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Water Consumption Behavior in Semi Urban Areas Beit Lahya Town AS A Case Study

By

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Dedication

To my Father and to my Mother, for her kindness

To my wife for her Support and Encouragement

To my lovely daughters BARAA and SAME

To my Brother HATEM and Sisters NESREEN and NESMA

To my Friends, Colleagues

To the Islamic University of Gaza

And to all those who believe in the richness of Learning

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Thanks to Allah the compassionate the merciful for giving me patience and strength to accomplish this research.

All thanks and appreciations go to Allah for His unlimited blessings and for giving me the strength to complete this study.

Special thanks are extended to my supervisor Dr. Husam AL-Najar for his considerable effort, great help and continuous scientific directing along this study.

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Thanks go to Beit Lahya Municipality, for providing me all the necessary information that was helpful in accomplishing this work.

Finally, my most appreciations are to my parents, wife, daughters, brothers and sisters for their full support, encouragement and patience that give me the power all life.

Abstract

Groundwater is the major source of drinking water in both urban and rural areas in the Gaza Strip. Population growth and urban expansion have persistently raised the demand for water supply and consequently, greatly increased the exploitation of groundwater in the Gaza strip. The importance of this research is to investigate the water consumption behavior in semi-rural area by studying the current distribution situation, water demand and supply, the unaccounted for water and studying the effect urban agriculture on the system efficiency. Therefore, field survey to determine the sources of water for irrigation, the agricultural area and water meter readings were conducted for continuous three periods two in summer and one in winter. Urban agriculture is one of the most persistent approaches for supplying food in the Gaza Strip. The main outcomes of the study are that farmers use the illegal domestic network for irrigation purposes leading to high percentage of unaccounted for water. This leads to higher water quota per capita in Beit Lahya which apparently exceeds 200 l/c.d. and the unaccounted for water more than 60% in semi urban quarters where green houses are the main agricultural practice. The difference between supply and demand indicates that the farmers use illegal connection to irrigate the adjacent agricultural areas. The overall system efficiency for water distribution is 42.0% and 55.7% for summer and winter periods, respectively. The quarters with intensive agriculture shows high percentage of unaccounted for water 73%, while the urban quarters unaccounted for water is 24%. Therefore new policy and regulation concerning water resources management should be implemented for the semi urban areas in the Gaza Strip.

ملخص البحث

تعتبر المياه الجوفية هي المصدر الرئيسي للمياه في المناطق الحضرية والريفية في قطاع غزة. فالنمو السكاني والتوسع العمراني له الأثر الكبير في زيادة الطلب على المياه واستهلاكها في مجالات مختلفة .تكمن أهمية هذا البحث في دراسة سلوك استهلاك المياه في المناطق الشبه حضرية وذلك بدراسة الوضع الحالي لشبكة مياه بيت لاهيا ودراسة الكميات التي يتم ضخها من الآبار للشبكة وأيضاً دراسة كميات المياه المفقودة ومدى تأثير الأراضي الزراعية على كفاءة شبكة المياه. الباحث قام بعمل مسح ميداني في منطقة الدراسة لمعرفة مصدر ري الأراضي الزراعية وكميات الزراعة في كل حي من أحياء مدينة بيت لاهيا ، كما تم متابعة قراءات عدادات المشتركين (مياه وصرف صحي) لمدة ثلاث دورات دورة شهر مايو ويونيو 2011، دورة شهري يوليو وأغسطس 2011 ثم دورة فصل الشتاء في شهري يناير وفبراير 2012م .

فمن المعروف أن الزراعة الحضرية هي واحدة من أهم المواد الغذائية في قطاع غزة، ولذلك كان من أهم النتائج التي تم الحصول عليها في هذه الدراسة أن المزارعين في المدينة يستخدمون مياه البلدية في ري مزروعاتهم الأمر الذي يؤدي إلي زيادة نسبة الفاقد في شبكة المياه والتي وصلت إلي ما يزيد على 60%، وبالتالي زيادة نسبة الفرد من كميات المياه والتي وصلت حسب الدراسة إلى ما يزيد على 200 لتر/ فرد/ اليوم .ولذلك وبعد الدراسة المتعمقة تبين أن معظم المزارعين يستخدمون مياه البلدية بشكل غير شرعي لري مزروعاتهم.

كفاءة الشبكة كانت حسب الدراسة 42% في فصل الصيف، و55.7% في فصل الشتاء، أصبح واضحاً أن نسبة الفاقد في المياه في المناطق الريفية يصل إلي 72% وفي المناطق الحضرية 24%.

وبالتالي فإن القطاع بحاجة إلي وضع سياسات وقوانين جديدة لتنظيم مصادر المياه في المناطق الشبه حضرية .

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List Of Abbreviations and Acronyms

AWWA	: American Water Work Association
BL	: Beit Lahay
CAMP	: Coastal Aquifer Management Program
CMWU	: Coastal municipal water utility
DSW	: Direct Supply from Wells
GDP	: Gross Domestic Production
GIS	: Geographic Information System
GS	: Gaza Strip
GUAC	: Gaza Urban Agriculture Committee
GUAC	: Gaza Urban Agriculture Committee
IWA	: International Water Association
MCM	: Million Cubic Metes
MOA	: Ministry Of Agriculture
MoA	: Ministry of Agriculture
MoLG	: Ministry of Local Government
NRW	: Non-revenue water
PARC	: Palestinian Agricultural Relief Committees
PWA	: Palestinian water authority
PWS	: Public Water System
UA	: Urban Agriculture
UFW	: Unaccounted-For Water
UNDP	: United Nations Development Programmed
US	: United State
WHO	: World Health Organization
WTS	: Water Tanks Supply

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1. INTRODUCTION

1.1 Background

Fresh water has become a scarce commodity due to over exploitation and pollution of water. Many countries are struggling to balance water use among municipal, industrial, agricultural, and recreational uses. Increasing population and its necessities have lead to the deterioration of surface and sub surface water. Groundwater is the major source of drinking water in both urban and rural areas in the Gaza Strip. The importance of groundwater for the existence of human society cannot be overemphasized. Besides, it is an important source of water for the agricultural and industrial sector. Groundwater crisis is not the result of natural factors; it has been caused by human actions.

The Gaza Strip depends mainly on groundwater which is reached by rainfall for its water supply. Average annual rainfall fluctuates from 200 mm in south Gaza to 400 mm in the north giving a total bulk amount of rainwater of about 115 million m^3. However, of this, only about 50 million m^3 actually replenishes the aquifer, and the rest either evaporates or runs straight out to sea. The total supply to the aquifer was 122 million m^3/year coming from different resources, rainfall infiltration, irrigation return flow, wastewater seepage and trans boundary flow (CAMP 2000). The total demand was164 million m^3, made up largely of 79 million m^3 domestic demand and 79 million m^3 agricultural demands (PWA, 2007). This clearly leaves a deficit of about 42 million m^3 every year, and fresh supplies urgently need to be found.

Population growth and urban expansion have persistently raised the demand for water supply and consequently, greatly increased the exploitation of groundwater in the Gaza strip. Approximately 90% of the domestic water in the Gaza Strip comes from this shallow coastal aquifer by municipal wells and 15%, mostly in agricultural areas, use private wells (Shomar, 2009). Groundwater is used for domestic, industrial and irrigation purposes. The water balance of the aquifer in year 2000 is negative because extraction exceeds recharge and inflow rates. This negative balance is a problem not only because of the decrease in volume of fresh water in the aquifer, but also because of the decrease in volume contributes to degradation of water quality (Al-Jamal, K.

and A. Al-Yaqubi, 2000). Underlying Gaza's geographical, political, social and economical positions, there are different local, national and international factors that make it difficult for the nation to break its long and ongoing poverty cycle. Therefore, Gaza's residents have been using possible means of saving their food needs. Urban agriculture is one of the most persistent approaches for supplying food in the Gaza Strip (Najar, 2007). The quantity and quality of drinking water have deteriorated over the past two decades, due to the excess use of irrigation water specially on the semi urban areas such as Beit Lahya and some other parts of khanyounis and Rafah, where farmers use the domestic network for irrigation purposes. This leads to higher water consumption per capita in Beit Lahya which apparently exceeds 200 l/c/d.

The importance of this research is to investigate the water consumption behavior in semi-rural area to develop clear tariff system by studying the current distribution situation, water demand and supply, calculate the unaccounted for water in the system and the effect urban agriculture on the Beit Lahya system efficiency.

1.2 Statement of the problem

The Gaza Strip is characterized by a rapid increase of population and expansion of cities and refugee camps. Large-scale, export-oriented agricultural production has reached its limits of land-use availability and, at the same time, is confronted with the socio-economic demands related to food insecurity and the need for income generation. Chemically intensive, unsustainable farming practices are leading to soil degradation, depletion and contamination of the vulnerable water resources. Increasing competition among urban needs makes soil and especially water very limited resources. "Agriculture in Gaza is already more urban than rural" was one of the conclusions of the Gaza Urban Agriculture Committee (GUAC) workshop in 2000, referring to the high degree of urbanization of the area, the potentials for Urban Agriculture (UA) in Gaza simply cannot afford to be neglected. Accordingly, the urban agriculture will influence on the efficiency of water network because its need the huge amount of water.

Beit Lahya municipality has eight wells in its program to serve the domestic water demands in the area providing about 6.1 MCM in year 2010 from the existing eight wells, Table 1 shows a breakdown of Beit Lahya municipal water wells abstraction quantities for year 2006, 2007, 2008 and 2010. Therefore, the required water

Consumption in the city is 2.827 MCM for year 2010 as shown in table 1.2. Then, the water supply from wells to distribution system exceeds the water required. Noted Also that the amount of water supplied in summer season exceeds the water supplied in winter season. The water supplied in 2006 is exceeded the water supply in 2005 about 1 MCM because construction the Sheikh Zayed housing project.

Table 1.1: Water production from wells for the years 2005-2010 for Beit Lahya

month	2005	2006	2007	2008	2010
	total production, m3				
January	307667	294937	348671	294937	477719.8
February	256761	399806	378285	399806	413949.4
march	295110	443097	440106	443097	483125.8
April	314254	429930	523413	478907	539824.9
may	337315	442917	354356	517262	540328.4
June	376588	456615	425284	548760	531114
July	443770	517279	599812	600778	499950.9
august	470851	432811	543927	588553	565647.2
September	359875	432814	449673	511568	713461.8
October	444535	437820	425284	511568	453755.4
November	383018	471689	459496	571689	436896
December	374850	376985	360380	423885	443079.6
total	4364594	5136700	5308687	5890810	6098853

Source: Coastal Municipalities Water Utility, 2011

Table 1.2 shows the efficiency of water distribution system in municipality, it is obvious that Unaccounted For Water equal 53.6% and the efficiency of distribution equal 46.4, Such issue can refer to:

- Increase the urban agriculture in city.

- Losses from the network, physical or commercial losses.

- The illegal connection without any monitoring or control.

- The abstract water quantity does not cover the forecast of future population.

Table 1.2: Yearly Groundwater Abstraction Quantities

Items	2010
Population (1). (Beit Lahya muncibility,2011)	72,500 inhabitant
Total Municipal Water Production (MCM) . (CMWU,2011)	6.098
Total Municipal Water readings (MCM). (Beit Lahya muncibility,2011)	2.827
Efficiency %	46.4%
Per Capita Per Day (L/C/D)	230[(1)]-107[(2)]

(1) Computed value according to abstracted water

(2) Computed value according to flow meter readings

1.3 Research objectives

The main objective of this research is to study the effect of urban agriculture in Beit Lahya town on the behavior of water consumption in order to improve the water services offered by the municipality and to minimize the overwhelming pressure in the groundwater. This can be achieved by:

1. Study and evaluation the current situation of water distribution system.
2. Study the current water demand situation
3. Identify the main factors that lead to increased losses in the water.
4. Study the influence of urban agriculture to water distribution system.
5. Calculate Billed and unbilled authorized consumption.
6. Develop an approach for managing water demand
7. Identify the water tariff system in municipality.

2. STUDY AREA

2.1 Introduction

The Gaza Strip is a part of the Palestinian coastal plain in the south west of Palestine, where it forms long and narrow rectangle on the Mediterranean Sea. It is located between longitudes 34 2'' and 34 25'' east and latitudes 31° 16'' and 31° 45'' north. It is bordered by Egypt from the south, Negev desert from east and the green line from the north. The Gaza Strip occupies an area of about 365 Km^2; about 45 Km long and 5 to 15 Km wide. Gaza Strip is divided into five Governorates as shown in figure 2.1(Khalaf, 2005).

The North Governorate with Total area of about 60.98Km^2 and comprises three towns; Jabalia, Beit Hanon and Beit Lahya, 2) Gaza Governorate with Total area of 73.35 Km^2, 3) Mid Zone Governorate that presented a Total area of 56.22 Km^2 and has 5 refugees camps; Deir Elbalah, Maghazi, Burij, Nussirat and Zwaida, 4) Khanyounis Governorate with the Total area of 110 Km^2 and , 5) Rafah Governorate with a Total area of 60.48 Km^2 (Khalaf, 2005).

2.2 Location of the Study

Beit Lahya is located at the northern part of Gaza Strip. Beit Lahya municipality consists of the following residential zones as shown in figure 2.2: Mashrua Beit Lahya and Block 8, Sheikh Zayed City, Fadous, Manshaea, Aslan, Salateen, AL-Guraa alkhamsa, Seaffa , Fardous, Gaben, Shaymaa, Jamaea, Beit Lahya Center, Hatabea,Gaben, Al-Maslakh, Gleboo.

Herbia Village bordered Beit Lahya in north, the Mediterranean Sea on the west and the Beit Hanoun on the east. The sand dunes rounded the city, the agriculture land area within Beit Lahya city is about 25.53% according Beit Lahya master plan .

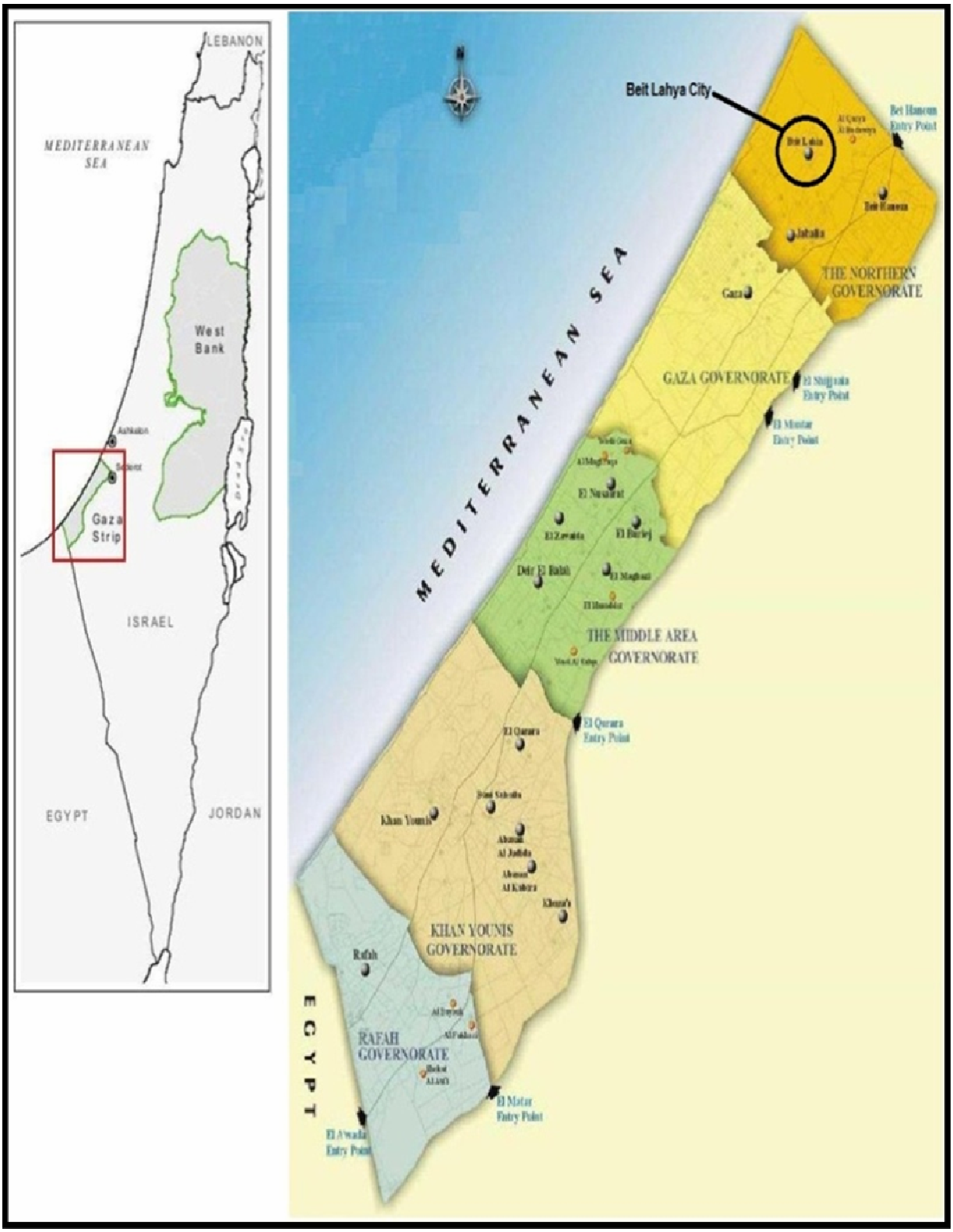

Figure 2.1: Gaza Governorates

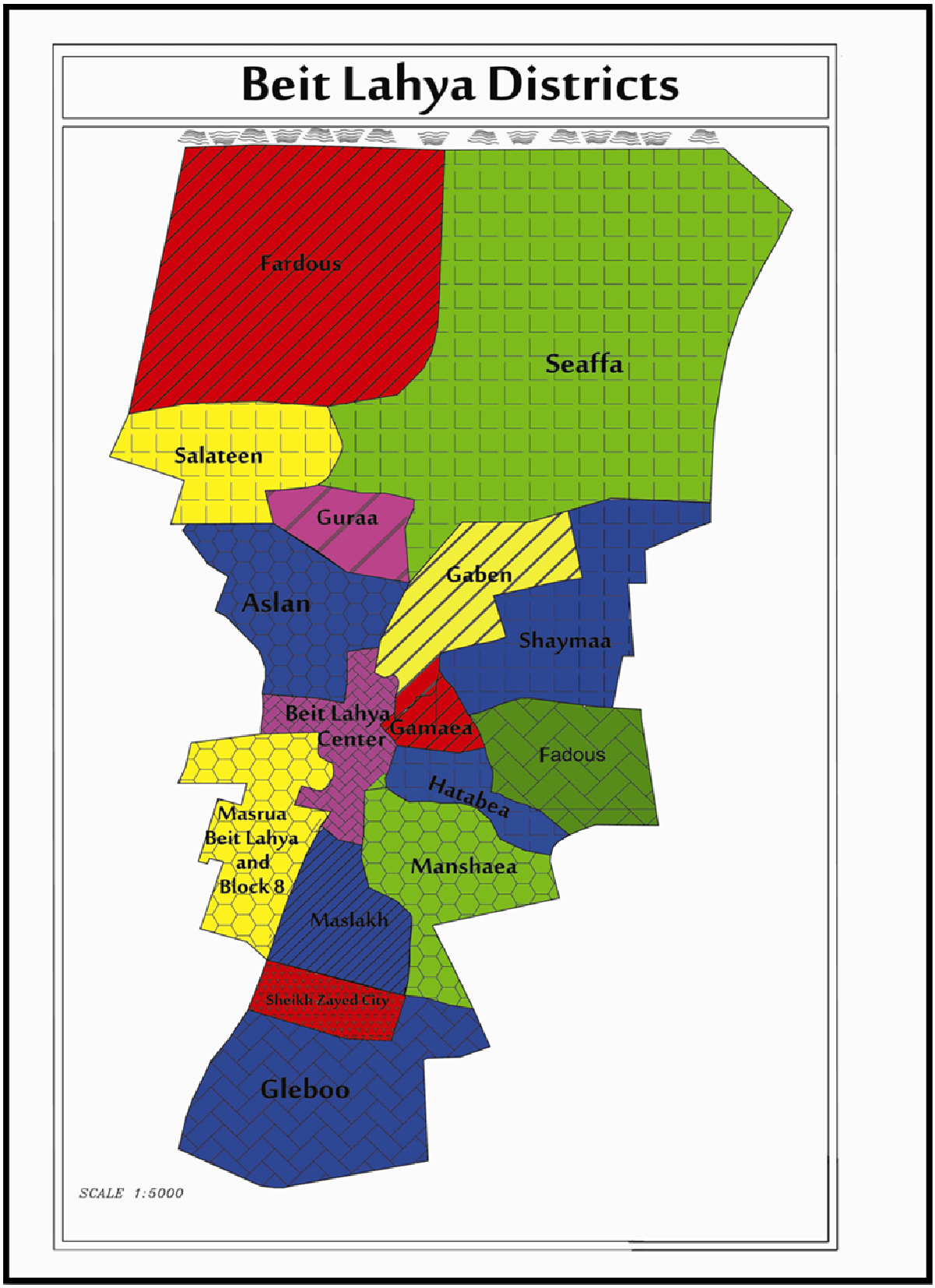

Figure 2.2: Beit Lahya districts

2.3 Population

Gaza Strip is considered one of the most overpopulated areas all over the world. As it was stated, the area of Gaza Strip is about 365 square kilometer with a population of 1,480,000 inhabitants (**PCBS, 2007**). The growth rate in Gaza strip is 3.8% according to Palestinian bureau of statistics (PCBS) council which means that the Gaza Strip population in 2011 reached 1,700,000 inhabitants.

The population of Beit Lahya city reached 64,457 inhabitants in 2007 **(PCBS, 2007)**. The population in 2011 reached 72,500 inhabitants **(Beit Lahya Municipality, 2011)**

2.4 Climate and Rainfall

The Gaza Strip is located in the transitional zone between the arid desert climate of the Sinai Peninsula and the temperate and the semi-humid Mediterranean climate along the coast. The average daily mean temperature range from 25º C in summer to 13º C in winter. The annual average wind speed is 19 knots with highest wind speed is in winter that reaches 60 knots. The prevailing wind is from the southwest **(MOPIC-1997).** The average annual rainfall varies from 450 mm/year in the north to200 mm/year in the south. Most of the rainfall occurs in the period from October to March, the rest of the year being dry **(PHG, 2002).** As shown in figure 2.3 Gaza Strip has eight metrological station, an average of ten years for maximum and minimum temperature, humidity, wind speed and sun shine hours. The maximum temperature ranges between 18.1 and 29.4oC, while the minimum temperature ranges between 10.7 and 24.6 in winter and summer, respectively. The average humidity is 68.3% indicating high humidity in summer than in winter, as the Gaza Strip characterized by a coastal zone. Wind speed ranges between 230 and 281 km/d. while the average sun shine hours are 5.7 and 9.7 hours/d in winter and summer, respectively as shown in table 2.1 (AL-Naiar, 2011).

Beit Lahya has one metrological station (station 2) showing average yearly rainfall more than 350 mm, where the rainfall intensity decrease from the north to the south of Gaza Strip. Therefore, Beit Lahya is relatively receiving more rainwater than other location within the entire area of Gaza Strip as shown in table 2.2 (AL-Naiar,2011).

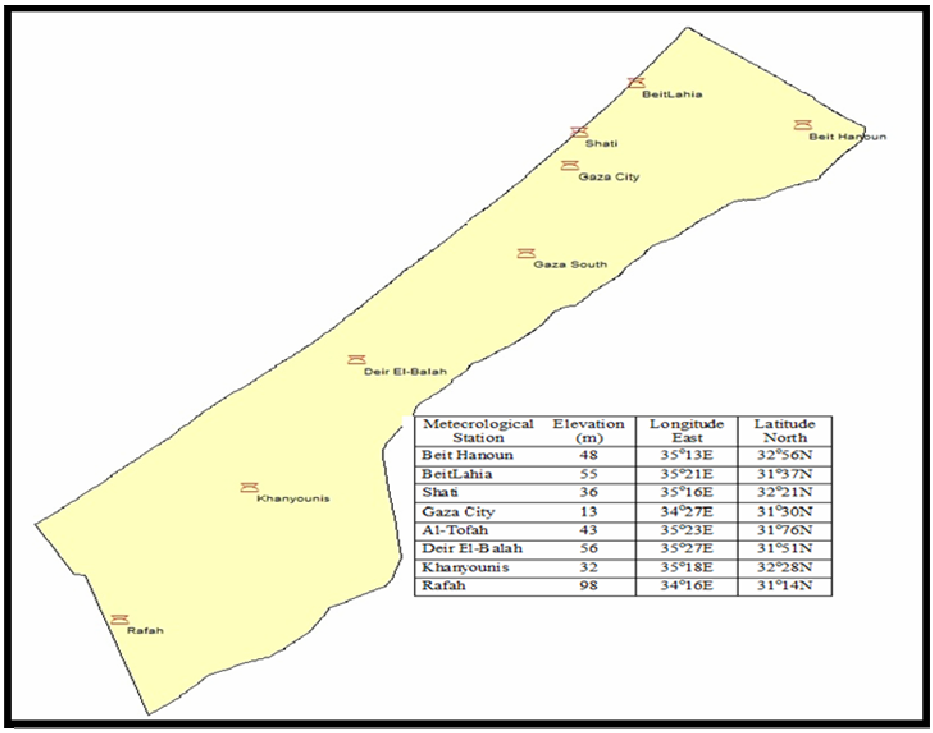

Figure 2.3: Location of Gaza Strip main metrological stations

Table 2.1: Gaza Strip average of ten years monthly metrological data

Month	Temperature		Humidity (%)	Wind Spd (km/d)	Sun shine (hrs/d)	Solar Rad. ($MJ/m^2/d$)	ET_o (mm/d)
	Max	Min					
Jan.	17.8±2	10.7±1	64±5	281±27	4.8±1.4	9.9±1.5	2.5±0.4
Feb.	18.1±2	11.2±1	67±4	278±15	6.2±1.7	13.4±1.9	1.8±0.3
March	19.8±2	13.2±3	68±5	262±22	7.6±1.0	17.7±1.2	3.4±0.4
April	22.5±3	16.7±3	67±6	250±14	8.2±1.3	20.9±1.7	4.3±0.3
May	24.4±2	19.2±3	71±4	230±12	9.8±1.0	24.5±1.5	4.9±0.2
June	27.0±2	21.7±2	74±6	238±15	9.8±1.2	24.8±1.6	5.2±0.3
July	29.4±2	23.9±4	74±4	233±13	10.5±0.5	25.6±1.0	5.7±0.2
Aug.	29.4±3	24.6±3	71±4	238±16	10.5±0.5	24.6±1.1	5.6±0.2
Sept.	28.7±4	23.1±3	69±6	250±30	9.6±0.9	21.3±1.4	5.0±0.3
Oct.	26.3±3	20.4±2	68±3	257±26	8.2±1.7	16.6±2.1	3.9±0.4
Nov.	23.0±3	16.1±2	61±3	262±15	6.0±1.8	11.6±2.4	3.2±0.4
Dec.	19.2±2	12.6±2	65±5	262±22	3.9±1.1	8.5±1.3	2.4±0.5

Table 2.2: Average of 10 year rainfall data for Gaza Strip. Source :(Al- Najar, 2011)

Meteorological Station								
month	1	2	3	4	5	6	7	8
mm/month								
January	133 ± 42	131 ± 39	120 ± 44	127 ± 36	117 ± 17	95 ± 20	78 ± 23	78 ± 19
February	88 ± 24	86 ± 30	80 ± 23	82 ± 19	65 ± 9	60 ± 15	57 ± 17	57 ± 10
March	45 ± 7	45 ± 9	37 ± 9	37 ± 8	38 ± 2	33 ± 10	32 ± 12	32 ± 9
April	7 ± 4	8 ± 4	7 ± 4	7 ± 4	8 ± 4	7 ± 4	9 ± 4	9 ± 4
September	2 ± 1	3 ± 2	3 ± 2	3 ± 2	0	0	0	0
October	28 ± 4	26 ± 6	26 ± 10	28 ± 6	22 ± 8	20 ± 7	14 ± 5	14 ± 5
November	62 ± 4	76 ± 6	62 ± 4	62 ± 5	57 ± 10	53 ± 9	46 ± 8	45 ± 9
December	93 ± 30	97 ± 34	93 ± 27	96 ± 23	82 ± 40	71 ± 31	69 ± 15	69 ± 7
Total	**456 ± 83**	**470 ± 90**	**428 ± 98**	**442 ± 72**	**389 ± 89**	**339 ± 85**	**305 ± 77**	**304 ± 61**

2.5 Water Quality Beneath the Study Area

The major documented water quality problems in the Gaza strip are elevated salinity and nitrate concentrations in the aquifer. Almost all municipal wells within the Gaza strip are containing a high level of Chloride that exceeds a value of 250 mg/L and Nitrate value more than 50 mg/L, but in Beit Lahya Municipality as shown in the figure 2.4 the chloride concentration relatively not high, but Predicted Chloride concentration in 2020 well rise in some district to reach 2000mg/l as shown in the Figure 2.5 and nitrate concentration in Beit Lahya is high its reach to 250mg/l in some areas as shown in the Figure 2.6 and the concentration rises in some wells to reach over 250 mg/l as shown in Figure 2.7 . The north governorate including Beit Lahya has huge number of wells around 836 wells, most of them are agricultural wells as shown in Figure 2.8. In general, the quality of water extracted from Gaza strip Coastal Aquifer Varies by area and time and does not meet the World Health Organization WHO Guidelines values for drinking water quality.

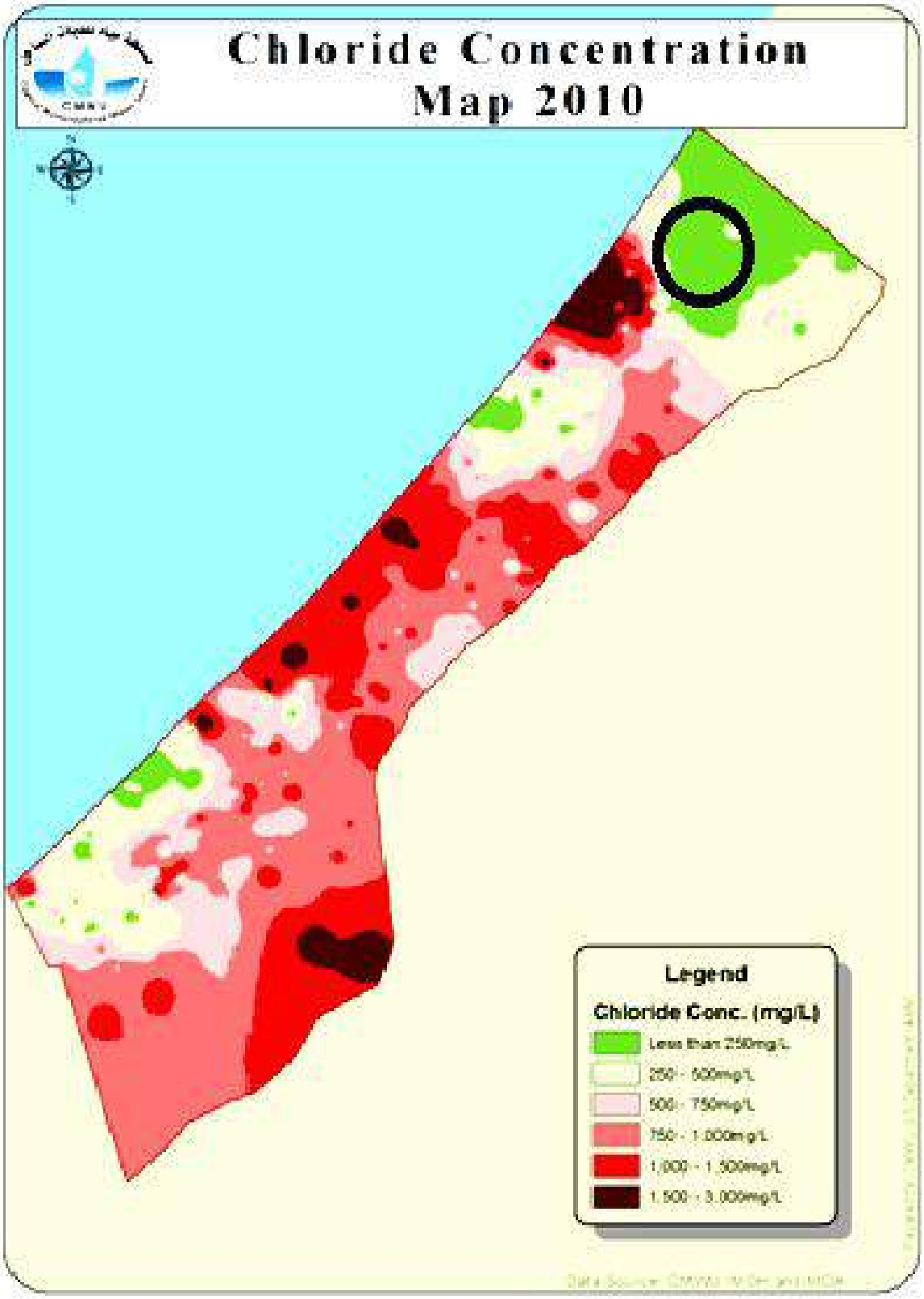

Figure 2.4: Chloride Concentration for the year 2010. (Source: CMWU, 2007)

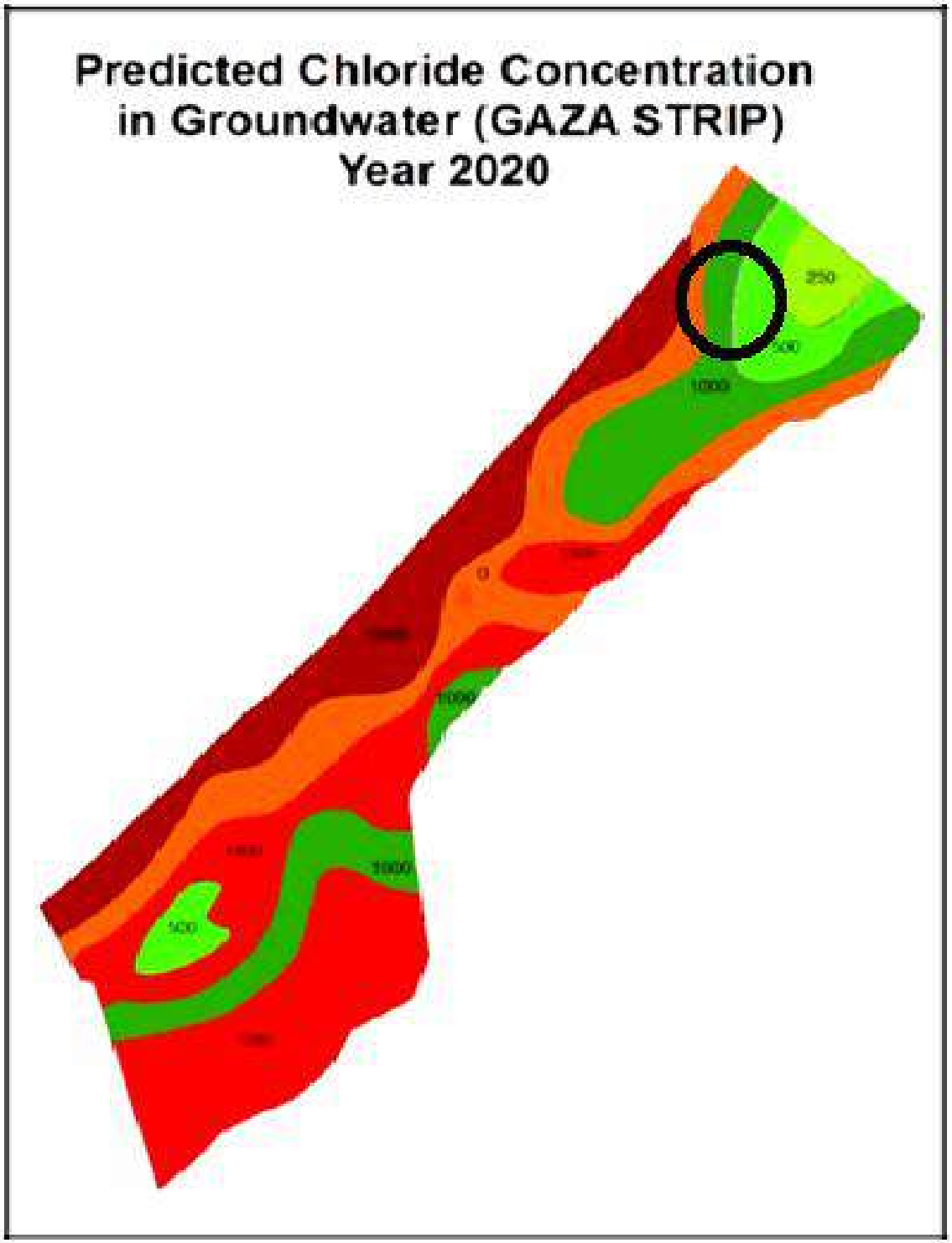

Figure2.5: Predicted Chloride contour map (2020). (Source: PWA, 2011)

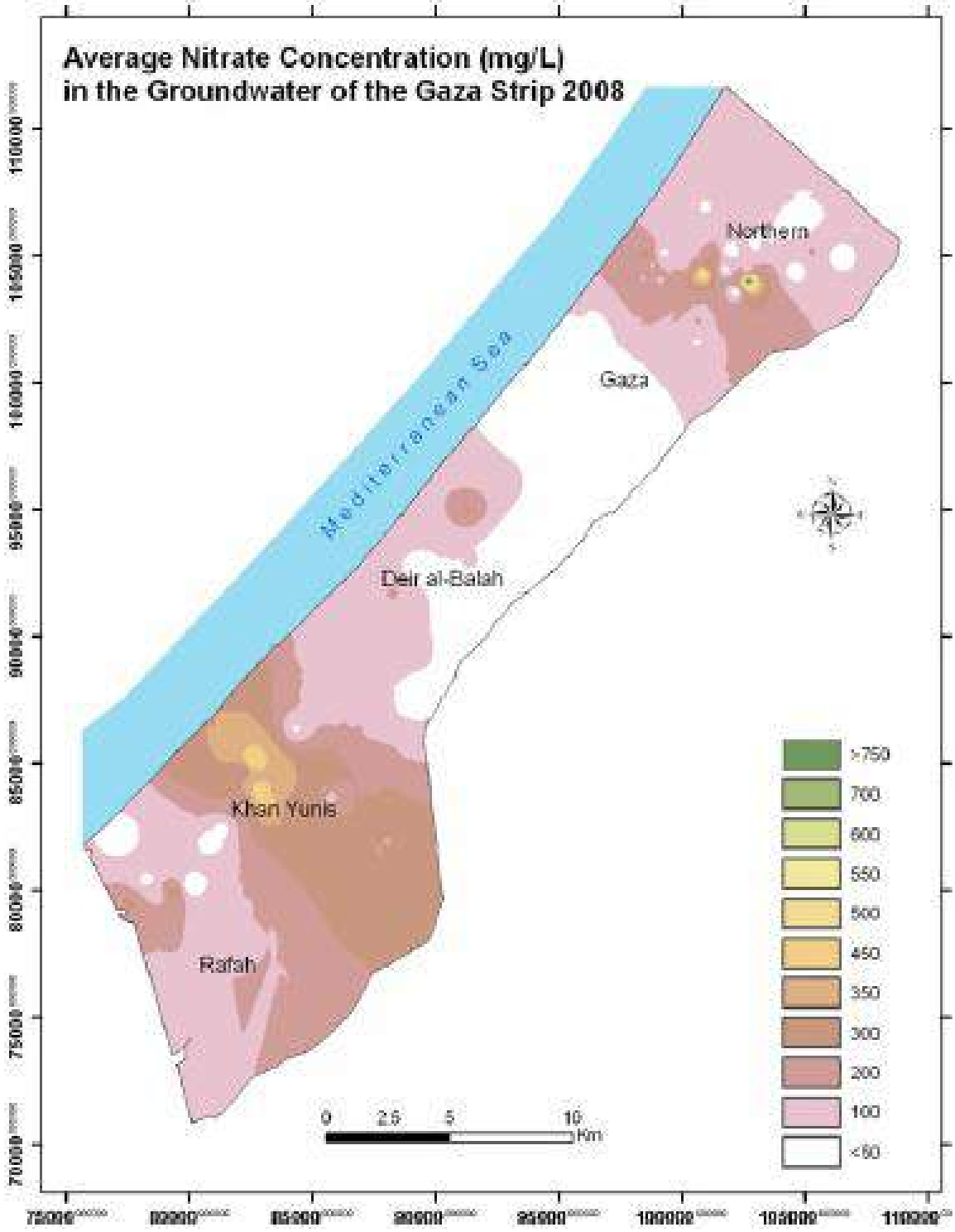

Figure 2.6: Nitrate Concentration for the year 2008. (Source: Shomar, 2010)

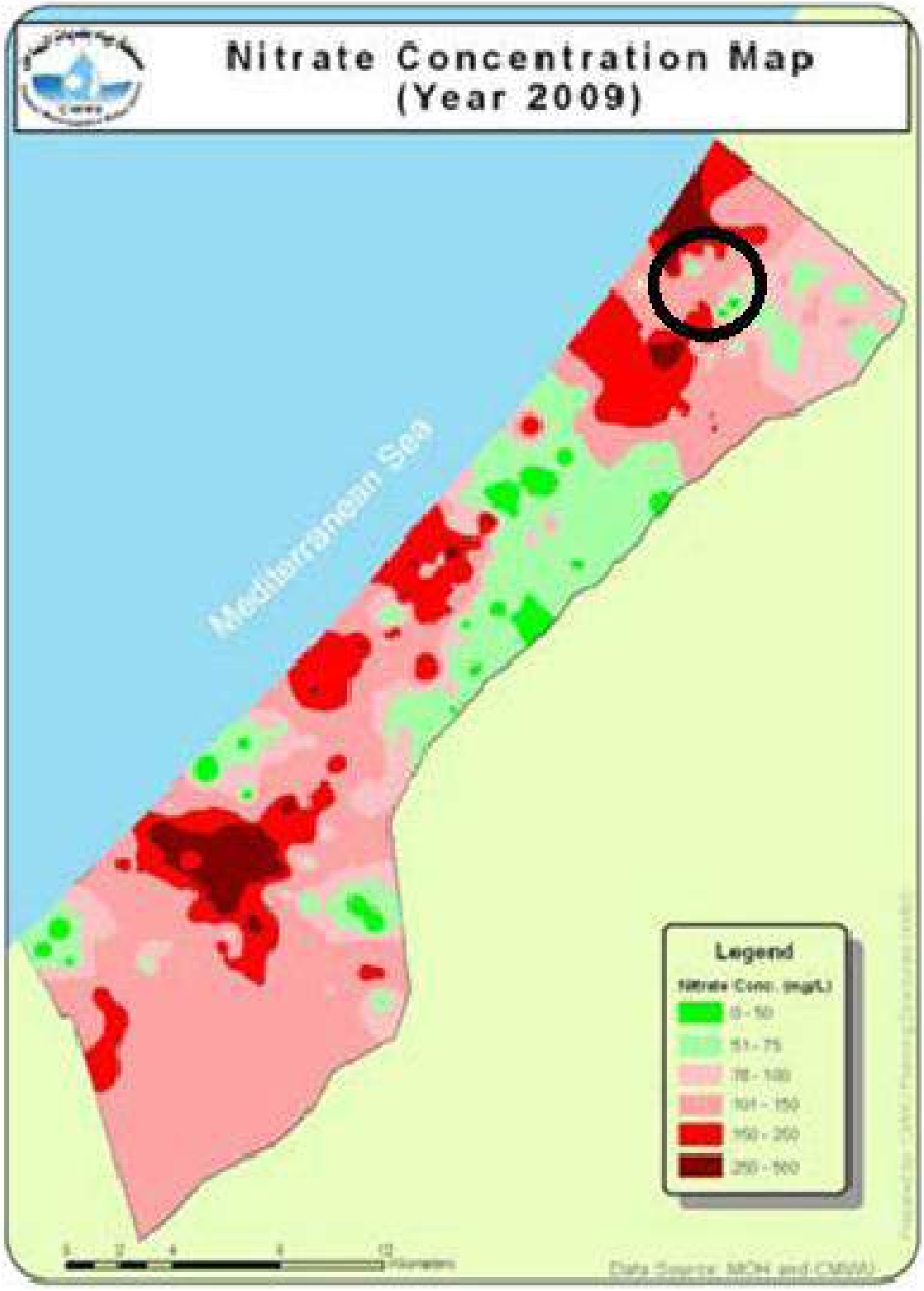

Figure 2.7: Nitrate Concentration for the year 2009. (Source: CMWU, 2010)

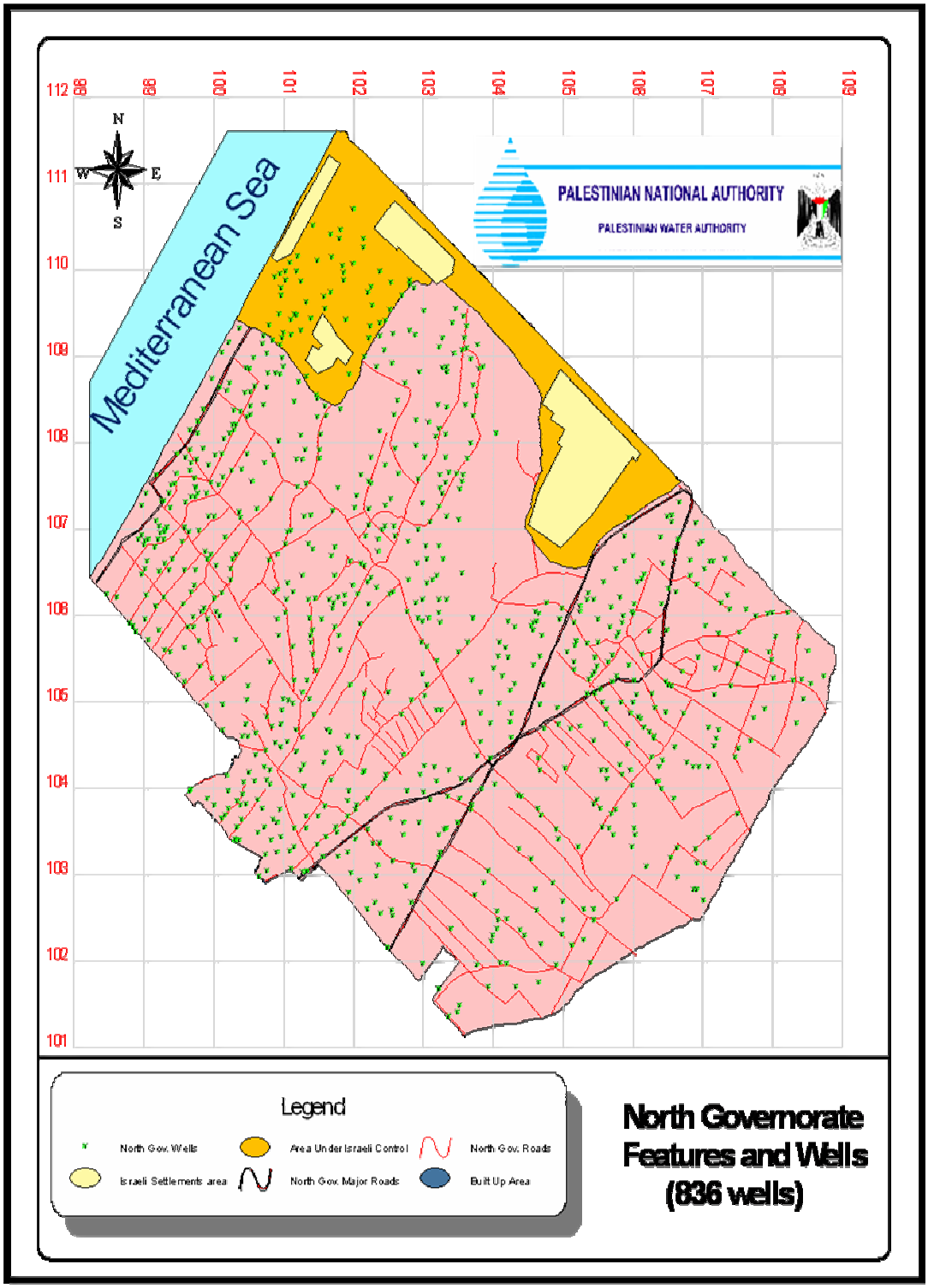

Figure 2.8: North governorate wells

2.6 Beit Lahya Master plan (Build up area and agricultural area)

2.6.1 Build up area

Residents of Beit Lahya are condensed in area of Beit Lahya mini-camp '' Mashrou'' , where it has no farming areas as shown in the figure 2.9. Residents are condensed

also in the center of Beit Lahya town '' Albalad'', and in the area of Mansheya, then in region of ''Alamslakh'' to some extent. Residential condense in areas of Atatra (Seafa) , Salateen (Fardous) and Shaimaa , whereas farming lands widely increase in these areas. Moreover, in 2005, city of Sheikh Zayed was established where nearly 5,000 people live in 71 residential building. Table 2.3 show the land use of Beit Lahya city areas in dunum according Beit Lahya master plan.

2.6.2 Agriculture area

Agriculture is the prevalent sector Gaza's economy and contributes to 32% of its Economic production. In addition, it is a politically sensitive sector as all of its inputs such as, seeds, fertilizers and pesticides are imported from Israel. Therefore, any political crisis influences it directly while the agricultural sector is considered to be a main part of Palestinian life, over the last five years it's contribution to the national Gross Domestic Production (GDP) has reduced from 9.1% in 2000 to about 7.0% in 2005. Most of the agricultural areas are located within and surrounding the denser residential areas. Therefore, this type of agriculture could be classified as urban agriculture due its location; moreover some of the green houses are irrigated from the municipal water network within, the residential areas. Fruit trees and vegetables are cultivated within and close to, the built up areas, while rain fed crops occupy the eastern area of the Strip where the majority the irrigated area in GS is estimated to be about 176,000 dunum and the total supply is estimated to be about 85 MCM. (**Al Najar, 2007**)

Table 2.3: Areas of land use according master plan for year 2011

#	Category	Area (dunum)	Percentage %
1	Regulation limits (total)	14373	100
2	Residential area b	4540	31.58
3	Residential area c	1205	8.38
4	Agriculture area	2803	19.5
5	Agriculture area (b)	854	5.95
6	Commercial area	467	3.25
7	Structural roads	1625	11.72
8	Tourist area	807	5.62
9	Public built	555	3.86
10	Green area	224	1.56
11	Beach limits	344	2.38

Source: Beit Lahya municipality 2011

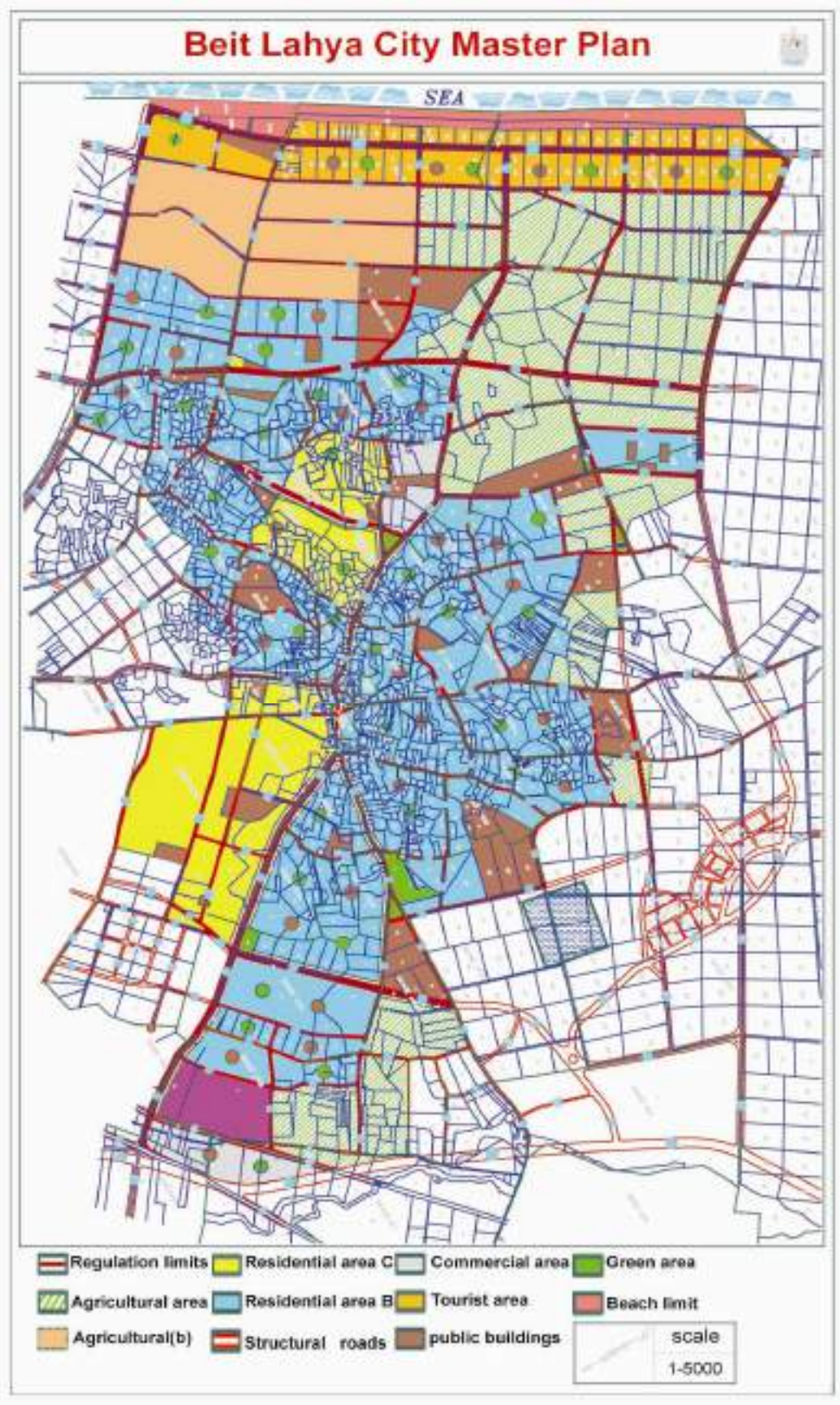

Figure 2.9: Beit Lahya city master plan for year 2011

The current total amount of cultivated lands in the five Gaza Governorates observed a remarkable increase (the total cultivated was 146 and 176 km^2 in 2004 and 2005, respectively) in comparison to the areas recorded in previous years, which witnessed an observed decline since the mid 1990's, including a drastic decrease in the production of citrus fruits, which were considered to be the main consumer of water. Table 2.4 illustrates the agriculture production and the areas of each crop for the year 2005-2006 according to MOA, 2006.

Table 2.4: Agricultural production over Gaza strip in the year 2005-2006

Crop	Area in dunum	Quantity in tons
Vegetables	55730	254883
Field crops	61740	96332
Citrus	15656	32025
Fruits	42248	16307
Flowers	730	1279

3. RESEARCH METHODOLOGY

3.1 Data Collection

The necessary information required by the research have been collected from the relevant institutions such as Palestinian water authority (PWA), municipalities, the Ministry of Local Government (MoLG), the Ministry of Agriculture (MoA), Coastal municipal water utility (CMWU) and local NGOs. The lack of data regarding water use for agriculture is one of the main problem of Beit Lahya Municipality.

3.2 Draw Urban District Map

The municipality of Beit Lahya has not a clear map showing the water distribution districts and the location of the wells. The proposed district division has been redrawn on the structure map of the municipality. All water wells were also redrawn on the structural map of Beit Lahya. This map was not available to the municipality with its final constitutions**.**

3.3 Draw Water Distribution Districts

Water supply system of Beit Lahya is intermitted supply. Therefore the municipality entire area is divided to water distribution district. Due to the random expansion of the urban areas, the already existing water distribution map is confusing. Thus, several meetings have been held with staffs of Water Department to prepare a map for water distribution district. The prepared map was to cover the water district and the source of water(well in the town of Beit Lahya which provide water to the district).

This took so much efforts of researcher, who survey the area in order to make sure all data he has is strict and correct. This map has a significant impact in determining the proportion of water losses in the water network to determine the supplied water to a specific area and the consumed water in the same area, the proportion of water loses in this area can be defined. This map was drawn and applied to the structural map of Beit Lahya, which was completely different of the currently used districts by Beit Lahya municipality water department. All maps were conducted by using the GIS techniques.

3.4 Draw Water Network Map

In cooperation with the Municipality of Beit Lahya, a team of volunteer engineers was formed to draw water network of Beit Lahiya entirely and apply it to the structural map of the municipality. The network layout and characteristics were surveyed including all water pipes, pipe diameters, types of pipes, water wells, etc. The municipality has no map that includes such data before.

3.5 Water Pumping From Municipal Wells Data Collection

A follow-up monthly plan was prepared to follow up the pumping water from wells, and house water meter reading, generator of electricity, meter of water well, fuel consumption and electricity consumption. It has registered from 1/5/2011 until 1/3/2012 (2 cycles of readings). All data has been collected, the amount of water pumped to each region of water distribution areas is determined.

3.6 Reading Meters of Customers

During the research period, which extends from 1/5/2011 until 1/03/2012, meters of all water consumers have been read, whose number is 5400 consumers in the entire area of Beit Lahya. Readings of water meters have been conducted through volunteers. To make sure all collected data are right, a random sample has been tested. It is noteworthy that water bill is issued by Municipality of Beit Lahya periodically every two months. Therefore, three cycles have been conducted, which took place in 30/6/2011, in 30/09/2011and 29/2/2012(show Appindix A).

Based on the data obtained by the research, Meters reading before the research are conducted randomly and they are inaccurate because the number of the municipality readers' staff if compared with water consumers (three to cover 5400 consumer).

3.7 Field Survey to Determine the Urban Agricultural Areas

A group of volunteers has been formed to determine the agricultural area of water consumers. The agricultural land in the areas of municipal water distribution has been counted, more than 60% of water consumers have urban agriculture. An agriculture land of each of water distribution areas has been determined, and it is allocated to the structural map of Beit Lahya by using GIS technique.

3.8 Water Tariff System

Excel sheet is prepared and fed with all needed data to investigate and to propose a suitable tariff system to such unusual semi-urban area of Beit Lahya.
the fed data to the Excel model is:

- Population , residential customers , industrial ,commercial and tourist customers.
- Supply and consumption water data such as water supply for year 2011, water consumption for residential, water consumption for tourist, water consumption for commercial, water consumption for industrial, water losses m3/year, income.
- Costs to be recovered from Fixed Cost water tariff such as operation and maintenance (O&M).

4. LITERATURE REVIEW

4.1 Unaccounted-For-Water

Unaccounted-for water (UFW) represents the difference between "net production" and "consumption" (the volume of water that can be accounted for by legitimate consumption, whether metered or not)**(Sharma, 2008).** Un Accounted For Water (UFW) vary widely per country and within one country per city it's ranging from 6% to 63% as shown in figure 4.1

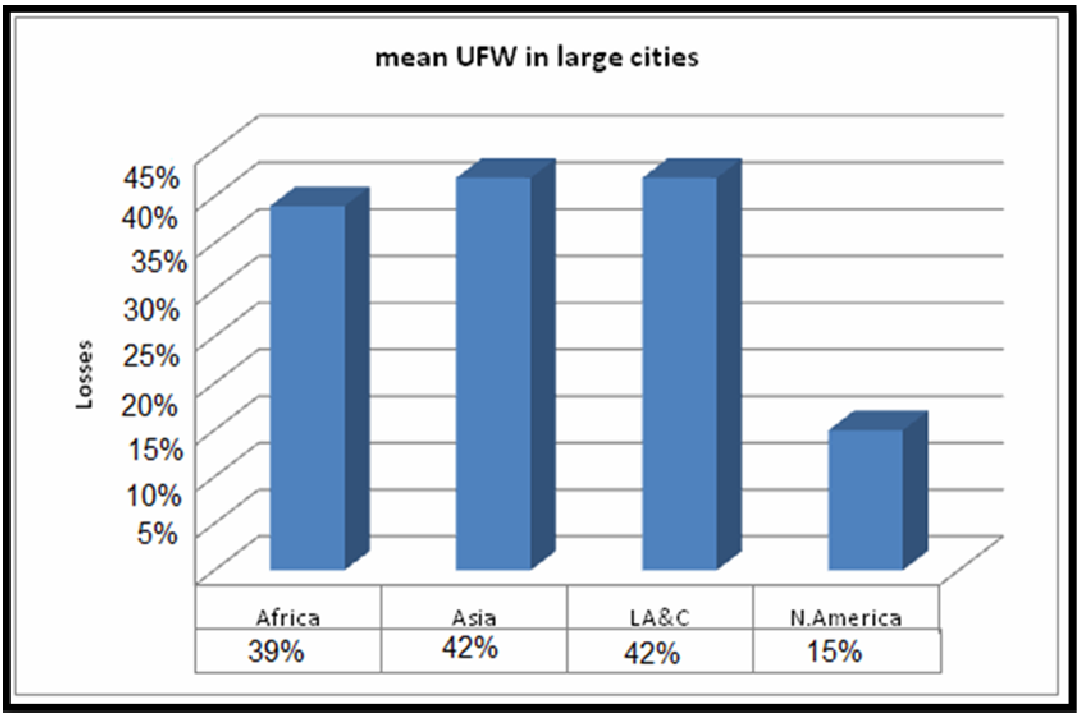

Figure 4.1: Water loss levels

LA&C: Latin America and the Caribbean.

Source: Global Water Supply and Sanitation Assessment 2000 (WHO-UNICEF)

(UFW) from a water distribution system is a significant factor affecting water delivery to customers. Water loss can be either: (a) the **apparent losses** due to meter inaccuracies or unauthorized consumption, or (b) **real losses** due to leakage at water service lines, breaks or leakage on mains and hydrants at storage facilities (EPD, 2007) as shown in table 4.1 of standard terminologies.

Table 4.1: The AWWA/IWA Water Balance ,*Source:* IWA (2000)

<table>
<tr><td rowspan="8">System input volume</td><td rowspan="3">Authorized consumption</td><td rowspan="2">Billed authorized consumption</td><td>Billed metered consumption (including water exported)</td><td rowspan="2">Revenue water</td></tr>
<tr><td>Billed unmetered consumption</td></tr>
<tr><td rowspan="2">Unbilled authorized consumption</td><td>Unbilled metered consumption</td><td rowspan="6">Non- Revenue water</td></tr>
<tr><td>Unbilled unmetered consumption</td></tr>
<tr><td rowspan="5">Water losses</td><td rowspan="2">Apparent losses</td><td>Unauthorized consumption</td></tr>
<tr><td>Metering inaccuracies</td></tr>
<tr><td rowspan="3">Real losses</td><td>Leakage on transmission and/or distribution mains</td></tr>
<tr><td>Leakage and overflows at utility storage tank</td></tr>
<tr><td>Leakage on service connections up to point of consumer metering</td></tr>
</table>

Standardized terminology and definitions are crucial to consistent measurement. These standards are needed to accurately track performance and improvements. In the AWWA/IWA methodology, all water that enters and leaves the distribution system can be classified as belonging to one of the categories in the water balance table shown in table 4.1; each of these terms is defined below. The table is balanced because it accounts for all of the water in the distribution system and the sum of any of the columns should also total the System Input Volume.(EPA, 2009)

System Input Volume is defined as the amount of water that is produced and added to a distribution system by a Public Water System (PWS). It also includes water that may have been purchased from another water supplier to supplement the needs of the PWS.

authorized Consumption is water that is used by known customers of the PWS. Authorized consumption is the sum of billed authorized consumption and unbilled authorized consumption and is a known quantity.

Billed Metered Consumption is an authorized consumption that is directly measured. It is the quantity of water that is metered and generates revenues through the periodic billing of the consumer.

Billed Un-metered Consumption is an authorized consumption that is based on an estimate or flat fee. This billing method is used for customers that do not have meters. Estimated use is often based on historical or average use data. The fee may vary for different types of customers such as residential or industrial.

Unbilled Authorized Consumption consists of known uses, condoned by the utility, for which no revenue is received. Unbilled authorized consumption can be either metered or un-metered. Some examples might include filling city street cleaner trucks or a city swimming pool, flushing water lines or sewers, or water used by the fire department. All are legitimate water uses, with the full cognizance of the utility.

Unbilled Metered Consumption is that quantity of water that does not generate revenues but which is accounted and not lost from the system. Water used in the treatment process or water provided without charges are examples of these quantities.

Revenue Water is water that is consumed and for which the utility receives payment. Revenue water consumption volume is measured or estimated. Revenue water includes metered and un-metered billed authorized consumption.

Non-Revenue Water (NRW) is water that is not billed and no payment is received. It can be either authorized, unauthorized or result from a water loss. Authorized NRW consists of unbilled metered consumption and unbilled un-metered consumption.
NRW = "Net production" – "Revenue water" = UFW + water which is accounted for, but no consumption). Revenue is collected (unbilled authorized

Unbilled Un-metered Consumption is the quantity of water that is authorized for use by the PWS but is not directly measured and creates no revenues. Water main flushing and firefighting are often examples of this category.

Unbilled Metered Consumption is directly measured water use for which there is no charge. This category can include water use at city government offices, street cleaning or city park irrigation. Some PWSs either meter or estimate use by the city or public services such as fire departments even though no fee is charged. These systems will have an advantage when preparing a water audit since this information will be required to complete the water balance.

Unauthorized Consumption is that quantity of water which is removed from the system without authorization and presumably without the PWS's knowledge. Unauthorized consumption includes theft by illegal meter by-passes, vandalism or un-metered hydrant use for construction or recreation. This water quantity is very difficult to estimate but must be accounted and is amenable to reduction through administrative action. Figure 4.2 shows a fire hydrant with a garden hose attached as an illustrative example of an un-metered and possibly unauthorized connection. Unauthorized consumption as in this example can also be a potential source of contamination because there is no backflow prevention device in use.

Figure 4.2. Hydrant With Un-metered and Possibly Unauthorized Use

The lower part of the Water Balance Table consists of **Water Losses**. Water losses are categorized as either real or apparent. Real Losses, also referred to as physical losses, are actual losses of water from the system. When performing financial calculations related to real losses, the water is priced at the cost of production rate since it is not available for a consumer to use and costs only what it takes to produce. Correcting real losses will result in lower operating cost through reduced production requirements and reduced water process chemical and electrical use.

Real Losses are the physical leaks consist of leakage from transmission and distribution mains, leakage and overflows from the utilities storage tanks and leakage from service connections up to and including the meter. Preventing or repairing real losses usually requires an investment in PWS infrastructure. Infrastructure investment can reduce losses such as:

- Distribution and transmission main leaks, which represent the quantity of water that is lost from the system, generates no revenue, can severely damage system reliability if not corrected and may result in water quality problems.

- Storage leaks and overflows from water storage tanks, which consist of the quantity of water that is lost from the storage facilities within the system. Depending on the climate and storage configuration, these losses can also be due to surface evaporation.

- Service connection leaks, which consist of the quantity of water that is lost from leaks from the main to the customer's point of use. Even though a leak after a customer's meter can generate revenues for the PWS and is often the responsibility of the customer, it is wasteful and can strain customer and PWS relations. Service connection leaks represent real losses from the system and are frequently easy to detect. In the AWWA/IWA water audit methodology only service connection leaks up to the meter are included.

Apparent losses, also referred to as commercial losses, occur when water that should be included as revenue generating water appears as a loss due to theft or calculation error. Apparent losses consist of unauthorized consumption, metering calibration errors and data handling errors.

Meter calibration error and data error losses can be thought of as accounting losses. This quantity of water is not lost from the system and generates no revenues but if not included in loss calculations can produce misleading water loss estimates. These errors arise from service meter calibration errors, meter reading errors, data handling and billing errors and billing period variances. These quantities may be reduced through administrative action.

When performing financial calculations related to apparent losses, the water is priced at the retail rate since it should have been charged at that rate. Recovering apparent losses will not reduce physical system leakage but it will recover lost revenue. Calibrating or replacing old meters or enforcing water theft policies can substantially reduce apparent losses.

Water Balance terms help classify and standardize the methods used in the water audit. The water audit is the starting point for the utility to understand its water loss.

The audit is a methodical approach to account for all water that is placed into the distribution system and accounts for its ultimate disposition.

4.2 Acceptable Water Loss

AWWA Leak detection and Accountability Committee(1996) recommended 10% as a benchmark for UFW.UFW levels and action needed(Sharma, 2008).

< 10%	Acceptable, monitoring and control
10-25%	Intermediate, could be reduced
> 25%	Matter of concern, reduction needed

There is no current comprehensive national regulatory policy that limits the amount of water loss from a public water supply's distribution system. Most states, however, do have policies and regulations that address excessive distribution system water losses. The policies vary among states but most set limits that fall within the range of 10% to 15% as the maximum acceptable value for the amount of water that is lost or "unaccounted-for."

Neither the term "unaccounted-for-water" nor the use of percentages as measures of water loss is sufficient to completely describe the nature and extent of distribution system water loss. Unaccounted-for-water is a term that has been historically used in the United States to quantify water loss from distribution systems. Unaccounted-for-water, expressed as a percentage, is calculated as the amount of water produced by the PWS minus the metered customer use divided by the amount of water produced multiplied by 100, or,

$$\text{Unaccounted-for-Water \%} = \frac{(\text{Water Produced by PWS} - \text{Metered Water Used})}{\text{Water Produced by PWS}} \times 100$$

Although this percentage provides a rough idea of how much water is unaccounted for, it does not help answer questions such as is the water really being lost? If so where? Is water that is used for firefighting or by the city for street cleaning really unaccounted for? What about inaccurate meters, theft or billing errors? These situations all can contribute to unaccounted water but do not necessarily mean that there is excessive leakage in the distribution system. Determining how much water is being lost and where losses are occurring in a distribution system can be a difficult task. Without consistent and accurate measurement, water losses cannot be reliably

and consistently managed. The confusion over inconsistent terms and calculations has led to the development of better tools and methods to track water losses from distribution systems.

The International Water Association (IWA) and the American Water Works Association (AWWA) began to finalize standard methods to assist water utilities in tracking their distribution system losses in the last several years. These methods are the foundation of water auditing and conservation strategies that are now being used successfully worldwide. In order to understand how to apply the AWWA/IWA methodology, several concepts and terms must be defined and explained. The AWWA/IWA Water Balance Table 4.1 is the foundation of the methodology and defines the terms used in water auditing. The water audit determines the type and quantity of water loss. Performance indicators can then be calculated to measure the level and volume of water losses in the PWS.(EPA,2009)

4.3 Activities to Reduce Water Losses

Most water loss can be prevented by effective and pro-active infrastructure management. The following infrastructure management activities will help reduces real water losses:

- Distribution system operation and maintenance to prevent breakdowns in equipment and the associated leakage (valves, hydrants, etc.)
- Material and construction standards to assure quality of future infrastructure installation
- Maintain proper inventory to repair all sizes of main breaks or leaks
- Inspection of new water mains; observance of pressure and leakage tests
- GIS mapping of system components in order to quickly find valves to isolate main breaks
- Report leaks, repairs, complaints, theft, vandalism, etc, by geographic location to concentrate future leakage activities
- Increased surveillance in areas with aging infrastructure or reported leaks
- Periodically checking proper operation and control of pumps used to fill storage tanks

- Leak detection surveys/studies and leak repair
- Water main rehabilitation and replacement
- Pressure management

4.3.1 activities will help reduce apparent water losses:

- Metering of all source inputs, water exports or sales, and customer accounts (includes both billed, authorized use and non-billed authorized)
- If not going to meter hydrant usage, accurately estimate and record the water used for firefighting or flushing.
- Billing practices designed to detect potential problems or inconsistencies
    - Obtain consistent customer readings near the same day each month.
    - Eliminate or reduce human error by installing automated meter readers.
    - Account for non-billed authorized usage (such as hydrants).
- Deterrence of theft or illegal usage by maintaining a visible presence, aggressively prosecuting those caught, and soliciting public involvement in reporting such crimes.
- Accounting and record keeping practices to improve reliability and accuracy of the water balance; more easily pinpoint areas with water losses hydraulics and utility efficiency, and improved environmental stewardship.

4.4 Basic Data and Infrastructure Requirements

Awareness that water loss is occurring in a water system is the first step in identifying leaks and making repairs. Once water loss has been documented and identified, a water system operator can then determine whether the water loss is a real loss or an unavoidable loss. The first step in accounting for water used and lost in a water distribution system is appropriate data collection, especially from water meters.

4.4.1 Important data needed to assess water use and loss in a system includes:

A) Information relating to the water system infrastructure:

- Production water meters (quantity, age, diameter, type, location, accuracy);
- water mains (age, material, diameter, length, location, depth, condition);
- water service lines (quantity, material, diameter, location, depth, length);

- valves (quantity, age, diameter, type, location);
- fire hydrants (quantity, age, type, location);
- customer water meters (quantity, age, diameter, type, location, accuracy);
- storage reservoirs (volume, location, type);

B) The quantity of potable water supplied to the water distribution system including water imported and existing system sources, such as:

- surface water delivered via a water purification/treatment plant;
- groundwater from wells delivered via a water purification/treatment plant; and purchased water (water imported)

C) The quantity of water metered or consumed and non-revenue water lost within the distribution system.

D) Operations and maintenance activities within the water distribution system, such as:

- Continuous water system pressure readings;
- Maintenance activities related to water mains (e.g. number of water main breaks/repairs each year, blow-offs for water quality or freezing concerns, water main replacement or rehabilitation programs, water main flushing/swabbing/pigging programs, discharges at pressure relief valves, etc.).
- Hydrant use or maintenance activities (e.g. physical inspection, fire flow testing, Pool filling, temporary water services from hydrants, tanker truck filling, and sewer Cleaning, leaks on hydrants, etc.).
- Valve maintenance activities (boundary valve between two different pressures Zones, pressure-reducing valves within the water distribution system, maintenance on valve stems, seats, leaks on valves, check valve maintenance and inspection).
- Water service and curb box inspection and maintenance (leaks on service connections);
- Active leak detection programs; and
- Reservoir use (filling/emptying throughout the day, cleaning, leakage, etc.)

4.5 Palestinian Water Management

4.5.1 Palestinian Water Sector Challenges

The present situation in the water sector in Palestine and the challenges to be faced are summarized as follows (PWA, 2004):

- Water resources in the region are extremely scarce, disputed and increasingly costly to develop which is limiting the opportunities for regional transfers. Water resources, particularly in the Gaza Strip, are well above the level of stress due to water scarcity.

- Water demand is continuously growing due to population growth, economic development and rising standards of living.

- Water supply and sanitation services are inefficiently delivered as well as inadequate, in respect of quantity, quality and reliability. Coverage is limited.

- Tariffs are generally inadequate and many institutions are fragmented.
- There is insufficient control on water development and consumption and water losses are excessive.

- There is insufficient maximization of rainwater precipitation before this water is unacceptably polluted or lost to run-off.

4.5.2 Palestinian Water Strategy

The following items constitute the main water strategy elements of the Palestinian National Authority (PWA, 2003):

All sources of water should be the property of the state.

- Water has a unique value for humans' survival and health, and all citizens have the right to water of good quality for personal consumptions at cost they can afford.

- Domestic, industrial and agricultural development and investments must be compatible with the water resource quantity available.

- Water indeed is an economic commodity; therefore, the damage resulting from the destruction of its usefulness (pollution) should be paid by the party causing the damage (pollution).

- The development of the water resources of the Palestinian territory must be coordinated on the national level and carried out on the appropriate local level.
- Water supply must be based on a sustainable development for all available water resources.
- Public participation in water sector management should be ensured.
- Water management at all levels should integrate water quality and quantity.
- Water supply and wastewater management should be integrated at all administrative levels. Consistent water demand management must complement the optimal development of water supply.
- Protection and pollution control of water resources should be ensured.
- Conservation and optimum use of water resources should be promoted.

4.6 Urban Agriculture (UA)

Gaza is still characterized by a rapid increase of population and expansion of cities and refugee camps. Large-scale, export-oriented agricultural production has reached its limits of land-use availability and, at the same time, is confronted with the socio-economic demands related to food insecurity and the need for income generation. Chemically intensive, unsustainable farming practices are leading to soil degradation, depletion and contamination of the vulnerable water resources. Increasing competition among urban needs makes soil and especially water very limited resources. "Agriculture in Gaza is already more urban than rural" was one of the conclusions of the Gaza Urban Agriculture Committee (GUAC) workshop in 1998, referring to the high degree of urbanization of the area. An official at the Ministry of Planning went further by stating at that meeting: "All agriculture in Gaza can be considered to be urban agriculture." The main conclusion of the workshop was that, considering the prevailing problems in the agricultural sector, the potentials for Urban Agriculture (UA) in Gaza simply cannot afford to be neglected. To cash on these potentials, The Palestinian Agricultural Relief Committees (PARC) aims at a wide-reaching strategy carried out by the active participation of stakeholders at all levels of society.(Sourani,2005)

Urban agriculture is not a new or recent invention. However, only recently has urban agriculture become a systematic focus of research and development attention as its scale and importance in the urbanizing world become increasingly recognized (Van Veenhuizen, Prain& De Zeeuw 2001). A recent study by the United Nations Development Programme (UNDP) indicated that about 800 million urban residents worldwide are involved in urban agricultural activities as a survival strategy. Between 1993 and 2005, urban agriculture could increase its share of world food production from 15% to 33% (Smit, 1996).Accordingly, the urban agriculture will influence on the efficiency of water network because its need the huge amount of water.

Agriculture is the prevalent sector in the economy of Gaza Strip and contributes to 32% of the economic production. In addition, it is politically sensitive issue as all its inputs like, seeds, fertilizers and pesticides are imported from Israel. Therefore, any political crisis influences it directly. Agriculture sector is considered as the main sector of the Palestinian life, during the last five years it is dramatically effected where it's contribution in the national Gross Domestic Production is reduced from 9.1% in 2000 to about 7.0% in 2005, the total production of the agriculture crops was reduced by the percentage of 3.6% between the two years 2000 and 2005. The value added of the agriculture sector reduced in the percentage of 30.7% during the last five years. The direct and the indirect losses of the agriculture sector due to political measures was estimated by the Ministry of Agriculture (MOA) to reach about US$ 345 million from the beginning of year 2000 up to 2006 (PCBS, 2006).

Considering the Gaza Strip total area of 365 km^2 with a width range from 6 to 12 km and length of 45 km, most of the agricultural areas are located within and surrounding the residential areas (figure 4.3). Therefore, the type of agriculture could be classified as urban agriculture; moreover some of green houses are irrigated form municipal water network within the residential areas. Fruit trees and vegetables are cultivated within and close to the buildup areas.

Agriculture has passed through stages of expansion and land reduction. The cultivated area increased from 170 to 198 km^2 from 1966 –1968. In 1978, the cultivated area was reduced to 179 km^2 also the forest areas and sand dunes were reduced from 32% to 22% mainly due to the increase in urban areas. The current cultivated lands in Gaza Governorates observed a remarkable increase (the total cultivated was 146 and 167 km^2 in 2004 and 2005, respectively) in comparison to the recorded areas in the last years which witnessed an observed decline since the mid of the nineteen's with

drastically decrease in citrus, which considered the main consumer of water. This mainly occurred due to the expansion of construction urban areas particularly in Gaza City, the deterioration of irrigation water quality especially in the middle and the southern areas and to the socio-economic factors and restrictions imposed on the farmers. The remarkable current increase in the agricultural lands is attributed to the great desire of many farmers to reactivate their farms by planting new varieties of citrus to replace the old ones and the orientation to the intensive agriculture which obviously recorded in the increase of greenhouses allover Gaza Strip. The water allocate for irrigation is never been measured, the farmers have not any measurement devices on the wells to determine the abstracted amount for irrigation. In the current farmers practice citrus, olives, fruits and vegetables are irrigated with extra or less amount of water required for evapotranspiration due to absence of research in this field. Water consumption by vegetables is accounted for 47.7 Million Cubic Meter per year (MCM/yr), which constitutes around 58% of total water demand for the agricultural sector. Citrus, olives, Almonds and fruits consumes around 33 MCM a year which represents 40% of total water demand (Table 4.2). The total water demand for agriculture and domestic use is accounted for 80 and 47 MCM, respectively. These values are match with the finding of Metcalf and Eddy, 2000, who claim that the total water demand for the agricultural sector represents 58% of total water demand ((PWA), (2005) and AL-Najar, 2011)).

Because of vegetables in general consume the highest water quota; water consumption for each type is evaluated to investigate the feasibility of using the groundwater for irrigation. In spite of the crops which cultivated in green houses have the highest farm profit, it consume the highest quota of irrigated water especially carnation which consumes more than 1500 m^3/dunam/yr (one dunam =1000 m^2). The current water tariff (0.16 $/$m^3$) is considered by the Ministry of Agriculture in the total cost of crop production. This value represents only the cost of pumps operation and fuel. Water as an asset on the light of Gaza water crisis is never been evaluated. For instance; carnation and strawberry (cash crops) are the two main export agricultural products from Gaza Strip ((PWA), (2005) and AL-Najar, 2011)).

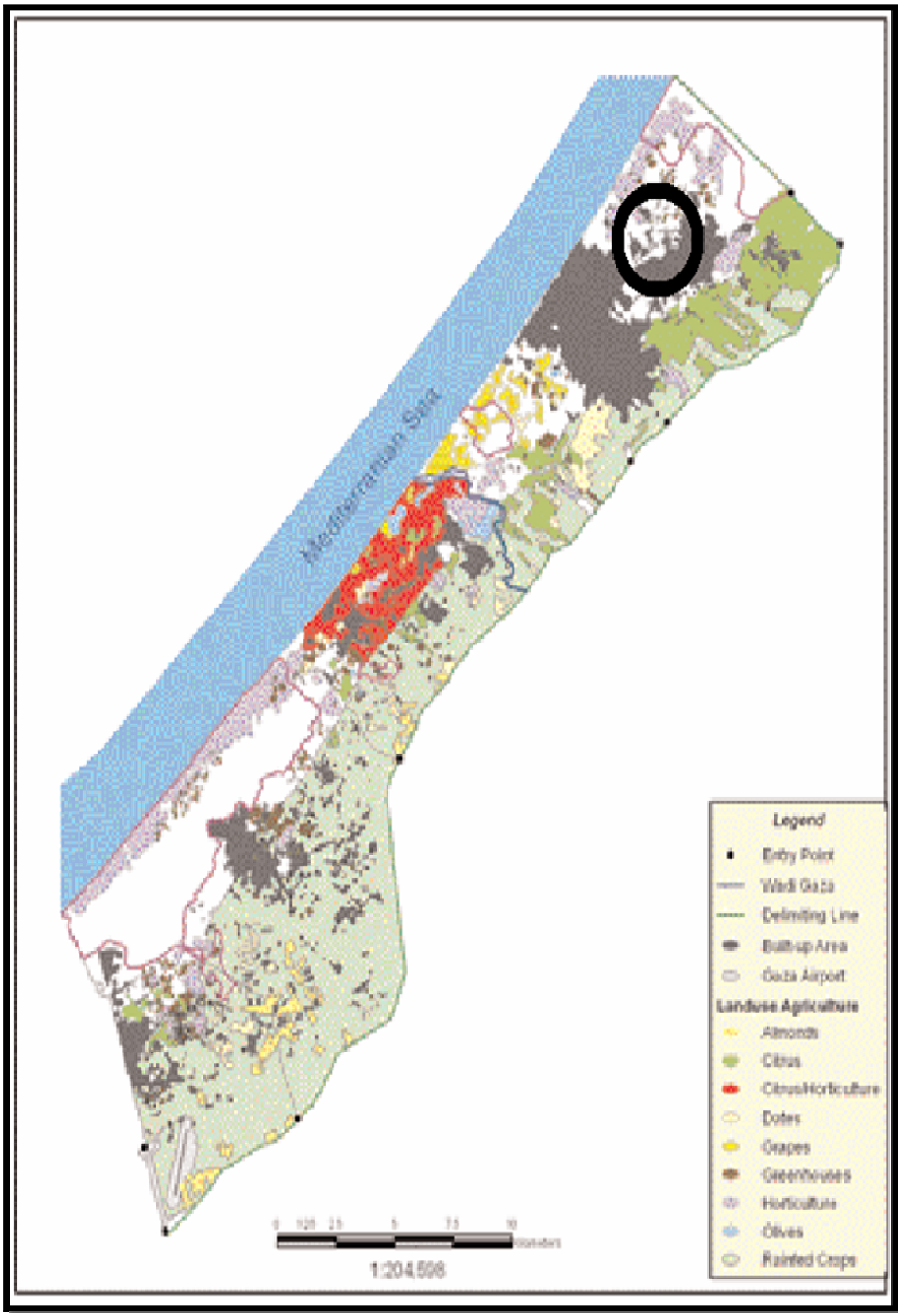

Figure 4.3: Build up areas and the existing location of each individual crop in the Gaza Strip (adopted from MOP, 2005)

Table 4.2: Cultivated area and water requirement of each crop in the Gaza Strip. (Source, Al-Najar, 2007).

Crop Type	Area cultivated (dunam)	Water requirement		
		m3/dunam	10^6 m^3/year	% total
Citrus	12,600	900	11.34	14.0
Olives	22,897	700	16.00	20.0
Date Palm	Only small area remaining			
Almonds	3,163	400	1.35	1.7
Fruits	10,333	400	4.13	5.0
Vegetables (Protected)	21,382	650	13.89	17.3
Vegetables (Unprotected)	47,044	700	32.93	41.0
Flowers	514	1500	0.77	1.0
Ornamental	132	500	0.07	0.1
Field crops	36,562	Rain fed	0.00	0.0
Total	154,627	-	80.48	100

4.7 Water Tariff System

4.7.1 water tariff definition

A tariff for water and wastewater services, which is the appropriate price a user of these Services is expected to pay, may have several objectives: cost recovery and financial Sustainability, efficient allocation of scarce sector resources, income distribution, or fiscal viability.

4.7.2 Purposes of the Tariff

- Economic Efficiency
- Fairness and Equity
- Determines level and pattern of revenue. Net revenue stability
- Allocates cost among customers, groups of customers, and overtime
- Contributes to ability to attract capital
- Simplicity understandability, and transparency
- Resource conservation

4.7.3 Criteria for a good tariff

- Cover all costs: economic - society -financial - utility
- Promote Water Conservation
- Clear Signals: Users & Utility
- Non-Discriminatory
- Easy To Understand & Administer

4.7.4 Basic types of water tariff structures

- **Single-Part Tariff (single-tariff pricing)**

A method of pricing that consolidates rates across multiple service territories owned and
operated by a multi-system that may or may not be contiguous or physically interconnected Also known as "consolidated rates".

A single-part tariff consists of either:

1. A fixed charge – the monthly water bill is independent of the volume consumed (not based on measured water use).

2. A volumetric charge – this charge is made for the volume of water, which is measured through a supply point.

A uniform price volumetric tariff (unblocked) – all units of water are billed at the same Price.

An increasing linear tariff – unit charge increases linearly as water use increases.
Block-type structures – two or more prices, each applies to use within a defined segment
(block) of monthly use. Unit charge is constant over a specified range of water use and
then shifts as use increases.
Decreasing block pricing (or declining-block pricing) a pricing structure in which both
the average and marginal price per unit decreases as consumption increases.

- **Two- Part Tariff**

A pricing technique in which users pay a fixed sum for access to a service and pay another charge for each unit of the service they consume. The charge per unit may vary, making the system a multi-part tariff. Tariffs can be differentiated by type of user(residential or commercial, industry or tourism, for instance). In developing the tariff structure, municipalities and their advisors will need to consider the factors that will affect implementation. These may include.

The failure to link tariff regimes to productivity and thus ensure private sector incentives, the low metering levels in poor areas – thus undermining the "user pays" principle, the distortions that pro-poor tariff structures produce in the market incentives for the private operator ,the lack of a clear mechanism for tariff setting and revision(Water service of Australia, 2003)

4.8 Tariff System in the World

According to estimates by the World Bank Figure 4.4 , the average (mean) global water tariff is US$ 0.53 per cubic meter.

In developed countries, the average tariff is US$ 1.04, while it is only US$ 0.11 in the poorest developing countries. The lowest tariffs in developing countries are found in South Asia (mean of US$ 0.09/m^3), while the highest are found in Latin America (US$ 0.41/m^3). Few utilities do recover all their costs. According to the same World Bank study only 30% of utilities globally, and only 50% of utilities in developed countries, generate sufficient revenue to cover operation, maintenance and partial capital costs. A typical family on the US East Coast paid between US$ 30 and US$ 70 per month for water and sewer services in 2005.

In developing countries tariffs are usually much further from covering costs. Residential water bills for a typical consumption of 15 cubic meters per month vary between less than US$ 1 and US$ 12 per month.

Water and sanitation tariffs, which are almost always billed together, can take many different forms. Where meters are installed, tariffs are typically volumetric (per usage), sometimes combined with a small monthly fixed charge. In the absence of

meters, flat or fixed rates - which are independent of actual consumption - are being charged.

In developed countries, tariffs are usually the same for different categories of users and for different levels of consumption.

In developing countries, there is an intent to make water more affordable for residential low-volume users that are assumed to For example, industrial and commercial users are often charged higher tariffs than public or residential users. Also, metered users are often charged higher tariffs for higher levels of consumption (increasing-block tariffs).

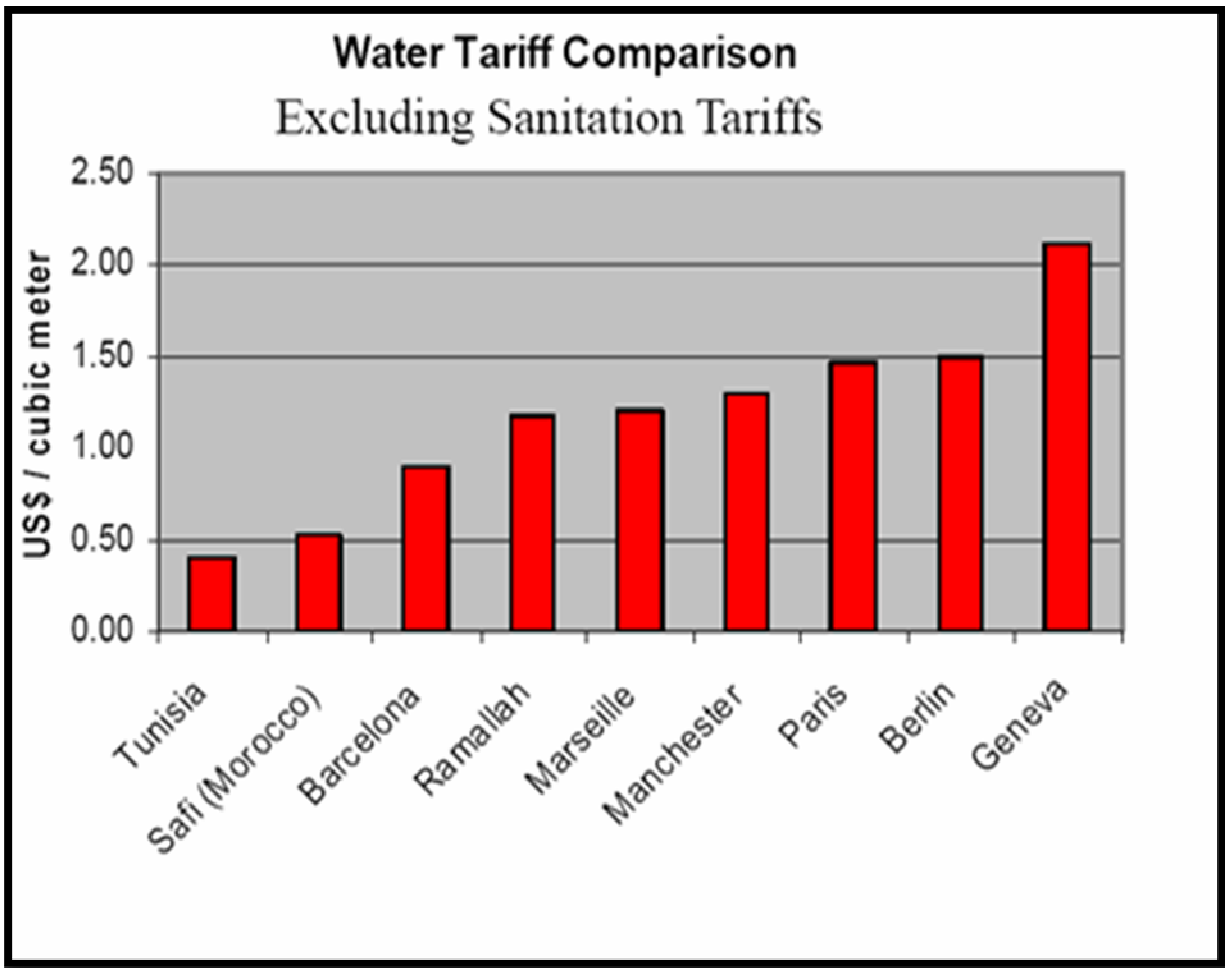

Figure 4. 4: Tariff Values in the World

4.9 Costs Included in the Tariff

The principle underlying the imposition of direct charges for publicly provided sewages is that the cost of these services should be recovered from the beneficiaries. Tariffs have become the established mechanism for this recovery. The costs to be

included in tariffs for water and wastewater services are widely debated. Some combination of these costs, which are discussed in this section, is applicable to most utilities. If the total cost of providing service is recovered, the utility can function as a completely self sustained unit. and cost include (**Laredo, D. 1991)**:

- Operations and Maintenance Costs
- Capital Costs
- Operating Interest Expenses
- Fund Reserves
- Metering and Connection Costs
- Return on Investment

1. Operations and Maintenance cost

A minimum expected of most tariff systems Is the full recovery of **Operations and Maintenance** costs, which can be classified into the following categories:

- Payroll
- Power
- Fuels, lubricants, and chemicals
- Materials, supplies, and equipment
- Miscellaneous

2. Capital cost

The cost of long-term investments in capital assets must be included in financial planning and cost recovery applications. Capital assets are such items as pumps, pumping stations, and sewage treatment works that have a useful life of several years. Non physical assets such as land and water rights, whose useful life has no limit, also represent investments. Accounting conventions use two methods to estimate capital-financing requirements: the cash-flow (**cash based**) approach and the assets-valuation (**cost-based**) approach.

In the cash-flow approach, capital receipts and expenditures are shown as they are received or incurred, followed by outflows in accordance with loan amortization (principal **and** interest) schedules. Capital costs therefore are sensitive to interest rates, grace periods, and other terms. In the assets-valuation approach, capital costs

are estimated by using depreciation techniques and establishing a required rate of Return on assets. Depreciation is the value of fixed **assets** consumed during the accounting period. It is usually calculated on the basis of historic accounts on a straight line basis. For example, if an asset is expected to last 40 years, one fortieth of its cost **Is** attributed to each year for 40 years. Another way of calculating depreciation is by applying a fixed percentage to a reducing balance. The cost of the return on assets is that percentage of the value of depreciated fixed assets (total capitalization representing the cost of capital) equal to the amount required to cover capital costs. The rate of return on assets expected by public authorities can be viewed as a performance regulator. The higher the rate, the higher the cost requirement. Surpluses created by a high rate of return may or may not be sufficient to fund future assets. This will depend on the existing capital structure and cash flow.

Both approaches may involve policy decisions outside the authority of the public utility. The rate of return on capital assets may be based on comparisons with other public utilities in the country or elsewhere. **Loans** are often negotiated by a national government through bilateral and mu8tilateral agreements, and the details of interest rates and repayment schedules are then passed on to the public utility concerned.

3. Operating Interest Expenses

Operating interest is the cost of short-term borrowing to cover deficit cash flows, which result either from a deficiency in the utility's commercial operations (e.g., billing and collections) or from a failure to set the correct limits for operating funds or to administer these funds efficiently. Operating interest is a legitimate cost for recovery through the tariff. However,

if it is historically high or increasing, it may be more prudent to establish special funds (see below) than to continue borrowing. Borrowing to finance all or large portions of O&M costs is a bad practice, however, and should be avoided. Some utilities post all interest expenses as a single line Item, with no differentiation between interest for operations and interest on capital expenditures. If interest is to be recovered by the tariff, care should be taken to classify the type of interest correctly.

4. Fund Reserves

Many tariff structures allow for revenues to be deposited in special funds. Two examples are funds for O&M expenses (working-capital funds to cover lags in cash flow) and for emergency or contingency reserves (to cover emergency repairs or other unpredictable expenditures, e.g., an increase in the cost of electricity). Other funds are reserves usually stipulated in the terms covering borrowed funds for long term debt. One such fund is a debt reserve fund, which is set equal to the amortized annual payment required to retire the debt. It may be established as part of the initial amount borrowed or built up over a few years from revenue. However the debt reserve is set up, its proceeds should be used only for debt retirement. Thus, if the utility is unable to cover its debt payments, the fund may be used and then built up again. If the fund is intact throughout most of the debt period, it can be used to retire the debt ahead of schedule.

Another fund is one used to pay off capital investments routinely made but hard to predict. Extensions to water mains or sewer systems and modifications or improvements to structures are examples of projects covered by such funds. The level of reserve funds may be determined by historical records and the budget planning process. It is important to limit such funds to projects that can be completed (or the investment expended) within a single budget year.

5. Metering and Connection Costs

House connections and the purchase and installation of meters can result in considerable capital expenditures for utilities. In general, individual connection costs are considered to be the responsibility of the homeowner. Metering and other connection costs can be borne by either the homeowner or the utility, which can then recover them through the tariff. By bearing these costs, the utility can exert greater control through the installation of standardized facilities that lower the initial cost to consumers and thereby attract more customers. The converse is that these costs may be high and thus unduly burden the utility.

6. Return on Investment

Cost-recovery systems have been designed to include a higher return on investment than is necessary for capital-cost requirements so as to create a surplus, which utilities often use as a contingency against unexpected costs. If a surplus is produced, it can be used to stabilize tariffs in future years, to finance needed capital expenditures, or for debt retirement. Ideally, the return on investment should recover only the opportunity cost of capital. An effective argument could be made for recovering costs without any surplus; most utilities do provide services on a no surplus basis. The purpose of considering return on investment in settling tariffs is to compare the return with that of like investments in other sectors.

4.10 Metering

Metering of water supply is usually motivated by one or several of four objectives:

- First, it provides an incentive to conserve water which protects water resources (environmental objective).
- Second, it can postpone costly system expansion and saves energy and chemical costs (economic objective).
- Third, it allows a utility to better locate distribution losses (technical objective).
- Fourth, it allows to charge for water based on use, which is perceived by many as the fairest way to allocate the costs of water supply to users.

Metering is considered a good practice in water supply and is widespread in developed countries, except for the United Kingdom. In developing countries it is estimated that half of all urban water supply systems are metered and the tendency is increasing.

Figure 4.5: A typical residential water meter.

Water meters are read by one of several methods:

- the water customer writes down the meter reading and mails in a postcard with this info to the water department;
- the water customer writes down the meter reading and uses a phone dial-in system to transfer this info to the water department;
- the water customer logs in to the website of the water supply company, enters the address, meter ID and meter readings;
- a meter reader comes to the premise and enters the meter reading into a handheld computer;
- the meter reading is echoed on a display unit mounted to the outside of the premise, where a meter reader records them;
- a small radio is hooked up to the meter to automatically transmit readings to corresponding receivers in handheld computers, utility vehicles or distributed collectors

- a small computer is hooked up to the meter that can either dial out or receive automated phone calls that give the reading to a central computer system.

4.11 Growing Concerns Public Water Systems Face and How a Water Loss Control Program Can Help

A public drinking water system must provide enough water to meet demand at a reasonable cost while maintaining quality standards to protect public health. A PWS and its water management administrators must balance these goals at the same time they face growing concerns such as :

- Water availability
- Economic restrictions
- Population growth
- Climate change and drought
- Operational and maintenance costs
- Regulatory requirements
- Public service responsibility
- Social pressures and environmental stewardship

Many of these issues are inter-related. A water loss control program can help to address each of these issues.

4.11.1 Water Availability

The complexity of PWSs varies with a community's size, composition, and location. All systems depend on quality and abundant water sources to meet increasing water demands. A PWS's source may be ground water, surface water, ground water under the influence of surface water, purchasing finished water from another PWS or a combination of these sources. Each of these options requires resources and funds to locate, develop, treat, and maintain the source. When insufficient availability becomes an issue, a PWS has the option to find and develop another source or buy additional water from another PWS. However, finding a new reliable and adequate quality source may not always be easy or an option. A third option available to the PWS is to take a look at their process and operation and determine if there is any way to save water. This is when developing and implementing a water loss control program at the

PWS becomes essential. Through a water loss control program, water that was previously lost can now be sold to the consumers, increasing revenue, meeting water demands and reducing the need for other sources. Such a program may be able to defer development of new sources and reduce or eliminate the need to supplement supply from another PWS. The water loss control program is often the most economical solution.

4.11.2 Economic and Population Growth

Population growth can put an additional strain on a water system. Economic, manufacturing, and industrial growth in a community can also affect the ability of a water system to provide sufficient water. Some industries rely heavily on water such as food processing and beverage companies. These water demand increases must be met either by locating other sources, increasing the capacity of the existing water treatment facility, or investing in new capital improvement projects. A water loss control program can help find water that was previously lost in the system and potentially defer, reduce, or eliminate the need for more expensive alternatives.

4.12 Water Loss Control Program Components

A water loss control program must be flexible and tailored to the specific needs and characteristics of a PWS. There are three major components to an effective program as shown in figure 4.6:

1. The Water Audit
2. Intervention
3. Evaluation

Each of these major components consists of additional steps and options.

The Water Audit is an assessment of the distribution system and uses accounting principles to determine how much water is being lost and where. Through the water audit, options will become apparent as to how to proceed with further identifying where losses are occurring or where efforts to control or eliminate the losses should be concentrated. These options should be compared and evaluated not only economically but with consideration of all other issues and concerns the PWS faces. Typical steps in an audit include:

- Gathering information,

- Determining flows into and out of the distribution system based on estimates or metering,
- Establishing performance indicators (e.g., what parameters will be measured and how),
-Assessing where water losses appear to be occurring based on available metering and estimates,
- Analyzing data gaps (e.g., determining if more information is necessary to make comparisons and an informed decision),
- Considering options and making economic and benefit comparisons of potential actions, and
- Selecting the appropriate interventions.

The Intervention process puts the options selected into action. More than one action may be selected as beneficial to a PWS and the public. For example, the water management administrator may decide that the PWS has three high priority items including adding additional metering in one neighborhood, precisely locating and repairing a leak in a specific section of main, and replacing a one-mile section of pipe. Selecting the order of these actions
should be based on budget constraints, public benefit, and priority of other scheduled capital improvements. Intervention can include:

- Gathering further information, if necessary,
- Metering assessment, testing, or a metering replacement program,
- Detecting and locating leaks,
- Repairing or replacing pipe,
- Operation and maintenance programs and changes,
- Administrative processes or policy changes, and
- No further action is necessary.

The Evaluation portion of the program consists of assessing the success of the audit and intervention actions. The evaluation will answer questions such as:

- Were the goals of the intervention met? If not, why not?
- Where do we need more information?
- How often should we repeat the Audit, Intervention and Evaluation process?

- Is there another performance indicator we should consider?
- How did we compare to the last Audit, Intervention and Evaluation process?
- How can we improve performance?

A major portion of evaluation is benchmarking. The audit establishes performance indicators, which serve as benchmarks. The intervention action should improve performance in some way. Evaluation is necessary to ensure that whatever the intervention was, it succeeded in its goal. If the goal of the intervention was not met, the evaluation process seeks to determine why and what can be done about it. A water loss control program as a continuous process.

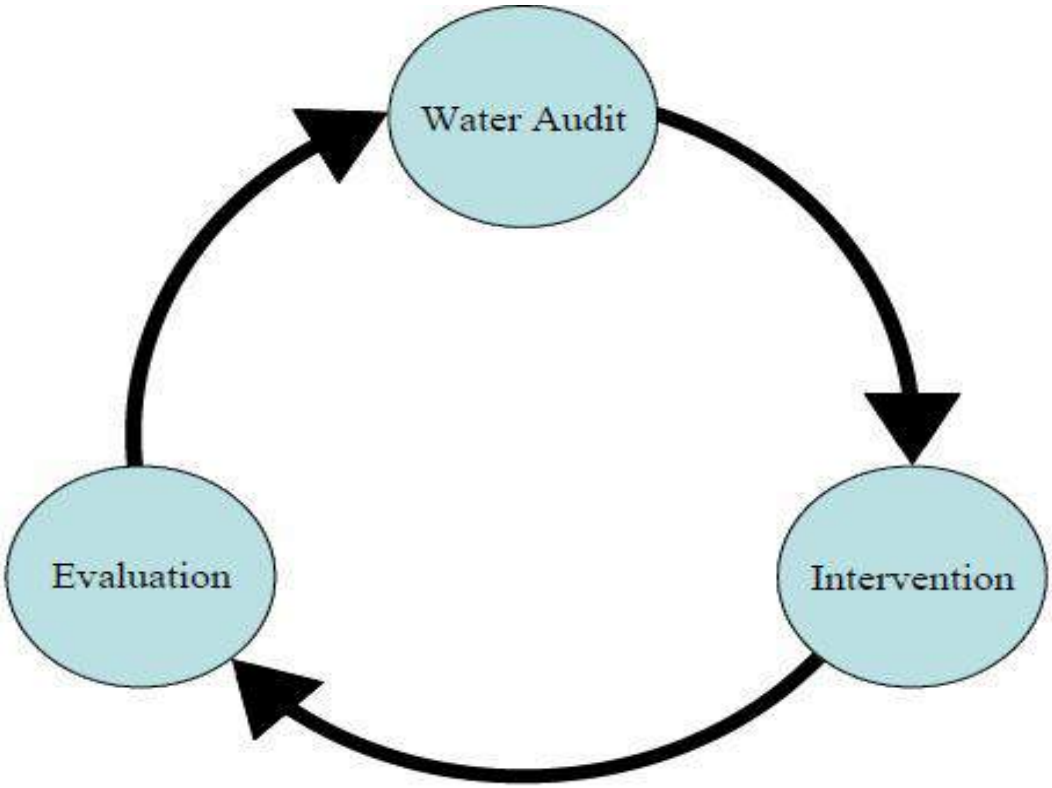

Figure 4.6: Water Loss Control Program Components.

5: RESULTS

5.1 Existing Water Distribution System

5.1.1 Introduction

The existing water resource in the Beit Lahya city is limited to the groundwater. The groundwater quality is being deteriorated in the past decades and continues in rapid rates due to overexploited the aquifer which led to lowering the groundwater to be lower than the Mean Sea Level in which encourage the seawater intrusion to invade the Gaza Coastal Aquifer in many parts (AL-Najar, 2011). The water supply in Beit Lahya city is based mainly on abstracted groundwater by water wells. The supply scheme in the area is considered intermittent supply schemes managed by complicated manual valve control system.

This chapter is aiming at describing the water distribution system in Beit Lahya city and describing the operation schemes and how the limited water resources are managed from supply aspect in Beit Lahya city. The water distribution system consists of water wells, storage tank, water pipelines (main feeders, distribution pipes and house connections), valves and booster pumps.

5.1.2 Water resource (wells)

The supply is provided by eight wells; E-6, A-180, A-185, D-67, D-73, A-205, A-211 and Aslan located within the entire area of Beit Lahya city as shown in figure 5.1. The year of construction differs among the wells, the oldest is D-67 Atatra well (1976) and on 2009, the last constructed well was Aslan with capacity 80 m^3/hour. As shown in table 5.1, various abstraction rates are recorded from the wells. The abstraction rate from each well D-73 is 200 m^3/hr. While the lowest abstraction rate from well D-67 which account for 70 m^3/hr. The abstraction rate of the wells indicates relatively the population served by the well. As there is no storage or balanced tanks in the network; except for Tal Alzatar tank, in the eastern part of Beit Lahya city, water is pumped directly into the distribution system from groundwater wells. The total production of the Wells is about 6.099Million Cubic Meters

(MCM) in year 2010. Seven wells are electrically operated; except for ASLAN well is diesel work(Beit Lahya Municipality, 2010).

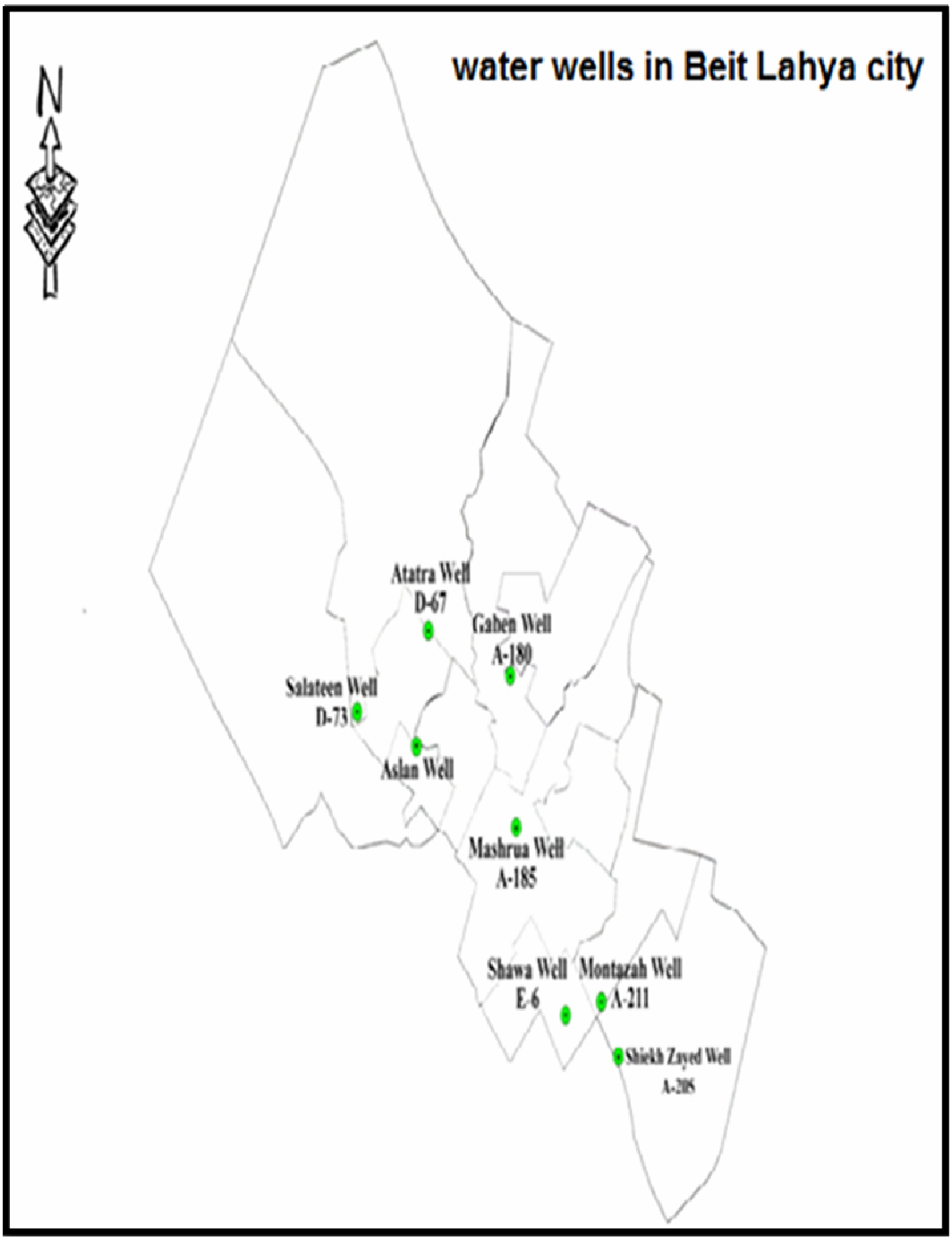

Figure 5.1: Water well location within the entire area of Beit Lahya municipality

Table 5.1 : wells year of construction and the current production per hour

Well No.	Well Name	Year of construction	production m3/hr
E-6	Shawa	1997	100
A-180	Gaben	1983	130
A-185	Mashrua	1983	180
D-67	Atatra	1976	70
D-73	Salateen	1997	200
A-205	Sheikh Zayed	2004	150
A-211	Montazah	2006	180
-	Aslan	2009	80

These wells can be categorized into two main categories as follows:

- **Main water wells**: These are 5wells; A-180, A-185, D-73, A-205 and A-211. The term main derives from the quantity of the abstracted water per hour which ranges from 120 to 200 m^3/hr. Moreover it serves the most densely population quarters of the city. These wells are equipped with emergency electricity supply and guard who is responsible for well operation based on its specified scheme. These wells are considered the main sources for central operation schemes in Beit Lahya water networks.

- **Local water wells**: These are 3 wells considered as supporting wells such as E-6, D-67 and Aslan. These well are used to solve the problems of the areas that are suffering from high water shortage. The average wells production of each well is 70 to 100 m^3/hr. These wells are supply limited areas and not considered in main operation schemes.

5.1.3 Pipes

The water network in Beit Lahya city is composed from pipe diameters ranging from 2-inch to 24-inch. Large and medium diameter pipes are made of steel and UPVC. But many smaller pipes are polyethylene pipes. UPVC forms the largest percentage of pipe materials followed by steel pipes and last by P.E pipes with total length of about 161 Km. The major

type in the area is the UPVC and Steel pipes which forms 52.6% and 24.9% respectively of the whole lengths of the water pipe in Beit Lahya as shown in table 5.2.

Table 5.2: Water pipes network in Beit Lahya

Water Pipe Type	Pipe Sizes (inch)	Length (m)	Length (Km)	Percentage %
steel pipes	Steel 14"	6000	40.096	24.90
	Steel 12"	1165		
	Steel 8"	2700		
	Steel 6"	9688		
	Steel 4"	7343		
	Steel 3"	1200		
	Steel 2"	12000		
UPVC pipes	UPVC 6"	18901	84.733	52.60
	UPVC 4"	28604		
	UPVC 12"	5886		
	UPVC 10"	3718		
	UPVC 8"	27624		
A.C pipes Asbestos Cement	A.C 6"	3585	16.98	10.53
	A.C 4"	1100		
	A.C 3"	2695		
	A.C 24"	500		
	A.C 12 "	2400		
	A.C 10"	1400		
	A.C 8 "	5300		
P.E pipes	P.E 2"	19320	19.32	12.00
TOTAL		**161129**	**161.129**	**100.0**

The pipes divided into two parts:

The first is Transmission Pipes with medium and large steel and UPVC pipes diameter. UPVC forms the largest percentage of pipe materials followed by steel pipes and last by A.C pipes. Steel forms the largest percentage of pipe materials followed by UPVC and last by A.C pipes with total length of about 21.8 Km length. The major type is the steel and UPVC which forms 45.2% and 40.09% respectively of the whole lengths of the Transmission water pipe in Beit Lahya as well shown in Table 5.3.

Table 5.3: transmission pipes in Beit Lahya

Water Pipe Type	Pipe Sizes (inch)	Length (m)	Length (Km)	Percentage %
steel pipes	Steel 14"	6000	9.87	45.2
	Steel 12"	1165		
	Steel 8"	2700		
UPVC pipes	UPVC 6"	3500	8.743	40.09
	UPVC 12"	1500		
	UPVC 8"	3743		
A.C pipes	A.C 6"	3200	3.2	14.67
TOTAL		**21808**	**21.808**	**100.0**

The second is distribution Pipes UPVC forms the largest percentage of pipe materials followed by steel pipes and last by P.E pipes with total length of about 139.32 Km length. The major type is the UPVC and Steel pipes which forms 54.54% and 21.7% respectively of the whole lengths of the water distribution pipe in Beit Lahya.

Table 5.4: distribution pipes in Beit Lahya

Water Pipe Type	Pipe Sizes (inch)	Length (m)	Length (Km)	Percentage %
steel pipes	Steel 6"	9688	30.231	21.7
	Steel 4"	7343		
	Steel 3"	1200		
	Steel 2"	12000		
UPVC pipes	UPVC 6"	15401	75.99	54.54
	UPVC 4"	28604		
	UPVC 12"	4386		
	UPVC 10"	3718		
	UPVC 8"	23881		
A.C pipes	A.C 6"	385	13.78	9.89
	A.C 4"	1100		
	A.C 3"	2695		
	A.C 24"	500		
	A.C 12 "	2400		
	A.C 10"	1400		
	A.C 8 "	5300		
P.E pipes	P.E 2"	19320	19.32	13.87
TOTAL		**139321**	**139.321**	**100.0**

5.1.4 Tanks

Out of the three reservoirs in the Beit Lahya city; Om AL-Naseer (2000 m^3), Sheikh Zayed (5000 m^3) and AL-Atatra (150 m^3). Only AL Sheikh Zayed ground water tank of 5000 m^3 capacity is currently used. Om AL-Naseer and AL-Atatra elevated tanks are out of service.

5.2 Existing Intermittent Operation Schemes

5.2.1 Water network operation zones

Water supply in Beit Lahya Municipality is an intermittent water supply and that due to insufficient water quantity in the area. The operation system is controlled manually by opening/closing valves in the major trunk lines. The water distribution cycle is completed every 48 hour. Water network in Beit Lahya city is composed of 13 operation zones varying in size, complexity, topography, and source management. These zones are allocated based on the current supply sources and sequence. This includes identifying the supply sources of each zone and main operating valves related to these zones. These zones are summarized in the following:Salateen, Atatra, Guraa al khamsa, Tal Eldahab, Abu Obida, Jamaea and Shimaa, Gawasma, Hatabea, Manshaea, EL Maslakh and AL Almagles, Sheikh Zayed, Mashrua Old- and block 8 and Mashrua New. As shown in figure 5.2.

5.2.2 Direct Supply from Wells

12 districts of the above zones used this distribution system type. Table 5.5 shows the water supply resource for each zone with the time interval scheme within the 48 hour completed water distribution cycle.

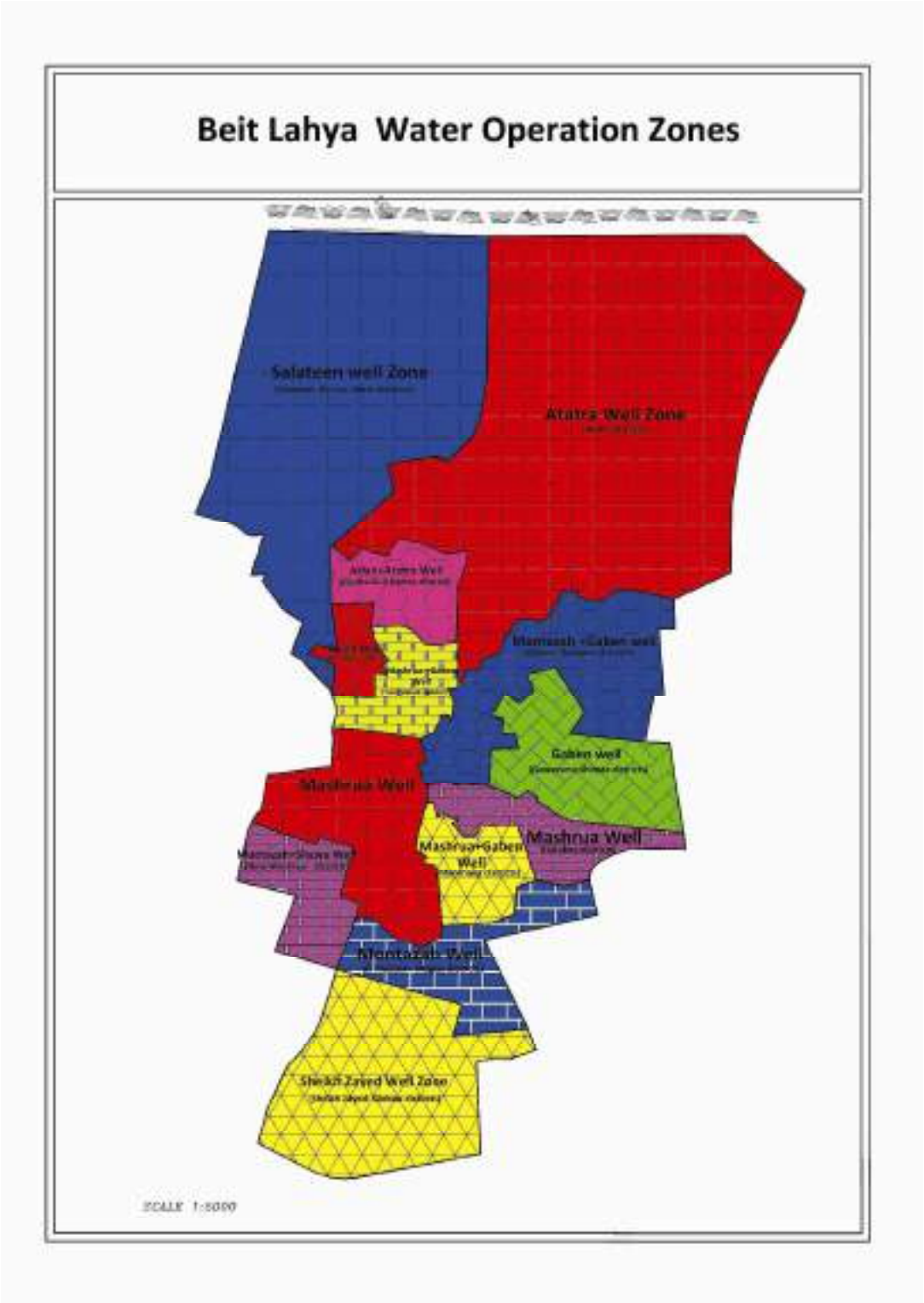

Figure 5.2: Beit Lahya Water Operation Zones

Table 5.5: Water Distribution Time Interval and Quantities for DSW

#	District	Water resources supply	Day #	Production (m3/day)
1	Salateen +Fardous	Salateen well	1	200
2	Atatra	Atatra well	1	70
3	Guraa al khamsa	Aslan well	1	80
		Atatra well		70
4	Tal Eldahab	Gaben well	1	120
		Mashrua well		200
5	Abu Obida	Aslan well	1	80
6	Jamaea and Gaben	Montazah well	1	200
		Gaben well		120
7	Gawasma and Shimaa	Gaben well	1	120
8	Hatabea	Mashrua well	1	200
9	Manshaea	Gaben well	1	120
		Mashrua well		200
10	Maslakh and Magles	Montazah well	1	200
11	Old Mashrua – Khazan and block 8	Mashrua well	1	200
12	New Mashrua	Montazah well	1	200
		Shawa well		100

5.2.3 Water Tanks Supply

In this scheme the water is being abstracted from Sheikh Zayed water well to Sheikh Zayed storage tank, taking into consideration that the delivered waters to the storage tanks will lose 5 % of its quantity as natural losses because the water pumped into the 18" welded steel trunk line pieces towards the major water tanks area. As shown in Table 5.6 this water tank capacity is 5000 m^3.The Sheikh Zayed zone is only distribution zone in the Beit Lahya municipality feeded from the storage tank. This zone supplied water from the reverse 12" UPVC gravity pipe line, this pipe line is start supplying this zone when the water tanks

is almost full and can't handle the coming waters into it, the duration in supplying this zone is about 16 hours every day as shown in Table 5.6

Table 5.6: Water Distribution Time Interval and Quantities for tank supply

#	Feeder source	Feeder time interval (within 24hr)	Production (m3/day)	Water quantity at feeder source	Water in the storage tank 5% losses
1	A-205-(Sheikh Zayed water well)	16	150	2400m^3	120m^3

5.3 Existing Water Meters in Beit Lahyia Municipality

The number of customers of Beit Lahya municipality is 5487 until the end of August 2011, the supervising Department of customers and taxation is section that follows directly to financial administration. Taking into consideration that population of Beit Lahyia city is 72,500 inhabitants. Therefore, the average number of individuals for each water meter in the municipality is 72500/5487 which is equal to 13 people. Number of customers increases per month and it is active in 2011due to the increase in urban areas and the population natural growth.

5.3.1 Water meters reading

The employees located for reading Meters in Beit Lahyia are three. They are distributed over 15 different areas of Beit Lahiya. Reading meters takes place every two months according to the followed system in issuing water bills. Meters are reads at the end of every two month and the Readers' work to have duration of two months for each region.

5.3.2 Meters reading zones

In fact, districts of water distribution systems are significantly different from districts division of the municipality. Moreover, districts of meters reading are different of parts of water distribution. This made it difficult to combine all districts in order to count water

customers of each region. Table 5.7 show the meters reading districts and the number of water meters in each district.

Table 5.7 Water Meter and the numbers of customers in each Reading Zones.

#	zone	Meters number
1	Old Mashrua	449
2	New Mashrua	577
3	Block 8 zone	119
4	Maslakh zone	346
5	High Bulding Zone	108
6	Manshaea and Maglas Zone	418
7	Hatabea Zone	248
8	Jamaea Zone	504
9	Gbuoon zone	205
10	khzan Zone	408
11	Salateen zone	465
12	Aslan zone	301
13	East and West	429
14	Guraa al khamsa	168
15	Sheikh Zayed Zone	742

Table Prepared by the researcher

5.4 Timetable of Water Distribution System in Beit Lahya Municipality

Tables 5.8, show districts of water distribution system feeding wells in each area and the time table of water distribution in Summer season (June, July and august) 2011 cycle, which is adopted by water department in the municipality. Many areas get water from more than well such as Manshaea district, which is fed by well of Gaben and Mashrua well for four hours by each well. But table 5.9, show districts of water distribution system feeding wells in each area and the time table of water distribution in Winter season (December 2011, January and February 2012 cycle).

It's clear that from the following tables, the hours of water supply from well to Beit Lahya district different between winter and summer season, for example the Salateen district feed water 19 hours in summer season and 13 hours in winter season.

Table 5.8: Timetable of Water Distribution System for June , July and August 2011 (Summer season).

#	District	Water resources supply	Production (m^3/hour)	Pumping hour/ day	Pumping hour/ day	Pumping hour/ day
				June 2011	July 2011	August 2011
1	Salateen	Salateen well	200	19	19	20
2	Al Atatra	Atatra well	70	18	18	18
3	Al Guraa al khamsa	Aslan well	80	3.5	4	4
		Atatra well	70	3.5	4	4
4	Tal Eldahab	Gaben well	130	4	4	4
		Mashrua well	180	2	2	2
5	Abu Obida	Aslan well	80	3	3	3
6	Jamaea and Gaben	Montazah well	180	6	6	8
		Gaben well	130	7	6	7
7	Gawasma and Shimaa	Gaben well	130	5.5	5.5	5.5
8	AL Hatabea	Mashrua well	180	2.5	2.5	2.5
9	AL Manshaea	Gaben well	130	3.5	4	4
		Mashrua well	180	4	4	4
10	El Maslakh and Magles	Montazah well	180	6.5	6.5	8
11	Sheikh Zayed	Sheikh Zayed well	150	16	16	15
12	Old Mashrua – Khazan and block 8	Mashrua well	180	11	12	12.5
13	New Mashrua	Montazah well	180	4	3.5	3.5
		Shawa well	100	19	Only district	19

Table 5.9: Timetable of Water Distribution System for December 2011, January and February 2012 (winter season).

#	District	Water resources supply	Production (m^3/hour)	Pumping hour/ day	Pumping hour/ day	Pumping hour/ day
				December 2011	January 2012	February 2012
1	Salateen	Salateen well	200	13	13	12
2	Al Atatra	Atatra well	70	13	13	11
3	Al Guraa al khamsa	Aslan well	80	2	2	4
		Atatra well	70	2	2	2.5
4	Tal Eldahab	Gaben well	130	3.5	3.5	2
		Mashrua well	180	2	2	2
5	Abu Obida	Aslan well	80	2	2	2
6	Jamaea and Gaben	Montazah well	180	4	4	3
		Gaben well	130	5	5	3.5
7	Gawasma and Shimaa	Gaben well	130	4	4	4
8	AL Hatabea	Mashrua well	180	2	2	2
9	AL Manshaea	Gaben well	130	3	3	2.5
		Mashrua well	180	3	3	3
10	El Maslakh and Magles	Montazah well	180	5	5	4
11	Sheikh Zayed	Sheikh Zayed well	150	13	13	12
12	Old Mashrua – Khazan and block 8	Mashrua well	180	10	10	10
13	New Mashrua	Montazah well	180	3	3	3
		Shawa well	100	9	9	8

5.5 Quantities of Water Supply and Meter Readings

The amount of water consumption and the amount of water supplied to water network of each district in (May and June months cycle) ,(Julay and August cycle) and (January and February 2012,cycle) are described in the table 5.10 ,5.11 and 5.12. water supplied in the tables are results of Multiplied by the number of pumping hours and hours of well production in hour.

Then the total amount of water pumped to the water distribution system during cycles are 1,141,500 m3 in May and June cycle, 1,183,300 m3 in July and august months cycle and reached 785500 in January and February /2012 cycle.

It is clear that each person share of water that is pumped to the water network reached 270 m3 per day , which is so high number if compared to the Gaza strip, taking in consideration that population of Beit Lahya is 72,500 people. As shown in Table 5.10, 5.11, 5.12 the most area that get much quantities of water are the area of Salateen , which gets 228,000 , 234000and 150,000 cubic meters of water periodically.

5.6 Water Consumption For Beit Lahya Districts

After counting names of water customers in each region of water distribution system, the water consumption in each region of water distribution was calculated and concluded to the following result, taking in consideration that the researcher followed meters reading monthly.

This data is a compilation in table 5.10, 5.11 and 5.12 of water consumption by all customers in each region, which is the real quantity, consumed not the minimum consumption by customers whereas some customers consumed 10 m^3 of water and some consumed 80 m^3.... etc

5.7 Water Distribution System Efficiency

Using above data, can calculate the efficiency of water distribution system of Beit Lahya Municipality through comparison between supplied water and consumed water.

By analyzing the data contained in the following tables, can get efficiency of water network which is equal to 42% in first cycle , 44.3% in second cycle and 55.2% in third cycle. This means that rate of unaccounted for water is equal to 55.7% and 58%and

44.8% for three cycles ,which is very high if compared to the same rate in developing countries in Asia which is equal to 42% in maximum rate of losses.

Table 5.10: water network efficiency in May and June 2011(first cycle)

#	District	Water resources supply	Meter readings (m^3/May +June)	water supply quantity (m^3/May +June)	Eff %	UFW %
1	Salateen	Salateen well	60560	228000	26.6	73.4
2	Al Atatra	Atatra well	28398	75600	37.6	62.4
3	Al Guraa al khamsa	Aslan well	17869	33750	52.9	47.1
		Atatra well				
4	Tal Eldahab	Gaben well	15268	45000	33.9	66.1
		Mashrua well				
5	Abu Obida	Aslan well	7262	14400	50.4	49.6
6	Jamaea and Gaben	Montazah well	41051	115500	35.5	64.5
		Gaben well				
7	Gawasma and Shimaa	Gaben well	24539	44850	54.7	45.3
8	AL Hatabea	Mashrua well	10189	27000	37.7	62.3
9	AL Manshaea	Gaben well	32678	70500	46.4	53.6
		Mashrua well				
10	El Maslakh and Magles	Montazah well	18728	70200	26.7	73.3
11	Sheikh Zayed	Sheikh Zayed well	48775	144000	33.9	66.1
12	Old Mashrua – Khazan and block 8	Mashrua well	94225	124200	75.9	24.1
13	New Mashrua	Montazah well	80000	148500	53.9	46.1
		Shawa well				
		total consumption	**479542**	**1141500**	**42.0**	**58.0**

Table 5.11: water network efficiency in July and August 2011(second cycle)

#	District	Water resources supply	Meter readings (m^3/July + August)	water supply quantity (m^3/July +August)	Eff %	UFW %
1	Salateen- Fardaus	Salateen well	64362	234000	27.5	72.5
2	Al Atatra	Atatra well	26972	75600	35.7	64.3
3	Al Guraa al khamsa	Aslan well	17800	36000	49.4	50.6
		Atatra well				
4	Tal Eldahab	Gaben well	19071	52800	36.1	63.9
		Mashrua well				
5	Abu Obida	Aslan well	7737	14400	53.7	46.3
6	Jamaea and Gaben	Montazah well	43206	126300	34.2	65.8
		Gaben well				
7	Gawasma and Shimaa	Gaben well	25015	42900	58.3	41.7
8	AL Hatabea	Mashrua well	11438	27000	42.4	57.6
9	AL Manshaea	Gaben well	35758	74400	48.1	51.9
		Mashrua well				
10	El Maslakh and Magles	Montazah well	23357	78300	29.8	70.2
11	Sheikh Zayed	Sheikh Zayed well	60000	139500	43.0	57.0
12	Old Mashrua – Khazan and block 8	Mashrua well	110662	132300	83.6	16.4
13	New Mashrua	Montazah well	78698	149800	52.5	47.5
		Shawa well				
total consumption			**524076**	**1183300**	**44.3**	**55.7**

Table 5.12: water network efficiency in January and February 2012 (third cycle)

#	District	Water resources supply	Meter readings (m^3/January +February)	water supply quantity (m^3/January + February)	Eff %	UFW %
1	Salateen- Fardaus	Salateen well	59300	150000	39.5	60.5
2	Al Atatra	Atatra well	26500	50400	52.6	47.4
3	Al Guraa al khamsa	Aslan well Atatra well	14149	23850	59.3	40.7
4	Tal Eldahab	Gaben well Mashrua well	15119	43050	35.1	64.9
5	Abu Obida	Aslan well	6100	9600	63.5	36.5
6	Jamaea and Gaben	Montazah well Gaben well	40177	70950	56.6	43.4
7	Gawasma and Shimaa	Gaben well	19243	31200	61.7	38.3
8	AL Hatabea	Mashrua well	10129	21600	46.9	53.1
9	AL Manshaea	Gaben well Mashrua well	30150	53850	56.0	44.0
10	El Maslakh and Magles	Montazah well	16448	48600	33.8	66.2
11	Sheikh Zayed	Sheikh Zayed well	50159	75000	66.9	33.1
12	Old Mashrua – Khazan and block 8	Mashrua well	83550	102,550	81.4	18.6
13	New Mashrua	Montazah well Shawa well	62191	99400	62.6	37.4
total consumption			**433215**	**780100**	**55.5**	**44.5**

Out of studying the last three tables . The differences between the three cycles were little in water losses and efficiency of the water network. This indicates validity of the results adopted in this research.

It is clear that the highest percentage of water losses in the network were in Salateen and Fardous districts. It is famous agricultural area in town of Beit Lahya, where its residents are few in comparison with its geographic area. It includes also the area of Isra and Amer mini-camp , which have a high proportion of governmental land controlled by citizens the Municipality does not grant any water participation for these lands are governmental lands according to the law. The proportion of UFW

in water network in salateen is 73.5%, 72.5% and 60.5% in three cycles. Means that the efficiency of water network is 26.6% ,27.5% and 39.5% respectively.

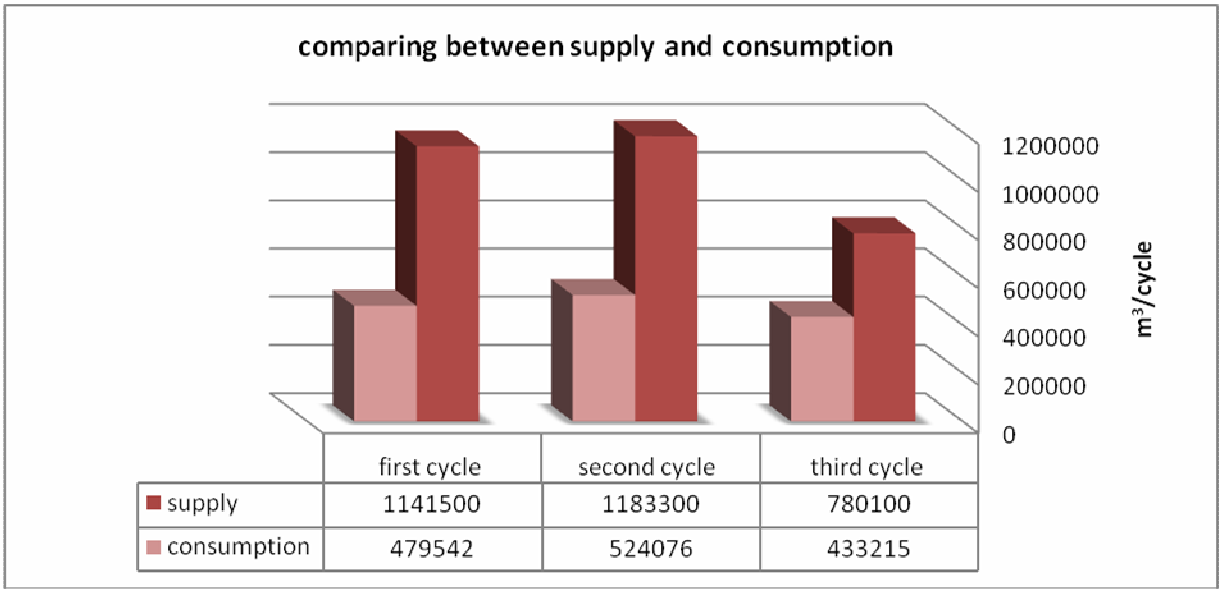

Figure 5.3:comparing between supply and consumption

Areas of El Maslakh , Hatabea and the Jamaea come next to Atatra area in losses, whereas most of its land are agricultural. After The analysis results in above tables shows that consumers in these districts uses municipality water to irrigate their lands.

The least losses are shown for Old Mashrua , which has high percent of efficiency that reached 83.6% in Summer season and 81.4% in Winter season. It has water losses of 16.4% and 18.6% respectively. It is known that areas of (Almashrou, Bloc 8) and Alkhazzan are natural extension to the refugee camp of Jabalya, whereas they have no agricultural lands promotes, supports the accuracy of data and indicating the high percentage of un account for water is main characteristic of the semi urban areas. As new Mashrua area is a natural extension to the area of old Mashrua. Located to the east of the old Mashrua .It has so little proportion of the agricultural land it has a wide range area of residential towers. The efficiency of water network in this region is 53.1%, 52.5% and 62.5% in winter cycle.

Based on the field survey, most of the agricultural areas in Al-Atatara and Salateen are cultivated with strawberry, carnation and vegetables in green houses.

A field survey has been conducted by the researcher with the assistance of Municipal staff in the Department of meter reading and some volunteers. It was found that the

proportion of agricultural lands. The field survey has been worked to more than 650 subscribers in the Municipality of Beit Lahya Municipality. It items focused on the proportion the subscriber land owned , the construction area and agricultural land area. The result of field survey It show in table 5.13.

By reference to the map uses of land to the Beit Lahiya city , it shows that agricultural land is concentrated in the following areas: Al Atatra, Salateen, Jamaea and Gaben, Gawasma and Shimaa and El Maslakh as well show in table 5.14

Table 5.13: Agricultural land in Beit Lahya districts by field survey

#	district	owned land	Residential land	Agricultural land	The proportion of agricultural land	Un accounted for water (UFW)
		km^2	km^2	km^2	%	%
1	Al Atatra	24580	10446	8657	35.2	62.4
2	Salateen	72157	23980	37360	51.8	73.4
3	Al Guraa al khamsa	5687	2000	1760	30.5	47.1
4	Old Mashrua – Khazan and block 8	13470	8220	1312	9.74	24.1
5	New Mashrua	7850	5240	1170	14.9	46.1
6	Jamaea and Gaben	37220	20131	6620	17.8	64.5
7	Gawasma and Shimaa	19680	7440	5642	28.7	45.3
8	AL Manshaea	10440	6123	1480	14.2	53.6
9	Sheikh Zayed	19080	7730	7750	40.6	66.1
10	El Maslakh and Magles	10980	6070	3230	29.4	73.3

Table 5.14: Agricultural land in Beit Lahya districts by land uses map

#	district	Agricultural land	UFW
		km^2	%
1	Al Atatra	2007.314	62.4
2	Salateen	1500	73.4
3	Al Guraa al khamsa	0	-
4	Old Mashrua – Khazan and block 8	0	-
5	New Mashrua	0	-
6	Jamaea and Gaben	466.136	64.5
7	Gawasma and Shimaa	51.406	45.3
8	AL Manshaea	0	-
9	Sheikh Zayed	226.302	66.1
10	El Maslakh and Magles	379.01	73.3

This enhances the, In the Gaza Strip irrigation practices are only based on the farmer's own experience, they determine when and how to irrigate crops based on the appearance of the soil and the climatic conditions the irrigation practice exceeding the irrigation water requirement by 30% leading to overexploitation of groundwater and increasing the operational cost of water supply network (Al-Najar, 2011).

Figure 5.4, 5.5, 5.6 show the water loss and agriculture land percentage and behavior in two winter and summer seasons.

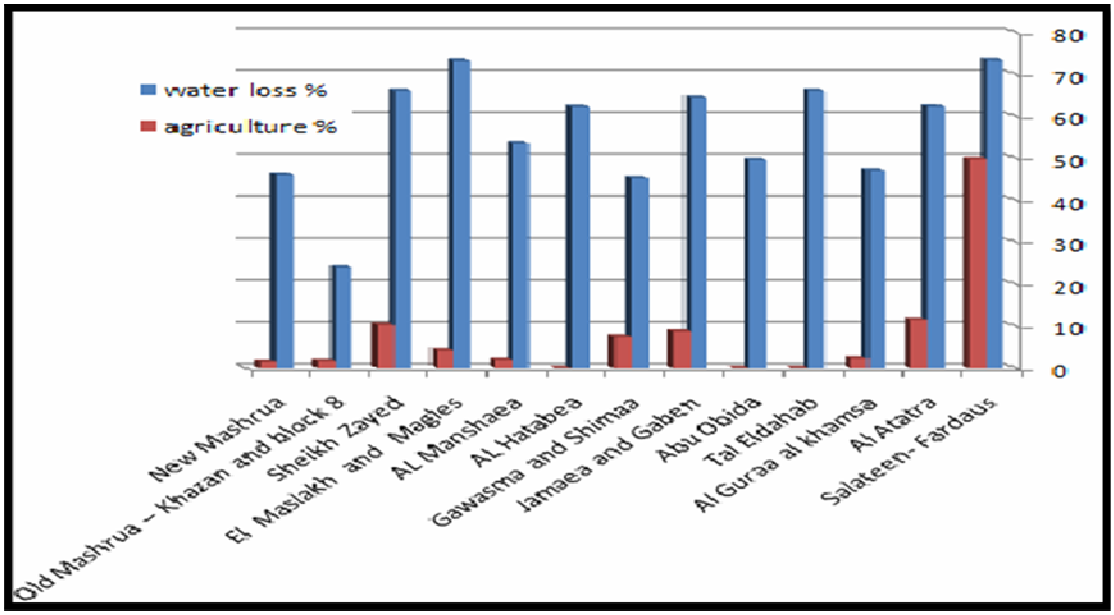

Figure 5.4 :unaccounted for water for each waters districts and the agriculture land (summer season, cycle1)

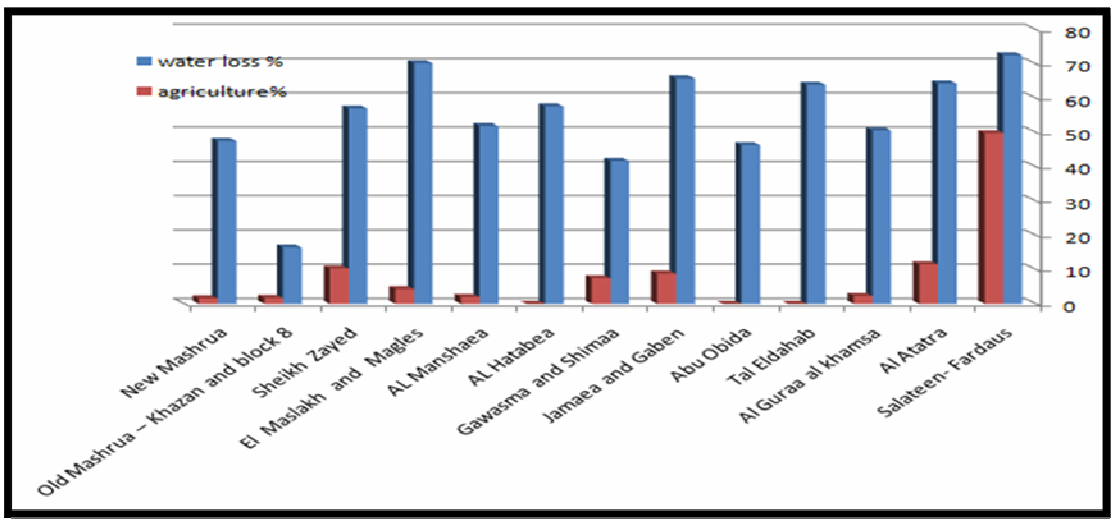

Figure 5.5 :unaccounted for water for each waters districts and the agriculture land (summer season, cycle2)

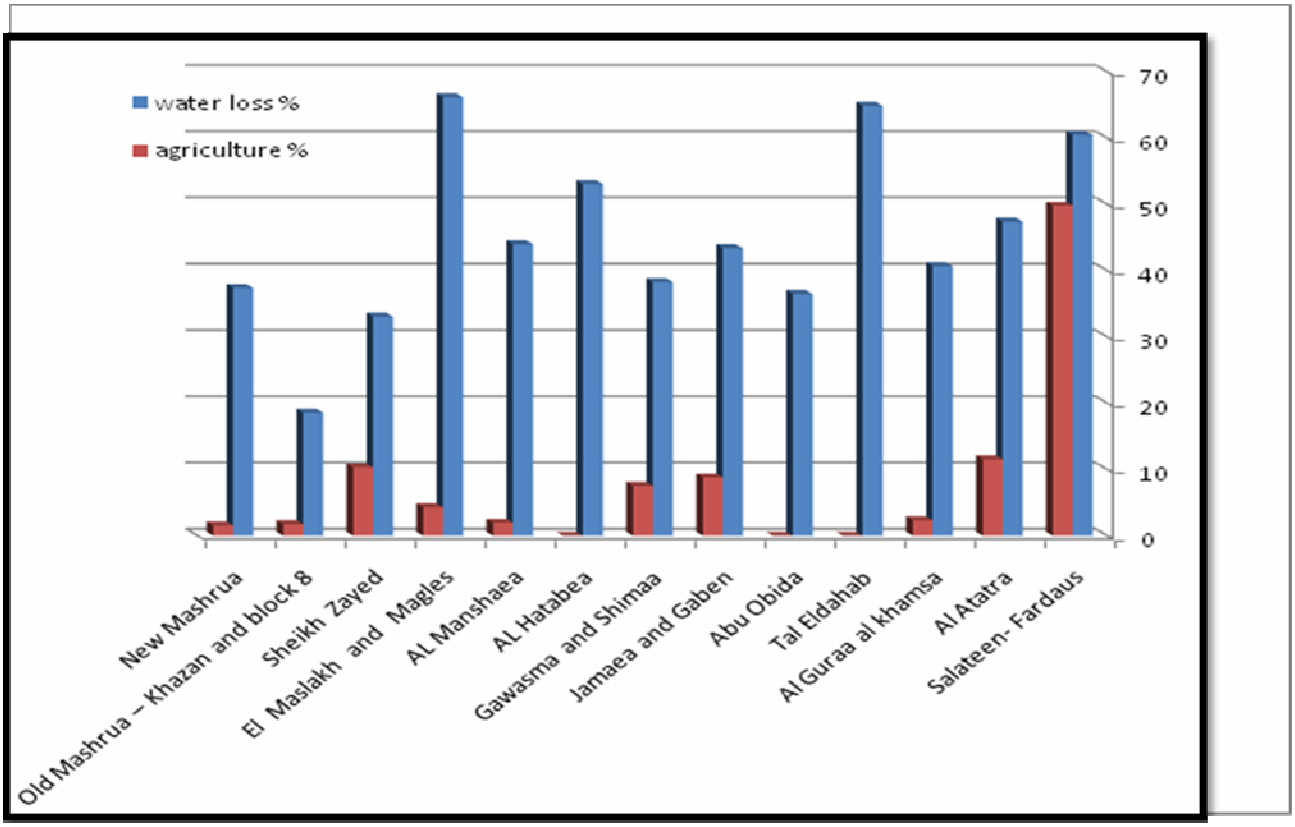

Figure5.6:unaccounted for water for each waters districts and the agriculture land (winter season, cycle 3)

Beit Lahya is still characterized by a rapid increase of population and expansion of urban areas. Large-scale, export-oriented agricultural production has reached its limits of land-use availability and, at the same time, is confronted with the socio-economic demands related to food insecurity and the need for income generation. Chemically intensive, unsustainable farming practices are leading to soil degradation, depletion and contamination of the vulnerable water resources. The concentration of chemical pollutant, including nitrate and chloride have exceeded the standards recommended by WHO (MOH, 2009, Al-Najar and Adeloye, 2005).

Increasing competition among urban needs makes soil and especially water very limited resources. “Agriculture in Gaza is already more urban than rural”, referring to the high degree of urbanization of the area (Al-Najar 2007). Urban agriculture is not a new or recent invention. However, only recently has urban agriculture become a systematic focus of research and development attention as its scale and importance in the urbanizing world become increasingly recognized (Van Veenhuizen, Prain & De Zeeuw 2001). A recent study by the United Nations Development Program (UNDP)

indicated that about 800 million urban residents worldwide are involved in urban agricultural activities as a survival strategy. Between 1993 and 2005, urban agriculture could increase its share of world food production from 15% to 33% (Smit, 1996).

5.8 Water Tariff System

The water tariff system followed in the municipality of Beit Lahya is 30 shekels per month for each water customers, which is the minimum . The quantity that excesses 30 cups consumption is considered as 0.8 NIS for each m^3. For commercial and industrial consumption the water tariff system followed in the municipality of Beit Lahya is 0.8 shekels per m^3.

It should be noted that no rating for water customers in the municipality of their contributions to the classification of residential, commercial, industrial and all customers records residential consumption, because no industrial area in Beit Lahya.

In this research, the researcher tries investigate whether the water tariff in the municipality of Beit Lahya is appropriate. This comes while taking into consideration that efficiency of the water network is only 44%. Here, will rely on the study prepared by the engineer Ramez Almadhoon , who prepared a model of Excel , through which the water tariff can be found out in the municipalities.

Table 5.15 show the raw data will needed in the model contain the population , residential , tourist and commercial and industrial customers.

Table 5.15: Basic information on water services in 2011

Statement	unit	Value
Population	capita	72,500
Residential	no.	5651
tourist	no.	0
commercial	no.	0
industrial	no.	0

Table 5.16: supply and consumption water for year 2011

St.	Value	-
water supply for year 2011 (m3/year)	6,209,800	235 l/c/day
water consumption for residential (m3/year)	2,873,666	109 l/c/day
water consumption for tourist	0	0
water consumption for commercial	0	0
water consumption for industrial	0	0
water losses m3/year	3,336,134	126 l/c/day
water losses %	53.7	0
Number of persons per connection	13.2	0
Income (NIS)	1000	0

Table 5.17: Costs to be recovered from Fixed Cost water tariff

St.	degree	cost	
		NIS/year	NIS/month
operation and maintenance (O&M)	1	1,367,760	113,967
operation & maintenance (O&M) and consumption	2	1,504,360	125,363
operation & maintenance (O&M) & consumption and losses	3	1,572,062	131,062

(Source: Beit Lahya Municipality, 2011)

Cost management the invoice its equal 7.5 NIS per month .

Cost of installing a water meter its equal 10 NIS per meter.

Table 5.18: Volumetric water tariff system

#	St.	Cost NIS/month
1	Costs to be recovered (NIS / month)	131,061.7
2	Returns fixed cost (NIS / month)	96,022.5
3	Revenue-based size (NIS / month)	35,039.2
4	The volume of water losses (m 3 / month)	239,498
5	Rate tariff cubic meter (NIS / cubic meter)	0.15

Table 5.19: Constants rising of water tariff structure

type	< or = 10 m3	11-20 m3	21-30 m3	>30m3
Residential	0.80	1.25	1.50	2.00
Tourist	1.00	2.50	3.50	4.00
Commercial	1.00	2.50	3.00	3.00
Industrial	1.00	2.50	3.50	4.00

Table 5.20: The value of invoice

Types of consumers	Revenue water NIS/month			Ability to Payment
	constant cost	consumption cost	summation	the value of invoice
residential	96,022.5	34,986.7	131,009.2	23.9

Then , the value of water invoice equal 24 NIS/month as minimum, that's means the invoice value equal 48 NIS/ 2month in Beit lahya municipality and this very close to the water tariff system from the municipality.

6. CONCLUSION AND RECOMMENDATION

6.1 Conclusion

- In Beit Lahya municipality 8 wells and the year of construction well differs among the wells, the oldest is D-67 Atatra well (1976) and on 2009, the last constructed well was Aslan with capacity 80 m^3/hour. The abstraction rate varies from each well D-73 is 200 m^3/hr. While the lowest abstraction rate from well D-67 which account for 70 m^3/hr. The abstraction rate of the wells indicates relatively the population served by the well. Some of the wells operate 24 hours per day.

- Water network in Beit Lahya city is composed of 13 operation zones varying in size, complexity, topography, and source management. These zones are allocated based on the current supply sources and sequence. This includes identifying the supply sources of each zone and main operating valves related to these zones. These zones are summarized in the following:Salateen, Atatra, Guraa al khamsa, Tal Eldahab, Abu Obida, Jamaea and Shimaa, Gawasma, Hatabea, Manshaea, EL Maslakh and AL Almagles, Sheikh Zayed, Mashrua Old- and block 8 and Mashrua New. 12 districts of the zones used direct supply distribution system type and one zone used water tank supply system.

- The number of customers of Beit Lahya municipality is 5487 until the end of August 2011, the average number of individuals for each water meter in the municipality is 72500/5487 which is equal to 13 people. Number of customers increases per month and it is active in 2011due to the increase in urban areas and the population natural growth.

- Reading meters takes place every two months according to the followed system in issuing water bills. Meters are reads at the end of every two month and the Readers' work to have duration of two months for each region. The employees located for reading Meters in Beit Lahyia are three. They are distributed over 15 different areas of Beit Lahiya.
- In this research, three cycles are adopted (May and June months cycle) ,(Julay and August cycle) and (January and February 2012,cycle) to monitor the change in water consumption during the summer and winter seasons and study the impact of rainwater on the amount of losses in the network.

- The total amount of water pumped to the water distribution system during cycles are 1,141,500 m3 in May and June cycle, 1,183,300 m3 in July and august months cycle and reached 785500 in January and February /2012 cycle. It is noted that the amount of water that was pumped for the network has changed significantly between summer and winter seasons , which Explain that the water lost its used in the irrigation of crops.
- After the presentation of information in the study its clear that, person share of water that is pumped to the water network reached 270 cups per day for summer season , and 180 l/c/d for winter season which indicate to water per capita was dropped significantly in winter season.
- The operating zones have different characteristics concerning the land use. The largest percentage of Agricultural land in Beit Lahya districts by field survey are Salateen (Ferdous), Sheikh Zayed and Atatra(Seafa) districts with 51.8% , 40.6% and 35.2% Respectively. And this explains why the persantage of water losses in these areas is very high.

- The most area that get much quantities of water are the area of Salateen (ferdous) , which gets 228,000 , 234000 and 150,000 m^3 meters of water Respectively in the three cycles. Although the population in this district is little when compared to other districts and the high proportion of agricultural land .

- By analyzing the data, can get efficiency of water network which is equal to 42% in first cycle , 44.3% in second cycle and 55.2% in third cycle (winter cycle) . This means that rate of unaccounted for water is equal to 55.7% and 58%and 44.8% for three cycles, which is very high if compared to the same rate in developing countries in Asia which is equal to 42% in maximum rate of losses.

- The proportion of UFW in water network in Salateen is 73.5%, 72.5% and 60.5% in three cycles Respectively. Means that the efficiency of water network is 26.6% , 27.5% and 39.5% respectively. Areas of El Maslakh , Hatabea and the Jamaea come next to Atatra area in losses, whereas most of its land are agricultural. After The analysis results in study shows that consumers in these districts uses municipality water to irrigate their lands.

- The zones that increase the UFW such as Atatra , Salateen , Sheikh Zayed and El Maslakh and Magles zones as the same zones that contains the huge amount of agriculture land according the field survey and land use map
- The UFW shown for Old Mashrua , which has high percent of efficiency that reached 83.6% in Summer season and 81.4% in Winter season. It has water losses of 16.4% and 18.6% respectively. With the knowledgement that there is no agricultural areas in this district which is a natural extension of Jabalya refugee camp, where over-population.
- The water tariff system in the municipality of Beit Lahya is only two categorize the first is less 30 m3/month and the second is over 30 m3/month . all consumer is residential and not found commercial and industrial contributions in municipality.
- Of the house of water meters in the municipality there are more than 1000 water meter unemployed and they needs to replacement.
- The water network in the municipality is modern and not deterioration the amount of water losses unlikely is natural lost, but which is likely illegal connections and theft of water for use to irrigate crops.
- Districts of water meter readings in the municipality differences from areas of water distribution system, and that the consequences of a natural for the different Administrative sections, which is the management of water in the municipality. Wells and network of the competence Department of Water, and subscriptions the meter reading the competence department of Department of Taxation.
- Management of the water sector in the municipality of Beit Lahya, not managed properly, the municipality does not have a sufficient information about the network and the water losses that help in making decisions that reduce water losses.
- Through the study, noted that the wells are not pumping in certain districts in spite of the large number of wells. More than one well pumping in one district which makes network monitoring and efficiency rather difficult.

- Department of water in the municipality of Beit Lahya, not headed by a specialist engineer. Therefore many of the obstacles to the work as possible be resolved through an engineer has to do with networks, efficiency and other things.

6.2 Recommendation

1. We recommend that the exploitation of municipality sewage basins located in the influence of the municipality of Beit Lahya and connect it to farmers with reduced prices that reducing the theft of farmers for drinking water.

2. Should be the municipality and the competent authorities quickly to solve the causes of water losses that explained in the research and to find appropriate solutions to overcome this problem.

3. Increase the number of staff and follow-up inspection department to be able to detect theft of water and monitoring network as required. Especially in districts where the network efficiency of 40% and management of municipal directly.

4. Review of the partition, Districts of water meter readings in the municipality and water distribution system districts And that are manufactured by one section in the municipality.

5. Adoption of water tariffs system as set out in the study, which was built on a scientific basis, which take into all social groups.

6. Employment of a civil engineer to manage the water department in the municipality to manage the water network and wells which is the need to monitor , control, maintenance and operation the water network.

7. Recommend re-scheduling of water distribution and review of the scheme so that the distribution of water commensurate with the population in every district of Beit Lahya.
8. Maintenance of water meters for non-disabled work and that more than 1000 water meter which represents 20% of the total water meters in municipality.

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Appendix

#	ID	meter No.	consumption first cycle	consumption second cycle	consumption third cycle
1	3637	314110	0	0	0
2	4182	314115	239	186	0
3	4286	101	155	0	0
4	4184	1	0	115	0
5	4185	130003520	78	129	0
6	2985	1403251	91	117	0
7	3612	130806	90	50	0
8	1	1165647	29	214	247
9	2	11089580	118	78	157
10	3	130001960	100	73	0
11	4	1165605	54	129	84
12	5	1165659	121	231	67
13	6	1165609	100	83	108
14	7	1300164	67	395	65
15	8	402602	313	66	93
16	9	130122471	40	105	94
17	7087	410754	90	20	57
18	7488	57382	60	50	15
19	10	1165670	61	78	100
20	11	1165603	59	117	147
21	12	1308172	70	51	64
22	13	11089484	48	29	569
23	14	1400655	0	0	45
24	15	122292310	193	119	87
25	16	11089241	97	113	2
26	3548	0	149	0	0
27	17	1300125	0	0	72
28	18	667130	0	0	10
29	19	11089531	0	0	51
30	7029	411908	109	145	24
31	21	3970402	125	173	153
32	22	1734328	172	148	159
33	23	1300449	130	124	74
34	24	11089691	156	228	155
35	25	667912	0	0	20
36	2828	0	0	0	0
37	27	205349	0	0	0
38	29	1300454	131	118	124
39	30	318	63	65	77
40	31	11013401	0	21	251
41	32	1304907	43	53	83

42	33	300162	15	180	0
43	34	6683400	78	62	98
44	35	1300451	0	63	75
45	36	1300165	82	64	0
46	37	11804999	45	72	68
47	3999	111195	0	40	61
48	7452	332296	91	0	36
49	7517	162030	0	103	180
50	7463	200113	110	0	0
51	39	130001914	177	142	0
52	3777	1300156	68	0	113
53	7417	56163	363	437	61
54	3772	1102504	104	448	87
55	4396	1112178	219	60	60
56	7418	56162	60	213	51
57	4456	101350	50	0	0
58	40	11089408	90	77	105
59	41	0	0	42	0
60	3820	1403570	58	0	130
61	3947	668189	58	84	30
62	4229	130121127	64	52	0
63	42	317659	130	82	65
64	4083	700642	247	101	40
65	4629	115125	131	244	368
66	4945	1411865	0	111	150
67	2712	1605984	0	0	41
68	43	16542	385	0	152
69	3352	1732213	64	102	27
70	3885	1403575	32	80	93
71	2938	1300161	139	49	57
72	4108	128225	385	200	0
73	4860	1345570	182	225	60
74	7588	667956	73	255	60
75	44	150005	60	62	23
76	45	1300158	29	60	53
77	46	1300163	531	45	111
78	47	1795498	247	572	141
79	48	1200158	162	332	123
80	49	122293128	203	282	0
81	50	11089223	77	110	0
82	38	317661	115	210	359
83	51	1403246	88	114	101
84	52	1300166	0	108	31
85	53	11013446	0	36	148
86	54	11089948	70	0	245

87	456	0	0	0	0
88	55	11089783	56	70	171
89	3361	317656	0	0	65
90	57	122293124	78	55	47
91	58	1300167	0	0	31
92	59	1402662	0	76	484
93	60	11089438	20	60	270
94	61	130001913	0	0	259
95	3663	308159	84	118	23
96	7308	4948	135	0	262
97	7345	11206764	120	0	65
98	3427	1300160	43	95	58
99	7377	300219	24	106	46
100	62	122291195	123	50	204
101	63	11915	0	40	200
102	3995	16545	122	135	1
103	4293	115156	60	0	40
104	4018	112602	0	120	0
105	4104	1011951	92	119	28
106	4196	1793800	109	0	0
107	4785	31758	164	133	50
108	7034	15126	56	142	184
109	64	16544	154	274	0
110	6833	124501	78	0	56
111	65	11089758	100	201	0
112	3431	1304826	71	99	70
113	67	1400136	78	200	63
114	3084	1750731	39	120	102
115	3651	1300248	217	0	32
116	7035	257	46	40	43
117	68	11206736	67	0	98
118	69	662715	0	63	174
119	70	1303626	0	74	51
120	71	11206756	56	0	62
121	72	667919	107	38	40
122	73	317908	23	81	86
123	74	1303633	0	38	61
124	2834	1795664	0	36	0
125	75	1166063	103	0	356
126	3571	130122224	87	0	0
127	76	1166063	260	102	43
128	4436	130122243	354	79	111
129	4466	1789281	230	200	68
130	489	16548	30	420	95
131	6786	702640	106	246	155

132	78	1789281	159	102	0
133	80	122293127	148	225	23
134	82	1403248	40	168	211
135	83	1605369	0	59	8
136	84	317911	0	0	40
137	85	1308158	159	0	60
138	86	1786345	0	200	37
139	87	1300250	97	0	79
140	88	1300250	60	107	221
141	3531	1300251	0	97	0
142	89	1108544	70	0	32
143	90	317909	0	69	1159
144	3069	1300241	52	0	24
145	91	11089741	0	110	90
146	92	1411861	88	80	102
147	93	130001618	35	90	579
148	95	130003988	44	51	348
149	96	1166166	93	5	225
150	97	11206787	45	78	27
151	98	130001616	75	63	128
152	3924	1102503	0	153	123
153	4485	1137687	67	645	127
154	99	16532	249	267	0
155	3257	1400134	60	0	97
156	101	11089398	185	215	0
157	3131	317902	54	84	103
158	102	1304250	145	145	0
159	103	1304828	31	87	87
160	104	1578663	70	99	114
161	105	0	32	37	0
162	3357	2	59	62	0
163	3422	0	148	192	0
164	3419	317761	130	220	72
165	106	0	60	60	0
166	107	0	0	80	0
167	109	403331	124	147	90
168	110	678421	81	0	30
169	111	317758	48	53	99
170	3771	1102416	63	83	10
171	3539	1400135	10	3	35
172	112	130004457	736	884	101
173	113	1328158	205	233	175
174	114	304739	125	155	58
175	115	130001612	111	95	536
176	116	1305203	0	0	372

177	117	1401866	73	61	75
178	118	15631	0	60	0
179	119	1411852	52	65	158
180	3223	1750726	0	38	51
181	120	130004460	0	0	168
182	121	1402663	235	161	115
183	122	0	0	0	0
184	123	1304825	328	358	45
185	3787	1401867	101	95	41
186	124	1305202	177	208	44
187	125	1305204	94	119	114
188	126	1411990	292	330	96
189	3153	0	89	84	0
190	100	0	28	32	60
191	127	10	70	72	0
192	128	130004316	0	0	94
193	129	130004459	109	125	0
194	2853	0	85	107	0
195	130	122292219	144	177	45
196	131	1102417	86	75	6
197	132	11206763	38	55	11
198	133	123060711	309	411	611
199	3065	123060711	104	128	0
200	3537	0	193	218	0
201	134	1304204	230	263	159
202	135	122291200	97	131	260
203	136	130004454	0	0	0
204	137	122291196	0	0	102
205	138	352114	140	171	17
206	2848	11111	60	60	65
207	139	128307	229	441	564
208	4111	0	50	70	73
209	140	1	84	70	32
210	141	1305206	0	60	0
211	142	700002	60	0	40
212	143	0	101	108	0
213	145	16628	143	130	0
214	147	1400208	491	39	226
215	149	16629	383	251	106
216	150	11089401	92	459	168
217	152	1400020	214	147	97
218	153	1400198	80	298	255
219	154	1400196	53	110	0
220	7432	695506	142	60	60
221	7550	1	146	129	60

222	155	204968	35	182	40
223	3142	123969693	166	44	40
224	157	1308162	135	177	97
225	158	16630	10	169	61
226	159	318838	350	100	162
227	160	1102412	87	412	428
228	161	1102412	50	108	0
229	162	1789281	26	70	28
230	163	130004442	240	49	332
231	164	0	36	248	0
232	165	0	213	60	0
233	167	130004446	0	342	214
234	168	1400197	71	0	179
235	169	0	239	88	0
236	170	0	182	329	201
237	171	0	115	216	0
238	175	1163521	46	128	93
239	172	411869	190	50	270
240	174	41948370	0	222	138
241	7410	56159	155	0	121
242	178	1303629	0	165	70
243	179	1411993	31	56	0
244	180	1795381	220	121	47
245	181	130003540	0	150	56
246	182	1303624	134	0	0
247	183	0	0	177	0
248	184	1102413	188	60	0
249	185	1102418	60	157	64
250	186	16627	187	38	62
251	188	202152	60	241	61
252	189	1878771	127	145	166
253	190	123969686	222	156	365
254	192	122291202	291	258	66
255	193	122291202	128	353	184
256	194	0	104	17	0
257	195	1400192	191	161	24
258	196	1364566	141	125	67
259	197	16626	37	210	64
260	198	122293101	98	175	117
261	199	0	50	52	0
262	200	1729250	60	109	32
263	202	1411992	70	65	130
264	204	1400195	195	276	110
265	205	1792622	50	0	120
266	206	13001817	93	223	409

267	207	130124224	48	58	71
268	4473	1484848	389	98	66
269	208	317759	214	50	95
270	209	130001876	58	349	179
271	210	1411955	0	248	69
272	3001	173400	0	60	490
273	212	15640	205	0	41
274	213	0	270	0	0
275	214	1308169	60	13	89
276	215	1400207	70	309	198
277	216	317262	0	244	144
278	217	1795673	211	61	84
279	4867	1345830	0	0	33
280	218	120116239	60	198	0
281	219	122292478	91	0	314
282	4239	114098	60	162	134
283	220	1303628	80	276	0
284	3070	1793066	55	134	0
285	221	1793066	80	84	0
286	222	130001838	42	0	148
287	223	1308168	490	112	57
288	224	1400209	409	115	281
289	225	667947	75	323	40
290	226	130001815	160	121	230
291	4419	181484	35	128	45
292	228	318910	156	170	157
293	229	1733656	0	63	91
294	231	1796056	86	152	108
295	233	11092419	50	20	159
296	234	130003984	0	142	226
297	7490	56077	0	67	36
298	235	0	272	0	0
299	236	1308163	68	6	102
300	232	317913	463	331	85
301	237	130003989	50	111	189
302	238	1305161	0	406	153
303	239	1304905	249	76	50
304	240	310851	0	10	72
305	2891	1	116	261	107
306	242	1792667	192	0	118
307	243	122292108	133	140	123
308	245	1304902	58	214	160
309	244	16622	139	60	49
310	246	1102502	180	88	65
311	247	1102410	46	186	118

312	248	1038748	84	224	224
313	249	1411853	0	72	219
314	2872	1400194	0	178	0
315	250	130124222	155	54	55
316	416	0	161	0	0
317	251	301242222	133	190	221
318	252	317726	150	183	0
319	253	317723	23	161	112
320	255	16624	36	372	82
321	7371	235710	0	41	56
322	7420	56230	0	54	326
323	7506	36781	28	0	60
324	256	1102505	142	0	0
325	257	130003538	101	150	190
326	258	1167083	102	352	0
327	259	56161	0	131	543
328	260	30003990	0	291	160
329	7330	890971	90	0	0
330	7357	794875	42	0	57
331	261	130001836	238	115	9
332	4043	111211	70	46	41
333	262	1403573	278	346	80
334	263	1795389	0	82	231
335	3014	0	169	331	0
336	264	1308170	407	0	114
337	265	15748	0	73	56
338	266	1795364	60	222	189
339	267	1304903	0	0	41
340	268	16625	112	109	109
341	4280	114937	224	0	18
342	269	1411991	152	102	302
343	270	318808	262	294	0
344	271	567971	60	168	40
345	272	1308171	0	323	6
346	273	1400115	0	60	216
347	274	123969692	257	0	44
348	275	1403771	0	0	332
349	7221	410720	139	94	81
350	276	317760	72	1335	35
351	277	317763	100	0	161
352	278	130124221	200	90	0
353	279	130001833	127	147	355
354	280	130001686	79	198	180
355	281	1794128	0	188	72
356	282	122291201	70	216	78

357	283	122291198	241	0	51
358	284	1792296	79	87	156
359	3150	0	0	283	0
360	285	1304901	179	72	0
361	286	122291241	0	0	65
362	287	130001681	125	306	172
363	288	1167056	60	0	0
364	289	667983	114	138	40
365	290	1411957	182	62	196
366	291	130002383	34	131	147
367	292	130124227	0	125	124
368	293	1794362	0	54	155
369	294	1303046	178	0	17
370	295	130122621	0	36	17
371	296	16623	60	212	0
372	3517	0	45	0	0
373	3647	0	0	35	0
374	7205	256430	18	70	0
375	7273	1	153	636	0
376	4712	11358	60	53	30
377	297	63504	0	202	40
378	298	122292109	207	87	76
379	299	122291329	45	0	126
380	300	17295	125	258	17
381	301	317	350	49	176
382	302	317727	70	138	79
383	303	1733992	0	399	226
384	304	1734385	96	170	229
385	305	1308179	190	0	62
386	306	1411959	143	146	235
387	307	668302	0	199	120
388	308	1102508	0	0	0
389	309	1303042	10	0	80
390	310	1303627	113	100	193
391	312	1102509	160	105	76
392	313	130002131	400	121	0
393	314	16021	176	488	88
394	316	130001834	0	84	173
395	2835	130002139	48	0	104
396	317	1411956	299	53	206
397	6797	16230	256	234	961
398	318	130124220	191	234	60
399	319	11670088	30	253	0
400	320	122292406	48	0	0
401	321	1411958	178	0	128

402	322	1304574	0	205	0
403	323	317725	0	0	100
404	324	15710	96	34	53
405	325	150441	157	124	105
406	326	1304896	25	189	139
407	327	1166989	148	6	111
408	328	1166764	161	169	122
409	329	130002140	57	204	61
410	330	1166733	46	59	70
411	331	130004175	139	52	145
412	332	122292411	0	102	143
413	333	6623440	338	0	14
414	334	1166036	0	282	105
415	335	800266	83	0	20
416	336	122292409	0	73	104
417	337	1304899	31	0	178
418	338	1400204	112	40	82
419	339	130003535	295	134	145
420	340	1403564	253	318	27
421	7193	314742	160	199	0
422	342	1303045	144	185	247
423	343	122292496	0	0	0
424	3605	317722	113	100	0
425	7284	410732	139	135	31
426	344	1730620	0	0	35
427	345	151103	0	0	298
428	346	1303043	62	64	42
429	347	317743	0	10	72
430	348	123969688	60	60	64
431	349	49337	0	0	143
432	350	317740	190	227	264
433	4632	1300817	52	67	39
434	351	1166008	0	0	98
435	352	1733875	0	0	60
436	4931	0	0	0	0
437	353	1541340	230	490	70
438	354	130003531	60	88	0
439	355	122292498	41	60	52
440	356	338213	2063	3250	246
441	357	668191	60	60	86
442	359	700602	38	60	40
443	360	13263	74	118	30
444	3101	0	22	269	0
445	3102	1400112	80	60	0
446	3107	0	90	50	0

447	4157	0	0	40	95
448	361	122291404	0	0	99
449	362	8998		41	60
450	363	1120685		110	482
451	364	700983	138	573	40
452	365	0	8	152	0
453	366	1303036	71	12	79
454	367	317724	104	89	80
455	380	1792297	210	142	196
456	3452	1167059	134	252	181
457	368	1731151	63	171	52
458	369	1400118	99	119	72
459	370	1303047	183	116	49
460	371	130004176	46	250	0
461	4513	114968	0	39	11
462	372	1303039	0	63	105
463	373	16226	120	58	155
464	374	304151	83	176	0
465	375	317744	74	112	110
466	376	1400119	60	79	148
467	378	1166369	180	136	104
468	379	122292405	86	196	54
469	381	1411850	100	88	78
470	382	10357	124	91	140
471	4515	16221	41	71	0
472	3475	122293107	109	50	0
473	383	122293105	131	251	0
474	384	1400117	0	131	0
475	385	1303041	145	0	74
476	386	16227	57	153	41
477	387	1100168	271	0	112
478	388	11089517	70	450	217
479	389	1303040	0	152	136
480	390	1	0	0	235
481	391	130001951	0	0	129
482	393	1	15	0	10
483	394	15638	56	103	100
484	395	317741	0	93	195
485	396	130001952	354	0	0
486	397	0	118	327	0
487	398	1795876	0	138	65
488	399	1166930	53	0	0
489	400	130004421	73	0	2
490	401	1400109	0	72	20
491	402	130001953	0	0	164

492	403	122293106	46	0	39
493	404	317745	96	62	0
494	405	130004425	46	116	100
495	406	0	52	56	0
496	407	667134	0	44	73
497	408	0	60	0	0
498	2837	0	98	24	0
499	3578	0	171	115	0
500	3059	0	138	222	0
501	409	1	30	136	183
502	3369	1402346	154	43	193
503	2911	0	65	60	0
504	496	1303037	122	171	10
505	3716	22501	60	83	50
506	3653	0	153	145	0
507	3112	0	118	0	0
508	3210	0	43	160	0
509	412	0	47	148	0
510	414	1100999	131	55	40
511	415	0	103	51	0
512	1171	0	216	71	0
513	3154	0	50	114	0
514	417	15672	176	211	115
515	418	1100993	87	68	32
516	419	1100991	60	130	132
517	420	1303203	40	70	61
518	421	1100992	176	16	157
519	422	1400108	174	49	101
520	423	1123578	152	145	53
521	424	1303200	80	159	116
522	425	1792640	63	146	153
523	426	1100908	103	80	14
524	427	130001990	471	60	262
525	584	1586280	0	136	149
526	428	16536	0	409	92
527	3155	110620	115	0	94
528	429	1400110	92	0	29
529	430	317737	72	252	83
530	431	1300259	0	5	129
531	432	16519	11	90	81
532	433	1400205	100	0	66
533	6963	794843	278	60	78
534	434	1303198	0	85	37
535	435	1300263	12	183	98
536	3915	114371	30	0	58

537	436	667107	34	0	0
538	3274	10	75	41	61
539	6804	36168	58	56	36
540	437	1100916	140	86	234
541	438	16516	83	54	150
542	3695	1100915	216	172	0
543	3696	200130	69	71	44
544	4164	181100	185	69	0
545	439	1403566	103	62	73
546	440	1400214	45	0	5
547	3798	668684	34	99	243
548	441	1308164	0	47	238
549	3788	1400206	59	58	92
550	442	1300253	0	0	0
551	443	1300256	60	121	0
552	444	1794032	0	0	62
553	790	1400212	0	0	56
554	3723	662263	0	40	1
555	4702	1235598	67	0	45
556	445	1400215	60	0	73
557	3466	11655	137	109	28
558	4940	1865023	65	57	192
559	446	16514	14	72	0
560	3743	1403569	71	75	61
561	472	1100994	255	54	86
562	448	1411862	212	76	135
563	449	14035681	104	0	102
564	500	1123796	235	326	2
565	501	1308165	0	147	104
566	502	1300258	74	300	68
567	7152	729794	60	0	160
568	503	1411851	56	103	81
569	4652	173697	46	184	0
570	504	1400112	0	55	83
571	2943	16511	0	0	105
572	3100	1400179	92	60	28
573	7252	15039	72	0	17
574	3106	1166426	146	151	55
575	3786	1303202	91	69	55
576	505	1411863	77	242	141
577	4434	1021785391	431	102	44
578	506	1885511	0	87	60
579	3098	302951	60	300	91
580	2947	12229376	60	0	0
581	3834	1400178	50	52	12

582	507	1300257	60	0	82
583	508	1411860	58	59	343
584	509	1400174	144	0	101
585	510	1100915	400	61	58
586	511	1400176	12	0	57
587	3891	1165698	105	98	126
588	513	11207212	0	0	82
589	514	700344	87	3	116
590	515	30121983	85	188	60
591	516	1400177	25	0	190
592	3954	101539	101	190	92
593	3500	1303196	110	69	144
594	3804	1400170	0	60	133
595	3163	30003629	122	79	177
596	517	1400169	70	100	56
597	518	1795302	111	0	441
598	519	1402640	0	126	0
599	520	122293110	30	70	0
600	521	1303194	0	126	3
601	3928	17346	72	18	25
602	522	1164827	0	86	45
603	523	55572	85	0	235
604	524	122293074	0	61	159
605	491	317706	30	0	0
606	525	11	0	64	144
607	526	1305207	60	0	112
608	527	130001982	97	41	353
609	3177	317704	23	0	81
610	528	1303193	159	60	29
611	3259	1100913	290	97	5
612	3506	1100917	339	9	101
613	3734	1541243	0	143	41
614	3737	1401360	73	185	0
615	7248	776303	75	272	61
616	7454	3027904	98	0	50
617	4646	161248	218	66	28
618	4733	1303480	0	80	0
619	7535	904964	0	96	60
620	529	481052	21	200	12
621	530	15639	82	0	60
622	531	1303631	0	0	2
623	3383	1795825	23	45	8
624	4371	1541417	312	0	37
625	532	122292232	325	38	59
626	468	130001983	60	118	222

627	3373	11078647	133	128	182
628	533	317748	162	60	80
629	534	1795037	0	117	234
630	3966	1011534	50	195	0
631	535	0	0	0	0
632	536	1402666	41	51	61
633	2905	0	0	0	0
634	537	668158	123	48	118
635	3424	1401863	257	0	60
636	3942	111542	143	124	60
637	4474	128191	116	263	30
638	6941	9416	0	154	105
639	7256	10018	202	70	63
640	3480	317752	200	0	60
641	7097	340213	127	117	68
642	7255	10044	54	186	90
643	4823	1477123	199	165	158
644	3931	11009100	57	50	56
645	538	11009	248	169	26
646	4447	667986	0	30	0
647	6955	1033508	0	320	60
648	6974	667887	128	0	0
649	4578	1659205	40	0	0
650	6954	705263	21	183	44
651	7475	200135	147	0	2
652	539	317747	123	0	251
653	540	1200734	75	102	644
654	3021	0	123	141	0
655	7339	667934	62	73	0
656	541	1303634	60	187	94
657	3731	668682	181	0	34
658	3742	1303635	191	0	104
659	542	1303630	183	99	100
660	3156	1100907	0	228	102
661	3816	1305200	291	237	151
662	543	1303197	95	0	291
663	3137	1166444	88	0	0
664	544	1166421	0	111	0
665	3805	1305197	60	111	2792
666	3985	111314	86	0	78
667	4163	192627	0	55	49
668	545	1732197	140	95	0
669	6971	700534	0	0	10
670	546	1100906	0	180	72
671	3090	122293086	104	0	10

672	547	15671	87	0	69
673	548	11207672	166	158	0
674	549	0	126	134	16
675	550	1305101	4	90	42
676	551	130003433	60	149	0
677	552	317746	0	44	123
678	553	1750729	90	173	43
679	554	1305196	0	0	136
680	555	11207240	98	89	267
681	556	1303069	160	10	272
682	557	317750	0	87	0
683	558	1733812	127	172	82
684	559	1303067	0	0	0
685	560	1303071	94	62	95
686	561	1793032	47	0	26
687	562	123969713	139	118	0
688	3273	1163595	51	56	0
689	563	1303068	59	127	27
690	564	1794208	0	58	109
691	565	1200730	101	79	0
692	566	47451	72	0	76
693	4500	1236283	0	156	216
694	567	1400085	2	98	368
695	568	1402670	343	0	13
696	569	1308146	153	42	152
697	570	122292423	64	334	153
698	571	1733903	106	178	0
699	7064	1075	66	79	0
700	3662	1402671	30	84	0
701	3657	0	60	98	0
702	572	1303066	0	59	0
703	573	1400089	87	21	2399
704	574	1308145	12	0	95
705	575	1400088	60	112	219
706	576	1100905	75	50	73
707	577	1100914	163	64	42
708	579	11	47	108	0
709	580	1734266	37	227	0
710	581	1303061	91	57	312
711	583	1303060	68	64	219
712	3520	1166545	47	108	0
713	3390	0	79	75	0
714	586	50110430	222	55	109
715	3478	1303062	26	126	58
716	587	1728195	0	104	236

717	588	1308160	77	24	0
718	4722	662167	60	0	0
719	589	1303065	0	99	97
720	590	1400043	0	61	13
721	4105	127605	112	0	207
722	591	0	121	0	0
723	3219	2	60	175	0
724	592	1303069	0	60	105
725	593	1303020	334	72	52
726	594	16512	0	0	418
727	595	1733049	0	280	77
728	596	1100900	63	0	2
729	597	165180	106	0	140
730	598	1166351	9	60	196
731	599	1734298	0	97	131
732	600	1400247	0	0	0
733	601	1400249	58	0	65
734	602	1100046	98	60	180
735	603	1303457	385	58	49
736	604	668261	0	233	110
737	605	1400250	50	534	58
738	606	16514	11	54	104
739	3870	1400251	193	0	106
740	607	1100047	67	40	0
741	2932	1303459	210	246	1000
742	609	0	0	83	0
743	7031	1709	76	49	0
744	7396	707409	210	0	124
745	610	1100048	60	103	74
746	4138	128316	51	290	124
747	611	1734500	86	0	90
748	612	1100902	59	0	6
749	3078	1165823	147	101	345
750	613	1122962	254	33	0
751	614	1100904	524	238	0
752	3073	317736	98	402	0
753	3751	317739	102	428	61
754	3330	16520	224	91	0
755	615	1400248	0	118	4
756	616	1303460	53	282	54
757	3176	668263	65	0	67
758	617	1400242	0	60	83
759	618	1100049	179	74	63
760	619	1100045	96	0	297
761	620	1303458	89	218	59

762	621	1303718	59	85	65
763	622	130121049	85	61	2
764	3588	1308173	0	81	66
765	4616	1302082	68	89	75
766	623	1303716	0	0	0
767	3180	1400245	127	102	221
768	3275	1160401	72	10	56
769	3242	1303719	0	111	0
770	624	1303717	105	108	90
771	2998	1124014	55	0	41
772	625	1733893	106	117	194
773	3477	1	0	60	85
774	3550	0	312	0	0
775	7385	561013	73	0	25
776	626	16222	90	218	0
777	627	1400240	0	89	112
778	3118	1303712	60	70	55
779	3707	1303714	30	0	66
780	628	123909687	114	64	58
781	3017	1400243	50	38	123
782	3174	1402634	50	229	41
783	3596	1400241	73	0	76
784	640	317708	144	0	56
785	629	100	66	77	0
786	630	1303709	114	0	43
787	631	1303713	100	7	0
788	632	1792666	240	164	402
789	633	317709	38	95	55
790	634	1303711	176	167	0
791	635	1402601	50	110	72
792	4411	159712	0	108	40
793	636	123969690	322	0	0
794	637	147880	403	0	116
795	3278	0	137	138	0
796	638	1400028	219	224	95
797	641	4071825	0	169	102
798	642	317749	226	267	101
799	643	1303467	0	0	1
800	644	1928177	0	128	321
801	645	30280669	124	0	49
802	646	1400024	73	29	0
803	647	1303456	143	102	27
804	648	11207613	49	71	139
805	649	1303462	0	194	129
806	650	257076	0	63	67

807	651	1400025	0	0	62
808	652	1400094	69	0	90
809	653	0	0	0	0
810	654	1100041	138	110	164
811	655	1101545	76	0	419
812	656	0	60	117	0
813	657	1400027	116	180	61
814	658	1100044	40	28	68
815	659	1400091	132	123	155
816	660	1732940	53	0	144
817	661	1400090	0	128	68
818	662	1402645	0	60	0
819	663	668171	30	0	0
820	2819	317699	64	0	79
821	664	122292388	0	44	418
822	4920	30043855	66	82	210
823	665	317698	0	0	70
824	666	1100096	190	61	122
825	667	1100040	91	0	48
826	4066	1795361	0	248	171
827	668	1100097	0	135	220
828	2821	16221	56	0	349
829	3778	16513	0	0	97
830	3055	130123447	0	60	204
831	3056	11206826	28	43	101
832	3074	790702	178	28	0
833	498	1100095	0	80	60
834	3136	1312026	0	64	63
835	671	130237	227	0	166
836	4492	161531	180	55	95
837	672	1303223	0	267	93
838	673	1400351	128	227	57
839	674	122292385	82	43	37
840	7551	653566	120	192	47
841	675	122292154	60	63	0
842	676	1400092	180	140	14
843	7567	1	60	60	1
844	677	1400352	81	188	3
845	464	1402646	133	56	98
846	3437	667173	30	112	53
847	3706	5698200	0	83	63
848	678	11078375	60	58	100
849	679	317857	0	0	31
850	680	130001957	54	0	100
851	6940	300355	44	255	54

852	681	668170	145	0	51
853	682	301329	58	40	2
854	7571	78543	120	140	5
855	683	1303526	140	65	59
856	3221	1733944	41	104	68
857	3672	16225	127	165	198
858	3876	1123922	59	52	63
859	684	11206700	224	2	0
860	685	1303525	0	60	149
861	686	1400026	76	60	65
862	3254	1248915	19	0	48
863	687	1400346	0	66	62
864	689	1400349	101	47	150
865	690	1100099	67	56	170
866	692	1303520	2	98	107
867	688	16224	0	84	60
868	691	1303521	119	15	195
869	3172	1400357	87	28	101
870	3425	1	0	99	78
871	3349	15109	81	107	0
872	693	1400330	105	0	70
873	3178	1	0	60	202
874	694	130001959	35	182	256
875	695	1100098	69	0	1118
876	696	149817	185	79	205
877	697	1303517	99	154	0
878	698	1303518	30	91	201
879	3187	1400354	67	80	0
880	2110	1757256	101	49	79
881	699	1400350	102	47	109
882	700	1303646	80	233	28
883	701	1400095	0	151	154
884	1115	1303516	145	94	112
885	3680	1400356	60	0	31
886	702	667976	195	178	64
887	703	1155591	169	79	64
888	704	1303647	60	117	165
889	705	1400355	0	232	0
890	1375	1012041	0	68	241
891	706	1400358	0	0	264
892	707	1167103	60	0	38
893	3476	1792422	107	0	136
894	4147	667122	0	55	69
895	708	1	0	129	177
896	3332	1789501	50	0	96

897	3645	1947416	50	0	70
898	4914	1740825	60	44	0
899	709	1303643	216	58	4
900	3331	1400034	48	39	50
901	4162	10	31	60	0
902	710	1303644	150	34	131
903	3561	0	171	117	60
904	711	1100092	408	600	1
905	3376	1303640	52	164	478
906	3179	123969698	83	462	126
907	712	668303	53	61	93
908	713	1303639	64	95	0
909	3197	1100094	308	41	0
910	714	1100090	90	69	0
911	715	1100093	49	199	16
912	2857	149818	64	110	66
913	716	1400331	66	47	0
914	3094	1732006	60	71	71
915	3573	130001906	60	0	62
916	717	668686	112	60	259
917	721	11400339	72	60	187
918	727	1	0	135	261
919	2999	1400340	60	70	123
920	718	1303641	168	0	168
921	4925	315528	54	50	130
922	719	1400341	245	82	177
923	720	1422823	306	60	174
924	6748	406185	89	315	91
925	722	1795878	143	319	0
926	3665	122291617	50	66	96
927	4000	1733977	350	61	129
928	4573	161218	60	135	0
929	3351	1734305	461	238	0
930	4527	168423	50	103	0
931	3835	1400346	197	53	0
932	3282	122291261	22	164	53
933	2972	403480	60	64	36
934	776	1400336	109	60	96
935	2913	1733667	229	106	63
936	2820	1100119	101	278	120
937	3826	1400344	0	142	124
938	725	1303488	32	34	80
939	726	1	123	51	210
940	797	122291259	60	117	74
941	3601	1400031	21	96	62

942	728	1100117	83	50	90
943	2967	1303636	114	122	61
944	729	1	60	135	40
945	731	1100115	77	0	0
946	4503	1554528	97	93	99
947	730	1308167	109	98	152
948	3711	1400347	5	100	70
949	724	1303638	38	161	68
950	3878	1123412	59	224	70
951	3165	122291257	28	60	114
952	2937	1420241	60	45	0
953	4366	1541420	160	24	128
954	793	1400030	147	132	129
955	4034	112873	158	251	0
956	2949	1303487	70	209	80
957	2939	1692305	62	180	245
958	3467	1400332	0	253	68
959	775	1400337	92	0	78
960	3297	1303637	55	108	10
961	4716	1944106	0	399	65
962	4715	1786677	94	0	97
963	3799	1100116	194	135	116
964	4589	1267959	60	178	136
965	732	1401864	91	60	0
966	733	1308147	130	108	139
967	3201	1750728	0	173	53
968	639	11207636	198	0	158
969	734	1400263	109	0	227
970	735	1400263	30	129	46
971	736	130004422	0	0	141
972	2893	11092936	156	0	22
973	737	1	0	298	0
974	3371	1200086	51	0	20
975	7543	698482	0	60	31
976	4537	168895	151	0	111
977	738	16223	205	191	52
978	739	1303021	154	175	0
979	452	1303481	138	269	64
980	3623	1100110	92	111	63
981	4288	114899	230	74	10
982	4296	1213417	0	157	110
983	4688	1905113	111	0	53
984	740	1300240	0	143	154
985	858	200132	53	58	700
986	741	1403417	73	39	177

987	742	1400052	54	78	623
988	4479	1402642	0	262	121
989	744	317	0	249	140
990	3159	1303485	0	0	81
991	3627	1400202	156	0	195
992	3797	317792	270	0	104
993	3461	317791	489	185	61
994	4268	1112688	103	164	105
995	3936	1400201	0	168	104
996	745	317718	0	102	60
997	746	122292996	0	0	33
998	3914	22292532	60	0	109
999	747	317702	153	60	98
1000	3389	1100111	83	60	0
1001	748	1308175	0	140	53
1002	3941	317703	0	80	104
1003	749	319700	91	0	96
1004	3258	149819	141	63	474
1005	4930	317720	9	127	181
1006	4092	1733543	162	68	109
1007	750	11206838	200	17	244
1008	2851	1166881	0	156	61
1009	3423	317719	0	203	105
1010	3654	1400438	0	0	123
1011	3792	2258	0	0	101
1012	3504	13039904	0	0	36
1013	7017	680411918	0	0	235
1014	3916	1303654	0	0	77
1015	6853	31030	0	59	49
1016	751	1795081	78	40	366
1017	2934	1795391	148	0	244
1018	752	317717	0	69	53
1019	753	122292997	45	98	0
1020	754	11206846	107	0	30
1021	755	31771	160	69	212
1022	756	1100114	67	84	79
1023	447	318604	0	172	0
1024	3494	3176678	69	0	83
1025	757	11206686	93	10	97
1026	758	122292233	56	41	94
1027	3709	1400435		89	172
1028	760	1303658		0	76
1029	4094	116322	29	33	76
1030	470	1733645	11	10	296
1031	7559	228498	305	59	3

1032	4044	111776	60	131	160
1033	4878	110360	80	65	159
1034	7225	21112	0	0	58
1035	7433	667991	62	0	39
1036	759	1011455	53	277	99
1037	3955	11078253	95	191	214
1038	3429	0	50	110	0
1039	469	314720	63	50	142
1040	768	110255	135	113	117
1041	3303	122292160	42	47	115
1042	3430	0	45	96	0
1043	761	1303659	61	61	0
1044	3634	0	44	78	0
1045	791	1100113	29	63	97
1046	3541	1400437	137	0	266
1047	2990	1100167	86	0	50
1048	3409	1794190	0	0	8
1049	3613	130004437	2	0	5
1050	3652	17345	0	6	589
1051	7391	100317	0	69	0
1052	4581	317641	24	51	155
1053	4356	1183668	44	67	169
1054	4821	1181032	35	50	85
1055	795	1788349	0	60	0
1056	3381	1400428	60	60	109
1057	4509	1561004	60	70	24
1058	786	73654	63	80	80
1059	2945	31779	60	60	322
1060	784	23630	25	69	2
1061	4265	1402642	0	0	10
1062	4597	236300	0	50	170
1063	794	1303652	55	58	138
1064	785	22292488	60	60	151
1065	3527	1	60	60	210
1066	7301	30122634	74	123	137
1067	7528	102830	200	749	50
1068	3382	1100166	0	0	105
1069	782	317821	100	68	246
1070	783	1400432	0	0	1855
1071	781	1400426	90	0	130
1072	779	122292397	0	0	110
1073	780	1303648	63	100	200
1074	778	1303512	0	0	0
1075	777	1303402	10	1	0
1076	2920	700352	80	100	50

1077	2861	122292403	33	0	60
1078	774	1303506	130	233	0
1079	7479	906725	180	0	60
1080	773	1400430	0	4	0
1081	772	1303483	59	149	350
1082	792	1303515	60	70	159
1083	3105	1400429	0	0	183
1084	796	667969	119	218	80
1085	2926	1400431	79	158	100
1086	771	240209	74	149	116
1087	3875	1303504	43	77	79
1088	3434	317822	78	61	72
1089	770	1303507	80	72	103
1090	3881	1303508	26	41	45
1091	769	317818	98	101	112
1092	765	1400420	50	59	93
1093	766	317819	60	60	130
1094	3856	1400424	0	179	120
1095	789	0	52	99	0
1096	3819	1303518	0	0	119
1097	4110	1245778	130	118	221
1098	7336	32699	60	61	60
1099	2860	1400422	64	60	138
1100	788	1400423	120	150	152
1101	3224	143340	0	0	181
1102	3661	11207634	906	1570	122
1103	764	0	0	0	0
1104	763	10102507	47	13	432
1105	762	1779637	0	0	97
1106	3333	1400425	32	66	0
1107	3523	1303505	60	0	90
1108	3343	1402667	0	0	0
1109	3714	1402665	0	0	108
1110	4202	11206799	0	0	72
1111	4344	1482339	0	0	40
1112	3599	1400421	582	0	0
1113	4270	317820	0	0	569
1114	3901	11206702	0	0	82
1115	4180	1717308	49	0	0
1116	3071	1303404	92	55	10
1117	3780	17940063	9	50	13
1118	66	700431	45	0	40
1119	2927	1303402	100	0	64
1120	4137	1115701	60	97	81
1121	4631	161152	60	76	0

1122	4708	480832	82	60	50
1123	3749	1303406	0	0	55
1124	1145	130003457	52	60	105
1125	4580	161269	20	4	70
1126	4601	161200	12	30	10
1127	4478	382	0	0	30
1128	3290	1115124	63	60	39
1129	3729	16547	81	70	58
1130	4449	1212002	60	60	0
1131	3482	700262	0	0	50
1132	4029	113299	0	0	53
1133	3292	1541239	70	66	69
1134	4528	168844	57	60	65
1135	3384	4357013	0	0	50
1136	3750	1753465	30	60	3
1137	3293	1541240	5	38	18
1138	3766	1303397	121	108	112
1139	3291	1502600	73	80	25
1140	4281	114813	178	136	35
1141	3859	1100161	118	101	4
1142	7455	332412	0	50	60
1143	3748	317907	60	72	68
1144	3289	317904	0	0	37
1145	4246	16545	0	0	35
1146	7388	700595	0	79	300
1147	3692	0	0	41	0
1148	3693	1303400	75	60	0
1149	460	1100169	60	95	0
1150	3582	1795478	0	80	0
1151	4506	425687	85	97	173
1152	6964	700298	70	293	50
1153	7368	1023924	95	60	40
1154	4818	307088	136	60	87
1155	3443	1729969	0	60	80
1156	4040	12971	62	60	0
1157	4123	1437270	0	191	0
1158	6931	135953	0	187	1091
1159	2859	112849	77	60	0
1160	3250	18917	134	0	450
1161	3251	1750733	60	109	0
1162	7199	274217	0	60	160
1163	3979	1795811	58	86	0
1164	6925	707736	34	5	0
1165	6935	723892	96	325	67
1166	4453	317905	70	50	95

1167	7194	218651	76	156	0
1168	4102	128199	60	60	168
1169	4820	1774006	93	60	0
1170	3236	700544	0	25	40
1171	3237	1010431	0	99	0
1172	4694	1165579	56	10	60
1173	3234	317696	53	6	0
1174	3894	11013913	0	111	0
1175	4096	128207	56	71	225
1176	4864	11045843	59	20	60
1177	7202	412110	0	382	43
1178	3235	317906	189	0	66
1179	3952	11013369	60	0	40
1180	4078	1400658	60	60	70
1181	3233	1120724	60	0	51
1182	4178	1640869	70	0	52
1183	7338	300162	0	297	60
1184	4594	161154	90	233	113
1185	4685	1402606	238	1065	40
1186	3241	1010452	811	173	46
1187	3962	12167	268	66	0
1188	4550	155577	0	60	45
1189	4520	1561036	65	0	120
1190	3950	317903	60	70	310
1191	7598	667950	85	60	60
1192	3238	1303814	60	60	0
1193	767	411907	60	105	1361
1194	4335	476799	98	60	20
1195	4913	130122043	60	160	77
1196	6809	477399	60	274	84
1197	4512	114446	156	0	64
1198	7594	700332	58	61	5
1199	3930	2001980	68	60	40
1200	3860	1303399	10	155	0
1201	3694	1100160	116	0	0
1202	3944	11089868	60	60	0
1203	3485	317666	60	0	460
1204	3487	1795460	0	121	208
1205	3488	1303815	69	0	0
1206	3489	1101546	0	60	0
1207	3502	1303811	13	40	0
1208	3462	11089713	0	119	105
1209	3922	12009	60	8	0
1210	3495	11089640	60	92	0
1211	3490	1102162	49	1	0

1212	3493	1101547	494	105	111
1213	3491	11206685	79	58	103
1214	3886	1400656	78	60	0
1215	3929	1303401	60	0	0
1216	3497	10006580	0	60	40
1217	3463	1303813	64	0	61
1218	3501	1303810	0	0	0
1219	3486	1303805	0	0	0
1220	7502	272618	0	104	60
1221	3175	3178663	48	69	60
1222	4220	148939	68	27	40
1223	4221	148937	11	60	62
1224	4060	1013456	60	80	0
1225	3801	1303804	60	113	0
1226	4657	1457860	77	252	40
1227	3448	1308062	198	60	13
1228	3855	31766	60	83	348
1229	454	30003484	82	120	20
1230	4331	1101549	180	0	109
1231	4450	1120712	0	73	0
1232	3283	111215	60	60	90
1233	3126	303808	61	130	0
1234	7512	686744	110	60	60
1235	3884	1165636	60	156	104
1236	7513	677595	109	0	60
1237	3741	1101544	70	57	50
1238	3958	11089489	1293	101	92
1239	3740	1101541	98	72	0
1240	798	1410772	60	160	80
1241	7025	51060	60	78	48
1242	799	1308066	71	80	75
1243	800	318794	61	85	47
1244	801	256728	87	0	0
1245	802	318790	0	234	138
1246	804	11013388	151	0	109
1247	3285	11013112	0	10	0
1248	3710	1303609	70	604	0
1249	4919	1411848	32	13	48
1250	4625	161182	26	0	30
1251	4749	13555	90	282	72
1252	4923	1585430	508	30	94
1253	7300	10052	0	90	48
1254	805	1303606	80	0	0
1255	806	130400259	0	0	51
1256	807	1100009	0	0	46

1257	3092	1730642	160	0	203
1258	808	318583	60	94	30
1259	809	1300611	64	20	145
1260	6915	982079	62	174	30
1261	810	318581	135	60	74
1262	3375	1410768	70	113	0
1263	7484	412112	90	0	48
1264	3852	11206832	71	163	0
1265	811	11013390	115	60	64
1266	949	1764634	60	0	0
1267	812	1756768	0	70	0
1268	4152	1011443	80	60	92
1269	813	15830	0	126	63
1270	814	122251112	210	0	0
1271	3441	1303607	65	21	231
1272	815	0	85	162	0
1273	3393	1305016	126	78	0
1274	6930	514727	105	50	0
1275	816	16317	0	61	58
1276	4392	318585	0	84	59
1277	817	1303608	92	123	0
1278	818	0	131	70	0
1279	819	122290442	50	144	0
1280	820	318580	102	35	223
1281	1172	0	95	0	0
1282	821	318653	0	84	196
1283	3093	1403328	96	13	33
1284	4877	1478302	60	0	0
1285	822	11078034	0	0	117
1286	823	0	99	1	0
1287	2993	1303603	64	96	0
1288	824	318582	71	30	0
1289	825	318584	60	70	85
1290	826	318701	60	0	0
1291	4713	1244076	60	60	70
1292	828	11089548	58	0	85
1293	7434	794738	0	0	0
1294	830	11089827	80	0	0
1295	2940	1304822	96	2	235
1296	4189	13012386	0	76	40
1297	831	11089612	102	0	0
1298	832	0	180	0	0
1299	2839	0	60	0	0
1300	7110	311865	80	100	105
1301	7312	33567	60	100	48

1302	833	1303605	374	60	260
1303	7269	10010	60	60	58
1304	7270	47946	60	60	48
1305	834	16546	60	39	0
1306	835	318703	59	60	91
1307	4106	1730381	60	55	50
1308	3821	1402605	0	51	86
1309	836	1101041	169	146	0
1310	3280	1400219	131	55	74
1311	4518	156704	0	60	15
1312	3335	11078035	60	83	39
1313	2878	14965	73	30	67
1314	837	130002361	87	132	52
1315	838	1792370	93	90	55
1316	4548	318700	100	55	48
1317	839	30003366	60	35	0
1318	2904	1102442	60	0	50
1319	2970	11014456	60	0	0
1320	3404	0	0	40	0
1321	3164	317431	60	40	0
1322	3374	0	68	93	0
1323	3620	1164029	90	0	0
1324	840	1166280	60	60	70
1325	3378	1308071	70	37	199
1326	841	130003420	90	210	42
1327	842	1304957	267	179	25
1328	843	1491	142	42	50
1329	844	1303750	75	259	63
1330	845	318793	250	127	155
1331	846	318795	0	191	70
1332	3125	1795706	162	40	91
1333	3465	16541	90	84	65
1334	847	149820	77	99	0
1335	1004	1304961	106	103	62
1336	3028	11209774	135	60	43
1337	582	1401524	70	78	16
1338	4153	13012145	60	60	123
1339	906	1410670	60	0	46
1340	4718	1632017	60	0	94
1341	848	0	70	0	0
1342	3525	1794510	70	82	28
1343	3416	1733827	120	71	103
1344	849	1305035	50	164	75
1345	850	11090734	29	0	0
1346	851	642976	0	94	61

1347	3109	1305034	95	67	81
1348	7180	344856	60	165	19
1349	852	1305039	130	75	0
1350	7510	56164	64	60	100
1351	854	1401870	130	33	125
1352	855	667930	60	72	20
1353	856	1734420	110	157	161
1354	3648	0	185	65	0
1355	4076	200163	149	0	220
1356	857	7334670	105	136	286
1357	4380	1181040	181	74	50
1358	859	678423	81	66	50
1359	860	1401525	54	179	0
1360	861	11078363	0	101	80
1361	862	11206774	101	98	0
1362	863	318748	149	0	0
1363	864	0	60	0	0
1364	865	100	0	105	0
1365	3538	791133	102	1	73
1366	866	1401526	0	0	26
1367	867	1305028	0	100	96
1368	7575	667141	84	200	48
1369	868	1101045	200	65	11
1370	869	1305033	67	154	133
1371	3900	1305029	60	521	81
1372	870	1401535	59	0	99
1373	871	1305037	65	109	0
1374	3305	11090042	103	0	132
1375	4250	114291	60	75	48
1376	872	130004322	65	100	0
1377	873	318745	0	0	151
1378	7324	30399858	0	48	228
1379	874	30001791	56	0	0
1380	3818	1101047	96	64	93
1381	3503	11077631	85	89	0
1382	875	1200083	95	0	110
1383	3026	1305026	60	60	131
1384	4487	1440758	60	60	0
1385	7277	5813	63	78	0
1386	7577	30043628	118	35	48
1387	3008	1305030	60	55	4
1388	876	318742	0	53	0
1389	7318	9120033565	62	30	54
1390	7333	569852	63	30	130
1391	877	1102245	0	30	70

1392	878	130004321	72	0	40
1393	3394	31842	60	40	0
1394	4556	318750	60	116	0
1395	880	410747	132	40	48
1396	882	1753461	190	0	50
1397	883	318743	0	228	57
1398	884	1305023	160	702	97
1399	885	318753	56	8	38
1400	3087	1753460	92	46	80
1401	4832	1457843	90	78	49
1402	886	130001880	0	95	0
1403	3057	1163857	78	0	48
1404	7399	1	0	36	0
1405	4849	1301371	51	82	60
1406	887	800829	258	85	65
1407	3543	318611	99	65	120
1408	4880	1346570	60	132	60
1409	3920	1166276	113	0	65
1410	4324	1541208	0	84	60
1411	3934	3	104	79	60
1412	888	318610	90	5	60
1413	889	1304817	80	70	0
1414	3380	1101040	153	43	65
1415	3515	1304812	0	91	0
1416	4101	116394	90	145	46
1417	4364	155635	178	60	44
1418	3581	122292325	70	60	0
1419	6815	408653	60	64	0
1420	890	318678	0	0	0
1421	890	1303602	60	0	0
1422	892	1304818	60	106	58
1423	893	130002362	131	310	128
1424	894	1300450	75	121	40
1425	2824	0	148	0	0
1426	4768	1172861	0	0	60
1427	3104	1305027	60	60	29
1428	4412	11730	220	25	56
1429	3927	1934917	60	119	90
1430	3965	318744	128	0	48
1431	4501	130232160	0	25	95
1432	4535	1059067	176	62	60
1433	900	1305031	77	123	43
1434	7503	56146	116	297	114
1435	901	1305024	60	46	0
1436	902	1305025	51	85	49

1437	903	318680	221	50	0
1438	904	1400048	60	40	112
1439	3810	1166590	26	0	78
1440	7137	305020	60	78	71
1441	7149	610971	120	136	49
1442	4097	318746	122	188	247
1443	909	318747	83	54	293
1444	2840	318732	60	1205	122
1445	3132	130002624	148	32	47
1446	911	2186390	90	10	177
1447	2856	11013315	85	81	0
1448	913	1400050	60	55	176
1449	914	151057	60	153	42
1450	916	1305018	70	0	51
1451	917	1305021	95	0	80
1452	918	1400059	70	11	135
1453	3359	1402866	210	60	0
1454	4017	111513	60	65	60
1455	7335	49891	70	16	46
1456	7386	56110	348	0	148
1457	7548	56002	0	0	39
1458	2907	101046	0	54	0
1459	920	318734	64	154	41
1460	3206	1102448	149	69	0
1461	3815	1402669	73	31	51
1462	7263	712743	58	65	35
1463	7584	9274	65	15	12
1464	3848	1200080	61	52	48
1465	3895	1733541	60	60	93
1466	4050	113495	60	0	42
1467	922	318733	0	103	236
1468	3116	1400051	125	86	323
1469	921	1400052	82	0	106
1470	923	1304863	70	49	31
1471	924	1308062	124	0	83
1472	4386	1183839	0	0	78
1473	925	11206791	70	0	127
1474	462	130123400	0	130	0
1475	926	667139	177	70	40
1476	7356	240624	70	0	101
1477	927	1304868	75	0	45
1478	928	1304867	0	0	89
1479	3877	1400053	0	211	70
1480	929	1400055	89	93	222
1481	3471	1102449	154	77	38

1482	930	1102447	77	32	0
1483	4467	154445	60	0	89
1484	932	1304870	0	0	25
1485	3796	1305099	0	538	38
1486	4016	112106	0	132	74
1487	4037	112556	178	60	99
1488	933	0	70	77	0
1489	4295	460786	60	113	80
1490	7224	5010436020	60	199	48
1491	7332	26836	60	0	51
1492	4175	1746370	0	108	48
1493	934	1102442	103	180	77
1494	4130	1611678	142	51	41
1495	6855	172162	0	157	48
1496	7491	184802	80	60	33
1497	4159	616039	480	0	72
1498	4127	136216	43	0	0
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1501	4710	1165747	0	0	0
1502	3703	1163164	0	0	0
1503	3704	1400057	60	33	76
1504	3705	1305095	0	0	0
1505	7197	2330617	0	84	48
1506	4249	318681	0	378	59
1507	935	1304861	23	0	0
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1509	3732	318678	103	0	48
1510	3736	1305098	524	0	0
1511	7227	1034567	121	123	28
1512	3763	1305094	158	0	375
1513	3764	1304862	471	0	48
1514	3790	1400054	0	20	0
1515	4124	1750752	0	72	0
1516	4125	575494	80	287	48
1517	7374	3011658	0	352	48
1518	4126	1631900	0	221	70
1519	7027	14416	60	0	83
1520	7008	168001	72	0	48
1521	7348	317837	222	0	90
1522	936	0	273	60	0
1523	4471	1145615	209	149	248
1524	4491	318735	0	109	96
1525	4680	130121302	0	358	21
1526	7464	200114	0	0	75

1527	937	0	60	47	0
1528	4572	1487962	112	0	31
1529	3081	662080	60	60	70
1530	3134	318730	454	140	78
1531	455	1794098	0	50	74
1532	3948	1795379	34	54	81
1533	4003	1729985	0	60	78
1534	4028	318731	45	134	58
1535	3367	0	120	0	50
1536	947	318704	8	67	40
1537	3701	1205089	60	60	45
1538	3702	1304864	42	0	14
1539	948	318705	203	86	30
1540	950	1303601	0	151	100
1541	7507	1	82	0	0
1542	951	130001731	61	0	60
1543	952	317795	0	0	182
1544	3271	1400227	71	40	50
1545	953	11013158	122	51	176
1546	954	305209	0	72	70
1547	955	11090049	0	0	0
1548	956	1304886	0	55	22
1549	957	1304885	17	0	7
1550	3024	11013327	9	0	32
1551	4865	1578320	53	0	280
1552	958	1753470	0	153	110
1553	2956	1005	58	40	40
1554	3460	667991	0	11	60
1555	4039	1100036	30	0	150
1556	959	11089892	0	0	60
1557	960	11090089	91	1	105
1558	961	11013195	20	0	0
1559	4133	1304889	70	139	148
1560	962	130001733	15	59	67
1561	963	11077694	0	192	121
1562	4311	1181164	60	0	44
1563	4732	1054880	71	168	100
1564	964	4119540	61	387	70
1565	4448	123321	41	0	47
1566	6746	309503	98	0	39
1567	6913	41017	0	235	0
1568	965	1304821	245	209	0
1569	967	1304823	306	56	370
1570	3521	1304819	0	0	78
1571	968	318614	0	117	63

1572	2863	44954	468	0	55
1573	4030	12481	219	0	64
1574	4282	1716170	189	0	63
1575	3208	130002365	26	90	60
1576	7341	200376	184	1092	60
1577	3631	318612	0	355	0
1578	4354	1304820	0	617	60
1579	4635	173210	0	60	82
1580	969	173212	370	266	0
1581	970	318613	326	0	170
1582	3366	130004430	147	0	10
1583	497	1303754	784	111	69
1584	7216	1303755	43	0	0
1585	971	1303756	501	0	0
1586	3935	1400218	0	55	0
1587	4006	318615	0	55	91
1588	972	410727	60	98	408
1589	973	1101043	0	45	196
1590	974	1400221	0	49	34
1591	3009	1101040	48	194	70
1592	7195	1207525	52	65	71
1593	975	1796277	112	150	65
1594	7119	610407	9	160	0
1595	976	1400217	73	75	0
1596	6886	1	159	60	0
1597	977	1303752	68	0	275
1598	978	11013137	0	70	160
1599	4760	1244050	60	60	60
1600	979	317796	60	60	98
1601	980	1303751	0	41	65
1602	2864	11206836	0	60	102
1603	982	318727	0	0	60
1604	983	122292238	0	185	99
1605	984	1305017	0	0	40
1606	2865	11206824	70	177	160
1607	6887	241452	144	45	49
1608	985	122291432	0	19	0
1609	986	1731196	0	72	187
1610	987	318724	61	65	306
1611	3239	410423	87	62	76
1612	3921	11584	30	54	52
1613	988	130122388	39	5	0
1614	3630	0	12	302	0
1615	3744	1400220	16	102	0
1616	3907	0	44	124	0

1617	989	318725	0	0	362
1618	990	122291433	0	112	121
1619	2873	11089942	132	249	56
1620	7331	318702	33	40	75
1621	1090	130123797	72	168	0
1622	4232	1	78	233	0
1623	4233	1400592	0	0	109
1624	4238	1732075	154	11	0
1625	144	130004455	60	142	61
1626	241	1403243	83	180	144
1627	997	318796	113	0	0
1628	3099	1300243	33	0	58
1629	1008	10047	132	0	60
1630	7578	667979	42	0	60
1631	3464	1300444	90	123	0
1632	3499	1300448	60	0	0
1633	6839	311962	187	140	0
1634	4848	1357490	0	61	16
1635	3549	1300445	60	0	0
1636	1165	1300446	113	0	13
1637	3990	111330	0	188	12
1638	3528	1300453	0	139	61
1639	3595	1300447	13	72	1
1640	1019	1303783	60	166	96
1641	3166	130002623	0	0	231
1642	1105	1400454	89	0	0
1643	1109	1300245	34	422	133
1644	1047	3176389	68	0	879
1645	2995	1788358	86	197	33
1646	1020	0	76	0	0
1647	3013	1305091	182	0	0
1648	7162	68148	183	0	101
1649	1101	1788801	60	0	0
1650	1021	0	72	0	0
1651	2951	1304834	171	104	0
1652	1112	1200085	0	161	79
1653	1085	1403240	77	386	190
1654	1057	1403241	133	0	257
1655	1055	0	39	0	0
1656	1053	1788830	35	286	182
1657	2996	1308067	58	163	0
1658	1018	686347	144	0	55
1659	1023	0	0	0	0
1660	1022	668659	0	60	80
1661	7547	577864	140	0	40

1662	1017	1400138	92	0	0
1663	1026	0	0	0	0
1664	3540	1305093	0	25	0
1665	3060	1795820	0	0	143
1666	898	1400140	0	0	207
1667	4472	1178617	0	0	0
1668	4729	1702596	0	119	0
1669	4761	667868	0	0	0
1670	1075	1102440	0	0	50
1671	1081	1200082	0	0	110
1672	1077	1102441	248	0	25
1673	7188	178183	58	120	3070
1674	896	130116241	160	0	0
1675	2912	1795763	0	109	215
1676	1079	1200081	0	0	59
1677	1029	0	134	0	0
1678	1074	1102444	60	281	93
1679	1025	1200088	0	252	70
1680	1035	1304830	61	0	0
1681	996	1200082	25	160	58
1682	992	1102443	0	0	0
1683	3035	1200120	80	0	0
1684	3034	0	171	0	0
1685	1032	1200121	0	0	0
1686	3033	1200124	101	0	0
1687	995	1400141	0	0	53
1688	1041	1178540	0	235	30
1689	1033	1	0	218	0
1690	1042	1300249	0	0	55
1691	1034	700289	0	177	0
1692	1043	0	0	69	303
1693	1036	1300246	70	95	20
1694	1037	1304831	271	96	0
1695	1046	11078843	0	127	59
1696	1038	1215843	101	0	16
1697	1039	1795839	90	0	39
1698	3041	0	62	130	0
1699	3042	0	57	0	0
1700	1040	1788179	110	0	66
1701	494	0	0	174	0
1702	1044	700600	61	151	0
1703	1045	1785830	656	38	0
1704	3039	1400142	0	25	88
1705	4131	113262	0	91	220
1706	3038	1305090	106	189	0

1707	3040	1400143	127	321	208
1708	1030	1304833	0	0	0
1709	897	411923	60	0	50
1710	3319	1795766	8	60	253
1711	3054	1401868	124	121	0
1712	3031	1403247	66	50	107
1713	3229	1795836	36	0	281
1714	4532	168535	0	70	0
1715	3047	130001674	0	77	142
1716	4428	317695	76	136	63
1717	6813	93479	0	102	220
1718	4430	318699	0	30	105
1719	3052	1403419	49	369	132
1720	3045	1788428	8	68	57
1721	3044	1734411	75	121	0
1722	7349	570028	58	33	60
1723	3036	1122845	0	116	72
1724	3037	1795872	0	0	213
1725	1065	1795821	237	60	300
1726	3344	1200123	77	89	102
1727	1001	1200126	38	0	188
1728	3474	317693	76	65	0
1729	477	1788916	60	50	60
1730	4431	1303632	125	88	90
1731	3779	1795069	63	136	75
1732	3243	1300244	0	60	16
1733	3244	317692	8	59	39
1734	457	1300242	0	494	60
1735	4429	317640	34	25	72
1736	3160	10	101	29	0
1737	4582	161125	160	89	76
1738	4808	1401894	0	50	61
1739	7456	4077227	110	96	60
1740	1098	317642	0	117	145
1741	3670	1410677	81	156	122
1742	4273	11002955	16	95	316
1743	1102	0	0	60	0
1744	1103	0	67	180	0
1745	1104	0	67	95	0
1746	1106	0	64	144	0
1747	1117	1788599	24	35	123
1748	3473	1302294	151	174	25
1749	7154	538907	125	55	62
1750	4481	318609	50	499	49
1751	4602	318607	73	57	29

1752	4682	1864320	329	0	81
1753	7182	538941	140	0	58
1754	7186	68235	65	80	61
1755	7191	538939	199	0	56
1756	4120	1793080	73	89	108
1757	1118	11013360	0	121	71
1758	3388	1302298	0	250	46
1759	3617	1411846	0	204	40
1760	4197	1795136	0	81	50
1761	4107	318606	60	76	87
1762	3655	22687	72	60	5
1763	1119	1794129	94	68	122
1764	1120	1302302	95	47	50
1765	1121	0	51	199	0
1766	1132	122292487	42	60	68
1767	1122	318521	0	50	135
1768	1123	122291971	157	248	55
1769	1124	122291965	37	0	0
1770	803	1402685	109	0	65
1771	1125	1102168	0	0	101
1772	1126	1302303	0	84	52
1773	1127	150558	352	145	195
1774	1128	1729220	0	119	0
1775	1129	318520	28	97	0
1776	1130	541210	50	32	67
1777	1131	0	108	60	0
1778	1133	122292985	83	60	60
1779	1134	1794611	0	60	107
1780	4275	124000	83	12	49
1781	6846	9934	0	479	0
1782	1135	11207114	60	409	0
1783	4910	318524	190	153	52
1784	1136	11207191	60	65	210
1785	1137	318525	223	0	89
1786	1138	1793610	580	115	60
1787	1139	318523	63	70	90
1788	1140	150557	0	240	54
1789	4369	155596	0	68	85
1790	1143	1302140	114	117	84
1791	1144	1171953	0	65	60
1792	1147	1402689	0	60	98
1793	3604	1402687	47	239	106
1794	1148	122292456	517	219	40
1795	1149	2009510	65	165	39
1796	1151	122292459	60	308	55

1797	1152	122292489	247	60	0
1798	4205	10106648	226	51	11
1799	4113	0	61	61	50
1800	7540	3000467	102	0	46
1801	1153	122292457	0	163	0
1802	1154	130001030	94	95	122
1803	1155	1403327	39	142	70
1804	3717	900014	0	109	2
1805	461	0	81	122	0
1806	1158	122291211	111	102	239
1807	1159	318522	56	0	62
1808	1160	1102163	130	109	48
1809	1161	1401911	67	60	49
1810	1162	1302057	117	172	0
1811	1173	1402694	0	60	88
1812	1174	1302300	215	0	0
1813	6811	311965	0	80	47
1814	1175	316988	176	253	3
1815	1176	316986	0	142	0
1816	1177	1302295	0	16	57
1817	1425	1302296	0	58	85
1818	3830	318830	127	70	110
1819	1178	316989	45	665	69
1820	1179	165	0	47	61
1821	1180	316985	129	60	65
1822	1181	122291353	100	57	120
1823	1182	316984	353	60	55
1824	1183	346730	0	60	69
1825	1184	1302293	550	60	68
1826	1185	130400284	60	60	41
1827	4858	1316418	23	40	0
1828	1186	1306245	40	50	60
1829	1187	318831	81	58	66
1830	1188	318828	65	0	156
1831	1189	420060	94	60	65
1832	3961	16319	160	60	110
1833	4154	1402657	128	704	52
1834	4059	318827	81	60	60
1835	1190	122292330	114	607	65
1836	3318	1011803	60	113	65
1837	1191	7251327	69	50	20
1838	1192	5001	60	111	30
1839	6802	411905	98	0	75
1840	7075	411940	60	20	70
1841	7081	700820	130	1061	30

1842	1193	122291389	60	398	89
1843	1194	1102164	60	265	38
1844	1195	410757	65	30	50
1845	1196	410751	109	61	56
1846	1197	1102162	60	111	68
1847	1198	2102169	70	368	60
1848	1199	130116290	60	56	146
1849	1200	122292329	178	0	0
1850	1201	318826	60	57	0
1851	1202	1101218	99	83	60
1852	3397	0	100	221	0
1853	1203	122291344	182	49	37
1854	1204	122291349	82	12	85
1855	1205	150555	80	86	41
1856	6927	412014	200	0	32
1857	1208	1123660	249	60	58
1858	4082	127669	264	103	105
1859	1209	0	60	58	20
1860	1206	318829	0	70	53
1861	1207	1301905	123	291	0
1862	1210	130407488	93	196	56
1863	1211	122291212	0	88	145
1864	1212	122291124	0	80	55
1865	467	12221205	0	60	75
1866	4772	1256932	60	174	60
1867	4775	318836	120	502	60
1868	1213	13039912	101	241	54
1869	1214	316987	0	60	72
1870	1215	1301901	0	356	52
1871	1216	122290441	0	281	70
1872	1217	1301899	0	50	74
1873	7139	1	84	323	0
1874	3143	1102165	119	168	65
1875	1218	1	49	296	61
1876	2933	438670	60	60	64
1877	3775	1	60	0	58
1878	1219	151075	248	103	0
1879	1220	122292319	18	193	119
1880	3302	151056	30	40	92
1881	3893	1750757	80	0	0
1882	1221	130003417	0	60	53
1883	1222	122292314	31	60	0
1884	1223	1	115	60	57
1885	1224	122292320	213	110	100
1886	1225	667992	23	170	117

1887	1226	1	0	39	35
1888	1227	122291209	32	501	0
1889	3574	1750756	502	40	0
1890	4443	1666009	61	50	0
1891	1228	1	4	110	76
1892	1229	1793411	1068	185	0
1893	1230	1728193	80	40	80
1894	1231	318663	61	60	60
1895	1232	11206862	106	60	52
1896	2950	1100032	229	226	50
1897	1233	122292315	102	53	60
1898	2910	130399918	140	70	71
1899	1234	318660	0	180	98
1900	3883	318661	130	42	48
1901	1235	318662	40	0	100
1902	1236	11206785	60	186	140
1903	3993	111259	19	348	0
1904	1237	1302122	405	87	161
1905	1238	11206785	101	90	70
1906	1239	416318	132	57	71
1907	3565	317054	11	310	125
1908	7553	243727	0	60	40
1909	1240	318659	186	29	75
1910	7102	1923	100	70	59
1911	1241	122293062	59	60	70
1912	7109	668989	89	60	38
1913	1242	318658	62	139	183
1914	4368	1792537	61	170	61
1915	4389	1180829	76	0	96
1916	4418	144535	206	101	39
1917	4433	103232116	101	0	59
1918	1244	317051	0	211	56
1919	1245	667876	0	95	56
1920	3755	317052	100	27	58
1921	1246	1302121	131	126	51
1922	4806	12034367	215	252	37
1923	4807	1237280	85	140	0
1924	7306	10025	68	108	65
1925	1247	1	44	378	60
1926	3097	1100037	54	70	0
1927	3919	130122381	73	194	0
1928	4819	1541394	1097	225	0
1929	1248	1410773	53	115	501
1930	1249	1796269	60	172	0
1931	3095	317050	99	0	52

1932	1250	317055	60	124	52
1933	3567	100079	70	139	20
1934	7472	754224	0	60	76
1935	1251	0	110	170	65
1936	1252	256939	54	0	120
1937	939	1301896	70	0	60
1938	1253	16320	0	55	220
1939	3459	0	60	218	0
1940	2965	1102167	0	152	241
1941	1255	1403785	60	97	60
1942	1256	16316	60	93	60
1943	4199	1301566	0	70	0
1944	1257	1302123	223	76	62
1945	2830	1793411	37	102	200
1946	4191	1301567	141	0	60
1947	471	0	0	91	0
1948	3615	1730643	62	0	60
1949	4195	1794122	105	234	50
1950	4193	1014967	138	134	235
1951	4192	1401865	0	0	30
1952	1258	15677	13	0	0
1953	1259	130400283	20	215	64
1954	4198	1401697	135	107	0
1955	1260	318655	0	170	176
1956	1261	318657	107	0	0
1957	3299	0	0	60	0
1958	4053	150558	0	0	62
1959	474	1	60	30	86
1960	1262	318656	59	0	94
1961	1263	1302109	25	0	39
1962	3534	1304475	83	330	133
1963	4225	1304472	65	205	52
1964	6885	47836	243	0	60
1965	7275	402242	0	0	40
1966	4782	1165787	221	175	32
1967	1264	1305171	124	475	0
1968	3113	318647	110	511	95
1969	1265	1301569	0	0	41
1970	3189	318650	52	60	65
1971	1266	1	40	0	55
1972	1267	318648	240	57	68
1973	487	1404473	313	60	52
1974	1268	1302119	57	100	97
1975	2963	1302118	60	0	62
1976	4063	1149734	60	0	55

1977	4328	1402871	0	60	0
1978	3769	410723	60	601	0
1979	4894	1410669	367	55	45
1980	1269	1789430	19	16	102
1981	3745	130003556	375	399	60
1982	1272	700045	242	57	50
1983	4444	130122410	0	0	0
1984	4507	1575777	41	168	70
1985	4570	12583	6	173	182
1986	4569	54992	140	48	90
1987	4763	2917	67	113	0
1988	7244	313259	314	0	40
1989	7390	71534	0	66	60
1990	7469	323083	129	60	60
1991	4224	113963	65	75	65
1992	4896	1410666	60	154	0
1993	6987	794800	60	68	60
1994	7257	33952	60	60	202
1995	7387	573850	0	25	62
1996	7392	642986	35	60	62
1997	7533	907102	64	69	66
1998	7555	989847	49	110	60
1999	4048	1013465	121	57	95
2000	6805	1	0	117	0
2001	7389	2901937	14	382	60
2002	7397	645294	0	0	60
2003	7524	662192	0	60	60
2004	1270	10006	0	59	104
2005	1381	318646	59	0	0
2006	1278	1103957	0	63	75
2007	3200	50145	0	66	60
2008	3385	1793421	85	0	62
2009	4778	100184	60	288	69
2010	4367	1541245	80	81	42
2011	7480	668008	0	60	52
2012	1271	1302117	159	60	0
2013	3454	101060	0	337	60
2014	4828	51431	86	100	60
2015	4875	1301369	90	85	70
2016	1273	1	39	80	65
2017	2966	700390	64	0	20
2018	4151	112648	99	74	60
2019	1275	700115	59	50	20
2020	1276	1302113	0	0	0
2021	1277	1302114	0	285	42

2022	3943	1011414	0	29	40
2023	3157	1	0	60	91
2024	7319	30003258	0	0	59
2025	1279	317625	0	72	59
2026	1280	155653	17	0	60
2027	3938	11622	0	0	60
2028	1281	1793447	0	83	30
2029	1282	1731540	60	65	60
2030	1283	1301570	66	80	0
2031	7208	265073	0	1	75
2032	3306	1103511	0	138	74
2033	1284	1101212	61	0	99
2034	2711	1164706	59	127	0
2035	4841	318642	94	118	50
2036	1285	1101214	0	55	60
2037	1286	122292145	0	109	60
2038	1287	1789788	64	195	114
2039	1289	318641	115	122	5
2040	1291	16313	0	122	69
2041	1292	317620	68	0	57
2042	3843	1301568	103	0	90
2043	7136	569556	0	0	85
2044	1293	1301562	0	30	70
2045	1294	5078	93	0	118
2046	1295	1	83	50	82
2047	3432	1103955	311	70	64
2048	1296	87412	70	60	56
2049	2866	1750753	0	193	60
2050	4530	1	181	128	62
2051	3433	1101213	62	0	70
2052	4129	316215	0	13	50
2053	4089	127616	44	0	60
2054	4736	1990216	126	154	9
2055	4839	16314	56	115	72
2056	7485	5974	40	0	60
2057	1298	1101211	60	0	61
2058	1300	11078046	61	92	63
2059	1403	1793407	38	65	60
2060	1301	11206775	316	0	110
2061	3091	318644	108	75	0
2062	3677	0	61	140	0
2063	1367	130003488	60	240	60
2064	1302	1793414	97	0	82
2065	1303	17318	0	122	70
2066	1304	1	32	58	61

2067	1305	1103959	61	262	60
2068	7254	410487	0	52	60
2069	1306	300001677	57	49	67
2070	7281	102905	356	198	61
2071	7353	32942	62	85	60
2072	1307	122292285	80	0	165
2073	1308	1731513	0	78	60
2074	1309	0	2	196	0
2075	3022	1401913	34	70	89
2076	3023	317654	0	75	69
2077	3006	1796272	0	70	69
2078	1310	1	0	61	70
2079	1311	122292288	0	55	65
2080	1312	11013323	55	99	183
2081	1313	1794231	92	87	60
2082	4543	1	0	65	60
2083	1314	1731549	0	66	60
2084	2825	1794210	0	74	62
2085	211	314112	102	60	60
2086	1315	1302151	0	89	60
2087	1366	1302150	50	78	57
2088	1316	317651	0	0	68
2089	4061	317653	62	78	63
2090	2962	1101210	70	20	0
2091	7196	4172353	0	75	65
2092	7267	30003878	79	78	65
2093	7302	10043	0	70	61
2094	7303	10037	106	80	61
2095	1317	1302149	0	78	1
2096	3324	1302148	85	0	61
2097	4023	1011326	122	40	69
2098	1318	1101314	102	0	263
2099	1319	1795349	26	0	72
2100	1370	317650	114	75	65
2101	1369	1302215	127	94	60
2102	1320	11206754	0	259	70
2103	1321	122292440	60	0	60
2104	1322	49045	108	0	63
2105	1323	1612	185	81	68
2106	1324	17312	85	0	67
2107	1371	1302158	99	70	68
2108	1325	1302155	60	0	85
2109	1326	1302153	0	72	60
2110	3195	1794172	178	80	0
2111	1327	1302156	0	0	59

2112	4065	1305092	90	67	80
2113	1328	1731172	20	0	130
2114	3829	1731871	0	64	64
2115	1329	1302154	0	0	56
2116	1372	317632	0	75	58
2117	1330	1200736	0	78	86
2118	1331	1302159	80	73	160
2119	1332	1301729	0	74	0
2120	1333	1796096	29	76	104
2121	1373	0	76	82	0
2122	1334	11013161	118	0	0
2123	1336	11207192	58	78	83
2124	4477	317636	50	94	78
2125	3379	130121038	50	86	77
2126	1337	1301519	60	81	60
2127	1374	1301520	86	81	67
2128	3414	1301518	0	60	71
2129	4410	317637	98	50	76
2130	4874	507893	82	62	0
2131	1299	317633	100	0	60
2132	1338	1301561	88	0	65
2133	4747	1286420	0	30	60
2134	1339	1301523	80	0	62
2135	1340	1301563	36	0	60
2136	1341	11013154	50	1	130
2137	3530	1301513	0	0	87
2138	3563	1970769	0	50	0
2139	4085	16311	7	0	60
2140	1342	317634	1	166	72
2141	4251	114100	55	86	74
2142	1344	318738	0	91	61
2143	1345	1728191	79	71	79
2144	4879	1312041	0	85	60
2145	7461	732822	140	65	60
2146	1346	122291240	130	70	60
2147	1347	318736	256	74	60
2148	3484	318741	0	78	0
2149	7095	411946	150	86	60
2150	1348	1200737	61	85	82
2151	1288	318739	105	74	0
2152	1349	1301522	0	87	60
2153	4320	411910	58	69	60
2154	1350	318740	0	85	60
2155	2989	318737	160	86	70
2156	4068	1275565	114	75	84

2157	1351	12396707	0	0	83
2158	4895	1410668	0	70	85
2159	1352	1795490	24	88	62
2160	1555	11013384	222	80	83
2161	3435	1403636	77	75	90
2162	3268	11090114	115	0	82
2163	4391	300035070	0	71	60
2164	1354	11078508	551	60	69
2165	3823	1731444	155	63	61
2166	3910	1301521	0	76	60
2167	1355	122292695	85	55	0
2168	1356	130122379	0	80	75
2169	3269	11078491	94	109	80
2170	1358	1402664	40	88	60
2171	7321	1	929	96	60
2172	7229	50103106	14	0	60
2173	4136	1301512	0	86	60
2174	1359	122292336	246	0	80
2175	7235	39615	0	75	60
2176	1360	1301560	99	79	66
2177	1361	318729	0	0	93
2178	3514	0	0	0	0
2179	1362	0	0	84	0
2180	1364	11090711	0	230	63
2181	1365	17327	0	83	60
2182	3144	1403638	0	0	65
2183	3413	318728	0	0	62
2184	3976	11564	0	78	60
2185	4021	1714031	0	77	60
2186	3611	143780	169	0	64
2187	3686	7332010	0	87	97
2188	4544	318726	0	335	72
2189	4575	161143	0	90	60
2190	7247	584520	59	101	0
2191	1394	0	0	171	0
2192	1396	1042881	0	91	6
2193	2909	15515	0	0	156
2194	2988	1403784	0	85	70
2195	1397	1013098	68	0	20
2196	1398	1301517	162	98	0
2197	7240	305259	50	0	49
2198	1399	122291055	0	60	0
2199	1400	3000196	0	0	49
2200	1401	317644	12	55	62
2201	2899	317649	0	68	60

2202	4730	1244062	60	20	101
2203	1402	149813	32	0	0
2204	2903	317898	21	0	86
2205	1404	317647	166	45	0
2206	3554	317648	70	46	148
2207	1405	317645	0	0	59
2208	1406	1301508	57	0	66
2209	3513	1200738	176	140	70
2210	4169	1301514	0	82	98
2211	3025	1733002	0	0	110
2212	3757	1103969	0	35	75
2213	2895	33244	96	0	0
2214	4345	329840	1518	0	0
2215	1407	1789909	153	87	5
2216	1408	1103950	30	99	40
2217	1409	667124	0	84	24
2218	7379	102331	0	0	43
2219	7516	37771	0	0	1
2220	1410	1200739	0	102	80
2221	1411	1164399	48	0	0
2222	4165	573592	149	90	90
2223	3964	1732292	0	99	81
2224	1412	700249	0	106	20
2225	3996	1012090	0	81	54
2226	4593	1303023	0	81	116
2227	1413	150552	43	0	0
2228	1414	150551	0	0	0
2229	1415	317646	0	133	0
2230	1416	317896	0	0	76
2231	1417	1304748	0	362	90
2232	1418	237262	0	101	0
2233	4559	317800	283	97	71
2234	1419	1403645	199	76	52
2235	3356	0	28	102	0
2236	1421	1403788	179	114	200
2237	1357	0	0	0	0
2238	1422	9056	121	10	99
2239	1423	317339	60	51	65
2240	1424	122292940	60	0	65
2241	1426	1304744	0	81	191
2242	1427	1304743	0	101	85
2243	4707	1244067	0	20	30
2244	1428	1789793	0	0	75
2245	3545	1304746	0	0	66
2246	1429	241546	0	0	153

2247	4748	1303497	0	91	35
2248	3301	122293132	0	0	31
2249	4301	1011155	56	0	394
2250	1430	122292942	72	96	80
2251	4560	1561034	0	0	100
2252	1431	1103953	58	0	172
2253	6829	15676	20	73	51
2254	1432	317805	0	75	162
2255	3088	1304745	23	102	53
2256	4209	130531	0	86	54
2257	3012	1103954	0	40	77
2258	3121	317803	122	80	56
2259	1891	1731491	88	0	0
2260	1433	13022623	36	50	45
2261	1434	1794517	0	60	44
2262	6919	22291154	75	31	217
2263	1435	1789811	0	75	54
2264	3667	1403637	73	53	100
2265	3793	1245410	36	0	14
2266	6896	50449	2	0	0
2267	2838	41000	28	67	10
2268	4675	1685930	0	75	51
2269	4677	1401692	70	74	36
2270	4759	1256931	0	222	0
2271	6822	308230	0	73	50
2272	1436	1103986	0	87	43
2273	3270	1541423	116	0	70
2274	3339	1541421	111	70	72
2275	7076	411941	43	0	51
2276	4737	1789877	75	0	0
2277	1437	317804	74	151	546
2278	1438	11013190	52	87	0
2279	1439	1403733	0	80	0
2280	1440	151051	80	0	41
2281	6888	735335	60	0	71
2282	1441	1308177	49	83	0
2283	3203	1403643	86	0	41
2284	2867	1795170	59	80	167
2285	4780	1221100	0	69	0
2286	3298	1403642	164	88	0
2287	4177	1403640	0	73	50
2288	4408	1923	80	42	44
2289	7145	410752	56	80	17
2290	3295	1403647	210	0	0
2291	1442	1123919	124	78	170

2292	4459	994404	92	61	220
2293	1444	318671	46	80	62
2294	3496	1304741	73	0	40
2295	3795	1304740	59	0	70
2296	4671	1637566	0	101	45
2297	1445	130000731	104	191	0
2298	4026	300538	58	79	95
2299	4139	1308178	121	70	0
2300	1446	11077867	79	60	121
2301	3336	1403641	64	56	85
2302	1447	1403787	114	0	43
2303	1448	1301515	0	68	0
2304	4352	11206848	54	0	0
2305	7317	5009033	0	57	161
2306	1449	1793421	0	5	90
2307	4486	1795754	0	61	100
2308	7320	23054129	0	0	0
2309	1450	11080010	0	196	50
2310	1451	11	0	0	0
2311	3811	11089250	162	89	0
2312	3232	541333	61	50	0
2313	1453	1401183	130	0	418
2314	1454	1301507	57	92	0
2315	1455	1304592	56	99	90
2316	3978	111558	20	38	0
2317	1456	1509	56	80	0
2318	1457	1403605	64	63	0
2319	4404	113745	0	0	0
2320	4884	61150	0	69	30
2321	1458	1301506	65	64	77
2322	1459	1750760	2	84	83
2323	4516	318673	131	55	75
2324	6749	598329	0	97	64
2325	1460	1103966	65	60	0
2326	1461	1016820	68	122	77
2327	4598	0	0	735	0
2328	1462	1410770	0	0	109
2329	1463	11089285	216	0	138
2330	1464	3020003026	0	0	80
2331	1465	318672	249	0	81
2332	1466	168395	0	0	64
2333	3245	1301510	0	181	0
2334	3246	1301511	144	69	105
2335	1467	1301503	25	115	60
2336	1523	1758712	70	41	62

2337	484	1758714	0	47	38
2338	1468	401370	0	78	101
2339	3442	1750723	202	0	85
2340	7050	1	66	67	0
2341	7342	1	89	60	0
2342	3833	1304587	89	87	40
2343	1519	113337	63	64	0
2344	4072	318670	34	1	51
2345	1521	1758704	95	121	35
2346	1522	1758707	0	0	71
2347	3469	128262	0	75	239
2348	1520	11089739	64	51	97
2349	6794	411902	0	33	69
2350	7581	667119	0	0	2
2351	7560	255150	50	877	10
2352	1469	1758709	85	55	15
2353	6844	311986	62	179	101
2354	1470	108973	34	0	73
2355	1471	1067712	82	503	20
2356	1472	1304618	0	108	0
2357	4318	15115209	154	35	150
2358	3629	0	67	176	0
2359	1473	1756775	0	0	44
2360	1474	1305129	94	126	0
2361	1475	1304593	0	183	80
2362	1476	1756774	0	62	97
2363	2868	128125	0	85	0
2364	1477	318674	278	74	0
2365	3960	11089394	129	12	85
2366	1478	318675	6	32	121
2367	1479	1410671	72	50	75
2368	1480	1101322	0	0	0
2369	7280	311966	0	31	80
2370	1481	301504	169	58	0
2371	1482	1789455	80	0	74
2372	1483	318489	0	40	67
2373	6830	2	61	56	0
2374	1484	318488	0	79	71
2375	1485	1789412	32	48	211
2376	1487	1789517	63	31	57
2377	1488	1301505	22	75	46
2378	1489	1794470	58	66	192
2379	2869	318486	137	121	41
2380	4332	1403595	88	49	0
2381	1490	1304590	0	98	105

2382	1491	11077632	0	133	0
2383	1492	11013084	138	0	104
2384	1493	11077539	107	0	54
2385	2968	3045910	0	0	43
2386	1494	20900003	5	152	47
2387	1496	1789884	46	131	35
2388	3075	317050	42	213	0
2389	4837	433702	0	27	118
2390	1497	1411849	0	0	0
2391	2902	0	0	0	0
2392	6842	311961	0	211	0
2393	6841	541355	194	98	66
2394	1498	0	78	0	0
2395	2871	0	137	0	0
2396	3279	11013449	70	35	80
2397	3395	1304589	105	60	0
2398	3401	1301500	62	64	0
2399	4619	541255	109	88	80
2400	4840	1458445	54	103	71
2401	6817	1825	5	10	0
2402	7226	402091	194	53	9
2403	7431	908770	66	0	0
2404	3363	318484	161	116	0
2405	1499	11077036	70	109	0
2406	6825	410731	67	0	74
2407	1495	314075	0	5	36
2408	1500	317812	73	74	154
2409	3231	1410676	67	40	70
2410	3329	0	64	0	0
2411	453	1304617	22	0	51
2412	1501	1304586	65	1	71
2413	1502	10446	61	165	36
2414	4826	1458026	50	50	30
2415	7322	10026	58	100	121
2416	4414	1560185	62	213	27
2417	1503	32943	102	78	85
2418	1504	23970476	132	111	71
2419	3115	305188	60	270	61
2420	6770	376756	74	93	95
2421	7294	318240	48	20	75
2422	7295	303477	118	60	68
2423	1505	10025	53	27	0
2424	7268	403319	61	180	34
2425	4317	1304588	60	35	80
2426	4359	161080	62	165	30

2427	4771	187790	46	0	0
2428	1507	304075	105	85	74
2429	4591	10017	69	131	41
2430	4590	1615080	0	84	22
2431	4836	1245004	31	111	0
2432	1506	1502205	81	0	20
2433	7036	1	126	24	0
2434	1508	0	60	135	0
2435	1510	1304613	79	0	46
2436	3117	122291958	0	612	76
2437	3794	1304611	130	132	55
2438	4872	1167863	224	0	0
2439	4144	317816	190	193	0
2440	6875	3680	141	113	65
2441	6952	754180	0	151	80
2442	7142	401861	0	91	100
2443	7189	735882	43	63	19
2444	6816	756324	50	121	0
2445	6826	13884	6	99	57
2446	7218	17299	35	205	40
2447	1511	1304612	40	0	79
2448	1512	122292274	60	262	0
2449	1513	1304584	7	0	51
2450	3267	301653	122	0	71
2451	1514	122292277	41	72	0
2452	3946	111416	98	10	70
2453	1515	1304609	188	33	110
2454	1516	1304614	160	80	71
2455	1517	1474765	171	120	0
2456	6793	1	176	149	110
2457	1524	1401825	259	0	0
2458	4561	1989877	0	0	104
2459	4187	1402867	90	66	0
2460	4554	1040128	0	247	184
2461	4188	130002941	71	196	0
2462	1525	1062100	81	165	77
2463	1526	1302052	73	0	80
2464	1528	149814	78	31	24
2465	1529	1304608	55	40	76
2466	3456	1101176	10	0	65
2467	1530	1301545	103	46	52
2468	1531	130003457	22	48	40
2469	1532	1305244	129	0	0
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2471	1533	1301540	76	197	34

2472	1534	1301544	45	133	59
2473	1552	1301542	26	48	43
2474	1535	549291	0	0	0
2475	1536	149812	117	185	213
2476	1537	102053	60	0	214
2477	1538	1301543	59	161	69
2478	7108	100086	62	209	48
2479	1539	151281	113	0	5
2480	1540	122291070	0	104	45
2481	3225	0	0	0	0
2482	1541	149811	114	99	66
2483	1542	1301536	61	104	50
2484	1543	122292150	126	85	60
2485	1168	4276525	60	102	0
2486	3030	1301539	67	59	48
2487	1544	318494	54	26	39
2488	1545	0	198	127	0
2489	1546	1305248	0	100	49
2490	1547	1305146	62	101	89
2491	1548	0	52	0	0
2492	1550	0	56	60	0
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2494	3882	110123792	0	35	0
2495	1556	0	0	4	0
2496	1558	0	60	120	0
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2498	1560	0	0	191	0
2499	1561	0	70	115	0
2500	1562	0	62	116	0
2501	1563	0	66	0	0
2502	1565	0	0	0	0
2503	7383	304824	55	115	0
2504	1566	0	61	72	0
2505	7156	100054	61	160	0
2506	4900	1984941	62	214	90
2507	1567	11436	63	73	0
2508	1568	11092466	61	71	59
2509	1569	240464	0	230	9
2510	1570	0	0	0	6
2511	1571	1301651	171	357	0
2512	4212	318495	60	0	0
2513	3048	318493	74	62	129
2514	1572	1305247	0	100	76
2515	3372	318492	56	0	85
2516	3010	122292268	0	0	5

2517	3016	1301650	55	72	62
2518	7016	311975	112	0	54
2519	1611	37880	60	64	49
2520	2908	1402660	29	0	32
2521	1574	0	66	348	0
2522	1575	0	112	30	0
2523	1576	318490	90	0	0
2524	1577	0	183	0	0
2525	1579	0	79	0	0
2526	2002	130003560	145	84	0
2527	1580	130003502	112	424	42
2528	1581	1301653	49	198	4
2529	1582	1410675	0	101	76
2530	1584	236199	84	0	10
2531	1585	318491	114	0	75
2532	3770	1733779	0	231	66
2533	4540	1541199	0	269	0
2534	1586	924105	66	76	0
2535	1587	110397	113	0	0
2536	1588	1101175	64	56	75
2537	4194	1795324	67	0	0
2538	1589	1101170	60	61	45
2539	3169	0	0	100	0
2540	1590	1756858	11	99	0
2541	3122	1103955	89	0	0
2542	1591	1301646	77	91	51
2543	1592	1101178	0	96	35
2544	1593	1101177	0	87	66
2545	1594	1101173	0	177	0
2546	1595	317002	53	89	80
2547	1596	130121308	63	117	104
2548	1597	1301249	0	94	51
2549	1598	317006	55	88	48
2550	3890	1304690	60	7	46
2551	7292	75230	0	85	56
2552	7363	17294	0	108	28
2553	1599	1304691	42	0	28
2554	3447	1750765	42	0	0
2555	3524	1166005	0	83	55
2556	4615	1303755	148	121	53
2557	6776	0	0	67	0
2558	1600	684493	0	70	68
2559	3558	317005	0	67	22
2560	3646	1604168	61	57	89
2561	4901	1038369	0	82	14

2562	1601	0	60	85	0
2563	3633	541416	33	84	29
2564	1603	1305143	34	0	57
2565	4190	1301154	69	0	0
2566	1604	130002628	0	0	80
2567	1605	317179	88	75	71
2568	1606	1101179	36	69	37
2569	1607	11013391	92	2	23
2570	3064	130003458	0	69	134
2571	1609	130122378	0	34	0
2572	1613	10	0	0	0
2573	3067	1756859	121	379	0
2574	1614	22291105	0	66	43
2575	1615	1401833	31	61	169
2576	1616	1304677	187	0	50
2577	1617	1401835	27	82	42
2578	1618	1101171	0	128	0
2579	1619	1730636	0	42	0
2580	1620	1403639	51	77	68
2581	1621	1304679	23	0	0
2582	3560	981777	0	70	105
2583	1623	1304674	60	72	0
2584	1166	1304669	75	80	67
2585	2914	121461581	61	89	0
2586	1624	155410	53	0	20
2587	1625	1304673	0	104	0
2588	1626	1304670	126	74	69
2589	1627	1731089	99	89	61
2590	1628	1304675	38	0	136
2591	1629	130122409	0	0	71
2592	3207	318184	0	0	35
2593	1631	1401886	61	97	0
2594	1632	41590	0	85	0
2595	2829	1401827	0	69	20
2596	1633	1304689	0	94	0
2597	1634	317078	80	83	94
2598	1635	1304682	38	128	78
2599	1636	1305144	57	0	70
2600	1637	130003509	0	77	55
2601	3096	1305145	0	93	1
2602	3128	11092721	64	0	122
2603	1639	1304672	161	79	0
2604	7155	410721	83	76	0
2605	7165	410725	208	80	282
2606	7231	50109184	66	81	49

2607	1640	705837	0	0	0
2608	1641	1304680	162	102	70
2609	1642	0	0	96	0
2610	1643	1402668	62	87	61
2611	1861	1304668	61	0	71
2612	3127	1103961	0	0	75
2613	1644	1683950	68	80	0
2614	7033	17934	0	1	46
2615	1645	317075	8	0	31
2616	4605	1677789	91	0	0
2617	1646	0	86	74	0
2618	2836	317077	66	80	274
2619	1647	317076	0	0	80
2620	7028	411906	0	0	210
2621	1648	1796260	137	14	0
2622	1649	14428	0	75	134
2623	1650	130000732	0	89	75
2624	1651	1401828	0	86	78
2625	1652	123969697	65	100	112
2626	1630	317074	31	68	0
2627	1653	900803	41	0	0
2628	6951	165831	0	90	0
2629	1654	0	120	0	0
2630	7595	667929	56	70	40
2631	1655	130121120	118	94	0
2632	1656	17765	0	0	190
2633	3007	1605986	0	70	64
2634	1657	1730604	0	0	0
2635	1658	1302130	31	108	171
2636	1659	700037	0	77	32
2637	1660	11090110	192	88	80
2638	4451	1423436	0	91	56
2639	1662	317810	0	0	104
2640	3817	317806	0	0	70
2641	1663	661978	95	90	24
2642	1664	0	0	0	0
2643	1665	1401829	0	0	84
2644	1666	130003530	0	39	34
2645	1667	1401824	0	75	323
2646	1668	1735024	104	79	0
2647	1669	130122372	82	74	0
2648	1670	1304000268	73	0	81
2649	3673	141103	48	88	69
2650	4075	127573	0	68	0
2651	1671	1401534	41	93	0

2652	1672	1302128	0	0	0
2653	1673	0	100	310	0
2654	2398	122293026	172	0	52
2655	1674	161155	153	85	37
2656	1675	1302129	10	96	123
2657	1676	130121303	64	83	0
2658	1677	11092926	0	0	0
2659	1678	1304652	119	0	79
2660	1679	130400246	46	0	128
2661	3111	1304653	188	94	79
2662	1680	1304654	111	0	0
2663	1681	11092398	50	73	105
2664	4944	1598329	129	0	14
2665	7525	4258330	0	0	60
2666	1682	700257	86	81	40
2667	1683	317808	0	81	199
2668	1684	1305220	61	79	244
2669	1685	1303668	0	76	22
2670	2852	1756750	1896	54	95
2671	7264	3004923	0	81	5
2672	1686	1304655	0	0	39
2673	1687	1304645	52	91	34
2674	2918	656103	245	109	0
2675	1688	1733012	99	72	34
2676	3472	1304650	134	91	29
2677	1689	1788563	60	81	0
2678	3260	1304649	53	0	78
2679	1690	130400262	60	86	73
2680	1691	1103964	41	90	155
2681	1692	1103962	0	98	78
2682	1693	1301662	0	89	114
2683	1694	1304646	123	95	184
2684	3685	301665	61	0	100
2685	1695	1301666	0	0	220
2686	1696	1730605	0	91	278
2687	1697	1401826	81	0	207
2688	3151	1302143	44	58	0
2689	1698	11093265	72	0	0
2690	1699	1401891	126	117	16
2691	3529	0	0	0	0
2692	3980	11013438	25	0	86
2693	1700	1301657	0	80	0
2694	2980	1301659	60	510	62
2695	3149	1301667	0	91	102
2696	4024	30407574	0	104	0

2697	4248	114048	101	0	13
2698	6845	410756	86	66	81
2699	1661	172759	70	77	43
2700	7538	5473	0	174	1
2701	3825	1304648	0	66	66
2702	3261	1123698		0	0
2703	1701	1103960		0	71
2704	1702	130002627	0	102	50
2705	1703	1108997	63	74	15
2706	1704	1301658	84	66	0
2707	1705	1103516	0	0	244
2708	1706	11013381	27	81	75
2709	4861	317779	61	76	85
2710	1707	82	0	73	43
2711	1708	30000268	67	103	49
2712	3800	1730637	0	0	181
2713	4490	1283082	90	67	124
2714	7425	573513	0	0	206
2715	3553	1410769	0	0	30
2716	6798	30122418	0	84	126
2717	1709	1750751	76	103	23
2718	1710	1301663	0	0	36
2719	1711	1301660	0	0	27
2720	3080	1410672	0	0	39
2721	3987	11089819	0	0	204
2722	1712	1301664	110	79	80
2723	4237	122290445	84	49	0
2724	3968	11206710	6	92	71
2725	4099	1401895	100	89	51
2726	1713	49118	57	104	0
2727	1714	1165794	55	0	0
2728	1715	130123795	51	16	100
2729	1716	317788	61	106	0
2730	1717	1302142	0	0	101
2731	4351	155313	0	0	0
2732	1718	1200732	113	0	117
2733	1719	1302144	155	0	0
2734	1720	1302146	61	78	0
2735	1721	317777	155	0	0
2736	1722	11093230	193	78	0
2737	1723	1402641	70	0	80
2738	1724	1302145	70	62	109
2739	1725	1401892	170	150	206
2740	1726	0	142	159	0
2741	3066	317776	0	82	0

2742	3168	310920	209	54	70
2743	1727	1401891	112	104	0
2744	1728	1103515	67	0	80
2745	4384	1183741	113	90	89
2746	1729	1302138	77	0	51
2747	3011	1401888	72	0	0
2748	1730	1302141	53	131	81
2749	1731	317843	0	80	0
2750	1732	1401884	0	71	46
2751	2924	0	48	0	0
2752	4277	114925	0	84	85
2753	7000	312036	110	0	64
2754	6990	30001014	0	82	45
2755	1733	1403629	0	79	70
2756	1734	1302137	53	0	95
2757	1735	1401885	75	70	84
2758	2992	317842	75	274	124
2759	4608	161146	0	0	139
2760	7251	10031	106	84	45
2761	1739	317807	46	0	83
2762	1738	1304627	0	0	0
2763	1737	1302059	0	0	145
2764	4734	1244117	61	93	80
2765	4514	996787	52	0	76
2766	1742	11089976	90	0	0
2767	1744	1109232	42	0	57
2768	1745	317	71	0	81
2769	1746	1103963	118	111	45
2770	1750	11092455	48	0	101
2771	1748	1302060	46	2	0
2772	1749	1304620	60	513	0
2773	6917	617073	64	58	103
2774	1751	0	165	50	0
2775	6835	1045912	38	55	141
2776	7325	314740	48	61	0
2777	7044	1	0	198	0
2778	1743	1302063	0	0	106
2779	1747	1304622	100	127	19
2780	7120	275478	64	136	83
2781	4541	0	111	63	0
2782	1760	1304623	67	141	70
2783	4313	1165657	73	163	0
2784	4054	113603	45	66	35
2785	6989	1	57	71	0
2786	1752	668682	83	172	0

2787	1765	111213	130	127	57
2788	4148	1732645	79	0	0
2789	7129	5019	0	145	32
2790	1753	162923	111	121	0
2791	6985	426280	0	81	0
2792	3314	1304625	134	130	3
2793	1762	1304624	200	78	0
2794	485	1304621	48	75	183
2795	1754	1304626	0	0	0
2796	3181	302062	0	0	61
2797	3183	1702731	70	0	100
2798	7172	668690	130	44	40
2799	1755	1731117	61	0	113
2800	1756	13022412	0	105	54
2801	3364	1312031	74	0	0
2802	1758	1304787	0	0	0
2803	881	1756872	100	43	0
2804	1757	1750749	0	454	31
2805	4779	1405040	0	71	43
2806	1741	304785	66	0	0
2807	1838	1796083	0	121	34
2808	3004	1301619	0	47	112
2809	3196	0	79	0	0
2810	1740	1401887	53	0	20
2811	1763	1304911	72	85	69
2812	6980	594341	84	37	130
2813	1764	130186	0	84	23
2814	6988	268718	0	81	64
2815	1766	1302053	102	74	0
2816	4769	1543273	0	77	0
2817	492	241306	110	61	60
2818	7010	668341	0	73	131
2819	1761	1034499	0	78	23
2820	1767	9101007	74	74	85
2821	3719	1302061	39	90	0
2822	3199	1101008	144	28	0
2823	4922	1405069	112	75	0
2824	3718	1101001	33	0	321
2825	1780	1403850	70	0	13
2826	1781	1403851	0	104	148
2827	1782	1403848	65	85	123
2828	6939	152301	50	99	100
2829	1785	1788378	68	80	90
2830	1787	1731782	404	72	0
2831	3837	668681	70	76	95

2832	4542	130407475	38	83	0
2833	1786	1765865	25	90	0
2834	1799	1756862	62	105	52
2835	6772	48603	0	78	91
2836	1798	1403843	72	0	411
2837	1788	130001950	82	111	10
2838	4005	1011174	63	0	31
2839	1784	1403840	167	101	51
2840	1795	1403846	40	106	68
2841	1796	122293040	66	78	0
2842	1797	317757	131	0	0
2843	1793	1401533	96	0	0
2844	1783	1304845	185	75	344
2845	1794	245234	10	124	3
2846	3296	50742	80	70	28
2847	1789	1788325	65	31	0
2848	1791	1403844	0	76	0
2849	1792	1301609	0	0	181
2850	3841	1301610	60	97	42
2851	1790	1403841	0	0	240
2852	4830	1347802	61	0	100
2853	6928	304837	42	75	85
2854	7192	61464	50	0	0
2855	2888	151109	52	0	64
2856	3315	1605989	58	81	0
2857	1779	1302052	0	68	0
2858	4468	1165729	86	81	0
2859	1777	1101009	177	72	37
2860	1778	1101005	0	0	57
2861	1776	1302054	152	151	86
2862	1774	688145	0	76	0
2863	3287	1793119	55	0	17
2864	3061	1304847	61	102	0
2865	7158	7523	0	0	29
2866	2883	1788419	60	0	41
2867	1775	1756863	0	72	0
2868	2880	128177	0	85	26
2869	2915	1973027	0	87	211
2870	4172	1652924	0	96	30
2871	1802	1756791	0	80	436
2872	4574	161424	0	87	55
2873	2929	1401915	0	0	89
2874	1800	103952	0	85	66
2875	3399	151108	65	75	0
2876	4538	168461	0	70	104

2877	1826	130003453	60	80	75
2878	1803	1756797	0	75	106
2879	7148	100142	87	82	34
2880	466	317782	61	65	20
2881	7159	781713	0	69	0
2882	1808	317784	0	0	64
2883	3969	317786	115	77	50
2884	3248	311971	0	67	46
2885	463	1756798	77	48	0
2886	1805	1756793	0	119	75
2887	4469	18088	0	14	70
2888	2887	1756832	60	53	82
2889	3230	1756835	45	102	0
2890	7030	411911	0	94	0
2891	7398	198021	62	111	24
2892	4067	317783	0	78	11
2893	1804	1756796	62	81	0
2894	1812	1401837	0	86	165
2895	1809	1401836	95	37	85
2896	2882	401839	0	0	196
2897	1830	1758713	0	45	0
2898	4327	1401847	60	0	0
2899	1807	1301611	43	70	149
2900	1806	1401906	0	38	0
2901	4787	244020	46	0	60
2902	3889	1300731	0	26	80
2903	1810	11092282	68	44	65
2904	4886	1357830	59	0	61
2905	1811	317787	60	86	5
2906	3933	11078822	0	105	89
2907	1831	1401916	0	0	0
2908	3263	122290447	0	104	129
2909	3323	1		0	48
2910	7591	700053		68	40
2911	1297	11089478	0	72	46
2912	1610	1756799	61	71	60
2913	1833	1401842	20	81	0
2914	4360	155419	61	0	0
2915	4361	1319996	61	0	0
2916	1839	668629	0	1	129
2917	4735	186559	0	309	102
2918	4846	1455709	0	0	75
2919	4086	1605985	0	30	0
2920	1837	1750748	0	0	116
2921	1801	1101002	0	0	0

2922	1836	1758710	0	80	51
2923	1840	130122295	0	0	204
2924	2885	1123213	54	81	70
2925	3840	1401843	1	0	38
2926	3747	1401845	61	84	74
2927	2886	1301617	60	80	34
2928	1834	30123939	61	138	76
2929	1771	1301613	0	0	70
2930	1772	1401800	117	89	0
2931	2889	49600	0	0	36
2932	1768	1731269	0	79	365
2933	3312	221947	10	17	3
2934	1770	317811	0	0	0
2935	1769	318570	61	70	102
2936	3406	11092514	0	72	54
2937	1773	11090083	0	0	0
2938	3288	150444	61	68	0
2939	3307	122291225	60	32	0
2940	4385	245859	61	79	22
2941	4012	1940807	61	0	0
2942	1832	1401846	61	91	74
2943	3937	11609	59	0	22
2944	3264	1305134	61	93	60
2945	1828	3169260	60	86	0
2946	4844	1875346	0	0	101
2947	1813	401	225	79	70
2948	1814	1401905	82	0	85
2949	3218	1756836	31	85	48
2950	4786	117101	64	74	80
2951	3387	1302124	107	70	11
2952	6775	447546	0	184	0
2953	2892	1401838	0	0	33
2954	3182	1101003	67	30	0
2955	1816	100	65	0	114
2956	1819	1794193	127	30	49
2957	3609	1101459	10	71	0
2958	4227	318571	0	0	146
2959	3005	0	0	0	0
2960	1815	0	76	0	0
2961	1818	1401841	84	0	0
2962	3649	1171952	100	0	60
2963	7537	198677	64	60	33
2964	4161	1403899	104	45	50
2965	7382	1	48	0	0
2966	4264	318572	34	78	0

2967	7430	0	0	90	0
2968	1820	1756828	116	81	51
2969	1822	1756825	49	91	85
2970	1823	1401910	77	85	0
2971	1821	1756827	77	0	23
2972	7327	31856	65	93	5
2973	6801	411904	0	50	60
2974	4409	318568	0	0	67
2975	486	22498	61	80	185
2976	4020	73780	62	0	132
2977	4271	1152871	49	74	0
2978	4222	411939	62	0	61
2979	1825	22251732	0	70	0
2980	4308	1718115	0	78	37
2981	4700	1753210	0	81	0
2982	4307	130122236	105	70	0
2983	7019	1207126	13	90	100
2984	3316	0	0	79	682
2985	7423	38113	50	51	25
2986	6803	1019641	103	60	0
2987	4093	1012985	0	0	41
2988	2930	1731027	0	216	71
2989	4287	11206716	128	107	0
2990	3141	30043073	34	20	32
2991	4122	111348	0	420	70
2992	3522	22292102	0	110	100
2993	4511	11013632	361	0	0
2994	7611	700706	112	0	50
2995	4745	1256846	119	0	0
2996	4801	1358643	0	61	80
2997	1842	10049	48	83	0
2998	6957	411922	176	80	60
2999	6960	237489	60	147	71
3000	4928	1574590	27	0	165
3001	4388	155282	146	0	65
3002	6880	701790	124	0	62
3003	6789	772358	119	79	62
3004	1824	0	113	103	0
3005	4309	0	0	75	0
3006	1829	0	35	122	0
3007	7545	1	171	0	0
3008	1844	1401909	130	101	88
3009	3325	0	89	80	0
3010	3438	700693	59	134	10
3011	3498	0	0	0	0

3012	1845	1401919	79	46	105
3013	2960	1401903	429	129	0
3014	1846	66532	36	0	0
3015	1847	1304784	29	116	66
3016	1848	316926	48	56	51
3017	1849	0	50	101	0
3018	1850	1401907	42	128	40
3019	1851	1401904	0	80	0
3020	1852	1101485	0	0	70
3021	1853	1304782	110	641	0
3022	1854	1794467	0	0	90
3023	3641	1401902	81	0	92
3024	6768	0	40	56	0
3025	1855	316929	0	708	148
3026	3587	316925	144	70	44
3027	3626	122291160	116	0	0
3028	2974	1101457	51	146	55
3029	3341	1101004	71	72	62
3030	7176	100202	102	0	60
3031	1856	1305061	45	55	74
3032	478	1401897	19	136	0
3033	4276	114075	0	0	75
3034	1857	1733618	63	0	106
3035	4257	668000	0	164	65
3036	1858	1403776	0	42	176
3037	1859	1292541	52	0	17
3038	1860	316924	0	0	72
3039	3682	1401896	0	446	67
3040	1862	1401901	29	2370	119
3041	1863	316928	56	460	128
3042	1864	1731941	7	125	0
3043	1865	316929	27	0	150
3044	1866	1403898	72	44	167
3045	1867	1401750	125	186	71
3046	1868	1305063	98	236	140
3047	3562	1401900	61	35	0
3048	1869	316927	31	156	95
3049	1870	1304889	88	0	67
3050	4863	1575630	28	69	0
3051	1871	700355	61	67	0
3052	1872	317858	54	0	0
3053	4756	1256923	53	41	41
3054	1873	1302085	62	189	0
3055	1874	1302087	54	187	15
3056	3896	1302083	0	99	0

3057	1875	741766	62	37	50
3058	1876	1403892	112	0	62
3059	1877	122291269	177	70	2
3060	1878	1796128	82	78	0
3061	1879	1401582	95	39	0
3062	1880	11013386	0	41	150
3063	2994	1401581	0	73	52
3064	1881	122292929	0	118	39
3065	1882	0	0	25	0
3066	3614	130002949	118	60	0
3067	7006	308001	0	0	234
3068	1883	122290341	0	50	0
3069	3194	1750759	0	0	69
3070	3191	151074	89	73	61
3071	4095	1221991	148	53	48
3072	1884	317855	0	0	22
3073	3722	1541258	0	140	13
3074	3733	1401580	168	139	0
3075	3746	1301415	0	73	46
3076	2881	122291271	132	71	20
3077	7079	8704	0	124	0
3078	1885	317854	106	52	60
3079	3193	1753464	61	34	97
3080	3192	1756867	134	0	124
3081	3190	1753459	0	33	60
3082	4882	1684935	185	42	93
3083	7203	429202	92	0	0
3084	4891	1410673	60	53	0
3085	7063	1	187	0	0
3086	1886	1302084	86	50	0
3087	3559	1302081	63	37	0
3088	7116	30642568	69	65	42
3089	1887	1401583	0	57	173
3090	1888	1401575	156	100	57
3091	1889	1772200	61	81	70
3092	1890	1401576	61	169	41
3093	1893	1101455	0	83	2
3094	3908	317984	61	78	56
3095	1894	1401639	0	72	0
3096	1895	1401537	0	73	81
3097	1896	130003425	68	72	0
3098	4116	165434	60	70	0
3099	1897	11013372	57	57	0
3100	1898	11076868	0	101	198
3101	1899	1401574	0	75	0

3102	1900	1302078	34	71	36
3103	1901	729416	66	85	138
3104	1902	120895	63	0	190
3105	2928	141110	77	107	0
3106	1903	11013423	0	167	206
3107	3556	1401577	70	78	63
3108	4348	1758673	44	147	62
3109	4494	14111	89	0	41
3110	1904	161598	107	0	0
3111	1905	1305060	0	60	0
3112	1906	317983	48	52	71
3113	4493	4070376	60	0	20
3114	7124	1	60	99	0
3115	1907	11013456	65	29	0
3116	1908	1302079	40	0	42
3117	1909	26283	61	116	0
3118	1910	122292930	59	98	70
3119	1911	1411995	62	157	0
3120	1912	11090111	51	0	68
3121	1913	1401451	245	0	74
3122	1914	1401450	167	146	0
3123	79	161373	32	0	60
3124	1915	700032	0	149	69
3125	392	122293111	86	0	30
3126	1916	1789836	46	96	0
3127	1917	122291321	0	67	94
3128	1918	1401444	0	59	0
3129	3354	11078611	0	0	0
3130	3440	1401640	19	192	0
3131	1919	1401638	0	107	42
3132	1920	1401636	61	92	180
3133	4171	1401643	61	187	204
3134	1921	173707	61	0	71
3135	1922	0	71	69	0
3136	3002	1401614	62	102	0
3137	7323	33254	0	0	28
3138	1923	1401635	61	64	0
3139	4323	317813	0	0	0
3140	3216	11013499	0	49	56
3141	6800	9893	61	0	80
3142	7058	1	55	59	0
3143	7505	2187485	62	0	36
3144	4069	317981	61	0	29
3145	1924	11207228	61	87	0
3146	1925	317982	0	76	42

3147	1926	1401642	80	60	53
3148	3579	0	61	0	0
3149	1486	1165478	77	0	45
3150	1927	1750746	129	40	0
3151	1928	1750767	139	71	28
3152	1929	1750765	60	67	91
3153	1930	317395	0	80	56
3154	1931	1403886	66	0	92
3155	1932	1101456	60	60	80
3156	4397	161172	0	86	57
3157	1933	1401447	0	138	61
3158	1934	1401446	0	0	64
3159	7495	9114	61	77	35
3160	1935	317980	148	53	549
3161	7299	125003	14	65	0
3162	1936	4292781	0	383	20
3163	1937	1796258	0	70	29
3164	1938	1401449	38	93	0
3165	3656	122291332	55	79	0
3166	4533	198650	75	51	27
3167	4622	700030	70	0	5
3168	6900	504416	0	94	1
3169	7552	5200349	160	148	62
3170	1939	1403883	278	87	46
3171	1940	1403884	0	0	0
3172	4521	10	37	0	0
3173	1941	1789573	61	90	63
3174	1942	1401448	39	0	32
3175	3171	11013370	0	230	109
3176	1943	1789767	0	0	85
3177	1944	1403887	69	78	80
3178	1945	10022	0	27	48
3179	7587	667145	0	94	40
3180	7123	957864	115	64	0
3181	1946	1401440	69	80	118
3182	1947	123451	0	78	55
3183	4079	304800	44	72	0
3184	1948	1733803	55	0	0
3185	1949	312489	0	108	30
3186	3659	0	3	0	0
3187	7237	1	61	0	0
3188	1950	1403891	61	79	70
3189	1951	11207193	61	85	0
3190	1952	1401633	108	83	203
3191	6890	172641	0	84	132

3192	1953	317815	49	0	88
3193	7078	362393	100	74	71
3194	7534	1	61	83	0
3195	1954	1403895	125	94	0
3196	1955	0	68	112	0
3197	1956	0	0	67	0
3198	3426	0	59	8	0
3199	1957	1163623	304	71	0
3200	1958	0	77	71	0
3201	1959	1303817	79	0	80
3202	1960	1305251	78	0	71
3203	1961	122291315	0	0	0
3204	3564	0	0	72	0
3205	1962	1731218	0	70	75
3206	4739	1877576	50	70	0
3207	1963	700314	72	0	40
3208	2897	0	46	59	0
3209	3660	0	0	50	0
3210	1964	434634	144	60	77
3211	1965	1305062	0	69	80
3212	3730	403896	111	79	61
3213	1966	1410771	0	70	62
3214	3068	0	0	0	0
3215	3622	0	158	82	0
3216	1967	1163068	141	124	69
3217	3146	122291320	80	0	0
3218	1892	30044102	137	80	69
3219	7039	1	30	84	0
3220	1968	0	99	60	0
3221	1969	1401632	150	73	53
3222	1970	1897934	61	152	71
3223	3256	0	70	82	0
3224	3592	0	0	0	0
3225	1971	34809	62	143	50
3226	1973	0	25	104	0
3227	1974	314400	74	74	18
3228	2831	0	0	61	0
3229	7408	15679	118	76	120
3230	2832	0	31	76	0
3231	7291	32946	61	0	114
3232	3072	913899	97	60	194
3233	1972	0	64	82	0
3234	6947	667887	50	71	30
3235	6911	14231	23	74	130
3236	6984	447510	0	81	40

3237	7024	212268	61	98	95
3238	1975	1403881	70	0	24
3239	3632	317817	0	71	2
3240	4672	1812020	0	110	80
3241	1976	1403880	61	59	532
3242	1977	332265	61	47	364
3243	7049	1	61	88	0
3244	1978	700296	62	102	30
3245	7045	1	111	69	0
3246	1979	1403882	64	0	0
3247	1980	122292933	57	79	823
3248	1981	122291159	107	0	35
3249	7365	4407732	80	106	66
3250	1982	1403885	0	74	0
3251	3664	1403879	116	75	156
3252	7245	1	0	82	0
3253	7279	10016	109	0	0
3254	1984	10043	152	69	60
3255	1986	11013446	27	0	85
3256	1987	601626	54	79	35
3257	3832	22151	54	79	7
3258	4186	130002942	69	76	0
3259	1989	130003557	92	0	69
3260	3776	1123371	0	82	0
3261	4333	1	0	0	112
3262	3858	1796279	48	90	16
3263	1990	1308061	60	433	2
3264	1991	11206754	0	0	50
3265	1992	23050516	0	151	55
3266	1993	1301409	52	96	46
3267	1994	1301408	0	54	96
3268	1995	1301410	0	117	0
3269	3130	128268	69	32	0
3270	1996	1301407	109	84	2
3271	1997	667900	41	136	5
3272	475	700315	54	39	18
3273	1527	317900	102	58	65
3274	1549	1788939	0	0	4
3275	3222	317901	56	75	83
3276	1553	1305245	0	32	48
3277	1998	11013441	192	57	100
3278	1999	1403894	72	0	12
3279	2000	1788445	81	100	101
3280	1551	130001723	0	28	92
3281	2001	318638	91	0	0

3282	476	10020	119	89	0
3283	1578	1301405	0	88	236
3284	2003	1403897	62	61	0
3285	2004	318635	0	22	0
3286	2005	11013397	0	0	121
3287	3077	0	137	80	0
3288	2006	318639	121	97	73
3289	2007	1401637	0	0	80
3290	6750	303524	109	79	0
3291	2008	1276509	11	84	0
3292	2009	122291246	0	71	70
3293	2010	700026	108	93	11
3294	3785	82305032	58	98	2
3295	2011	1403993	361	41	116
3296	2012	122291061	65	46	744
3297	2013	700366	65	88	5
3298	3405	1301282	68	60	1
3299	2015	122291250	63	60	224
3300	2016	1308068	60	114	96
3301	2017	1403990	60	0	0
3302	2018	1403992	197	85	87
3303	2019	1301278	100	133	74
3304	2021	130122377	2001	98	0
3305	2022	318637	101	71	96
3306	2023	11275	60	65	263
3307	7090	410751	60	0	0
3308	2024	1301280	60	99	0
3309	2025	30399834	0	20	0
3310	2026	318623	60	512	149
3311	6818	700704	61	41	20
3312	2028	794478	0	30	376
3313	3029	318627	0	0	34
3314	2030	1403991	646	0	0
3315	2032	1301283	61	22	0
3316	2033	276421	60	401	119
3317	2152	11073089	60	160	0
3318	2228	318621	65	0	67
3319	3338	318620	60	0	8
3320	2229	130121306	60	39	27
3321	7373	241208	60	42	68
3322	2230	318699	60	92	0
3323	3932	1308060	60	0	83
3324	2231	318696	60	0	0
3325	1564	1795172	60	0	97
3326	3213	1756816	0	100	28

3327	2232	1796288	0	105	67
3328	2233	1756815	0	108	64
3329	2931	161341	60	488	269
3330	3666	1303514	50	65	34
3331	4526	56079	60	93	13
3332	2234	1605984	60	0	78
3333	4346	1126862	60	0	0
3334	4699	130237	60	0	0
3335	2235	1795255	70	97	122
3336	4711	1244009	0	0	0
3337	2035	1101454	100	0	58
3338	7586	457911	0	156	60
3339	2036	1301274	0	74	16
3340	2037	1403984	0	35	132
3341	3284	1541419	70	100	78
3342	3547	1164339	56	96	59
3343	4822	1304644	72	345	53
3344	2038	130123789	68	402	0
3345	7099	130062	60	55	19
3346	2039	1301276	65	258	106
3347	3505	1403988	70	39	137
3348	2040	1301279	0	0	63
3349	2041	1403987	60	201	67
3350	2042	130003559	81	212	0
3351	2043	1301273	60	105	65
3352	2841	700646	60	2107	40
3353	2044	318624	60	118	37
3354	2045	411969	60	0	101
3355	7011	311976	80	75	2
3356	4322	122762	59	0	49
3357	2046	1472	193	0	50
3358	4834	1894321	0	90	34
3359	2047	1162285	60	60	256
3360	2048	9557067	70	0	111
3361	2049	1403986	60	50	41
3362	2561	318622	60	40	0
3363	2050	1301271	50	30	69
3364	2051	1301275	60	30	43
3365	2020	1301295	0	0	5
3366	3202	1750722	0	8	70
3367	2052	1162365	83	9	0
3368	4084	11013389	60	0	52
3369	3844	1301293	90	0	60
3370	2053	1301291	60	0	67
3371	2054	318812	105	0	56

3372	2896	1301285	95	59	20
3373	2055	1301290	155	0	0
3374	2916	1301306	58	35	62
3375	3597	1305215	0	30	0
3376	3152	318813	91	20	0
3377	2056	130400300	0	0	101
3378	2057	317963	60	0	1
3379	2058	130123791	105	0	0
3380	4143	130407487	60	0	0
3381	2060	1301287	70	0	30
3382	2061	1301288	93	30	56
3383	2062	1301286	51	26	3
3384	4809	45326	62	46	60
3385	2063	318810	0	37	76
3386	3123	1301298	58	35	79
3387	2064	318809	60	60	29
3388	6808	58436	178	50	61
3389	4394	155274	40	0	71
3390	2900	1788296	59	47	113
3391	4347	311659	60	54	58
3392	4374	156735	60	50	86
3393	4728	1249111	67	54	13
3394	4744	1355541	0	0	34
3395	4766	1405044	108	0	28
3396	2065	318811	0	108	0
3397	4145	432560	60	57	80
3398	2066	100087	91	93	65
3399	2067	11089244	0	54	304
3400	2068	1403968	60	17	75
3401	4168	130578	83	34	97
3402	2069	541284	65	64	130
3403	3712	130003414	88	0	37
3404	2070	318808	60	60	183
3405	7400	301361163	171	0	0
3406	2072	1000515	0	60	144
3407	4382	1237203	60	0	79
3408	6819	410758	60	89	80
3409	2099	1163123	60	62	57
3410	2100	1164762	200	60	348
3411	2101	101317	86	79	28
3412	3593	1300825	104	0	56
3413	4727	1244108	91	52	41
3414	4041	318755	171	206	47
3415	4489	318757	162	150	65
3416	2102	1163064	139	60	39

3417	4338	155404	89	64	8
3418	2103	318758	0	79	228
3419	3418	111417	151	77	1
3420	4031	113572	90	0	0
3421	6945	661912	60	564	0
3422	6946	22290471	89	1	59
3423	7121	5023	128	40	2
3424	3211	1401565	60	35	78
3425	3725	1308065	60	50	0
3426	3220	1166188	87	7	0
3427	3783	0	91	0	0
3428	3212	700394	70	19	50
3429	7190	410726	60	8	50
3430	3124	130121300	0	186	111
3431	6950	2846	60	60	68
3432	7009	312035	66	216	0
3433	7012	1735	60	0	0
3434	6978	412011	0	30	32
3435	6976	412012	60	65	0
3436	6998	312032	60	0	51
3437	7003	411920	78	108	63
3438	4482	130400330	0	0	0
3439	6982	472798	60	0	0
3440	6983	452158	0	83	0
3441	6977	294118	0	24	70
3442	4641	110416	161	0	0
3443	6992	786025	60	1	70
3444	2107	1164799	495	0	106
3445	2108	318759	60	120	68
3446	3898	314158	0	75	83
3447	4496	318718	115	225	54
3448	6926	1	0	52	3
3449	4588	161160	0	25	43
3450	4604	161402	52	19	0
3451	7130	100117	0	66	0
3452	7128	1089989	0	171	34
3453	2109	318719	0	201	50
3454	7161	77149	60	118	0
3455	4566	318628	0	62	0
3456	6936	734401	0	170	0
3457	4642	161102	60	132	0
3458	6883	461124	0	122	61
3459	4899	1174163	114	104	0
3460	6995	732308	0	0	222
3461	4342	403946	60	169	112

3462	3600	1301153	60	70	189
3463	4002	1011301	78	81	0
3464	2118	1403966	0	124	407
3465	2117	1795469	0	130	82
3466	2119	318691	83	60	125
3467	7274	1013494	0	0	54
3468	3607	1301318	58	83	38
3469	2120	130003473	0	157	0
3470	6942	308208	60	60	24
3471	4912	1281784	0	41	0
3472	2122	1301161	64	0	60
3473	2123	1301162	110	30	41
3474	2124	1301319	82	0	42
3475	2125	1794526	100	30	52
3476	7114	410753	82	58	68
3477	2126	2100349	0	17	0
3478	7478	59355	59	1	33
3479	2127	11050112058	72	75	46
3480	4645	173637	0	75	0
3481	2111	1403963	110	50	197
3482	4643	612972	96	179	79
3483	6901	425723	115	35	0
3484	2112	1301378	60	85	0
3485	3342	241579	165	70	0
3486	7144	410750	105	400	0
3487	6979	742476	106	40	39
3488	4401	318720	65	65	30
3489	7602	667859	0	117	70
3490	7360	142667	80	0	0
3491	7007	412013	60	42	29
3492	4259	114336	70	9	0
3493	2105	1403964	125	70	0
3494	6898	779452	0	0	0
3495	7143	626338	122	0	0
3496	6924	241305	0	0	22
3497	2464	318721	0	248	0
3498	2113	1101006	60	0	0
3499	2114	1728232	57	30	44
3500	2116	1301341	0	0	0
3501	6909	731414	111	114	51
3502	2146	1788362	70	53	481
3503	4814	1405273	152	37	70
3504	2148	318633	102	90	235
3505	490	11940	60	60	0
3506	2147	130005592	60	0	0

3507	2145	693004	131	0	50
3508	2144	1301323	104	55	25
3509	2149	0	66	0	0
3510	2855	122291218	122	0	0
3511	3370	1301130	151	82	65
3512	2143	130003412	60	0	3
3513	3392	1301325	60	129	27
3514	2142	100034	60	100	0
3515	2141	1301331	87	95	63
3516	2139	1401562	60	289	68
3517	2140	1301326	65	80	51
3518	4403	144448	135	53	66
3519	2137	1301328	58	39	1
3520	2138	1301327	115	77	25
3521	7238	300144	60	55	0
3522	7443	4269615	60	107	82
3523	2136	1305057	55	95	0
3524	2135	13013013	90	190	154
3525	4070	1305055	60	0	0
3526	6820	1206693	138	365	123
3527	7101	700807	137	50	50
3528	7288	746204	63	109	198
3529	2134	10023	60	56	216
3530	7453	200165	60	60	23
3531	4583	161224	60	83	65
3532	6993	239797	0	114	72
3533	7242	308037	189	67	83
3534	6981	412010	65	137	69
3535	6908	301294	0	0	71
3536	7115	794854	116	129	80
3537	6972	312034	89	0	71
3538	4926	497664	76	0	71
3539	6994	313931	60	0	0
3540	7449	1305887	0	0	121
3541	2151	256777	60	0	60
3542	2150	0	0	126	0
3543	2973	0	60	0	0
3544	2153	318698	83	86	104
3545	2154	318694	60	60	98
3546	2156	1301310	80	80	38
3547	2157	1301027	86	50	99
3548	2159	1301321	0	0	21
3549	2160	171883	688	146	48
3550	2161	1301309	67	101	124
3551	2163	1301028	139	35	43

3552	2164	1756844	60	130	0
3553	2165	1301324	60	100	78
3554	2166	1301029	65	0	20
3555	2167	1301026	0	0	37
3556	2168	1301030	60	0	0
3557	2170	1756847	60	89	15
3558	2171	130440265	60	46	70
3559	2172	1731059	60	0	52
3560	2169	1301031	0	80	81
3561	2173	318578	91	45	39
3562	2174	1756786	60	152	60
3563	7435	324379	65	3	31
3564	2175	419261	60	40	33
3565	2176	130003438	200	54	70
3566	2177	1756778	110	80	40
3567	3912	1998189	128	60	82
3568	4321	1138147	60	113	319
3569	4835	1744560	0	141	63
3570	2181	1756780	59	61	61
3571	2182	1756481	89	60	76
3572	2183	1756782	60	30	41
3573	2186	318579	0	33	88
3574	2185	1756755	74	0	22
3575	2187	318514	60	53	0
3576	3365	1401563	0	202	106
3577	2189	1756753	58	48	1
3578	2190	1756756	0	118	0
3579	2191	1788865	94	0	89
3580	3240	1756746	60	129	3
3581	2192	1756745	90	0	61
3582	2193	318517	60	0	14
3583	2194	561021	80	0	42
3584	2195	1794622	60	0	0
3585	2196	130399906	60	22	43
3586	7334	21112	60	59	19
3587	2197	1756843	183	60	151
3588	2198	1731858	60	40	3
3589	2199	122291381	107	58	0
3590	2200	31785150	0	30	0
3591	3317	314113	220	85	0
3592	4420	1402638	60	49	60
3593	3715	1297513321	0	66	402
3594	4690	112019	60	297	30
3595	2201	1756842	192	60	0
3596	2202	1756840	60	20	91

3597	2203	130003439	287	0	24
3598	2204	120121305	133	30	27
3599	2205	1756841	60	0	75
3600	4564	318219	0	0	0
3601	2207	318518	0	155	0
3602	7610	1	0	0	0
3603	7250	306474	60	0	30
3604	2208	318697	260	0	41
3605	2210	200159	110	0	88
3606	2211	130003482	202	60	28
3607	2188	10	60	157	31
3608	4651	161388	60	248	42
3609	2212	100	60	102	61
3610	4269	114888	0	59	0
3611	2213	1731870	60	0	0
3612	2214	1756820	286	0	0
3613	2221	1301023	0	79	0
3614	2222	1012823	70	66	66
3615	2936	291425	60	9	97
3616	2223	1301022	80	93	0
3617	2224	1301024	60	0	74
3618	2225	100	0	0	37
3619	2226	700028	0	44	30
3620	2071	1305219	0	0	100
3621	2073	151054	0	77	80
3622	2074	1401568	0	40	0
3623	2075	1401567	70	70	34
3624	2076	1795305	0	7	65
3625	2077	11098959	138	92	112
3626	2078	151055	60	65	70
3627	7209	700620	60	60	64
3628	2079	1403971	85	341	105
3629	2080	1305216	100	65	0
3630	2081	1401569	189	20	91
3631	2082	1101227	0	63	0
3632	2084	1305210	80	50	58
3633	2085	1305217	60	118	52
3634	3167	1305213	85	0	129
3635	2086	1305211	60	50	0
3636	4013	318574	60	60	41
3637	2948	1401561	60	68	59
3638	7077	301897	0	0	75
3639	3957	1308069	0	201	109
3640	4796	318575	43	91	30
3641	4815	1402603	60	1	32

3642	7026	411909	0	0	35
3643	2087	318111	0	0	0
3644	3678	668065	0	0	164
3645	2088	23052202	0	0	65
3646	2090	1305208	0	114	0
3647	2091	1369457	0	196	0
3648	2092	1301297	60	136	0
3649	2922	1302299	60	0	0
3650	4476	17669	60	0	76
3651	2093	1301312	60	8	24
3652	4843	59361103	60	0	233
3653	7096	2352306	63	60	45
3654	2094	1301303	104	69	63
3655	2095	318754	60	0	28
3656	2096	1403890	170	50	41
3657	2097	1301403	60	0	38
3658	2098	1301307	80	76	57
3659	1164	140156	60	50	42
3660	2129	772273	70	30	25
3661	2132	1401564	122	0	58
3662	2130	1301159	60	57	159
3663	2131	1301302	60	20	0
3664	2121	1301314	136	0	51
3665	7328	30123942	60	53	58
3666	2692	1312042	0	0	0
3667	2238	1305256	0	96	0
3668	2239	1305275	160	0	0
3669	2240	0	199	80	0
3670	4027	318853	60	50	167
3671	2241	318821	326	105	60
3672	2242	1305278	60	152	59
3673	488	318850	0	0	150
3674	7421	981046	212	90	60
3675	2260	1304981	185	60	62
3676	4393	1843480	578	25	0
3677	4406	1197968	610	60	0
3678	7060	1	60	40	0
3679	2244	1422609	59	0	0
3680	2245	318854	200	40	42
3681	2247	1422924	60	0	68
3682	2248	1422610	1059	50	0
3683	2249	11089837	60	33	66
3684	3334	318852	60	111	60
3685	2250	1305160	60	39	64
3686	7600	4230967	60	15	60

3687	2251	1305163	61	42	112
3688	2252	1789857	0	42	75
3689	2253	11090589	115	0	219
3690	2254	15661	56	0	42
3691	2255	318855	166	0	58
3692	2256	1305260	60	0	50
3693	2257	314163	30	38	60
3694	2243	15662	0	50	60
3695	3516	15666	60	21	60
3696	4873	1457863	60	54	62
3697	4118	1305161	260	54	60
3698	6991	659025	60	166	62
3699	4314	1128540	2	10	0
3700	4553	994192	60	105	60
3701	7460	698195	60	63	60
3702	2259	11666708	0	64	126
3703	6799	2540	60	121	81
3704	2261	1100224	99	10	0
3705	2262	1	245	0	98
3706	2263	1305167	0	138	84
3707	2264	1305169	90	13	81
3708	2265	314160	0	50	60
3709	4497	15663	60	55	60
3710	7037	1	60	86	0
3711	2267	15702	60	76	91
3712	2268	0	59	66	0
3713	2269	122293025	0	136	70
3714	2955	15710	0	0	72
3715	2957	130122927	162	0	94
3716	3572	15708	60	171	60
3717	2270	122291242	60	251	59
3718	2271	1403927	60	183	158
3719	3668	1305164	60	586	63
3720	2272	15701	60	12	60
3721	2273	667850	16	2	60
3722	2275	305181	61	149	44
3723	3353	15707	54	40	58
3724	2276	15706	60	0	153
3725	7313	22292040	0	0	60
3726	2277	101639	0	5	61
3727	2278	1304985	152	26	0
3728	148	318876	65	50	60
3729	2279	1305568	66	84	60
3730	2280	1304982	68	5	59
3731	4025	114129	65	101	64

3732	2281	200552	60	60	0
3733	2302	15709	70	76	60
3734	2282	11013321	60	2	71
3735	2283	668019	60	57	93
3736	2284	1425783	60	72	60
3737	2285	100	169	0	60
3738	2286	1422278	70	0	69
3739	2287	1301154	75	202	104
3740	2288	1164210	185	0	94
3741	2289	318820	60	0	106
3742	2290	314114	58	60	0
3743	2291	1301339	85	131	53
3744	2292	1301342	73	0	79
3745	2969	11206696	0	10	90
3746	2293	1729333	70	143	145
3747	7166	400674	94	228	60
3748	2294	130004124	147	1	108
3749	2295	1301379	60	0	200
3750	2296	1789858	85	0	70
3751	2297	318871	190	0	131
3752	2298	1301332	60	0	61
3753	2299	1301336	60	0	73
3754	2300	1301375	0	60	170
3755	2301	10117990	0	0	0
3756	3526	1100229	63	0	149
3757	3650	1301334	67	159	85
3758	7167	197273	60	0	60
3759	7042	1	76	0	0
3760	7265	3334	66	0	58
3761	2303	1301337	70	0	169
3762	2304	1301376	124	60	51
3763	3981	318873	60	30	60
3764	2305	1403961	60	60	116
3765	2306	1403965	94	71	215
3766	3874	1301333	635	0	108
3767	2307	1403960	65	0	76
3768	2309	130407464	0	0	0
3769	4454	1777888	98	31	60
3770	2310	145667	44	60	60
3771	2311	1301368	85	81	91
3772	2312	1301372	70	0	61
3773	2313	1100225	0	0	62
3774	7424	1312912	64	50	61
3775	2314	1304928	96	75	115
3776	2315	1304931	60	71	70

3777	2316	1403162	60	40	60
3778	2317	1304930	179	50	132
3779	2318	1311981	0	121	0
3780	2319	0	0	40	0
3781	2321	1788418	0	60	301
3782	2323	1100222	60	180	61
3783	2324	318872	60	0	151
3784	2326	1304925	0	23	0
3785	3360	1402870	0	55	60
3786	7521	32899	70	55	60
3787	2327	318869	60	57	0
3788	3103	31886	60	55	0
3789	4109	128184	70	64	52
3790	2328	1304992	60	54	0
3791	2329	318797	198	60	51
3792	2331	1166562	99	50	0
3793	2332	18760	0	50	0
3794	4666	161093	78	50	62
3795	2333	32551	100	55	240
3796	2334	1304908	148	41	0
3797	3658	0	176	39	0
3798	2335	0	107	59	0
3799	2336	1304909	121	40	0
3800	6787	772348	59	50	54
3801	2337	318796	119	25	104
3802	7359	121911	0	40	0
3803	4703	1255631	38	50	54
3804	4488	142999	0	127	60
3805	2338	1401771	0	70	71
3806	2340	1304913	0	149	0
3807	2341	1401772	0	0	76
3808	2342	6865	200	190	60
3809	3083	1200667	160	0	60
3810	3227	1304919	60	0	0
3811	4897	1178458	0	0	60
3812	2343	1103433	0	39	0
3813	2344	1401768	80	1609	60
3814	4240	114154	69	70	96
3815	4407	157200	359	40	60
3816	4510	318712	70	6	107
3817	4551	1561015	0	86	0
3818	4662	11010391	60	70	82
3819	3249	1401765	60	78	60
3820	2345	1401774	60	124	60
3821	2346	487491	60	65	105

3822	4052	112918	96	60	80
3823	3727	1401769	0	0	85
3824	4425	121441	155	0	68
3825	2961	0	60	60	0
3826	2347	0	60	60	0
3827	3252	1401773	85	60	60
3828	2348	1401766	81	73	0
3829	2349	1401767	60	65	74
3830	3051	1401764	0	0	111
3831	3758	1305158	60	208	60
3832	2350	1304917	75	102	60
3833	3158	1304916	60	0	63
3834	2351	1100223	0	0	62
3835	2845	1200733	0	30	103
3836	2997	1123607	0	84	59
3837	2353	130400333	60	101	117
3838	2847	1305159	0	128	0
3839	2354	1103430	60	75	0
3840	2876	1400175	75	75	60
3841	2875	1305157	0	34	72
3842	3058	1300821	0	158	60
3843	2877	11078307	60	55	149
3844	3992	111410	60	48	160
3845	4791	1231989	0	48	197
3846	3997	111222	60	60	60
3847	7459	668045	60	42	60
3848	495	1164400	60	52	59
3849	3368	130003552	90	120	0
3850	4341	1200668	75	151	42
3851	4847	1592033	70	155	136
3852	2356	1164689	60	50	91
3853	4015	111519	100	0	60
3854	2357	46437	60	60	101
3855	2358	1403933	50	0	118
3856	3756	1305154	60	70	60
3857	2359	11644484	60	171	52
3858	2360	1304914	80	60	42
3859	2361	43329	0	30	184
3860	4670	1234578	60	40	49
3861	2362	1301157	85	50	1
3862	2363	1734412	0	60	143
3863	2364	1304915	60	60	60
3864	2365	130003482	325	30	118
3865	2366	130923	0	60	60
3866	2367	1300003480	60	105	60

3867	2371	0	84	60	0
3868	4656	161099	70	60	73
3869	7481	4071717	129	60	60
3870	2372	1200878	410	60	126
3871	2375	1305148	155	60	81
3872	2376	668225	0	35	72
3873	2377	1305151	60	30	52
3874	2378	1305153	100	53	42
3875	2379	1304987	60	230	65
3876	2380	1304986	60	60	104
3877	2381	101454	0	60	135
3878	2382	1305149	49	60	2
3879	3638	15679	0	60	75
3880	4720	1879102	60	0	70
3881	2383	179534	40	85	87
3882	2384	318879	0	60	61
3883	7074	411937	60	50	60
3884	7071	411938	54	0	60
3885	7072	411938	65	0	60
3886	4804	1345501	60	40	60
3887	7069	1702	176	55	60
3888	7067	1704	148	5	0
3889	2387	0	60	70	0
3890	7066	312034	187	60	0
3891	7065	202041	178	30	0
3892	4673	1645783	111	75	52
3893	7297	102061	113	80	57
3894	3027	1304989	60	55	0
3895	2388	11666697	0	40	60
3896	2389	7000263	0	60	60
3897	7241	300636	0	60	60
3898	2390	1304980	60	50	82
3899	2391	318846	317	75	114
3900	4881	1312039	77	65	0
3901	2392	130400134	0	0	132
3902	2901	1403931	60	65	60
3903	7055	100069	344	0	60
3904	7519	221954	0	60	57
3905	4738	74387	90	67	60
3906	7444	668038	56	60	60
3907	2393	1304983	89	185	50
3908	3444	514737	60	63	0
3909	4933	1874304	124	20	60
3910	7001	71487	323	131	60
3911	7164	313695	59	76	60

3912	2394	318874	60	122	60
3913	3119	123547	60	115	52
3914	2395	0	172	125	0
3915	2942	1304984	60	39	0
3916	2396	1403926	0	79	134
3917	2941	1305170	107	60	60
3918	2953	1729227	68	60	55
3919	2397	1	60	60	51
3920	3625	1422614	118	27	138
3921	743	1733433	57	0	0
3922	2274	1305166	65	62	119
3923	4705	1244037	63	0	61
3924	2399	318848	110	0	59
3925	3879	1734641	45	36	72
3926	4216	318649	65	0	0
3927	6967	402942	0	0	60
3928	7582	667116	211	0	60
3929	2352	1304933	65	189	86
3930	3977	1103431	200	164	69
3931	2373	1	60	41	81
3932	7068	17001	0	139	60
3933	2400	1303816	94	118	85
3934	2401	1102497	248	96	63
3935	4155	1263862	118	114	60
3936	7497	38455	0	0	60
3937	3822	1200877	214	0	0
3938	3784	1304988	60	0	60
3939	4824	1174329	172	0	161
3940	2402	1305274	0	40	37
3941	4292	31519	75	50	77
3942	4525	103213	36	50	60
3943	4941	1405098	60	59	60
3944	4661	1647906	71	30	78
3945	7181	483472	137	60	60
3946	7262	3009250	0	267	120
3947	2403	1305276	260	56	60
3948	3286	1733813	0	110	60
3949	3708	318715	192	0	0
3950	4117	1303670	60	71	61
3951	4508	318717	100	0	60
3952	4693	786745	143	144	97
3953	6922	712333	310	196	0
3954	2404	1305268	55	41	0
3955	3953	11013421	60	73	60
3956	2405	1305279	0	25	60

3957	4663	1301519	0	108	60
3958	2604	1164633	90	29	0
3959	3802	318714	60	0	120
3960	7179	100167	60	110	0
3961	2407	1733736	0	80	60
3962	4653	173702	97	60	0
3963	2408	11013382	60	176	295
3964	2409	1733687	60	65	215
3965	2410	1401653	0	12	214
3966	4742	114959	74	25	60
3967	4850	11045912	60	73	52
3968	7367	541248	0	27	60
3969	6873	410730	96	60	60
3970	6843	311960	60	0	60
3971	2412	1305277	203	35	68
3972	4721	1573452	60	0	42
3973	2413	130004130	0	0	191
3974	2946	122290522	0	210	0
3975	1170	418126	60	0	60
3976	4892	318785	60	0	212
3977	4862	1378450	60	108	60
3978	2414	1401655	61	93	0
3979	2415	318799	60	69	0
3980	2416	1303667	0	30	0
3981	4648	1756510	111	152	60
3982	4650	1304470	60	0	0
3983	2418	1301818	60	136	41
3984	3479	1303820	60	30	73
3985	3681	1401652	60	70	55
3986	2419	0	60	166	0
3987	3185	0	0	50	0
3988	2420	1103435	445	103	106
3989	3869	1231977	78	165	60
3990	479	700031	60	1	70
3991	7080	313757	440	100	135
3992	7070	313756	59	0	60
3993	2421	11013318	227	637	0
3994	3170	1303821	60	30	60
3995	7366	20007	60	125	60
3996	4035	1303819	60	0	60
3997	6953	10249	0	0	60
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3999	4051	197204	60	570	60
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4001	4798	1578645	0	45	59

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4004	2423	1541247	0	0	0
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4009	2428	11090117	0	0	0
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4011	2430	1769710	66	50	0
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4015	2435	1303660	119	574	0
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4017	2437	1401650	0	0	0
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4019	4536	16515	60	0	65
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4021	2439	318801	0	20	64
4022	2440	1401647	91	14	60
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4029	4774	1845920	126	48	59
4030	2444	318840	80	60	243
4031	7048	1	0	8	0
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4033	6949	15634	0	45	52
4034	3355	15635	0	50	90
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4038	2452	0	502	50	0
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4048	2460	1311980	78	0	60
4049	2461	318845	60	60	0
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4051	4358	318847	70	0	333
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4142	2520	161164	0	60	60
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4144	6745	163590	60	60	3
4145	2522	318765	60	60	60
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4150	7073	401839	60	60	59
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4156	4689	1292360	0	60	115
4157	6751	467035	60	60	60
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4163	4312	1200666	78	60	111
4164	4750	1956849	142	60	57
4165	2518	300827	0	60	60
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4216	4857	0	62	60	0
4217	2685	0	60	300	0
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4233	3628	0	60	62	0
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4238	7487	1037153	60	61	60
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4242	2748	130535	60	58	0
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4253	4660	1403864	60	52	164
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4257	4856	1586024	60	69	45
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4260	6836	353669	0	36	60
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4263	3145	1303777	60	60	121
4264	3148	1303776	60	59	0
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4271	7465	4072273	60	94	60

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4273	4462	11427270	60	136	60
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4275	4306	115196	60	0	60
4276	7401	116961	60	437	60
4277	4160	130537	60	0	177
4278	3967	1011460	60	60	41
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4281	4463	1222148	60	0	60
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4304	3410	1303677	40	0	62
4305	3768	1304888	60	60	0
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4307	4618	21112	60	45	68
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4310	7369	541238	60	60	60
4311	7466	642939	60	60	60
4312	3436	1303674	61	0	46
4313	3782	288922	60	60	0
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4315	4681	1312030	60	0	262
4316	7104	3820	0	0	4

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4325	7117	100120	60	496	72
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4471	2906	10011323	60	60	60
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4483	7416	800095	60	60	60
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4489	2780	0	60	41	0
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4491	4534	1541382	60	60	57
4492	3909	1541382	60	60	0
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4494	3173	1303768	60	60	90
4495	6879	541313	60	84	60
4496	3864	1400222	60	74	76

4497	4302	1198140	60	60	60
4498	4377	3016222	60	60	826
4499	7375	32703	0	60	40
4500	7100	10952	60	60	195
4501	7376	4412922	0	70	39
4502	3872	101837	0	60	60
4503	2784	0	60	59	0
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4507	6857	22290646	0	55	60
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4509	7157	100049	0	60	60
4510	7174	4119420	0	60	60
4511	7220	17296	0	60	60
4512	6870	74498	61	60	60
4513	7468	200168	60	60	60
4514	6858	411925	61	60	60
4515	6859	55304	100	61	60
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4517	6860	401912	88	60	55
4518	6861	411944	0	60	60
4519	7422	0	53	60	60
4520	6862	411929	12	60	60
4521	6863	311994	60	60	60
4522	6864	311990	104	60	60
4523	6865	411927	30	60	60
4524	6866	95031	162	60	0
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4527	6916	514807	0	62	60
4528	2788	1126863	0	60	60
4529	4046	1733031	0	60	60
4530	4310	1452075	0	60	0
4531	4921	1311985	160	60	50
4532	6812	30121301	130	60	60
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4534	7207	305255	145	60	60
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4537	4893	1410667	0	60	60
4538	4927	1411917	0	60	0
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4541	6796	292606	83	60	25

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4547	6790	124097	0	60	60
4548	6897	304919	56	72	60
4549	7106	100102	0	60	60
4550	7113	969442	59	60	60
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4555	4056	113420	0	0	60
4556	4158	1400225	63	0	60
4557	4179	411921	0	0	60
4558	7146	100086	0	35	60
4559	7532	906377	67	71	60
4560	4042	1402611	91	62	60
4561	6824	9915	62	0	60
4562	4422	170117	58	114	70
4563	3277	1733793	108	25	282
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4566	7526	770810	0	60	60
4567	4441	1661563	0	50	60
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4572	7183	31886	109	60	60
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4574	4918	1411914	20	0	60
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4580	4904	1311987	0	29	0
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4585	4906	1411916	122	38	60
4586	4911	1411386	54	39	0

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4593	4909	1411913	0	2810	0
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4595	7171	94190	123	0	60
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4601	6784	353412	0	0	60
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4609	7163	410724	0	278	60
4610	4770	5490	11	1048	60
4611	3831	0	225	691	53
4612	4676	0	0	0	0
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4615	6893	30649	76	0	60
4616	6966	214914	100	117	60
4617	4156	1123306	72	0	0
4618	6969	555054	0	0	38
4619	3687	1450525	0	0	0
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4621	6934	103466	0	1530	60
4622	4898	555083	10	0	45
4623	7217	33153	61	543	0
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4625	4100	1796254	61	0	40
4626	4149	201056004	61	0	161
4627	7316	1	80	0	0
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4629	4103	116350	80	0	0
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4631	4800	1292374	67	195	50

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4633	7140	624575	94	0	60
4634	7147	658145	120	0	60
4635	4421	118175	84	0	0
4636	7314	3315	0	0	210
4637	4260	114872	0	0	99
4638	4261	115285	0	0	60
4639	4262	1295930	0	0	50
4640	4788	101636	122	0	0
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4643	4816	1543860	175	793	26
4644	4817	1578654	60	834	640
4645	6771	1045903	71	0	203
4646	6777	876340	0	94	55
4647	1382	114155	0	0	50
4648	4883	1312038	63	433	60
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4650	4942	1874603	61	0	60
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4652	7118	100132	61	0	159
4653	7404	49501	60	348	0
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4655	7576	144966	0	700	40
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4658	4427	474577	61	0	53
4659	4426	317937	61	0	120
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4662	4687	161098	61	0	21
4663	4746	1711894	61	0	0
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4667	7372	4	61	0	0
4668	7358	30004574	0	630	50
4669	4659	1837576	60	0	70
4670	1390	130123798	60	0	60
4671	1391	1348100	60	0	0
4672	4929	1452701	0	0	60
4673	7508	74216	60	0	60
4674	7315	410732	60	0	59
4675	3162	0	60	72	0
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4679	7276	62942	60	26	41
4680	7296	639311	60	1233	0
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4684	7344	2058	60	942	45
4685	7474	650621	60	132	52
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4714	7441	362414	60	2	60
4715	7405	96879	60	57	60
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4721	6762	776126	60	81	60

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4728	7133	1208	60	0	60
4729	7572	668015	60	0	1
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4745	4658	173717	60	937	24
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5477	6513	257058			0
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5482	6511	257359			0
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5485	6526	276381			0
5486	6525	276473			0

5487	6530	1276472			76
5488	6522	1276471			0
5489	6528	1276470			0
5490	6521	1276390			64
5491	6529	1276382			0
5492	6524	1276387			0
5493	6531	11			0
5494	6534	1257092			59
5495	6535	1256768			0
5496	6532	1256801			60
5497	6539	11			0
5498	6533	11			0
5499	6537	1256794			84
5500	6538	11			60
5501	6540	1256791			0
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5503	6547	255299			0
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5506	6541	1276451			0
5507	6543	256800			0
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5509	6544	257095			82
5510	6545	11			0
5511	6550	1257091			0
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5513	6555	276466			0
5514	6558	1276379			121
5515	6556	276474			0
5516	6552	1276467			58
5517	6559	1276496			0
5518	6560	1276380			0
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5520	6554	276498			0
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5522	6561	1276452			0
5523	6562	465452			139
5524	6563	276453			40
5525	6569	276455			10
5526	6570	276456			0
5527	6564	276459			40
5528	6568	276460			0
5529	6566	276489			0
5530	6572	276468			0
5531	6708	10			0

5532	6574	257060			60
5533	6580	276369			60
5534	6567	252097			53
5535	6575	257061			57
5536	6579	276389			49
5537	6577	276385			0
5538	6695	276457			0
5539	6578	257065			0
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5541	6573	178606			0
5542	6587	256884			102
5543	6586	11			0
5544	6585	256885			106
5545	6583	256883			0
5546	6584	256875			59
5547	6581	226976			456
5548	6589	256878			0
5549	6582	256879			21
5550	6590	256874			0
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5552	6592	227645			0
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5554	6595	181104			0
5555	6598	257019			0
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5557	6600	1811030			0
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5562	6602	181056			0
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5572	6611	252041			0
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5576	6616	257034			0

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5578	6613	257030			0
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5581	6651	256828			0
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5584	6671	2526830			0
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5586	6727	256829			0
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5589	6736	256833			155
5590	6702	256832			0
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5595	6669	327636			0
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5598	6738	774638			143
5599	6696	227640			0
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5601	6691	227687			56
5602	6668	10			60
5603	7246	1			0
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5605	6709	181150			0
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5609	6674	11			0
5610	6673	11			0
5611	6678	256928			0
5612	6705	256933			57
5613	6679	256924			59
5614	6701	265986			59
5615	6658	11			0
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5619	6670	11			0
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5621	6441	181102			0

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5624	6741	11			0
5625	6652	180033			0
5626	6677	131093			71
5627	6717	256630			40
5628	6680	256880			0
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5630	6720	256929			60
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5636	6431	1256866			0
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5638	6693	227653			0
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5640	6536	227659			165
5641	6631	227658			54
5642	6660	227668			0
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5644	6663	256837			0
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5647	6656	227643			0
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5650	6662	256847			102
5651	6712	256848			0
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5654	6655	256841			76
5655	6710	11			0
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