Detailed Project Report for Climate Change Action Programme Support

Title of Project: Enhancing Adaptive Capacity to Climate Change through Conservation of Traditional Water Supply Sources (Wells and Bawdies) of Indore City

Submitted By





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1 BACKGROUND

Adequate availability of water is pre-requisite for survival and quality of human life. It is projected that the population under water stress will rise from 450 million at present to 2.7billion by 2025 and Indian subcontinent is already being classified as the 'water stressed' meaning that water needs exceed its availability.

Water crisis is particularly very severe in highly populated urban areas and it is going to be further aggravated with world becoming urban as pointed out by the World Commission Report on Environment and Sustainability by 2020.

Most of the cities in developing countries like India experience rapid urbanization and periurban growth. Rapid urbanization and peri-urban growth leads to lag between demand and supply in resource scarce environments especially for water. As the water footprints of the cities grow, they need to pump water from increasing distances.

This leads to a gap in the capacity of centralized water supply systems and the growing demand, giving rise to water shortages. The impacts of water scarcities are especially felt in core city due to high population density, poor settlements with limited or not access to piped water supplies and peri-urban areas where the supply network is yet to be extended. As long as there is no surplus water available from the core city, the peri-urban and poor settlements may not be able to access the centralized supply and get a reliable water supply.

Integrated water resource management is critical for sustainability of the city. While we augment our supply from Narmada River, it is also necessary to explore and develop decentralized solutions to meet growing demands by restoring, conserving the local resources and recycling of waste water. These measures only can increase resilience of our water systems against climate change and increasing demands.

Depletion of traditional water source, over exploitation and deteriorating water quality of ground water and pollution of lakes are major challenges that city face today. As cities face the water scarcity, we have realized the need for paradigm shift in water management of the city. There is urgent need to conserve the local resources as well as improve the efficiency of water use.

Indore will be the first city to develop a data base and prepare project for augmentation of traditional water sources towards integrated water management for the water supply to increase the resilience of city against the climate change with receiving project from the Madhya Pradesh Clean Development Mechanism Agency (MPCDMA), Bhopal.

Indore city being the business capital of the Madhya Pradesh, there is a high inward migration which has led to population explosion. Eventually increase in drinking and domestic water demand is witnessed. As per the "Vulnerability Assessment towards Climate Change" done by EPCO for all the districts of MP reflects that in the baseline scenario, the vulnerability of Indore with respect to water is ranked 29th(high) which is projected to increase to 46th (very high) and 48th (very high) in mid-century and end-century scenarios, respectively. The Vulnerability Assessment study has incorporated climate variability especially rainfall and temperature trends to substantiate these findings. As per the same VA report, the environment vulnerability index is projected to move from low to moderate. These findings coupled the huge inward migration will lead to high stress on water supply of Indore city. This justifies the mandate of the project.

MP State Action Plan on Climate Change is the guiding policy document of the state for activities related to climate change. The document clearly specifies "Conservation, Augmentation and Preservation with special focus on areas with over-exploited conditions of ground water" as a strategy for water sector and also explicitly indicates "Promotion of Traditional system of water conservation by implementation of programme for repair,

renovation and restoration of Water storing bodies viz. wetlands, lakes, wells & bawlis" in areas that are sensitive to climate change. SAPCC accords high priority to this activity.

National Water Mission under NAPCC of India categorically mentions "Management and regulation of Groundwater resources" chapter to enhance recharge of the sources and recharge zones of deeper groundwater aquifers as a key area of intervention. The strategy in SAPCC mentioned above aligns with the strategy as in NAPCC and the project.

MPCDM Agency has provided the fund of Rs.15 lakhs for the preparation of the Detail Project Report (DPR) on restoration / resurrection of traditional water supply sources of Indore city to Indore Municipal Corporation (IMC). MPCDM Agency and EPCO are the organizations working under the same parent department i.e. Department of Environment, GoMP, having the same leadership and institutional structure. As such, both function as sister concerns in the field of climate change and sustainable development. The cost for preparation of the DPR has already been incurred by MPCDM Agency, however the project is now being taken up by EPCO and there is a provision of preparation DPR in the budget head of CCAP, EPCO is demanding the cost of preparation of the DPR which may be transferred back to MPCDM Agency.

IMC has floated tender for the work of preparation of Primary Project Report on GIS mapping, current status & Strategy for restoration / resurrection and conservation of Potential traditional water supply sources (well, Bawdies etc.) of the Indore city under urban Climate Changes Mitigation. TARU took part in the tender process and being the successful bidder, IMC awarded the work to TARU on 20th March 2015 by work order dated 3rd March 2015.

This project report includes sources of 85 ward of the city as requested, the work allotted for the 69 wards before new villages merge into the municipal area. Ward vise map is developing by the TARU as soft copy of maps was not with the Indore Municipal Corporation.

This report is supported by Annexure 1 with firsthand estimation of potential traditional water supply sources and ATLAS (separate document) with 51 points data, photos and ward vise GIS maps.

2 OBJECTIVE

The objective of the study is to facilitate an increase in the resilience of Indore city against climate change effect on water supply system, by Preparing Primary Project for GPS location of traditional water supply source including GIS mapping, Ward vise Layout maps of traditional water supply sources and current status for conservation of potential traditional water supply sources (Well, Bawadis etc.) of the Indore city.

3 METHODOLOGY

3.1 Secondary data collection

Secondary data are very crucial step of the any project. It provide the base line for the further work on the project with history, research findings, activity reports, source list, maps, water quality etc. Data collected,

- a) List of Councillors with contact number and address
- b) List of Zone officials of Indore Municipal Corporation
- c) List of work done in past for revival of traditional sources
- d) List of source used by IMC in water supply sources
- e) Auto Cad / GIS maps of wards are expected to provide by IMC, but it was not provided and ask to arrange by own.

The process includes series of meeting with Councilor of the wards and community members. All 69 wards have been covered under this process of secondary data collection and it added nearly 295 wells and Bawdis to list provided by IMC with the tender at present total number of wells and Bawdis are 616.

Ward No.	Open well	Step well	Defunct source	Total
1 to 10	52	8	4	64
11 to 20	30	13	0	43
21 to 30	97	4	0	101
31 to 40	69	9	0	78
41 to 50	114	4	0	118
51 to 60	132	14	1	147
61 to 69	59	6	0	65
	553	58	5	616

3.2 Primary data collection

3.2.1 Tools

Meetings with Stakeholders

- 1. Meeting with Commissioner, IMC 09 December 2012
- 2. Consultation meeting with IMC under Hon'ble Mayor, Indore 24 January 2013
- 3. Meeting with IMC officials 07-08 May 2014
- 4. Meeting with IMC officials 17-18 Oct 2014
- 5. Meeting with IMC officials 19 December 2015

Questionnaires and data collection formats

The study was planned to collect data on requisite parameters of the traditional water sources such as location, history of the source (including year of construction and information about past water levels, performance of the source and usage), dimensions, physical status, water quality status, requirements for revival such as repairs (to parapets, platforms, lining), desilting, deepening, dewatering, and measurements related to provisions for rainwater harvesting and groundwater recharge, and photographs of the source.

We have developed electronic survey form for the survey the traditional water supply sources with 113 survey questions. Form was tested in the field and modified according to the need. This form was discussed with MPCDMA, Bhopal on 25th March 2015 and got valuable inputs. Mr. Lokendra Thakkar suggested "It would be wise to include all the water structures in the survey process, with less than 3M diameter also for restoring and conserving traditional water supply sources in the city". We have included here location and photo of sources less than 3M diameter.

Figure 1: Field Testing of Survey Form, Somnath ki Juni Chal



Source: TARU, 2015

Figure 2: Solid Waste in open well, Somnath ki Juni Chal



Source: TARU, 2015

Software

Software was developed to collect such data and information as per developed questionnaires in hand-held devices which were connected to a server and the data was stored for further retrieval use and analyses. Format was designed to be synchronized with the software and at the same time to be user friendly for rapid and accurate data collection.

Other tools

- Hand-held device for recording of data. The device was loaded with the data collection software and questionnaires and formats.
- Global positioning systems in built with the hand held device.
- Cameras in-built with the hand-held device.
- pH meters
- TDS meters
- H2s vials
- Measuring tapes
- Water sample collection bottles.

3.2.2 Training of Survey Team

Training was plan for survey team in four sessions in two days, 16th and 17thApril 2015 to survey socio-technical aspect of the traditional water supply sources. To gather the data in a holistic manner and to get maximum relevant information every team had one surveyor from social field and one a hydro-geologist.

On first day two sessions were conduct as below,

Explanation of survey form with TAB with importance of the project

- Importance of the project explains to team to enhance authenticity of the data collection during the survey.
- All question of survey form was explained to the surveyors with interactive session.
- Explain mode of data collection for each question.
- Practical test of pH and TDS meter with solution of various values
- Provide instruction for the survey and communication with community
- Explain how to take measurement of repairing work and record it
- Geological and hydro-geological conditions discussed.
- Teaches how to take photo for required data

Field training at Meghdoot Garden, Vijay Nagar, Indore

• Aim of the field training was to increase accuracy of data. Especially physical status, geological, hydro-geological and water quality data.

Review the data quality and issues raised during the survey

Discuss the data generated by the surveyors and provide input to improve the data. Issue rose during these field surveys:

- Encroachment surrounding traditional water supply sources
- Source covered with steel net, problem faced for water sample collection
- Surrounding catchments are 100% paved
- Change in residents surrounding sources, do not provide history of the source
- Residents nearby the source resist to provide and get data of the source (बडीग्वालटोलीछब्बू के घर के पास)

3.2.3 Process of Data Collection

For a systematic survey of the sources five teams were constituted. The field activities of these teams were coordinated by a field coordinator and supervisor.

The Indore city was divided into five regions and each region was assigned to a particular team. All teams were provided with ward wise list of sources and a map of Indore city. Each team was assigned with certain wards and the teams were directed to visit the source location and collect data for the list of sources assigned to them.

The sequence of activities after reaching a particular source location was as follows:

- Recording the GPS location (latitude, longitude, altitude) of the source.
- Gathering historical data from the community such as Year of development, Source developer, information on past water levels, information about past water usage, last renovation and repairing,
- Taking photographs of source from different angles to show surroundings, physical status of the source, and a view of the source in depth.
- Recording the shape and dimensions of the source such as depth, diameter, perimeter,
- Recording the physical status of the source such as length and thickness of parapet wall and the platform if any, depth of lining, materials of construction, presence of cover, fencing, and their attributes.
- Recording the necessity of well cover and fencing around the source.
- Recording the level of solid waste/silt if any in the source.
- Recording the quantity of repairs, if any, required in parapet, platform, and lining.

- Recording the hydro-geological data such as static water level, Soil and rock types, and depth of various geological horizons.
- Recording the water quality parameters of pH, TDS, Odour, and Colour.
- Collecting water samples.
- Submission of soft data collected on hand held devices and the water sample to the
 office.

3.3 Data Analysis

The data collected was to be used for assessment of source potential and also for an assessment of the chances of revival and recharge. The data was also used for estimation of expenses if any on repairs to the existing structures and estimates for provisions of rain water harvesting. Water quality data was also analyzed for assessment of suitability of the source for drinking water supply. The data was analyzed on the following parameters

- Location of source
- History of the source
- Water level of source
- Existing physical status
- Repairs required for renovation
- Source protection and safety measures
- Possibility of revival of source
- Water quality

3.4 First hand Estimation

During the course of survey it was found that the physical conditions of sources are not good. It was realized that some repairs to the existing structure may be needed. It was also found that for conservation of sources, protection measures such as cover of the source and fencing around the source will be required.

Estimates have been prepared for making the sources useful for drinking water supply and also for making the sources useful for rainwater harvesting/ groundwater recharge. The potential for revival/recharge was assessed on the basis of past information, hydrogeology of the area, and the current status of the source. Estimates are prepared for the sources found suitable for revival/recharge. The estimates are based on the estimated quantity of repairs to existing structures as recorded by the survey team during data collection, and the materials of construction. The rates for repairs have been developed with the basic rates taken from SOR, UADD, Govt. of M.P. May 2012.

The rate analysis is provided with the estimation sheets placed at Annexure 1.

3.5 Ward vise Location Map of Traditional Water Sources

The traditional water sources have been mapped with their coordinates and the landmarks near them. It is important to know the exact location and geographical distribution of the sources so as to integrate them into decentralized water supply systems. The sources therefore have been classified geographically into ward boundaries and ward wise maps using GIS techniques have been prepared.

The ward wise maps are needed for ward level planning of utilization of these sources. As authenticate soft copy of 85 wards map was not provided by IMC in sift copy, TARU has develop 85 ward maps in soft copy with additional cost than this tender as in Figure 3.

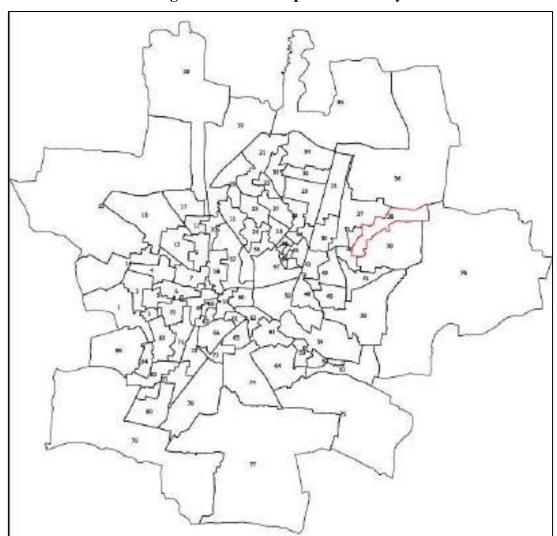


Figure 3 : Ward Map of Indore City

4 INDORE

Indore is the principal city in the state of Madhya Pradesh and also its commercial capital. The city lies on a part of the Malwa plateau. The city is also an important center for trade and commerce and is known as the business capital of Madhya Pradesh.

Some of the cities and towns that are situated close to Indore are Akolia, Baloda, Hatod, Manglia, Kanaria, Harsola, Sawer, Rau, Simrol and Mhow. Indore city is the administrative headquarter of its namesake district.

4.1 Location of Indore City

Indore is situated in the western part of the state of Madhya Pradesh. It is situated at a distance of 190 km from Bhopal, the capital of Madhya Pradesh. The Latitude and Longitude of Indore Railway Station is 22°43′ 02.87″, 75°52′ 05.78″.

The Indore block of Indore District is surrounded by Depalpur, Sawer and Mhow Blocks. The Indore District is surrounded by Ujjain district in the North, Dewas district in the East, Khargone district in the South and Dhar district in the West.

4.2 Geographical features

Indore has an area of 178 sq km with 85 wards. City has planning area of 504.87 sqkm.

Indore is located on the southern edge of the Malwa plateau. The city area is drained by rivers and rivulets which form the drainage pattern with the Saraswati and Khan rivers, which are tributaries of the Shipra River which feeds Gambheer and ultimately Chambal River. Thus Indore is a part of Chambal, Yamuna sub-basin of Ganga basin. The city has an average elevation of 553.00 meter above mean sea level being located on an elevated plain, with the Vindhyachal range to the south. Indore has many water bodies such as Yashwant Sagar, Sirpur Talao, Bilawali Talao, Sukhniwas Lake and Piplyapala Talao among others.

The area is classified as Seismic Zone III region, which means an earthquake of up to magnitude 6.5 on the Richter-scale may be expected.

4.3 Climate

Indore, Madhya Pradesh has a tropical wet and dry/ savanna climate with distinct dry season in the low-sun months, no cold season, and wet season is in the high-sun months.

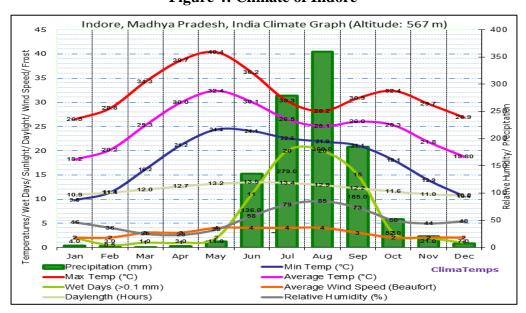


Figure 4: Climate of Indore

According to the Holdridge life zones system of bioclimatic classification Indore, Madhya Pradesh is situated in or near the subtropical dry forest biome.

Indore has a borderline humid subtropical climate and tropical savanna climate. Three distinct seasons are observed: summer, monsoon and winter. Summers start in mid-March and can be extremely hot in April and May. The daytime temperatures can touch 48 °C (118 °F) on more than one occasion. Average summer temperatures may go as high as 40 °C (104 °F) but humidity is very low.

Winters are moderate and usually dry. Lower temperatures can go as low as 2 °C (36 °F)-6 °C (43 °F) on some nights. Usually the temperature ranges between 8 to 26 °C during winters.

Rains are due to southwest monsoons. The typical monsoon season goes from 15 June till mid-September, contributing 32–35 inches of annual rainfall. 95% of rains occur during monsoon season.

4.4 Demographic features

The principal language used by the people is Hindi. The mean literacy rate of the city (2011 census) is 87.38%, which is far ahead of the countrywide mean of 74%. Literacy among females was 82.55% and literacy among males was 91.84%.

Indore is the most populous city in the Madhya Pradesh, with an estimated 2,160,631 residents as of 2011. As of the 2001 Indian Census, the city's population stood at a record high of 1,516,918, significantly greater than any other city from central province. Males constitute 52% of the population and females 48%. In 2010, the city had a population density of 25,170 people per square mile (9,718/km²), rendering it the most densely populated of all municipalities with over 100,000 populations in the Madhya Pradesh. As per 2011 census, the city of Indore has an average literacy rate of 87.38%, higher than the national average of 74%. Male literacy was 91.84%, and Female literacy was 82.55%. In Indore, 12.72% of the population is under 6 years of age (as per census 2011). The average annual growth rate of population is around 2.85% as per the statistics of census 2001. Religion-wise, according to the 2011 census reports, Hindus constitute a major of 80.02% of Indore's total population, while Muslims 7.41%, Jains 7.02%, and others 2.03%.

The Indore City metropolitan area is ethnically diverse. It is home to the large Muslim& Jain community especially Rajasthani Jains. Indore has a high degree of income disparity. Hindi & Malviya is the main language spoken here. Malvi, a dialect of Rajasthani, are spoken by majority of population. A large number of people speak Urdu particularly the Muslims. Ethnically, Hindi linguistics form major sub groups in the city followed by Marathi, Punjabis, Sindhis, Gujaratis and others. The disparity is driven by wage growth in high income brackets, while wages have stagnated for middle and lower income brackets. Indore is always ranked as the home to the highest number of billionaires in the state.

Indore has the highest percentage of constant foreign migrants among Indian cities. As of now, around 2,000 Pakistani Hindus have migrated into the state most of which are in Indore. Several Pakistani immigrants arrive in the Indore area every year. No single nationality or culture dominates the city's immigrant population, placing it among the most diverse cities in India.

4.5 Soil Characteristics

Soil covered the landscape of the Indore is Black cotton soil formed on weathered basalt and occur on nearly flat to gently sloping piedmont plain. Thickness of soil are from 0.1 meter to >10 meter in various locations. The structure is sub angular to angular, blocky breaking to

wedge shaped peds particularly in the lower half of the pedon. Basalt fragments are present in the lower part. The soil has moderate to moderately low permeability and are rich in lime and lime nodules. The sub-soil and the partially disintegrated rock below allow easy drainage and hence these medium black soils can be freely irrigated

4.6 Geology

Indore city is mainly occupied by Deccan trap basaltic rocks. The underlying rock of the region is composed of black basalt, and their acidic and basic variants dating back to the late Cretaceous and early Eocene eras.

Geological Survey of India (GSI) has reported as many as 42 horizontally disposed lava flows in the district. The geology of the district in general is presented below:

Particular	Age	Stratigraphy	Lithology
Upper layer	Recent	Alluvium	Sand, Silt & Clay
Lower layer	Lower Eocene	Deccan Trap	Basaltic lava flow

Table 1: Geology of Indore

4.6.1 Alluvium

The alluvial deposits of recent to sub-recent age are mainly confined to the banks of Khan River. They comprise mostly sand, gravel, clay and silt. While the sand and gravel are restricted to the riverbed, clay and silt are confined to the banks. These deposits attain a maximum thickness of about 10 to 12 m.

4.6.2 Deccan Trap

From the lithology of the area, it is observed that there are 3 basaltic lava flows in the area. Flow No.2, occurring below depth of 12 m BGL in Moosakhedi is important unsaturated horizon. The red bole beds, which are generally indicative of a marker horizon between two flows, are not present in the city.

4.7 Hydrogeology

The city has moderate groundwater potential. Groundwater in Indore city occurs mostly in unsaturated conditions. Basalt shows variation in the water bearing properties with two major units of individual lava flow a) the uppermost vesicular basalts with their weathered top portion and b) Massive and compact basalt.

The occurrence of promising aquifer zones in city is confined to a depth of about 100 meters. Three aquifers have been delineated at various depths, first aquifer at a depth of 20-30 meters, second aquifer at a depth of 50-65 meter and third aquifer at a depth of 80-100 meters. The shallow aquifer occurs in weathered and jointed portion basalt and form moderate to good aquifers where thickness of weathering and vesicular zones is adequate. The Deccan Traps, on weathering, generally develop a top layer of black cotton soil. The underlying layers of weathered basalt form a water-bearing horizon, which is tapped from the dug wells.

The main source of recharge to the basaltic aquifer in the district is rainfall. To some extent, recharge also takes place by influent seepage from the streams and their tributaries. Due to low permeability of basalts and undulating topography, the runoff is very high. This restricts the recharge to ground water body. This is reason for large scale seasonal fluctuation in the water level of the wells tapping trapping formation. Ground Water in the Deccan Traps in Indore district occurs mostly under water table conditions. The nature of topography, extent

and depth of weathering, distribution of secondary porosity in the form of fractures and joints and the occurrence and disposition of vesicular units govern the movement of ground water.

4.8 Urbanization and water scarcity: Indore

Rapid urbanization and peri-urban growth leads to lag between demand and supply, especially in resource scarce environments. As the water footprints of the cities grow, they need to pump water from increasing distances up to 70km from Narmada River which cost Rs.45 per cubic meter water with counting of UFW. Parallel, traditional water supply sources of city are neglected as pipe water supply provides water at door step by community and ULBs.

4.8.1 Urbanization

As an old municipal area since 1870; the early urbanization of Indore was due to development of industries and military activities. Sir Patrick Geddes had prepared first City Development Plan and explained the possibility of Modern Indore in 1918. The growth pattern of the city and planning area is seen in Figure 5.

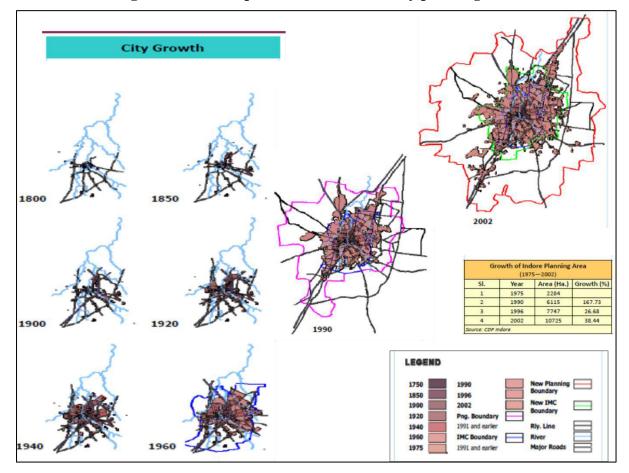


Figure 5: Growth pattern of the Indore city planning area

Source: CDP under JNNURM, Mehta & associates

With the increase in the livelihood opportunities in the city, it is growing faster by migratory inflow of people for employment as well as education. The increased population and the settlement pattern of the city have put additional stress on the already scarce water resources. The absence of perennial rivers and erratic rainfall has made the situation more complex. Urbanization has changed the water consumption pattern also and now the share of non-drinking usage of water has gone up. It is also critical that most of the non drinking use is

also met out with fresh water and efforts to re-use or recycle used water are not seen in the city.

4.8.2 Water scarcity and Demand

Indore city is situated in a semi-arid upper catchment region and near the ridge line of Ganga Basin at an altitude of 553 meters above sea surface. Hydrological location of city is in recharge area and hydro-geological location on Malwa Plateau indicates the poor scenario for groundwater availability. Ultimately Indore is facing serious water challenges due to its hydro-geological setting and recurrent droughts.

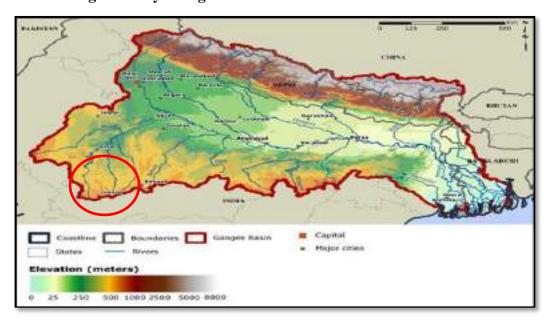


Figure 6: Hydrological location and Elevation of the Indore

Source: http://web.worldbank.org/archive/website01291/WEB/0__CON-9.HTM

History of water supply shows the dependency of Indore city on surface water source. The oldest water systems of Indore relied on rainwater harvested through Bilawali and Yashwant Sagar as well as hundreds of traditional wells and step wells.

Water scarcity is a function of availability, demand, and distribution. Indore has known water scarcity since earliest times because of the reasons discussed above. The water supply as evident from the figure above has been increasing being demand driven yet equity and perennial availability has not been achieved. This is also indicated in the table below showing the relative increase of water supply to the increase in population over the last few decades.

As the city population and area grew, the water footprint of the city expanded much beyond not only the city limits but reach up to inter-basin level. Narmada River is about 70 km away with an altitude difference of more than 500 m.

N A R M A D A R R I F I V A L L E V

Figure 7: Water transport to Indore from Narmada Basin

Source: Taru,2011

Current total water supply of the city from all sources is 329 MLD and considering 40% UFW, water availability is 230 MLD. Water demand of the city is 405 MLD considering a population of about 30 lakh including migratory population. The gap in demand and supply is 174 MLD. Per person water supply from pipe water supply is 120 LPCD. City has total 2.1 lakh legal water connections and approximate 12 lakh population is dependent on groundwater.

To meet the rapid water demand, city has been augmenting the water supply system from distant source Narmada River from time to time, phase by phase as city expands. These distance water supply is costly by means of infrastructure, energy cost, losses, maintenance and not recovering the revenue as planned.

The analysis of data as presented in Table 2 also shows that the percentage increase in water supply matched or even exceeded the percentage increase in population till 2001, yet in the decade between 2001 and 2011 the increase in water supply could not match the percentage increase of the population of the city. This brings us to a critical point where we need to analyze and find local solutions for decentralized water supply systems to meet the challenges of population, changing settlement patterns and lifestyle.

Table 2: Comparison of increase in rate of; Population v/s water supply in Indore

	Po	opulation: Indore		Water	Supply
SN	Year	Population	% increase	MLD	% increase
1	1941	203659		-	-
2	1951	310859	52.61	-	-
3	1961	395000	27.07	-	-
4	1971	573000	45.07	77.3	
5	1981	829327	44.73	112	44.89
6	1991	1091618	31.63	149	33.03
7	2001	1542618	41.31	221	48.32
8	2011	2160631	40.06	265	19.90
Aver	age		40.35		36.54

5 CLIMATE CHANGE IMPACT AND WATER SCARCITY

We depend on a reliable, clean supply of drinking water to sustain our life and health. We also need water for agriculture, energy production, navigation, recreation, and manufacturing. Many of these uses put pressure on water resources, stresses that are likely to be exacerbated by climate change. In many areas, climate change is likely to increase water demand while shrinking water supplies. This shift in balance would challenge water managers to concurrently meet the needs of growing communities, especially the urban community.

Variation in resource availability with climate change: Climate change poses unique threats to the Indore water supply system. Downscaled climate information suggests an increase in surface temperature of 2° to 4° 0°C, and a range of rainfall amounts of -4% to +8% by 2046-2065.

Impact of climate change on infrastructure: Beyond this, much vulnerability were identified within Indore's water supply from single-source dependency and high energy usage to ageing infrastructure and insufficient and inequitable access of water in the city.

Increasing variability in rainfall in the catchment area due to climate changes; rapidly growing energy costs; growing competition upstream over water resources from agriculture as well as other urban agglomerations; climate change made reduction/uncertainty in precipitation; these can lead to potential conflicts over Narmada water resources.

The trends of energy and urban water supply investments vs. demand growth over last two decades indicate that most of the Indian cities, (especially those located in the upper catchments of Peninsular hard rock region) are likely to remain both water and energy famished over at least next two decades. The combined impacts of regional droughts, energy shortage/blackouts/grid failures can result in cascading impacts on water availability from distant sources.

The cascading extreme events (droughts, water conflicts and like energy blackouts) can put water security of Indore at risk. The expansion of the city in to the catchments of the local reservoirs is leading to contamination, which can deteriorate these valuable local resources that can provide emergency supplies.1 UFW is the amount of water and it includes physical losses in the distribution systems (leakages) as well as water stolen from

The climate change will impact hydrology, rainfall and Narmada water supply in the following manner:

- The hydrological cycle is predicted to be more intense. The intensity of daily rainfall will also increase.
- The average annual rainfall will rise by 200-400 mm for Narmada basin.
- Number of rainy days will be decreased.
- Number of extreme events like heavy floods and drought will increase.
- Variability in dates of arrival of monsoon is also predicted thereby meaning an erratic shift in the months of rainwater availability disturbing the hydrological cycle adapted by the city dwellers.
- Increase in average annual runoff does not mean availability of more water, for water supply schemes are planned for 90% dependable probability.
- In all prospects, 90% dependable annual run-off will be reduced due to increase in drought events and will affect availability of water adversely from the distant sources.
- Energy intensive distant water schemes may face more frequent breakdowns due to failure of power greed.

These factors adversely impact the water supply infrastructure and water availability from distant sources may be hit for a few days to several months.

6 FUTURE WATER DEMAND

The population of Indore Urban agglomeration was 2.167 million (2011) and is expected to reach more than 3 million by 2025. Being located on an elevated plain, in the upper catchment area, the city was depended on local surface and sub-surface (unconfined aquifer) groundwater and surface water sources including Lakes, open wells and Bawdis before the initiation of mechanized pumps and large scale water treatment plants, the city was totally dependent on local water resources.

As per census record, population of Indore city has grown from 0.023 million (1941) to 1.543 million (year 2001). Water demand in near future shows in Figure 8.

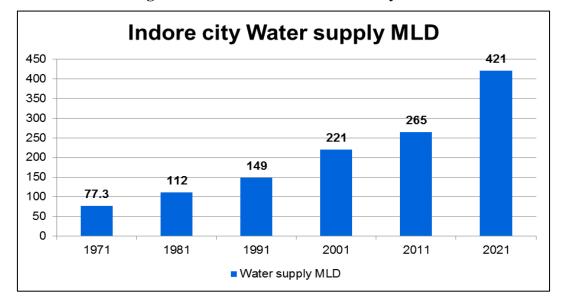


Figure 8: Increase in water demand by 2021

Increase in near future water demand has also includes the industrial and commercial demand which is not consider in this calculation. To meet out increasing demand need to restore and conserve all available source including traditional water supply sources in city.

7 LOCAL TRADITIONAL WATER SOURCES

City of Indore has had a tradition to build and use open dug wells, step wells and Talabs for the daily water requirement of the community. This tradition was following the soil, rock type and hydrogeology of the area. It is interesting to note that as early as 1918, Sir Patrick Geddes mentioned the importance of wells as reserve sources to cope up against the interruption in piped water supply and demand challenges of urbanization.

While Indore was known for lakes, open wells and Bawdi/Baoris that met all the water needs before 1984, they are now neglected and polluted. This interlinked water system had surface water meeting monsoon and winter needs and groundwater meeting summer and lean season demand. With increase in population and area, water supply system was introduced long back with the formation of the first municipality in Indore in 1870. In 1906, Indore municipality started its own powerhouse and established a new water supply system from the Bilawali water body.

As discovered in the recent study a number of these traditional water sources are still relevant and are still used by the community. The usage and the current status of the traditional water sources is analyzed and discussed in the next section, however it is to be noted here that a number of wells have got converted to solid waste dumping pits and the Talaos have been

converted in to liquid waste dumping sump due to negligence and lack of maintenance. Another important factor causing harm to these traditional water sources is lack of awareness, and seemingly reduced importance of them as source of water supply. With the growth of the city, land has also become a lucrative asset and since these traditional sources occupy large areas of land with almost absent ownership have been the favorite target sites for land grabbing and encroachments.

Importance of Wells - 1918

Since all these Mill Wells are ample and excellent, I strongly recommend a survey of the existing Wells throughout the city, of which some are productive, and others may again be made so by cleaning. It must here be remembered that the further raising of the river, which will be effected along with the development of the Industrial town of Naya Indore, will further tend to keep up water-levels in the wells towards the city. Hence these valuable old sources may always remain in reserve in-case or either accident or scarcity in the public supplies.

A good many wells are still being more or less regularly worked for gardens; but others are not. But since a light Steam Pump, with its coil of hose, can easily be fixed, on a cart, or other vehicle, it can be cheaply taken from well to well. I recommend experiment with such a pump, as a Municipal service to be kept constantly travelling round the city, utilizing water from the wells (and when more convenient also from the river), for street-watering, drain-flushing, municipal gardens etc. thus notably saving, for domestic uses, the water supplies from the pipe systems of the Municipality and the P. W. D.

I also see no reason why this itinerant municipal pump should not be hired out, and at a charge kept as moderate, as possible, to private owners or wells, for their own gardens. That such periodic hiring and use of the municipal pump would soon become popular, is a hope justified, by the great economy or such mechanical pumping over the present costly employment or bullocks and men at present more or less specialized for garden irrigation purposes. And from the point of view of a possible scarcity of water in dry years, or through accidents, these reserve wells are thus kept clean.

Town Planning Towards City Development, A Report to The Durbar of Indore, by Patrick Geddes, Part 1, 1918.

It must be emphasized that these sources, because of their location and because of suitability of their design to the local hydrogeology, are important assets as water supply sources. The subsoil / ground water based sources can be classified into two broad categories; a) Open wells b) Step wells.

Open wells are generally round shaped excavation extending up to expedient depth.

The top layer of soil is prevented from collapsing by providing a lining up to the entire thickness of the soil profile/loose and weathered material. A parapet wall is also built around the open well above the ground level as a protection measure.



Figure 9: Open Wells

In some open wells platforms have been provided for miscellaneous uses. The parapet wall, now-a-days serves as a base for fixing cover over the open well.

The construction materials of open wells included stone masonry for the older wells while the modern construction used bricks and reinforced cement concrete.

Figure 10: Step Wells



Step wells were mostly constructed in earlier days with large plan area and generally in square-rectangle shaped. It is very convenient structure to fetch or use water through steps as the seasonal water level goes down. These wells were large in size because of the old construction technology which required bigger plan areas to excavate to deeper levels. Since most of these step wells are old creations they have been built with stone masonry.

8 CURRENT STATUS OF TRADITIONAL WATER SUPPLY SOURCES

The survey of Traditional Water Supply Sources (TWSS) revealed interesting information regarding its development and uses. The survey teams recorded various parameters such as history of the source, dimensions, usage, repairs required, requirement of cover and fencing, suitability or revival/recharge and water quality.

Total 629 sources found after analysis of secondary data and field survey during the month of May and June 2015. Analysis of primary data shows the variation in type and size. Open wells are also found in square shape which is locally known as use for the Step well.

Sr. Count Total Particulars No. of No. Sources Total No. of wells greater than 3 m dia./greater than 7 m² plan area Total 629 389 number of Total No. of wells less than 3 m dia./less than 7 m² plan area 204 Sources **Closed Sources** 36 2 Total 557 Total No. of Open wells greater than 3 m dia./greater than 7 m² plan 328 Number of Total No. of Open wells less than 3 m dia./less than 7 m² plan area open wells 204 Closed Open-Wells 25 Total No. of Step-Wells greater than 3 m dia./greater than 7 m² plan 3 72 Total 61 number of Total No. of Step-Wells less than 3 m dia./less than 7 m² plan area Step wells 0 Closed Step-Wells

Table 3: Summary of Traditional Water Sources in IMC Area (85 wards)

Out of the surveyed 629 sources, 557 are open wells and 72 are step wells. Out of 557 open wells 236 wells have a diameter of less than 3 meter. There are 6 Open wells which are square-rectangle shaped, and 5 steps well which is having round shape. 321 have a diameter of more than 3 meter. There are 36 closed wells, out of which 22 are open wells and 14 are step wells.

8.1 Diameter and plan area vise distribution of TWSS

Out of 85 wards, 32 wards have one to five sources, 33 wards have six to ten sources, 10 wards have 11 to 15 sources, three wards have 16 to 20 sources, 3 wards have more than 21 sources and four wards (Ward No. 2, 31, 39 and 76) not having any traditional water supply source. Maximum Open wells 27 are found in ward No. 77 and Step wells are found maximum six in ward No. 78.

The ward wise information and analysis of the wells is presented below in Table 4.

Ward No.	Diameter >3m	Plan Area >7m²	Diameter <3m	Plan Area <7m²	Closed	Source	Total
	No. of Open well	No. of Step well	No. of Open well	No. of Step well	No. of Open well	No. of Step well	
1.	1	0	2	0	0	0	3
2.	0	0	0	0	0	0	0
3.	3	0	1	0	0	0	4
4.	1	1	1	0	0	0	3
5.	4	0	3	0	1	1	9
6.	3	0	2	0	0	1	6
7.	2	3	2	0	0	0	7
8.	0	0	0	0	0	1	1

Table 4: Ward wise Distribution of TWSS

Ward No.	Diameter >3m	Plan Area >7m²	Diameter <3m	Plan Area <7m²	Closed	Source	Total
	No. of Open well	No. of Step well	No. of Open well	No. of Step well	No. of Open well	No. of Step well	
9.	0	4	9	0	0	0	13
10.	2	0	6	0	0	0	8
11.	0	1	0	0	0	0	1
12.	3	2	0	0	0	0	5
13.	3	0	1	0	0	0	4
14.	5	0	0	0	1	0	6
15.	6	3	5	0	0	0	14
16.	2	0	1	0	0	0	3
17.	5	0	4	0	0	0	9
18.	9	3	5	0	0	0	17
19.	3	2	5	0	0	0	10
20.	2	0	1	0	0	0	3
21.	1	0	1	0	0	0	2
22.	8	0	5	0	0	0	13
23.	3	0	2	0	0	0	5
24.	2	1	5	0	0	0	8
25.	5	0	2	0	0	0	7
26.	4	0	0	0	0	0	4
27.	2	1	1	0	0	0	4
28.	3	4	3	0	0	0	10
29.	4	0	2	0	1	0	7
30.	5	0	4	0	0	0	9
31.	0	0	0	0	0	0	0
32.	1	0	1	0	0	0	2
33.	1	0	1	0	0	0	2
34.	0	1	0	0	0	0	1
35.	0	1	1	0	0	0	2
36.	3	1	2	0	0	0	6
37.	3	0	0	0	0	0	3
38.	1	1	1	0	0	0	3
39.	0	0	0	0	0	0	0
40.	2	1	4	0	0	0	7
41.	4	0	0	0	0	0	4
42.	5	0	4	0	1	0	10
43.	3	0	2	0	1	0	6
44.	2	0	1	0	0	0	3
45.	5	0	5	0	0	0	10
46.	2	0	7	0	0	0	9
47.	7	2	5	0	0	0	14
48.	4	0	3	0	1	0	8
49.	5	0	5	0	3	0	13
50.	4	0	1	0	2	1	8
51.	4	1	2	0	1	0	8
52.	7	1	2	0	0	0	10
53.	7	0	8	0	0	0	15

Ward No.	Diameter >3m	Plan Area >7m²	Diameter <3m	Plan Area <7m ²	Closed	Source	Total
	No. of Open well	No. of Step well	No. of Open well	No. of Step well	No. of Open well	No. of Step well	
54.	7	0	0	0	0	0	7
55.	10	1	4	0	0	0	15
56.	4	0	1	0	2	0	7
57.	1	2	1	0	0	0	4
58.	0	4	1	0	0	0	5
59.	2	0	1	0	0	0	3
60.	3	0	9	0	2	0	14
61.	2	2	2	0	0	0	6
62.	2	0	0	0	0	0	2
63.	12	3	9	0	1	0	25
64.	11	1	6	0	0	1	19
65.	4	2	2	0	0	0	8
66.	4	2	3	0	0	0	9
67.	2	0	7	0	0	0	9
68.	0	1	2	0	0	1	4
69.	1	0	1	0	0	0	2
70.	0	0	1	0	0	0	1
71.	4	0	0	0	0	0	4
72.	5	0	2	0	0	0	7
73.	3	0	6	0	0	0	9
74.	16	0	0	0	0	2	18
75.	9	1	1	0	2	0	13
76.	0	0	0	0	0	0	0
77.	23	0	3	0	1	2	29
78.	10	6	3	0	1	2	22
79.	4	1	0	0	0	2	7
80.	9	0	4	0	0	0	13
81.	7	0	3	0	0	0	10
82.	2	0	0	0	0	0	2
83.	5	1	3	0	1	0	10
84.	1	0	1	0	0	0	2
85.	4	0	0	0	0	0	4
Total	328	61	204	0	22	14	629

8.2 Year of development of TWSS

According to survey data the earliest well was constructed in the year 1600 A.D in the city. Prior to year 1915, 75 sources were already constructed and out of which 29 were open wells when 46were step wells shows the availability of water at lower depth and also indicate the transition of travelers during the period. Source developed between years 1916 and 1940 were 94, out of which 85 are open wells and 9 are step wells.

Maximum numbers of sources, 124 were developed in the period of 1941 to 1960 and out of which 121 are open wells and 3 are step wells. The construction activity seemingly declined with construction of 81 wells between years 1961 and 1980, out of which 79 are Open wells and 2 are Step wells. It is to be noted here that the construction of step wells declined sharply

which is attributable to non-availability of land, increasing cost of construction and introduction of mechanical pumps.

The material used also changed with time and the stone masonry gave way to bricks and concrete. After 1981 the technology of well creation changed dramatically with advent of mechanized drilling machines and bore wells replaced open wells. Hence 12 wells were constructed between years 1981 and 2000, out of which 11 are Open wells and 1 is Step well. From 2001 to recent only 3 wells were constructed and all are Open wells, not constructed any Step well in these period. The data is presented in Table-6 with graphically presentation in Annexure-1 as Figure numbers 27 to 32.

2011-2020 **1** 2001-2010 2 1991-2000 2 1981-1990 8 1971-1980 25 1961-1970 1951-1960 1941-1950 1931-1940 37 1921-1930 33 1911-1920 27 1901-1910 **1**1 1891-1900 14 1881-1890 1871-1880 5 1861-1870 3 1851-1860 2 1841-1850 10 1831-1840 2 1821-1830 3 1811-1820 1801-1810 3 <1801 0 20 30 40 50 No. of Wells

Figure 11: Time of construction (Decade wise) of Open-wells in Indore

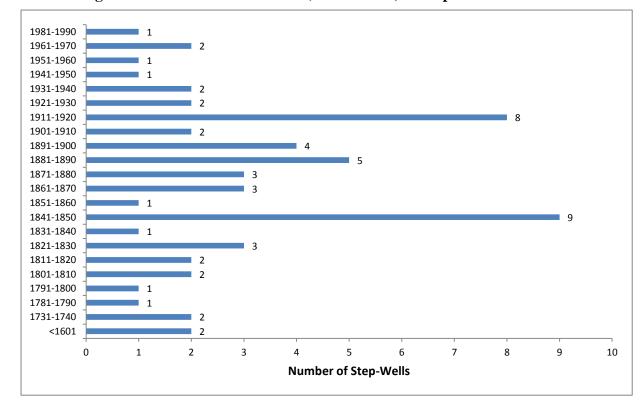


Figure 12: Time of Construction (Decade wise) of Step-Wells in Indore

8.3 Ward wise Current Status (Diameter ≥ 3 m)

The analysis of data collected is attempted for wells having diameter greater than 3 meter. The analysis is done for various parameters such as Ownership, Potential, and Water quality. There are certain wards with more number of wells while some are almost devoid of listed well sources. No community or IMC owned well is reported from Ward numbers 2, 31, 39 and 76.

8.3.1 Ownership of Traditional Water Sources (Diameter ≥ 3 m)

Indore city has 400 sources having diameter / dimension equal to and greater than 3 meter. Maximum number of these sources is owned by IMC i.e. out of total 400 wells 282sources are owned by IMC. During the primary survey, ownership data of the source has been generated from the discussions with/ interviews of surrounding community as IMC has no previous data regarding the same. As these are public sources; 48 sources (> 3m diameter) are considered in this project for the water supply after renovation. Thus, the total number of traditional water supply sources which are envisaged in the project is 330.

Total numbers of wells owned by community are 65 out of which 52 are Open wells and 13 are Step wells. 51 open wells are owned by Individuals/ others while 2 step wells are owned by individuals/ others. The data is presented in Table 5.

Ward	IMC	IMC	Community	Community	Individual/Others	Individual/Others	
No.	No. of Open well	No. of Step well	No. of Open well	No. of Step well	' I No of Open well I No of Sten y		Total
1	1	0	0	0	0	0	1
2	0	0	0	0	0	0	0
3	3	0	0	0	0	0	3

Table 5: Ownership of Traditional water Sources in Indore

4	0	1	1	0	0	0	2
5	4	0	0	0	0	0	4
6	2	0	0	0	1	0	3
7	1	0	1	3	1	0	6
8	0	1	0	0	0	0	1
9	0	3	0	1	0	0	4
10	1	0	0	0	2	0	3
11	0	0	0	1	0	0	1
12	2	0	1	2	0	0	5
13	3	0	0	0	0	0	3
14	2	0	1	0	2	0	5
15	2	1	3	1	1	1	9
16	1	0	0	0	1	0	2
17	2	0	3	0	0	0	5
18	7	3	2	0	0	0	12
19	2	1	1	0	0	0	4
20	1	0	1	0	0	0	2
21	1	0	0	0	0	0	1
22	8	0	0	0	0	0	8
23	3	0	0	0	0	0	3
24	2	0	1	1	0	0	4
25	5	0	0	0	0	0	5
26	4	0	0	0	0	0	4
27	2	1	0	0	0	0	3
28	3	4	0	0	0	0	7
28 29	3	4 0	0	0	0	0	7
29 30	4	0	0	0	0	0	4
29	4 2	0	0	0	0 2	0	4
29 30 Ward	4 2 IMC No. of	0 0 IMC No. of Step	0 1 Community No. of Open	0 0 Community No. of Step	0 2 Individual/Others	0 0 Individual/Others	4 5
29 30 Ward No.	4 2 IMC No. of Open well	0 0 IMC No. of Step well	0 1 Community No. of Open well	0 0 Community No. of Step well	0 2 Individual/Others No. of Open well	0 0 Individual/Others No. of Step well	4 5 Total
29 30 Ward No.	4 2 IMC No. of Open well 0	0 0 IMC No. of Step well	0 1 Community No. of Open well 0	0 Community No. of Step well 0	0 2 Individual/Others No. of Open well 0	0 0 Individual/Others No. of Step well 0	4 5 Total
29 30 Ward No. 31 32	4 2 IMC No. of Open well 0 1	0 0 IMC No. of Step well 0	0 1 Community No. of Open well 0 0	0 0 Community No. of Step well 0	0 2 Individual/Others No. of Open well 0 0	0 0 Individual/Others No. of Step well 0 0	4 5 Total 0 1
29 30 Ward No. 31 32 33	4 2 IMC No. of Open well 0 1	0 0 IMC No. of Step well 0 0	0 1 Community No. of Open well 0 0	0 Community No. of Step well 0 0	0 2 Individual/Others No. of Open well 0 0 0	0 0 Individual/Others No. of Step well 0 0	4 5 Total 0 1 1
29 30 Ward No. 31 32 33	4 2 IMC No. of Open well 0 1 0 0 3	0 0 IMC No. of Step well 0 0 1 1 1	0 1 Community No. of Open well 0 0 0 0 0	0 0 Community No. of Step well 0 0 0 0 0	0 2 Individual/Others No. of Open well 0 0 0 0 1	0 0 Individual/Others No. of Step well 0 0 0 0 0	4 5 Total 0 1 1 1 5 5
29 30 Ward No. 31 32 33 34 35	4 2 IMC No. of Open well 0 1 1 0 3 3	0 0 IMC No. of Step well 0 0 1 1	0 1 Community No. of Open well 0 0 0 0 0 0 0	0 0 Community No. of Step well 0 0 0 0 0 0 0	0 2 Individual/Others No. of Open well 0 0 0 0 1 0	0 0 Individual/Others No. of Step well 0 0 0 0 0 0	4 5 Total 0 1 1 1 5 3
29 30 Ward No. 31 32 33 34 35 36 37	4 2 IMC No. of Open well 0 1 0 0 3 3 0	0 0 IMC No. of Step well 0 0 1 1 1 1 0 1	0 1 Community No. of Open well 0 0 0 0 0 0 0 0	0 0 Community No. of Step well 0 0 0 0 0 0 0 0 0	0 2 Individual/Others No. of Open well 0 0 0 0 1 0 0 0	0 0 Individual/Others No. of Step well 0 0 0 0 0 0 0 0	4 5 Total 0 1 1 1 5 3
29 30 Ward No. 31 32 33 34 35 36 37	4 2 IMC No. of Open well 0 1 1 0 3 3 0 0	0 0 IMC No. of Step well 0 0 1 1 1 1 0 1	0 1 Community No. of Open well 0 0 0 0 0 0 0 0 0 0	0 0 Community No. of Step well 0 0 0 0 0 0 0 0 0 0 0	0 2 Individual/Others No. of Open well 0 0 0 0 1 0 1	0 0 Individual/Others No. of Step well 0 0 0 0 0 0 0 0 0 0 0	4 5 Total 0 1 1 1 5 3 1
29 30 Ward No. 31 32 33 34 35 36 37	4 2 IMC No. of Open well 0 1 1 0 0 3 3 0 0 1	0 0 IMC No. of Step well 0 0 1 1 1 1 0 1 0 0	0 1 Community No. of Open well 0 0 0 0 0 0 0 1	0 0 Community No. of Step well 0 0 0 0 0 0 0 0 1	0 2 Individual/Others No. of Open well 0 0 0 0 1 0 0 1 0 0 0	0 0 Individual/Others No. of Step well 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 5 Total 0 1 1 1 5 3 1 1 3
29 30 Ward No. 31 32 33 34 35 36 37 38 39	4 2 IMC No. of Open well 0 1 1 0 0 3 3 0 1 2	0 0 IMC No. of Step well 0 0 1 1 1 1 0 1 0 0 0	0 1 Community No. of Open well 0 0 0 0 0 0 0 0 1 1 1	0 0 Community No. of Step well 0 0 0 0 0 0 0 0 1 0 0	0 2 Individual/Others No. of Open well 0 0 0 0 1 0 1 0 1	0 0 Individual/Others No. of Step well 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 5 Total 0 1 1 1 5 3 1 1 3 4
29 30 Ward No. 31 32 33 34 35 36 37 38 39 40 41 42	4 2 IMC No. of Open well 0 1 1 0 3 3 0 0 1 2	0 0 IMC No. of Step well 0 0 1 1 1 1 0 1 0 0 0 0 0	0 1 Community No. of Open well 0 0 0 0 0 0 0 1 1 1 3	0 0 Community No. of Step well 0 0 0 0 0 0 0 0 1 0 0 0	0 2 Individual/Others No. of Open well 0 0 0 0 0 1 0 1 0 1 1 1	0 0 Individual/Others No. of Step well 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 5 Total 0 1 1 1 5 3 1 1 3 4 5
29 30 Ward No. 31 32 33 34 35 36 37 38 39 40 41 42 43	4 2 IMC No. of Open well 0 1 1 0 0 3 3 0 0 1 2 1	0 0 IMC No. of Step well 0 0 1 1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0	0 1 Community No. of Open well 0 0 0 0 0 0 0 1 1 1 3 1	0 0 Community No. of Step well 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0	0 2 Individual/Others No. of Open well 0 0 0 0 1 0 1 0 1 1 1 1	0 0 Individual/Others No. of Step well 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 5 Total 0 1 1 1 5 3 1 1 3 4 5
29 30 Ward No. 31 32 33 34 35 36 37 38 39 40 41 42 43 44	4 2 IMC No. of Open well 0 1 1 0 0 3 3 0 0 1 2 1 1 2	0 0 IMC No. of Step well 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 Community No. of Open well 0 0 0 0 0 0 0 0 1 1 1 3 1 0	0 0 Community No. of Step well 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0	0 2 Individual/Others No. of Open well 0 0 0 0 0 1 0 1 0 1 1 0 1 1 0	0 0 Individual/Others No. of Step well 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 5 Total 0 1 1 1 5 3 1 1 3 4 5 3
29 30 Ward No. 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	4 2 IMC No. of Open well 0 1 1 0 0 3 3 0 0 1 2 1 1 2 8	0 0 IMC No. of Step well 0 0 1 1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0	0 1 Community No. of Open well 0 0 0 0 0 0 0 0 1 1 1 3 1 0 0	0 0 Community No. of Step well 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 2 Individual/Others No. of Open well 0 0 0 0 0 1 0 1 0 1 1 0 0 0 0 0 0 0	0 0 Individual/Others No. of Step well 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 5 Total 0 1 1 1 5 3 1 1 3 4 5 3 2 8
29 30 Ward No. 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	4 2 IMC No. of Open well 0 1 1 0 0 3 3 0 0 1 2 1 1 2 8 3	0 0 IMC No. of Step well 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 Community No. of Open well 0 0 0 0 0 0 0 0 0 1 1 1 3 1 0 0 0 0	0 0 Community No. of Step well 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 2 Individual/Others No. of Open well 0 0 0 0 0 1 0 1 0 1 1 0 0 1 0 0 0 0	0 0 Individual/Others No. of Step well 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 5 Total 0 1 1 1 5 3 1 1 3 4 5 3 2 8 3
29 30 Ward No. 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	4 2 IMC No. of Open well 0 1 1 0 0 3 3 0 0 1 2 1 1 2 8	0 0 IMC No. of Step well 0 0 1 1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0	0 1 Community No. of Open well 0 0 0 0 0 0 0 0 1 1 1 3 1 0 0	0 0 Community No. of Step well 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 2 Individual/Others No. of Open well 0 0 0 0 0 1 0 1 0 1 1 0 0 0 0 0 0 0	0 0 Individual/Others No. of Step well 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 5 Total 0 1 1 1 5 3 1 1 3 4 5 3 2 8

				_			
49	1	0	3	0	1	0	5
50	0	0	3	0	1	0	4
51	2	0	0	1	2	0	5
52	3	1	3	0	1	0	8
53	5	0	0	0	2	0	7
54	6	0	1	0	0	0	7
55	7	1	2	0	1	0	11
56	1	0	2	0	1	0	4
57	1	2	0	0	0	0	3
58	0	4	0	0	0	0	4
59	1	0	1	0	0	0	2
60	1	0	0	0	2	0	3
61	2	2	0	0	0	0	4
62	2	0	0	0	0	0	2
63	11	3	1	0	0	0	15
64	10	1	0	0	1	0	12
65	4	2	0	0	0	0	6
66	3	2	1	0	0	0	6
67	2	0	0	0	0	0	2
68	0	0	0	1	0	0	1
69	1	0	0	0	0	0	1
70	0	0	0	0	0	0	0
71	3	0	1	0	0	0	4
72	5	0	0	0	0	0	5
73	2	0	1	0	0	0	3
74	7	0	2	0	7	0	16
75	4	0	2	1	3	0	10
	IMC	IMC	Community	Community	Individual/Others	Individual/Others	
Ward No.	No. of Open well	No. of Step well	No. of Open well	No. of Step well	No. of Open well	No. of Step well	Total
76	0	0	0	0	0	0	0
77	16	0	1	0	8	0	25
78	7	5	2	0	1	1	16
79	4	1	0	0	0	0	5
80	8	0	1	0	0	0	9
81	6	0	0	0	1	0	7
	1	0	0	0	0	0	2
82	2	0					
82 83	5	1	0	0	0	0	6
				0	0	0	6 1
83	5	1	0				

8.3.2 Potential Traditional Water Sources (Diameter ≥ 3 m)

A list classified according to the wards for the potential sources is provided in Annexure 2 with the estimates.

The surveyed wells were assessed as potential sources/non-potential sources for revival/recharge. Total 341 wells having diameter/ plan area as 3m/7m² were identified as

potential sources. The potential of these sources is two-fold, the wells can be revived for water supply and some of them may be used as structures for rain water harvesting/ ground water recharge. Total 341 wells are recommended for Water Supply/ Ground Water Recharge out of which 287 are Open Wells and 54 are Step Wells. 184 wells are recommended for Ground Water Recharge that is included in 341 wells, out of which 148 are Open Wells and 36 are Step Wells. 63 wells out of these 184 wells are recommended for Rain Water Recharge Channel activity while 121 wells are recommended for Roof with Filter recharging activity.

Total 281 wells are owned by IMC out of which 236 are Open wells and 45 are Step wells. Out of these 236 open wells, 174 are wet and out of that 78 wells are being used for water supply while 61 open wells out of 236 are Dry and 168 Open wells have siltation. Out of 45 Step wells owned by IMC, 33 Step wells are wet and out of that 12 step wells are being used for water supply while 12 Step wells are dry and 32 Step wells out of total 45 step wells have siltation.

Currently highest 5 open wells are being used for water supply in ward no. 77 and 63 individually while 3 Step wells are being used for water supply in ward no. 78. The data is presented in Table 6 and 7.

Table 6: Summary of Potential Sources in IMC Area

Sr. no.	Total number of Potential Sources	Total Number of Potential Open wells	Total number of Potential Step wells		
1	327	275	52		

Table 7: Status of water availability and usage of the sources

	1	able 7: Status	on wat	IMC	nty anu	usage of the s	sources_			
		No. of Op	en well		No. of Step well					
Ward No.	Wet	Water supply in current	Dry	Siltation / Solid waste	Wet	Water supply in current	Dry	Siltation / Solid waste		
1.	1	1	0	1	0	0	0	0		
2.	0	0	0	0	0	0	0	0		
3.	2	2	1	3	0	0	0	0		
4.	0	0	0	0	1	1	0	1		
5.	1	1	3	4	0	0	0	0		
6.	1	0	1	1	0	0	0	0		
7.	1	1	0	0	0	0	0	0		
8.	0	0	0	0	1	0	0	0		
9.	0	0	0	0	1	0	1	1		
10.	1	0	0	1	0	0	0	0		
11.	0	0	0	0	0	0	0	0		
12.	1	0	1	1	0	0	0	0		
13.	3	0	0	1	0	0	0	0		
14.	1	1	1	2	0	0	0	0		
15.	1	1	1	2	0	0	1	1		
16.	0	0	1	1	0	0	0	0		
17.	1	0	0	1	0	0	0	0		
18.	3	0	4	6	1	0	2	3		
19.	0	0	2	2	0	0	1	1		
20.	1	0	0	1	0	0	0	0		
21.	0	0	1	1	0	0	0	0		
22.	4	1	4	8	0	0	0	0		
23.	2	1	1	2	0	0	0	0		
24.	2	1	0	0	0	0	0	0		
25.	5	1	0	5	0	0	0	0		
26.	2	1	2	4	0	0	0	0		
27.	2	0	0	2	1	0	0	1		
28.	2	1	1	3	4	1	0	4		
29.	2	0	2	4	0	0	0	0		
30.	1	0	1	2	0	0	0	0		
31.	0	0	0	0	0	0	0	0		
32.	0	0	1	1	0	0	0	0		
33.	0	0	1	1	0	0	0	0		
34.	0	0	0	0	1	0	0	1		
35.	0	0	0	0	1	1	0	1		
36.	0	0	3	3	0	0	1	1		
37.	0	0	3	3	0	0	0	0		
38.	0	0	0	0	1	1	0	1		
39.	0	0	0	0	0	0	0	0		
40.	0	0	1	1	0	0	0	0		
41.	2	2	0	1	0	0	0	0		
42.	0	0	1	1	0	0	0	0		
43.	1	1	0	1	0	0	0	0		
44.	1	1	1	2	0	0	0	0		

45.	7	3	1	8	0	0	0	0	
Ward		No. of Op	en well		No. of Step well				
No.	Wet	Water supply in current	Dry	Siltation / Solid waste	Wet	Water supply in current	Dry	Siltation / Solid waste	
46.	3	1	0	3	0	0	0	0	
47.	2	1	3	5	0	0	2	1	
48.	1	0	0	1	0	0	0	0	
49.	1	0	0	1	0	0	0	0	
50.	0	0	0	0	0	0	0	0	
51.	2	0	0	2	0	0	0	0	
52.	1	0	2	2	0	0	1	1	
53.	3	3	2	2	0	0	0	0	
54.	4	3	2	5	0	0	0	0	
55.	6	4	1	6	1	1	0	1	
56.	1	0	0	1	0	0	0	0	
57.	1	0	0	1	2	0	0	1	
58.	0	0	0	0	4	1	0	2	
59.	1	0	0	1	0	0	0	0	
60.	1	1	0	1	0	0	0	0	
61.	2	1	0	2	2	1	0	1	
62.	1	1	1	2	0	0	0	0	
63.	9	5	2	4	3	1	0	1	
64.	7	3	3	7	0	0	1	1	
65.	4	1	0	4	2	1	0	1	
66.	3	2	0	2	2	0	0	2	
67.	2	2	0	2	0	0	0	0	
68.	0	0	0	0	0	0	0	0	
69.	0	0	1	1	0	0	0	0	
70.	0	0	0	0	0	0	0	0	
71.	3	2	0	2	0	0	0	0	
72.	5	1	0	5	0	0	0	0	
73.	2	2	0	2	0	0	0	0	
74.	7	3	0	0	0	0	0	0	
75.	4	3	0	4	0	0	0	0	
76.	0	0	0	0	0	0	0	0	
77.	13	5	3	0	0	0	0	0	
78.	7	2	0	1	4	3	1	2	
79.	3	1	1	2	0	0	1	1	
80.	8	4	0	2	0	0	0	0	
81.	5	3	1	6	0	0	0	0	
82.	2	1	0	0	0	0	0	0	
83.	5	2	0	5	1	0	0	1	
84.	1	0	0	1	0	0	0	0	
85.	3	1	0	3	0	0	0	0	
	174	78	61	168	33	12	12	32	

Total 282 wells are owned by IMC out of which 236 are Open wells and 45 are Step wells. Out of 236 open wells, 11 open wells have current depth between 0.1m to 5m, 79 open wells have current depth between 5.01m to 10m, 106 open wells have current depth between

10.01m to 15m, 29 open wells have current depth between 15.01m to 20m while 10 open wells have current depth more than 20m.

Similarly out of 45 Step wells of IMC, 3 step wells have current depth between 0.1m to 5 m, 17 step wells have current depth between 5.01m to 10m, 18 step wells have current depth between 10.01m to 15m, 6 step wells have current depth between 15.01m to 20m while only 1 step well has current depth more than 20m. The data is presented in Table 8.

Table 8: Sources assessed as potential with depth range

			o. of Open v		No. of Step well						
Ward			rrent Depth			Current Depth (m)					
No.	0.1 to 5	5.01 to 10	10.01 to 15	15.01 to 20	> 20	0.1 to 5	5.01 to 10	10.01 to	15.01 to 20	> 20	
1	0	1	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	0	
3	0	0	3	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	1	0	
5	0	2	1	0	1	0	0	0	0	0	
6	0	0	2	0	0	0	0	0	0	0	
7	0	0	0	0	1	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	1	
9	0	0	0	0	0	0	1	1	0	0	
10	1	0	0	0	0	0	0	0	0	0	
11	0	0	0	0	0	0	0	0	0	0	
12	0	1	1	0	0	0	0	0	0	0	
13	0	1	0	1	1	0	0	0	0	0	
14	1	0	1	0	0	0	0	0	0	0	
15	0	1	1	0	0	0	1	0	0	0	
16	0	0	1	0	0	0	0	0	0	0	
17	0	1	0	0	0	0	0	0	0	0	
18	1	3	2	1	0	0	2	1	0	0	
19	1	1	0	0	0	1	0	0	0	0	
20	0	0	1	0	0	0	0	0	0	0	
21	0	0	1	0	0	0	0	0	0	0	
22	0	5	3	0	0	0	0	0	0	0	
23	0	1	1	1	0	0	0	0	0	0	
24	0	0	2	0	0	0	0	0	0	0	
25	0	0	5	0	0	0	0	0	0	0	
26	0	0	3	1	0	0	0	0	0	0	
27	0	0	2	0	0	0	1	0	0	0	
28	1	2	0	0	0	0	3	1	0	0	
29	0	3	1	0	0	0	0	0	0	0	
30	0	0	1	1	0	0	0	0	0	0	
31	0	0	0	0	0	0	0	0	0	0	
32	0	1	0	0	0	0	0	0	0	0	
33	0	1	0	0	0	0	0	0	0	0	
34	0	0	0	0	0	0	0	1	0	0	
35	0	0	0	0	0	0	0	1	0	0	
36	0	1	2	0	0	0	1	0	0	0	
37	0	2	1	0	0	0	0	0	0	0	

38	0	0	0	0	0	0	1	0	0	0		
39	0	0	0	0	0	0	0	0	0	0		
40	1	0	0	0	0	0	0	0	0	0		
41	0	0	2	0	0	0	0	0	0	0		
71	0		o. of Open v		0	No. of Step well						
Ward			rrent Depth					rrent Depth				
No.	0.1 to 5	5.01 to	10.01 to	15.01 to	> 20	0.1 to 5	5.01 to	10.01 to	15.01 to 20	> 20		
42	0	10 1	15 0	0	0	0	0	15 0	0	0		
43	0	1	0	0	0	0	0	0	0	0		
44	0	1	1	0	0	0	0	0	0	0		
45	0	3	4	1	0	0	0	0	0	0		
46	0	0	3	0	0	0	0	0	0	0		
47	0	3	1	1	0	0	2	0	0	0		
48	0	1	0	0	0	0	0	0	0	0		
49	0	0	0	0	1	0	0	0	0	0		
50	0	0	0	0	0	0	0	0	0	0		
51	0	1	0	1	0	0	0	0	0	0		
52	0	2	1	0	0	0	1	0	0	0		
53	1	2	1	1	0	0	0	0	0	0		
54	0	2	0	3	1	0	0	0	0	0		
55	0	1	3	2	1	0	0	1	0	0		
56	0	0	1	0	0	0	0	0	0	0		
57	0	1	0	0	0	0	0	2	0	0		
58	0	0	0	0	0	0	0	2	2	0		
59	0	1	0	0	0	0	0	0	0	0		
60	0	0	1	0	0	0	0	0	0	0		
61	0	0	2	0	0	0	1	1	0	0		
62	1	1	0	0	0	0	0	0	0	0		
63	0	3	6	2	0	0	0	2	1	0		
64	0	1	2	6	1	0	0	1	0	0		
65	0	0	3	0	1	0	1	0	1	0		
66	0	0	3	0	0	0	0	2	0	0		
67	0	1	1	0	0	0	0	0	0	0		
68	0	0	0	0	0	0	0	0	0	0		
69	0	0	1	0	0	0	0	0	0	0		
70	0	0	0	0	0	0	0	0	0	0		
71	0	0	2	1	0	0	0	0	0	0		
72	0	0	5	0	0	0	0	0	0	0		
73	1	0	1	0	0	0	0	0	0	0		
74	0	2	4	0	1	0	0	0	0	0		
75	0	0	3	1	0	0	0	0	0	0		
76	0	0	0	0	0	0	0	0	0	0		
77	0	13	3	0	0	0	0	0	0	0		
78	0	0	7	0	0	1	2	1	1	0		
79	0	0	1	3	0	1	0	0	0	0		
80 81	1	2 4	3	0	0	0	0	0	0	0		
81	0	1	0	0	1	0	0	0	0	0		
83	0	2	3	0	0	0	0	1	0	0		
0.3	U	2	3	U	U	U	U	1	U	U		

Total	11	79	106	29	10	3	17	18	6	1
85	0	1	2	0	0	0	0	0	0	0
84	0	1	0	0	0	0	0	0	0	0

8.3.3 Water Quality (May-June 2015) of Potential Traditional Water Sources

Water quality of all sources was checked and analyzed in terms of pH, TDS, color, odour, and bacteriological contamination. 233 of the total sources were found to be having bacteriological contamination. The ward wise summary of the findings is provided as follows:

Bacteriological Contamination

Total 280 wells are owned by IMC out of which 235 are Open wells and 45 are Step wells. Out of these 235 open wells 158 open wells are contaminated (Bacteriological) while only 8 open wells are not contaminated (Bacteriological). Similarly 31 step wells out of 45 are contaminated (Bacteriological) while there is no record of any not contaminated step well. Water quality of 83 wells is not recorded. Table 9 shows the details of Bacteriological Contamination in Potential Traditional Water Sources.

Table 9: Status of Bacteriological Contamination in TWSS

Ward	Table 9 : Status of Bacteriological Contamination in TWSS IMC									
No.	No. of Open well	Contaminated	Not Contaminated	No. of Step well	Contaminated	Not Contaminated	Dry/ Not Available			
1.	1	1	0	0	0	0	0			
2.	0	0	0	0	0	0	0			
3.	3	2	0	0	0	0	1			
4.	0	0	0	1	1	0	0			
5.	4	2	0	0	0	0	2			
6.	2	1	0	0	0	0	1			
7.	1	1	0	0	0	0	0			
8.	0	0	0	1	1	0	0			
9.	0	0	0	2	1	0	1			
10.	1	0	0	0	0	0	1			
11.	0	0	0	0	0	0	0			
12.	2	1	0	0	0	0	1			
13.	3	3	0	0	0	0	0			
14.	2	1	0	0	0	0	1			
15.	2	1	0	1	0	0	2			
16.	1	0	0	0	0	0	1			
17.	1	0	0	0	0	0	1			
18.	7	2	0	3	1	0	7			
19.	2	0	0	1	0	0	3			
20.	1	0	0	0	0	0	1			
21.	1	0	0	0	0	0	1			
22.	8	3	0	0	0	0	5			
23.	3	1	1	0	0	0	1			
24.	2	2	0	0	0	0	0			
25.	5	5	0	0	0	0	0			
26.	4	2	0	0	0	0	2			
27.	2	2	0	1	1	0	0			
28.	3	2	0	4	4	0	1			
29.	4	2	0	0	0	0	2			
30.	2	1	0	0	0	0	1			
31.	0	0	0	0	0	0	0			
32.	1	0	0	0	0	0	1			
33.	1	0	0	0	0	0	1			

34.	0	0	0	1	1	0	0
Ward	No. of	Contaminated	Not	No. of	Contaminated	Not	Dry/ Not
No.	Open well		Contaminated	Step well		Contaminated	Available
35.	0	0	0	1	1	0	0
36.	3	0	0	1	0	0	4
37.	3	0	0	0	0	0	3
38.	0	0	0	1	1	0	0
39.	0	0	0	0	0	0	0
40.	1	0	0	0	0	0	1
41.	2	2	0	0	0	0	0
42.	1	0	0	0	0	0	1
43.	1	1	0	0	0	0	0
44.	2	1	0	0	0	0	1
45.	8	7	0	0	0	0	1
46.	3	3	0	0	0	0	0
47.	5	2	0	2	0	0	5
48.	1	1	0	0	0	0	0
49.	1	1	0	0	0	0	0
50.	0	0	0	0	0	0	0
51.	2	1	0	0	0	0	1
52.	3	0	0	1	0	0	4
53.	5	3	0	0	0	0	2
54.	6	4	0	0	0	0	2
55.	7	6	0	1	1	0	1
56.	1	1	0	0	0	0	0
57.	1	1	0	2	2	0	0
58.	0	0	0	4	4	0	0
59.	1	1	0	0	0	0	0
60.	1	1	0	0	0	0	0
61.	2	2	0	2	2	0	0
62.	2	1	0	0	0	0	1
63.	11	9	0	3	2	0	3
64.	10	7	0	1	0	0	4
65.	4	4	0	2	2	0	0
66.	3	2	1	2	1	0	1
67.	2	2	0	0	0	0	0
68.	0	0	0	0	0	0	0
69.	1	0	0	0	0	0	1
70.	0	0	0	0	0	0	0
71.	3	3	0	0	0	0	0
72.	5	4	1	0	0	0	0
73.	2	2	0	0	0	0	0
74.	7	7	0	0	0	0	0
75.	4	3	1	0	0	0	0
76. 77.	0	0	0	0	0	0	0
78.	16	13	2	0	0	0	1
78. 79.	7	7	0	5	4	0	1
80.	4	7	0	1	0	0	2
ou.	8	/	0	0	0	0	1

81.	6	3	1	0	0	0	2
82.	2	2	0	0	0	0	0
Ward No.	No. of Open well	Contaminated	Not Contaminated	No. of Step well	Contaminated	Not Contaminated	Dry/ Not Available
83.	5	3	1	1	1	0	1
84.	1	1	0	0	0	0	0
85.	3	2	0	0	0	0	1
	235	158	8	45	31	0	83

TDS in Potential Traditional Water Sources

131 Open Wells in 43 wards display a permissible range of TDS while 43 Wells in 31 wards have an impermissible range of TDS. Ward No.-16 has highest 16 Open-Wells in which 15 Open-Wells have permissible range of TDS while Ward No.- 25 and 85 individually have highest 3 Open-Wells of impermissible range of TDS.

Similarly 10 wards have total 16 Step-Wells of permissible range of TDS and 12 wards have total 16 Step-Wells of impermissible range of TDS. Ward No.-78 has highest 3 Step-Wells of permissible range of TDS while Ward No.- 61, 58, 57 and 28 individually have highest 2 Step-Wells of impermissible range of TDS. The data is presented in Table-10.

Table 10: Status of TDS in TWSS

Ward									
No.	No. of Open well	TDS (under desirable limit – 500	TDS (above desirable limit – 500 mg/l)	No. of Step	TDS (under desirable limit – 500	TDS (above desirable limit – 500	Dry/ NA		
1	_	mg/l)		well	mg/l)	mg/l)	_		
1.	1	0	1	0	0	0	0		
2.	0	0	0	0	0	0	0		
3.	3	2	0	0	0	0	1		
4.	0	0	0	1	1	0	0		
5.	4	0	2	0	0	0	2		
6.	2	0	1	0	0	0	1		
7.	1	0	0	0	0	0	1		
8.	0	0	0	1	0	1	0		
9.	0	0	0	2	0	1	1		
10.	1	0	1	0	0	0	0		
11.	0	0	0	0	0	0	0		
12.	2	1	0	0	0	0	1		
13.	3	2	1	0	0	0	0		
14.	2	1	0	0	0	0	1		
15.	2	0	1	1	0	0	2		
16.	1	0	0	0	0	0	1		
17.	1	0	1	0	0	0	0		
18.	7	1	1	3	1	0	7		
19.	2	0	0	1	0	0	3		
20.	1	0	0	0	0	0	1		
21.	1	0	0	0	0	0	1		
22.	8	2	2	0	0	0	4		
23.	3	0	2	0	0	0	1		
24.	2	0	1	0	0	0	1		
25.	5	2	3	0	0	0	0		
26.	4	2	0	0	0	0	2		

27.	2	0	2	1	0	1	0
28.	3	2	0	4	2	2	1
29.	4	1	1	0	0	0	2
Ward No.	No. of Open well	TDS (under desirable limit – 500 mg/l)	TDS (above desirable limit – 500 mg/l)	No. of Step well	TDS (under desirable limit – 500 mg/l)	TDS (above desirable limit – 500 mg/l)	Dry/ NA
30.	2	0	1	0	0	0	1
31.	0	0	0	0	0	0	0
32.	1	0	0	0	0	0	1
33.	1	0	0	0	0	0	1
34.	0	0	0	1	1	0	0
35.	0	0	0	1	0	1	0
36.	3	0	0	1	0	0	4
37.	3	0	0	0	0	0	3
38.	0	0	0	1	0	1	0
39.	0	0	0	0	0	0	0
40.	1	0	0	0	0	0	1
41.	2	2	0	0	0	0	0
42.	1	0	0	0	0	0	1
43.	1	1	0	0	0	0	0
44.	2	1	0	0	0	0	1
45.	8	6	1	0	0	0	1
46.	3	1	2	0	0	0	0
47.	5	2	0	2	0	0	5
48.	1	1	0	0	0	0	0
49.	1	1	0	0	0	0	0
50.	0	0	0	0	0	0	0
51.	2	0	2	0	0	0	0
52.	3	1	0	1	0	0	3
53.	5	3	0	0	0	0	2
54.	6	4	0	0	0	0	2
55.	7	6	0	1	0	1	1
56.	1	0	1	0	0	0	0
57.	1	0	1	2	0	2	0
58.	0	0	0	4	2	2	0
59.	1	1	0	0	0	0	0
60.	1	1	0	0	0	0	0
61.	2	1	1	2	0	2	0
62.	2	0	1	0	0	0	1
63.	11	8	1	3	2	0	3
64.	10	4	3	1	0	0	4
65.	4	4	0	2	2	0	0
66.	3	3	0	2	1	1	0
67.	2	1	1	0	0	0	0
68.	0	0	0	0	0	0	0
69.	1	0	0	0	0	0	1
70.	0	0	0	0	0	0	0
71.	3	3	0	0	0	0	0
72.	5	4	1	0	0	0	0

73.	2	2	0	0	0	0	0
74.	7	6	1	0	0	0	0
75.	4	3	1	0	0	0	0
76.	0	0	0	0	0	0	0
Ward No.	No. of Open well	TDS (under desirable limit – 500 mg/l)	TDS (above desirable limit – 500 mg/l)	No. of Step well	TDS (under desirable limit – 500 mg/l)	TDS (above desirable limit – 500 mg/l)	Dry/ NA
77.	16	15	1	0	0	0	0
78.	7	7	0	5	3	1	1
79.	4	2	1	1	0	0	2
80.	8	8	0	0	0	0	0
81.	6	5	0	0	0	0	1
82.	2	2	0	0	0	0	0
83.	5	5	0	1	1	0	0
84.	1	1	0	0	0	0	0
85.	3	0	3	0	0	0	0
Total	235	131	43	45	16	16	74

pH in Potential Traditional Water Sources

Total 60 wards out of 85 have 158 Open-Wells of permissible range of pH while 7 wards have total 16 Wells of impermissible range of pH. Ward No.-63 has highest 9 Wells of permissible range of pH out of 11 open wells while Ward No.77 has 8 wells of impermissible range of pH out of 16 wells.

Similarly 18 Wards have total 30 Step Wells of permissible range of pH and 2 wards have total 2 Step-Wells of impermissible range of pH. Ward No.-28 and 58 individually have 4 Step-Wells of permissible range of pH while Ward No. 78 and 65 individually have 1 Step-Well of impermissible Limit. The data is presented in Table-11.

Table 11: Status of pH value in TWSS

Ward		IMC										
No.	No. of Open well	pH (in desirable limit – 6.5 to 8.5)	pH (out of desirable limit – 6.5 to 8.5)	No. of Step well	pH (in desirable limit – 6.5 to 8.5)	pH (out of desirable limit – 6.5 to 8.5)	Dry/ NA					
1.	1	1	0	0	0	0	0					
2.	0	0	0	0	0	0	0					
3.	3	2	0	0	0	0	1					
4.	0	0	0	1	1	0	0					
5.	4	2	0	0	0	0	2					
6.	2	1	0	0	0	0	1					
7.	1	0	0	0	0	0	1					
8.	0	0	0	1	1	0	0					
9.	0	0	0	2	1	0	1					
10.	1	1	0	0	0	0	0					
11.	0	0	0	0	0	0	0					
12.	2	1	0	0	0	0	1					
13.	3	3	0	0	0	0	0					
14.	2	1	0	0	0	0	1					

15.	2	1	0	1	0	0	2
16.	1	0	0	0	0	0	1
17.	1	1	0	0	0	0	0
18.	7	1	1	3	1	0	7
19.	2	0	0	1	0	0	3
20.	1	0	0	0	0	0	1
21.	1	0	0	0	0	0	1
22.	8	4	0	0	0	0	4
23.	3	2	0	0	0	0	1
24.	2	1	0	0	0	0	1
25.	5	5	0	0	0	0	0
26.	4	2	0	0	0	0	2
27.	2	2	0	1	1	0	0
28.	3	2	0	4	4	0	1
29.	4	2	0	0	0	0	2
30.	2	1	0	0	0	0	1
31.	0	0	0	0	0	0	0
32.	1	0	0	0	0	0	1
33.	1	0	0	0	0	0	1
34.	0	0	0	1	1	0	0
35.	0	0	0	1	1	0	0
36.	3	0	0	1	0	0	4
37.	3	0	0	0	0	0	3
38.	0	0	0	1	1	0	0
39.	0	0	0	0	0	0	0
40.	1	0	0	0	0	0	1
41.	2	2	0	0	0	0	0
42.	1	0	0	0	0	0	1
43.	1	1	0	0	0	0	0
44.	2	1	0	0	0	0	1
45.	8	7	0	0	0	0	1
46.	3	3	0	0	0	0	0
47.	5	2	0	2	0	0	5
48.	1	1	0	0	0	0	0
49.	1	1	0	0	0	0	0
50.	0	0	0	0	0	0	0
51.	2	2	0	0	0	0	0
52.	3	1	0	1	0	0	3
53.	5	3	0	0	0	0	2
54.	6	4	0	0	0	0	2
55.	7	6	0	1	1	0	1
56.	1	1	0	0	0	0	0
57.	1	1	0	2	2	0	0
58.	0	0	0	4	4	0	0
59.	1	1	0	0	0	0	0
60.	1	1	0	0	0	0	0
61.	2	2	0	2	2	0	0
62.	2	1	0	0	0	0	1
63.	11	9	0	3	2	0	3
64.	10	7	0	1	0	0	4

65.	4	4	0	2	1	1	0
66.	3	3	0	2	2	0	0
67.	2	2	0	0	0	0	0
68.	0	0	0	0	0	0	0
69.	1	0	0	0	0	0	1
70.	0	0	0	0	0	0	0
71.	3	2	1	0	0	0	0
72.	5	5	0	0	0	0	0
73.	2	1	1	0	0	0	0
74.	7	6	1	0	0	0	0
75.	4	4	0	0	0	0	0
76.	0	0	0	0	0	0	0
77.	16	8	8	0	0	0	0
78.	7	6	1	5	3	1	1
79.	4	3	0	1	0	0	2
80.	8	5	3	0	0	0	0
81.	6	5	0	0	0	0	1
82.	2	2	0	0	0	0	0
83.	5	5	0	1	1	0	0
84.	1	1	0	0	0	0	0
85.	3	3	0	0	0	0	0
Total	235	158	16	45	30	2	74

9 STRATEGY FOR RESTORATION / RESURRECTION OF TRADITIONAL WATER SOURCES

It is imperative that with the growing demand for water in expanding cities like Indore, all possible available sources of water should be explored, surveyed, and accounted for. The culmination of the present study is in devising strategy for revival/ restoration of traditional water sources of the city so that they can be integrated into water supply system of the city.

Accordingly collected primary data and field observation of our survey teams identified the required restoration works for the source.

Restoration of the source includes the augmentation of,

- The physical components like parapet wall, platform surrounding the source and lining in the source for protection from falling the soft strata.
- Reclaim the original depth by de-silting or deepening of the source, dewatering of the source to remove the stagnant contaminated water and recoup the fresh water from the aquifer.

Physical restoration

During the survey of the traditional water supply sources of Indore city, three major physical components were considered,

1) Parameter, 2) Platform and 3) Lining

Step well which were used as an accommodation place for the travelers, are built up in large area and need more work for the restoration.

De-silting

In urban lake the de-silting of source includes not only the remove the silt deposited during the past years but also include the removal of the solid waste dumped in the defunct source. De-silting of the source is identified for the 107 open wells and 18 step wells to reclaim the original depth of the source.

Dewatering

Dewatering is required in the open well which has water column but not in use. In this condition, water would contaminated by bio waste like dead animals, leafs, fruits and other human activities. It will help in improve the quality of water and improve yield of the water source. After analysis of the data and field survey; 91 open wells and 18 step wells are recommended to be improved by dewatering. Dewatering of the sources considered here for three times in case of water column goes down during dewatering to less than 0.15m and continuous 24 hours dewatering in case of water column not decrease to 0.15m.

Deepening

Deepening is recommended in favorable geological condition to improve the yield of the sources. 45 sources are recommended for the deepening.

Horizontal boring

Water source can be revived by the horizontal bores within the source to improve the yield of sources in favorable geological condition.

It is to be noted here that these recommendations are based on preliminary observations and detailed geophysical studies may be required for finalization of type and magnitude of activities like deepening and horizontal boring. Horizontal boring, though could not be

recommended based on preliminary survey, is also suggested to be taken up as a revival activity with due considerations and geophysical investigations.

Traditional sources in drought situation: cleaned, deepened to augment drinking water supply



With drought conditions worsening, sourcing drinking water for people in five habitations in Ayodhiyapattinam block is a Herculean task as they have to depend only on the 30 minutes of water supplied through common pipelines every day. This affects their livelihood as most of them are laborers and have to wait for the water supply that comes during any part of the day.

But the situation is going to change soon as 5,040 villagers in the block to get over four hours of drinking water supply every day once the deepening of the well in Vellalagundam is

completed by this month-end. "Work is on to deepen the well from its current 60 feet to 75 feet," said N. Durairaj, Block Development Officer. He added that once work is over, water availability would be more and also the presence of Manjapalli Lake near the well would improve the storage level. Villagers in Vellalagundam, A.D. Colony, Mayilakaradu, M.G.R. Nagar and KaliyammanKoilVattam would be the beneficiaries.

In first phase, 780 wells were selected for de-silting and work was completed in 250 wells and put to public use. "Even bore wells have turned dry now and hence the initiative of deepening and de-silting become a success."

Officials also said that this is the first initiative in the state to provide water to the people during the drought season by renovating the traditional source of water.

Source: The Hindu, Salem. June 15, 2013 by S.P.Saravanan

A summary of resurrection activities; de-silting, dewatering and deepening is presented in Table 12.

Table 12: Resurrection of Traditional Water Sources

		IMC								
Ward	N	No of Open Well		Number of Step Wells						
Number	De-silting	De-watering	Deepening	De-silting	De- watering	Deepening				
1.	0	1	0	0	0	0				
2.	0	0	0	0	0	0				
3.	2	1	0	0	0	0				
4.	0	0	0	0	0	0				
5.	4	0	2	0	0	0				
6.	1	0	1	0	0	0				
7.	0	0	0	0	0	0				
8.	0	0	0	0	1	0				
9.	0	0	0	1	0	1				
10.	0	0	0	0	0	0				
11.	0	0	0	0	0	0				
12.	1	0	2	0	0	0				
13.	1	1	0	0	0	0				
14.	1	1	0	0	0	0				
15.	2	1	2	0	0	0				
16.	1	0	0	0	0	0				

17.							
19. 2 0 0 0 0 0 0 0 0 0	17.	1	0	0	0	0	0
Ward Number No of Open Well Number of Step Well Number of Step Well 21. 1 0 1 De-watering De-watering	18.	4	0	1	2	0	1
Number Number Positing Desititing Desitititing Desitititing Desitititing Desititititing Desititititing Desitititititing Desititititititing Desititititititititititititititititititit	19.	2	0	0	0	0	0
Number De-silting De-watering O O O 22. 8 2 3 0 0 0 0 23. 1 1 0 0 0 0 0 24. 0 1 1 0 0 0 0 0 25. 5 5 5 5 0	20.	1	0	0	0	0	0
Number De-silting De-watering O O O 22. 8 2 3 0 0 0 0 23. 1 1 1 0 0 0 0 24. 0 1 1 0 0 0 0 25. 5 5 5 5 0 0 0 0 26. 4 1 0 0 0 0 0 0 0 28. 3 1 2 4 3 4 0	Ward	N	No of Open Well		Numbe	r of Step Wel	lls
22. 8 2 3 0 0 0 23. 1 1 0 0 0 0 24. 0 1 1 0 0 0 0 25. 5 5 5 5 0 0 0 0 26. 4 1 0 0 0 0 0 0 27. 2 1 1 1 0 0 0 0 28. 3 1 1 2 4 3 4 4 29. 3 2 3 0		De-silting	De-watering	Deepening	De-watering	De-silting	Deepening
23. 1 1 0 0 0 0 24. 0 1 1 0 0 0 25. 5 5 5 5 0 0 0 26. 4 1 0 0 0 0 0 27. 2 1 1 1 1 0 0 0 28. 3 1 2 4 3 4 3 4 29. 3 2 3 0	21.	1	0	1	0	0	0
24. 0 1 1 0 0 0 25. 5 5 5 0 0 0 26. 4 1 0 0 0 0 27. 2 1 1 1 0 0 28. 3 1 2 4 3 4 29. 3 2 3 0 0 0 0 31. 0 0 0 0 0 0 0 0 31. 0	22.	8	2	3	0	0	0
25. 5 5 5 0 0 0 26. 4 1 0 0 0 0 27. 2 1 1 1 0 0 28. 3 1 2 4 3 4 29. 3 2 3 0 0 0 0 30. 2 1 0 0 0 0 0 0 31. 0	23.	1	1	0	0	0	0
26. 4 1 0 0 0 0 27. 2 1 1 1 0 0 28. 3 1 2 4 3 4 29. 3 2 3 0 0 0 30. 2 1 0 0 0 0 0 31. 0 0 0 0 0 0 0 0 32. 1 0	24.	0	1	1	0	0	0
27. 2 1 1 1 0 0 28. 3 1 2 4 3 4 29. 3 2 3 0 0 0 0 30. 2 1 0 0 0 0 0 31. 0 0 0 0 0 0 0 32. 1 0 0 0 0 0 0 0 33. 1 0	25.	5	5	5	0	0	0
28. 3 1 2 4 3 4 29. 3 2 3 0 0 0 30. 2 1 0 0 0 0 0 31. 0 0 0 0 0 0 0 32. 1 0 0 0 0 0 0 33. 1 0 0 0 0 0 0 34. 0 0 0 0 1 1 1 1 35. 0 0 0 0 1 0	26.	4	1	0	0	0	0
29. 3 2 3 0 0 0 30. 2 1 0 0 0 0 0 31. 0 0 0 0 0 0 0 32. 1 0 0 0 0 0 0 0 33. 1 0 <td< td=""><td>27.</td><td>2</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td></td<>	27.	2	1	1	1	0	0
30. 2 1 0	28.	3	1	2	4	3	4
31. 0	29.	3	2	3	0	0	0
32. 1 0 1 0 0 0 33. 1 0 0 0 0 0 0 34. 0 0 0 1 1 1 1 35. 0 0 0 0 1 0 0 36. 3 0 0 0 1 0 0 37. 3 0 0 0 0 0 0 0 38. 0	30.	2	1	0	0	0	0
33. 1 0 0 0 0 0 34. 0 0 0 1 1 1 1 35. 0 0 0 0 1 0 0 36. 3 0 0 0 0 0 0 37. 3 0 0 0 0 0 0 38. 0 0 0 0 0 0 0 0 40. 1 0	31.	0	0	0	0	0	0
34. 0 0 0 1 1 1 0 35. 0 0 0 0 1 0 0 36. 3 0 0 0 1 0 0 37. 3 0 0 0 0 0 0 38. 0 0 0 0 0 0 0 40. 1 0 0 0 0 0 0 41. 0 1 0 0 0 0 0 41. 0 1 0 0 0 0 0 42. 0 1 0 0 0 0 0 43. 0 0 0 0 0 0 0 0 44. 1 0 0 0 0 0 0 0 0 45. 7 5 2 <td>32.</td> <td>1</td> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td>	32.	1	0	1	0	0	0
35. 0 0 0 0 1 0 36. 3 0 0 1 0 0 37. 3 0 0 0 0 0 38. 0 0 0 0 0 0 39. 0 0 0 0 0 0 40. 1 0 0 0 0 0 41. 0 1 0 0 0 0 41. 0 1 0 0 0 0 42. 0 1 0 0 0 0 43. 0 0 0 0 0 0 44. 1 0 0 0 0 0 45. 7 5 2 0 0 0 47. 4 2 0 1 0 1 48.	33.	1	0	0	0	0	0
36. 3 0 0 1 0 0 37. 3 0 0 0 0 0 38. 0 0 0 0 0 0 0 39. 0 0 0 0 0 0 0 40. 1 0 0 0 0 0 0 41. 0 1 0 0 0 0 0 42. 0 1 0 0 0 0 0 43. 0 0 0 0 0 0 0 44. 1 0 0 0 0 0 0 45. 7 5 2 0 0 0 0 46. 2 2 2 0 0 0 0 47. 4 2 0 1 0 0 0 <t< td=""><td>34.</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td></t<>	34.	0	0	0	1	1	1
37. 3 0 0 0 0 0 1 0 1 38. 0 0 0 0 1 0 1 0 1 0 <td>35.</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>1</td> <td>0</td>	35.	0	0	0	0	1	0
38. 0	36.	3	0	0	1	0	0
39. 0	37.	3	0	0	0	0	0
40. 1 0 0 0 0 0 41. 0 1 0 0 0 0 42. 0 1 0 0 0 0 43. 0 0 0 0 0 0 44. 1 0 0 0 0 0 45. 7 5 2 0 0 0 46. 2 2 2 2 0 0 0 47. 4 2 0 1 0 1 0 1 0	38.	0	0	0	1	0	1
41. 0 1 0 0 0 0 42. 0 1 0 0 0 0 43. 0 0 0 0 0 0 44. 1 0 0 0 0 0 45. 7 5 2 0 0 0 46. 2 2 2 0 0 0 47. 4 2 0 1 0 1 0 0 48. 1 1 0	39.	0	0	0	0	0	0
42. 0 1 0 0 0 0 43. 0 0 0 0 0 0 44. 1 0 0 0 0 0 45. 7 5 2 0 0 0 46. 2 2 2 0 0 0 47. 4 2 0 1 0 0 0 48. 1 1 0 0 0 0 0 49. 0 1 0 0 0 0 0 50. 0 0 0 0 0 0 0 51. 1 1 0 0 0 0 0 52. 2 0 1 1 0 0 0 54. 3 4 0 0 0 0 0 55. 2 4<	40.	1	0	0	0	0	0
43. 0 0 0 0 0 0 0 44. 1 0 0 0 0 0 0 45. 7 5 2 0 0 0 0 46. 2 2 2 0 0 0 0 47. 4 2 0 1 0 0 0 0 48. 1 1 1 0 <	41.	0	1	0	0	0	0
44. 1 0 0 0 0 0 45. 7 5 2 0 0 0 46. 2 2 2 0 0 0 47. 4 2 0 1 0 1 48. 1 1 0 0 0 0 49. 0 1 0 0 0 0 50. 0 0 0 0 0 0 51. 1 1 0 0 0 0 52. 2 2 0 1 1 0 0 0 53. 2 3 1 0 <td>42.</td> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td>	42.	0	1	0	0	0	0
45. 7 5 2 0 0 0 46. 2 2 2 0 0 0 47. 4 2 0 1 0 1 48. 1 1 0 0 0 0 49. 0 1 0 0 0 0 50. 0 0 0 0 0 0 51. 1 1 0 0 0 0 52. 2 2 0 1 1 0 0 0 53. 2 3 1 0 0 0 0 0 0 54. 3 4 0	43.	0	0	0	0	0	0
46. 2 2 2 0 0 0 47. 4 2 0 1 0 1 48. 1 1 0 0 0 0 0 49. 0 1 0 0 0 0 0 50. 0 0 0 0 0 0 0 51. 1 1 1 0 0 0 0 52. 2 2 0 1 1 0 0 0 53. 2 3 1 0 0 0 0 0 54. 3 4 0 0 0 0 0 0 55. 2 4 0 0 0 0 0 0 56. 1 0 0 0 1 0 1 0 0 0 0 0 0	44.	1	0	0	0	0	0
47. 4 2 0 1 0 1 48. 1 1 0 0 0 0 49. 0 1 0 0 0 0 50. 0 0 0 0 0 0 51. 1 1 0 0 0 0 0 52. 2 0 1 1 0 1 0 1 1 0 <	45.	7	5	2	0	0	0
48. 1 1 0 0 0 0 49. 0 1 0 0 0 0 50. 0 0 0 0 0 0 51. 1 1 0 0 0 0 52. 2 2 0 1 1 0 1 53. 2 3 1 0 0 0 0 54. 3 4 0 0 0 0 0 55. 2 4 0 0 0 0 0 56. 1 0 0 0 0 0 0 57. 0 0 0 1 3 0 59. 0 0 0 0 0 0 60. 1 0 0 0 0 0 60. 1 0 0 0<	46.	2	2	2	0	0	0
49. 0 1 0 0 0 0 50. 0 0 0 0 0 0 51. 1 1 0 0 0 0 52. 2 0 1 1 0 1 53. 2 3 1 0 0 0 0 54. 3 4 0 0 0 0 0 55. 2 4 0 0 0 0 0 56. 1 0 0 0 0 0 0 57. 0 0 0 1 3 0 0 58. 0 0 0 0 0 0 0 59. 0 0 0 0 0 0 0 60. 1 0 0 0 0 0 0 62. 1<	47.	4	2	0	1	0	1
50. 0 0 0 0 0 51. 1 1 0 0 0 52. 2 0 1 1 0 1 53. 2 3 1 0 0 0 54. 3 4 0 0 0 0 55. 2 4 0 0 0 0 56. 1 0 0 0 0 0 57. 0 0 0 1 0 1 58. 0 0 0 0 0 0 59. 0 0 0 0 0 0 60. 1 0 0 0 0 0 61. 0 2 0 0 0 0 62. 1 0 0 0 0 0	48.	1	1	0	0	0	0
51. 1 1 0 0 0 0 52. 2 0 1 1 0 1 53. 2 3 1 0 0 0 54. 3 4 0 0 0 0 55. 2 4 0 0 1 0 56. 1 0 0 0 0 0 57. 0 0 0 1 0 1 58. 0 0 0 0 0 0 59. 0 0 0 0 0 0 60. 1 0 0 0 0 0 61. 0 2 0 0 0 0 62. 1 0 0 0 0 0	49.	0	1	0	0	0	0
52. 2 0 1 1 0 1 53. 2 3 1 0 0 0 54. 3 4 0 0 0 0 55. 2 4 0 0 1 0 56. 1 0 0 0 0 0 57. 0 0 0 1 0 1 58. 0 0 0 1 3 0 59. 0 0 0 0 0 0 60. 1 0 0 0 0 0 61. 0 2 0 0 0 0 62. 1 0 0 0 0 0	50.	0	0	0	0	0	0
53. 2 3 1 0 0 0 54. 3 4 0 0 0 0 55. 2 4 0 0 0 1 0 56. 1 0 0 0 0 0 0 57. 0 0 0 1 0 1 0 1 58. 0 0 0 0 1 3 0 <	51.		1	0		0	
54. 3 4 0 0 0 0 55. 2 4 0 0 1 0 56. 1 0 0 0 0 0 57. 0 0 0 1 0 1 58. 0 0 0 1 3 0 59. 0 0 0 0 0 0 60. 1 0 0 0 0 0 61. 0 2 0 0 0 0 62. 1 0 0 0 0 0	52.			1	1	0	1
55. 2 4 0 0 1 0 56. 1 0 0 0 0 0 57. 0 0 0 1 0 1 58. 0 0 0 1 3 0 59. 0 0 0 0 0 0 60. 1 0 0 0 0 0 61. 0 2 0 0 0 0 62. 1 0 0 0 0 0	53.		3	1	0	0	0
56. 1 0 0 0 0 0 57. 0 0 0 1 0 1 58. 0 0 0 1 3 0 59. 0 0 0 0 0 0 60. 1 0 0 0 0 0 61. 0 2 0 0 0 0 62. 1 0 0 0 0 0	54.		4	0	0	0	0
57. 0 0 0 1 0 1 58. 0 0 0 1 3 0 59. 0 0 0 0 0 0 60. 1 0 0 0 0 0 61. 0 2 0 0 2 0 62. 1 0 0 0 0 0	55.	2	4	0	0	1	0
58. 0 0 0 1 3 0 59. 0 0 0 0 0 0 60. 1 0 0 0 0 0 0 61. 0 2 0 0 2 0 62. 1 0 0 0 0 0	56.	1	0	0		0	
59. 0 0 0 0 0 0 60. 1 0 0 0 0 0 0 61. 0 2 0 0 2 0 62. 1 0 0 0 0 0	57.	0	0	0	1		1
60. 1 0 0 0 0 0 61. 0 2 0 0 2 0 62. 1 0 0 0 0 0 0	58.						
61. 0 2 0 0 2 0 62. 1 0 0 0 0 0 0	59.	0	0	0	0	0	0
62. 1 0 0 0 0 0	60.	1	0	0	0	0	0
	61.			0	0	2	0
63. 2 7 2 1 2 0	62.	1	0	0	0	0	0
	63.	2	7	2	1	2	0

64.	6	6	1	1	0	1
65.	4	3	0	0	1	0
66.	0	3	0	0	2	0
67.	0	1	0	0	0	0
68.	0	0	0	0	0	0
Ward		No of Open We	11	Nu	mber of Step We	lls
Number	De-silting	De-watering	Deepening	De-silting	De-watering	Deepening
69.	0	0	0	0	0	0
70.	0	0	0	0	0	0
71.	0	2	0	0	0	0
72.	2	5	0	0	0	0
73.	0	2	0	0	0	0
74.	0	0	1	0	0	0
75.	0	3	1	0	0	0
76.	0	0	0	0	0	0
77.	0	0	4	0	0	0
78.	0	1	1	1	0	0
79.	1	1	1	0	0	0
80.	1	1	0	0	0	0
81.	0	4	1	0	0	0
82.	0	0	0	0	0	0
83.	1	3	1	0	1	0
84.	1	1	0	0	0	0
85.	2	1	1	0	0	0
Total	107	91	45	18	18	12

Recharging of Traditional Water Sources

Recharging of the water source is one of the significant activities which can support in revival of source by diverting rain water to the source through basic filter system. In urban area it can be planned as per the land use pattern in surrounding of the source. In dense residential area, it can be done by Roof rain water harvesting and recharging while in open area like garden, ground, along / near the main roads it can be done by Rain water recharging channels.

RAINWATER COLLECTION
THROUGH
STORM WATER DRAIN

Desilting cum
Filter Chamber

Recharge
well

Figure 13: Rain water recharging channels (for reference)

 ${\color{red} \textbf{Source: } \underline{http://www.indiawaterportal.org/articles/can-storm-water-drains-help-recharging-groundwater-} \underline{case-chennai-tamil-nadu}}$

Hydrogeology of Indore supporting the use of traditional water sources as structures for recharge to groundwater. Rain Water Recharge channel is recommended for three step wells in ward no. 28 while maximum 7 numbers of open wells are recommended for Rain Water Recharge channel in Ward no.77. A total of 36 open wells and 16 step wells are recommended for this activity. Roof rain water harvesting and recharging is a popular technique in Indore and is recommended for 80 open wells and 13 step wells in Indore. The data is presented in Table 13.

Table 13: Recharging of Traditional Water Sources

Ward	IMC						
No.	No. of Op	en well	No. of Ste	ep well			
	Rain-water- recharging-channel	Roof-with-filter	Rain-water- recharging-channel	Roof-with-filter			
1.	0	0	0	0			
2.	0	0	0	0			
3.	2	1	0	0			
4.	0	0	1	0			
5.	1	2	0	0			
6.	0	0	0	0			
7.	0	0	0	0			
8.	0	0	0	0			
9.	0	0	0	2			
10.	0	0	0	0			
11.	0	0	0	0			
12.	0	2	0	0			
13.	1	0	0	0			
14.	0	0	0	0			
15.	0	1	0	1			

16.	0	0	0	0
17.	0	0	0	0
18.	1	4	2	0
19.	0	2	0	0
20.	0	0	0	0
21.	0	1	0	0
22.	0	8	0	0
23.	0	0	0	0
24.	0	0	0	0
25.	1	4	0	0
26.	0	4	0	0
27.	1	1	0	1
28.	0	3	3	1
29.	0	4	0	0
30.	0	2	0	0
31.	0	0	0	0
32.	0	1	0	0
33.	0	1	0	0
34.	0	0	0	1
35.	0	0	1	0
36.	0	0	1	0
37.	0	1	0	0
38.	0	0	0	1
Ward	No. of Op	oen well	No. of Sto	ep well
No.	Rain-water-	Roof-with-filter	Rain-water-	Roof-with-filter
30	0	0	0	0
39. 40	0	0	0	0
40.	0	1	0	0
40. 41.	0	1 0	0	0
40. 41. 42.	0 0 0	1 0 0	0 0 0	0 0 0
40. 41. 42. 43.	0 0 0 0	1 0 0 0	0 0 0 0	0 0 0 0
40. 41. 42. 43. 44.	0 0 0 0 0	1 0 0 0 0	0 0 0 0 0	0 0 0 0 0
40. 41. 42. 43. 44. 45.	0 0 0 0 0 0	1 0 0 0 0 0 3	0 0 0 0 0	0 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46.	0 0 0 0 0 0	1 0 0 0 0 0 3	0 0 0 0 0 0	0 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46. 47.	0 0 0 0 0 0 0 0	1 0 0 0 0 0 3 1	0 0 0 0 0 0 0	0 0 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48.	0 0 0 0 0 0 0 0 2	1 0 0 0 0 0 3 1 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48. 49.	0 0 0 0 0 0 0 0	1 0 0 0 0 0 3 1	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50.	0 0 0 0 0 0 0 0 2 0	1 0 0 0 0 0 3 1 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1
40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51.	0 0 0 0 0 0 0 0 2 0 0	1 0 0 0 0 0 3 1 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52.	0 0 0 0 0 0 0 0 2 0 0 0	1 0 0 0 0 0 3 1 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53.	0 0 0 0 0 0 0 0 2 0 0 0 0 0	1 0 0 0 0 0 3 1 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54.	0 0 0 0 0 0 0 0 2 0 0 0 0 0 0	1 0 0 0 0 0 3 1 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 1 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55.	0 0 0 0 0 0 0 0 2 0 0 0 0 0 0 0 0	1 0 0 0 0 0 3 1 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56.	0 0 0 0 0 0 0 0 2 0 0 0 0 0 0 0	1 0 0 0 0 0 3 1 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57.	0 0 0 0 0 0 0 0 2 0 0 0 0 0 0 0 0	1 0 0 0 0 0 3 1 0 0 0 0 0 0 0 0 0 2 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58.	0 0 0 0 0 0 0 0 2 0 0 0 0 0 0 0 0	1 0 0 0 0 0 3 1 0 0 0 0 0 0 0 0 0 2 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59.	0 0 0 0 0 0 0 0 2 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 3 1 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60.	0 0 0 0 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 3 1 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61.	0 0 0 0 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 3 1 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60.	0 0 0 0 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 3 1 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0

64.	1	2	1	0
65.	1	1	0	1
66.	0	1	1	0
67.	0	0	0	0
68.	0	0	0	0
69.	0	0	0	0
70.	0	0	0	0
71.	0	1	0	0
72.	0	0	0	0
73.	0	0	0	0
74.	2	5	0	0
75.	2	1	0	0
76.	0	0	0	0
77.	7	3	0	0
78.	2	3	3	1
79.	1	1	0	0
80.	1	4	0	0
81.	1	0	0	0
82.	0	2	0	0
83.	3	0	1	0
84.	0	0	0	0
85.	1	1	0	0
Total	36	80	16	13

In project component table, expected outputs show the activities under the project. Missing data is added in the table and multiple activities can be carried out at single source, hence, there may be possibilities of overlapping. The project envisages following activities covering a total of 330 water sources:

- De-silting in 107 open wells and 18 step wells
- De-watering in 91 Open wells and 18 step wells
- Deepening in 45 open wells and 12 step wells
- Recharging of traditional water wells
- Rain water recharging in 36 open wells and 16 step wells
- Roof rainwater recharging with filter in 80 open wells and 13 step wells

Safety Precaution

As the location of the traditional water supply sources in dense populated urban habitation; it is necessary to take safety precautions to accidents and it will also reduce the scope of contamination.

1) Cover the source by steel mesh 2) Fencing around the source

In present 162 water sources require to cover and 206 water sources require fencing for the safety precautions.

10 STRATEGY FOR CONSERVATION OF TRADITIONAL WATER SOURCES

An important approach in conservation of water sources is to make them useful for the community. Once the community realizes the importance and usefulness of the sources there would be taken care off. It is necessary to develop plan for regular use of each traditional water supply source after the restoration and resurrection. These uses of sources may be for water supply for domestic use, public use like gardening, commercial and industrial use. Before finalize the use of source it is required to do yield test of the source and detail water quality testing.

Maintenance and management of the source is crucial part for the municipal corporation, so it is advice to involve the beneficiaries of the source in the maintenance and management these sources as per defined use.

As the city pays high cost for the distant water from Narmada River, to reduce the cost of water, conjunctive use of these traditional water supply sources of city will be crucial.

11 PROJECT / PROGRAMME COMPONENTS AND FINANCING

Sr.	Project /program Component	Expected Concrete Outcomes	Expected Outputs	Amount (in Crores)
1	Feasibility Study	Preparing Primary Project for GPS location of traditional water supply source including GIS mapping, Ward wise Layout maps of traditional water supply sources and current status for conservation of potential traditional water supply sources	GIS Mapping	0.1500
2	Restoration/Resurrection /conservation of Traditional Water Sources	Restoration /resurrection of Traditional water resources of the Indore city so that they can be integrated into water supply system of the city. Conservation of traditional water sources	-De-silting in 107 open wells and 18 step wells -De-watering in 91 Open wells and 18 step wells -Deepening in 45 open wells and 12 step wells -Recharging of traditional	

			 water wells Rain water recharging in 36 open wells and 16 step wells Roof rainwater recharging with filter in 80 open wells and 13 step wells 	
			System in place for Maintenance and management of the source.	0.8527
3	Community engagements	Training & Capacity development	Approximately 1000 local people will be trained	0.5000
Proje	L ect /program Execution Cos	t / Monitoring	I	0.1500
Tota	I Project/Programme Cos	t		5.5065
Project/Programme Cycle Management Fee charged by the Implementing Entity				
Amo	unt of Financing Reques	ted		5.6065

12 OUTCOMES AND BENEFITS FROM THE PROJECT

Renovated Traditional Water Supply Sources (TWSS) will be used as local sources and water will be supplied to an average of 100 families per source by pipeline/ stand post. This will reduce the load on existing distant source piped-water supply system.

Also, cost of water is likely to reduce from Rs. 29/cum of Narmada Water to Rs. 4/cum to the IMC; and savings of Rs. 113 million per year after complete implementation of the project.

Project is likely to provide direct benefits to 33,000 households of the city and indirect benefits to nearly same number of households by getting water not utilized by direct beneficiaries. Selection Criteria for the interventions are >3 Diameter, hydrogeology and physical condition, De-silting, solid waste etc. of the source. Atlas is a part of the report and it contains the data with criteria.

Revenue generated from community will be utilized in maintenance of the cluster water supply system and their own sources by RahvasiSangh / user group. Hand-holding of the water user associations/ resident welfare associations will be served through this project coupled with necessary sensitization activities. This will eventually lead to maintenance of these water supply sources. This clearly displays the sustainability of the project through involvement of residents and water user associations.

Most of the traditional water supply sources are located near area of the natural drainage system. Vulnerable population in slums and lower middle class habitat developed near the same and they will benefited by regular and low cost water supply from own sources.

Year	No. of Traditional Water	Water supply to Average	Total Family benefited	Litres Per Family Per Day	Days of water supply	Water Supply from 330		onal Water ly System		nada Water ply System	Cost reduction of water supply to Indore Municipal
	Supply	No. of				TWSS	Cost /	Cost of	Cos	Cost of	Corporation per
	Source	Family per source				(cum)	cum (Rs.)	water per year (Million)	t/ cum (Rs.	water per year (Million)	year (Million)
1	330	100	33000	450	305	4529250	4	1.812	29.0	13.135	11.323
2	330	100	33000	450	305	4529250	4	1.812	29.0	13.135	11.323
3	330	100	33000	450	305	4529250	4	1.812	29.0	13.135	11.323
							Total	5.435		39.404	33.969

13 PRIORITY LIST FOR RENOVATION / RESURRECTION OF TWSS

A priority list of 50 sources based on the water quality of the source and cost of restoration for restoration of the sources and utilizing them for immediate integration with the existing water supply is presented in Table 14.

Table 14: Priority list for Restoration

Sr. No.	Ward no.	Ward ID	Estimate for Restoration (Rs.)
1	15	W15-05Wo	377
2	55	W55-11Wo	377
3	41	W41-03Wo	452
4	64	W64-09Wo	595
5	72	W72-05Wo	728
6	54	W54-02Wo	794
7	61	W61-01Wo	877
8	1	W01-02Wo	933
9	47	W47-12Wo	1,051
10	63	W63-02Ws	1,083
11	55	W55-05Wo	1,093
12	63	W63-09Wo	1,221
Sr. No.	Ward no.	Ward ID	Estimate for Restoration (Rs.)
13	55	W55-03Wo	1,360
14	72	W72-02Wo	1,443
15	42	W42-01Wo	1,495
16	43	W43-01Wo	1,542

17	61	W61-02Wo	1,567
18	81	W81-05WO	1,596
19	81	W81-05Wo	1,596
20	65	W65-01Ws	1,833
21	64	W64-08Wo	1,877
22	71	W71-02Wo	2,114
23	54	W54-03Wo	2,563
24	55	W55-12Wo	2,725
25	78	W78-12Wo	2,871
26	66	W66-02Wo	3,609
27	50	W50-02Wo	4,044
28	52	W52-05Wo	4,108
29	37	W37-03Wo	4,562
30	49	W49-02Wo	5,255
31	77	W77-12Wo	5,340
32	10	W10-07Wo	5,352
33	65	W65-06Wo	5,498
34	61	W61-02Ws	6,000
35	55	W55-06Wo	6,036
36	45	W45-04Wo	6,471
37	84	W84-02Wo	6,540
38	66	W66-01Wo	6,914
39	48	W48-05Wo	8,010
40	71	W71-03Wo	8,198
41	81	W81-02Wo	8,322
42	42	W42-04Wo	8,683
43	36	W36-03Wo	8,781
44	47	W47-10Wo	9,196
45	72	W72-07WO	11,956
46	15	W15-11WO	16,875
47	77	W77-03WO	29,687
48	66	W66-04WO	58,559
49	77	W77-20WO	90,939
50	75	W75-02WO	350,286

14 RECOMMENDATIONS

- 1. It is recommended that ownership all 629 traditional water sources should be checked with revenue records and get conformation of legal ownership of the source.
- 2. After the confirmation of legal ownership of IMC, required area should demarcated surrounding the source with fencing.
- 3. It is recommended that all the traditional water supply sources owned by IMC should be recorded in the asset register along with location, photographs, and well inventory data. These will help prevent misuse/encroachments and will also serve as data base for strengthening the existing water supply system by integrating these wells into water supply network.
- 4. It is recommended that to decide the use and beneficiaries of each traditional water supply sources after the restoration and develop the maintenance mechanism with them to preserve the traditional water sources and to prevent misuse/ encroachments of these sources.
- 5. Before finalize the use of source it is recommended to do yield test and detail water quality testing of the source.
- 6. It is strongly recommended to implement the activities recommended for revival and recharge of these sources.
- 7. The assessment of impact and formulation of adaptation strategies will necessarily need to address various important sectoral issues relevant to water supply. These issues range from improvement in the efficiency of present water supply, implementing schemes for augmentation of water supply to take care of future growth, adopting suitable demand management and supply management strategies to promote equitable distribution, increase public awareness and build public confidence in the delivery system.
- 8. Other issues affecting the sector such as depletion of groundwater, high electricity bill, lack of active maintenance, metering of water connection, zoning and providing bulk metering, carrying out water and energy audit, use of GIS in line maintenance and gradual transition to a commercial venture shall also be addressed in the study. The need of Industrial demand of water will also be assessed in above contest.
- 9. Role of recycling of waste water and its reuse, and rainwater harvesting will also need to be analyzed. It is expected that with the implementation of adaptation strategies, the management will switch over to sound practices of water supply management from present practice of crisis management.
- 10. The study will prove useful in reviewing the water supply services and water need in the context of potential impacts of climate change and would catalyze attention of policy makers, Governments and people who matter in evolving climate change resilience action plans.
- 11. A priority list of 50 water sources has been provided in the report based on water quality and cost of restoration. The sources in this list are recommended to be

integrated with the existing water supply network since it would require minimum expenditure.

15 FURTHER SCOPE

- 1. As a follow up of the present study, an inventory of the sources recommended for revival must be made and feasibility studies for these sources must be taken up.
- 2. Detailed geophysical investigations may be taken up for identified potential sources.
- 3. It is also recommended as phase 2, activities to carry out a detailed hydro-geological assessment of all the feasible sources so as to bring out their yield potential and response to recharge.
- 4. Using these traditional water sources as back up for non-availability of regular water supply must be brought on a source designed plan with GIS interface with their yield potential and population data.
- 5. The withdrawal of ground water from these sources should be monitored so as to assess the reserve available to the city from these sources.
- 6. At the policy level all traditional water sources must be marked as protected sources and suitable deterrent actions must be provided for prevention of damage to these sources.

References

- i. http://www.indore.climatemps.com
- ii. CDP under JNNURM, Mehta & associates
- iii. Source: https://en.wikipedia.org/wiki/Ganges
- iv. http://web.worldbank.org/archive/website01291/WEB/0__CON-9.HTM
- v. Taru publications
- vi. District Census handbook, Census Reports of Census India
- vii. Town Planning Towards City Development, A Report to The Durbar of Indore, by Patrick Geddes, Part 1, 1918.

Abbreviations used in the report

CDP City Development Plan

GIS Geographical Information System

IMC Indore municipal Corporation

KL Kilo Litre

LPM Litres per minute

MLD Million Litres per Day

MPCDM Madhya Pradesh Clean Development Mechanism

pH Potential of Hydrogen

SOR Schedule of Rates

TDS Total Dissolved solid

UADD Urban Administration and Development Department

UFW Unaccounted For water

Annexure-1

FIRSTHAND ESTIMATES

For Revival and Recharge of Traditional Water Supply Sources of Indore Municipal Corporation area (Diameter ≥ 3 meter)

Estimated Cost Rs.385.38 Lakh

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	Estimation Summary Source Type - Ward Estimates Summary Wardwise Estimate Summary Rate Analysis Estimation sheets

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5	14-15
6	15-16
7	17-18
8	18
9	19-20
10	20
11	No wells
12	21-23
13	23-24
14	24-25
15	26-29
16	30
17	31-33
18	33-37
19	38-39
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24	46-47
25	47-49
26	50-51
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31	No Wells
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43	70
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45	71-73
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49	79-80
50	80-81
51	82-83
52	84-87
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61	105-106
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63	107-113
64	114-119
65	120-122
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67	126
68	126
69	No Wells
70	No Wells
71	127-128
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76	No Wells
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1. NOTES ON ESTIMATES

Since most of the traditional sources are age old, and also they have not been in the mainstream of water supply network, their maintenance and upkeep was not on a very high priority. For restoration of the traditional sources, to make them sustainable, and to protect them various activities of repairs, source protection, and sustainability enhancements are required. Depending on the type of sources, their shape, dimensions, location, their physical condition, water quality, water availability, landuse pattern of the city, the hydrogeology of the area, and the rock types, the following activities were identified for restoration of the sources:

- Repairs to Parapet
- Repairs to Platform
- Repairs to Lining
- Dewatering
- Desilting
- Deepening
- Fencing
- Cover
- Recharge by rooftop rainwater connections
- Recharge by rainwater channel

Total 330 sources have been identified for restoration by repairs/renovation, and recharge activitie, out of which 278 are Open Wells, and 52 are Step wells, located in different wards of Indore Municipal Corporation area, Indore (M.P.), and their firsthand estimates have been prepared. The survey teams observed the requirements of various activities while visiting the sources, and measured the quantities and recorded the material of construction, for first hand estimates for all sources found feasible for restoration. In seven wards, viz. 2,11,31,39,69,70, and 76, no source was found feasible for restoration activities.

The rates have been derived with calculations based on the UADD SOR of Govt of M.P., 2012, and the current market practices.

- > Please note that these estimates have been prepared on the basis of preliminary observations and measurements, and are first hand estimates for strategic planning.
- It is recommended that detailed estimates may be prepared with the detailed project report for the sources selected for implementation of restoration activities.

2. Estimate Summary

2.1 Source Type- Ward Estimates Summary

Sr. No.	Ward	Number	First Hand	Number of	First Hand	Total First
1	1	1	933	0	-	933
2	2	0	-	0	-	-
3	3	3	542,089	0	-	542,089
4	4	1	122,210	1	185,870	308,080
5	5	4	1,480,239	0	-	1,480,239
6	6	3	740,150	0	-	740,150
7	7	1	35,058	2	88,905	123,963
8	8	0	-	1	39,667	39,667
9	9	0	-	3	1,845,956	1,845,956
10	10	1	5,352	0	-	5,352
11	11	0	-	0	-	-
12	12	3	222,753	2	1,000,578	1,223,330
13	13	2	256,941	0	-	256,941
14	14	2	368,772	1	18,433	387,205
15	15	6	2,152,907	2	379,802	2,532,708
16	16	1	213,623	1	157,675	371,299
17	17	5	404,018	0	-	404,018
18	18	8	690,042	1	170,957	861,000
19	19	3	320,759	0	-	320,759
20	20	2	139,009	0	-	139,009
21	21	1	69,424	0	-	69,424
22	22	8	1,654,505	0	-	1,654,505
23	23	2	90,346	0	-	90,346
24	24	2	238,074	1	254,561	492,635
25	25	5	909,824	0	-	909,824
26	26	4	518,170	0	-	518,170
27	27	2	307,853	1	429,512	737,365
28	28	3	391,276	4	1,511,801	1,903,077
29	29	4	552,633	0	-	552,633
30	30	4	499,554	0	-	499,554
31	31	0	-	0	-	1
32	32	1	248,165	0	-	248,165
33	33	1	92,242	0	-	92,242
34	34	1	326,774	0	-	326,774
35	35	2	527,247	0	-	527,247
36	36	3	117,956	0	-	117,956
37	37	2	118,091	1	58,195	176,286
38	38	1	534,492	1	266,477	800,968
39	39	0	-	0	-	-
40	40	2	246,705	1	39,857	286,562
41	41	1	452	0	-	452
42	42	3	28,061	0	-	28,061
43	43	1	1,542	0	-	1,542
44	44	1	59,721	0	-	59,721

			·		Say Rs.	38,538,000
	TOTAL	278	26,835,947	52	11,701,192	38,537,139
85	85	4	409,461	0	-	409,461
84	84	1	6,540	0	-	6,540
83	83	3	279,382	1	286,409	565,791
82	82	2	204,672	0	-	204,672
81	81	5	288,749	0	-	288,749
80	80	9	612,637	0	-	612,637
79	79	4	335,541	1	67,307	402,848
78	78	9	819,442	5	556,019	1,375,461
77	77	18	1,473,984	1	35,053	1,509,037
76	76	0	-	0	-	-
75	75	5	1,064,593	1	36,483	1,101,077
74	74	14	785,727	1	306,238	1,091,965
73	73	2	41,498	0	-	41,498
72	72	5	409,999	0	-	409,999
71	71	4	188,367	0	-	188,367
70	70	0	_	0	-	-
69	69	0	-	0	-	-
68	68	0	-	1	187,660	187,660
67	67	1	11,067	0	-	11,067
66	66	5	135,581	1	38,966	174,546
65	65	5	120,069	1	1,833	121,902
64	64	11	653,349	1	177,014	830,363
63	63	11	924,160	2	31,184	955,344
62	62	0	-	1	11,375	11,375
61	61	2	2,444	2	94,377	96,821
60	60	1	54,671	1	13,500	68,171
59	59	2	118,270	0	-	118,270
58	58	0	-	4	2,177,337	2,177,337
57	57	2	111,377	1	570,914	682,291
56	56	4	284,980	0		284,980
55	55	6	29,185	1	28,654	57,839
54	54	7	302,401	0	_	302,401
53	53	6	311,622	0		311,622
52	52	7	564,504	1	292,344	856,848
51	51	3	91,162	1	315,004	406,167
50	50	3	113,772	0	_	113,772
49	49	3	32,819	0	_	32,819
48	48	2	29,120	0	-	29,120
47	47	6	236,581	1	25,277	261,857
46	46	1	93,038	0	_	93,038
45	45	5	467,223	0	- 1	467,223

2.2 Wardwise Estimate Summary

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			(Rs.)	(Rs.)
1	1	W01-02Wo	933	933
2	2	None	-	-
3	3	W03-01Wo	70,606	542,089
4		W03-02Wo	299,771	
5		W03-03Wo	171,712	
6	4	W04-01Wo	122,210	308,080
7		W04-01Ws	185,870	
8	5	W05-03Wo	523,830	1,480,239
9		W05-05Wo	635,925	
10		W05-06Wo	126,249	
11		W05-07Wo	194,235	
12	6	W06-02Wo	577,366	740,150
13		W06-03Wo	129,367	
14		W06-05Wo	33,418	
15	7	W07-01Wo	35,058	123,963
16		W07-01Ws	36,582	
17		W07-02Ws	52,323	
18	8	W08-01Ws	39,667	39,667
19	9	W09-02Ws	1,429,734	1,845,956
20		W09-03Ws	103,826	
21		W09-04Ws	312,396	
22	10	W10-07Wo	5,352	5,352
23	11	None	-	-
24	12	W12-01Wo	100,425	1,223,330
25		W12-01Ws	539,492	
26		W12-02Wo	14,250	
27		W12-02Ws	461,085	
28		W12-03Wo	108,078	
29	13	W13-02Wo	104,119	256,940
30		W13-03Wo	152,821	
31	14	W14-01Wo	18,433	387,205
32		W14-05Wo	99,536	
33		W14-06Wo	269,236	
34	15	W15-01Ws	1,795,856	2,532,708
35		W15-02Ws	163,640	
36		W15-03Wo	216,162	
37		W15-03Ws	136,782	
38		W15-05Wo	377	
39		W15-09Wo	64,743	
40		W15-10Wo	138,274	
41		W15-11Wo	16,875	
42	16	W16-01Wo	213,623	371,299
43		W16-03Wo	157,675	
44	17	W17-01Wo	122,322	404,018
45		W17-02Wo	51,325	
46		W17-03Wo	76,545	
47		W17-04Wo	95,511	

48		W17-06Wo	58,316	
49	18	W18-02Wo	75,166	861,000
50		W18-02Ws	226,336	
51		W18-03Wo	76,701	
52		W18-03Ws	103,691	
53		W18-08Wo	65,211	
54		W18-09Wo	170,957	
55		W18-11Wo	53,710	
56		W18-13Wo	21,556	
57		W18-14Wo	67,671	
58	19	W19-04Wo	92,736	320,759
59		W19-05Wo	151,625	
60		W19-08Wo	76,398	
61	20	W20-02Wo	26,246	139,009
62	1	W20-03Wo	112,763	,
63	21	W21-02Wo	69,424	69,424
64	22	W22-01Wo	87,051	1,654,505
65	1	W22-02Wo	113,359	, ,
66	1	W22-06Wo	342,795	
67	1	W22-07Wo	355,574	
68	1	W22-08Wo	173,573	
69	1	W22-09Wo	351,412	
70	1	W22-12Wo	111,426	
71	1	W22-13Wo	119,315	
72	23	W23-01Wo	46,276	90,346
73		W23-05Wo	44,069	,
74	24	W24-01Wo	213,483	492,635
75		W24-01Ws	254,561	
76		W24-02Wo	24,591	
77	25	W25-02Wo	86,051	909,824
78		W25-03Wo	94,972	,
79		W25-05Wo	493,287	
80	1	W25-06Wo	90,377	
81	1	W25-07Wo	145,137	
82	26	W26-01Wo	157,848	518,170
83		W26-02Wo	78,227	,
84	1	W26-03Wo	203,422	
85	1	W26-04Wo	78,671	
86	27	W27-01Wo	161,267	737,365
87	1	W27-01Ws	429,512	- ,- 3-
88	1	W27-02Wo	146,586	
89	28	W28-01Wo	155,276	1,903,077
90	1	W28-01Ws	483,390	,,
91	1	W28-02Wo	112,578	
92	1	W28-02Ws	456,014	
93	1	W28-03Ws	290,175	
94	1	W28-04Ws	282,223	
95	1	W28-06Wo	123,422	
	I		125,122	

96	29	W29-01Wo	168,228	552,633
97	1	W29-03Wo	201,738	
98	1	W29-06Wo	81,652	
99	1	W29-07Wo	101,015	
100	30	W30-01Wo	166,477	499,554
101		W30-03Wo	76,974	·
102		W30-05Wo	152,078	
103	- 	W30-07Wo	104,025	
104	31	None	-	-
105	32	W32-01Wo	248,165	248,165
106	33	W33-01Wo	92,242	92,242
107	34	W34-01Ws	326,774	326,774
108	35	W35-01Ws	143,303	527,247
109	- 	W35-01Ws	383,944	
110	36	W36-01Wo	34,302	117,956
111	1	W36-03Wo	8,781	117,000
112		W36-04Wo	74,873	
113	37	W37-01Wo	113,529	176,286
114	-	W37-02Wo	58,195	170,200
115	-	W37-03Wo	4,562	
116	38	W38-01Ws	266,477	800,968
117	-	W38-01W3	534,492	800,308
117	39	0	334,432	
119	40	W40-01Ws	20.057	206 562
			39,857	286,562
120	-	W40-04Wo	168,536	
121	41	W40-06Wo	78,169	452
122	42	W41-03Wo	452	452
123	-	W42-01Wo	1,495	28,061
124	_	W42-04Wo	8,683	
125	42	W42-09Wo	17,882	
126	43	W43-01Wo	1,542	1,542
127		W44-01Wo	59,721	59,721
128	45	W45-02Wo	238,950	467,223
129	-	W45-03Wo	44,676	
130	-	W45-04Wo	6,471	
131	-	W45-07Wo	100,578	
132	46	W45-10Wo	76,548	
133	46	W46-07Wo	93,038	93,038
134	47	W47-01Ws	65,139	261,857
135	4	W47-03Wo	38,367	
136	<u> </u>	W47-05Wo	38,250	
137	<u> </u>	W47-06Wo	84,578	
138	<u> </u>	W47-07Wo	25,277	
139	<u> </u>	W47-10Wo	9,195	
140		W47-12Wo	1,051	
141	48	W48-03Wo	21,110	29,119
142		W48-05Wo	8,010	
143	49	W49-02Wo	5,255	32,819

144		W49-05Wo	15,442	
145		W49-12Wo	12,122	
146	50	W50-02Wo	4,044	113,772
147		W50-03Wo	19,810	
148		W50-06Wo	89,918	
149	51	W51-01Wo	42,802	406,167
150		W51-01Ws	315,004	,
151		W51-04Wo	36,076	
152		W51-05Wo	12,284	
153	52	W52-01Ws	292,344	856,848
154		W52-02Wo	178,684	
155		W52-04Wo	27,979	
156		W52-05Wo	4,107	
157		W52-06Wo	15,924	
158		W52-07Wo	167,449	
159		W52-08Wo	19,514	
160		W52-09Wo	150,847	
161	53	W53-01Wo	47,158	311,622
162		W53-02Wo	45,865	·
163		W53-03Wo	107,776	
164		W53-04Wo	55,717	
165		W53-11Wo	42,478	
166		W53-15Wo	12,627	
167	54	W54-01Wo	109,390	302,401
168		W54-02Wo	794	
169		W54-03Wo	2,563	
170		W54-04Wo	30,711	
171		W54-05Wo	45,474	
172		W54-06Wo	29,548	
173		W54-07Wo	83,922	
174	55	W55-01Ws	28,654	57,839
175		W55-03Wo	1,360	
176		W55-04Wo	17,593	
177		W55-05Wo	1,093	
178		W55-06Wo	6,036	
179		W55-11Wo	377	
180		W55-12Wo	2,725	
181	56	W56-01Wo	46,826	284,980
182		W56-02Wo	73,624	
183		W56-03Wo	61,307	
184		W56-05Wo	103,224	
185	57	W57-01Ws	570,914	682,291
186		W57-02Wo	33,583	
187		W57-02Ws	77,794	
188	58	W58-01Ws	798,747	2,177,337
189		W58-02Ws	177,192	
190		W58-03Ws	1,122,300	
191		W58-04Ws	79,098	

192	59	W59-01Wo	46,314	118,270
193	†	W59-02Wo	71,956	110,270
194	60	W60-04Wo	54,671	68,171
195		W60-12Wo	13,500	
196	61	W61-01Wo	877	96,821
197	1	W61-01Ws	88,377	
198	1	W61-02Wo	1,567	
199		W61-02Ws	6,000	
200	62	W62-01Wo	11,374	11,374
201	63	W63-01W0	50,618	955,344
202		W63-01Ws	54,240	
203	1	W63-02Wo	124,842	
204	1	W63-02Ws	1,083	
205	†	W63-03Wo	231,032	
206	†	W63-03Ws	30,101	
207	†	W63-07Wo	129,181	
208	†	W63-09Wo	1,221	
209	†	W63-11Wo	21,102	
210	†	W63-12W0	127,160	
211	†	W63-17Wo	62,584	
212	†	W63-19Wo	62,999	
213	†	W63-21Wo	59,182	
214	64	W64-01Wo	65,818	830,363
215		W64-02Wo	88,533	
216	1	W64-02Ws	177,014	
217	1	W64-03Wo	54,410	
218	1	W64-05Wo	36,168	
219	1	W64-06Wo	59,244	
220	1	W64-07Wo	71,602	
221	1	W64-08Wo	1,877	
222	1	W64-09Wo	595	
223	1	W64-11Wo	129,678	
224	1	W64-14Wo	67,152	
225	1	W64-16Wo	78,274	
226	65	W65-01Ws	1,833	121,902
227		W65-02Ws	15,000	
228] [W65-03Wo	41,041	
229]	W65-04Wo	13,173	
230	Ţ <u> </u>	W65-05Wo	45,358	
231	<u> </u>	W65-06Wo	5,497	
232	66	W66-01Wo	6,914	174,546
233] [W66-01Ws	38,124	
234] [W66-02Wo	3,609	
235] [W66-02Ws	38,966	
236] [W66-04Wo	58,559	
237] [W66-07Wo	28,374	
238	67	W67-01Wo	11,067	11,067
239	68	W68-01Ws	187,660	187,660

240	69	None	-	-
241	70	None	-	-
242	71	W71-01Wo	67,448	188,367
243		W71-02Wo	2,114	
244		W71-03Wo	8,198	
245		W71-04Wo	110,607	
246	72	W72-01Wo	67,707	409,999
247		W72-02Wo	1,442	
248		W72-05Wo	728	
249		W72-06Wo	328,166	
250		W72-07Wo	11,956	
251	73	W73-03Wo	10,479	41,498
252		W73-04Wo	31,019	
253	74	W74-01Wo	62,080	1,091,965
254		W74-02Wo	306,238	
255		W74-03Wo	65,485	
256		W74-04Wo	44,978	
257		W74-06Wo	59,534	
258		W74-07Wo	73,869	
259		W74-08Wo	120,065	
260		W74-09Wo	14,000	
261		W74-10Wo	44,370	
262		W74-11Wo	84,069	
263		W74-12Wo	32,785	
264		W74-13Wo	27,945	
265		W74-14Wo	32,277	
266		W74-15Wo	71,351	
267		W74-16Wo	52,921	
268	75	W75-01Wo	161,801	1,101,077
269		W75-01Ws	206,174	
270		W75-02Wo	350,286	
271		W75-03Wo	318,270	
272		W75-08Wo	36,483	
273		W75-11Wo	28,062	
274	76	None	-	-
275	77	W77-02Wo	29,688	1,509,037
276		W77-03Wo	29,688	
277	Ī	W77-04Wo	89,721	
278	Ī	W77-06Wo	68,766	
279		W77-07Wo	20,019	
280		W77-08Wo	35,053	
281		W77-09Wo	203,902	
282		W77-10Wo	48,798	
283		W77-11Wo	27,263	
284	Ī	W77-12Wo	5,340	
285	Ī	W77-13Wo	19,593	
286	Ī	W77-18Wo	68,276	
287		W77-20Wo	90,939	

288		W77-23Wo	15,795	
289	-	W77-24Wo	227,528	
290	-	W77-26Wo	84,211	
291	-	W77-27Wo	73,173	
292		W77-28Wo	309,582	
293	-	W77-29Wo	61,702	
294	78	W78-01Wo	31,640	1,375,461
295	†	W78-02Ws	186,901	2,070,102
296	†	W78-03Ws	105,345	
297	†	W78-04Wo	50,160	
298	†	W78-04Ws	140,881	
299	-	W78-05Wo	57,679	
300		W78-06Wo	103,457	
301		W78-07Wo	71,886	
302		W78-07Ws	120,021	
303		W78-08Wo	62,592	
304	-	W78-10Wo	198,023	
305	-	W78-10W0	98,911	
306	-	W78-11W0	2,871	
307	-	W78-12W0	145,094	
308	79	W78-13W0	72,615	402,848
309	1 -	W79-01W0	13,650	402,848
310	-	W79-02Ws		
	-		67,307	
311	-	W79-03Wo	47,137	
312	80	W79-04W0	202,139	612.627
313 314	-	W80-01W0	84,786	612,637
315	-	W80-02Wo W80-05Wo	53,030	
	-		125,693	
316	-	W80-06Wo	67,360	
317	-	W80-08Wo	65,862	
318	-	W80-09Wo	14,500	
319	-	W80-10Wo	81,947	
320	-	W80-11W0	75,034	
321	81	W80-13Wo	44,425	200 740
322	-	W81-02Wo	8,322	288,749
323	-	W81-03Wo	113,767	
324	-	W81-05Wo	1,596	
325	-	W81-07Wo	37,677	
326	82	W81-08Wo	127,386	204 672
327		W82-01Wo	117,174	204,672
328	83	W82-02Wo	87,498	F.C. TO:
329	- 65	W83-01Ws	286,409	565,791
330	-	W83-03Wo	156,535	
331		W83-06Wo	27,773	
332	0.4	W83-08Wo	95,074	
333	84	W84-02Wo	6,540	6,540
334	85	W85-01Wo	98,082	409,461
335		W85-02Wo	44,551	

	TOTAL (in Rs.)		38,537,139	38,537,139
337		W85-04Wo	103,770	
336		W85-03Wo	163,058	

16 3. RATE ANALYSIS

16.1 3.1 Rate Analysis for Repairs with Brickwork /m3 with Plaster

S.No.	Particulars	Quantity	Unit	Rate	Amount
For Pa	rapet and Platform				
1	Brickwork with well burnt Chimney brick in bulls patent trench kiln manufactured by ghol process, crushing strength not less than 40 kg/sqcm and water absorption not more than 15 % in foundation and plinth. - Cement Mortar 1:4 (Item 6.1.1 P. 58, SOR, UADD, Govt of M.P. May 2012)	1	M3	4439	4439
2	12 mm Cement plaster of mix 1:4 (1 cement: 4 fine sand)-)- 3.33 m2 of plaster shall be required for 1m3 of brick work assuming a thickness of 0.3m for the concrete. (Item 13.1.1 P. 157, SOR, UADD, Govt of M.P. May 2012)	3.33	M2	108	359.64
3	Unit Rate for Brickwork with plaster for Parapet/				4798.64
	Platform repair				
For L	ining				
1	Brickwork with Chimney brick of class designation 40 in superstructure above plinth level up to 2 level including the cost of scaffolding in (since the work would involve working below ground also in case of linings) - Cement Mortar 1:4 (Item 6.3.1 P. 58, SOR, UADD, Govt of M.P. May 2012)	1	M3	4547	4547
2	12 mm Cement plaster of mix 1:4 (1 cement: 4 fine sand)-3.33 m2 of plaster shall be required for 1m3 of brick work assuming a thickness of 0.3m for the concrete. (Item 13.1.1 P. 157, SOR, UADD, Govt of M.P. May 2012)	3.33	M2	108	359.64
3	Unit Rate for Brickwork with Plaster for lining				4906.64

16.2 3.2 Rate Analysis for Repairs with Concrete (RCC)

S.No.	Particulars	Quantity	Unit	Rate	Amount
For Pa	rapet and Platform				
1	Providing and Laying in position cement concrete of	1	M3	4154	4154
	specified grade excluding the cost of centering and				
	shuttering. all the work upto plinth level				
	- Cement Concrete Grade M-20 (Nominal Mix) with 20				
	mm maximum size of stone aggregate				
	(Item 4.1.2 P. 34, SOR, UADD, Govt of M.P. May 2012)				
2	Centering and shuttering including strutting, propping etc	3.33	M2	216	719.30
	and removal of form for – walls (any thickness) including				
	attached pilasters, buttresses, plinth and string courses etc-				

	3.33 m2 of centering and shuttering shall be required for 1m3 of concrete assuming a thickness of 0.3m for the				
	concrete.				
	(Item 20.1.2 P. 208, SOR, UADD, Govt of M.P. May				
	2012)				
3	6 mm cement plaster 1:3 (1 cement: 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of RCC slabs and beams- 3.33 m2 of plaster shall be required for 1m3 of concrete assuming a thickness of 0.3m for the concrete. (Item 13.17 P. 158, SOR, UADD, Govt of M.P. May	3.33	M2	112	372.96
4	2012) Unit rate for Repairs Concrete- Platform Parapet				5246.26
For L					3240.20
1	Providing and laying cement concrete in retaining walls, return walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets coping, bed blocks, anchor blocks, plain window sills, fillets etc up to floor two level, excluding the cost of centering, shuttering, and finishing (Item 4.2.2 P. 34, SOR, UADD, Govt of M.P. May 2012) Centering and shuttering including strutting, propping etc	3.33	M3	220	726
	and removal of form for – Chimneys and Shafts- 3.33 m2 of centring and shuttering shall be required for 1m3 of concrete assuming a thickness of 0.3m for the concrete. (Item 20.1.11 P. 208, SOR, UADD, Govt of M.P. May 2012)				
3	6 mm cement plaster 1:3 (1 cement: 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of RCC slabs and beams- 3.33 m2 of plaster shall be required for 1m3 of concrete assuming a thickness of 0.3m for the concrete. (Item 13.17 P. 158, SOR, UADD, Govt of M.P. May 2012)	3.33	M2	112	372.96
4	Unit Rate for lining Repairs in concrete with Plaster				5409.96

16.3 3.3 Rate analysis for Repairs with R/R Stone Masonry with Pointing

For	Parapet/ Platform Repair with Stone work	Quantity	Unit	Rate	Amount
1	Random Rubble Masonry with hard stone in foundation and				
	plinth including levelling up wih cement concrete M-15				
	stone aggregate 20 mm nominal size at plinth level with				
2	Cement Mortar 1:6 (1 Cement : 6 Coarse Sand) (Item 7.1.1	1	M3	2671	2671
	P. 67, SOR, UADD, Govt of M.P. May 2012)				
3	Pointing on stone work with cement mortar 1:3 (1 cement 3	1.67	M2	80	133.33
	fine sand) 1.67m2 of pointing shall be required for 1m3 of				
	stone masonry assuming a thickness of 0.6m for the				
	masonry.				
	Flush/Ruled/ Struck or weathered pointing (Item 13.33.1 P.				
	160, SOR, UADD, Govt of M.P. May 2012)				
4	Unit rate for repair with stone work for Parapet and				2804.33
	Platform				
For	Lining Repair with Stone work				
1	Random Rubble Masonry with hard stone in foundation and				

	plinth including levelling up wih cement concrete M-15 stone aggregate 20 mm nominal size at plinth level with				
2	Cement Mortar 1:6 (1 Cement : 6 Coarse Sand) (Item 7.1.1 P. 67, SOR, UADD, Govt of M.P. May 2012)	1	M3	2671	2671
3	Extra for Random Rubble Masonry with hard stone in superstructure above plinth level and up to floor 2 level including levelling up wih cement concrete M-15 stone aggregate 20 mm nominal size at window sills, ceiling level and the like. (since the work would involve working below ground also, in case of linings) (Item 7.2 P. 67, SOR, UADD, Govt of M.P. May 2012)	1	M3	483	483
4	Pointing on stone work with cement mortar 1:3 (1 cement 3 fine sand)- 1.67m2 of pointing shall be required for 1m3 of stone masonry assuming a thickness of 0.6m for the masonry. Flush/Ruled/ Struck or weathered pointing (Item 13.33.1 P. 160, SOR, UADD, Govt of M.P. May 2012)	1.67	M2	108	180.36
5	Unit Rate for stonework with Pointing				3334.36

16.4 3.4 Rate Analysis for Fencing

S.No.	Particulars	Quantity	Unit	Rate	Amount
1	Providing and fixing G.I. chian link fencing of required	1	Sq m	553	553
	width in mesh size 25x25 mm made of G.I. wire of dia				
	3 mm including strengthening with 3 mm wire or nuts,				
	bolts and washers as required complete as per the				
	direction of Engineer-in-Charge				
	(Item 10.34 P. 119, SOR, UADD, Govt of M.P. May				
	2012)				
2	For 8 ft high fencing, 2.44 m2 fence will be required	1	RM	1349.32	1349
	per metre and hence the rate per metre becomes				
	1349.32 per M.				

16.5 3.5 Rate Analysis for Desilting

S.No.	Particulars	Quantity	Unit	Rate	Amount
1	Excavation in dumped stones or malba including stacking	1	M3	142	142
	of serviceable and unserviceable material separately and				
	disposal of unserviceable material lead up to 50 m and lift				
	1.5 m disposed material to be neatly dressed				
	(Item 19.21 P. 207, SOR, UADD, Govt of M.P. May				
	2012)				

16.6 3.6 Rate Analysis for Deepening

S.No.	Particulars	Quantity	Unit	Rate	Amount
1	Earth work in excavation by mechanical means	1	M3	313	313
	(Hydraulic Excavator) / manual means over areas				
	(exceeding 30 cm in depth, 1.5 m in width as well as 10				
	Sq m on plan) including disposal of excavated earth, lead				
	up to 50 m and lift up to 1.5 m, dsposed earth to be				
	levelled and neatly dressed.				
	-Hard Rock (Requiring Blasting)				
	(Item 2.7.2 P. 15, SOR, UADD, Govt of M.P. May 2012)				

16.7 3.7Rate Analysis for Dewatering

S.No.	Particulars	Quantity	Unit	Rate	amount
1	Dewatering the open well with own arrangement of	1	M3	14	14
	power, pumps, labour, and all arrangements for lowering				
	the pipes and installing the pipes/ deploying tankers to				
	dispose of the pumped out water more than 500 m				
	distance. Dewatering shall be done to the tune of 3 times				
	the maximum volume of water available in the well at the				
	start of work, or upto 24hrs whichever is earlier.(Based				
	on market rates)				

16.8 3.8Rate Analysis for Cover With M.S. Grill

S.No.	Particulars	Quantity	Unit	Rate	amount
1	Structural steel work in single section fixed with or	1	Kg	59	59
	without connecting plate including cutting, hoisting,				
	fixing in position, and applying a priming coat of				
	approved steel primer all complete.				
	(Item 10.1 P.113, SOR, UADD, Govt of M.P. May 2012)				
2	Weight of structure for open well cover (per Sq M)	20	Kg	59	1180
3	Rate of the cover of open well per Sq M	1	M2	1180	1180

17 4.ESTIMATION SHEETS

ESTIMATION SHEET-1

Source ID:W01-02WoGPS Location:22.7049208475.823565Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):5.03

Current owner of source : IMC
Current Depth of Source (m): 8.84

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	66.63	M3	14	932.89
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL	,		-		932.89

ESTIMATION SHEET-2

Source ID:W03-01WoGPS Location:22.7141566775.819167Type of Source:Open-wellShape:RoundYear of Development:1915Diameter (m):4.88

Current owner of source: IMC

Current Dep	oth of Source	(m):	14.94
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S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.27	M3	4799	10882.09
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	23.66	M2	1180	27918.25
4	Repairing- Lining		M3		0.00
	Brick	2.23	M3	4906	10952.93
5	Desilting	34.18	M3	142	4853.12
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	36.59	М	164	16000.00
TOTAL		•	•		70606.38

Source ID:W03-02WoGPS Location:22.7112826475.819467Type of Source:Open-wellShape:RoundYear of Development:1880Diameter (m):5.79

Current owner of source : IMC
Current Depth of Source (m): 10.98

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	11.34	M3	4799	54410.43
2	Repairing Platform				0.00
	Brick	17.01	M3	4799	81615.65
3	Cover (M.S. Grill)	38.63	M2	1180	45582.58
4	Repairing- Lining		M3		0.00
	Brick	7.26	M3	4906	35597.02
5	Desilting	112.45	M3	142	15968.52
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	29.68	M	1349	40034.04
9	Recharge- Rainwater +25000 for Filter pit	10.63	M3	147	26562.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					299770.74

ESTIMATION SHEET-4

Source ID:W03-03WoGPS Location:22.7218988875.8218Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):11.31

Current owner of source : IMC
Current Depth of Source (m): 10.52

Current Depui of Source (iii).	10.32				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00

		0.00	M3		0.00
3	Cover (M.S. Grill)	116.25	M2	1180	137179.43
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	346.07	M3	14	4845.02
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	31.89	M3	147	29687.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					171711.95

W04-01Wo **GPS Location:** 22.72661417 75.83315 Source ID: Type of Source: Open-well Shape: Round Year of Development: 1940 Diameter (m): 5.49

Current owner of source : Community 12.50 Current Depth of Source (m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	29.21	M2	1180	34466.98
4	Repairing- Lining		M3		0.00
	Brick	3.57	M3	4906	17524.69
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	64.88	M3	313	20308.27
8	Fencing	26.80	M	1349	36159.78
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	22.87	М	164	13750.00
TOTAL					122209.72

ESTIMATION SHEET-6

Source ID: W04-01Ws **GPS Location:** 22.72602133 75.823136

Shape: Length of Source (m): Width of Type of Source: Step-well Square-Rectangle

Year of Development: 1918 11.68

9.63 Current owner of source : IMC Source (m):

Current Depth of Source (m): 15.85

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	134.34	M2	1180	158526.14
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00

5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	15.94	M3	147	27343.75
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		185869.89			

Source ID: W05-03Wo **GPS Location:** 22.71650994 75.82460099 Type of Source: Open-well Shape: Round

11.28 Year of Development: 1900 Diameter(m): IMC

Current owner of source : Current Total depth of

6.71 source(m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.57	М3	4799	2720.52
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	111.07	M2	1180	131060.68
4	Repairing- Lining				
	Brick	1.26	М3	4906	6161.02
5	Desilting	395.99	М3	142	56231.05
6	Dewatering	0.00	М3	14	0.00
7	Deepening	852.91	М3	313	266960.43
8	Fencing	44.99	M	1349	60696.77
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL	-				523830.48

ESTIMATION SHEET-8

W05-05Wo Source ID: **GPS Location:** 22.71258858 75.82555013 Type of Source: Open-well Shape: Round 1890 13.72

Year of Development: Current owner of source : IMC Current Depth of Source (m): 7.93

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	17.01	M3	4799	81615.65
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	5.58	M3	4906	27382.33
5	Desilting	630.80	M3	142	89574.11
6	Dewatering	0.00	M3	14	0.00
7	Deepening	1081.38	M3	313	338471.17
8	Fencing	53.61	M	1349	72319.56
9	Recharge- Rainwater +25000 for Filter pit	10.63	М3	147	26562.50
10	Recharge Roof with Filter (63 mm	0.00	M	164	0.00

Diameter (m):

	pipe)+10000 for filter		
TOTAL			635925.31

Source ID: W05-06Wo **GPS Location:** 22.71876228 75.82771223 Type of Source: Open-well Shape: Round Year of Development: 1918 Diameter (m): 4.27

Current owner of source : IMC Current Depth of Source (m): 21.34

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	11.34	M3	4799	54410.43
2	Repairing Platform				0.00
	Stone	5.67	M3	2804	15895.69
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.50	M3	4906	2464.41
5	Desilting	43.61	M3	142	6192.78
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	23.93	M	1349	32285.52
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL		_			126248.83

ESTIMATION SHEET-10

Source ID: W05-07Wo **GPS Location:** 22.71664666 75.82790586 Type of Source: Open-well Shape: Round Year of Development: 1915 Diameter (m): 4.57

Current owner of source : IMCCurrent Depth of Source (m): 11.95

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	5.10	M3	5246	26765.31
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	20.93	M3	4906	102683.72
5	Desilting	114.15	M3	142	16208.65
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	24.89	M	1349	33576.94
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	М	164	15000.00
TOTAL					194234.61

Source ID:W06-02WoGPS Location:22.7174726475.83223021Type of Source:Open-wellShape:RoundYear of Development:1815Diameter (m):3.05

Current owner of source : Individual
Current Depth of Source (m): 12.50

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	13.61	M3	4799	65292.52
2	Repairing Platform				0.00
	Brick	81.63	M3	4799	391755.10
3	Cover (M.S. Grill)	14.31	M2	1180	16888.82
4	Repairing- Lining		M3		0.00
	Brick	11.16	M3	4906	54764.65
5	Desilting	42.28	M3	142	6003.20
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	21.06	M	1349	28411.26
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	25.91	М	164	14250.00
TOTAL			•		577365.55

ESTIMATION SHEET-12

Source ID: W06-03Wo GPS Location: 22.72116325 75.8346707

Type of Source: Open-well Shape: Round Year of Development: 1960 Diameter (m): 6.07

Current owner of source : IMC
Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	1.36	M3	4799	6529.25
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	35.99	M2	1180	42466.76
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	132.17	M3	313	41369.74
8	Fencing	28.91	M	1349	39000.91
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					129366.66

ESTIMATION SHEET-13

Source ID: W06-05Wo **GPS Location:** 22.7197861 75.83985606

Type of Source: Open-well Shape: Round

Year of Development: 1920 Diameter(m): 4.57

Current owner of source : Current Total depth of source(m):

IMC 12.41

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.40	М3	4799	1904.37
2	Repairing Platform				
	Brick	0.00	М3	4799	0.00
3	Cover (M.S. Grill)	21.10	M2	1180	24902.39
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	46.56	М3	142	6611.42
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					33418.18

ESTIMATION SHEET-14

Source ID: W07-01Wo GPS Location: 22.72320339 75.84423662

Type of Source: Open-well Shape: Round Year of Development: 1950 Diameter (m): 3.05

Current owner of source : Individual
Current Depth of Source (m): 2.44

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.61	M3	4799	2926.22
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	13.11	M2	1180	15472.23
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	22.25	M3	142	3159.58
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	М	164	13500.00
TOTAL					35058.03

ESTIMATION SHEET-15

Source ID:	W07-01Ws		GPS Location:	22.72623656	75.84152373
Type of Source:	Step-well			Shape:	Square-Rectangle
Year of Development:	1934			Length of Source (m): Width of	3.05
Current owner of source:	Community			Source (m):	3.05
Current Depth of Source (m):	10.49				
S.No.	Activity	Quantity	Unit	Rate	Amount

		(metric)			
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				0.00
	Stone	2.27	M3	2804	6358.28
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	43.65	M3	14	611.11
7	Deepening	0.00	M3	313	0.00
8	Fencing	21.95	M	1349	29612.20
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					36581.58

Source ID: W07-02Ws **GPS Location:** 22.72517146 75.84418522 Type of Source: Square-Rectangle Step-well Shape: Length of Source (m): Year of Development: 1810 3.96 Width of Current owner of source : Community Source (m): 3.66

Current Depth of Source (m): 16.77

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	6.63	M3	2804	18597.96
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	25.00	M	1349	33725.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL		_			52322.96

ESTIMATION SHEET-17

Source ID: W08-01Ws 22.7195335 75.84742097 **GPS Location:** Shape: Length of Type of Source: Step-well Square-Rectangle Source (m): Year of Development: 1850 36.59 Width of IMC Current owner of source : Source (m): 3.66 Current Depth of Source (m): 21.34 S.No. Unit Rate Activity Quantity Amount (metric) Repairing- Parapet Brick 6.12 М3 4799 29381.63

Repairing Platform

0.00

	Brick	0.00	M3	4799	0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	734.69	M3	14	10285.71
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					39667.35

Source ID:	W09-02Ws		GPS Location:	22.73829374	75.84552245
Type of Source:	Step-well			Shape:	Square-Rectangle
Year of Development:	1900			Length of Source (m): Width of	8.23
Current owner of source:	Community			Source (m):	7.80
Current Depth of Source (m):	11.59				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	391.16	М3	2804	1096802.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	391.16	M3	2804	1096802.72
2	Repairing Platform				0.00
	Stone	17.01	M3	2804	47687.07
3	Cover (M.S. Grill)	88.77	M2	1180	104753.27
4	Repairing- Lining		M3		0.00
	Stone	8.37	M3	3334	27912.56
5	Desilting	39.18	M3	142	5564.08
6	Dewatering	0.00	M3	14	0.00
7	Deepening	235.10	M3	313	73586.94
8	Fencing	41.83	M	1349	56427.68
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	42.68	М	164	17000.00
TOTAL					1429734.32

ESTIMATION SHEET-19

Source ID:	W09-03Ws		GPS Location:	22.72945368	75.84552781
Type of Source:	Step-well			Shape: Length of	Square-Rectangle
Year of Development:	1830			Source (m): Width of	4.57
Current owner of source:	IMC			Source (m):	4.36
Current Depth of Source (m):	12.50				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
	Stone	6.38	M3	2804	17882.65
3	Cover (M.S. Grill)	28.97	M2	1180	34181.58
4	Repairing- Lining		M3		0.00

	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	27.62	M	1349	37262.01
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	М	164	14500.00
TOTAL					103826.25

W09-04Ws Source ID: **GPS Location:** 22.72919266 75.84661776

Type of Source: Square-Rectangle Step-well

Shape: Length of Source (m): Width of Year of Development: 1810 8.60

Current owner of source : IMC Source (m): 5.49

Current Depth of Source (m): 7.01

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	1.20	M3	4799	5747.10
2	Repairing Platform				0.00
	Brick	3.13	M3	4799	15017.28
3	Cover (M.S. Grill)	59.02	M2	1180	69645.25
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	244.59	M3	142	34732.04
6	Dewatering	0.00	M3	14	0.00
7	Deepening	388.47	M3	313	121590.92
8	Fencing	37.93	M	1349	51163.29
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL					312395.88

ESTIMATION SHEET-21

W10-07Wo **GPS Location:** 22.74185718 75.85071652 Source ID:

Type of Source: Open-well Shape: Round Year of Development: 1953 Diameter (m): 3.35

Current owner of source : Individual Current Depth of Source (m): 10.98

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
	Brick	0.00	M3	4799	0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	37.69	M3	142	5352.33
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00

9	Recharge- Rainwater	0.00	M3	147	
	+25000 for Filter pit				0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					5352.33

W12-01Wo **GPS Location:** 22.74618622 75.84133283 **Source ID:**

Type of Source: Open-well Shape: Round Year of Development: 1955 4.73 Diameter(m):

Current owner of source : IMC

Current Total depth of source(m):

10.37

source(m):	10.37				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	19.88	M2	1180	23459.09
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	32.07	М3	142	4554.54
6	Dewatering	0.00	М3	14	0.00
7	Deepening	85.53	М3	313	26771.26
8	Fencing	23.45	M	1349	31639.81
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	24.39	М	164	14000.00
TOTAL					100424.69

ESTIMATION SHEET-23

W12-01Ws Source ID: **GPS Location:** 22.74563699 75.84822185

Shape: Length of Source (m): Width of Type of Source: Step-well Square-Rectangle

1910 24.09 Year of Development:

Current owner of source : Community Source (m): 5.49

Current Depth of Source (m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				0.00
	Stone	0.00	M3		0.00
3	Cover (M.S. Grill)	225.32	M2	1180	265874.31
4	Repairing- Lining		M3		0.00
	Stone	6.98	M3	3334	23260.47
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	403.06	M3	313	126158.16
8	Fencing	68.90	M	1349	92949.39
9	Recharge- Rainwater +25000 for Filter pit	42.52	M3	147	31250

10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					539492.33

Source ID: W12-02Wo **GPS Location:** 22.74135234 75.84523462

Type of Source:Open-wellShape:RoundYear of Development:1950Diameter (m):3.48

Current owner of source : Community
Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	25.91	М	164	14250.00
TOTAL					14250.00

ESTIMATION SHEET-25

Source ID: W12-02Ws **GPS Location:** 22.74573763 75.84920051

Type of Source: Step-well Shape: Square-Rectangle

Year of Development: 1890 Source (m): 19.51

Width of

Current owner of source : Community Source (m): 17.68

Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	368.37	M2	1180	434679.07
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	9.57	M3	147	26406.25
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					461085.32

Source ID: W12-03Wo GPS Location: 22.74152235 75.84713568

Type of Source: Open-well Shape: Round Year of Development: 1920 Diameter (m): 4.70

Current owner of source: IMC
Current Depth of Source (m): 9.76

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.54	M3	4799	2611.70
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	23.21	M2	1180	27393.40
4	Repairing- Lining		M3		0.00
	Brick	0.28	M3	4906	1369.12
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	95.36	M3	313	29846.25
8	Fencing	24.73	M	1349	33357.40
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	М	164	13500.00
TOTAL			•		108077.86

ESTIMATION SHEET-27

Source ID: W13-02Wo **GPS Location:** 22.74096038 75.83936237

Type of Source: Open-well Shape: Round Year of Development: 1975 Diameter (m): 5.84

Current owner of source : IMC
Current Depth of Source (m): 18.29

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	6.19	M3	4799	29708.10
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.50	M3	4906	2464.41
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	30.98	M	1349	41790.37
9	Recharge- Rainwater +25000 for Filter pit	35.08	M3	147	30156.25
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		_	_		104119.13

ESTIMATION SHEET-28

Source ID: W13-03Wo **GPS Location:** 22.73709072 75.83935785

Type of Source: Open-well Shape: Round Year of Development: 1960 Diameter (m): 12.65

Current owner of source : IMC
Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	6.38	M3	4799	30605.87
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	383.21	M3	142	54415.88
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	50.26	M	1349	67799.59
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					152821.33

Source ID: W14-01Wo **GPS Location:** 22.73110421 75.80904895

Type of Source: Open-well Shape: Round Year of Development: 1960 Diameter(m): 3.66

Current owner of source : Individual
Current depth of source(m): 11.28

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	14.31	M2	1180	16888.82
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	9.61	М3	142	1364.94
6	Dewatering	12.82	М3	14	179.43
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					18433.19

ESTIMATION SHEET-30

Source ID: W14-05Wo GPS Location: 22.73050039 75.81875631

Type of Source: Open-well Shape: Round Year of Development: 1950 Diameter (m): 7.04

Current owner of source : IMC
Current Depth of Source (m): 13.35

S.No. Quantity Unit Rate Amount Activity (metric) Repairing- Parapet 0.00 M3 4799 0.00 0.00 Repairing Platform 0.00 М3 0.00

3	Cover (M.S. Grill)	45.28	M2	1180	53424.68
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	258.83	M3	14	3623.68
7	Deepening	0.00	M3	313	0.00
8	Fencing	31.50	M	1349	42487.74
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL			_		99536.10

Source ID:W14-06WoGPS Location:22.7358703375.82575236Type of Source:Open-wellShape:RoundYear of Development:1970Diameter(m):3.35

Current owner of source: IMC
Current depth of source(m): 4.57

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	34.01	М3	4799	163231.29
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	12.34	M2	1180	14562.30
4	Repairing- Lining				
	Brick	11.16	М3	4906	54764.65
5	Desilting	67.31	М3	142	9557.73
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	20.10	M	1349	27119.84
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					269235.81

ESTIMATION SHEET-32

GPS Source ID: W15-01Ws 22.75854332 75.79204029 **Location:** Shape: Length of source: Type of Source: Step-well Square-Rectangle Year of Development: 1890 22.26 Width of Current owner of source : Current Total depth of Individual 12.20 Source: 12.80 source(m): Unit Rate S.No. Activity Quantity Amount (metric) Repairing-Parapet 2804 38149.66 Stone 13.61 М3 Repairing 2 Platform 408.16 М3 2804 1144489.80 Stone Cover (M.S. Grill) 315.16 1180 371892.09 3 M2

4	Repairing- Lining				
	Stone	8.93	М3	3334	29773.40
5	Desilting	1489.80	М3	142	211551.02
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					1795855.96

GPS W15-02Ws 75.80755266 **Source ID:** 22.72944366 Location:

Type of Source: Step-well Shape: Square-Rectangle

Length of Source (m): Width of 1784 Year of Development: 8.51

6.98 Current owner of source : Community Source (m):

Current Depth of Source (m): 16.77

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	79.82	M2	1180	94192.54
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	40.73	M	1349	54947.07
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL		·	•		163639.61

ESTIMATION SHEET-34

W15-03Wo **GPS Location:** 22.74295218 75.79244705 Source ID: Type of Source: Open-well Shape: Round Year of Development: 1900 Diameter(m): 6.62

Current owner of source : IMC Current depth of source(m): 12.07

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	8.50	М3	4799	40807.82
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	44.55	M2	1180	52569.89
4	Repairing- Lining				
	Brick	2.79	М3	4906	13691.16
5	Desilting	213.74	М3	142	30351.42
6	Dewatering	171.83	М3	14	2405.65

7	Deepening	108.97	М3	313	34106.58
8	Fencing	31.30	M	1349	42229.46
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					216162.00

Year of Development:

Source ID: W15-03Ws GPS Location: 22.7446427 75.8148637

Type of Source: Step-well Shape: Square-Rectangle

Shape: Length of source: Width of

rce: 5.67

5.24

Current owner of source : IMC Source:

Current depth of source(m): 7.65

1900

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.72	М3	4799	13058.50
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	38.29	M2	1180	45180.28
4	Repairing- Lining				
	Stone	6.28	М3	3334	20934.42
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	31.59	M	1349	42608.66
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	М	164	15000.00
TOTAL					136781.86

ESTIMATION SHEET-36

Source ID: W15-05Wo **GPS Location:** 22.73037647 75.80832132

Type of Source: Open-well Shape: Round Year of Development: 1978 Diameter(m): 3.35

Current owner of source: Community

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	26.92	М3	14	376.92
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater	0.00	М3	147	0.00

	+25000 for Filter pit				
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					376.92

Source ID:W15-09WoGPS Location:22.7354014875.82368625Type of Source:Open-wellShape:RoundYear of Development:1934Diameter (m):5.49

Current owner of source: Community
Current depth of Source (m): 11.59

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.14	M3	4799	652.93
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.28	M3	4906	1369.12
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	86.51	M3	313	27077.69
8	Fencing	26.42	M	1349	35643.21
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					64742.95

ESTIMATION SHEET-38

Source ID:W15-10WoGPS Location:22.7606820875.84046702Type of Source:Open-wellShape:Round

Year of Development: 1930 Diameter(m): 6.10

Current owner of source : IMC
Current Total depth of

9.60 source(m): S.No. Activity Quantity Unit Rate Amount (metric) Repairing- Parapet 1 3.54 М3 4799 17003.26 Brick 2 Repairing Platform 0.00 0.00 М3 3 Cover (M.S. Grill) 36.97 M2 1180 43622.27 Repairing-Lining 4 Brick 0.28 4906 1369.12 М3 10742.57 5 Desilting 75.65 М3 142 Dewatering 0.00 М3 14 0.00 6 164.65 М3 313 51536.76 7 Deepening 8 Fencing 0.00 M 1349 0.00 9 0.00 М3 147 0.00 Recharge-Rainwater +25000 for Filter pit 10 Recharge Roof with 24.39 M 164 14000.00 Filter (63 mm pipe)+10000 for filter

TOTAL 138273.98

ESTIMATION SHEET-39

Source ID:W15-11WoGPS Location:22.7774486875.84052968Type of Source:Open-wellShape:RoundYear of Development:1940Diameter(m):6.10

Current owner of source : Community
Current depth of source(m): 15.24

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.59	М3	4906	2875.14
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	24.39	М	164	14000.00
TOTAL					16875.14

ESTIMATION SHEET-40

Source ID:W16-01WoGPS Location:22.7472343375.8130452Type of Source:Open-wellShape:RoundYear of Development:1960Diameter(m):4.94

Current owner of source : Individual Current depth of source(m): 14.66

Current depth of source(m):	14.66				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	22.11	М3	4799	106100.34
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	25.81	M2	1180	30455.02
4	Repairing- Lining				
	Brick	5.58	М3	4906	27382.33
5	Desilting	11.09	М3	142	1575.48
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	25.66	М	1349	34610.08
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	М	164	13500.00
TOTAL					213623.24

GPS

Source ID:W16-03WoLocation:22.741250975.82664018Type of Source:Open-wellShape:RoundYear of Development:1975Diameter(m):6.34

Current owner of source : IMC
Current Total depth of
source(m): 10.21

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	7.37	М3	4799	35366.78
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	40.67	M2	1180	47991.82
4	Repairing- Lining				
	Brick	2.23	М3	4906	10952.93
5	Desilting	158.84	М3	142	22554.85
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	30.25	M	1349	40808.90
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					157675.28

ESTIMATION SHEET-42

GPS

Source ID:W17-01WoLocation:22.7546974975.83684448Type of Source:Open-wellShape:Round

Year of Development: 1960 Snape: Round
5.49

Current owner of source : Community
Current Depth of Source (m): 12.50

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	32.20	M2	1180	37999.84
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	64.88	M3	313	20308.27
8	Fencing	27.76	M	1349	37451.20
9	Recharge- Rainwater +25000 for Filter pit	10.63	M3	147	26562.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		_			122321.81

ESTIMATION SHEET-43

GPS

Source ID:W17-02WoLocation:22.7564505475.83932085Type of Source:Open-wellShape:RoundYear of Development:1960Diameter(m):3.66

Current owner of source : Current Total depth of

Ruler

source(m):

9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	М3		0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	96.12	М3	142	13649.39
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	7.66	M	1349	10331.37
9	Recharge- Rainwater +25000 for Filter pit	15.94	М3	147	27343.75
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					51324.50

ESTIMATION SHEET-44

W17-03Wo

GPS Location: 22.74745408 75.83967306

Type of Source: Open-well Shape: Round Year of Development: 1955 Diameter(m): 4.27

Current owner of source : Current Total depth of Community

Source ID:

15.85

S.No.	Activity	Quantity	Unit	Rate	Amount
		(metric)			
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	16.43	M2	1180	19387.67
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	34.89	М3	142	4954.22
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	22.02	M	1349	29702.68
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	76.22	М	164	22500.00
TOTAL					76544.57

ESTIMATION SHEET-45

W17-04Wo **GPS Location:** 22.75408879 75.84113175 Source ID: Type of Source: Open-well Shape: Round 1960 4.27 Year of Development: Diameter (m):

Current owner of source : Community Current Depth of Source (m): 8.23

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				

	Brick	1.08	M3	4799	5203.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	21.10	M2	1180	24902.39
4	Repairing- Lining		M3		0.00
	Brick	3.80	M3	4906	18619.98
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	23.93	M	1349	32285.52
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL					95510.89

Source ID:W17-06WoGPS Location:22.7486952475.84284104Type of Source:Open-wellShape:RoundYear of Development:1950Diameter (m):5.79

Current owner of source : IMC
Current Depth of Source (m): 7.62

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	0.00	M3	5246	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.50	M3	4906	2464.41
5	Desilting	120.49	M3	142	17109.13
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	28.72	M	1349	38742.62
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL			•		58316.16

ESTIMATION SHEET-47

GPS Source ID: W18-02Wo Location: 22.79664074 75.83696807

Type of Source: Open-well Shape: Round Year of Development: 1950 Diameter(m): 3.35

Current owner of source : Community
Current Total depth of

source(m): 10.06

S.No. Activity Quantity Unit Rate Amount (metric) Repairing- Parapet 4799 2040.39 0.43 М3 Brick 2 Repairing Platform Stone 0.00 М3 2804 0.00 14.31 1180 16888.82 3 Cover (M.S. Grill) M2

4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	45.77	М3	313	14325.83
8	Fencing	21.06	M	1349	28411.26
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	M	164	13500.00
TOTAL					75166.29

GPS 22.79152102 W18-02Ws 75.84423085 Source ID: Location: Square-Type of Source: Step-well Shape: Rectangle Length of Year of Development: 1970 4.27 source: Width of IMC 4.27 Source:

Current owner of source : Current Total depth of

source(m): 6.10

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	7.14	М3	4799	34278.57
2	Repairing Platform				
	Stone	7.48	М3	2804	20982.31
3	Cover (M.S. Grill)	25.02	M2	1180	29523.05
4	Repairing- Lining				
	Stone	3.35	М3	3334	11165.02
5	Desilting	111.11	М3	142	15777.78
6	Dewatering	0.00	М3	14	0.00
7	Deepening	166.67	М3	313	52166.67
8	Fencing	26.83	M	1349	36192.68
9	Recharge- Rainwater +25000 for Filter pit	8.50	М3	147	26250.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					226336.09

ESTIMATION SHEET-49

W18-03Wo **Source ID:** 22.79783415 75.84540695 **Location:**

Type of Source: Open-well Shape: Round Year of Development: 1920 Diameter(m): 5.24

GPS

Current owner of source : IMC Current Total depth of

source(m): 9.45

S.No. Activity Quantity Unit Rate Amount (metric) 1 Repairing-Parapet 0.00 М3 4799 0.00 Brick 2 Repairing Platform 0.00 М3 0.00 3 Cover (M.S. Grill) 0.00 M2 1180 0.00 4 Repairing-Lining Brick 0.00 М3 4906 0.00 5 Desilting 190.90 М3 142 27107.18 0.00 6 Dewatering М3 14 0.00

7	Deepening	0.00	М3	313	0.00
8	Fencing	25.27	M	1349	34093.51
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	33.54	M	164	15500.00
TOTAL					76700.69

source(m):

7.32

GPS Source ID: W18-03Ws **Location:** 22.76887183 75.84734584 Square-Type of Source: Rectangle Step-well Shape: Length of source: Year of Development: 1850 2.74 Current owner of source : IMC 3.66 Source: Current Total depth of

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.34	М3	4799	1632.31
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	6.98	М3	4906	34227.91
5	Desilting	79.59	М3	142	11302.04
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	22.56	M	1349	30434.76
9	Recharge- Rainwater +25000 for Filter pit	7.44	М3	147	26093.75
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		·			103690.77

ESTIMATION SHEET-51

GPS

W18-08Wo Source ID: Location: 22.75123872 75.84764175 Type of Source: Open-well Shape: Round Year of Development: 1890 3.66 Diameter(m):

Current owner of source: **IMC**

Current Total depth of

9 15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet	(
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	32.04	М3	142	4549.80
6	Dewatering	0.00	М3	14	0.00
7	Deepening	64.08	М3	313	20057.55
8	Fencing	19.72	M	1349	26603.27
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00

10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	24.39	M	164	14000.00
TOTAL					65210.61

GPS

W18-09Wo Source ID: 22.78925668 75.84782182 Location: Type of Source: Open-well Shape: Round 1930 Diameter(m): 6.10 Year of Development:

Current owner of source : IMC Current Total depth of source(m): 9.76

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.85	М3	2804	2384.35
2	Repairing Platform				
	Stone	10.88	М3	2804	30519.73
3	Cover (M.S. Grill)	38.63	M2	1180	45582.58
4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	160.20	М3	142	22748.98
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	29.68	M	1349	40034.04
9	Recharge- Rainwater +25000 for Filter pit	31.89	М3	147	29687.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					170957.18

ESTIMATION SHEET-53

GPS **Source ID:** W18-11Wo Location:

22.74815359 75.84841669 Type of Source: Open-well Shape: Round Year of Development: 1920 4.39 Diameter(m):

Current owner of source : IMC Current Total depth of source(m):

18.29

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	1.36	М3	4799	6529.25
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	24.41	M	1349	32931.23
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	25.91	М	164	14250.00
TOTAL					

ESTIMATION SHEET-54

GPS

Source ID: W18-13Wo **Location:** 22.7481381 75.84905479 Type of Source: Open-well Shape: Round Year of Development: 1920 Diameter(m): 3.05

Current owner of source: Current Total depth of

source(m): 12.80

IMC

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.28	М3	4906	1369.12
5	Desilting	40.05	М3	142	5687.24
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	М	164	14500.00
TOTAL					21556.36

ESTIMATION SHEET-55

GPS Source ID: W18-14Wo Location:

22.74949729 75.84936313 Type of Source: Open-well Shape: Round 1948 3.96 Year of Development: Diameter(m):

Current owner of source: Community

Current Total depth of source(m):

21.34

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.85	М3	4799	4080.78
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	16.43	M2	1180	19387.67
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	22.02	M	1349	29702.68
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	М	164	14500.00
TOTAL		•			67671.13

ESTIMATION SHEET-56

GPS

Source ID: W19-04Wo Location: 22.75129998 75.85057772 Type of Source: Open-well Shape: Round Year of Development: 1900 Diameter(m): 3.35

Current owner of source: IMC Current Total depth of

source(m):	4.88

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	5.67	М3	4799	27205.22
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	16.43	M2	1180	19387.67
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	24.23	М3	142	3440.78
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	22.02	M	1349	29702.68
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	18.29	М	164	13000.00
TOTAL					92736.35

ESTIMATION SHEET-57

GPS

Source ID:W19-05WoLocation:22.7508446675.85102828Type of Source:Open-wellShape:RoundYear of Development:1910Diameter(m):3.66

Current owner of source : Current Total depth of

Current Total depth of source(m):

12.20

Community

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	3.54	М3	4799	17003.26
2	Repairing Platform				
	Brick	13.61	М3	4799	65292.52
3	Cover (M.S. Grill)	14.31	M2	1180	16888.82
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	32.04	М3	313	10028.78
8	Fencing	21.06	M	1349	28411.26
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	24.39	M	164	14000.00
TOTAL	<u> </u>				151624.63

ESTIMATION SHEET-58

GPS

Diameter(m):

Source ID:W19-08WoLocation:22.7830077875.86429169Type of Source:Open-wellShape:Round

Year of Development: 1930 Current owner of source : IMC

Current Total depth of

source(m): 8.23

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				

3.05

	Brick	1.13	М3	4799	5441.04
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	10.52	M2	1180	12408.11
4	Repairing- Lining				
	Brick	2.23	М3	4906	10952.93
5	Desilting	51.18	М3	142	7267.04
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	19.15	M	1349	25828.41
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	М	164	14500.00
TOTAL					76397.53

Source ID: W20-02Wo Location: 22.75950049 75.86103848

Type of Source: Open-well Shape: Round Year of Development: 1935 Diameter(m): 3.17

Current owner of source : IMC Current Total depth of

source(m): 13.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	12.03	М3	142	1708.70
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	18.19	M	1349	24536.99
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					26245.70

ESTIMATION SHEET-60

GPS

Source ID:W20-03WoLocation:22.753318775.86249837Type of Source:Open-wellShape:RoundYear of Development:1980Diameter(m):5.79

Current owner of source : Community

Current Total depth of

source(m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
	Brick	0.00	М3	4799	0.00

3	Cover (M.S. Grill)	32.20	M2	1180	37999.84
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	160.65	М3	142	22812.17
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	27.76	M	1349	37451.20
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	М	164	14500.00
TOTAL					112763.21

GPS

Source ID: W21-02Wo Location: 22.75783894 75.86753591 Type of Source: Open-well Shape: Round Year of Development: 1975 Diameter(m): 4.42

Current owner of source : IMC Current Total depth of

source(m): 12.65

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	1.79	M3	4906	8762.34
5	Desilting	16.37	M3	142	2325.06
6	Dewatering	0.00	M3	14	0.00
7	Deepening	39.76	M3	313	12446.30
8	Fencing	23.45	M	1349	31639.81
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	25.91	M	164	14250.00
TOTAL					69423.51

ESTIMATION SHEET-62

GPS

Source ID: W22-01Wo Location: 22.7591332 75.86932107 Type of Source: Open-well Shape: Round 1970 Diameter(m): 5.79 Year of Development:

Current owner of source : IMC Current Total depth of 13 87

S.No.	Activity	Quantity	Unit	Rate	Amount
		(metric)			
1	Repairing- Parapet				
	Brick	2.83	M3	4799	13602.61
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	2.23	M3	4906	10952.93
5	Desilting	76.31	M3	142	10835.78

6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	26.80	M	1349	36159.78
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	33.54	M	164	15500.00
TOTAL					87051.10

GPS

Source ID:W22-02WoLocation:22.7606424875.86934592Type of Source:Open-wellShape:RoundYear of Development:1960Diameter(m):5.30

Current owner of source : IMC Current Total depth of source(m): 10.18

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	7.37	М3	4799	35366.78
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	2.23	М3	4906	10952.93
5	Desilting	111.83	М3	142	15879.47
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	26.80	M	1349	36159.78
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL			•		113358.96

ESTIMATION SHEET-64

GPS

Source ID:W22-06WoLocation:22.7603138775.87229218Type of Source:Open-wellShape:RoundYear of Development:1970Diameter(m):7.01

Current owner of source : IMC
Current Total depth of
source(m): 8.23

S.No.	Activity	Quantity	Unit	Rate	Amount
		(metric)			
1	Repairing- Parapet				
	Brick	34.01	M3	4799	163231.29
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	2.79	M3	4906	13691.16
5	Desilting	153.02	M3	142	21728.44
6	Dewatering	0.00	M3	14	0.00
7	Deepening	270.72	M3	313	84736.19
8	Fencing	32.55	M	1349	43908.30
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00

10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	33.54	M	164	15500.00
TOTAL					342795.38

GPS

Source ID:W22-07WoLocation:22.7597020575.87234074Type of Source:Open-wellShape:RoundYear of Development:1930Diameter(m):9.15

Current owner of source : IMC Current Total depth of

source(m): 6.71

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	34.01	M3	4799	163231.29
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	3.35	M3	4906	16429.40
5	Desilting	560.71	М3	142	79621.43
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	39.25	M	1349	52948.25
9	Recharge- Rainwater +25000 for Filter pit	15.94	М3	147	27343.75
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	36.59	M	164	16000.00
TOTAL		_			355574.12

ESTIMATION SHEET-66

GPS

Source ID:W22-08WoLocation:22.7629317375.87284771Type of Source:Open-wellShape:Round

Type of Source:Open-wellShape:RoundYear of Development:1950Diameter(m):6.22

Current owner of source : IMC
Current Total depth of
source(m): 6.71

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	5.58	М3	4906	27382.33
5	Desilting	74.08	M3	142	10519.13
6	Dewatering	18.52	М3	14	259.27
7	Deepening	259.27	M3	313	81152.85
8	Fencing	29.10	M	1349	39259.19
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL					173572.77

GPS

Source ID:W22-09WoLocation:22.7592362975.87290049Type of Source:Open-wellShape:RoundYear of Development:1970Diameter(m):4.60

Current owner of source : IMC Current Total depth of

source(m): 7.93

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	47.62	М3	4799	228523.81
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	4.47	М3	4906	21905.86
5	Desilting	96.39	М3	142	13687.90
6	Dewatering	88.28	М3	14	1235.87
7	Deepening	121.76	М3	313	38111.02
8	Fencing	24.79	M	1349	33447.80
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	М	164	14500.00
TOTAL					351412.26

ESTIMATION SHEET-68

 Source ID:
 W22-12Wo
 Location:
 22.7563945
 75.87586389

Type of Source: Open-well Shape: Round
Year of Development: 1930 Diameter(m): 5.98

Current owner of source : IMC Current Total depth of

source(m): 11.59

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	5.67	М3	4799	27205.22
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	3.35	М3	4906	16429.40
5	Desilting	102.57	M3	142	14565.41
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	28.34	M	1349	38226.05
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL			_		111426.08

ESTIMATION SHEET-69

GPS

Source ID:W22-13WoLocation:22.7550954875.87730914Type of Source:Open-wellShape:RoundYear of Development:1930Diameter(m):6.10

Current owner of source : IMC Current Total depth of

source(m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	0.00	M3	5246	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	5.58	M3	4906	27382.33
5	Desilting	267.01	M3	142	37914.97
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	29.29	M	1349	39517.47
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL					119314.77

ESTIMATION SHEET-70

GPS

 Source ID:
 W23-01Wo
 Location:
 22.74926453
 75.86317191

 Type of Source:
 Open-well
 Shape:
 Round

 Year of Development:
 1965
 Diameter(m):
 3.17

Current owner of source : Current Total depth of

ource(m): 9.15

IMC

source(m):	9.15				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.68	М3	4799	3264.63
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	11.23	M2	1180	13249.11
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	24.07	М3	142	3417.40
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	19.53	M	1349	26344.98
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					46276.12

ESTIMATION SHEET-71

GPS

Source ID:W23-05WoLocation:22.7504262875.87094663Type of Source:Open-wellShape:RoundYear of Development:1960Diameter(m):6.10

Current owner of source : IMC Current Total depth of

source(m): 15.24

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				

	Brick	0.85	М3	4799	4080.78
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	89.00	М3	14	1246.03
7	Deepening	0.00	М3	313	0.00
8	Fencing	28.72	M	1349	38742.62
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					44069.44

Source ID:W24-01WoGPS Location:22.7417210975.86510411Type of Source:Open-wellShape:RoundYear of Development:1950Diameter (m):10.98

Current owner of source : Community
Current Depth of Source (m): 13.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.37	M3	2804	1049.12
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	106.56	M2	1180	125738.98
4	Repairing- Lining		М3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	44.23	M	1349	59663.64
9	Recharge- Rainwater +25000 for Filter pit	13.82	M3	147	27031,25
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					213482.98

ESTIMATION SHEET-73

Source ID:W24-01WsGPS Location:22.7414681275.86349158Type of Source:Step-wellShape:RoundYear of Development:1950Diameter (m):10.37

Current owner of source : Community
Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	6.53	M3	4799	31340.41
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	101.05	M2	1180	119241.95
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00

5	Desilting	128.61	M3	142	18262.38
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	43.27	M	1349	58372.22
9	Recharge- Rainwater +25000 for Filter pit	15.94	M3	147	27343.75
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					254560.70

Source ID:W24-02WoGPS Location:22.7423849875.86535611Type of Source:Open-wellShape:RoundYear of Development:1970Diameter (m):3.66

Current owner of source : IMC
Current Depth of Source (m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	12.34	M2	1180	14562.30
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	32.04	M3	313	10028.78
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					24591.07

ESTIMATION SHEET-75

GPS

Source ID:W25-02WoLocation:22.7412424375.87653595Type of Source:Open-wellShape:RoundYear of Development:1940Diameter(m):5.18

Current owner of source : Current Total depth of

ource(m): 12.50

IMC

source(m):	12.50	0 111	TT 14	D (A .
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.83	M3	4799	13602.61
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	4.19	M3	4906	20536.74
5	Desilting	10.77	M3	142	1529.24
6	Dewatering	48.46	M3	14	678.46
7	Deepening	24.23	M3	313	7584.26
8	Fencing	20.10	M	1349	27119.84

9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL					86051.15

Source ID:W25-03WoGPS Location:22.7439515775.87687493Type of Source:Open-wellShape:RoundYear of Development:1950Diameter (m):3.66

Current owner of source : IMC
Current Depth of Source (m): 13.41

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	8.37	M3	4906	41073.49
5	Desilting	19.22	M3	142	2729.88
6	Dewatering	32.04	M3	14	448.57
7	Deepening	19.22	M3	313	6017.27
8	Fencing	22.02	M	1349	29702.68
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL	·	•			94971.88

ESTIMATION SHEET-77

GPS

Source ID: W25-05Wo **Location:** 22.74019938 75.87954659

Type of Source: Open-well Shape: Round Year of Development: 1860 Diameter(m): 8.93

Current owner of source : IMC Current Total depth of source(m): 14.63

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	17.01	М3	4799	81615.65
2	Repairing Platform				
	Brick	56.69	М3	4799	272052.15
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	5.58	М3	4906	27382.33
5	Desilting	229.22	М3	142	32549.62
6	Dewatering	248.32	М3	14	3476.54
7	Deepening	38.20	М3	313	11957.78
8	Fencing	37.62	М	1349	50752.83
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	М	164	13500.00
TOTAL	·	·		-	493286.91

Source ID:W25-06WoGPS Location:22.7418008675.88067002Type of Source:Open-wellShape:RoundYear of Development:1915Diameter (m):3.11

Current owner of source : IMC
Current Depth of Source (m): 12.50

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	2.27	M3	5246	11895.69
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	5.58	M3	4906	27382.33
5	Desilting	32.41	M3	142	4602.12
6	Dewatering	27.78	M3	14	388.91
7	Deepening	20.83	M3	313	6521.21
8	Fencing	19.34	M	1349	26086.70
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	М	164	13500.00
TOTAL					90376.96

ESTIMATION SHEET-79

Source ID:W25-07WoGPS Location:22.7407284575.88140185Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):4.57

Current owner of source : IMC
Current Depth of Source (m): 10.98

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	3.83	M3	4799	18363.52
2	Repairing Platform				0.00
	Brick	2.04	M3	4799	9793.88
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	5.58	M3	4906	27382.33
5	Desilting	45.06	M3	142	6398.15
6	Dewatering	80.10	M3	14	1121.43
7	Deepening	70.09	M3	313	21937.95
8	Fencing	24.89	M	1349	33576.94
9	Recharge- Rainwater +25000 for Filter pit	10.63	M3	147	26562.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					145136.69

ESTIMATION SHEET-80

GPS

Source ID: W26-01Wo Location: 22.73643354 75.87840174

Type of Source: Open-well Shape: Round Year of Development: 1910 Diameter(m): 3.45

Current owner of source : IMC

Current Total depth of

source(m):	13.72
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S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	17.01	M3	4799	81615.65
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	5.58	M3	4906	27382.33
5	Desilting	42.62	M3	142	6051.70
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	21.35	M	1349	28798.68
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	24.39	M	164	14000.00
TOTAL					157848.36

ESTIMATION SHEET-81

GPS

Source ID:W26-02WoLocation:22.7367007375.88151005Type of Source:Open-wellShape:RoundYear of Development:1960Diameter(m):3.66

Current owner of source : IMC Current Total depth of source(m): 10.37

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.55	M3	4799	12242.35
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	2.23	M3	4906	10952.93
5	Desilting	83.31	M3	142	11829.47
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	22.02	M	1349	29702.68
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	M	164	13500.00
TOTAL					78227.42

ESTIMATION SHEET-82

GPS

Source ID:W26-03WoLocation:22.7375831975.88227855Type of Source:Open-wellShape:RoundYear of Development:1960Diameter(m):3.75

Current owner of source : IMC Current Total depth of

source(m): 11.59

S.No. Activity Quantity Unit Rate Amount (metric)

1	Repairing- Parapet		1		
	Brick	22.11	M3	4799	106100.34
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	16.21	M2	1180	19130.03
4	Repairing- Lining				
	Brick	5.58	M3	4906	27382.33
5	Desilting	40.40	M3	142	5736.16
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	21.92	M	1349	29573.53
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	33.54	M	164	15500.00
TOTAL					203422.39

 Source ID:
 W26-04Wo
 Location:
 22.73671967
 75.88385194

 Type of Source:
 Open-well
 Shape:
 Round

Year of Development: 1960 Shape: Round
4.27

Current owner of source : IMC Current Total depth of

source(m): 15.85

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	5.58	М3	4906	27382.33
5	Desilting	34.89	M3	142	4954.22
6	Dewatering	78.50	M3	14	1099.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	22.78	M	1349	30735.81
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL					78671.36

ESTIMATION SHEET-84

Year of Development:

Source ID:W27-01WoGPS Location:22.7462673575.87839571Type of Source:Open-wellShape:Round

Current owner of source : IMC
Current Depth of Source (m): 13.60

1955

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00

3.96

Diameter (m):

3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	17.44	M3	4906	85569.77
5	Desilting	57.91	M3	142	8223.12
6	Dewatering	31.21	M3	14	436.95
7	Deepening	20.31	M3	313	6355.74
8	Fencing	22.98	M	1349	30994.10
9	Recharge- Rainwater +25000 for Filter pit	31.89	M3	147	29687.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					161267.18

W27-01Ws 22.74802553 75.88318855 Source ID: **GPS Location:** Type of Source: Step-well Shape: Square-Rectangle Length of Source 1830 Year of Development: (m): 6.71 Current owner of source: IMC Width of Source (m): 5.49 Current Depth of Source (m): 10.06

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	51.02	M3	2804	143061.22
2	Repairing Platform				0.00
	Stone	62.36	M3	2804	174852.61
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	303.06	M3	142	43034.69
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	34.15	M	1349	46063.41
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	76.22	М	164	22500.00
TOTAL		_			429511.94

ESTIMATION SHEET-86

Source ID:W27-02WoGPS Location:22.7447919575.88097718Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):3.81

Current owner of source : IMC
Current Depth of Source (m): 11.89

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	17.01	M3	4799	81615.65
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	2.79	M3	4906	13691.16
5	Desilting	38.24	M3	142	5430.53
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00

8	Fencing	22.50	M	1349	30348.39
9	Recharge- Rainwater +25000	0.00	M3	147	
	for Filter pit				0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	33.54	M	164	15500.00
TOTAL					146585.73

GPS Source ID: W28-01Ws Location: 22.75179212 75.88432624

Type of Source: Square-Rectangle Step-well

Shape: Length of source:

Year of Development: 1840 7.16 Width of

7.16 Current owner of source : IMCSource:

Current Total depth of 0.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	3.97	M3	4799	19043.65
2	Repairing Platform				
	Brick	51.02	M3	4799	244846.94
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	2.93	M3	4906	14375.72
5	Desilting	156.53	M3	142	22227.75
6	Dewatering	242.63	M3	14	3396.78
7	Deepening	313.07	M3	313	97989.94
8	Fencing	38.41	M	1349	51821.34
9	Recharge- Rainwater +25000 for Filter pit	31.89	M3	147	29687.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		_			483389.61

ESTIMATION SHEET-88

GPS W28-01Wo 22.74995985

75.88359063 **Source ID:** Location: Type of Source: Open well Shape: Round 5.792682927 Year of Development: 1950 Diameter (m):

Current owner of source : IMC

Current Depth of Source

(m): 6.707317073

(111).	0.707317073				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	5.56	M3	4799	26682.44
2	Repairing Platform				0.00
		0.00	M3	4799	0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
		0.00	M3	4906	0.00
5	Desilting	104.42	M3	142	14827.64
6	Dewatering	136.55	M3	14	1911.70
7	Deepening	224.90	M3	313	70393.70
8	Fencing	28.14	M	1349	37960.86

9	Recharge- Rainwater +25000 for	0.00	M3	147	0.00
	Filter pit				
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	M	164	13499.76
TOTAL					155276.10

GPS

Source ID: W28-02Wo **Location:** 22.74944246 75.88400854

Type of Source: Open-well Shape: Round Year of Development: 1955 Diameter(m): 4.60

Current owner of source : IMC

Current Total depth of

Current Total depth of source(m): 8.84

source(m):	8.84				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.72	M3	4799	13058.50
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	1.67	M3	4906	8214.70
5	Desilting	81.17	M3	142	11526.66
6	Dewatering	0.00	M3	14	0.00
7	Deepening	106.54	M3	313	33347.14
8	Fencing	24.41	M	1349	32931.23
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	M	164	13500.00
TOTAL					112578.23

ESTIMATION SHEET-90

Source ID: W28-02Ws **GPS Location:** 22.74774124 75.8850888 Square-Rectangle Type of Source: Step-well Shape: Length of Source (m): Year of Development: 1914 7.32 Width of Source Current owner of source : IMC 6.71 (m): Current Depth of Source (m): 7.62

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	40.82	M3	5246	214122.45
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	1.12	M3	3334	3721.67
5	Desilting	374.15	M3	142	53129.25
6	Dewatering	209.52	M3	14	2933.33
7	Deepening	374.15	M3	313	117108.84
8	Fencing	37.80	M	1349	50998.78
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	24.39	М	164	14000.00
TOTAL		_			456014.33

Source ID:	W28-03Ws	GPS Location:	22.75011842	75.88753908
				Square-
Type of Source:	Step-well		Shape:	Rectangle
			Length of Source	
Year of Development:	1890		(m):	6.28
			Width of Source	
Current owner of source:	IMC		(m):	5.43
Current Depth of Source (m):	8 23			

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	14.46	М3	2804	40534.01
2	Repairing Platform				0.00
	Stone	25.51	М3	2804	71530.61
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		М3		0.00
	Stone	5.58	М3	3334	18608.37
5	Desilting	83.15	М3	142	11806.93
6	Dewatering	0.00	М3	14	0.00
7	Deepening	239.05	М3	313	74822.26
8	Fencing	33.17	M	1349	44747.32
9	Recharge- Rainwater +25000 for Filter pit	21.26	M3	147	28125.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					290174.50

ESTIMATION SHEET-92

Source ID:	W28-04Ws	GPS Location:	22.75170663	75.88747209
Type of Source:	Step-well		Shape:	Round
Year of Development:	1910		Diameter (m):	5.49
Current owner of source :	IMC			

Current owner of source : IMC
Current Depth of Source (m): 10.37

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet	Ì			
	Stone	27.21	M3	2804	76299.32
2	Repairing Platform				0.00
	Stone	20.41	M3	2804	57224.49
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	5.58	M3	4906	27382.33
5	Desilting	115.35	M3	142	16379.27
6	Dewatering	28.84	M3	14	403.71
7	Deepening	115.35	M3	313	36103.59
8	Fencing	28.72	M	1349	38742.62
9	Recharge- Rainwater +25000 for Filter pit	31.89	M3	147	29687.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					282222.83

ESTIMATION SHEET-93

Source ID:W28-06WoGPS Location:22.7491119375.88846612Type of Source:Open-wellShape:RoundYear of Development:1930Diameter (m):3.05

Current owner of source: IMC

Current Depth of Source (m): 4.57

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	14.74	M3	4799	70733.56
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	1.40	M3	4906	6845.58
5	Desilting	33.38	M3	142	4739.37
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	19.72	M	1349	26603.27
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL					123421.78

ESTIMATION SHEET-94

GPS

Source ID:W29-01WoLocation:22.7543226375.89115815Type of Source:Open-wellShape:RoundYear of Development:1955Diameter(m):4.88

Current owner of source : IMC Current Total depth of source(m): 7.56

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	10.20	М3	4799	48969.39
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	1.95	М3	4906	9583.81
5	Desilting	115.06	М3	142	16338.82
6	Dewatering	4.56	М3	14	63.80
7	Deepening	143.54	М3	313	44928.91
8	Fencing	25.27	M	1349	34093.51
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	25.91	М	164	14250.00
TOTAL					168228.24

ESTIMATION SHEET-95

GPS

Source ID:W29-03WoLocation:22.7506362475.89451401Type of Source:Open-wellShape:RoundYear of Development:1930Diameter(m):4.91Current owner of source:IMC

Current owner of source : Current Total depth of

source(m): 9.18

2	Repairing Platform				
	Brick	17.01	М3	4799	81615.65
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	2.79	М3	4906	13691.16
5	Desilting	114.77	М3	142	16298.00
6	Dewatering	62.87	М3	14	880.13
7	Deepening	114.77	М3	313	35924.46
8	Fencing	25.94	M	1349	34997.50
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	25.91	M	164	14250.00
TOTAL					201737.68

 Source ID:
 W29-06Wo
 Location:
 22.75858561
 75.89589696

 Type of Source:
 Open-well
 Shape:
 Round

Year of Development: 1970 Diameter(m): 3.78

Current owner of source : IMC Current Total depth of

source(m): 10.49

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.27	M3	4799	10882.09
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	1.40	M3	4906	6845.58
5	Desilting	19.16	M3	142	2720.58
6	Dewatering	0.00	M3	14	0.00
7	Deepening	56.79	M3	313	17776.12
8	Fencing	21.44	M	1349	28927.82
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL					81652.18

ESTIMATION SHEET-97

Source ID: W29-07Wo Location: 22.75687544 75.89682228

Type of Source: Open-well Shape: Round Year of Development: 1960 Diameter(m): 3.41

Current owner of source : IMC

Current Total depth of

S.No.	Activity	Quantity	Unit	Rate	Amount
		(metric)			
1	Repairing- Parapet				
	Brick	1.36	М3	4799	6529.25
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	10.87	M2	1180	12825.16
4	Repairing- Lining				

	Brick	8.37	М3	4906	41073.49
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	19.34	M	1349	26086.70
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	М	164	14500.00
TOTAL					101014.60

Source ID:W30-01WoGPS Location:22.7351184375.89392211Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):6.40

Current owner of source : Individual
Current Depth of Source (m): 13.11

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	38.63	M2	1180	45582.58
4	Repairing- Lining		M3		0.00
	Brick	2.79	M3	4906	13691.16
5	Desilting	117.75	M3	142	16720.50
6	Dewatering	58.88	M3	14	824.25
7	Deepening	68.69	M3	313	21499.19
8	Fencing	29.68	M	1349	40034.04
9	Recharge- Rainwater +25000 for Filter pit	21.26	M3	147	28125.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					166476.72

ESTIMATION SHEET-99

Source ID:W30-03WoGPS Location:22.7408012775.89538091Type of Source:Open-wellShape:RoundYear of Development:1955Diameter (m):8.23

Current owner of source : IMC
Current Depth of Source (m): 16.77

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.57	M3	4799	2720.52
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	5.58	M3	0	0.00
5	Desilting	81.10	M3	142	11516.67
6	Dewatering	32.44	M3	14	454.18
7	Deepening	0.00	M3	313	0.00
8	Fencing	35.42	M	1349	47782.57
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00

10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL					76973.94

Source ID:W30-05WoGPS Location:22.7389475275.89549988Type of Source:Open-wellShape:RoundYear of Development:1910Diameter (m):7.32

Current owner of source : IMC
Current Depth of Source (m): 13.11

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	3.40	M3	4799	16323.13
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	53.23	M2	1180	62816.07
4	Repairing- Lining		M3		0.00
	Brick	1.40	M3	0	0.00
5	Desilting	89.71	M3	142	12739.43
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	33.51	M	1349	45199.73
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL					152078.35

ESTIMATION SHEET-101

Source ID: W30-07Wo **GPS Location:** 22.73578653 75.89697324

Type of Source: Open-well Shape: Round Year of Development: 1910 Diameter (m): 5.79

Current owner of source : Community

Current Depth of Sou					
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	4.25	M3	4799	20403.91
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	2.79	M3	4906	13691.16
5	Desilting	96.39	M3	142	13687.30
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	28.72	M	1349	38742.62
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	45.73	M	164	17500.00
TOTAL					104025.00

ESTIMATION SHEET-102

Source ID: W32-01Wo Location: 22.76295519 75.88753519

GPS

			Square-
Type of Source:	Open-well	Shape:	Rectangle
		Length of	
Year of Development:	1960	source:	3.66
		Width of	
Current owner of source:	IMC	Source:	3.66
Current Total depth of			

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	20.41	M3	4799	97938.78
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	19.29	M2	1180	22761.38
4	Repairing- Lining				
	Brick	5.02	М3	4906	24644.09
5	Desilting	81.63	М3	142	11591.84
6	Dewatering	0.00	М3	14	0.00
7	Deepening	122.45	М3	313	38326.53
8	Fencing	24.39	M	1349	32902.44
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	60.98	M	164	20000.00
TOTAL					248165.05

Source ID: W33-01Wo Location: 22.76170401 75.87588148

Type of Source: Open-well Shape: Round Year of Development: 1960 Diameter(m): 4.36

Current owner of source : IMC Current Total depth of

source(m): 9.76

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	3.74	M3	4799	17955.44
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	1.67	M3	4906	8214.70
5	Desilting	127.40	M3	142	18090.87
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	25.56	M	1349	34480.93
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	M	164	13500.00
TOTAL					92241.95

ESTIMATION SHEET-104

Year of Development:

1880

Source ID: W34-01Ws Location: 22.76691818 75.88899392

Type of Source: Step-well Shape: Rectangle Length of

source:

6.71

Width of

Current owner of source : IMC Current Total depth of source(m):

11.19

Source:

6.04

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	36.85	М3	4799	176833.90
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	8.37	М3	3334	27912.56
5	Desilting	40.74	М3	142	5785.78
6	Dewatering	164.21	М3	14	2299.00
7	Deepening	164.21	М3	313	51399.07
8	Fencing	35.24	M	1349	47544.02
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	М	164	15000.00
TOTAL					326774.33

ESTIMATION SHEET-105

		GPS		
Source ID:	W35-01Ws	Location:	22.78235683	75.91456395

Square-Rectangle Shape: Length of source: Width of Type of Source: Step-well Year of Development: 1920 8.17 7.04 IMC Source:

Current owner of source : Current Total depth of

13 72

source(m):	13.72				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	М3	2804	0.00
2	Repairing Platform				
	Stone	0.00	М3	2804	0.00
3	Cover (M.S. Grill)	88.79	M2	1180	104770.83
4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	73.70	М3	14	1031.80
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	85.03	М3	147	37500.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					143302.63

ESTIMATION SHEET-106

		GPS		
Source ID:	W35-01Ws	Location:	22.77941487	75.94178976
				Square-
Type of Source:	Step-well		Shape:	Rectangle
			Length of	
Year of Development:	1880		source:	8.23
1			Width of	
Current owner of source:	IMC		Source:	7.62
Current Total depth of	1.10		Bouree.	7.02
source(m):	7.01			
source(III):	7.01			

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	59.52	М3	2804	166904.76
2	Repairing Platform				
	Stone	9.98	М3	2804	27976.42
3	Cover (M.S. Grill)	89.30	M2	1180	105376.74
4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	325.26	М3	142	46186.22
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	85.03	М3	147	37500.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					383944.15

GPS

Source ID:W36-01WoLocation:22.7636769475.92033671Type of Source:Open-wellShape:RoundYear of Development:1935Diameter(m):5.18

Current owner of source : IMC Current Total depth of

source(m): 14.18

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	М3	2804	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	26.36	M2	1180	31106.45
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	22.51	М3	142	3195.92
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					34302.36

ESTIMATION SHEET-108

GPS

Source ID:W36-03WoLocation:22.7785624375.94136878Type of Source:Open-wellShape:RoundYear of Development:1920Diameter(m):3.66

Current owner of source : Current Total depth of

source(m): 6.31

IMC

S.No. Activity Quantity Unit Rate Amount (metric) Repairing- Parapet 1 0.00 М3 0.00 2 Repairing Platform 0.00 М3 0.00 Cover (M.S. Grill) 0.00 M2 1180 0.00

4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	61.84	М3	142	8781.11
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					8781.11

GPS

Source ID:W36-04WoLocation:22.7563117575.91855259Type of Source:Open-wellShape:RoundYear of Development:1920Diameter(m):7.84

Current owner of source : Current Total depth of

source(m): 14.94

IMC

S.No.	Activity	Quantity	Unit	Rate	Amount
		(metric)			
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	52.84	M2	1180	62351.62
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	88.18	М3	142	12521.23
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	М	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL		_			74872.85

ESTIMATION SHEET-110

Source ID:W37-01WoGPS Location:22.7370057375.901622Type of Source:Open-wellShape:RoundYear of Development:1915Diameter (m):7.01

Current owner of source : IMC Current Depth of Source (m): 14.33

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	1.42	M3	4799	6801.30
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	5.58	M3	4906	27382.33
5	Desilting	153.02	M3	142	21728.44
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00

8	Fencing	31.59	M	1349	42616.88
9	Recharge- Rainwater +25000	0.00	M3	147	
	for Filter pit				0.00
10	Recharge Roof with Filter (63	30.49	M	164	15000.00
	mm pipe)+10000 for filter				
TOTAL					113528.95

GPS

Source ID: W37-02Wo **Location:** 22.75228894 75.91815094

Type of Source: Open-well Shape: Round 1991 Year of Development: Diameter(m): 5.52

Current owner of source : IMC

Current Total depth of 9.76 source(m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.34	М3	4799	1645.92
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	32.20	M2	1180	37999.84
4	Repairing- Lining				
	Brick	2.09	М3	4906	10268.37
5	Desilting	58.32	М3	142	8280.88
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					58195.01

ESTIMATION SHEET-112

GPS

Source ID: W37-03Wo 22.75404358 75.91926924 Location: Type of Source: Open-well Shape: Round Year of Development: 1930 Diameter(m): 5.79

Current owner of source : Current Total depth of IMC

7.93 source(m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	32.13	М3	142	4562.43
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	М	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00

TOTAL 4562.43

ESTIMATION SHEET-113

Source ID:	W38-01Ws	GPS Location:	22.73340193	75.90948979
				Square-
Type of Source:	Step-well		Shape:	Rectangle
			Length of Source	
Year of Development:	1815		(m):	7.93
			Width of Source	
Current owner of source:	IMC		(m):	7.93
Current Depth of Source (m):	8.23			

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	0.00	M3	5246	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	83.72	M2	1180	98790.70
4	Repairing- Lining		M3		0.00
	Stone	2.79	M3	3334	9304.19
5	Desilting	38.32	M3	142	5441.72
6	Dewatering	0.00	M3	14	0.00
7	Deepening	440.70	M3	313	137940.02
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	М	164	15000.00
TOTAL					266476.63

ESTIMATION SHEET-114

Source ID:	W38-02Wo	GPS Location:	22.7342926	75.91273851
Type of Source:	Open-well		Shape:	Round
Year of Development:	1910		Diameter (m):	8.23
C	T 1' '1 1			

Current owner of source : Individual Current Depth of Source (m): 8.54

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	56.69	M3	4799	272052.15
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	61.41	M2	1180	72466.82
4	Repairing- Lining		M3		0.00
	Brick	2.79	M3	4906	13691.16
5	Desilting	16.22	M3	142	2303.33
6	Dewatering	0.00	M3	14	0.00
7	Deepening	356.85	M3	313	111695.49
8	Fencing	35.42	M	1349	47782.57
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	М	164	14500.00
TOTAL					534491.52

Source ID:	W40-01Ws		GPS Location:	22.73117227	75.9082763 Square-
Type of Source:	Step-well			Shape: Length of Source	Rectangle
Year of Development:	1735			(m): Width of Source	7.62
Current owner of source :	Community			(m):	4.27
Current Depth of Source (m):	9.76				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	0.00	M3	5246	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	178.57	M3	142	25357.14
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL					39857.14

Source ID:W40-04WoGPS Location:22.7288071675.90715073Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):5.79

Current owner of source : IMC
Current Depth of Source (m): 4.27

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	5.95	M3	5246	31226.19
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	32.20	M2	1180	37999.84
4	Repairing- Lining		M3		0.00
	Brick	4.47	M3	4906	21905.86
5	Desilting	168.68	M3	142	23952.78
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	27.76	M	1349	37451.20
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	36.59	М	164	16000.00
TOTAL					168535.87

ESTIMATION SHEET-117

Source ID:W40-06WoGPS Location:22.7301288775.91035354Type of Source:Open-wellShape:RoundYear of Development:1950Diameter (m):6.10

Current owner of source : Community
Current Depth of Source (m): 6.10

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	2.79	M3	4906	13691.16
5	Desilting	267.01	M3	142	37914.97
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	10.63	M3	147	26562.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL			·		78168.63

Source ID:W41-03WoGPS Location:22.7228023875.91787796Type of Source:Open-wellShape:RoundYear of Development:0Diameter (m):6.71

Current owner of source : IMC
Current Depth of Source (m): 13.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	32.31	M3	14	452.31
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					452.31

ESTIMATION SHEET-119

Source ID:W42-01WoGPS Location:22.7226357875.89238941Type of Source:Open-wellShape:RoundYear of Development:1900Diameter (m):6.10

Current owner of source : Community
Current Depth of Source (m): 13.11

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00

3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	106.80	M3	14	1495.24
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					1495.24

Source ID:W42-04WoGPS Location:22.720649875.89408895Type of Source:Open-wellShape:RoundYear of Development:1965Diameter (m):3.66

Current owner of source : Community
Current Depth of Source (m): 9.76

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	57.67	M3	142	8189.63
6	Dewatering	35.24	M3	14	493.43
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					8683.06

ESTIMATION SHEET-121

Source ID:W42-09WoGPS Location:22.7232700475.90363123Type of Source:Open-wellShape:RoundYear of Development:1920Diameter (m):9.15

Current owner of source : Community
Current Depth of Source (m): 16.77

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.34	M3	4799	1632.31
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00

7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	38.11	M	164	16250.00
TOTAL					17882.31

GPS

Source ID:W43-01WoLocation:22.7312092975.88351974Type of Source:Open-wellShape:RoundYear of Development:1980Diameter(m):4.57

Current owner of source : Current Total depth of

source(m): 9.76

IMC

S.No. Activity Quantity Unit Rate Amount (metric) 1 Repairing- Parapet 0.00 М3 2804 0.00 2 Repairing Platform. 0.00 М3 0.00 0.00 3 Cover (M.S. Grill) M2 1180 0.00 4 Repairing-Lining 0.00 4906 Brick М3 0.00 Desilting 0.00 М3 142 0.00 5 Dewatering 110.14 М3 14 1541.96 6 7 Deepening 0.00 М3 313 0.00 8 0.00 1349 0.00 Fencing M Recharge- Rainwater +25000 0.00 М3 147 0.00 for Filter pit Recharge Roof with Filter (63 10 0.00 M 164 0.00 mm pipe)+10000 for filter TOTAL 1541.96

ESTIMATION SHEET-123

GPS

 Source ID:
 W44-01Wo
 Location:
 22.73919326
 75.88287414

 Type of Source:
 Open-well
 Shape:
 Round

 Year of Development:
 1940
 Diameter(m):
 5.95

Current owner of source : IMC Current Total depth of

source(m): 8.11

source(m):	8.11			T T	
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	36.97	M2	1180	43622.27
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	113.37	М3	142	16099.17
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63	0.00	M	164	0.00

	mm pipe)+10000 for filter		
TOTAL			59721.44

GPS

W45-02Wo Source ID: 22.73374059 75.88075152 Location: Type of Source: Open-well Shape: Round Year of Development: 1920 Diameter(m): 4.42

Current owner of source : Current Total depth of IMC

16.77 source(m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	22.68	M3	5246	118956.92
2	Repairing Platform				
	RCC	0.00	M3	5246	0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	11.16	М3	4906	54764.65
5	Desilting	70.17	M3	142	9964.53
6	Dewatering	98.24	М3	14	1375.39
7	Deepening	0.00	М3	313	0.00
8	Fencing	29.20	M	1349	39388.33
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL		_	•		238949.81

ESTIMATION SHEET-125

GPS

W45-03Wo 75.88306421 Source ID: Location: 22.73562049 Type of Source: Open-well Shape: Round 1955 Year of Development: Diameter(m): 3.66

Current owner of source : IMC Current Total depth of source(m):

14.02

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet	()			
	RCC	0.00	M3	5246	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	1.40	M3	4906	6845.58
5	Desilting	28.84	M3	142	4094.82
6	Dewatering	38.45	M3	14	538.29
7	Deepening	12.82	M3	313	4011.51
8	Fencing	21.64	M	1349	29186.11
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					44676.30

GPS

Source ID:W45-04WoLocation:22.735782675.88390567Type of Source:Open-wellShape:RoundYear of Development:1930Diameter(m):4.88

Current owner of source : IMC
Current Total depth of

source(m):	14.33				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	0.00	M3	5246	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	45.57	M3	142	6470.82
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					6470.82

ESTIMATION SHEET-127

GPS

Source ID:W45-07WoLocation:22.7299661775.88731795Type of Source:Open-wellShape:RoundYear of Development:1956Diameter(m):3.96

Current owner of source : IMC Current Total depth of source(m): 8.08

source(m):	8.08	0	I I a i b	Data	A
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	4.19	М3	4906	20536.74
5	Desilting	13.16	М3	142	1868.89
6	Dewatering	3.76	М3	14	52.64
7	Deepening	88.37	М3	313	27659.22
8	Fencing	22.21	M	1349	29960.96
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	64.02	М	164	20500.00
TOTAL					100578.47

ESTIMATION SHEET-128

GPS

Source ID:W45-10WoLocation:22.7340455775.88912513Type of Source:Open-wellShape:RoundYear of Development:1960Diameter(m):4.33

Current owner of source : IMC

Current Total depth of

source(m):	13.41

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	5.44	М3	4906	26697.77
5	Desilting	26.92	М3	142	3822.59
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	23.74	M	1349	32027.23
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	24.39	М	164	14000.00
TOTAL					76547.59

ESTIMATION SHEET-129

GPS

Source ID:W46-07WoLocation:22.7330494475.88289431Type of Source:Open-wellShape:RoundYear of Development:1900Diameter(m):4.27

Current owner of source : Current Total depth of IMC 12.20

source(m): S.No. Activity Quantity Unit Rate Amount (metric) Repairing- Parapet 1 Brick 1.47 М3 4799 7073.36 2 Repairing Platform 0.00 М3 0.00 0.00 3 Cover (M.S. Grill) 0.00 M2 1180 4 Repairing- Lining Brick 2.23 М3 4906 10952.93 Desilting 109.03 M3 142 15481.94 6 Dewatering 43.61 M3 14 610.56 13650.28 7 Deepening 43.61 M3 313 8 Fencing 23.55 M 1349 31768.95 Recharge- Rainwater +25000 М3 147 0.00 0.00 for Filter pit 21.34 M 164 13500.00 10 Recharge Roof with Filter (63 mm pipe)+10000 for filter TOTAL 93038.01

ESTIMATION SHEET-130

Source ID:	W47-01Ws		GPS Location:	22.7271542	75.86981069
Type of Source:	Step-well			Shape: Length of	Square- Rectangle
Year of Development:	1600			source: Width of	5.18
Current owner of source : Current Total depth of	IMC			Source:	3.45
source(m):	8.54				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount

1	Repairing- Parapet			1	
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	92.57	М3	142	13144.26
6	Dewatering	0.00	М3	14	0.00
7	Deepening	119.79	М3	313	37494.35
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	М	164	14500.00
TOTAL					65138.61

Source ID:

GPS

Location: 22.73209625 7

Shape:

Diameter(m):

75.87032253

Round

3.39

Type of Source: Open-well
Year of Development: 1930

W47-03Wo

Current owner of source : IMC Current Total depth of

source(m): 18.29

source(iii).	10.27				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	М3		0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
		0.00	М3		0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	49.44	М3	14	692.10
7	Deepening	0.00	М3	313	0.00
8	Fencing	7.66	M	1349	10331.37
9	Recharge- Rainwater +25000 for Filter pit	15.94	М3	147	27343.75
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					38367.22

ESTIMATION SHEET-132

GPS

Source ID: W47-05Wo Location: 22.72951706 75.87061089

Type of Source: Open-well Shape: Round Year of Development: 1970 Diameter(m): 3.11

Year of Development: 1970
Current owner of source: IMC
Current Total depth of

source(m): 9.15

Quantity (metric) S.No. Activity Unit Rate Amount 1 Repairing- Parapet Brick 0.00 М3 4799 0.00 2 Repairing Platform 0.00 М3 0.00 3 Cover (M.S. Grill) 8.84 M2 1180 10426.26

4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	23.15	М3	142	3287.23
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	18.19	М	1349	24536.99
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL			•		38250.48

GPS

Source ID:W47-06WoLocation:22.7301463875.87254323Type of Source:Open-wellShape:RoundYear of Development:1970Diameter(m):4.27

Current owner of source : Current Total depth of

source(m): 14.63

IMC

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.12	М3	4799	598.51
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	18.69	M2	1180	22058.87
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	8.72	М3	142	1238.56
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	22.98	M	1349	30994.10
9	Recharge- Rainwater +25000 for Filter pit	31.89	М3	147	29687.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL			•		84577.53

ESTIMATION SHEET-134

GPS

Source ID:W47-07WoLocation:22.7340677375.87282069Type of Source:Open-wellShape:RoundYear of Development:1965Diameter(m):6.10

Current owner of source : IMC Current Total depth of source(m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	М3	2804	0.00
2	Repairing Platform				
	Stone	0.00	М3	2804	0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	178.00	М3	142	25276.64
6	Dewatering	0.00	М3	14	0.00

7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					25276.64

Source ID:W47-10WoGPS Location:22.7249058775.8858769Type of Source:Open-wellShape:RoundYear of Development:1930Diameter (m):5.18

Current owner of source : IMC
Current Depth of Source (m): 9.76

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	51.44	M3	142	7304.95
6	Dewatering	135.04	M3	14	1890.54
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL			_		9195.49

ESTIMATION SHEET-136

Source ID:W47-12WoGPS Location:22.7265880875.88626685Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):4.57

Current owner of source : Individual
Current Depth of Source (m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	75.10	M3	14	1051.34
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00

TOTAL 1051.34

ESTIMATION SHEET-137

GPS

Source ID: W48-03Wo **Location:** 22.7222883 75.88937045

Type of Source: Open-well Shape: Round Year of Development: 1970 Diameter(m): 4.88

Current owner of source : IMC Current Total depth of source(m): 7.32

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet	(
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	148.10	М3	142	21030.17
6	Dewatering	5.70	М3	14	79.75
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					21109.91

ESTIMATION SHEET-138

Source ID:W48-05WoGPS Location:22.7152706375.89128217Type of Source:Open-wellShape:RoundYear of Development:1930Diameter (m):3.96

Current owner of source : Community
Current Depth of Source (m): 19.82

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	56.41	M3	142	8009.54
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL		•			8009.54

ESTIMATION SHEET-139

Source ID:W49-02WoGPS Location:22.7176954375.89637271Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):9.60

Current owner of source : Community
Current Depth of Source (m): 17.07

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	375.33	M3	14	5254.59
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					5254.59

ESTIMATION SHEET-140

Source ID:W49-05WoGPS Location:22.7150585275.89834571Type of Source:Open-wellShape:RoundYear of Development:1925Diameter (m):8.23

Current owner of source : IMC
Current Depth of Source (m): 27.44

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	1103.01	M3	14	15442.07
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					15442.07

ESTIMATION SHEET-141

Source ID:W49-12WoGPS Location:22.7174580875.90568528Type of Source:Open-wellShape:RoundYear of Development:1945Diameter (m):6.10

Current owner of source : Community
Current Depth of Source (m): 12.50

S.No. Activity Quantity Unit Rate Amount

		(metric)			
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	80.10	M3	142	11374.49
6	Dewatering	53.40	M3	14	747.62
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL		_			12122.11

Source ID:W50-02WoGPS Location:22.7098411675.90172941Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):4.88

Current owner of source : Community
Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet	(metric)			
		0.00	M3		0.00
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	28.48	M3	142	4044.26
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					4044.26

ESTIMATION SHEET-143

Source ID:W50-03WoGPS Location:22.708235875.90263223Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):3.66

Current owner of source : Community
Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
	Stone	5.44	M3	2804	15259.86

3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	32.04	M3	142	4549.80
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					19809.66

Source ID:W50-06WoGPS Location:22.7194508175.91658757Type of Source:Open-wellShape:RoundYear of Development:0Diameter (m):9.15

Current owner of source : Community
Current Depth of Source (m): 16.16

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	74.78	M2	1180	88235.46
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	120.15	M3	14	1682.14
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					89917.60

ESTIMATION SHEET-145

Source ID:W51-01WoGPS Location:22.6892460575.89064569Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):5.18

Current owner of source : Individual
Current Depth of Source (m): 13.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.34	M3	4799	1632.31
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	26.36	M2	1180	31106.45
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00

7	Deepening	32.15	M3	313	10063.60
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					42802.36

Source ID:	W51-01Ws	GPS Location:	22.68835091	75.90444636
Type of Source:	Step-well		Shape:	Square- Rectangle
Year of Development:	1870		Length of Source (m): Width of Source	13.11
Current owner of source :	Community		(m):	8.23
Current Depth of Source (m):	10.67			

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	108.00	M2	1180	127440.00
4	Repairing- Lining		М3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	822.70	М3	142	116823.98
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	52.44	M	1349	70740.24
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					315004.22

ESTIMATION SHEET-147

Source ID:	W51-04Wo	GPS Location:	22.69022267	75.90471155
Type of Source:	Open-well		Shape:	Round
Year of Development:	1965		Diameter (m):	5.49

Current owner of source: IMC
Current Depth of Source (m): 16.77

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet	()			
	Brick	0.57	M3	4799	2720.52
2	Repairing Platform				0.00
	Brick	5.44	M3	4799	26117.01
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	36.05	M3	142	5118.52
6	Dewatering	151.39	M3	14	2119.50
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00

TOTAL 36075.55

ESTIMATION SHEET-148

Source ID:W51-05WoGPS Location:22.6888461975.90468382Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):5.49

Current owner of source : Individual
Current Depth of Source (m): 11.59

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	86.51	M3	142	12284.45
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL	,	•	•		12284.45

ESTIMATION SHEET-149

Source ID:	W52-01Ws	GPS Location:	22.69002548	75.89480874
				Square-
Type of Source:	Step-well		Shape:	Rectangle
			Length of Source	
Year of Development:	1850		(m):	6.10
•			Width of Source	
Current owner of source :	IMC		(m):	7.62

S.No.	Activity	Quantity	Unit	Rate	Amount
		(metric)			
1	Repairing- Parapet	Ì			
		0.00	M3		0.00
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	46.51	M2	1180	54883.72
4	Repairing- Lining		M3		0.00
	Stone	4.19	M3	3334	13956.28
5	Desilting	283.45	M3	142	40249.43
6	Dewatering	0.00	M3	14	0.00
7	Deepening	425.17	M3	313	133078.23
8	Fencing	37.20	M	1349	50176.22
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL	-				292343.88

ESTIMATION SHEET-150

Source ID: W52-02Wo GPS Location: 22.69136004 75.89307638

Type of Source: Open-well Shape: Round Year of Development: 1950 Diameter (m): 6.40

Current owner of source : IMC
Current Depth of Source (m): 7.62

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	1.96	М3	4799	9385.80
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	38.63	M2	1180	45582.58
4	Repairing- Lining		M3		0.00
	Stone	14.65	M3	3334	48846.98
5	Desilting	245.31	M3	142	34834.38
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	29.68	M	1349	40034.04
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					178683.77

ESTIMATION SHEET-151

Source ID:W52-04WoGPS Location:22.6905956475.89556837Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):3.35

Current owner of source : Community
Current Depth of Source (m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	16.43	M2	1180	19387.67
4	Repairing- Lining		M3		0.00
	Brick	1.67	M3	4906	8214.70
5	Desilting	0.00	M3	142	0.00
6	Dewatering	26.92	M3	14	376.92
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					27979.30

ESTIMATION SHEET-152

Source ID:W52-05WoGPS Location:22.6916618475.89595558Type of Source:Open-wellShape:RoundYear of Development:1900Diameter (m):3.05

Current owner of source : Community
Current Depth of Source (m): 12.80

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				

	Stone	0.00	M3	2804	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	28.93	M3	142	4107.45
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					4107.45

Source ID:W52-06WoGPS Location:22.6918417775.89715376Type of Source:Open-wellShape:RoundYear of Development:1970Diameter (m):3.96

Current owner of source : IMC
Current Depth of Source (m): 7.32

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.43	M3	4799	2040.39
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	97.77	M3	142	13883.20
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					15923.59

ESTIMATION SHEET-154

Source ID:W52-07WoGPS Location:22.6915799575.90225019Type of Source:Open-wellShape:RoundYear of Development:1962Diameter (m):7.62

Current owner of source : IMC
Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	49.36	M2	1180	58249.19
4	Repairing- Lining		M3		0.00

	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	208.60	M3	313	65291.51
8	Fencing	32.55	M	1349	43908.30
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					167449.00

Source ID:W52-08WoGPS Location:22.6920192275.90393655Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):6.71

Current owner of source : Community
Current Depth of Source (m): 21.34

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	107.69	M3	142	15292.37
6	Dewatering	301.54	M3	14	4221.56
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL			_		19513.93

ESTIMATION SHEET-156

 Source ID:
 W52-09Wo
 GPS Location:
 22.69081258
 75.904246

 Type of Source:
 Open-well
 Shape:
 Round

 Year of Development:
 1940
 Diameter (m):
 7.32

Current owner of source : Individual

Current Depth of Source (m): 9 45

Current Depth of Source (m):	9.45				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	49.36	M2	1180	58249.19
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	115.35	M3	142	16379.27
6	Dewatering	0.00	M3	14	0.00
7	Deepening	243.51	M3	313	76218.69
8	Fencing	0.00	M	1349	0.00

9	Recharge- Rainwater +25000	0.00	M3	147	
	for Filter pit				0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					150847.15

Source ID:W53-01WoGPS Location:22.6982384375.88461486Type of Source:Open-wellShape:RoundYear of Development:1970Diameter (m):3.63

Current owner of source: IMC
Current Depth of Source (m): 6.10

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	31.51	M3	142	4474.28
6	Dewatering	12.60	M3	14	176.45
7	Deepening	0.00	M3	313	0.00
8	Fencing	20.39	M	1349	27507.26
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL					47157.99

ESTIMATION SHEET-158

 Source ID:
 W53-02Wo
 GPS Location:
 22.69344055
 75.88538138

 Type of Source:
 Open-well
 Shape:
 Round

 Year of Development:
 1960
 Diameter (m):
 3.35

Current owner of source : IMC
Current Depth of Source (m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	14.31	M2	1180	16888.82
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	40.38	M3	14	565.39
7	Deepening	0.00	M3	313	0.00
8	Fencing	21.06	M	1349	28411.26
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL		_			45865.46

Source ID:W53-03WoGPS Location:22.6915826275.88563876Type of Source:Open-wellShape:RoundYear of Development:1950Diameter (m):6.10

Current owner of source : IMC
Current Depth of Source (m): 7.62

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.14	M3	4799	680.13
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	222.51	M3	313	69644.27
8	Fencing	27.76	M	1349	37451.20
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					107775.61

ESTIMATION SHEET-160

Source ID:W53-04WoGPS Location:22.6971190775.88570179Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):5.79

Current owner of source : IMC
Current Depth of Source (m): 4.57

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.51	M3	4799	2448.47
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	120.49	M3	142	17109.13
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	26.80	M	1349	36159.78
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		·	·		55717.38

Source ID:W53-11WoGPS Location:22.6959000175.88912453Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):3.20

Current owner of source : IMC
Current Depth of Source (m): 15.24

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	61.33	M3	14	858.59
7	Deepening	0.00	M3	313	0.00
8	Fencing	20.10	M	1349	27119.84
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL					42478.43

ESTIMATION SHEET-162

 Source ID:
 W53-15Wo
 GPS Location:
 22.69101678
 75.88985914

 Type of Source:
 Open-well
 Shape:
 Round

 Year of Development:
 1840
 Diameter (m):
 4.57

Current owner of source : Individual Current Depth of Source (m): 13.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.98	M3	4906	4791.91
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	25.03	M3	313	7834.98
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					12626.89

ESTIMATION SHEET-163

GPS Source ID: W54-01Wo Location: 22.70702633 75.88456191

Type of Source: Open-well Shape: Round Year of Development: 1945 Diameter(m): 3.35

Current owner of source : IMC Current Total depth of

source(m): 16.46

149 | P a g e

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.74	M3	4799	3570.68
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	89.45	M2	1180	105555.12
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	18.85	M3	14	263.85
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		_			109389.65

Source ID:

Type of Source:

GPS

Location: 22.70391198

Shape:

Diameter(m):

75.88612328 Round

4.27

Year of Development:

1920 IMC

W54-02Wo

Open-well

Current owner of source : Current Total depth of

18.29

source(m): S.No. Activity Quantity Unit Rate Amount (metric) 1 Repairing- Parapet Brick 0.00 М3 4799 0.00 2 Repairing Platform 0.00 М3 0.00 Cover (M.S. Grill) 0.00 M2 1180 0.00 3 4 Repairing- Lining Stone 0.00 М3 3334 0.00 0.00 0.00 5 Desilting М3 142 6 Dewatering 56.69 M3 14 793.72 0.00 M3 313 0.00 Deepening 0.00 M 1349 0.00 8 Fencing Recharge- Rainwater +25000 0.00 М3 147 0.00 for Filter pit 10 Recharge Roof with Filter (63 0.00 M 164 0.00 mm pipe)+10000 for filter TOTAL 793.72

ESTIMATION SHEET-165

GPS

W54-03Wo 22.70143932 75.88809229 Source ID: Location:

Type of Source: Open-well Shape: Round Year of Development: 1970 Diameter(m): 3.35

Current owner of source : Current Total depth of

source(m): 22.87

IMC

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00

2	Repairing Platform	1			
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	183.08	M3	14	2563.09
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					2563.09

Source ID:W54-04WoGPS Location:22.6958559775.89038973Type of Source:Open-wellShape:RoundYear of Development:1930Diameter (m):5.49

Current owner of source : Community
Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	216.28	M3	142	30711.12
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					30711.12

ESTIMATION SHEET-167

Source ID:W54-05WoGPS Location:22.7013419675.89940105Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):5.18

Current owner of source : IMC
Current Depth of Source (m): 6.40

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	122.18	M3	142	17349.26
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00

8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000	21.26	M3	147	20127.00
	for Filter pit				28125.00
10	Recharge Roof with Filter (63	0.00	M	164	0.00
	mm pipe)+10000 for filter				
TOTAL					45474.26

Source ID:	W54-06Wo	GPS Location:	22.69544794	75.90066679
				Square-
Type of Source:	Open-well		Shape:	Rectangle
			Length of Source	
Year of Development:	1955		(m):	7.01
			Width of Source	
Current owner of source:	IMC		(m):	6.10
Current Depth of Source (m):	17.99			

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	1.19	M3	4799	5713.10
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	143.42	M3	142	20366.21
6	Dewatering	247.73	M3	14	3468.25
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					29547.56

ESTIMATION SHEET-169

Source ID:	W54-07Wo	GPS Location:	22.70121264	75.90233284
Type of Source:	Open-well		Shape:	Round
Year of Development:	1955		Diameter (m):	5.49

Current owner of source : IMC
Current Depth of Source (m): 9.76

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	3.74	M3	4799	17955.44
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	35.34	M2	1180	41705.04
4	Repairing- Lining		M3		0.00
	Brick	2.23	M3	4906	10952.93
5	Desilting	93.72	M3	142	13308.15
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					83921.57

GPS Source ID: W55-01Ws Location: 22.71916495 75.87041645 Square-Shape: Length of source: Width of Type of Source: Rectangle Step-well Year of Development: 1890 10.12 Current owner of source: IMC 9.82 Source: Current Total depth of source(m): 14.02

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	618.15	M3	14	8654.13
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	60.98	M	164	20000.00
TOTAL					28654.13

ESTIMATION SHEET-171

Source ID:W55-03WoGPS Location:22.7101686475.87516795Type of Source:Open-wellShape:RoundYear of Development:1970Diameter (m):4.57

Current owner of source : IMC
Current Depth of Source (m): 15.24

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.28	M3	4799	1360.26
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					1360.26

ESTIMATION SHEET-172

 Source ID:
 W55-04Wo
 Location:
 22.70835491
 75.87560968

 Type of Source:
 Open-well
 Shape:
 Round

Year of Development: 1966 Diameter(m): 5.49

Current owner of source: IMC Current Total depth of source(m):

13.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.34	М3	4799	1632.31
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	108.14	М3	142	15355.56
6	Dewatering	43.26	М3	14	605.57
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					17593.45

ESTIMATION SHEET-173

GPS W55-05Wo

Source ID: Location: 22.71165029 75.87651483 Type of Source: Round Open-well Shape: Year of Development: 1850 Diameter(m): 3.35

Current owner of source : Current Total depth of source(m):

21.95

IMC

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	78.08	M3	14	1093.08
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL			•		1093.08

ESTIMATION SHEET-174

Source ID: W55-06Wo **GPS Location:** 22.70979657 75.87683079 Type of Source: Open-well Shape: Round 3.35 Year of Development: 1950 Diameter (m):

Current owner of source : IMC Current Depth of Source (m): 13.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				

	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	40.38	M3	142	5734.64
6	Dewatering	21.54	M3	14	301.54
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					6036.18

GPS

Source ID:W55-11WoLocation:22.7102476375.88012854Type of Source:Open-wellShape:RoundYear of Development:1950Diameter(m):3.35

Current owner of source : Current Total depth of

source(m): 13.11

IMC

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	26.92	М3	14	376.92
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL	,				376.92

ESTIMATION SHEET-176

GPS

Source ID:W55-12WoLocation:22.7166514375.88149354Type of Source:Open-wellShape:RoundYear of Development:1920Diameter(m):5.49

Current owner of source : Community

Current Total depth of

source(m): 25.91

source(III).	23.71				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00

3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	194.65	М3	14	2725.07
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					2725.07

Source ID:W56-01WoGPS Location:22.7232507475.86312991Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):3.41

Current owner of source : Community
Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
	Brick	0.00	M3	4799	0.00
3	Cover (M.S. Grill)	14.72	M2	1180	17374.80
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	55.82	M3	14	781.51
7	Deepening	0.00	M3	313	0.00
8	Fencing	21.25	M	1349	28669.54
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					46825.85

ESTIMATION SHEET-178

GPS

Source ID:W56-02WoLocation:22.7289413575.86367637Type of Source:Open-wellShape:RoundYear of Development:1975Diameter(m):4.42

Current owner of source : Other Current Total depth of

source(m): 18.29

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.21	М3	4799	1020.20
2	Repairing Platform				
	Stone	4.25	М3	2804	11921.77
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00

8	Fencing	22.98	M	1349	30994.10
9	Recharge- Rainwater +25000 for Filter pit	31.89	М3	147	29687.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					73623.56

Source ID:W56-03WoGPS Location:22.7226203475.86385263Type of Source:Open-wellShape:RoundYear of Development:1966Diameter (m):4.88

Current owner of source : Community
Current Depth of Source (m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	1.69	M3	5246	8847.42
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	27.48	M2	1180	32429.98
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	157.21	M3	14	2200.99
7	Deepening	56.96	M3	313	17828.93
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					61307.32

ESTIMATION SHEET-

180

Source ID: W56-05Wo **GPS Location:** 22.73010753 75.86566966

Type of Source: Open well Shape: Round Year of Development: 1873 Diameter (m): 10.67

Current owner of source : IMC Current Depth of Source

(m): 13.11

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.26	M3	4799	10845.74
2	Repairing Platform				0.00
	Stone	11.22	M3	2804	31460.88
3	Cover (M.S. Grill)	21.10	M2	1180	24898.00
4	Repairing- Lining		M3		0.00
		0.00	M3	4906	0.00
5	Desilting	26.32	M3	142	3737.44
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	23.93	M	1349	32281.57
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					103223.63

Source ID:	W57-01Ws	GPS Location:	22.73919872	75.85374244
				Square-
Type of Source:	Step-well		Shape:	Rectangle
			Length of Source	
Year of Development:	1850		(m):	64.02
			Width of Source	
Current owner of source:	IMC		(m):	0.61
Current Depth of Source (m):	12.80			

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	141.72	M3	2804	397392.29
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	60.47	M2	1180	71348.84
4	Repairing- Lining		M3		0.00
	Stone	0.89	M3	3334	2977.34
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	95.24	M3	313	29809.52
8	Fencing	34.76	M	1349	46885.98
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	76.22	М	164	22500.00
TOTAL					570913.97

ESTIMATION SHEET-182

Source ID:	W57-02Wo	GPS Location:	22.72021355	75.8644939 Square-
Type of Source:	Open-well		Shape: Length of Source	Rectangle
Year of Development:	1950		(m): Width of Source	0.00
Current owner of source:	IMC		(m):	0
Current Depth of Source (m):	9.15			

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.22	M3	2804	610.39
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	13.11	M2	1180	15472.23
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	45.73	M	164	17500.00
TOTAL					33582.62

ESTIMATION SHEET-183

GPS

Source ID: W57-02Ws **Location:** 22.72530401 75.85747706

			Square-
Type of Source:	Step-well	Shape:	Rectangle
		Length of	
Year of Development:	1830	source:	6.71
		Width of	
Current owner of source:	IMC	Source:	5.18
Current Total depth of			
source(m):	12.20		

source(III):	12.20				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	106.01	М3	142	15053.29
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	33.54	M	1349	45240.85
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	45.73	M	164	17500.00
TOTAL					77794.14

Source ID:	W58-01Ws		GPS Location:	22.73035073	75.85060671 Square-
Type of Source:	Step-well			Shape:	Rectangle
Year of Development:	1850			Length of Source (m): Width of Source	34.36
Current owner of source:	IMC			(m):	15.85
Current Depth of Source (m):	18.29				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	607.93	M2	1180	717352.19
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	5813.89	M3	14	81394.44
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					798746.63

ESTIMATION SHEET-185

Source ID:	W58-02Ws	GPS Location:	22.72451133	75.85490611 Square-
Type of Source:	Step-well		Shape: Length of Source	Rectangle
Year of Development:	1950		(m):	19.82
Current owner of source:	IMC		Width of Source	4.76

Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	142.66	M2	1180	168339.35
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	632.31	M3	14	8852.38
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL			_		177191.73

ESTIMATION SHEET-186

ESTIMATION SHEET-180		GPS		
Source ID:	W58-03Ws	Location:	22.72795344	75.85545437 Square-
Type of Source:	Step-well		Shape: Length of	Rectangle
Year of Development:	1922		source: Width of	9.45
Current owner of source : Current Total depth of	IMC		Source:	8.23
source(m):	15.24			

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	14.03	М3	2804	39341.84
2	Repairing Platform				
	Stone	0.00	М3	2804	0.00
3	Cover (M.S. Grill)	839.16	M2	1180	990212.09
4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	379.59	М3	14	5314.29
7	Deepening	0.00	М3	313	0.00
8	Fencing	45.12	M	1349	60869.51
9	Recharge- Rainwater +25000 for Filter pit	10.63	М3	147	26562.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					1122300.23

ESTIMATION SHEET-187

Source ID:W58-04WsGPS Location:22.7245737775.85696903Type of Source:Step-wellShape:RoundYear of Development:1953Diameter (m):4.21

Current owner of source : IMC
Current Depth of Source (m): 11.89

Ī	S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
I	1	Repairing- Parapet				

	RCC	0.00	M3	5246	0.00
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	18.23	M2	1180	21510.84
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	4.24	M3	142	601.71
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	22.78	M	1349	30735.81
9	Recharge- Rainwater +25000 for Filter pit	8.50	M3	147	26250
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL	<u> </u>		·		79098.36

Source ID:	W59-01Wo		GPS Location:	22.71023442	75.85443469 Square-
Type of Source:	Open-well			Shape:	Rectangle
Year of Development:	1900			Length of Source (m): Width of Source	4.02
Current owner of source:	Community			(m):	3.35
Current Depth of Source (m):	14.63				
S.No.	Activity	Quantity	Unit	Rate	Amount

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	0.00	M3	5246	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	8.37	M3	3334	27912.56
5	Desilting	0.00	M3	142	0.00
6	Dewatering	94.66	M3	14	1325.24
7	Deepening	8.23	M3	313	2576.39
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	М	164	14500.00
TOTAL			_		46314.19

ESTIMATION SHEET-189

Source ID:	W59-02Wo	GPS Location:	22.71262064	75.85738205
Type of Source:	Open-well		Shape:	Round
Year of Development:	1935		Diameter (m):	3.60

Current owner of source : IMC
Current Depth of Source (m): 8.84

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	2.21	M3	5246	11598.30
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00

4	Repairing- Lining		M3		0.00
	Brick	3.35	M3	4906	16429.40
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	21.44	M	1349	28927.82
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL			•		71955.52

Source ID: W60-04Wo **GPS Location:** 22.71524838 75.86225794 Type of Source: Open-well Shape: Round Year of Development: 1966 Diameter (m): 3.05

Current owner of source : IMC Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	1.36	M3	5246	7137.41
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	11.13	M3	14	155.75
7	Deepening	0.00	M3	313	0.00
8	Fencing	20.30	M	1349	27378.12
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	60.98	М	164	20000.00
TOTAL					54671.29

ESTIMATION SHEET-191

GPS

75.86581911 Source ID: W60-12Wo 22.71480079 Location: Type of Source: Open-well Shape: Round Year of Development: 1970 3.05 Diameter(m):

Current owner of source : Individual Current Total depth of

source(m):	4.88				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00

8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	M	164	13500.00
TOTAL			_	_	13500.00

GPS

GPS

Source:

Source ID: W61-01Wo 22.70577384 75.86060565 Location: Type of Source: Open-well Shape: Round Year of Development: 1950 Diameter(m): 4.88

Current owner of source : Current Total depth of

14.27 source(m):

IMC

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	62.66	М3	14	877.21
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		•	•		877.21

ESTIMATION SHEET-193

W61-01Ws 75.86235983 Source ID: Location: 22.70951352Square-Rectangle Shape: Length of Type of Source: Step-well

Year of Development: 1912 11.43 source: Width of

Current owner of source : Current Total depth of

IMC

source(m):	9.15				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	70.92	M2	1180	83688.89
4	Repairing- Lining				
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	334.86	M3	14	4688.10
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00

5.37

10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					88376.99

GPS

Source ID: W61-02Wo Location: 22.70857582 75.86259064 Open-well Type of Source: Shape: Round Year of Development: 1800 4.45 Diameter(m):

Current owner of source : IMC

Current Total depth of source(m): 10.61

source(m):	10.61				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	111.93	M3	14	1567.06
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					1567.06

ESTIMATION SHEET-195

GPS Source ID: W61-02Ws 75.8643082 Location: 22.70823802Square-Rectangle Shape: Length of source: Width of Type of Source: Step-well Year of Development: 1915 12.80 Current owner of source : IMC Source: 9.15 Current Total depth of 12 20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	428.57	M3	14	6000.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					6000.00

GPS

Source ID: W62-01Wo Location: 22.70867936 75.86537087

Type of Source: Open-well Shape: Round
Year of Development: 1930 Diameter(m): 3.66

Current owner of source : IMC Current Total depth of

source(m): 4.57

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	М3	2804	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	80.10	М3	142	11374.49
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					11374.49

ESTIMATION SHEET-197

GPS

 Source ID:
 W63-01Wo
 Location:
 22.70460854
 75.86899992

 Type of Source:
 Open-well
 Shape:
 Round

Year of Development: 1970
Current owner of source: IMC
Current Total depth of
source(m): 16.77

S.No. Quantity Unit Rate Activity Amount (metric) 1 Repairing- Parapet Brick 0.00 М3 4799 0.00 2 Repairing Platform 0.00 0.00 М3 3 Cover (M.S. Grill) 0.00 M2 1180 0.00 Repairing-Lining 4 Brick 0.00 М3 4906 0.00 5 Desilting 0.00 М3 142 0.00 0.00 М3 0.00 Dewatering 14 6 Deepening 0.00 М3 313 0.00 25.85 1349 34868.36 8 Fencing M 9 Recharge- Rainwater +25000 0.00 М3 147 0.00 for Filter pit 10 Recharge Roof with Filter (63 35.06 M 164 15750.00 mm pipe)+10000 for filter TOTAL 50618.36

ESTIMATION SHEET-198

 Source ID:
 W63-01Ws
 Location:
 22.70360195
 75.8718574

 Type of Source:
 Step-well
 Shape:
 Square

Diameter(m):

5.18

			Rectangle
		Length of	
Year of Development:	1850	source:	5.79
		Width of	
Current owner of source:	IMC	Source:	7.16
Current Total depth of			
source(m):	15.24		

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.43	М3	4799	2040.39
2	Repairing Platform				
	Stone	4.54	М3	2804	12716.55
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	29.27	M	1349	39482.93
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					54239.87

Source ID:	W63-02Wo	GPS Location:	22.69947202	75.86965971
Type of Source:	Open-well		Shape:	Round
Year of Development:	1980		Diameter (m):	5.49
Current owner of source:	IMC			

10.67 Current Depth of Source (m): Quantity Unit Rate S.No. Activity Amount (metric) Repairing- Parapet 1 Brick 0.00 M3 4799 0.00 Repairing Platform 0.00 2 0.00 M3 0.00 Cover (M.S. Grill) 25.43 M2 1180 30003.12 3 4 Repairing- Lining М3 0.00 Brick M3 4906 0.00 0.00 142 0.00 М3 0.00 5 Desilting Dewatering 0.00 M3 14 0.00 6 Deepening 108.14 M3 313 33847.12 8 25.52 1349 34429.28 Fencing M Recharge- Rainwater +25000 for Filter pit 10.63 M3 147 26562.50 Recharge Roof with Filter (63 10 0.00 M 164 0.00 mm pipe)+10000 for filter 124842.02 TOTAL

ESTIMATION SHEET-200

ESTERILITED CONTEST 200					
Source ID:	W63-02Ws		GPS Location:	22.7077026	75.87214848 Square-
Type of Source:	Step-well			Shape: Length of Source	Rectangle
Year of Development:	1820			(m): Width of Source	4.27
Current owner of source :	IMC			(m):	3.96
Current Depth of Source (m):	10.67				
S.No.	Activity	Quantity	Unit	Rate	Amount

		(metric)			
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		М3		0.00
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	77.38	М3	14	1083.33
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL	·	·	·		1083.33

W63-03Wo 75.87146288 Source ID: **GPS Location:** 22.70068842 Type of Source: Open-well Shape: Round Year of Development: 1954 Diameter (m): 12.20

Current owner of source : IMC 17.68 Current Depth of Source (m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.28	M3	4799	1360.26
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	128.81	M2	1180	151999.37
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	71.20	M3	142	10110.66
6	Dewatering	213.61	M3	14	2990.48
7	Deepening	0.00	M3	313	0.00
8	Fencing	47.87	M	1349	64571.04
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					231031.80

ESTIMATION SHEET-202

Source ID:	W63-03Ws		GPS Location:	22.70471356	75.87296894 Square-
Type of Source:	Step-well			Shape:	Rectangle
Year of Development:	0			Length of Source (m): Width of Source	3.66
Current owner of source:	IMC			(m):	3.35
Current Depth of Source (m):	13.72				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				0.00

	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	22.33	M2	1180	26344.19
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	18.71	M3	142	2656.46
6	Dewatering	78.57	M3	14	1100.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL			_		30100.65

Source ID:W63-07WoGPS Location:22.7057771475.87472719Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):3.96

Current owner of source : IMC
Current Depth of Source (m): 6.10

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	1.28	M3	2804	3576.53
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	18.69	M2	1180	22058.87
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	75.21	M3	142	10679.38
6	Dewatering	0.00	M3	14	0.00
7	Deepening	112.81	M3	313	35309.65
8	Fencing	22.98	M	1349	30994.10
9	Recharge- Rainwater +25000 for Filter pit	10.63	M3	147	26562.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					129181.02

ESTIMATION SHEET-204

Source ID:W63-09WoGPS Location:22.7068822975.87536382Type of Source:Open-wellShape:RoundYear of Development:1945Diameter (m):4.27

Current owner of source : IMC
Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00

	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	87.22	M3	14	1221.11
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					1221.11

 Source ID:
 W63-11Wo
 GPS Location:
 22.69999795
 75.87730427

 Type of Source:
 Open-well
 Shape:
 Round

 Year of Development:
 1970
 Diameter (m):
 5.18

Current owner of source : IMC
Current Depth of Source (m): 13.11

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.85	M3	4799	4080.78
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	180.05	M3	14	2520.72
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL		•			21101.50

ESTIMATION SHEET-206

Source ID:W63-12WoGPS Location:22.7042676275.87753728Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):6.71

Current owner of source : IMC
Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	45.64	M2	1180	53854.65
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	183.08	M3	14	2563.09
7	Deepening	0.00	M3	313	0.00
8	Fencing	31.59	M	1349	42616.88
9	Recharge- Rainwater +25000 for Filter pit	21.26	M3	147	28125.00

10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					127159.62

Source ID:W63-17WoGPS Location:22.701943475.87777038Type of Source:Open-wellShape:RoundYear of Development:1945Diameter (m):4.57

Current owner of source : IMC
Current Depth of Source (m): 7.62

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.96	M3	4799	4624.89
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	21.10	M2	1180	24902.39
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	55.07	M3	14	770.98
7	Deepening	0.00	M3	313	0.00
8	Fencing	23.93	M	1349	32285.52
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					62583.78

ESTIMATION SHEET-208

Source ID:W63-19WoGPS Location:22.6995618175.87819385Type of Source:Open-wellShape:RoundYear of Development:1970Diameter (m):3.23

Current owner of source : IMC
Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.23	M3	4799	1088.21
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	8.84	M2	1180	10426.26
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	27.50	M3	14	385.01
7	Deepening	0.00	M3	313	0.00
8	Fencing	18.19	M	1349	24536.99
9	Recharge- Rainwater +25000 for Filter pit	10.63	M3	147	26562.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL	·				62998.97

Source ID:W63-21WoGPS Location:22.698428675.88037406Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):3.23

Current owner of source : IMC
Current Depth of Source (m): 11.59

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	13.51	M2	1180	15937.53
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	25.00	M3	14	350.01
7	Deepening	0.00	M3	313	0.00
8	Fencing	20.68	M	1349	27894.69
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL					59182.23

ESTIMATION SHEET-210

Source ID:W64-01WoGPS Location:22.6951258175.87000499Type of Source:Open-wellShape:RoundYear of Development:1890Diameter (m):3.66

Current owner of source : IMC
Current Depth of Source (m): 16.77

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	0.00	M3	5246	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	16.00	M2	1180	18874.12
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	16.02	M3	142	2274.90
6	Dewatering	16.02	M3	14	224.29
7	Deepening	0.00	M3	313	0.00
8	Fencing	21.83	M	1349	29444.39
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL	·	·			65817.69

ESTIMATION SHEET-211

Source ID:W64-02WoGPS Location:22.6922806975.87091819Type of Source:Open-wellShape:RoundYear of Development:1910Diameter (m):4.57

Current owner of source : IMC
Current Depth of Source (m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.48	M3	4799	2298.84
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	22.11	M2	1180	26088.05
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	24.32	M	1349	32802.09
9	Recharge- Rainwater +25000 for Filter pit	15.94	M3	147	27343.75
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					88532.73

ESTIMATION SHEET-212

Source ID:W64-02WsGPS Location:22.6961787975.88181794Type of Source:Step-wellShape:RoundYear of Development:1965Diameter (m):6.71

Current owner of source : IMC
Current Depth of Source (m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.04	М3	4799	9793.88
2	Repairing Platform				0.00
	Stone	2.98	M3	2804	8345.24
3	Cover (M.S. Grill)	42.06	M2	1180	49632.45
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	53.85	М3	142	7646.18
6	Dewatering	0.00	M3	14	0.00
7	Deepening	107.69	M3	313	33707.83
8	Fencing	30.63	M	1349	41325.46
9	Recharge- Rainwater +25000 for Filter pit	10.63	M3	147	26562.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					177013.54

ESTIMATION SHEET-213

Source ID:W64-03WoGPS Location:22.6957637475.87822824Type of Source:Open-wellShape:RoundYear of Development:1965Diameter (m):7.32

Current owner of source : IMC
Current Depth of Source (m): 15.85

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				

	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	38.45	M3	142	5459.76
6	Dewatering	360.14	M3	14	5041.94
7	Deepening	0.00	M3	313	0.00
8	Fencing	32.55	M	1349	43908.30
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL	<u> </u>		·		54410.00

Source ID:W64-05WoGPS Location:22.6886261775.87913972Type of Source:Open-wellShape:RoundYear of Development:1950Diameter (m):4.88

Current owner of source : IMC
Current Depth of Source (m): 20.73

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	11.39	M3	142	1617.71
6	Dewatering	161.77	M3	14	2264.79
7	Deepening	0.00	M3	313	0.00
8	Fencing	23.93	M	1349	32285.52
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					36168.01

ESTIMATION SHEET-215

Source ID:W64-06WoGPS Location:22.6939787275.8792039Type of Source:Open-wellShape:RoundYear of Development:1970Diameter (m):3.96

Current owner of source : IMC
Current Depth of Source (m): 14.02

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
	Brick	0.00	M3	4799	0.00
3	Cover (M.S. Grill)	17.77	M2	1180	20969.71
4	Repairing- Lining		M3		0.00
	Brick	0.98	M3	4906	4791.91

5	Desilting	15.04	M3	142	2135.88
6	Dewatering	62.05	M3	14	868.64
7	Deepening	0.00	M3	313	0.00
8	Fencing	22.59	M	1349	30477.53
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					59243.66

Source ID:W64-07WoGPS Location:22.6903713975.88011888Type of Source:Open-wellShape:RoundYear of Development:1965Diameter (m):7.93

Current owner of source : IMC
Current Depth of Source (m): 18.29

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	466.28	M3	14	6527.96
7	Deepening	0.00	M3	313	0.00
8	Fencing	36.38	M	1349	49073.99
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	36.59	M	164	16000.00
TOTAL					71601.95

ESTIMATION SHEET-217

Source ID:W64-08WoGPS Location:22.6883171675.88089051Type of Source:Open-wellShape:RoundYear of Development:1965Diameter (m):3.32

Current owner of source : IMC
Current Depth of Source (m): 15.24

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	0.00	M3	5246	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	13.22	M3	142	1876.95
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00

10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					1876.95

Source ID:W64-09WoGPS Location:22.6867683975.88113279Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):3.35

Current owner of source : IMC
Current Depth of Source (m): 18.29

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	0.11	M3	5246	594.78
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL	·	·	·		594.78

ESTIMATION SHEET-219

Source ID:W64-11WoGPS Location:22.686190175.88254647Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):5.49

Current owner of source : IMC
Current Depth of Source (m): 8.23

Current Depth of Source	e (m): 8.23				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.85	M3	4799	4080.78
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	29.21	M2	1180	34466.98
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	21.63	M3	142	3071.11
6	Dewatering	0.00	M3	14	0.00
7	Deepening	165.81	M3	313	51898.91
8	Fencing	26.80	M	1349	36159.78
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					129677.57

Source ID:W64-14WoGPS Location:22.6932923675.88379765Type of Source:Open-wellShape:RoundYear of Development:1950Diameter (m):4.88

Current owner of source : IMC
Current Depth of Source (m): 16.77

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.68	M3	4799	3264.63
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	23.66	M2	1180	27918.25
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	170.88	M3	14	2392.38
7	Deepening	0.00	M3	313	0.00
8	Fencing	24.89	M	1349	33576.94
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					67152.20

ESTIMATION SHEET-221

Source ID:W64-16WoGPS Location:22.685630775.88510471Type of Source:Open-wellShape:RoundYear of Development:1967Diameter (m):4.27

Current owner of source : Individual
Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	21.10	M2	1180	24902.39
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	43.61	M3	14	610.56
7	Deepening	65.42	M3	313	20475.42
8	Fencing	23.93	M	1349	32285.52
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					78273.88

ESTIMATION SHEET-222

		GPS	GPS		
Source ID:	W65-01Ws	Location:	22.7066907	75.86529913 Square-	
Type of Source:	Step-well		Shape: Length of	Rectangle	
Year of Development:	1920		source: Width of	9.21	
Current owner of source :	IMC		Source:	4.91	

Current Total depth of source(m):

source(m):	9.45				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	М3		0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	130.93	М3	14	1832.97
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00

ESTIMATION SHEET-223

TOTAL

ESTIMITION SHEET-223		GPS		
Source ID:	W65-02Ws	Location:	22.70120704	75.86568153 Square-
Type of Source:	Step-well		Shape: Length of	Rectangle
Year of Development:	1800		source: Width of	6.40
Current owner of source : Current Total depth of	IMC		Source:	6.10
source(m):	15.24			

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	М3	2804	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	М	164	15000.00
TOTAL					15000.00

ESTIMATION SHEET-224

Source ID: W65-03Wo **GPS Location:** 22.70273615 75.86039826 Type of Source: Open-well Shape: Round Year of Development: 1960 Diameter (m): 5.49

Current owner of source: IMC Current Depth of Source (m): 38.11

S.No.	Activity	Quantity	Unit	Rate	Amount
		(metric)			

1832.97

1	Repairing- Parapet	1			
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	36.05	M3	142	5118.52
6	Dewatering	612.78	M3	14	8578.93
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	15.94	M3	147	27343.75
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL			•		41041.20

GPS

Source ID: W65-04Wo 22.70268526 75.86261318 Location: Type of Source: Open-well Round Shape: Year of Development: 1940 Diameter(m): 3.35

Current owner of source : Current Total depth of

IMC

source(m):	11.59				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	10.52	M2	1180	12408.11
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	5.38	M3	142	764.62
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		•	•		13172.73

ESTIMATION SHEET-226

GPS

Source ID: W65-05Wo 22.70128875 75.86533223 Location: Open-well Type of Source: Shape: Round Year of Development: 1975 3.96 Diameter(m):

Current owner of source : Current Total depth of

source(m): 13.72

IMC

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00

3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	18.80	M3	142	2669.85
6	Dewatering	37.60	M3	14	526.45
7	Deepening	0.00	M3	313	0.00
8	Fencing	21.06	M	1349	28411.26
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	22.87	М	164	13750.00
TOTAL					45357.55

GPS Source ID: W65-06Wo Location: 22.70166886 75.86542177

Type of Source: Open-well Shape: Round Year of Development: 1920 Diameter(m): 5.82

Current owner of source: IMC Current Total depth of

13.99 source(m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	33.28	М3	142	4725.85
6	Dewatering	55.12	М3	14	771.62
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					5497.47

ESTIMATION SHEET-228

GPS Location: W66-01Wo 22.70188773 Source ID:

75.84887126 Type of Source: Open-well Shape: Round Year of Development: 1965 Diameter(m): 6.71

Current owner of source : Current Total depth of IMC

12.20 source(m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.74	М3	4799	3536.68
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00

6	Dewatering	241.23	M3	14	3377.24
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL				•	6913.92

GPS Source ID: W66-01Ws **Location:** 22.70098302 75.84519126 Square-Type of Source: Step-well Shape: Rectangle Length of source: Width of Year of Development: 1904 31.01 IMC 12.10 Current owner of source: Source: Current Total depth of 12.16

source(m): S.No. Activity Quantity Unit Rate Amount (metric) 1 Repairing- Parapet 0.91 М3 2804 2556.03 Stone 2 Repairing Platform Stone 0.00 М3 2804 0.00 0.00 Cover (M.S. Grill) M2 1180 0.00 3 Repairing- Lining 4 0.00 М3 3334 0.00 0.00 М3 0.00 142 5 Desilting 6 Dewatering 2540.60 М3 14 35568.36 7 Deepening 0.00 М3 0.00 313 8 0.00 1349 0.00 Fencing M 9 Recharge- Rainwater +25000 0.00 М3 147 0.00 for Filter pit 10 Recharge Roof with Filter (63 0.00 M 164 0.00 mm pipe)+10000 for filter TOTAL 38124.39

ESTIMATION SHEET-230

Source ID:W66-02WoGPS Location:22.7050027475.84928223Type of Source:Open-wellShape:RoundYear of Development:1815Diameter (m):7.20

Current owner of source : IMC
Current Depth of Source (m): 11.80

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	257.77	M3	14	3608.75
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000	0.00	M3	147	0.00

	for Filter pit				
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					3608.75

Source ID:	W66-02Ws	GPS Location:	22.70289124	75.84733912
				Square-
Type of Source:	Step-well		Shape:	Rectangle
			Length of Source	
Year of Development:	1886		(m):	9.54
			Width of Source	
Current owner of source:	IMC		(m):	8.54
Current Depth of Source (m):	12.71			

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
	Stone	0.00	M3	2804	0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	327.90	M3	14	4590.67
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	63.78	M3	147	34375.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					38965.67

ESTIMATION SHEET-232

Year of Development: 1955
Current owner of source: IMC
Current Total depth of
source(m): 11.89

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.06	M3	4799	9875.49
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	105.54	M3	14	1477.54
7	Deepening	0.00	M3	313	0.00
8	Fencing	24.99	M	1349	33706.08
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	M	164	13500.00
TOTAL					58559.12

GPS

W66-07Wo 22.6981891 75.85256108 Source ID: Location: Type of Source: Open-well Shape: Round Year of Development: 1968 Diameter(m): 3.35

Current owner of source : Current Total depth of Community

8.54 source(m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	5.38	М3	142	764.62
6	Dewatering	35.00	М3	14	490.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	20.10	M	1349	27119.84
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					28374.46

ESTIMATION SHEET-234

GPS

Source ID: W67-01Wo 22.70633829 75.84634743 Location: Type of Source: Open-well Shape: Round Year of Development: 1975 Diameter(m): 4.57

Current owner of source : IMC Current Total depth of 5.64

source(m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	52.57	M3	14	735.94
7	Deepening	0.00	M3	313	0.00
8	Fencing	7.66	M	1349	10331.37
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		•	•		11067.30

Source ID:	W68-01Ws		GPS Location:	22.71293736	75.85180991 Square-
Type of Source:	Step-well			Shape: Length of Source	Rectangle
Year of Development:	1870			(m): Width of Source	3.05
Current owner of source :	Community			(m):	2.74
Current Depth of Source (m):	4.88				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	9.69	M3	2804	27181.63
2	Repairing Platform				0.00
	Stone	57.14	M3	2804	160228.57
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	17.86	M3	14	250.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					187660.20

 Source ID:
 W71-01Wo
 Location:
 22.69317117
 75.8338293

 Type of Source:
 Open-well
 Shape:
 Round

 Year of Development:
 1940
 Diameter(m):
 9.45

Current owner of source : IMC Current Total depth of

source(m): 15.24

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	39.25	M	1349	52948.25
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL					67448.25

ESTIMATION SHEET-237

Source ID:W71-02WoGPS Location:22.7003821275.83567816Type of Source:Open-wellShape:RectangleYear of Development:1935Length of Source4.79

(m):

Width of Source

Current owner of source : IMC 3.96 (m):

Current Depth of Source (m): 12.53

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	150.99	M3	14	2113.89
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					2113.89

ESTIMATION SHEET-238

GPS

Diameter(m):

W71-03Wo Source ID: **Location:** 22.70218732 75.83650087 Type of Source: Open-well Shape: Round 9.76

Year of Development: 1962 Current owner of source: IMC

Current Total depth of source(m): 13.29

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet	(metric)			
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	585.56	М3	14	8197.89
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					8197.89

ESTIMATION SHEET-239

GPS

W71-04Wo 75.83679934 **Source ID:** 22.69369961 **Location:** Type of Source: Open-well Shape: Round Year of Development: 1960 9.15 Diameter(m):

Current owner of source : Community Current Total depth of

source(m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				

	Brick	0.60	М3	4799	2856.55
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	78.56	M2	1180	92702.38
4	Repairing- Lining				
	Brick	0.11	М3	4906	547.65
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	М	164	14500.00
TOTAL			·		110606.57

GPS

Source ID:W72-01WoLocation:22.6887064475.84081399Type of Source:Open-wellShape:RoundYear of Development:1950Diameter(m):7.01

Current owner of source : Current Total depth of source(m):

n): 10.37

IMC

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	47.48	M2	1180	56030.38
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	70.62	М3	142	10028.51
6	Dewatering	117.71	М3	14	1647.88
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					67706.76

ESTIMATION SHEET-241

GPS

Source ID:W72-02WoLocation:22.6991667375.84085184Type of Source:Open-wellShape:RoundYear of Development:1930Diameter(m):3.63

Current owner of source : Current Total depth of

source(m): 11.19

IMC

S.No. Quantity Unit Rate Activity Amount (metric) 1 Repairing- Parapet 0.00 М3 4799 0.00 Repairing Platform 2 0.00 М3 0.00 Cover (M.S. Grill) 1180 0.00 M2 0.00

4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	103.03	М3	14	1442.48
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					1442.48

Source ID:W72-05WoGPS Location:22.6898300675.8442582Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):3.63

Current owner of source : IMC
Current Depth of Source (m): 12.77

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	51.99	M3	14	727.86
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL			_		727.86

ESTIMATION SHEET-243

GPS

Source ID:W72-06WoLocation:22.6945772875.84645269Type of Source:Open-wellShape:RoundYear of Development:1958Diameter(m):14.63

Current owner of source : IMC
Current Total depth of
source(m): 10.98

S.No. Activity Quantity Unit Rate Amount (metric) Repairing- Parapet 4799 2040.39 Brick 0.43 M3 2 Repairing Platform 0.00 M3 0.00 Cover (M.S. Grill) 175.33 M2 1180 206888.03 4 Repairing- Lining Brick 0.00 М3 4906 0.00 Desilting 142 205.06 M3 29118.69 Dewatering 1179.10 М3 14 16507.43

7	Deepening	0.00	M3	313	0.00
8	Fencing	54.57	M	1349	73610.98
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					328165.52

GPS

Source ID: W72-07Wo Location: 22.69169894 75.84673755

Type of Source: Open-well Shape: Round Year of Development: 1975 Diameter(m): 12.35

Current owner of source : Individual
Current Total depth of
source(m): 10.98

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	854.02	М3	14	11956.25
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					11956.25

ESTIMATION SHEET-245

GPS

Source ID: W73-03Wo **Location:** 22.69514026 75.84910317

Type of Source: Open-well Shape: Round Year of Development: 1960 Diameter(m): 3.32

Current owner of source : IMC Current Total depth of

source(m): 3.96

source(m):	3.96				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	М3		0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	10.57	М3	14	148.04
7	Deepening	0.00	М3	313	0.00
8	Fencing	7.66	M	1349	10331.37
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63	0.00	M	164	0.00

L		mm pipe)+10000 for filter		
Γ	TOTAL			10479.41

GPS

Source ID: W73-04Wo 22.69278288 75.85130439 Location: Type of Source: Open-well Shape: Round Year of Development: 1924 Diameter(m): 3.96

Current owner of source : Current Total depth of source(m):

13 72

IMC

S.No.	Activity	Quantity	Unit	Rate	Amount
	-	(metric)			
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	94.01	M3	14	1316.12
7	Deepening	0.00	M3	313	0.00
8	Fencing	22.02	M	1349	29702.68
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					31018.80

ESTIMATION SHEET-247

Source ID: W74-01Wo **GPS Location:** 22.6825843 75.85632809 Type of Source: Open-well Shape: Round Year of Development: 1900 Diameter (m): 4.27

IMC Current owner of source :

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.60	M3	2804	1669.05
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	23.93	M	1349	32285.52
9	Recharge- Rainwater +25000 for Filter pit	21.26	M3	147	28125.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					62079.57

GPS

Source ID: W74-02Wo **Location:** 22.6904592 75.85739272 Type of Source: Open-well Shape: Round Year of Development: 1978 Diameter(m): 4.57

Current owner of source: Current Total depth of

12.20

Individual

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.34	М3	4799	1632.31
2	Repairing Platform				
	Brick	58.05	М3	4799	278581.41
3	Cover (M.S. Grill)	21.10	M2	1180	24902.39
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	80.10	М3	14	1121.43
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL			_		306237.54

ESTIMATION SHEET-249

Source ID: W74-03Wo **GPS Location:** 22.68179665 75.85788483 Type of Source: Open-well Shape: Round 1985 Diameter (m): 3.35 Year of Development:

Current owner of source : IMC Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet	(metric)			
		0.00	M3		0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	12.34	M2	1180	14562.30
4	Repairing- Lining		M3		0.00
	Brick	0.89	M3	4906	4381.17
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	53.85	M3	313	16853.91
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	31.89	M3	147	29687.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		·	·		65484.88

ESTIMATION SHEET-250

GPS W74-04Wo 22.68130478 Source ID: Location:

75.85793405 Type of Source: Open-well Shape: Round Year of Development: 1950 Diameter(m): 3.96

Current owner of source : IMC Current Total depth of

source(m):	12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	22.59	M	1349	30477.53
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL	·				44977.53

ESTIMATION SHEET-251

Source ID:W74-06WoGPS Location:22.6900287375.86207529Type of Source:Open-wellShape:RoundYear of Development:1910Diameter (m):7.13

Current owner of source : IMC
Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.39	M3	4906	1916.76
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	31.59	M	1349	42616.88
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL					59533.65

ESTIMATION SHEET-252

Source ID:W74-07WoGPS Location:22.6908007375.86414049Type of Source:Open-wellShape:RoundYear of Development:1900Diameter (m):9.30

Current owner of source : IMC
Current Depth of Source (m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	1.36	M3	4799	6529.25
2	Repairing Platform				0.00

		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.42	M3	4906	2053.67
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	38.39	M	1349	51785.97
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	M	164	13500.00
TOTAL					73868.90

Source ID:W74-08WoGPS Location:22.688477675.86485516Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):7.47

Current owner of source : Community
Current Depth of Source (m): 18.29

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	51.28	M2	1180	60511.09
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	0	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	33.03	M	1349	44554.02
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	М	164	15000.00
TOTAL					120065.10

ESTIMATION SHEET-254

Source ID:W74-09WoGPS Location:22.6855009475.86528552Type of Source:Open-wellShape:RoundYear of Development:1930Diameter (m):4.70

Current owner of source : Community
Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.28	M3	0	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00

7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	24.39	M	164	14000.00
TOTAL					14000.00

Source ID:W74-10WoGPS Location:22.684032575.86557679Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):3.35

Current owner of source : IMC
Current Depth of Source (m): 7.62

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	20.10	M	1349	27119.84
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	44.21	M	164	17250.00
TOTAL					44369.84

ESTIMATION SHEET-256

Source ID:W74-11WoGPS Location:22.686980475.86694298Type of Source:Open-wellShape:RoundYear of Development:1950Diameter (m):9.45

Current owner of source : IMC
Current Depth of Source (m): 22.87

Current Depth of Sou		0	T.T:4	D-4-	A
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.27	M3	4799	10882.09
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.56	M3	4906	2738.23
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	39.25	M	1349	52948.25
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	45.73	M	164	17500.00
TOTAL					84068.57

GPS

W74-12Wo 22.67712877 75.86967428 Source ID: Location: Type of Source: Open-well Shape: Round Year of Development: 1980 Diameter(m): 3.66

Current owner of source : Current Total depth of

Individual

13.72 source(m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.27	М3	4799	10882.09
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	14.31	M2	1180	16888.82
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	16.02	М3	313	5014.39
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					32785.29

ESTIMATION SHEET-258

GPS 75.86978346 W74-13Wo **Location:** 22.67748626 Source ID:

Type of Source: Open-well Shape: Round Year of Development: 1975 Diameter(m): 3.66

Current owner of source : Individual

Current Total depth of

10.98

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.15	М3	4799	10337.98
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	14.31	M2	1180	16888.82
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	51.27	М3	14	717.71
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					27944.51

GPS

Source ID: W74-14Wo **Location:** 22.67630968 75.86985515 Type of Source: Open-well Shape: Round 1970 5.18 Year of Development: Diameter(m):

Current owner of source: Current Total depth of

10.98 source(m):

Individual

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Other	0.00	М3	4880	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	26.36	M2	1180	31106.45
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	83.60	М3	14	1170.34
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL		•	•		32276.78

ESTIMATION SHEET-260

GPS

Source ID: W74-15Wo Location: 22.67505953 75.87134587 Type of Source: Round Open-well Shape: Year of Development: 1960 Diameter(m): 4.88

Current owner of source:

Current Total depth of

8.23

Individual

source(m): Quantity S.No. Activity Unit Rate Amount (metric) 1 Repairing- Parapet 0.00 М3 4799 0.00 Repairing Platform 2 0.00 М3 0.00 3 Cover (M.S. Grill) 23.66 M2 1180 27918.25 4 Repairing-Lining Brick 0.00 М3 4906 0.00 17.09 2426.56 5 Desilting М3 142 0.00 М3 14 0.00 6 Dewatering Deepening 131.01 М3 313 41006.55 8 Fencing 0.00 M 1349 0.00 147 0.00 Recharge- Rainwater +25000 for 0.00 М3 Filter pit Recharge Roof with Filter (63 mm pipe)+10000 for filter 10 0.00 0.00 Μ 164 TOTAL 71351.36

ESTIMATION SHEET-261

GPS

Source ID: W74-16Wo Location: 22.67562904 75.87209528 Type of Source: Open-well Shape: Round Year of Development: 1970 Diameter(m): 6.10

Current owner of source: Individual Current Total depth of source(m):

16.77

Recharge Roof with Filter (63

mm pipe)+10000 for filter

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	1.02	М3	4799	4896.94
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	35.34	M2	1180	41705.04
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	44.50	М3	142	6319.16
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00

ESTIMATION SHEET-262

TOTAL

10

 Source ID:
 W75-01Wo
 Location:
 22.683466
 75.88602542

 Type of Source:
 Open-well
 Shape:
 Round

 Year of Development:
 1930
 Diameter (m):
 4.88

0.00

M

164

0.00

52921.14

Current owner of source : IMC
Current Depth of Source (m): 13.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.32	M3	4799	1530.29
2	Repairing Platform				0.00
	Stone	20.41	M3	2804	57224.49
3	Cover (M.S. Grill)	26.36	M2	1180	31106.45
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	113.92	M3	14	1594.92
7	Deepening	28.48	M3	313	8914.47
8	Fencing	25.85	M	1349	34868.36
9	Recharge- Rainwater +25000 for Filter pit	10.63	M3	147	26562.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					161801.48

ESTIMATION SHEET-263

GPS Location: Source ID: W75-01Ws 22.66790224 75.91506705 Square-Type of Source: Step-well Shape: Rectangle Length of source: 1910 11.59 Year of Development: Width of Current owner of source: Community Source: 9.15 Current Total depth of source(m): 14.94

S.No. Activity Quantity Unit Rate Amount (metric)

1	Repairing- Parapet				
	Stone	0.00	М3	2804	0.00
2	Repairing Platform				
	Stone	8.16	М3	2804	22889.80
3	Cover (M.S. Grill)	125.86	M2	1180	148515.35
4	Repairing- Lining				
	Stone	0.00	М3	3334	0.00
5	Desilting	193.88	М3	142	27530.61
6	Dewatering	517.01	М3	14	7238.10
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					206173.85

GPS

 Source ID:
 W75-02Wo
 Location:
 22.68206244
 75.88668072

 Type of Source:
 Open-well
 Shape:
 Rou

Shape: Round
Diameter (m): 15.24

Year of Development: 1930
Current owner of source: IMC
Current Depth of Source (m): 15.24

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	197.45	M2	1180	232996.76
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	890.02	M3	14	12460.32
7	Deepening	0.00	M3	313	0.00
8	Fencing	57.44	M	1349	77485.24
9	Recharge- Rainwater +25000 for Filter pit	15.94	M3	147	27343.75
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		·	·		350286.07

ESTIMATION SHEET-265

Source ID:W75-03WoGPS Location:22.6845339875.88672567Type of Source:Open-wellShape:RoundYear of Development:1930Diameter (m):15.24

Current owner of source : IMC
Current Depth of Source (m): 13.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	197.45	M2	1180	232996.76
4	Repairing- Lining		M3		0.00

	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	556.26	M3	14	7787.70
7	Deepening	0.00	M3	313	0.00
8	Fencing	57.44	M	1349	77485.24
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					318269.71

GPS

75.88871246 Source ID: W75-08Wo Location: 22.68006771 Type of Source: Shape: Round Open-well Year of Development: 1960 Diameter(m): 3.96

Current owner of source : Community

Current Total depth of

12.20 source(m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.27	М3	4799	10882.09
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	16.43	M2	1180	19387.67
4	Repairing- Lining				
	Brick	1.12	М3	4906	5476.47
5	Desilting	0.00	М3	142	0.00
6	Dewatering	52.64	М3	14	737.03
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					36483.25

ESTIMATION SHEET-267

GPS

Source ID: W75-11Wo Location: 22.68099462 75.89523821 Type of Source: Open-well Shape: Round Year of Development: 1975 3.35 Diameter(m):

Current owner of source: Current Total depth of source(m):

11.89

IMC

source(m):	11.89				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	12.34	M2	1180	14562.30
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00

8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	M	164	13500.00
TOTAL					28062.30

GPS

W77-07Wo Source ID: Location: 22.66796817 75.86541569 Type of Source: Open-well Shape: Round Year of Development: 1968 Diameter(m): 3.96

Current owner of source :

Current Total depth of

9.76

Individual

source(m):	9.76				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	16.43	M2	1180	19387.67
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	45.12	М3	14	631.74
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL			•		20019.41

ESTIMATION SHEET-269

GPS

Source ID: W77-11Wo 22.67351069 75.86729827 Location: Type of Source: Open-well Shape: Round 1965 Diameter(m): 3.66 Year of Development:

Current owner of source : Individual

Current Total depth of

source(m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	1.98	М3	4799	9521.83
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	14.31	M2	1180	16888.82
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	60.88	М3	14	852.29
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00

TOTAL 27262.93

ESTIMATION SHEET-270

GPS

Source ID: W77-02Wo Location: 22.6794504 75.85763002

Type of Source: Open-well Shape: Round

Year of Development: 1950 Diameter(m): 5.58

Current owner of source : IMC Current Total depth of

source(m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	31.89	M3	147	29687.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					29687.50

ESTIMATION SHEET-271

GPS

Diameter(m):

10.06

Source ID:W77-03WoLocation:22.7018877375.85819102Type of Source:Open-wellShape:Round

Year of Development: 1940 Current owner of source : IMC

Current Total depth of source(m): 12.20

source(m):	12.20				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	31.89	M3	147	29687.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					29687.50

ESTIMATION SHEET-272

GPS

Source ID: W77-04Wo Location: 22.68036289 75.85832311 Type of Source: Open-well Shape: Round Year of Development: 1950 4.57 Diameter(m):

Current owner of source: Current Total depth of

source(m): 12.20

IMC

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	24.19	M2	1180	28542.10
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	25.08	M	1349	33835.22
9	Recharge- Rainwater +25000 for Filter pit	15.94	M3	147	27343.75
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		•			89721.08

ESTIMATION SHEET-273

GPS

W77-06Wo 75.86522002 Source ID: Location: 22.674845 Type of Source: Open-well Shape: Round 1970 5.18 Year of Development: Diameter(m):

Current owner of source :

Current Total depth of

Individual

source(m):	13.72	0	**	ъ.	
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	26.36	M2	1180	31106.45
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	199.34	М3	14	2790.80
7	Deepening	0.00	М3	313	0.00
8	Fencing	25.85	M	1349	34868.36
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					68765.61

ESTIMATION SHEET-274

GPS

75.86545447 Source ID: W77-08Wo 22.66671186 **Location:** Type of Source: Open-well Shape: Round Year of Development: 1985 Diameter(m): 4.27 Current owner of source : Individual Current Total depth of 12.20 source(m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	1.42	М3	4799	6801.30
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	18.69	M2	1180	22058.87
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	43.61	М3	142	6192.78
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		_	_		35052.95

ESTIMATION SHEET-275

Source ID: W77-09Wo **GPS Location:** 22.67107363 75.86563405 Type of Source: Open-well Shape: Round 1960 9.57 Year of Development: Diameter (m):

 IMC Current owner of source : Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	3.06	М3	4799	14690.82
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	89.45	M2	1180	105555.12
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	41.16	M	1349	55531.09
9	Recharge- Rainwater +25000 for Filter pit	21.26	M3	147	28125.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		_	_		203902.02

ESTIMATION SHEET-276

GPS W77-10Wo

Source ID: 22.67471353 75.86629048 **Location:** Type of Source: Open-well Shape: Round Year of Development: 1975 Diameter(m): 5.49

Current owner of source : Individual Current Total depth of

10.67 source(m):

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				

	Brick	0.45	М3	4799	2176.42
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	29.21	M2	1180	34466.98
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	72.09	М3	142	10237.04
6	Dewatering	136.97	М3	14	1917.64
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL		-			48798.08

GPS

Source ID:W77-12WoLocation:22.6733072475.86754135Type of Source:Open-wellShape:RoundYear of Development:1975Diameter(m):3.96

Current owner of source : Individual Current Total depth of

source(m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	М3		0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	37.60	М3	142	5339.69
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					5339.69

ESTIMATION SHEET-278

GPS

Source ID:W77-13WoLocation:22.6728724675.86753825Type of Source:Open-wellShape:RoundYear of Development:1980Diameter(m):3.66

Current owner of source : Individual

Current Total depth of

source(m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	М3		0.00
2	Repairing Platform				
		0.00	М3		0.00

3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	32.04	М3	142	4549.80
6	Dewatering	0.00	М3	14	0.00
7	Deepening	48.06	М3	313	15043.16
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL		•	•		19592.96

Source ID:W77-18WoGPS Location:22.6710831775.87129204Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):9.57

Current owner of source : IMC
Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.21	M3	4799	1020.20
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	40.59	M	1349	54756.24
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	15.24	М	164	12500.00
TOTAL	· · · · · · · · · · · · · · · · · · ·				68276.43

ESTIMATION SHEET-280

Source ID:W77-20WoGPS Location:22.6658429775.87226564Type of Source:Open-wellShape:RoundYear of Development:1950Diameter (m):8.23

Current owner of source : IMC
Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	3.19	M3	4799	15302.93
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00

8	Fencing	36.38	M	1349	49073.99
9	Recharge- Rainwater +25000 for Filter pit	10.63	M3	147	26562.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					90939.42

GPS

Source ID: W77-23Wo Location: 22.66950284 75.87251626 Type of Source: Open-well Shape: Round

Diameter(m): 5.49

1965 Year of Development: Current owner of source : Individual

Current Total depth of

12 11

source(m):	13.11				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	М3		0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	50.46	М3	313	15795.32
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					15795.32

ESTIMATION SHEET-282

GPS Source ID: W77-24Wo 22.67155436 75.8727324 Location:

Type of Source: Open-well Shape: Round Year of Development: 1960 Diameter (m): 10.15

Current owner of source : IMC Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.13	M3	4799	612.12
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	493.47	M3	313	154455.68
8	Fencing	42.41	M	1349	57209.94
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	32.01	M	164	15250.00
TOTAL		•			227527.73

Source ID:W77-26WoGPS Location:22.6655887975.87369107Type of Source:Open-wellShape:RoundYear of Development:1950Diameter (m):8.78

Current owner of source : IMC
Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	38.10	M	1349	51398.55
9	Recharge- Rainwater +25000 for Filter pit	53.15	M3	147	32812.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL		•			84211.05

ESTIMATION SHEET-284

Source ID:W77-27WoGPS Location:22.6719787975.87414931Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):3.35

Current owner of source : IMC
Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	2.27	M3	4799	10882.09
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.78	M3	4906	3833.53
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	53.85	M3	313	16853.91
8	Fencing	19.72	M	1349	26603.27
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL	,				73172.79

ESTIMATION SHEET-285

Source ID: W77-28Wo GPS Location: 22.6654895 75.87543999

Type of Source: Open-well Shape: Round Year of Development: 1950 Diameter (m): 9.15

Current owner of source: IMC
Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	1.22	M3	4799	5876.33
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	82.44	M2	1180	97279.60
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	400.51	M3	313	125359.69
8	Fencing	39.82	M	1349	53723.10
9	Recharge- Rainwater +25000 for Filter pit	15.94	M3	147	27343.75
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					309582.47

ESTIMATION SHEET-286

Source ID:W77-29WoGPS Location:22.6667591475.87800631Type of Source:Open-wellShape:RoundYear of Development:2001Diameter (m):4.88

Current owner of source : Community
Current Depth of Source (m): 15.24

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet	(
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	24.89	M	1349	33576.94
9	Recharge- Rainwater +25000 for Filter pit	21.26	M3	147	28125.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL		_	_		61701.94

ESTIMATION SHEET-287

Source ID: W78-01Wo C Location: 22.6760807 75.83617189

Type of Source: Open-well Shape:
Year of Development: 1940 Diameter(m):
Current owner of source: IMC

Current owner of source : Current Total depth of

source(m): 12.20

S.No. Activity Quantity Unit Rate Amount (metric)

Round

5.03

1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	23.45	M	1349	31639.81
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					31639.81

Source ID:	W78-02Ws	GPS Location:	22.67856159	75.84096605
				Square-
Type of Source:	Step-well		Shape:	Rectangle
			Length of Source	
Year of Development:	1880		(m):	6.10
1			Width of Source	
Current owner of source :	IMC		(m):	6.10
			().	
Current Depth of Source (m):	3.66			

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	6.80	M3	2804	19074.83
2	Repairing Platform				0.00
	Stone	1.79	M3	2804	5007.14
3	Cover (M.S. Grill)	53.58	M2	1180	63226.05
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	260.77	M3	142	37029.48
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	34.15	M	1349	46063.41
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	39.63	М	164	16500.00
TOTAL		•	·		186900.91

ESTIMATION SHEET-289

Source ID:	W78-03Ws		GPS Location:	22.68116636	75.84175627 Square-
Type of Source:	Step-well			Shape: Length of Source	Rectangle
Year of Development:	1850			(m): Width of Source	12.20
Current owner of source:	IMC			(m):	12.20
Current Depth of Source (m):	9.76				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	3.19	M3	4799	15302.93
2	Repairing Platform				0.00
	Stone	1.70	M3	2804	4768.71

3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	556.26	M3	14	7787.70
7	Deepening	0.00	M3	313	0.00
8	Fencing	57.44	M	1349	77485.24
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					105344.58

GPS Source ID: W78-04Wo 22.68009659 Location:

Type of Source: Open-well Shape: Round Year of Development: 1980 Diameter(m): 5.18

Current owner of source : Current Total depth of source(m): IMC

13.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	26.80	M	1349	36159.78
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	24.39	M	164	14000.00
TOTAL					50159.78

ESTIMATION SHEET-291

			GPS		
Source ID:	W78-04Ws		Location:	22.67621663	75.84809742 Square-
Type of Source:	Step-well			Shape: Length of	Rectangle
Year of Development:	1850			source: Width of	6.55
Current owner of source : Current Total depth of	IMC			Source:	6.10
source(m):	9.15				
C M-	A -4::4	0	T I :4	D - 4 -	A 4

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	56.93	M2	1180	67177.67
4	Repairing- Lining				
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00

75.83948079

6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	35.06	M	1349	47297.26
9	Recharge- Rainwater +25000 for Filter pit	9.57	M3	147	26406.25
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					140881.18

Source ID:

GPS

Location:

22.68250492 75.84019858

Type of Source: Open-well Year of Development: 1930

Shape: Round Diameter(m): 6.77

Current owner of source : IMC Current Total depth of

12.20

W78-05Wo

source(m):	12.20				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.22	M3	4906	1095.29
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	30.83	M	1349	41583.75
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL					57679.04

ESTIMATION SHEET-

(m):

GPS

Source ID: W78-06Wo

Location: 22.6783479

> Shape: Diameter (m):

75.84320956

Type of Source: Open-well Year of Development: 1940

Round 5.95

Current owner of source :

IMC

Current Depth of Source

10.67

(111):	10.07				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	35.67	M2	1180	42085.04
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	28.82	M	1349	38871.76
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00

10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	76.22	M	164	22500.00
TOTAL			_		103456.80

Source ID:W78-07WoGPS Location:22.6793775875.84456478Type of Source:Open-wellShape:RoundYear of Development:1948Diameter (m):3.66

Current owner of source: Other
Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	18.69	M2	1180	22058.87
4	Repairing- Lining		M3		0.00
	Brick	0.78	M3	4906	3833.53
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	22.98	M	1349	30994.10
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL					71886.49

ESTIMATION SHEET-295

Source ID: W78-07Ws **GPS Location:** 22.68170149 75.85413877 Square-Rectangle Shape: Length of Source Type of Source: Step-well 1850 Year of Development: 8.23 (m): Width of Source Current owner of source : IMC (m): 7.62 Current Depth of Source (m): 15.24

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				0.00
	Stone	13.61	M3	2804	38149.66
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	41.46	M	1349	55934.15
9	Recharge- Rainwater +25000 for Filter pit	6.38	M3	147	25937.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					120021.31

GPS

Source ID:W78-08WoLocation:22.6781754175.84689086Type of Source:Open-wellShape:RoundYear of Development:1970Diameter(m):5.49

Current owner of source : IMC Current Total depth of

source(m): 13.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	29.21	M2	1180	34466.98
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	21.26	M3	147	28125.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					62591.98

ESTIMATION SHEET-297

GPS

Source ID:W78-10WoLocation:22.6742208675.84903795Type of Source:Open-wellShape:RoundYear of Development:1960Diameter(m):7.32

Current owner of source : Community
Current Total depth of

ource(m): 9.15

source(m):	9.15				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	47.48	M2	1180	56030.38
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	256.33	M3	313	80230.20
8	Fencing	32.07	M	1349	43262.59
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	51.83	M	164	18500.00
TOTAL					198023.18

ESTIMATION SHEET-298

Source ID:W78-11WoGPS Location:22.6771281375.84916215Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):5.18

Current owner of source : Community
Current Depth of Source (m): 10.67

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.56	M3	4799	2666.11
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	28.63	M2	1180	33781.08
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	26.61	M	1349	35901.50
9	Recharge- Rainwater +25000 for Filter pit	10.63	M3	147	26562.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					98911.19

GPS Source ID: W78-12Wo 22.68816098 75.852528 **Location:**

Type of Source: Shape: Open-well Round Year of Development: 1980 Diameter(m): 7.32

Current owner of source : IMC Current Total depth of

source(m):

10.06 Unit S.No. Quantity Rate Activity Amount (metric) 1 Repairing- Parapet Brick 0.00 М3 4799 0.00 Repairing Platform 2 0.00 М3 0.00 3 Cover (M.S. Grill) 0.00 M2 1180 0.00 4 Repairing-Lining 0.00 М3 4906 0.00 Brick 5 Desilting 0.00 М3 142 0.00 Dewatering 205.06 М3 14 2870.86 6 0.00 313 0.00 7 Deepening М3 0.00 1349 8 Fencing М 0.00 9 Recharge- Rainwater +25000 0.00 М3 147 0.00 for Filter pit Recharge Roof with Filter (63 0.00 0.00 10 M 164 mm pipe)+10000 for filter TOTAL 2870.86

ESTIMATION SHEET-300

W78-13Wo 22.68281441 75.85521339 **Source ID: GPS Location:** Type of Source: Open-well Shape: Round Year of Development: 1960 Diameter (m): 8.84

Current owner of source: IMC Current Depth of Source (m): 12.20

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00

		0.00	M3	Ī	0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.42	M3	4906	2053.67
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	187.13	M3	313	58570.83
8	Fencing	38.29	M	1349	51656.83
9	Recharge- Rainwater +25000 for Filter pit	53.15	M3	147	32812.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					145093.84

GPS

Source ID:W79-01WoLocation:22.6804514975.80423508Type of Source:Open-wellShape:RoundYear of Development:1981Diameter(m):3.66

Current owner of source : Current Total depth of

source(m): 3.66

IMC

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.21	М3	4799	1020.20
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	13.31	M2	1180	15704.02
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	20.58	M	1349	27765.55
9	Recharge- Rainwater +25000 for Filter pit	21.26	М3	147	28125.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					72614.76

ESTIMATION SHEET-302

Source ID: W79-02Ws GPS Location: 22.68008953 75.80440882
Squar

Type of Source: Step-well Shape: Rectangle
Length of
Year of Development: 1981 source: 3.66

Width of
Current owner of source: IMC Source: 4.27
Current Total depth of

source(m): 1.52

source(m):	1.52				
S.No.	Activity	Quantity	Unit	Rate	Amount
		(metric)			
1	Repairing- Parapet				
	Stone	0.00	М3	2804	0.00
2	Repairing Platform				
	Stone	1.70	М3	2804	4768.71
3	Cover (M.S. Grill)	23.72	M2	1180	27990.70
4	Repairing- Lining		•		

	Stone	0.00	М3	3334	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	25.61	M	1349	34547.56
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					67306.97

303

GPS 22.68001942 75.81126633

Source ID: W79-02Wo Location:

Type of Source: Open well Shape: Round Year of Development: 1920 Diameter (m): 4.27

Current owner of source : IMC Current Depth of Source (m): 12.2

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.50	M3	2804	1402.00
2	Repairing Platform				0.00
	Stone	1.42	M3	2804	3981.68
3	Cover (M.S. Grill)	19.88	M2	1180	23458.40
4	Repairing- Lining		M3		0.00
	Stone	0.28	M3	3334	933.52
5	Desilting	28.80	M3	142	4089.60
6	Dewatering	74.14	M3	14	1037.96
7	Deepening	43.61	M3	313	13649.93
8	Fencing	23.50	M	1349	31701.50
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL	,				80254.59

ESTIMATION SHEET-304

Source ID:W79-03WoGPS Location:22.6628100875.82492106Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):5.18

Current owner of source : IMC
Current Depth of Source (m): 15.24

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	1.70	M3	4799	8161.56
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.84	M3	4906	4107.35
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	25.85	M	1349	34868.36
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00

10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL			_	_	47137.27

Source ID:W79-04WoGPS Location:22.6624358875.82498934Type of Source:Open-wellShape:RoundYear of Development:1943Diameter (m):9.76

Current owner of source : IMC
Current Depth of Source (m): 19.82

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	6.42	M3	4799	30789.50
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	84.41	M2	1180	99609.56
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	40.21	M	1349	54239.67
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	45.73	M	164	17500.00
TOTAL					202138.74

ESTIMATION SHEET-306

GPS

Source ID:W80-01WoLocation:22.6761706775.81987828Type of Source:Open-wellShape:RoundYear of Development:2000Diameter(m):4.42

Current owner of source : IMC
Current Total depth of
source(m): 915

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	19.88	M2	1180	23459.09
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	23.45	M	1349	31639.81
9	Recharge- Rainwater +25000 for Filter pit	31.89	M3	147	29687.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					84786.39

ESTIMATION SHEET-307

Source ID:W80-02WoGPS Location:22.668729375.82305923Type of Source:Open-wellShape:RoundYear of Development:2015Diameter (m):3.14

Current owner of source : Community
Current Depth of Source (m): 11.28

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	30.69	M3	313	9605.13
8	Fencing	18.48	M	1349	24924.42
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	51.83	M	164	18500.00
TOTAL					53029.55

ESTIMATION SHEET-308

Source ID:W80-05WoGPS Location:22.6731037475.82556413Type of Source:Open-wellShape:RoundYear of Development:1900Diameter (m):8.23

Current owner of source : IMC
Current Depth of Source (m): 13.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	5.22	M3	4799	25028.80
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	70.18	M2	1180	82806.91
4	Repairing- Lining		M3		0.00
	Brick	0.42	M3	4906	2053.67
5	Desilting	16.22	M3	142	2303.33
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	21.34	M	164	13500.00
TOTAL					125692.72

ESTIMATION SHEET-309

GPS

Source ID: W80-06Wo Location: 22.66965471 75.82745552

Type of Source: Open-well Shape: Round Year of Development: 1930 Diameter(m): 8.69

Current owner of source: IMC

Current Total depth of

source(m):	1	5.24

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.67	М3	4906	3285.88
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	36.38	M	1349	49073.99
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL					67359.87

ESTIMATION SHEET-310

Source ID:W80-08WoGPS Location:22.6744710475.83198294Type of Source:Open-wellShape:RoundYear of Development:1930Diameter (m):12.20

Current owner of source : IMC
Current Depth of Source (m): 13.72

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	48.82	M	1349	65862.46
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL			_		65862.46

ESTIMATION SHEET-311

GPS

Source ID:W80-09WoLocation:22.6831226575.83238575Type of Source:Open-wellShape:RoundYear of Development:1950Diameter(m):7.32

Current owner of source : IMC Current Total depth of

source(m): 15.24

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				

		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	M	164	14500.00
TOTAL					14500.00

Source ID:W80-10WoGPS Location:22.6753443975.83266723Type of Source:Open-wellShape:RoundYear of Development:1930Diameter (m):5.88

Current owner of source : IMC
Current Depth of Source (m): 10.98

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	34.39	M2	1180	40575.39
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	215.49	M3	14	3016.87
7	Deepening	0.00	M3	313	0.00
8	Fencing	28.43	M	1349	38355.20
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					81947.46

ESTIMATION SHEET-313

Source ID:W80-11WoGPS Location:22.6732712675.83267554Type of Source:Open-wellShape:RoundYear of Development:0Diameter (m):4.57

Current owner of source : IMC
Current Depth of Source (m): 9.15

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
	Brick	0.36	M3	4799	1713.93
2	Repairing Platform				0.00
		0.00	М3		0.00
3	Cover (M.S. Grill)	22.36	M2	1180	26388.78
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00

8	Fencing	24.41	M	1349	32931.23
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	24.39	M	164	14000.00
TOTAL					75033.94

GPS

Source ID:W80-13WoLocation:22.6832459775.83398309Type of Source:Open-wellShape:RoundYear of Development:1940Diameter(m):7.32

Current owner of source : IMC Current Total depth of source(m): 15.24

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	32.93	M	1349	44424.87
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		_	_		44424.87

ESTIMATION SHEET-315

Source ID:W81-02WoGPS Location:22.6844413975.83319294Type of Source:Open-wellShape:RoundYear of Development:1930Diameter (m):9.24

Current owner of source : IMC
Current Depth of Source (m): 14.39

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	594.46	M3	14	8322.38
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					8322.38

Source ID:W81-03WoGPS Location:22.6818241275.83580197Type of Source:Open-wellShape:RoundYear of Development:1930Diameter (m):6.59

Current owner of source: IMC
Current Depth of Source (m): 9.45

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.54	M3	4799	2611.70
2	Repairing Platform				0.00
	Brick	0.00	M3	4799	0.00
3	Cover (M.S. Grill)	35.99	M2	1180	42466.76
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	28.91	M	1349	39000.91
9	Recharge- Rainwater +25000 for Filter pit	31.89	M3	147	29687.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL			•		113766.87

ESTIMATION SHEET-317

Source ID:W81-05WoGPS Location:22.6896453875.83747194Type of Source:Open-wellShape:RoundYear of Development:1988Diameter (m):5.85

Current owner of source : IMC
Current Depth of Source (m): 5.82

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	114.01	M3	14	1596.20
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		•	•		1596.20

ESTIMATION SHEET-318

GPS

Source ID: W81-07Wo Location: 22.68662653 75.83792852

Type of Source: Open-well Shape: Round

Year of Development: 1935 Diameter(m): 4.30

Current owner of source : IMC Current Total depth of

source(m): 7.07

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	40.70	М3	14	569.76
7	Deepening	118.55	М3	313	37107.22
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					37676.99

ESTIMATION SHEET-319

Source ID:W81-08WoGPS Location:22.6832564275.83977627Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):8.60

Current owner of source: IMC
Current Depth of Source (m): 7.32

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	63.12	M2	1180	74479.69
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	329.12	M3	14	4607.66
7	Deepening	0.00	M3	313	0.00
8	Fencing	35.80	M	1349	48299.14
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL	-				127386.48

ESTIMATION SHEET-320

Source ID: W82-01Wo CPS Location: 22.6856505 75.81934919

Type of Source: Open-well Shape: Round Year of Development: 1970 Diameter(m): 7.93

Current owner of source : Current Total depth of

source(m): 9.15

IMC

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				

	Brick	0.00	M3	4799	0.00
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	49.36	M2	1180	58249.19
4	Repairing- Lining				
	Concrete	0.00	M3	4880	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	32.56	M	1349	43924.76
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	30.49	M	164	15000.00
TOTAL					117173.95

GPS

Source ID: W82-02Wo 22.68633043 75.82074101 Location: Type of Source: Open-well Shape: Round 1940 Year of Development: Diameter(m): 11.43

Current owner of source : Current Total depth of

source(m): 21.34

IMC

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	1.42	M3	4799	6801.30
2	Repairing Platform				
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	44.99	M	1349	60696.77
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	60.98	M	164	20000.00
TOTAL			_		87498.08

ESTIMATION SHEET-

Type of Source:

Year of Development:

322

322		GPS
Source ID:	W83-01Ws	Location

Step-well

1930

22.6993487 tion:

75.83473988 Square-Rectangle Shape: Length of Source (m): 12.07 Width of Source 11.31 (m):

Current owner of source : IMC Current Depth of Source

11.59

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				0.00

		0.00	M3		0.00
3	Cover (M.S. Grill)	136.67	M2	1180	161265.93
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	1036.91	M3	14	14516.70
7	Deepening	0.00	M3	313	0.00
8	Fencing	56.52	M	1349	76251.40
9	Recharge- Rainwater +25000 for Filter pit	63.78	M3	147	34375.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					286409.04

Source ID:W83-03WoGPS Location:22.6921832875.82631784Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):5.49

Current owner of source: IMC
Current Depth of Source (m): 7.93

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Stone	5.58	M3	3334	18608.37
5	Desilting	100.93	M3	142	14331.86
6	Dewatering	72.09	M3	14	1009.29
7	Deepening	173.02	M3	313	54155.39
8	Fencing	28.72	M	1349	38742.62
9	Recharge- Rainwater +25000 for Filter pit	31.89	M3	147	29687.50
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL		·	·		156535.02

ESTIMATION SHEET-324

Source ID:W83-06WoGPS Location:22.6996651675.8290322Type of Source:Open-wellShape:RoundYear of Development:1960Diameter (m):3.48

Current owner of source : IMC
Current Depth of Source (m): 10.82

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	M3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	0	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	30.65	M3	14	429.13
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00

9	Recharge- Rainwater +25000	15.94	M3	147	
	for Filter pit				27343.75
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					27772.88

Source ID:W83-08WoGPS Location:22.6996240975.83264317Type of Source:Open-wellShape:RoundYear of Development:1940Diameter (m):6.77

Current owner of source : IMC
Current Depth of Source (m): 12.53

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Stone	0.00	M3	2804	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	50.13	M2	1180	59148.78
4	Repairing- Lining		M3		0.00
	Stone	0.00	M3	3334	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	110.76	M3	14	1550.59
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	63.78	М3	147	34375.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					95074.37

ESTIMATION SHEET-326

Source ID:W84-02WoGPS Location:22.6936366675.82652393Type of Source:Open-wellShape:RoundYear of Development:1902Diameter (m):3.48

Current Depth of Source (m): 9 36

Current Depth of Sou	rce (m): 9.36				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
		0.00	M3		0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	41.35	M3	142	5871.85
6	Dewatering	47.71	M3	14	667.98
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					6539.83

GPS

Source ID: W85-01Wo Location: 22.68973272 75.81615019 Type of Source: Shape: Open-well Round Year of Development: 2008 Diameter(m): 5.49

Current owner of source : Current Total depth of

Community

source(m):	18.29				
S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	3.19	М3	4799	15302.93
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	27.77	M2	1180	32765.17
4	Repairing- Lining				
	Brick	0.00	М3	4906	0.00
5	Desilting	0.00	М3	142	0.00
6	Dewatering	0.00	М3	14	0.00
7	Deepening	0.00	М3	313	0.00
8	Fencing	26.33	M	1349	35514.07
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	27.44	М	164	14500.00
TOTAL					98082.17

ESTIMATION SHEET-328

W85-02Wo 75.81626549 Source ID: **GPS Location:** 22.68935724 Type of Source: Open-well Shape: Round 1960 6.31 Year of Development: Diameter (m):

Current owner of source: IMC Current Depth of Source (m): 12.50

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	0.00	М3	4799	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	33.13	M2	1180	39093.31
4	Repairing- Lining		M3		0.00
	Brick	0.00	M3	4906	0.00
5	Desilting	0.00	M3	142	0.00
6	Dewatering	389.83	M3	14	5457.58
7	Deepening	0.00	M3	313	0.00
8	Fencing	0.00	M	1349	0.00
9	Recharge- Rainwater +25000 for Filter pit	0.00	М3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	М	164	0.00
TOTAL					44550.88

ESTIMATION SHEET-329

GPS W85-03Wo Source ID: 22.69156679 75.81797436 **Location:** Type of Source: Open-well Round Shape:

Year of Development: 1970 Diameter(m): 6.19
Current owner of source: IMC

Current Total depth of

source(m): 11.28

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	Brick	5.67	М3	4799	27205.22
2	Repairing Platform				
		0.00	М3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining				
	Brick	5.58	М3	4906	27382.33
5	Desilting	27.51	М3	142	3906.09
6	Dewatering	0.00	М3	14	0.00
7	Deepening	119.20	М3	313	37309.62
8	Fencing	29.01	M	1349	39130.05
9	Recharge- Rainwater +25000 for Filter pit	21.26	М3	147	28125.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	0.00	M	164	0.00
TOTAL					163058.31

ESTIMATION SHEET-330

Source ID:	W85-04Wo	GPS Location:	22.69155191	75.81990891
Type of Source:	Open-well		Shape:	Round
Year of Development:	1990		Diameter (m):	5.18
C	DAC			

Current owner of source: IMC
Current Depth of Source (m): 7.93

S.No.	Activity	Quantity (metric)	Unit	Rate	Amount
1	Repairing- Parapet				
	RCC	0.00	M3	5246	0.00
2	Repairing Platform				0.00
		0.00	M3		0.00
3	Cover (M.S. Grill)	0.00	M2	1180	0.00
4	Repairing- Lining		M3		0.00
	RCC	5.58	M3	5410	30195.35
5	Desilting	154.33	M3	142	21914.85
6	Dewatering	0.00	M3	14	0.00
7	Deepening	0.00	M3	313	0.00
8	Fencing	26.80	M	1349	36159.78
9	Recharge- Rainwater +25000 for Filter pit	0.00	M3	147	0.00
10	Recharge Roof with Filter (63 mm pipe)+10000 for filter	33.54	M	164	15500.00
TOTAL					103769.98

18 5. REFERENCES

- 1. Schedule of Rates, Department of Urban Administration and Development, Govt. of Madhya Pradesh, May 2012.
- 2. Unpublished Reports on Ground Water Abstraction structures by Sudhindra Mohan Sharma 2007- 2015.

Compliance on Observations and Comments by MoEF&CC, Gol Presentation made in Fifth Meeting of the Technical Scrutiny Committee on 5th May 2016 at 11:00 AM, Narmada Hall, Indira Paryavaran Bhawan, New Delhi

Point		ll, Indira Paryavaran Bhawan, New Delhi
	Comment/Observation	Compliance
No.		
1	Project justification in terms of climate change vulnerability is not very clear. The proposal seems to address urbanisation & migration effects rather than climate change effects. Present Climate Change scenario and vulnerability analysis needs to be addressed properly linking to the Climate Change of the project region. Analysis of previous data of various parameters like rainfall, temperature may be done and the result or trend may be indicated linking it with the climatic stress (water stress) of the project area and its effects on the socioeconomic-environmental conditions in the region.	Indore city being the business capital of the Madhya Pradesh, there is a high inward migration which has led to population explosion. Eventually increase in drinking and domestic water demand is witnessed. As per the "Vulnerability Assessment towards Climate Change" done by EPCO for all the districts of MP reflects that in the baseline scenario, the vulnerability of Indore with respect to water is ranked 29 th (high) which is projected to increase to 46 th (very high) and 48 th (very high) in midcentury and end-century scenarios, respectively. The Vulnerability Assessment study has incorporated climate variability especially rainfall and temperature trends to substantiate these findings. As per the same VA report, the environment vulnerability index is projected to move from low to moderate. These findings coupled the huge inward migration will lead to high stress on water supply of Indore city. This justifies the mandate of the project.
2	Future climate change scenario for the project area and sector covering all related sub-sector activities may be indicated with reference to SAPCC and other published documents.	MP State Action Plan on Climate Change is the guiding policy document of the state for activities related to climate change. The document clearly specifies "Conservation, Augmentation and Preservation with special focus on areas with over-exploited conditions of ground water" as a strategy for water sector and also explicitly indicates "Promotion of Traditional system of water conservation by implementation of programme for repair, renovation and restoration of Water storing bodies viz. wetlands, lakes, wells & bawlis" in areas that are sensitive to climate change.

		SAPCC accords high priority to this activity.
3	It is not clear how the water supply system of the Municipal Corporation would be linked to the renovated water bodies/ traditional water harvesting structures.	Renovated Traditional Water Supply Sources (TWSS) will be used as local sources and water will be supplied to an average of 100 families per source by pipeline/ stand post. This will reduce the load on existing distant source piped-water supply system.
4	The proposal needs to indicate possible areas of duplication with existing Central/State government programmes/ schemes supporting these initiatives and indicate measures to avoid the duplication (for eg. Guidelines of scheme on Repair, Renovation and Restoration (RRR) of Water bodies in XIIth plan of Ministry of Water Resources, Government of India). A careful analysis of the proposed activities vis-à-vis provisions under various programmes i.e., Duplication check of the project interventions needs to be brought out and only those activities not covered need to be included.	This project is focused on old, traditional water supply sources (only dug well and step wells) and there are no existing schemes for similar works; specifically in the project area.
5	Under Indore's Water Supply and Demand, quantifying parameters such as the quantity of current water supply, demand in total, per person may be indicated.	Current total water supply of the city from all sources is 329 MLD and considering 40% UFW, water availability is 230 MLD. Water demand of the city is 405 MLD considering a population of about 30 lakh including migratory population. The gap in demand and supply is 174 MLD. Per person water supply from pipe water supply is 120 LPCD. City has total 2.1 lakh legal water connections and approximate 12 lakh population is dependent on groundwater.
6	It has been mentioned that there would be reduction in the cost of water through these interventions. Quantifying figures on the reduction of cost of water supply needs to be	Cost of water will reduce from Rs. 29/cum of Narmada Water to Rs. 4/cum to the IMC; and savings of Rs. 113 million per year after complete implementation of the

	indicated like how much is it costing to the Municipal Corporation and project beneficiaries at present and cost after project implementation?	project.
7	Under Project Components and financing, Rs 0.15 Crores has been indicated for feasibility report i.e., Preparing Primary Project for GPS location of traditional water supply source including GIS mapping, ward vise Layout maps of traditional water supply sources and current status for conservation of potential traditional water supply sources. But, as per the TWSS primary project report, MPCDM Agency has provided the fund of Rs.15 lakhs for the preparing the Detail Project Report (DPR) on restoration / resurrection of traditional water supply sources of Indore city to Indore Municipal Corporation (IMC).	MPCDM Agency and EPCO are the organisations working under the same parent department i.e. Department of Environment, GoMP, having the same leadership and institutional structure. As such, both function as sister concerns in the field of climate change and sustainable development. The cost for preparation of the DPR has already been incurred by MPCDM Agency, however the project is now being taken up by EPCO and there is a provision of preparation DPR in the budget head of CCAP, EPCO is demanding the cost of preparation of the DPR which may be transferred back to MPCDM Agency.
8	In the TWSS study report provided, it has been mentioned that IMC has an ownership on 282 no. of Traditional Water Sources (page no. 31 of report), whereas the project interventions envisions for restoration/resurrection /conservation of 330 traditional water storing bodies.	During the primary survey, ownership data of the source has been generated from the discussions with/ interviews of surrounding community as IMC has no previous data regarding the same. As these are public sources; 48 sources (> 3m diameter) are considered in this project for the water supply after renovation.
9	Total number of traditional water sources under project interventions needs to be consistent throughout the proposal. It is observed that as per the project objectives it is indicated that 330 structures would be treated (page 1), however, under project component table the structures proposed for Restoration/Resurrection /conservation is estimated to be 291 (page 13).	In project component table, expected outputs show the activities under the project. Missing data is added in the table and multiple activities can be carried out at single source, hence, there may be possibilities of overlapping.

	Sr.	Project /program Component		l Concrete comes	Expected Outputs	Amount (in Crores)
	1	Feasibility Study	GPS location of water supply so GIS mapping, Layout maps of water supply so	ource including Ward wise of traditional ources and for conservation ditional water	GIS Mapping	0.1500
	2	Restoration/Resurrection /conservation of Traditional Water Sources		er resources of so that they ted into water of the city.	-De-silting in 107 open wells and 18 step wells -De-watering in 91 Open wells and 18 step wells -Deepening in 45 open wells and 12 step wells -Recharging of traditional water wells Rain water recharging in 36 open wells and 16 step wells Roof rainwater recharging with filter in 80 open wells and 13 step wells System in place for Maintenance and	0.8527
		Community engagements ect /program Execution Co	Training & Cap development ost / Monitoring		management of the source. Approximately 1000 local people will be trained	0.5000
	Proje	I Project/Programme Co ect/Programme Cycle Mar ount of Financing Reque	nagement Fee	charged by the I	mplementing Entity	5.5065 0.1000 5.6065
10a	of p war Sele	antifiable parameters roject beneficiaries, h d-wise may be ection criteria fo rventions may be app	nouseholds, mentioned. r various	33,000 house benefits to households direct benefits to hydrogeologisilting, solid	y and physical conditi waste etc. of the source the report and it conta	indirect ber of lized by eria for ameter, on, De- ee. Atlas
10b	star Tec acti	vity-wise mention on dards may be hnical details of the vities like roof r vesting structures et	provided. investment ain water	the artificial the Central I and Central	tandards used in the decretarge structure are Pollution Control Board Ground Water Board (Civil work standard are	as per (CPCB) CGWB)

	included.	UADD.
10c	Under analysis of cost effectiveness, it may be demonstrated by way of working out financial ratios like BC ratio, IRR/ERR. A copy of revenue generation calculation sheet through these water sources may please be appended.	Project cost is 5.83 Crore and yearly saving of municipal corporation is 11.3 Crore/year. Revenue generated from community will be utilized in maintenance of the cluster water supply system and their own sources by Rahvasi Sangh / user group. Hand-holding of the water user associations/ resident welfare associations will be served through this project coupled with necessary sensitization activities. This will eventually lead to maintenance of these water supply sources.
10d	Alignment with the National and State Action Plans and other Policies / Programmes: the project interventions needs to be linked the mission and activities mentioned in NAPCC and SAPCC.	National Water Mission under NAPCC of India categorically mentions "Management and regulation of Groundwater resources" chapter to enhance recharge of the sources and recharge zones of deeper groundwater aquifers as a key area of intervention. The strategy in SAPCC mentioned earlier in point no. 2 aligns with the strategy as in NAPCC and the project.
10e	Details of stakeholder engagement like dates, minutes, etc. may be	Meeting with Commissioner, IMC – 09 December 2012
	included in the DPR.	Consultation meeting with IMC under Hon'ble Mayor, Indore – 24 January 2013
		Meeting with IMC officials – 07-08 May 2014
		Meeting with IMC officials – 17-18 Oct 2014
		Meeting with IMC officials – 19 December 2015
10f	Quantifiable parameters on economic, social and environmental benefits project / programme may be provided. Specific benefits to vulnerable communities or gender considerations may be incorporated.	Most of these traditional water supply sources are located near area of the natural drainage system. Vulnerable population in slums and lower middle class habitat developed near the same and they will benefited by regular and low cost water supply from own sources.
10g	Under Sustainability of the project, community organizations like water	Project cost is 5.83 Crore and yearly saving of municipal corporation is 11.3

	user organizations etc. can be considered.	Crore/year. Revenue generated from community will be utilized in maintenance of the cluster water supply system and their own sources by Rahvasi Sangh / user group. Hand-holding of the water user associations/ resident welfare associations will be served through this project coupled with necessary sensitization activities. This will eventually lead to maintenance of these water supply sources.
10h	The action plan on maintenance of the water bodies after project implementation may be included in the DPR.	Project cost is 5.83 Crore and yearly saving of municipal corporation is 11.3 Crore/year. Revenue generated from community will be utilized in maintenance of the cluster water supply system and their own sources by Rahvasi Sangh / user group. Hand-holding of the water user associations/ resident welfare associations will be served through this project coupled with necessary sensitization activities. This will eventually lead to maintenance of these water supply sources.
10i	Environmental and social impacts and risks needs to be captured carefully as per the NAFCC framework under proposal template. Analysis may also include financial and project / programme risk assessment and management.	Not applicable as the project is being submitted under Climate Change Action Programme (CCAP) for funding.
10j	Result framework need to indicate details of quantifiable output and impact parameters in the alignment with the table mentioned under project components and financing (page 20).	Not applicable as the project is being submitted under Climate Change Action Programme (CCAP) for funding.
10k	Under Budget, the NIE cost needs to be corrected (3% of the total project cost). Justification of component wise cost may be provided under budget note. Unit cost and physical units may be indicated. Government approved rate chart/SOR/quotations from reputed organizations may be	The NIE cost is only 1.783% of project cost. Please refer point 9 of this document. SOR and Rate Analysis details are provided from page No. 67 of report.

	included as annexures, wherever applicable in DPR.	
101	Under Urgency and prioritization, it may be indicated that how and why was this particular project idea identified among the many alternatives that could have been addressed with the same funding?	to water sector. The pressure on water

Yea r	No. of	Water supply to	Total Family	Litters Per Family	Days of water	Water Supply from 330	Traditional Water Supply System		Narmada Water Supply System		Cost reduction of water supply to Indore
	al Water Supply Source	Average No. of Family per source	benefited	Per Day	supply	TWSS (cum)	Cost / cum (Rs.)	Cost of water per year (Million)	Cos t/ cu m (Rs.	Cost of water per year (Million)	Municipal Corporation per year (Million)
1	330	100	33000	450	305	4529250	4	1.812	29. 00	13.135	11.323
2	330	100	33000	450	305	4529250	4	1.812	29. 00	13.135	11.323
3	330	100	33000	450	305	4529250	4	1.812	29. 00	13.135	11.323
Total 5.435 39.40										39.404	33.969