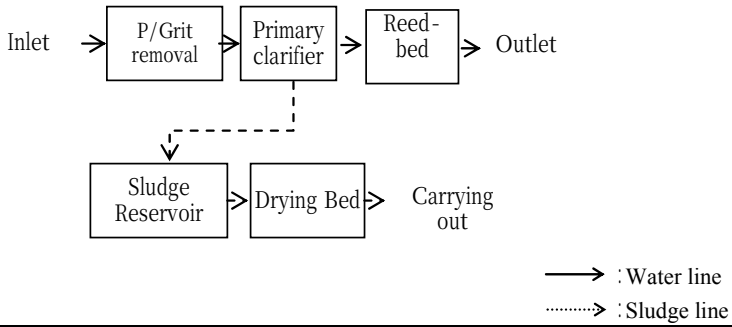
2. Treatment process & Efficiency

Wet-land

unit:quality(mg/l),removal rate(%)

	raw	treated	removal
BOD	310	40	87
SS	360	30	92

3. Process



(Sewage treatment)

1. Inlet

Ground level	EL	
Diameter	φ800	
Grade	1.6 ‰	
Bottom level of Pipe		
water depth	0.53	m

2. Grit chamber

Flow	34,630	m^3/d (peak flow)
No. of chamber	2	no.
Width	1.3	m
length	7.5	m
Velocity	0.29	m/sec (Typically0.3)
Surface load	1,776	$m^3/m^2 \cdot d$ (Typically 1,800)
Retention time	48.6284	sec (30 to 60)

3. Main pump

Flow	24.05 m^3/min
Type of Pump	Submerged pump
No. of Pump	5 No.(one is backup)
Pumping capacity	6.01 m^3/min
Diameter of Pump	250 φ

$D = 146 \times \sqrt{(Q/V)}$

D : Diameter(mm)

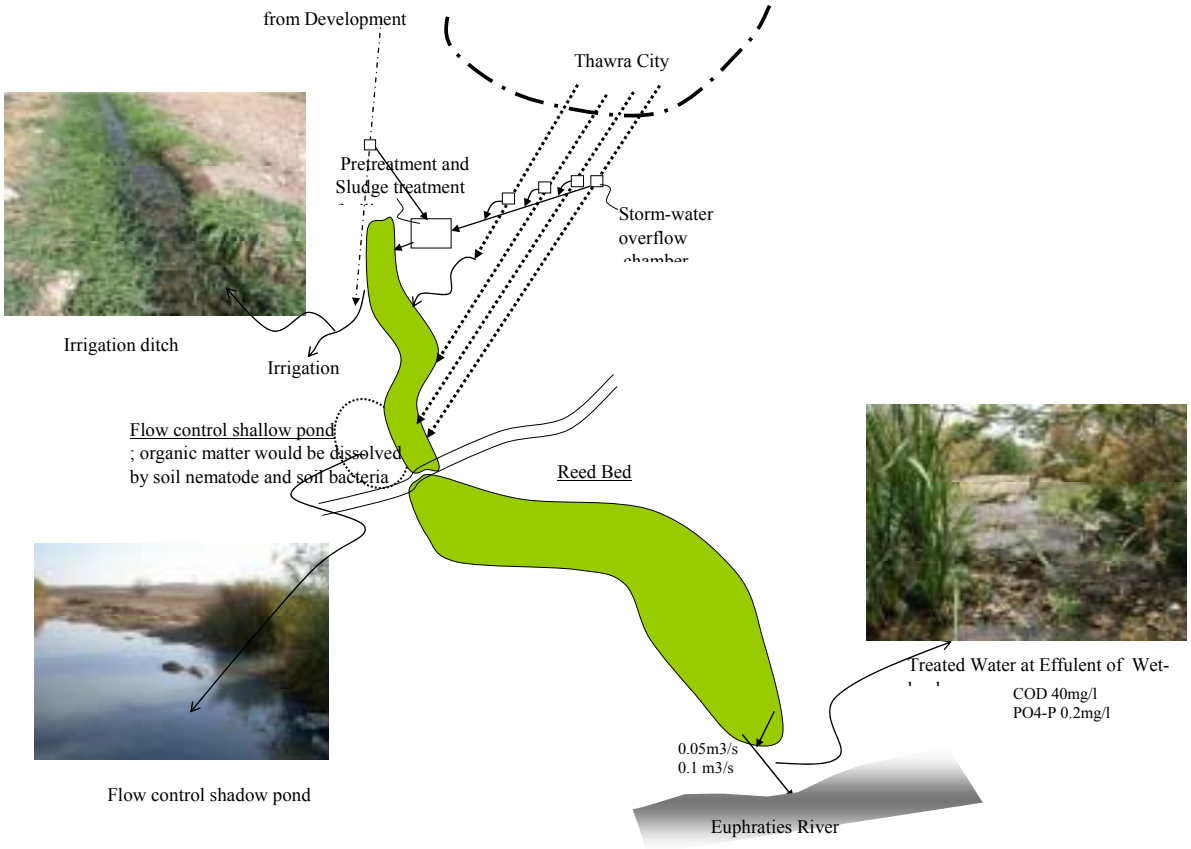
Q : Pump discharge(m^3/min)

V : Suction velocity(1.5～3.0 m/sec)

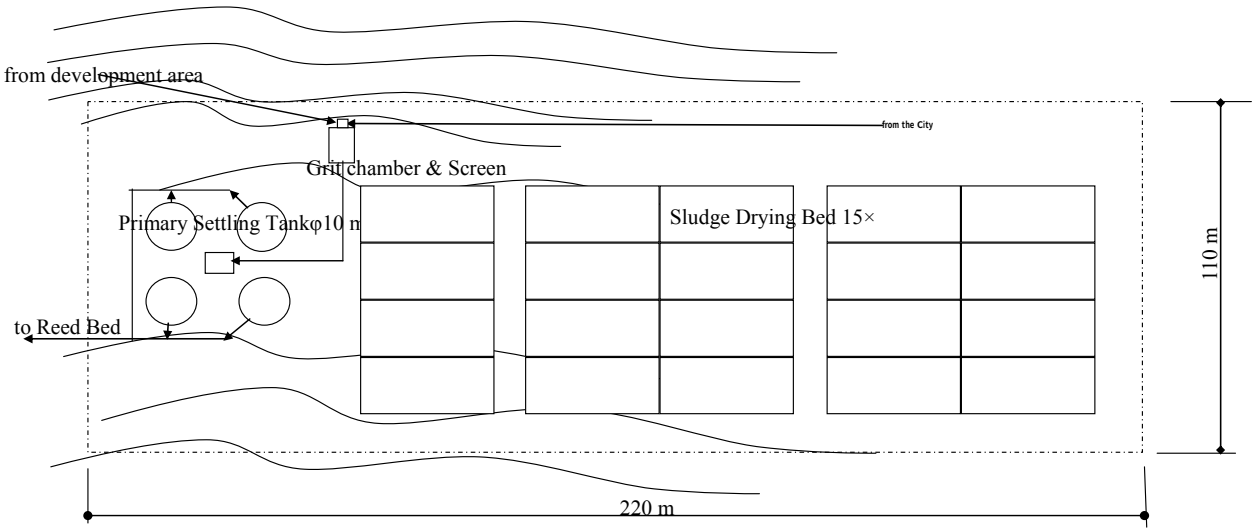
$=146^* \sqrt{(6.01/3)}=207$

Pump head	Actual head 5 m head loss 1 m Total head 6 m
Output power	11 kw P＝0.163×Q×H/η×(1+α) = 11.27 P：Output power (kw) Q：Pump discharge(m^3/min) H：Total head(m) η：Pump efficiecy(0.6) α：Margin(0.15)
Specification	φ250×6.01m^3/min×H6.0m×11kw×5No.
4. Primary settling tank	
No. of tank	4 No.
Capacity of one tank	4,473 m3/D
Figuration	Circular
Diameter	10 m
Depth	3.5 m
Surface area/one	78.5 m^2
Wear plate length	29.5 m
Volume/one	274.8 m^3
Sedimentation time	1 hr
Surface loard	57.0 m^3/m^2･D (35 to 70)
Overflow rate	151.6 m^3/m･D (250)
5. Reed Bed	
No. of Reed bed	1 No.
Required Width	35 m
Required Length	2000 m
Area Requirment	0.505 m^2/c (>0.5m2/c)

6. Sudge Volume	
Sludge density	4.0 %
SS Removal Rate in at primary settling tank	40.0 %
Removed SS	Inlet SS * 40% 2361.5 kg/D (dry solid)
Sludge Volume	59.0 m^3/D
7. Sludge Reservoir	
Retention Time	24.0 hr
Volume	59.0 m^3/D
Figuration/dimension	Rectanguler Tank with Mixing air/Mixing machine
No.	2 No.
Width	3.0 m
length	3.0 m
Depth	3.3 m
8.Sludge Drying Bed	
Sludge loading rate	90 kg·dry solid/m^2·yr (60 to 100)
Surface of Drying Bed	Dry solid*365days/Sludge louding rate 9577 m^2
No. of Drying Bed	20 No.
Dimension	
Width	15.0 m (6 to 15)
length	32.0 m (20 to 45)
Moisture content	60 %
Sludge Volume	5.9 m^3/D



الشكل A9.3.6 خطة تخطيطية للأرض الرطبة في الثورة



الشكل A9.3.7 ملخص خطة لمنشآت ما قبل معالجة الحمأة ومعالجتها في محطة الثورة

(6)مزيريب

1. Flow and Population

Flow

	m^3/d	m^3/hr 0	m^3/min 0	m^3/sec 0
Average	3,990	166	2.77	0.046
Hourly Max	7,730	322	5.37	0.089

Population

30,500

*1.2= 36,600

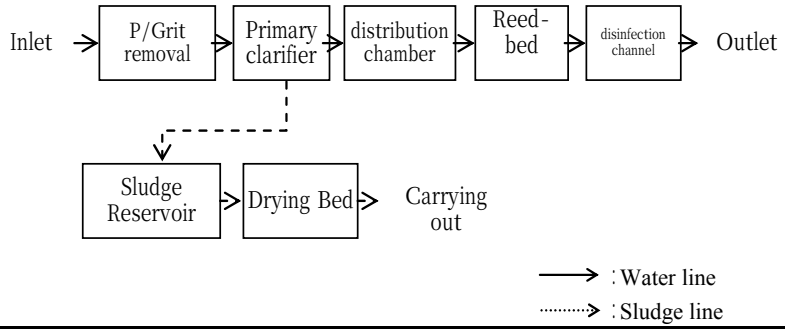
2. Treatment process & Efficiency

Wet-land

unit:quality(mg/l),removal rate(%)

	raw	treated	removal
BOD	310	40	87
SS	360	30	92

3. Process



(Sewage treatment)

1. Inlet

Ground level	EL	
Diameter	φ500	
Grade	1 ‰	
Bottom level of Pipe		
water depth	0.33	m

2. Grit chamber

Flow	7,730	m^3/d (peak flow)
No. of chamber	1	no.
Width	0.9	m
length	5	m
Velocity	0.30	m/sec (Typically0.3)
Surface load	1,718	$m^3/m^2 \cdot d$ (Typically 1,800)
Retention time	50.56	sec (30 to 60)

3. Main pump

Flow	5.37 m^3/min
Type of Pump	Submerged pump
No. of Pump	3 No.(one is backup)
Pumping capacity	2.69 m^3/min
Diameter of Pump	150 φ

$D = 146 \times \sqrt{(Q/V)}$

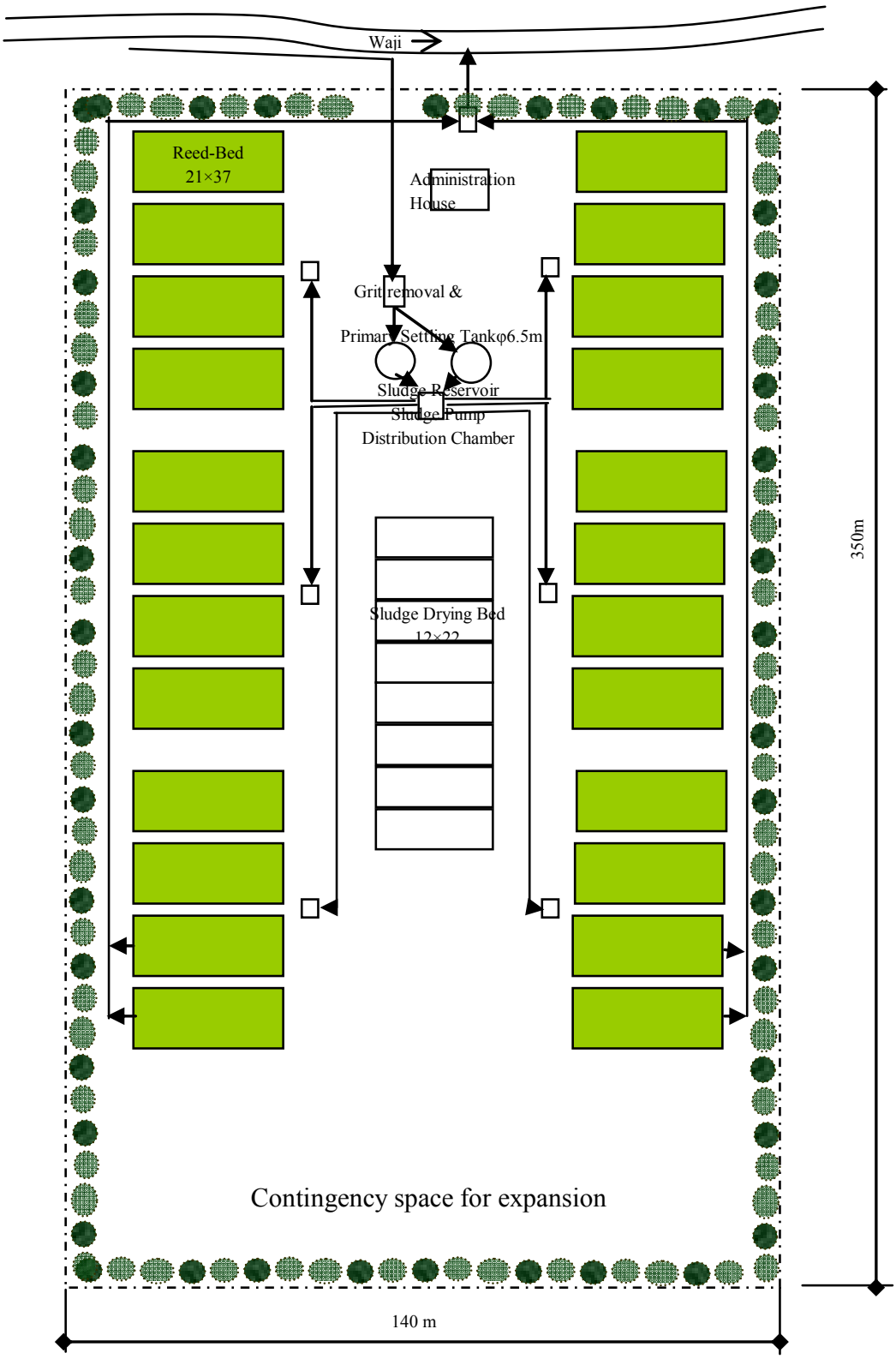
D : Diameter(mm)

Q : Pump discharge(m^3/min)

V : Suction velocity(1.5～3.0 m/sec)

$=146^* \sqrt{(2.69/3)}=138$

Pump head	Actual head 4 m head loss 1 m Total head 5 m
Output power	5.5 kw P＝0.163×Q×H/η×(1+α) = 4.1942 P：Output power (kw) Q：Pump discharge(m^3/min) H：Total head(m) η：Pump efficiecy(0.6) α：Margin(0.15)
Specification	φ150×2.69m^3/min×H5.0m×5.5kw×3No.
4. Primary settling tank	
No. of tank	2 No.
Capacity of one tank	1,995 m3/D
Figuration	Circular
Diameter	6.5 m
Depth	3.5 m
Surface area/one	33.2 m^2
Wear plate length	18.5 m
Volume/one	116.1 m^3
Sedimentation time	1 hr
Surface loard	60.1 m^3/m^2･D (35 to 70)
Overflow rate	107.8 m^3/m･D (250)
5. Reed Bed	
No. of Reed bed	24 No.
Width	21 m
Length	37 m
Area Requirment	0.510 m^2/c (>0.5m2/c)
6. Outlet	
Diameter	φ500
7. Sudge Volume	
Sludge density	4.0 %
SS Removal Rate in at primary settling tank	40.0 %
Removed SS	Inlet SS * 40% 526.7 kg/D (dry solid)
Sludge Volume	13.2 m^3/D
8 Sludge Drying Bed	
Sludge loading rate	90 kg･dry solid/m^2･yr (60 to 100)
Surface of Drying Bed	Dry solid*365days/Sludge louding rate 2136 m^2
No. of Drying Bed	8 No.
Dimension	
Width	12.0 m (6 to 15)
length	22.0 m (20 to 45)
Moisture content	60 %
Sludge Volume	1.3 m^3/D



الشكل A9.3.8. ملخص خطة محطة معالجة مزيريب

(7)الزبداني

1. Flow

	m^3/d	m^3/hr 0	m^3/min 0	m^3/sec 0
	22,200	925	15.42	0.257
	42,970	1,790	29.84	0.497

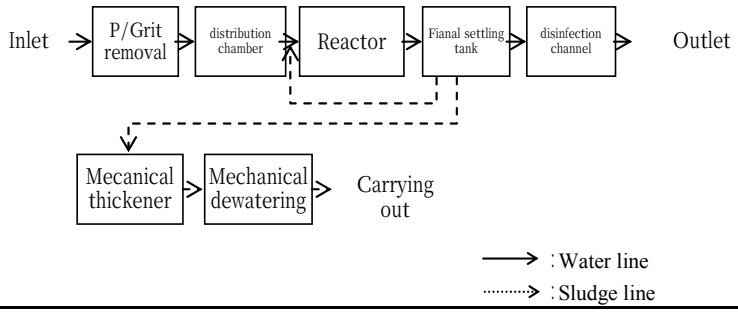
2. Treatment process & Efficiency

OD

unit:quality(mg/l),removal rate(%)

	raw	treated	removal
BOD	310	30	90
SS	360	30	92

3. Process



(Sewage treatment)

1. Inlet

Ground level	EL
Diameter	φ800
Grade	2.4 ‰
Bottom level of Pipe	
water depth	0.53 m

2. Grit chamber

Flow	42,970	m^3/d (peak flow)
No. of chamber	2	no.
Width	1.6	m
length	8	m
Velocity	0.29	m/sec (Typically0.3)
Surface load	1,679	$m^3/m^2 \cdot d$ (Typically 1,800)
Retention time	27.3	sec

3. Main pump

Folw	29.84 m^3/min
Type of Pump	Submerged pump
No. of Pump	5 No.(one is backup)
Pumping capacity	7.46 m^3/min
Diameter of Pump	250 φ

$D = 146 \times \sqrt{(Q/V)}$

D : Diameter(mm)

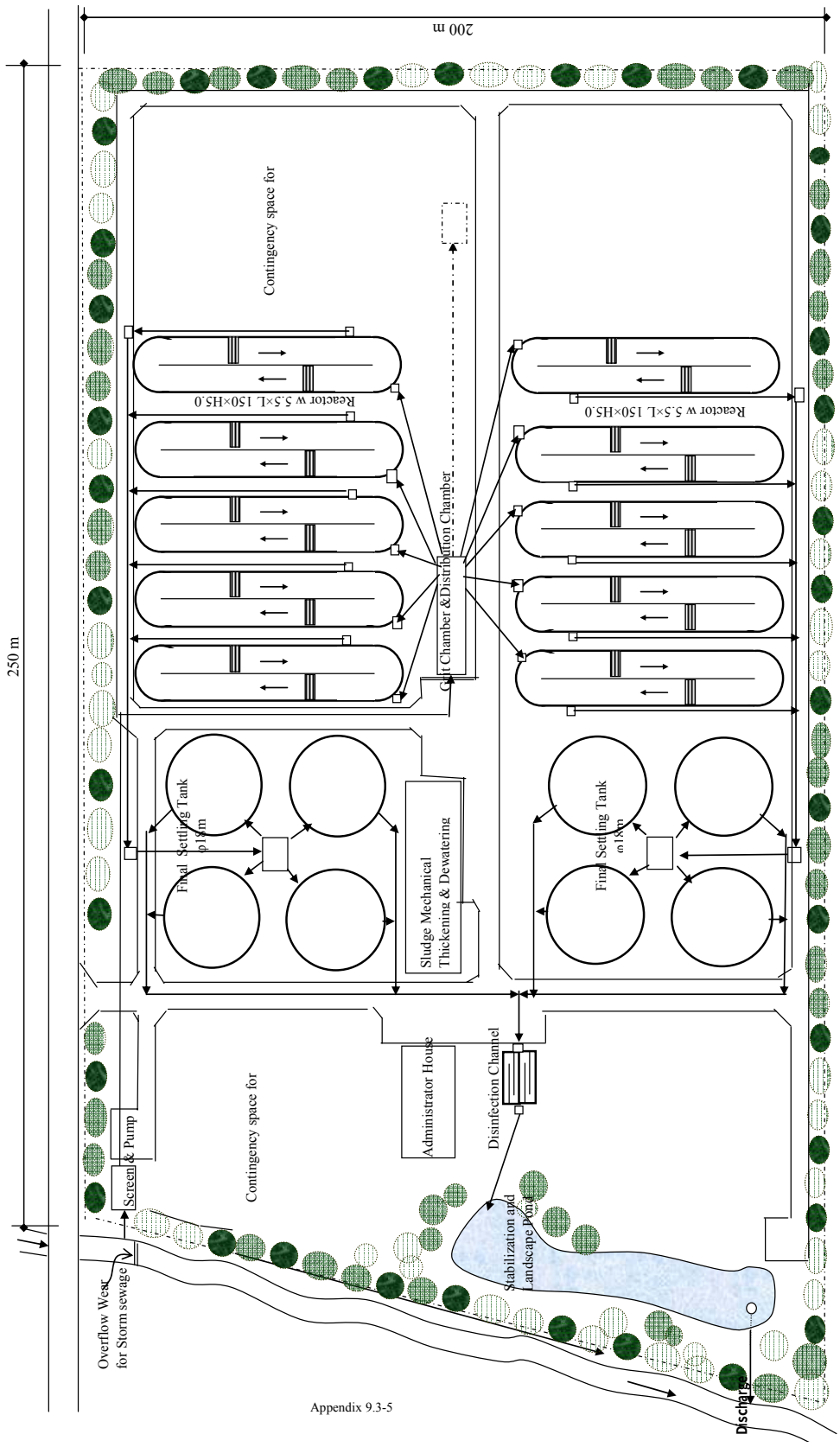
Q : Pump discharge(m^3/min)

V : Suction velocity(1.5～3.0 m/sec)

$=146^* \sqrt{(7.46/3)}=230$

Pump head	Actual head 4 m head loss 2 m Total head 6 m
Output power	15 kw P＝0.163×Q×H/η×(1+α) ＝ 13.984 P：Output power (kw) Q：Pump discharge(m^3/min) H：Total head(m) η：Pump efficiecy(0.6) α：Margin(0.15)
Specification	φ250×7.46m^3/min×H5.0m×15kw×6No.
4. Reactor	
Capacity	22,200 m^3/d
Inlet quality	
BOD	310 mg/l
SS	360 mg/l
RAS Concentration	6,000 mg/l
Rate of RAS	150 % (100 to 200)
Volume of RAS	33,300 m^3/d
Target MLSS	3,000 mg/l (3,000 to 4,000)
MLSS	3,744 mg/l
Figuration/dimension	
No. of tank	10 No.
Capacity of one tank	2,220 m^3/d
Width	5.5 m
Length	150 m
Depth	5 m
Section	27.5 m^2
Volume of tank	4,125 m3/one tank
Retention time	45 hr (24 to 48)
BOD-SS Loading	0.045 kg-BOD/kg-SS･D(Japanese standard 0.03 to 0.05) (Metcalf & Eddy 0.04 to 0.1) BOD-SS Loard＝Capacity･BOD/(MLSS･Volume)
BOD Loading	0.17 kg-BOD/m^3･D(Japanese Standard 0.15 to 0.25) (Metcalf & Eddy 0.1 to 0.3)
5. Equipment for aeration	
Actual Oxgen Requirement	
AOR/BOD	1.80 kg-O_2/kg-BOD(1.4 to 2.2)
Removal BOD	6216 kg/D
Standard Oxgen Requirement	
SOR	11189 kg-O_2/D
No. of Aerator	20 No. (Two for One tank)

6. Final settling tank	
Figuration/dimension	
No. of tank	8 No.
Capacity of one tank	2,775 m^3/D
Figuration	Circular
Diameter	18 m
Depth	3.5 m
Surface area/one	254.3 m^2
Wear plate length	54.6 m
Volume/one	890.2 m^3
Sedimentation time	8 hr (6 to 12)
Surface loard	10.9 $m^3/m^2 \cdot D$ (8 to 12)
Overflow rate	25.4 $m^3/m \cdot D$ (<150)
7. Disinfection channel	
Method	UV
Capacity	42,970 m^3/D
UV efficiency	70 %
Dose(D)	300 J/m2 (300～500)
UV Intensity(I)	175 W/m2
Dosing Time(T=D/I))	1.71 sec
Effective volume(V)	7.6 litre
Capacity per one lamp (q=V/T)	383 m^3/d
Required Number of lamp(n=Q/q)	112 No.
Module No.	28 No.
Actual Number of lamp	112
Figuration/dimension	
Width	1.5 m
Length	3.5 m
Depth	0.8 m
No. of Channel	3 No.
8. Outlet	
Diameter	φ800
9. Sudge Volume	
Sludge density	1.0 %
Sludge generated rate	75.0 % of Removed SS
Removed SS	Inlet SS - Outlet SS
	7326.0 kg/D
Dry solid	Removed SS*75%
	5494.5 kg/D
Sludge Volume	549.5 m^3/D
10.Gravity thickener	
Figuration/dimension	
No. of tank	2 No.
Capacity of one tank	2,747 kg/D
	275 m3/D
Figuration	rectangular tank
Length and width	6 m
Depth	3.5 m
Surface area/one	36 m^2
Volume/one	126 m^3
Sedimentation time	11 hr
Surface loard	76.3 kg/m2·D
Sludge density	1.5 %
Sludge Volume	366.3 m^3/D
11.Mechanical dewatering	
Type of Machine	Centrifugal dewatering
No.	2 No.
Capacity for one machine	2747.25 kg/D
Moisture content	80 %
Sludge Volume	27.5 m^3/D



الشكل A9.3.9. ملخص خطة محطة معالجة الزبداني

Appendix 9.3-5

الملحق 9.4 دراسة حول كلفة طول شبكة الصرف

من أجل حساب عتبة طول المصرف، يتم تنفيذ مقارنة اقتصادية حول الحالات التالية:

الحالة 1: معالجة في الموقع عن طريق حفرة فنية

الحالة 2: معالجة خارج الموقع بالصرف الصحي (Q = 1000 م^3)

Case.1	**Construction Cost**			
Septic Tank	Septic Tank	48,000	SP/household	For 5person
	Equipment(Smal Pipes)	20,000	SP/household	10 m
	Total	68,000	SP/household	Cs1
	Maintenance Cost		per 30 years	
	Desludging	15,000	SP/household	3 times
	Soakpit Renovation	50,000	SP/household	5 times
	Total 30 years	133,000	SP/household	**C_{SEP}**
Case.2				
Sewerage	**STP**	15,792	SP/household	Q=1,000m3, 2,000 household
			per 30 years	
	Maintenance Cost	9,475	SP/household	SP/year
	Total 30 years	25,267	SP/household	**C_{STP}**

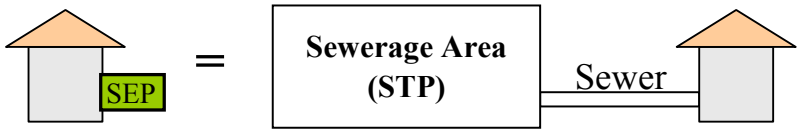
Maximum Cost Effective Sewer Length for Sewerage is

$C_{SEP} = (MSL * UC) + C_{STP}$

Where

MSL: Maximum Sewer Length of Cost Effective for Sewerage (m)

UC: Unit cost for sewer (SP/m)



$C_{SEP} - C_{STP}$	107,733	SP
UC	2,500	SP/m
Maximum Sewer Length	43.1	
say	**50.0**	m

الملحق 9.5 مقارنة نظام النقل في بانياس

9.5.1 كلفة الإنشاء

المقارنة لكلفة الإنشاء بين نظامي نقل في بانياس مبينة في **الجدولين A9.5.1 و A9.5.3**. وفقاً للجداول، فإن كلفة نظام متعدد الضغط أقل من نصف الكلفة لنظام مضخة الثقالة.

الجدول A9.5.1 مقارنة كلفة الإنشاء

(Unit: Mil.SP)

Facilities	Multi-pressure system	Gravity system
Pipe	72.6	76.7
Pump	15.0	135.6
Total	87.6	212.3

الجدول A9.5.2 مقارنة كلفة إنشاء الأنابيب

Pipe	Diameter (mm)	Unit cost	Facilities		Cost	
			Multi-pressure system	Gravity system	Multi-pressure system	Gravity system
		1000 SP/m	Length (m)	Length (m)	1000 SP	1000 SP
Gravity	300	3.5	330	330	1,155	1,155
	350	4.0	260	260	1,040	1,040
	450	5.0		140	0	700
	600	8.0		550	0	4,400
	700	10.5		780	0	8,190
	800	12.5		1,230	0	15,375
	900	15.5		1,220	0	18,910
Pressure	250	3.0	280		840	0
	300	3.5	1,100		3,850	0
	400	4.5	1,540		6,930	0
	500	6.0	3,640		21,840	0
	600	8.0	4,620	3,360	36,960	26,880
Total			11,770	7,870	72,615	76,650

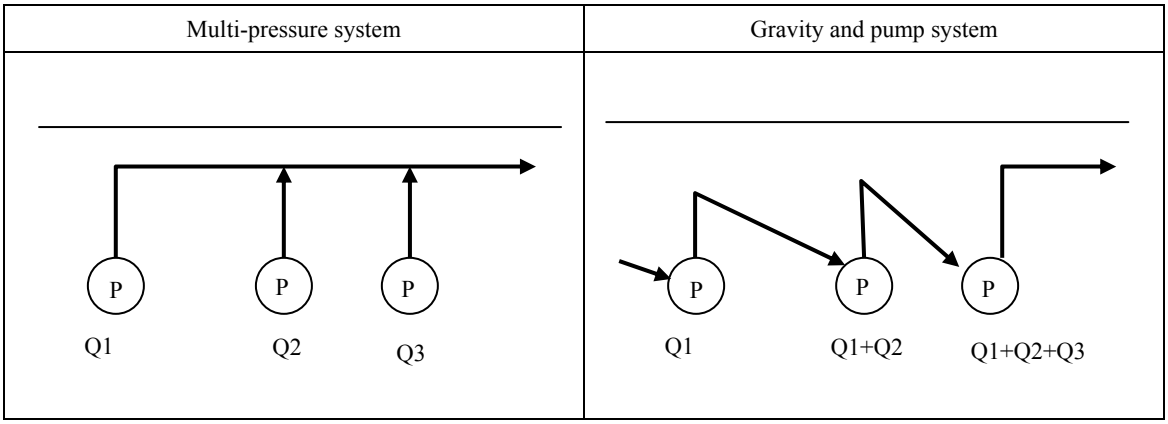
الجدول A9.5.3 مقارنة كلفة إنشاء المضخة

Pump	Pimp capacity	Unit cost	Facilities		Cost	
			Multi-pressure system	Gravity system	Multi-pressure system	Gravity system
	m^3/min	Mil.SP/set	set	set	Mil.SP	Mil.SP
Submerged	1.0	0.7	10		7.0	0.0
	3.0	1.0	8		8.0	0.0
Conventional	14.4	37.5		1	0.0	37.5
	21.6	47.7		1	0.0	47.7
	23.7	50.5		1	0.0	50.5
Total					15.0	135.6

9.5.2 كلفة الصيانة

بشكل عام، كلفة الصيانة متعلقة تقريباً بكمية الصرف الصحي الذي يتم ضخه. في نظام متعدد الضغط يتم ضخ الصرف الصحي في نقطة التصريف مرة واحدة. أي أن إجمالي الصرف الصحي الذي يتم ضخه هو إجمالي كمية الصرف الصحي. في نظام الثقالة والضخ، يتم ضخ الصرف الصحي مرتين أو أكثر. أي في هذا النظام إجمالي كمية الصرف الصحي الذي يتم ضخه أكثر من نظام متعدد الضخ. وبالتالي، في نظام متعدد الضخ كلفة الصيانة أرخص من كلفة نظام الثقالة والضخ.

الرسم التخطيطي للنظامين مبين في **الشكل A9.5.1.**



الشكل A9.5.1 الرسم التخطيطي للنظامين

9.5..3 خطة المنشآت

خطة المنشآت لنظام متعدد الضغط مبينة في **الجدول A9.5.4.**

الجدول A9.5.4 خطة المنشآت لنظام متعدد الضغط

No	Location	A (m^2)	Q (m^3/s)	Q (m^3/min)	1/2Q (m^3/min)	Pump (m^3/min)	Power (kw)	Pipe (m^3/min)	Calc.Dia (mm)	Dia (mm)	L (m)
1	Saqyat sook Elhal	0.28	0.024	1.5	0.7						326
2	Alqobbiat	0.13	0.011	0.6	0.3						255
3	Gamaa Altawhwed	0.50	0.043	2.6	1.3	3.0	3.0	3.0	0.25	250	139
4	Almawani	0.20 0.79	0.017 0.067	1.0 4.0	0.5 2.0	3.0	4.0	6.0	0.36	300	548
5	Ras Elnabaa	0.13 0.79	0.011 0.067	0.6 4.0	0.3 2.0	3.0	2.0	9.0	0.44	400	675
6	Gamaa Elbahr	0.13	0.011	0.6	0.3	1.0	1.0	10.0	0.46	400	95
7	Naqliat Alqadamos	0.79	0.067	4.0	2.0	3.0	3.0	13.0	0.53	500	362
8	Nahr Elgaam	0.20	0.017	1.0	0.5	1.0	1.5	14.0	0.55	500	871
9	Alzoryqat	0.28	0.024	1.5	0.7	1.0	2.0	15.0	0.56	500	580
10	Almashfa Elwatany	0.28	0.024	1.5	0.7	1.0	1.5	16.0	0.58	600	639
11	Shalehat Almasfah	0.13	0.011	0.6	0.3	1.0	2.0	17.0	0.60	600	1672
	Total	4.60	0.395			17.0					

خطة المنشآت لنظام الثقالة والضخ مبينة في **الجدول A9.5.5.**

الجدول A9.5.5 خطة المنشآت لنظام الثقالة والضخ

No	Location	A (m^2)	Q (m^3/s)	ΣQ (m^3/s)	Dia (mm)	I (‰)	v (m/s)	Q (m^3/s)	Pump (m^3/min)	L (m)
1	Saqyat sook Elhal	0.28	0.024	0.024	300	2.0	0.795	0.056		326
2	Alqobbiat	0.13	0.011	0.035	350	2.0	0.881	0.085		255
3	Gamaa Altawhwed	0.50	0.043	0.078	450	2.0	1.042	0.166		139
4	Almawani	0.20 0.79	0.017 0.067	0.095 0.162	600	1.8	1.198	0.339		548
5	Ras Elnabaa	0.13 0.79	0.011 0.067	0.173 0.241	700	1.8	1.327	0.511	14.4 *1	675
6	Gamaa Elbahr	0.13	0.011	0.251	700	1.8	1.327	0.511		95
7	Naqliat Alqadamos	0.79	0.067	0.319	800	1.6	1.368	0.688		362
8	Nahr Elgaam	0.20	0.017	0.336	800	1.6	1.368	0.688		871
9	Alzoryqat	0.28	0.024	0.360	900	1.4	1.384	0.881	21.6 *2	580
10	Almashfa Elwatany	0.28	0.024	0.384	900	1.4	1.384	0.881		639
11	Shalehat Almasfah	0.13	0.011	0.395	600×2				23.7 *3	1,672
	Total	4.60	0.395						59.7	

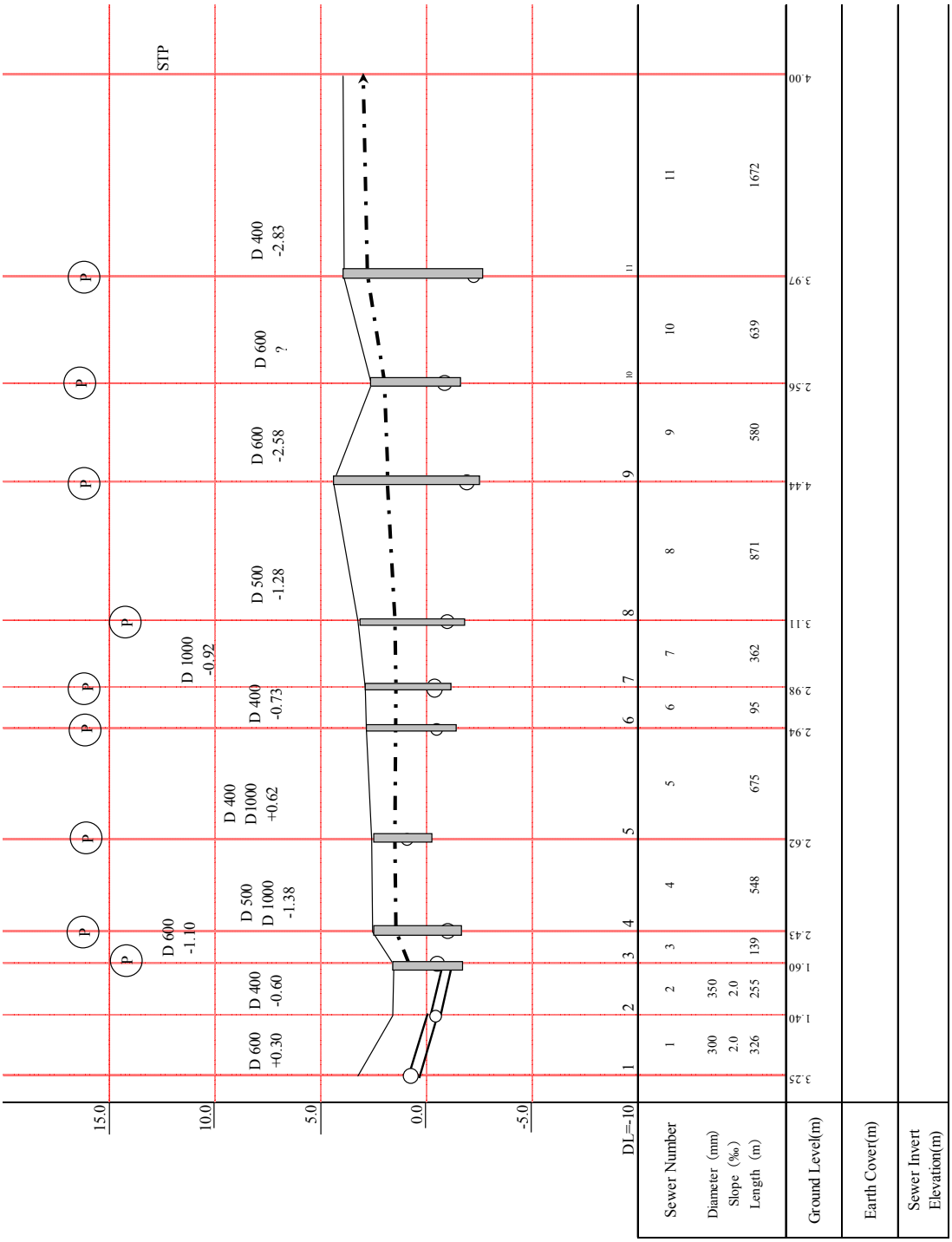
Summary of Pump specification

*1: 250mm×7.2m^3/min.×4.0m×10kw×3(1)units

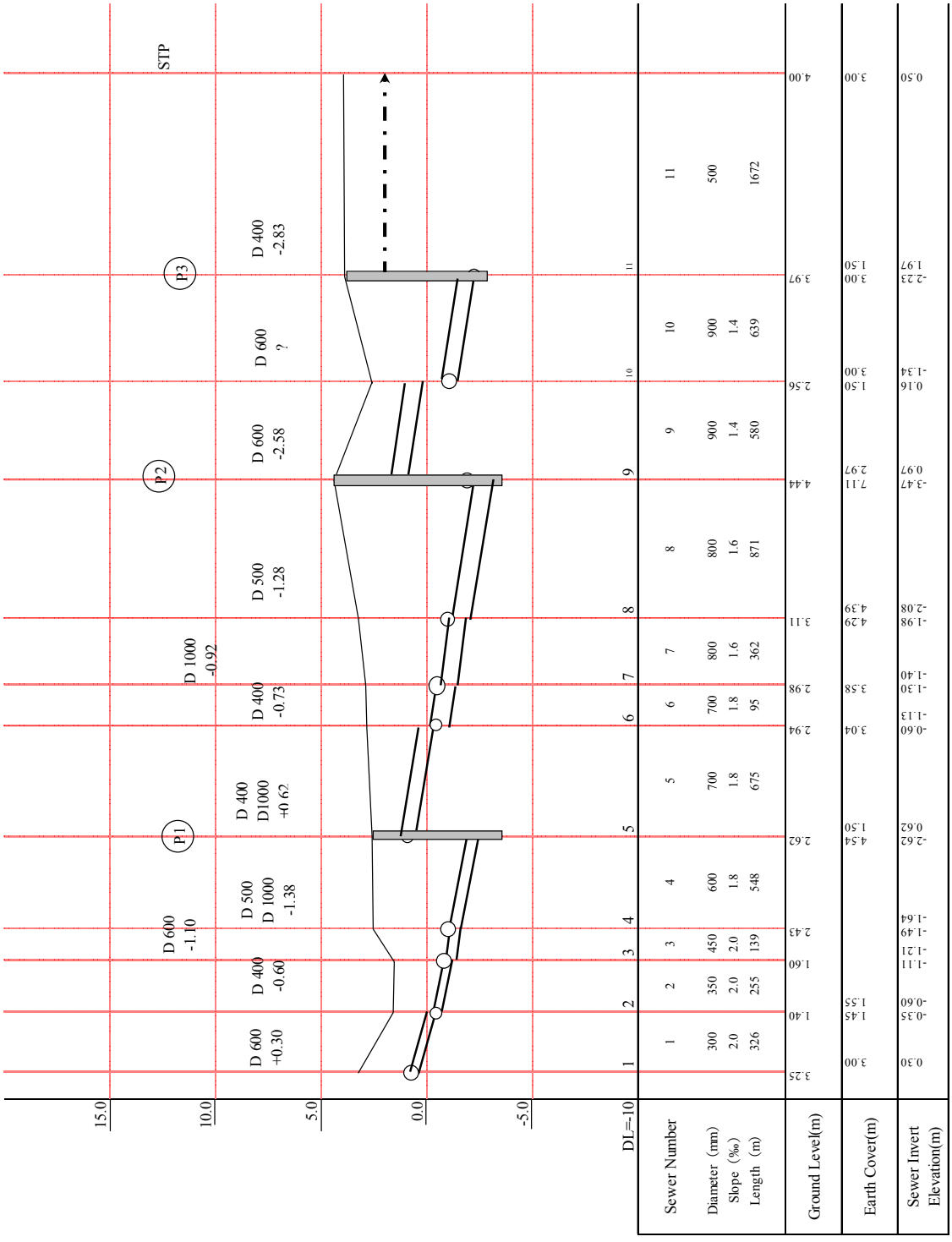
*2: 250mm×7.2m^3/min.×5.0m×12kw×4(1)units

*3: 250mm×7.9m^3/min.×5.5m×14kw×4(1)units

الرسوم الطولية لكلا النظامين مبينة في الشكلين **A9.5.2** و **A9.5.3**



الشكل A9.5.2 الرسوم الطولية لنظام متعدد الضغط



الشكل A9.5.3 الرسوم الطولية لنظام الثقالة والضخ

الملحق 9.6 مقارنة الكفاءة الإقتصادية للخطة الشاملة

(1) ظروف الدراسة

This study refered to the existing study of Banias sewerage.

Basic Cost on the study of Banias ($)

STP	construction Cost			5,800,000	
	O&M	$/month	$/year	35years※	※Average life period
	Manpower cost	4,885	58,620	2,051,700	of structure and equipment
	Power consuption		183,547	6,424,132	=(7637.35+2420)×365×0.05$
	Chemical and fuel		40,160	1,405,600	
PS	construction Cost				
	Power consuption		44,165	1,545,775	

STP Cost for Macro Plan on the basis of Banias

Capacity(m^3/d)	500	1,000	5,000	10,000	20,000	
construction Cost	1,440,000	1,670,000	3,530,000	5,800,000	10,500,000	Cost function
Manpower cost	399,000	466,200	1,262,100	2,051,700	3,099,600	
Power consuption	1,541,792	1,798,757	3,854,479	6,424,132	11,563,438	
Chemical and fuel	337,344	393,568	843,360	1,405,600	2,530,080	
Total	3,718,136	4,328,525	9,489,939	15,681,432	27,693,118	
Composition ratio of construction Cost	0.248	0.288	0.609	1.000	1.810	
Composition ratio of Manpower cost	0.194	0.227	0.615	1.000	1.511	
Composition ratio of Power+chemical	0.240	0.280	0.600	1.000	1.800	

Power consuption and chemical cost are based on the ratio of capacity on the basis of 10,000m3/d.

Construction Cost function : STP $C=(327.75Q+854.31)\times 0.17/120$ (US$)

PS $C=85.81Q^{0.598}\times 1.316\times 0.122/120$ (US$)

Manpower Requirement

Capacity(m^3/d)	500	1,000	5,000	10,000	20,000
Civil Eng.	1.0	1.0	1.0	1.0	2.0
Mecanical Eng.			1.0	1.0	1.0
Electrical Eng.			1.0	1.0	1.0
Civil Professional				1.0	1.0
Mechanical professional		0.5	2.0	3.0	5.0
Electrical professional		0.5	2.0	3.0	5.0
Skilled Labor for Operation	1.0	1.0	4.0	10.0	16.0
Skilled Labor for maintenance	1.0	1.0	3.0	6.0	10.0
Driver	1.0	1.0	1.0	2.0	3.0
Administrator	1.0	1.0	1.0	1.0	1.0
Chemist			1.0	1.0	1.0
Technician Chemist	0.5	0.5	1.0	2.0	3.0
	5.5	6.5	18.0	32.0	49.0

Manpower Cost ($/month)

Capacity(m^3/d)	500	1,000	5,000	10,000	20,000	Unit Cost
Civil Eng.	335	335	335	335	670	335
Mecanical Eng.			245	245	245	245
Electrical Eng.			245	245	245	245
Civil Professional				160	160	160
Mechanical professional		80	320	480	800	160
Electrical professional		80	320	480	800	160
Skilled Labor for Operation	120	120	480	1,200	1,920	120
Skilled Labor for maintenance	120	120	360	720	1,200	120
Driver	160	160	160	320	480	160
Administrator	135	135	135	135	135	135
Chemist			245	245	245	245
Technician Chemist	80	80	160	320	480	160
Total cost($/month)	950	1,110	3,005	4,885	7,380	
Total cost($/35years)	399,000	466,200	1,262,100	2,051,700	3,099,600	

Total cost on Pumping Station ($)

Capacity(m3/min)	0.69	1.39	6.94	13.89	27.78	
Construction cost	91,961	139,796	365,683	553,743	838,155	Cost function
Manpower cost	79,800	93,240	252,420	410,340	619,920	20% of STP
Power consuption	256,710	390,241	1,020,806	1,545,775	2,339,711	
Total	428,471	623,277	1,638,910	2,509,858	3,797,786	

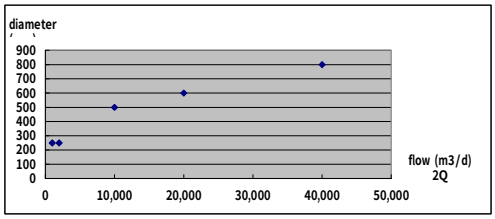
(2)الميادين

Condition on economical comparison for option

Population	5,000	10,000	50,000	100,000	200,000
Average flow (m^3/d)	500	1,000	5,000	10,000	20,000
Peak flow(m^3/d)	1,000	2,000	10,000	20,000	40,000
Diameter of MT(gravity)	250	250	500	600	800
capacity(m3/d)	6359	6359	25434	36625	65111
Margin (%)	536	218	154	83	63
Unit Cost of MT ($/m)	120	120	140	160	220
Diameter of MT(pressure)	100	150	300	400	500
V(m/s)	1.474404341	1.310581636	1.638227045	1.843005426	2.359046945
Unit Cost of pressure line ($/m)	80	100	120	130	140
Capacity of PS (m^3/min)	0.69	1.39	6.94	13.89	27.78
Total Cost of PS ($)	428,471	623,277	1,638,910	2,509,858	3,797,786
Capacity of STP (m^3/d)	500	1,000	5,000	10,000	20,000
Total Cost of STP ($)	3,718,136	4,328,525	9,489,939	15,681,432	27,693,118

V=1.5

flow	1,000	2,000	10,000	20,000	40,000
diameter	250	250	500	600	800



Option 1

Mayadeen area

	Saalou	Zeebag	BouRrous1	BouRrous1	Balum	Mayadeen →	STP ←	Mahgan	Total cost
population	8,050	8,350	6,577	8,179	1,756	81,570		19,641	
accumulating total	8,050	16,400	22,977	31,156	32,912	114,482	134,123	19,641	
2Q	1,610	3,280	4,595	6,231	6,582	22,896		3,928	
cost of Manhole						9,000			9,000
Diameter of MT	250	250	250	400	400	600		250	
distance(km)	4	3	3	2	2	3		3	
cost of MT	480,000	360,000	420,000	260,000	260,000	480,000		360,000	2,620,000
extention of net work(km)	4	4	4	4	4			4	
Cost of network(φ150)	400,000	400,000	400,000	400,000	400,000			400,000	2,400,000
cost of STP							19,780,179		19,780,179
Total cost of Mayadeen									24,809,179

Al-Eshara area

	Al-Eshara	
population	15,526	
accumulating total	15,526	
2Q	3,105	
cost of Manhole		3,000
Diameter of MT	250	
distance(km)	3	
cost of MT		360,000
cost of STP		5,041,574
Total cost of Al-Eshara		5,404,574

Total cost of Option 1 30,213,754

Option 2

	Saalou	Zeebag	BouRrous1	BouRrous1	Balum	Mayadeen →	STP←	Mahgan	Al-Eshara	Total cost
population	8,050	8,350	6,577	8,179	1,756	81,570		19,641	15,526	
accumulating total	8,050	16,400	22,977	31,156	32,912	114,482	149,649	35,167	15,526	
2Q	1,610	3,280	4,595	6,231	6,582	22,896		7,033	3,105	
cost of Manhole						9,000			3,000	12,000
Diameter of MT	250	250	250	400	400	600		400	250	
distance(km)	4	3	3	2	2	3		3	10	
cost of MT	480,000	360,000	360,000	260,000	260,000	480,000		390,000	1,200,000	3,790,000
extension of net work(km)	4	4	4	4	4			4		
Cost of network(φ150)	400,000	400,000	400,000	400,000	400,000			400,000		2,400,000
cost of PS									679,401	679,401
cost of STP							21,645,114			21,645,114
										28,526,515

Total cost of Option 2 28,526,515

Option 3

	Saalou	Zeebag	BouRrous1	BouRrous1	Balum	Mayadeen	Mahgan	Al-Eshara →	STP	Total cost
population	8,050	8,350	6,577	8,179	1,756	81,570	19,641	15,526		
accumulating total	8,050	16,400	22,977	31,156	32,912	114,482	134,123	149,649		
2Q	1,610	3,280	4,595	6,231	6,582	22,896	26,825	29,930		
cost of Manhole						9,000		3,000		12,000
Diameter of MT	250	250	250	400	400	600	700	700		
distance(km)	4	3	3	2	2	6	10	3		
cost of MT	480,000	360,000	360,000	260,000	260,000	960,000	1,900,000	570,000		5,150,000
extension of net work(km)	4	4	4	4	4		4			
Cost of network(φ150)	400,000	400,000	400,000	400,000	400,000		400,000			2,400,000
cost of PS						2,696,376				2,696,376
cost of STP									21,645,114	21,645,114
										31,903,490

Total cost of Option 3 31,903,490

(3)مزيريب

Condition on economical comparison for option

Population	5,000	10,000	50,000	100,000	200,000
Average flow (m^3/d)	500	1,000	5,000	10,000	20,000
Peak flow(m^3/d)	1,000	2,000	10,000	20,000	40,000
Diameter of MT(gravity)V＝1.5 m/s	250	250	500	600	800
capacity by 1.5m/s(m3/d)	6359	6359	25434	36625	65111
Margin (%)	536	218	154	83	63
Unit Cost of MT ($/m)	120	120	140	160	220
Diameter of MT(pressure)V=2.0m/s	100	150	300	400	500
V(m/s)	1.474404341	1.310581636	1.638227045	1.8430054	2.3590469
Unit Cost of pressure line ($/m)	80	100	120	130	140
Capacity of PS (m^3/min)	0.69	1.39	6.94	13.89	27.78
Total Cost of PS ($)	428,471	623,277	1,638,910	2,509,858	3,797,786
Capacity of STP (m^3/d)	500	1,000	5,000	10,000	20,000
Total Cost of STP ($)	3,718,136	4,328,525	9,489,939	15,681,432	27,693,118

Muzerib

Option 1; decentralization

	Muzerib	Yaduda	Atman
Population	17180	17200	15200
Cost of Manhole	40,000	80,000	40,000
Cost of STP	5,254,999	5,257,580	4,999,509
Total cost	15,512,087		

Option 2; coupling of Muzerib & Yaduda, independent for Atman

	population	cost($)	
Cost of Manhole		9,000	3 manholes
PS Muzerib		805,583	
MT φ200mm 4.5km from Muzerib		517,500	
MT φ300mm 2 km from Yaduda		240,000	
Cost of STP 1	34380	7,474,407	
Cost of STP Atman	15200	4,999,509	
Total cost		14,036,999	

Referential Option; centralization

	population	cost($)
Cost of Manhole		160,000
PS Muzerib		805,583
MT φ200mm 4.5km from Muzerib		517,500
MT φ300mm 2 km from Yaduda		240,000
Cost of STP	49580	9,489,939
PS Atman		755,310
MT φ200mm 4.5km from Atman		575,000
Total cost		12,383,332

(4)الثورة

Condition on economical comparison for option

Population	5,000	10,000	50,000	100,000	200,000
Average flow (m^3/d)	500	1,000	5,000	10,000	20,000
Peak flow(m^3/d)	1,000	2,000	10,000	20,000	40,000
Diameter of MT(gravity)v＝1.5 m/s	250	250	500	600	800
capacity by 1.5m/s(m3/d)	6359	6,359	25,434	36625	65111
Margin (%)	536	218	154	83	63
Unit Cost of MT ($/m)	120	120	140	160	220
Diameter of MT(pressure)V=2.0m/s	100	150	300	400	500
V(m/s)	1.474	1.311	1.638	1.843	2.359
Unit Cost of pressure line ($/m)	80	100	120	130	140
Capacity of PS (m^3/min)	0.69	1.39	6.94	13.89	27.78
Total Cost of PS ($)	428,471	623,277	1,638,910	2,509,858	3,797,786
Capacity of STP (m^3/d)	500	1,000	5,000	10,000	20,000
Total Cost of STP ($)	3,718,136	4,328,525	9,489,939	15,681,432	27,693,118

Option 1 (decentralization)

1) Thawra

Population	City on the hill	100,000	
	City on the lake	50,000	
		150,000	
		Cost($)	
STP	Q=15,000m3/d	8,674,910	
		8,674,910	

2) Mansuurah

		Cost($)	popiration	
STP	Q=5,000m3/d	9,489,939	50,000	c
PS	Q=2,000m3/d×5No	3,116,387		PS
MT	φ150×5×3000m	1,500,000		ditto
	sub-total	14,106,326		

Option 1 Total cost 22,781,236

Option 2 (centralization)

		Cost($)	population	
No.1 PS in Thawra	Q=0.69m3/min	428,471	50,000	c
ditto MT	φ100×4km	320,000		
No.2 PS in Thawra	Q=1.39m3/min×2	623,277	100,000	c
ditto MT	φ150×2km	200,000		
No.3 PS in Thawra	Q=2.08m3/min×2	1,131,094	150,000	c
ditto MT to STP	φ200×20km	2,200,000		
PS in Mansuurah	Q=2,000m3/d×5No	3,116,387		PS
ditto MT	φ150×5×3000m	1,500,000		ditto
STP		27,693,118	200,000	c

Option 2 Total cost 37,212,346

Referential Option (Option 2 + network construction cost on adjoining settlement)

Option 2 Total cost		40,933,581	110% of above.
Net work on Safsafe	10km	1,000,000	
Net work on Hounayada	11km	1,100,000	
Net work on Al-Hamam	8km	800,000	
Net work on Abe-Kabe'ee	6km	600,000	

Referebtial Option Total cost 44,433,581 1.95044644 /Option 1