



## केंद्रीय भूमि जल बोर्ड

जल संसाधन, नदी विकास और गंगा संरक्षण

विभाग, जल शक्ति मंत्रालय

भारत सरकार

### **Central Ground Water Board**

Department of Water Resources, River  
Development and Ganga Rejuvenation,  
Ministry of Jal Shakti  
Government of India

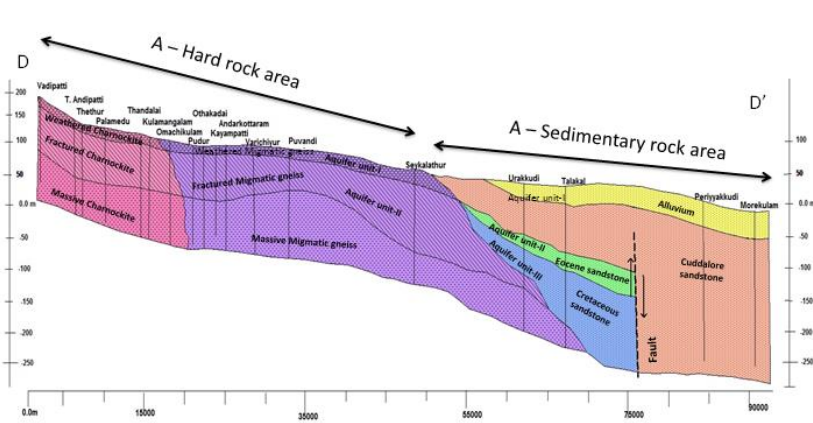
## **AQUIFER MAPPING AND MANAGEMENT OF GROUND WATER RESOURCES VAIGAI AQUIFER SYSTEM, Tamil Nadu**

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South Eastern Coastal Region, Chennai



REPORT ON  
AQUIFER MAPPING AND AQUIFER MANAGEMENT PLAN FOR THE  
VAIGAI AQUIFER SYSTEM,  
TAMIL NADU



GOVERNMENT OF INDIA  
MINISTRY OF JAL SHAKTI  
DEPARTMENT OF WATER  
RESOURCES  
RIVER DEVELOPMENT AND  
GANGA REJUVENATION  
CENTRAL GROUND WATER  
BOARD  
SOUTH EASTERN COASTAL  
REGION  
CHENNAI

December 2020

## **Foreword**

Groundwater is the major source of freshwater that caters the demand of ever growing domestic, agricultural and industrial sectors of the country. This renewable resource has been indiscriminately exploited in some parts of the country by several users as it is easily available and reliable. Intensive and unregulated groundwater pumping in many areas has caused rapid and widespread groundwater decline. Out of 6607 groundwater assessment units (Blocks/ mandals / taluks/ firkas etc.), 1071 units are over-exploited (groundwater withdrawal is more than recharge) and 914 units are critical (groundwater withdrawal is 90 % of recharge).

Central Ground Water Board (CGWB) has taken up the largest Aquifer mapping endeavor in the world, targeting total mapable area of country ~ 23.25 lakh sq. km with a vertical extent of 300 m in soft rock area and 200 m in hard rock area. The extent of aquifer, their potential, resource availability, chemical quality, its sustainable management options will be addressed by National Aquifer Mapping (NAQUIM). The NAQUIM program will also facilitate participatory management of groundwater to provide longterm sustenance for the benefit of farmers. Currently, focus is on groundwater stressed areas of eight states comprising 5.25 lakh sq.km viz., Tamil Nadu, Haryana, Punjab, Rajasthan, Gujarat, Andhra Pradesh, Telangana, Karnataka and Madhya Pradesh.

South Eastern Coastal Region, Central Ground Water Board, Chennai, under NAQUIM has been envisaged with the Mapping of an area of 70,102 sq.km during 2012-17 (erstwhile XII five year plan) in Tamil Nadu and UT of Puducherry. This report deals with the Aquifer mapping studies carried out in Vaigai aquifer system covering an area of 8896 sq.km with 6662 sq. km as mapable area. The basin comprises of parts of districts of of Madurai, Theni, Sivagangai, Ramanathapuram and Dindigul districts. This aquifer system covers 88firkas of which 12 are Over Exploited and 4 are Critical and, 72 are Semi criticaland Safe. The region is mainly dependent on groundwater (90%) for its drinking water needs. The major issues in the basin include declining groundwater levels, sustainability of wells, low yielding aquifers, threat of seawater intrusion. Aquifer units have been deciphered firka wise and regions of high yielding zone and low yielding have been demarcated for both soft and hard rock formations in the Vaigai aquifer system. In hard rock regions two aquifer units viz., Aquifer Unit -I (weathered) and Aquifer Unit –II (fractured/jointed zone) are identified. In soft rock formations three aquifer units viz., Aquifer Unit-I (alluvium, sandstone), Aquifer Unit-II (The Tertiaries) and Aquifer Unit III (Cretaceous)are identified. In order to arrest the declining groundwater levels and increase the sustainability of wells, groundwater management plans in supply and demand sides have been formulated firka wise.

I hope this report will be useful for the district administrators, water managers, stakeholders including farmers in knowing the aquifer and managing the resources effectively in the Vaigai aquifer system.

**(C. Paul Prabhakar)**  
*Regional Director*

## EXECUTIVE SUMMARY

Detailed hydrogeological studies were conducted in the study of Vaigai Aquifer system region wherein huge existing data pertinent to geology, geophysics, hydrology and hydrochemistry were collected, integrated and analysed to bring out this report. This report mainly comprises the lateral and vertical extent of the aquifers with their geometry, aquifer properties of the study area which are considered to be measuring scales for groundwater availability and potentiality. Keeping these parameters in view a sustainable management plan has been suggested through which the groundwater needs can be fulfilled in a reasonable way.

The Vaigai aquifer system covering an area of 8896 sq. km comprises of 1500 sq. km of hilly area, 734 sq. km of saline area with mappable area of 6662 sq. km. It falls in parts of Madurai, Theni, Sivagangai, Ramanathapuram and Dindigul districts. Ramanathapuram district is one of the water starved districts in the state. The major tributaries of Vaigai river are *Suriliar, Theniar, Varatar, Nagalar, Varahanadhi, Manjalar, Marudhanadhi, Sirumalayar, Sathiar and Uppar*. Madurai is the largest city lying in the Vaigai aquifer system and other major towns lying in the Vaigai aquifer system are Theni, Andippatty, Chozhavandhan, Edaikkaattur, Mana Madurai, Paramakkudi, and Ramanathapuram.

Area experiences semi-arid climate with 1128 mm average rainfall covering 7360 km<sup>2</sup> area in parts of districts of Madurai, Theni, Sivagangai, Ramanathapuram and Dindigul districts. Ramanathapuram district is one of the water starved districts in the state. The major tributaries of Vaigai river are *Suriliar, Theniar, Varatar, Nagalar, Varahanadhi, Manjalar, Marudhanadhi, Sirumalayar, Sathiar and Uppar*.

Vaigai Aquifer system area is divided into A, B and C regions. A-Region represents area underlined by Charnockite, B region represents area underlined by gneiss rocks & C-Region represents area underlined by sedimentary rocks. Aquifer units falling in “A” regions are named as A1 & A2, “B” regions are named as B1 & B2, whereas aquifer units falling in “C” regions are named as C1 & C2.

Two main aquifer systems exist in the basin and they constitute, namely 1. Crystalline rocks charnockites and the gneisses-the weathered zone at the top followed by a discrete anisotropic fractured/fissured zone at the bottom in the northern and central part of the basin. 2. The sedimentaries: Quaternary sediments are found in the southeastern part of Vaigai aquifer system all along the coast and river courses. Coastal alluviums are underlain by Cuddalore formation of Mio-Pliocene age. The thickness of the alluvial deposits is about 50 m. The marine deposits extend all along the coast of Ramanathapuram district. Aeolian sands are also found in isolated pockets in coastal areas. Upper Gondwana and Lower Cretaceous formation of Mio-Pliocene age occur in the central and southeastern part. Shale, Sandstone and Conglomerates are the main rocks of Sivaganga formation.

The predominant water levels are in the range of 2 to 26 m bgl during pre-monsoon season and 0 to 10 mbgl during post-monsoon season of 2017. The net annual groundwater availability is 1455 MCM and the gross groundwater draft is 824 MCM and the stage of groundwater development is of 57 % for the basin.

The major issues in the region are overexploitation and declining of groundwater level, massive crystalline formation and in-situ salinity and threat of Sea water intrusion along the coast and Groundwater Pollution– Along the Vaigai River in Madurai district

In hard rock regions aquifer systems the thickness of the weathered zone extends down to a depth of 18 m with average thickness of 9 m and fractured zones between 15 and 130 m bgl. The weathered zone is disintegrated from the bed rock and partially/semi weathered in the lower part (sap rock zone) with transmissivity varying between 3 and 25 m<sup>2</sup>/day and specific yield of 1 – 1.5%. The fractured zone is fractured gneiss or Charnockite and the yield varies from 1 to 3.5 lps and the transmissivity of this zone varies between 1 and 53 m<sup>2</sup>/day and storativity varies from 0.002 to 0.01. In alluvial regions the first aquifer unit comprising of sand, gravel has thickness ranging from 10 to 55 m with yields ranging from 1 to 5 lps and transmissivity values ranging from 245 to 770 m<sup>2</sup>/day. Neogene, Paleogene and upper Cretaceous formations underlie the alluvial formation and have yields ranging from 3 to 10 lps with transmissivity values ranging from 138 to 3162 m<sup>2</sup>/day.

Based on the water level monitoring in different seasons across the basin, as well as after having better understanding of the disposition and extent of the aquifer system through exploratory drilling, pumping tests etc. the volume of unsaturated zone available for recharge (upto 3m bgl) is 97MCM. The annual uncommitted runoff is 142 MCM and 55 % of water from uncommitted runoff is required to fill the available void space of aquifer-I. Artificial recharge and Water conservation plan is prepared firka wise in the basin to harness 20.7 MCM of water with a total out lay of Rs. 79.69 Crores. The suggested artificial recharge structures are mainly Nala bunds, Check Dams and Recharge Shafts in addition to removal of silt in the surface tanks.

A total number of 177 check dams, 504 Nala bunds and 307 recharge shafts are proposed in the OE and critical firkas of the basin. A total number of 284 Recharge Rejuvenation Ponds are selected for desilting followed by construction of recharge shafts within the tanks. The expected recharge through these artificial recharge structures is 20.73 MCM which contributes 7% of the 264 MCM. The stage of groundwater development would reduce from 124 % to 114% through these techniques. A total number of 1444 recharge ponds covering an area of 722 sq km is proposed which will act as storage tanks in farm as well as augment groundwater recharge and the expected annual groundwater recharge through these ponds are in the order of 0.43MCM. The recharge pond area has been selected based on the wet and dry crop area from the landuse / landcover maps using remote sensing data.

The existing regulatory measures may be modified suitably for optimal utilization of groundwater as well as for sustainable development of rural agricultural based economy. To achieve this goal, opinion pool has to be obtained from more user groups and valid suggestions may be incorporated in the regulatory acts.

**REPORT ON**  
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**TAMIL NADU**

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**AQUIFER MAPPING AND AQUIFER MANAGEMENT PLAN FOR THE  
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## **AQUIFER MAPPING AND AQUIFER MANAGEMENT PLAN FOR THE VAIGAI AQUIFER SYSTEM, TAMILNADU**

### **1.0 INTRODUCTION**

National Project on Aquifer Mapping (NAQUIM) initiated by Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India with a vision to identify and map the aquifers at the micro level with their characteristics, to quantify the available groundwater resources, propose plans appropriate to the scale of demand and institutional arrangements for participatory management in order to formulate a viable strategy for the sustainable development and management of the precious resource which is subjected to depletion and contamination due to indiscriminate development in the recent past.

Groundwater is the most dependable source of supply to meet the demands of domestic, irrigation and industrial sectors of the country. The development activities over the years have adversely affected the groundwater regime in many parts of the country. Hence, there is a need for scientific planning in development of ground water under different hydrogeological situations and to evolve effective management practices with involvement of community for better ground water governance.

Aquifer Mapping has been taken up in **Vaigai Aquifer System** (VAS) which is one of the major seventeen river basins in Tamil Nadu, in a view to formulate strategies for sustainable management plan for the aquifer system in accordance with the nature of the aquifer, the stress on the groundwater resource and prevailing groundwater quality will help in drinking water security and improved irrigation facility. It will also result in better management of the vulnerable areas.

### **1.1 Objective**

The objectives of the aquifer mapping in Vaigai aquifer system is

1. To define the aquifer geometry, type of aquifers, aquifer units within, their lateral and vertical extents,
2. To bring out the groundwater regime scenario in comparison with the present.
3. To determine the hydrogeochemical characteristics of the aquifer units
4. Two Dimensional (2D) and Three Dimensional (3-D) disposition of the aquifer units.
5. To estimate the availability of groundwater resources in the aquifer system
6. To develop a decisive Aquifer management plan for efficient management of groundwater resources of the Vaigai aquifer system.

### **1.2 Scope of the Study**

The important aspect of the aquifer mapping programme is the synthesis of the large volume of data already generated during specific studies carried out by Central Ground Water Board (CGWB) and various Government organizations that broadly describe the aquifer system. The available generated data are assembled, analysed, examined, synthesized and interpreted from available sources. These sources are predominantly non-computerized data, which is to be converted into computer based GIS data sets.

Data gaps have been identified after proper synthesis and analysis of the available data collected from different state organisations like; Tamil Nadu Water Supply and Drainage Board (TWAD Board), Public Works Department (PWD), Agricultural Engineering Department (AED). In order to bridge the data gap, data generation programme has been formulated in an organised way in the basin. Exploration work has been carried out in different segments of the regions and aquifer parameters have been estimated. Groundwater monitoring regime has been strengthened by establishing additional monitoring wells.

### 1.3 Issues

The following are the issues pertaining to Vaigai Aquifer System

Over exploitation and Declining GW resources in Hard rock areas

Low yield of the groundwater abstraction structures in hard rocks

In-situ salinity and threat of Sea water intrusion along the coast

Groundwater Pollution– Along the Vaigai River in Madurai district

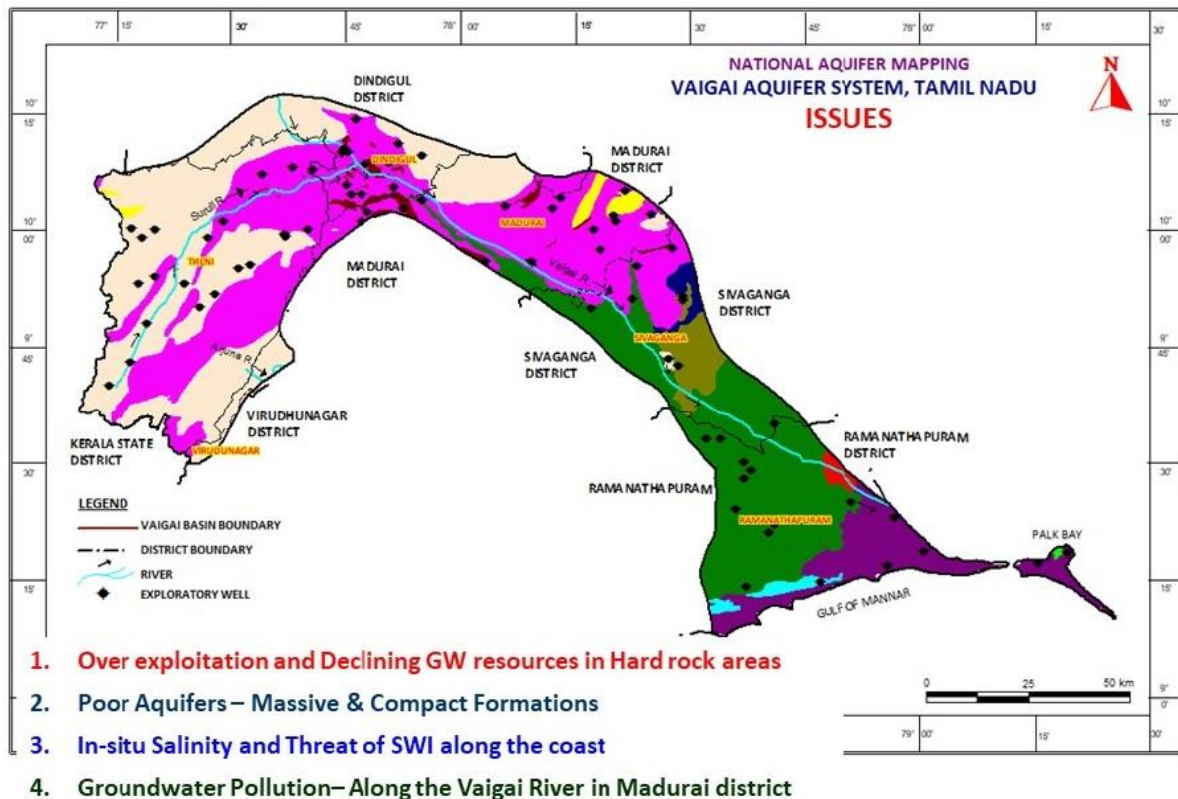


Figure1: Issues pertaining to the Vaigai Aquifer system

### 1.4. Approach & Methodology

Integrated multi-disciplinary approach involving geological, geophysical, hydrological and hydrogeological and hydrogeochemical components were taken up in 1:50000 scale to meet the objectives of study. Geological map of the basin has been generated based on the GSI maps, geophysical data has been generated through vertical electrical soundings and geoelectrical layers with different resistivities have been interpreted in corroboration with the litho stratigraphy of the observation wells and exploratory wells down to depths of 200 m bgl and 300 m bgl for hard rocks

& soft rocks respectively. Hydrological and Hydrometeorological data have been collected from state PWD and IMD departments. Drainage, soil and geomorphology of the basin were prepared based on the IRS –IC data, obtained from Institute of Remote Sensing, Anna University, Chennai.

Based on the data gap analysis data generation process has been scheduled through establishing key observation wells, pinpointing exploratory sites for drilling through in-house and outsourcing, collecting water samples in order to study groundwater regime, geometry of the aquifer and aquifer parameters, and quality of the groundwater respectively. Groundwater recharge and draft have been computed through different methods and resources of the basin estimated through groundwater balance method.

Based on the above studies, management strategies both on the supply side through augmentation of groundwater through artificial recharge and water conservation and on demand side through change in irrigation pattern have been formulated for sustainable management of the groundwater resource.

### 1.5. Study area

The Vaigai aquifer system covering an area of 8896 sq. km comprises of 1500 sq. km of hilly area, 734sq. km of saline area with mappable area of 6662 sq. km. It falls in parts of Madurai, Theni, Sivagangai, Ramanathapuram and Dindigul districts. Ramanathapuram district is one of the water starved districts in the state. The major tributaries of Vaigai river are *Suriliar, Theniar, Varatar, Nagalar, Varahanadhi, Manjalar, Marudhanadhi, Sirumalayar, Sathiar and Uppar*. Madurai is the largest city lying in the Vaigai aquifer system and other major towns lying in the Vaigai aquifer system are Theni, Andippatty, Chozhavandhan, Edaikkaattur, Mana Madurai, Paramakkudi, and Ramanathapuram.

This aquifer system covers 88 firkas of which 12 are Over Exploited and 4 are Critical and, 72 are Safe and Semi critical. Over Exploited firkas are Ayyampalayam, Nilakottai, Vathalakundu, Viruveedu, A. Vellalapatti, Muduvarpatti, Peelamedu, Uthapanaickanur, Erasakkanaickanur, Kandamanur, Kodivilarpatti and Thevaram. Critical firkas are Oruthattu, Pilliyarnatham, Andipatti and Rajathani. The administrative map of the Vaigai aquifer system is presented as **Figure 2**.

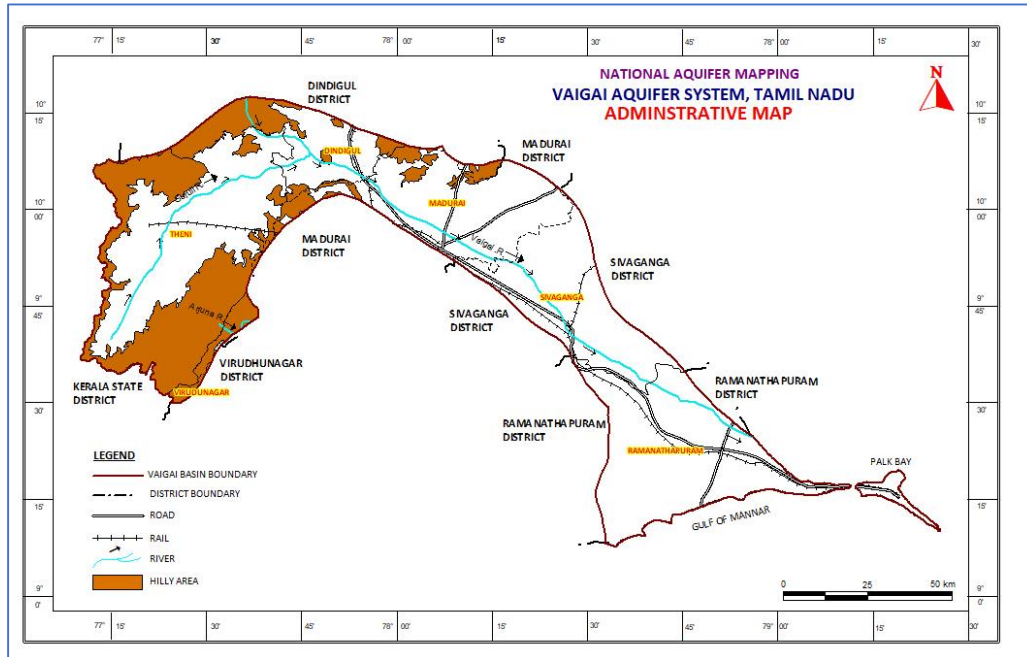
**Table 1: Districts and Firkas of the Vaigai aquifer system**

Sl. No	District	Area	No. of	No. of OE and Critical
1	Dindigul	944	7	6
2	Madurai	2135	32	4
3	Ramanathapuram	1833	18	0
4	Sivagangai	1407	14	0
5	Theni	2577	17	6
	<b>Total</b>	<b>8896</b>	<b>88</b>	<b>16</b>

### 1.6 Rainfall

The Vaigai aquifer system has a monsoon climate as it lies within the tropical monsoon zone. Based on the hydrometeorological feature of the basin, year is divided into 2 periods, Monsoon period spanning from June to December and Non-monsoon period spanning from January to May. The monsoon period is further sub-divided into 1) South West monsoon period spanning from June to September (4 months) and 2) Northeast monsoon period spanning from October to

December (3 months). Similarly, the non-monsoon period is further sub-divided into (1) Winter period spanning January and February (2 months) and (2) Summer period spanning from March to May (3 months). As the monsoon period brings heavy rainfall it improves the recharging of groundwater and storage of surface water. Hence, the monsoon period is hydrologically significant for water resources analysis. Average annual rainfall for the Vaigai aquifer system is 865mm.



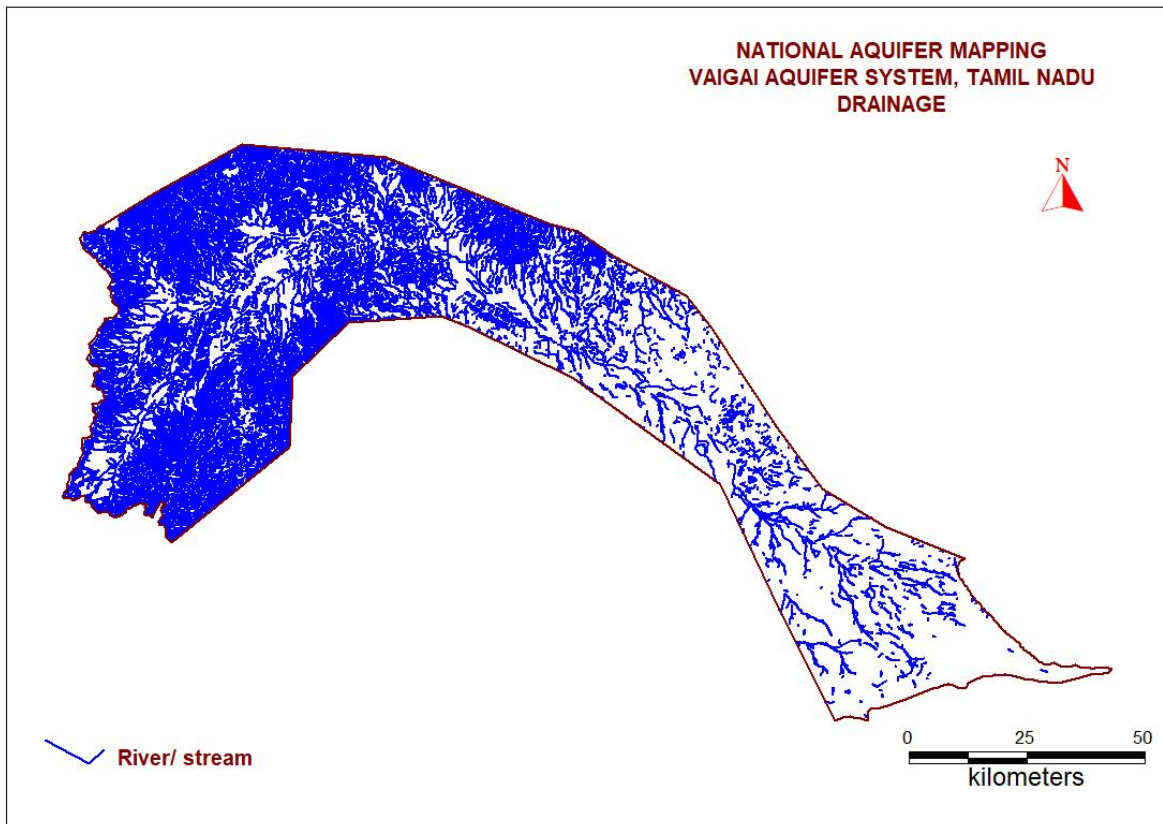
**Figure 2: Administrative setup of the Vaigai Aquifer system**

### 1.7 Physiography and Drainage

The Vaigai aquifer system region comprises of the major river *Vaigai* and its tributaries *Suriliar*, *Theniar*, *Varatar*, *Nagar*, *Varahanadhi*, *Manjalar*, *Marudhandhi*, *Sirumalayar*, *Sathiar* and *Uppar* (**Figure.3**). Physiographically the basin has an arcuate shape and can be broadly divided into three units, namely (i) Western mountainous terrain with valley complexes, (ii) Central elevated terrain and (iii) Eastern coastal plains. Vaigai river is ephemeral and it drains into Bay of Bengal sea. The *Vaigai* river has its origin in Gandamanaiken Zamin of Varshanadu hills, the Periyar plateau on the eastern slope of the Western Ghats at an altitude of 1524 m. The river flows northeast through Cumbum valley and turns southeast at the end of Varshanadu hills into the plains of Madurai, Sivagangai and Ramanathapuram districts. The total length of the river is 230 km from it's origin to Attangarai in Ramanathapuram district and it flows into Palk Bay, Bay of Bengal. Five dams exist in the area, they are Vaigai dam, Sothuparai dam, Manjalardam, Maruthanathi dam and Sathiar dam built across Vaigai river, Varahanadhi river, Manjalar river, Maruthanadhi river and Sathiar river respectively. There are number of system and non-system rain fed tanks lying in the area. 1049 system tanks are found in Sivagangai and Ramanathapuram districts. These water bodies are very specifically useful in meeting the irrigation need. The nominal topography is generally sloping towards North, Northeast in the western part and Southeast in the central and eastern part. The Hydraulic gradient and the flow lines of ground and surface water are towards Southeast, the sea.

## 1.8. Geomorphology

The geomorphology of an area is the external appearance of landforms, which gives a reliable picture of the underground strata and its physio-chemical condition. The different formations and the layer confirm and cogent to its geomorphology. Geomorphologically, the area has been delineated into 1. Hills and plateau 2. Pediment zone 3. Flood plains and coastal plains. The Hills and plateau are found in the western and north- western parts of the area comprising Charnockite group of rocks and Migmatites, The pediments in the central part overlies the Migmatites and Charnockitic domain. The rocks of Upper Gondwana and recent fluvial sediments form the plains. The coastal areas are flanked by beach ridge complex-sand dunes, swales, swamps and backwater. The sand flat is another feature of the coast comprising of clays and silts, often inundated by seawater and encrusted with salt.



**Figure 3: Drainage map of the Vaigai aquifer system**

About 42% of the region is covered by pediment and pediment zone, and is represented in **Figure 4**. These are evidenced from the dendritic pattern of drainage. Sedimentary high ground and Alluvial plain are seen in the south eastern part of the area. Flood plains consisting of sand and clay are found along the boundaries of Vaigairiver in the South eastern part. Figure 4 and **Figure 5** illustrates the level I classification of geomorphological features of the Vaigai aquifer system.

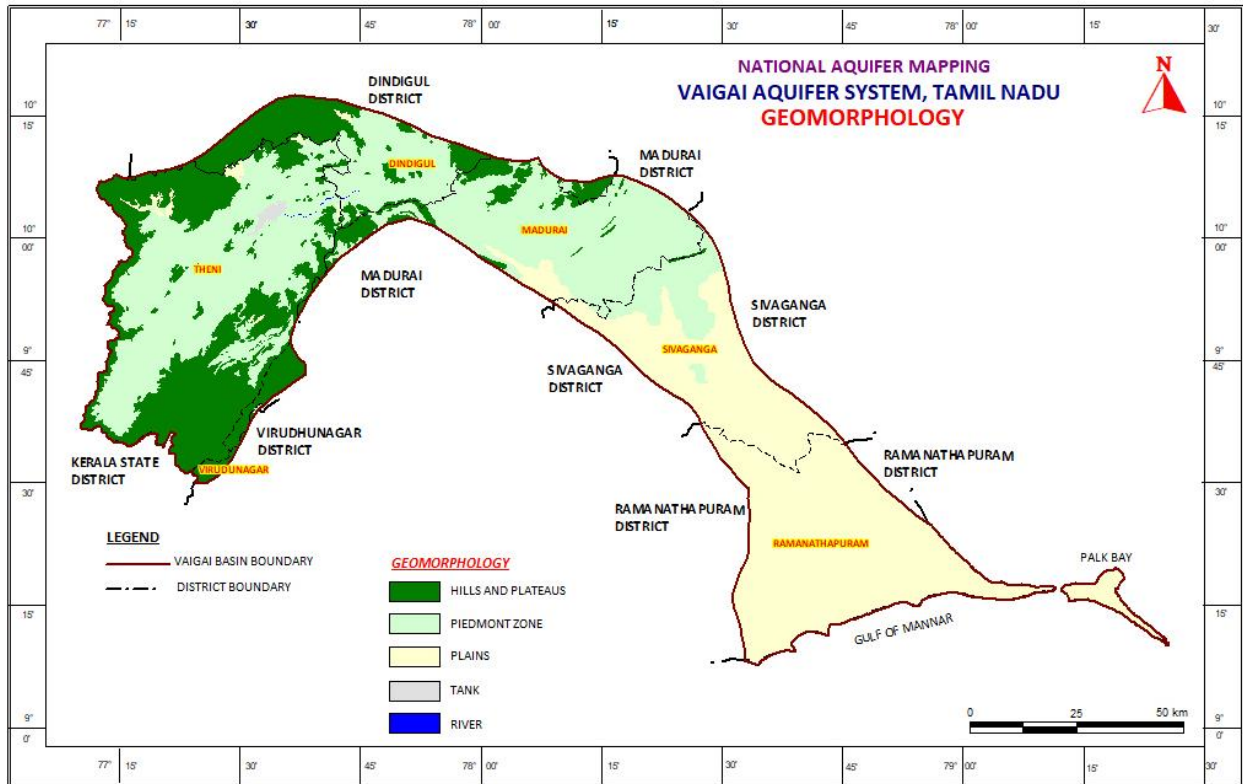


Figure 4: Geomorphology map of the Vaigai aquifer system

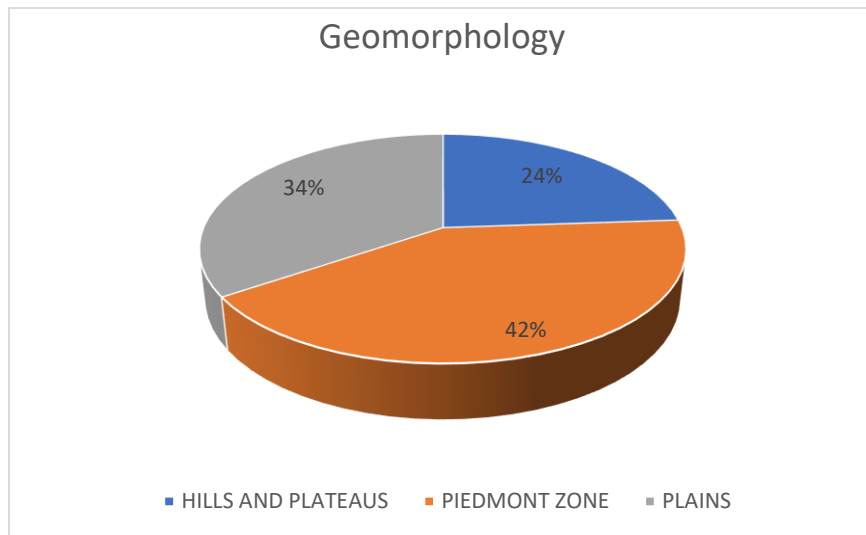


Figure 5: Level I classification of geomorphology of the Vaigai aquifer system



### 1.9 Landuse and Land cover

Agricultural land occupies nearly, 61 % of the Vaigai aquifer system area and spread throughout the study area. Forests, water bodies, waste land and built up/urban area occupy 20 %, 8 %, 7% and 4 % of the area respectively. Landuse and land cover is represented in **Figure 6 & 6a**.

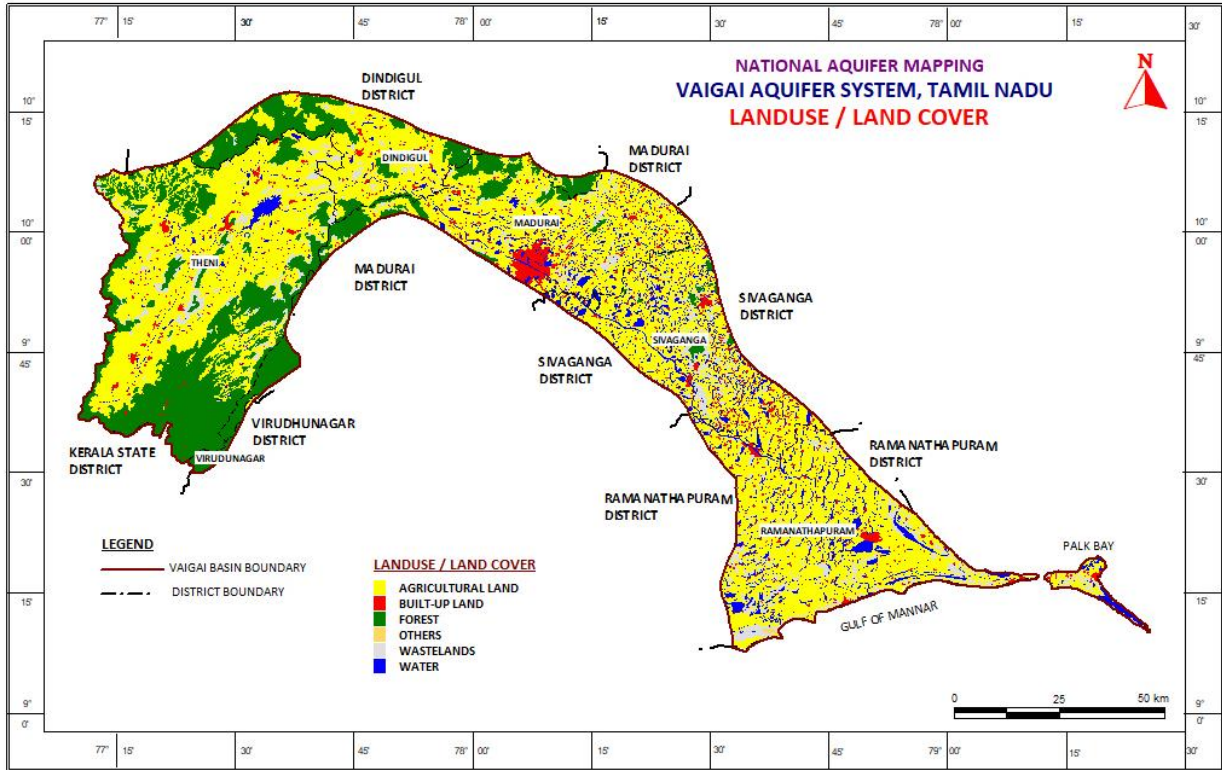


Figure 6: Level 3 Landuse /Land cover map of the Vaigai aquifer system

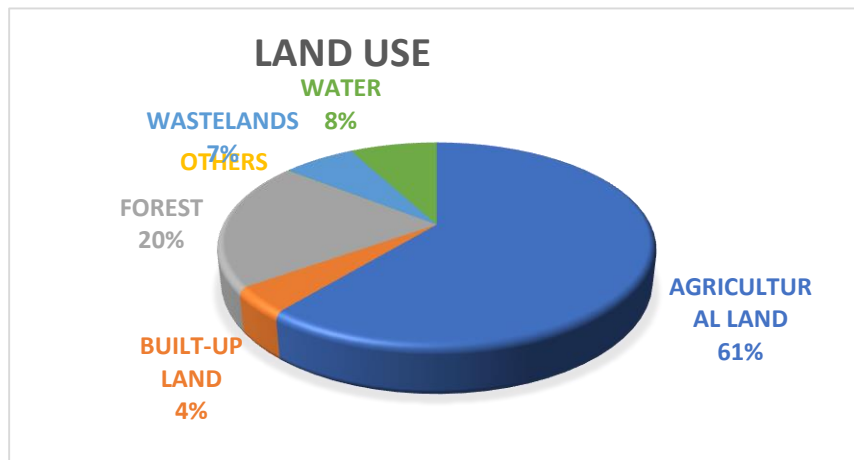
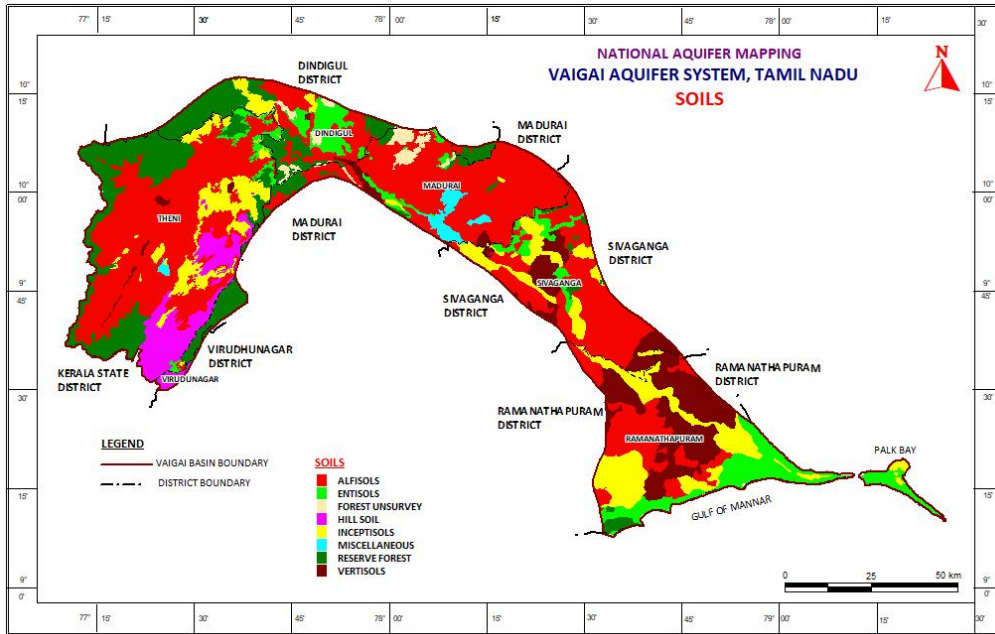


Figure 6a: Level 1 Landuse/Land analysis diagram of the Vagai aquifer system

### 1.10 Soils

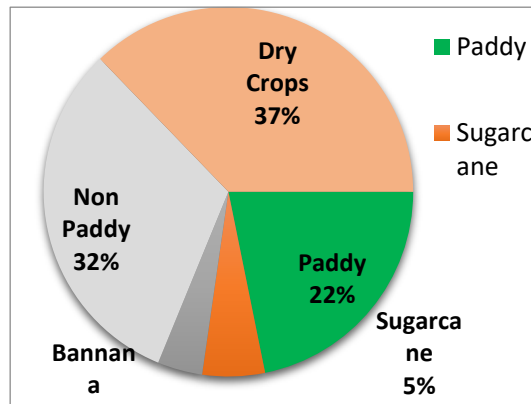
Soils play a major role in hydrologic control of the infiltrating water. Soils are generally classified by taking their color, texture, fertilities and chemical combinations includes salts, minerals and the solution effect over them. The major soil types are Red soil, Black cotton soil, Sandy soil and coastal alluvium (**Figure 7**)



**Figure 7: Soil map of Vaigai aquifer system**

### 1.11 Agriculture

Agriculture is the main stay of the rural population in the entire study area. Main water intensive crops irrigated are paddy, sugarcane and banana covering about 1488 sq. km (**Figure 8**). The less water intensive crops irrigated are maize, tomato, groundnut and chilly. The other crops include cotton, ragi, etc., and other minor crops are turmeric, flowers and vegetables. The total cultivated area is about 5607 Sq. Km



**Figure 8: Crop wise distribution in the Vaigai aquifer system**

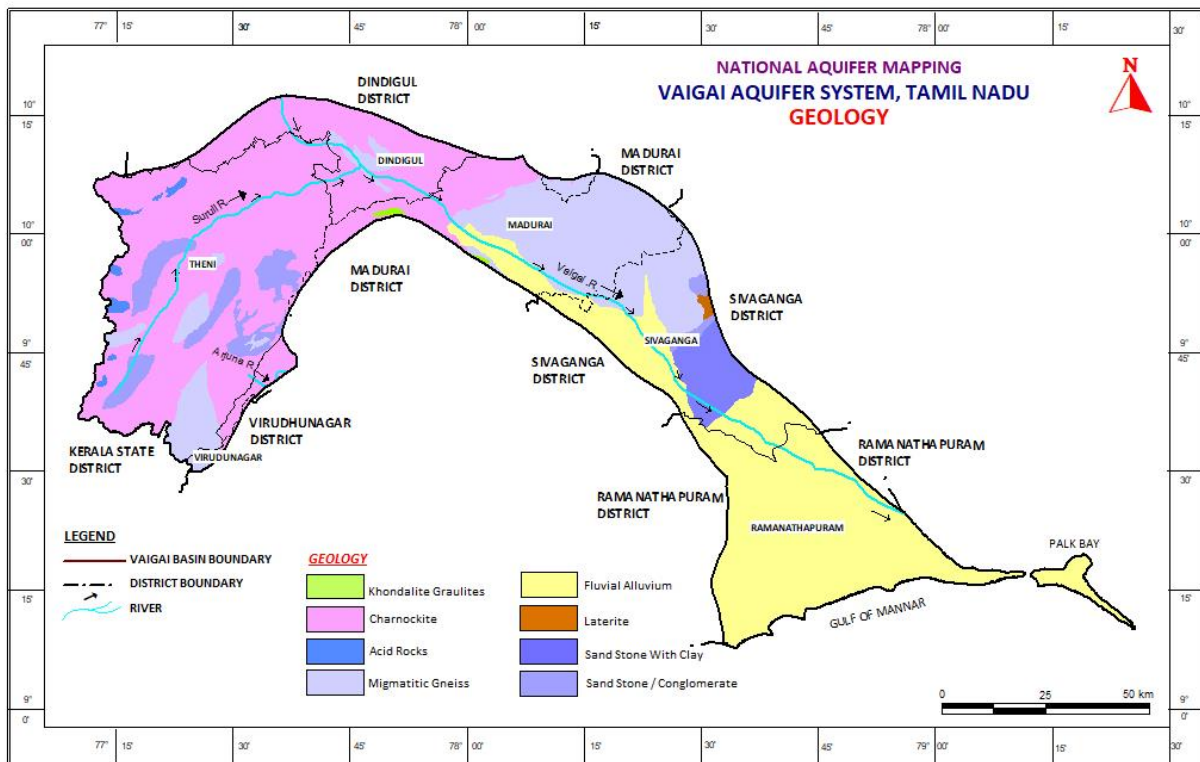


## 1.12. Irrigation

The total area irrigated under different crops is 5067 sq. km out of the total geographical area of 8896 sq.km, which accounts for 61 %. Paddy is the main water intensive crop in the study area. About 98% of the groundwater is used for irrigation. Water from the dams is used for irrigation purpose.

## 2.0 GEOLOGY

Geologically, the Vaigai aquifer system comprises of Recent sediments of marine, estuarine and fluvial alluvium, Lower Cretaceous, underlain by Precambrian rocks of Granitic gneiss, Hornblende Biotite Gneiss, Khondalite and Charnockites. The Charnockites occur in the western part, and Migmatitic Gneiss occurs in the central part of the area. Alluvium underlain by sandstone and claystone are found in the southeastern part of area (**Figure 9**). Geologic succession of the Vaigai aquifer System is presented in **Table 2**



**Figure 9: Geological map of the Vaigai Aquifer system**

### Precambrian Rocks

The Precambrian rocks belonging to Archaean age comprising Khondalite group, Charnockite group, the Migmatitic complex, Hornblende biotite gneiss, Granitoid gneiss, Granite with acid intrusive are found in western, northwestern and central part of the area. Charnockite forms the basement for the Cretaceous and Quaternary sediments.

Charnockite occurs in the western and central part, and the rocks are scarcely weathered and poorly jointed, generally massive and unfoliated. Granitoid gneiss forms the linear band within Charnockite and the contact between them is highly sheared. The migmatite complex made up of Hornblende biotite gneiss, pink Augen gneiss and pink Migmatite, occurring in the central part are

micaceous with bands of granite, pegmatite and quartz veins. The younger intrusions of granite and basic dykes occur in the magmatic complex. Dolerite dykes form the youngest basic intrusive traversing both Charnockite as well as the Migmatite complex.

### Mesozoic & Tertiary sediments

Upper Gondwana and Lower Cretaceous formation of Mio-Pliocene age occur in the central and southeastern part. Shale, Sandstone and Conglomerates are the main rocks of Sivaganga formation.

### Quaternary

Quaternary sediments are found in the southeastern part of Vaigai aquifer system all along the coast and river courses. Coastal alluviums are underlain by Cuddalore formation of Mio-Pliocene age. The Quaternary sediments are of two types, deposited under fluvial environment (river deposits) and marine environment. The fluvial sediments include clays and sands, mud, silt and medium to coarse grained sand (beach deposits). The thickness of the alluvial deposits is about 50 m. The marine deposits extend all along the coast of Ramanthapuram district. Aeolian sands are also found in isolated pockets in coastal areas.

**Table 2: Geological succession of the Vaigai Aquifer system**

S. No	Eon	Era	Series/Epoch Age Group/Formation	Lithology	Groundwater relevance
1.	Phanerozoic	Cenozoic	Quaternary Holocene-Pleistocene/ Fluvial sediments, Marine sediments	Soils, black clays, coastal /river alluvium (sand & silt), beach sand and laterite	Moderate to very good porous aquifer system
2.		Mesozoic	LowerCretaceous/ Gondwana Sivaganga formation	Unconformity Shale, Sandstone and Conglomerates	Very low Porous aquifer
3.	Precambrian	Archaean	Late Archaean to Proterozoic	Unconformity Dolerite dykes	Weathered and Fractured aquifer units
			Younger granites	Granite	
			Migmatitic complex	Hornblende biotite Gneiss, Pink augen gneiss, Pink migmatite	
			Charnockite group	Charnockites, Pyroxene- granulite, Garnetiferous gabbro	
			Khondalite group	Calc granulite, Limestone, Quartzite, Garnet Sillimanite Graphite Gniess	

### 3.0 DATA INTERPRETATION, INTEGRATION AND AQUIFER MAPPING

#### 3.1 Hydrogeological Data Interpretation and aquifer disposition

Vaigai Aquifer system area is divided into A, B and C regions. A-Region represents area underlined by Charnockite, B region represents area underlined by gneiss rocks & C-Region represents area underlined by sedimentary rocks. Aquifer units falling in “A” regions are named as A1 & A2, “B” regions are named as B1 & B2, whereas aquifer units falling in “C” regions are named as C1 & C2.

##### 3.1.1. Hydrogeology of hard rock region (A& B)

Hard rock region comprising of Charnockite rocks (A) and gneissic rocks (B) is found in the western and central portion of the Vaigai aquifer system. Hard rock regions cover an area of 5544 sq.km. The gneissic formation covering an area of 993 sq.km encompasses 20 firkas (**Table 3**). The Charnockite formation covers an area of 4345 sq.km and is found in 33 firkas. The gneissic formation and Charnockite formation form two aquifer units namely the weathered and fracture/jointed aquifer unit.

##### 3.1.1.1. Aquifer Unit I – Weathered

###### Region A: Charnockite rock area.

The weathered aquifer unit occurs from the ground level and has a minimum thickness of 4.1 m and maximum thickness of 31 m with average thickness of 14.6m. 2D disposition along southwest to Northeast clearly shows the vertical and lateral distribution of the Charnockite formation. Yield of this weathered aquifer unit ranges from 0.72 to 9 m<sup>3</sup>/hr with discharge of <3.6 m<sup>3</sup>/hr. During monsoon period the wells tapping this aquifer unit sustains for 2 to 4 hrs/day of pumping, while during non-monsoon period (May to July) wells sustain pumping for less than 1 hour/day of pumping. Groundwater occurs in unconfined condition. Weathered thickness of Aquifer unit-I, Vaigai Aquifer System is shown in **Figure 10**.

**Table 3: Firkas in hard rock region of the Vaigai aquifer system.**

Formation	Firkas
Gneiss region: (20 firkas)	Kulamangalam, Nagamalai Pudukottai, Madurai West, Madurai East, Othakadai, Koolapandi, Arumbanur, AppanThirupathi, Chatrapatti, Kallandiri, A. Vellalapatti, Mellur, Rajakkur, Sakkimangalam, Kunnathur, Thiruvathavur, Thamaraikai, Thirupachetty, Periyakottai, Avainiyapuram
Charnockitic region: (33 firkas)	Andipatti, Bodinaikanur, Periyakulam, Theni, Kodangipatti, Devathanapatti, Thenkarai, Rasingapuram, Viruveedu, Vathalakundu, Pillayarnatham, orathattu, nillakottai, Mayiladumparai, Erasakkanayakanur, Chinnamanur, Uthamapalayam, Cummam, Thevaram, Markayankottai, Kandamanur, Rajathani, Kodivilarpatti, Pannaikadu, Ayyampalam, Valanthur, Karumathur, solavanthan, Samayanallur, Thanichiyam, Neeratham, Alanganallur, Mooduvarpatti

The aquifer parameter such as transmissivity in this aquifer unit ranges from 0.1 to 158 m<sup>2</sup>/day. The Specific yield of this aquifer unit ranges from 1 to 1.5% with highly potable groundwater quality. The general EC of this aquifer unit ranges from 386-3250 µS/cm. There are some isolated pockets in Bodinaikanur, Kandamanur of Theni district and Viruveedu, Bathalagundu,

PillaiyarNatham, Nilakottai, Orathattu area of Dinduguldistrict groundwater quality is beyond permissible limit for drinking purposes.

### **Region B: Gneissic rock area**

In the area covered by gneissic rock the weathered aquifer unit occurs from the ground level and has a minimum thickness of 4.0 m and maximum thickness of 36 m with average thickness of 17.5 m. 2D disposition along Northwest to Southeast clearly shows the vertical and lateral distribution of the Gneissic formation. Yield of this weathered aquifer unit ranges from Nil to 15 m<sup>3</sup>/hr with an average discharge of 1 to <3.6 m<sup>3</sup>/hr. During monsoon period the wells tapping this aquifer unit sustains for 2 to 4 hrs/day of pumping, while during non-monsoon period (may to July) wells sustains for less than 1 to 2 hour/day of pumping. Groundwater occurs in unconfined condition. The aquifer parameter such as transmissivity in this aquifer unit ranges from 0.2 to 253 m<sup>2</sup>/day. The Specific yield of this aquifer unit ranges from 1 to 1.5% with highly potable groundwater quality. The general EC of this aquifer unit ranges from 480 to 7760µS/cm. There are some isolated pockets in Palamedu, Chatrapatti, Neeratham, Thanichiyam&Samayanallurfirkas of Madurai district groundwater quality is beyond permissible limit for drinking purposes.

#### **3.1.1.2. Aquifer Unit II (Fractured/Jointed)**

##### **Region A: Charnockite rock area**

This aquifer unit comprises of fractured and jointed Charnockite formed due to tectonic activity. Thickness of this aquifer unit is from 46 to 189m bgl (In general 3 to 4 set of fractures exists and even nil at some places). Based on the analysis of the 217 exploratory well data and 137 VES data it is observed that there is a possibility of occurrence of 3 to 4 Fractures/joints up to 195 m bgl in the gneissic region (**Figure 11**). The distribution of the fractures with depth is given in **Table 4**. The yield of this aquifer unit II ranges from 0.3 to 9.5 m<sup>3</sup>/hr. During monsoon period the wells tapping this aquifer unit sustains for 2 to 6 hrs /day of pumping, while during non-monsoon period (May to July) sustains for 1 to 2 hour/day of pumping. Transmissivity of this aquifer unit ranges from 0.1 to 4.5 m<sup>2</sup>/day (**Table 5**). The general EC of this aquifer unit ranges from 440 to 3800µS/cm.

##### **Region B: Gneissic rock area**

This aquifer unit comprises of fractured and jointed Gneiss formed due to tectonic activity. Thickness of this aquifer unit is from 13 to 143 m bgl. In general 3 to 4 set of fractures exists and even nil at some places). Based on the analysis of the 217 exploratory well data and 137 VES data it is observed that there is a possibility of occurrence of 3 to 4 Fractures/joints exists up to 197 m bgl in the gneissic region (Figure 12). The distribution of the fractures with depth is given in Table 4. The yield of this aquifer unit II ranges from 0.05 to 25 m<sup>3</sup>/hr. During monsoon period the wells tapping this aquifer unit sustains for 1 to 6 hrs /day of pumping, while during non-monsoon period (May to July) sustains for 1 to 3 hour/day of pumping. Transmissivity of this aquifer unit ranges from 3 to 296 m<sup>2</sup>/day (**Table 6**). The general EC of this aquifer unit ranges from 370 to 2010 µS/cm.

**Table 4: Distribution of fractures in the hard rock formation**

Gneissic formation		Charnockite region	
Depth (m bgl)	% of fractures	Depth (m bgl)	% of fractures
Nil (Fracture/Massive)	5	Nil (Fracture/Massive)	12.5
Upto 50	5	Upto 50	12.5
50 to 100	50	50 to 100	12.5
100 to 150	29	100 to 150	37.5
150 to 195	11	150 to 195	25

**Table 5: Salient features of the aquifer units in hardrock (Charnockite) region- A of Vaigai aquifer system**

Type of Aquifer	Formation	Top of the aquifer (mbgl)	Thickness/ occurrence of fractures (m)	Range of Yield (m <sup>3</sup> /h)	Sustainability (hrs)	Aquifer parameter (Transmissivity – m <sup>2</sup> /day)	GW quality EC values (µs/cm)	Suitable for Drinking
Aquifer unit – A-I	Weathered Charnockites	GL - 2	4.5 – 31 (Avg. 14.6 m)	0.72-9 Majority (< 3.6)	Monsoon : 2-4 hrs & Non monsoon: (May, Jun & July) < 1 to 2	0.1-158	386-3250	Yes -
Aquifer Unit – A-II	Jointed & Fractured Charnockite	21–182 Nil at some places	46 -189 ( 3 to 4 fractures exist) Nil at some places	0.3 – 9.5	Monsoon: 1-6 hrs & Non monsoon 1 to 3 hrs	0.1 -4.5	440-3800	Yes - except Saline areas

**Table 6: Salient features of the aquifer units in hardrock (Gneiss) region- B of Vaigai aquifer system**

Type of Aquifer	Formation	Top of the aquifer(m bgl)	Thickness/ occurrence of fractures (m)	Range of Yield (m <sup>3</sup> /h)	Sustainability (hrs)	Aquifer parameter (Transmissivity – m <sup>2</sup> /day)	Groundwater quality EC values (µs/cm)	Suitable for Drinking
Aquifer unit – B- I	Weathered gneiss	GL or 2	4 – 36 (Avg. - 17.5 m)	Nil - 15 Majority (< 3.6)	Monsoon : 2-4 hrs & Non monsoon: (May, Jun & July) < 1 to 2	0.2 -253	480-7760	Yes - except Saline areas
Aquifer Unit – B- II	Jointed & Fractured Gneiss	13 – 143 Nil at some places	42- 197 ( 3 to 4 fractures exist) Nil at some places	0.05 - 25	Monsoon: 1-6 hrs & Non monsoon 1 to 3 hrs	3 -296	370-2010	Yes -

### 3.1.2. Hydrogeology of Sedimentary area of the aquifer system (C)

Sedimentary rock region comprising of alluvium and Tertiary formations occupy the eastern part of the aquifer system. It covers an area of 3352 Sq. Km. sedimentary area (Alluvium, Tertiary formation & Cretaceous formation) encompasses 29 (Table 7). Alluvium and the unconfined layers of Cuddalore formations form phreatic aquifer- Aquifer unit-I (C1), Tertiary formation is that confined aquifer unit (Cuddalore sandstone and Eocene sandstone formation) forms aquifer unit II and Cretaceous formation is confined aquifer unit forms aquifer unit III.

#### 3.1.2.1 Aquifer Unit – I (C1 - Alluvium and Cuddalore Sandstone)

The top most aquifer is the Aquifer Unit –I and it is a phreatic aquifer or Water table aquifer. This aquifer unit composed of recent river alluvium, Coastal alluvium, Cuddalore sandstone and laterite formations. The thickness of the Aquifer Unit-I varies from 6 to 40 m in the area covered by river alluvium, about 30 to 50 m thick in the area covered by coastal alluvium and it is about 10 to 20 m in area where the Cuddalore sandstone are exposed to the surface. The thickness of the aquifer unit is less in the western portion and gradually increases towards east near the coast. The groundwater abstraction from the aquifer is mostly by dugwells and shallow tubewells. The diameter of the dugwells ranges from 1 to 4 m and the depth ranges from 3 to 25 m below ground level (mbgl). The dugwells are energized mostly by electric pumps and the groundwater extracted is mainly used for irrigation and domestic purposes. The depth to the water level of the phreatic aquifer ranges between 1 and 18 mbgl and yield varies in different formation. Yield of the aquifer unit in the river alluvium varies from 2.4 to 65 m<sup>3</sup>/hr. whereas in coastal alluvium area the yield varies from 39-132 m<sup>3</sup>/hr and the yield varies from 3.5 to 7 m<sup>3</sup>/hr in the phreatic unit of Cuddalore sandstone formation (Figure 12).

The transmissivity of alluvial formation ranges between 210 and 1500 m<sup>2</sup>/day and the specific yield ranges between 12 and 18 %. Where as the transmissivity of Cuddalore sandstone formation ranges between 350 - 2500 m<sup>2</sup>/day and its specific yield ranges between 8 to 13%.

The waters are generally alkaline with pH ranging from 7.0 – 8.15. The chemical quality of ground water in general is good and potable except in the coastal part of the Vaigai aquifer system. i.e. in coastal part of Ramanathapuram district the groundwater is saline. The quality deteriorates in eastern and south-eastern coastal part of the aquifer system. The Electrical conductivity map has been prepared and presented below. A perusal of the iso-conductivity map reveals that good quality groundwater with EC less than 750 micro siemens/cm at 25°C occur in the firkas of Muthunenthal, Seikalathur, Manamadurai, Mallal, Ilayankudi, A. Thiruvendipuram. These firkas are mainly covered under recent river alluvium.

In the area covered by coastal alluvium i.e. firkas like Paramakudi, Manjur, Nainarkovil, Saligramam, Keelathuval the groundwater quality is moderate with EC value of 2000-3000 micro siemens/cm. The high salinity with Electrical Conductivity (EC) of more than 3000 microsiemens/cm at 25° C in ground water has been observed in parts of Ramanathapuram district covering firkas like Ramanathapuram, Teruruveli, Nainarkoil, Seliyakudi, T.V. Mangai, Bogalur, Keelathuval, Kilayur, Thirupulani, Reganathapuram & Rameshwaram. The very high salinity with Electrical Conductivity (EC) of more than 5000 micro siemens/cm at 25°C in ground water has been observed in Devipattinam, Kilakarai, Sikkal and Perunkulam area.

The chloride in water is also having essentially the same distribution as that of Electrical Conductance in the area. Chloride concentration exceeding permissible limit of 1000 mg/l are seen in around Bogalur, Nainarkoil, Devipattinam, Ramanathapuram, T.U. Mangai, Kilakarai, Thirupulani, Theririval, Sikkal and Perunkulam firkas. This may be due to the washing of salt from the upstream and also due to the insitu salinity of the formation.

**Table 7: Firkas falling in soft rock region of the Vaigai aquifer system**

<b>Formation and number of firkas</b>	<b>Name of the firkas</b>
<u>Alluvium formation (22 firkas)</u>	Bogalur, Devipattinam, Kakkur, Kelakarai, Keelathuval, Mandapam, Manjur, Nainarkoil, Paramakudi, Perankulam, Ramanathapuram, Rameswaram, Sillal, T.U. Managai, Thirupulani, Therituveli, Salaigramam, Okkur, Muthunendal, Thirupuvanam, Manamadurai, Kondagai
<u>Tertiary Sandstone (29 firkas )</u>	Sivagangai, Periyakottai, Seikalathur, Mallur, Thayamangalam, Ilayangudi, Thamarakkai. Bogalur, Devipattinam, Kakkur, Kelakarai, Keelathuval, Mandapam, Manjur, Nainarkoil, Paramakudi, Perankulam, Ramanathapuram, Rameswaram, Sillal, T.U. Managai, Thirupulani, Therituveli, Salaigramam, Okkur, Muthunendal, Thirupuvanam, Manamadurai, Kondagai

### 3.1.2.2. Aquifer Unit II (C2): Tertiary sandstone

Tertiary sandstone of the Vaigai aquifer system consists of Cuddalore formation and Eocene formation.

#### **Cuddalore Sandstone**

Cuddalore Sandstone comprises of argillaceous sandstone, pebble bearing sandstone, ferruginous sandstone, grits and clay beds and are whitish, pinkish, reddish in colour which are friable in nature. The sands and sandstones of Cuddalore formations of Mio-Pliocene age comprise of fine to very coarse grained and are sub-angular to sub-round in shape, occasionally with rounded pebbles of quartz with diameters even upto 3 m. The Cuddalore sandstones occur beneath the alluvium formation and in place where alluvium formations are absent, they are exposed on the surface. The sandstone formation which lies below the unconfined unit of Cuddalore formation forms the aquifer unit II (C2) which is confined in nature. The clay layers separating the unconfined and confined unit of the Cuddalore sandstone are discontinuous at many places. The depth of occurrence of aquifer unit II is between 20 and 60 m bgl with thickness varying from 68 to >300 m. The thickness is less in the western portion and gradually increases towards east. Clay occurs as intercalations within the sandstones at some locations. The groundwater abstractions from the aquifer are by shallow tubewells, depth ranges from 40 to 80 mbgl and are energized by electric submersible pumps which are mainly used for irrigation and industrial purposes having EC <2500 microseimens/cm. The piezometric level of the confined aquifer ranges between 15 and - 10 m with respect to mean sea level (msl) having yield between 10.8 to 66.6 m<sup>3</sup>/day. The major source of recharge to the aquifer is rainfall and leakage from unconfined aquifer. The transmissivity ranges between 5 and 3615 m<sup>2</sup>/day and storativity between  $1.2 \times 10^{-3}$  and  $4.1 \times 10^{-4}$  respectively. The chemical quality of groundwater from the Cuddalore sandstone aquifers is of the sodium-chloride type. The degree of mineralization of waters is high in the Ramanathapuram area. Quality data of groundwater exploration of Cuddalore sandstone aquifers reveals that the E.C. values range from 3820 to 15540 micro seimens/cm. The mineralization of groundwater in the aquifer unit progressively gets concentrated from west to east in the boreholes. Groundwater in the western part of the Ramanathapuram is of Na-Cl-HCO<sub>3</sub> type.

#### **Eocene Sandstone**

The Eocene formations composed of sandstones are made up of fine to coarse grained sand and pale grey in colour with occasional clay intercalations. Similar to the Cuddalore sandstones, Eocene sandstones are also friable in nature. They are shallow in the central part and deeper in the eastern part towards the sea. The occurrence of these formations is restricted to the eastern part of the Vaigai aquifer system and found at a depth of 50 to 120 m below mean sea level and is restricted to the firkas like Muthanental, Manamadurai, Seikalathur, Parthipanoor, Thiruvudayarapuram, Paramakudi and Keelathuval. In the eastern part the Eocene formations are found in greater depth. The Eocene sandstone formation forms aquifer which is confined in nature. The thickness is varying from 40 to 85 m. The groundwater in this aquifer unit is abstracted sparsely for irrigation activity. Since last decade, tubewells have been constructed by farmers to tap groundwater from this aquifer for irrigation activity.

This aquifer unit is highly potential and its yield varies from 65 to 85 m<sup>3</sup>/hr. The groundwater quality of this aquifer is good and fit for drinking, domestic, agriculture and irrigation purpose as the EC values ranges from 600 to 2200 microseimens/cm. The transmissivity of the aquifer unit range between 300 and 2750 m<sup>2</sup>/day and the storativity ranges between  $1.6 \times 10^{-4}$  and  $2.9 \times 10^{-5}$ .

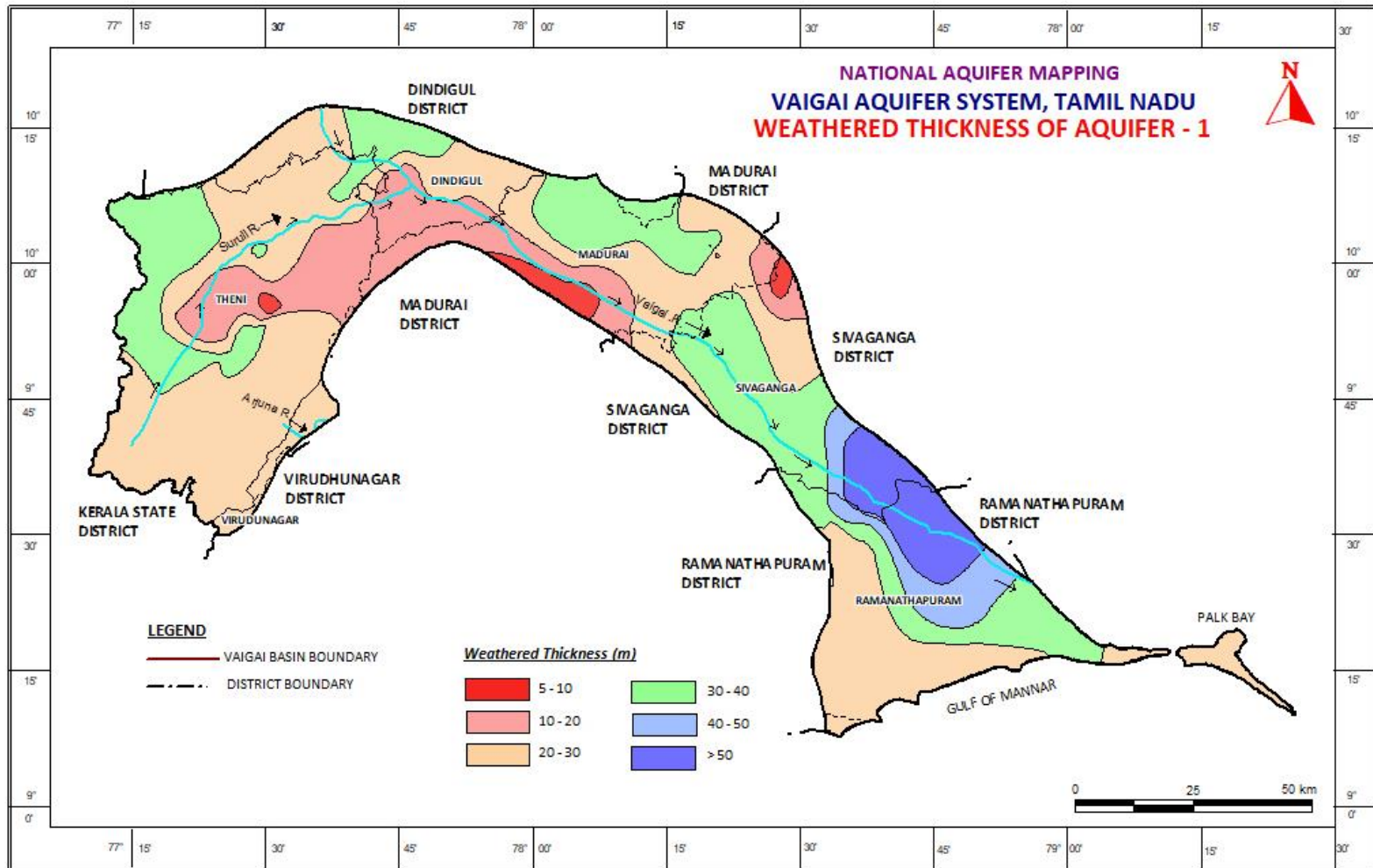


### 3.1.2.4. Aquifer Unit III (C3 Cretaceous sandstone)

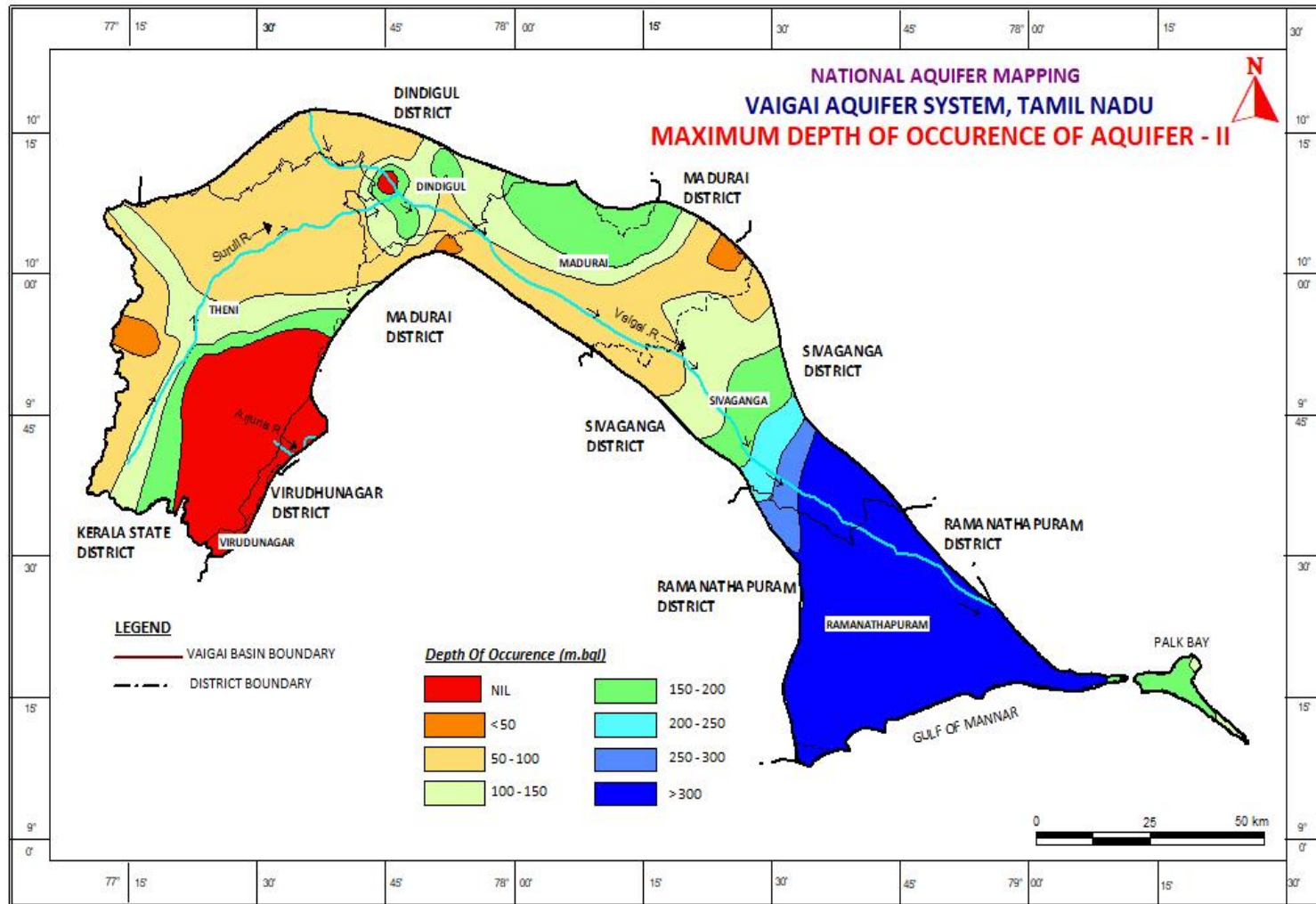
Cretaceous sandstone which consists of litho units viz the top units of marker fossiliferous sandstone, which is flesh red in colour and compact in nature and the bottom consists of pinkish and greyish sandstone intercalated with clay and shale. These form the Aquifer unit III in the sedimentary area of the Vaigai aquifer system and it occurs only at subsurface. Aquifer Unit III lies below the Aquifer unit-II and separated by confining clay layer which is discontinuous in many places. The Aquifer Unit-III occurs at the depth of 88 to 150 m bmsl. The thickness is less in the western portion i.e 40 m and gradually increases towards east extending more than 200 m. The groundwater abstraction from the aquifer through tubewells constructed to the depth of 220 to 350 mbgl. The Aquifer Unit-IV is highly potential and yields 55 to 85 m<sup>3</sup>/hr. The transmissivity of aquifer varies from 56.17 to 594.00 m<sup>2</sup>/day (Andavurani) with field permeability ranging from 2.810 to 27.00 m/day. Storage coefficient values as computed are indicative of confined condition of the aquifer and ranges from  $5.54 \times 10^{-4}$  to  $2.72 \times 10^{-5}$ . Further the pump test conducted in this area has brought to light the existence of barrier boundary conditions. For instance the pumping test conducted in the exploratory wells at Tiruvadana, Pandakudi, Mandathukottai in adjoining Sivagangai district. The drawdown is rather high indicative of their proximity to the barrier boundary, thereby of the limit of the extent of the confined aquifer.

**Table 8: Salient features of the aquifer units in Sedimentary rock region of Vaigai Aquifer System**

Type of Aquifer	Formation	Top of the aquifers (mbgl)	Thickness AQ-I)/ Occurrence (Aq-II) up to(m)	Range of Yield	Sustainability (hrs /day)	Aquifer parameter (Transmissivity – m <sup>2</sup> /day)	Groundwater quality EC values (µs/cm)	Suitable for Drinking
				(m <sup>3</sup> /h)				
Aquifer unit -C I	River alluvium	GL	6 to 40	2.4– 65	4-6 hrs	210- 00	740-3750	yes except saline area
	Coastal alluvium	GL	30 to 50	39-132	5-7hrs	350-2500		
	Cuddalore SST	GL-3	10 to 20	3.5-7	3-5 hrs	10.8 to 66.8		
Aquifer Unit –C II	Cuddalore SST	20 - 55	68 to > 300	10.8 -66.6	5-7hrs	5 to 2615	180-14000	Mostly No,
	Eocene SST	50 – 120	40 to 85	68 - 85	3-5 hrs	300 - 2570	600 - 2200	Yes except saline area
Aquifer Unit –C III	Cretaceous SST	88 - 150	40 - > 200	65 - 85	3 – 4 hrs	56.17 to 594.00	1500 - 2800	yes except saline area



**Figure 10: Weathered thickness of Aquifer-I, Vaigai Aquifer System**



**Figure 11: Depth of occurrence of Aquifer-II of Vaigai Aquifer System**

### 3.2. Groundwater Level

During Aquifer Mapping studies in Vaigai aquifer system 200 groundwater monitoring wells have been established and monitored in different formations in order to know the behavior of the groundwater regime. Apart from this historic water level data monitored by CGWB were analyzed for both Premonsoon and Postmonsoon periods. The water levels monitored from May 2008 to January 2017 (four times in a year) is taken for the analysis. The depth of dug well ranged from 4.00 to 40.00 mbgl.

#### 3.2.1. Premonsoon depth to water level for Aquifer I (May2016)

The water level data pertaining to the period of May 2016 (pre monsoon) was used for the preparation of depth to water level map of the basin. The depth to water level during May 2016 varied from 0.85 to 26.83 mbgl. Major part of the basin shows water level in the range of 5 to 20mbgl. Patches recorded water level in the range of 2 to 5 mbgl and found in eastern portion of the basin. Water levels ranging 5 to 10 mbgl are observed in the whole of western part, central part & northern part of the basin.

#### 3.2.2. Postmonsoon depth to water level for aquifer I (Jan-2017)

To prepare the depth to water level map for the period of January 2017, based on GWMW data collected from the basin area are used. The depth to water level during Jan 2017 varied from 0.92 to 9.4 mbgl. Water levels in the range of 2 to 5 mbgl found in eastern portion of the basin. Water levels ranging 5 to 10mbgl are observed in the rest of the region.

#### 3.2.3. Decadal Water Level Scenario of the aquifer system

Decadal water level scenario maps are prepared for pre-monsoon and post-monsoon period. The analysis shows that during the Pre monsoon period (May 2007- May 2016) majority of the area is having water level in the range of 5 to 10 m bgl. In the western part of the aquifer system the waterlevel is in the range of 10 to 20 m bgl and in a pocket of Cumbam valley the water level shows more than 20 m bgl. In the eastern part of the study area where the area is covered with alluvium formations the water level is shallow i.e., 2 to 5 m bgl. Whereas during the post monsoon period (Jan 2008 – Jan 2017) inthe study area the wells show water level ranging between 2 to 5 m bgl in eastern and central part of the study area and in rest of the area shows 5 to 10 m bgl. The deeper water level is restricted only in the eastern part of the study area especially in Cumbam, Uthamapalayam, Thevaram, Erasakkanaikanur area of Theni district. The studies show that the basin is responding to the rainfall and recharging the aquifers. Depth to water level (Aquifer-I) – decadal average- Premonsoon of the Vaigai Aquifer System presented as **Figure 13**. Depth to water level (Aquifer-I) – decadal average- Postmonsoon of the lower Ponnaiyar aquifer system presented as **Figure 14**.

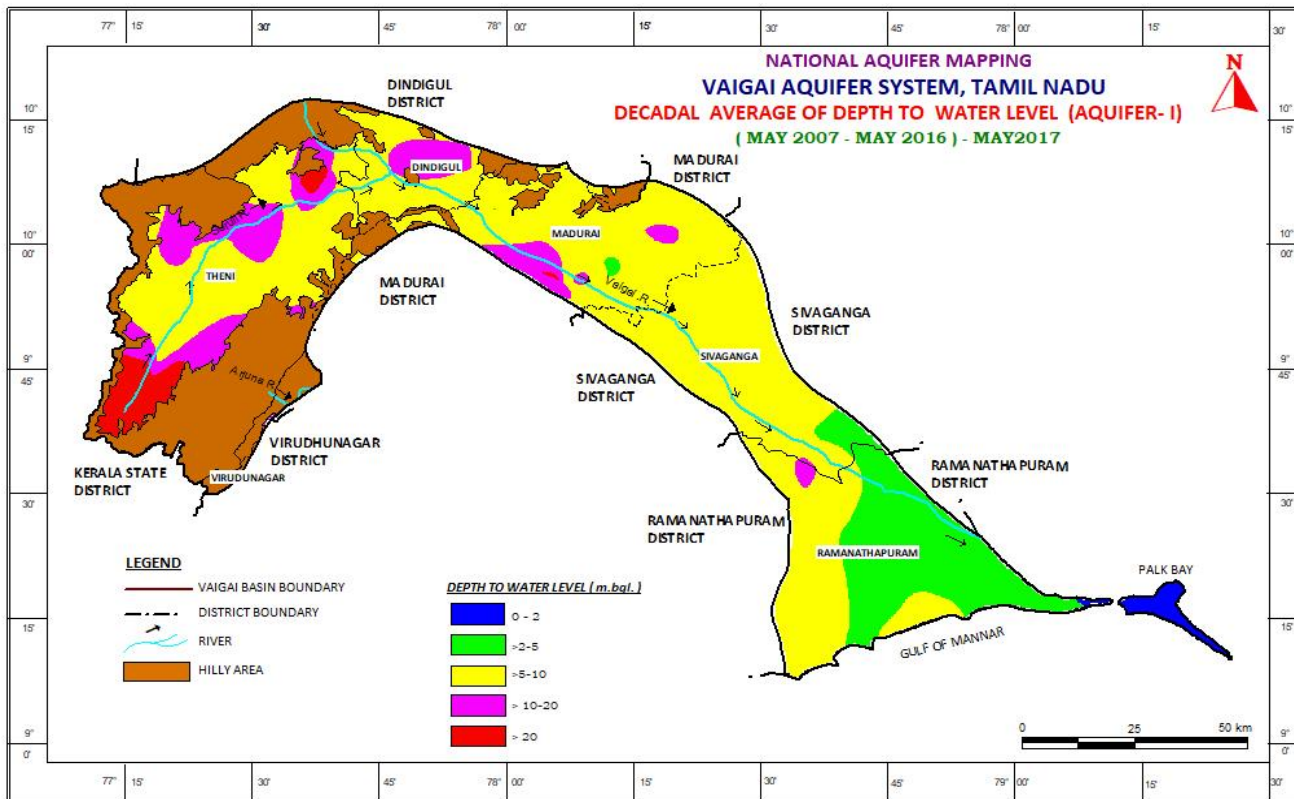


Figure 12: Depth to water level (Aquifer-I) – decadal average- Pre-monsoon of the Vaigai aquifer system

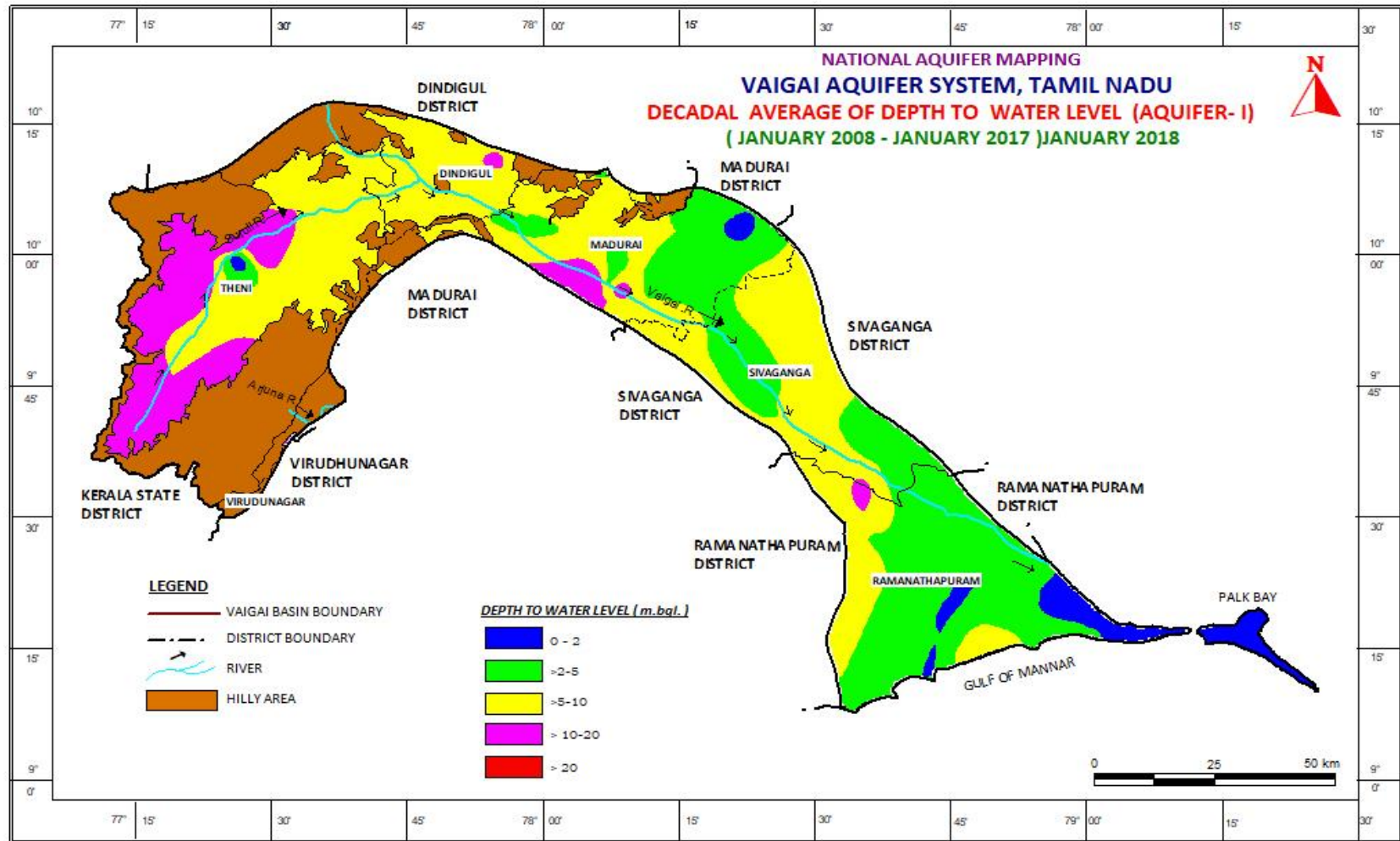


Figure 13. Depth to water level (Aquifer-I) decadal average – Post-monsoon of the Vaigai aquifer system



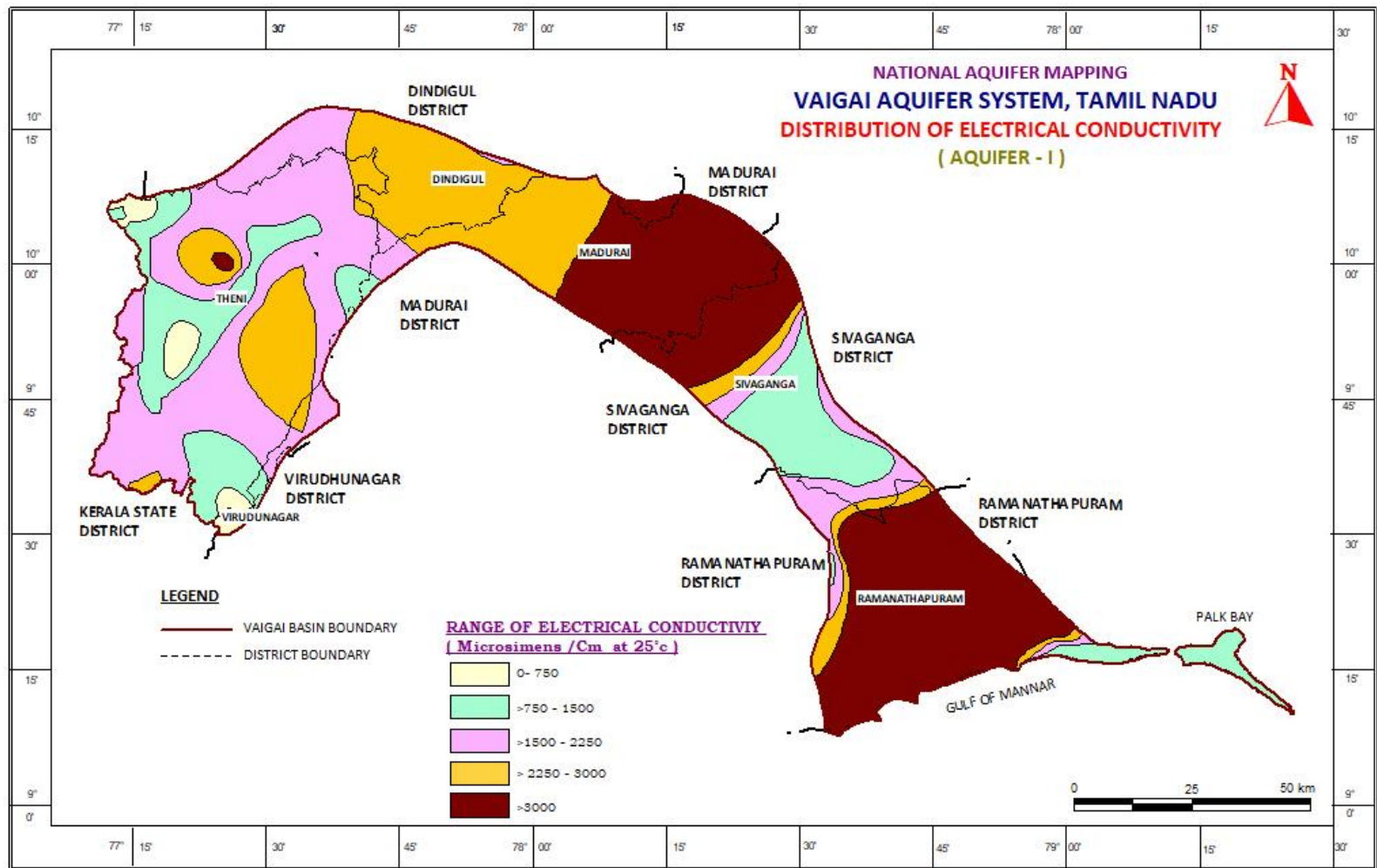
### 3.3 Groundwater quality

#### 3.3.1. Electrical Conductivity (EC)

Electrical conductivity is the indicator of the total mineral content of water and hence it indicates the total dissolved solids (TDS) present in water. TDS of water determines its usefulness to various purposes. Generally water having TDS <500 mg/L is good for drinking and other domestic uses. However, in the absence of alternative sources TDS up to 2000 mg/L may be used for drinking purposes. The distribution of EC in different aquifers unit I is given in **Figure 14**.

In the hard rock terrain particularly in the Phreatic aquifer of the Charnockite area the EC ranges from 386-3250  $\mu\text{S}/\text{cm}$ . There are some isolated pockets in Bodinaikanur, Kandamanur of Theni district and Viruveedu, Bathalagundu, Pillaiyarnatham, Nilakottai, Orathattu area of Dindugul district groundwater quality is beyond permissible limit for drinking purposes. In the phreatic aquifer unit of the gneissic formation the EC ranges from 480 to 7760  $\mu\text{S}/\text{cm}$ . There are some isolated pockets in Palamedu, Chatrapatti, Neeratham, Thanichiyam & Samayanallur firkas of Madurai district groundwater quality is beyond permissible limit for drinking purposes.

In the sedimentary rock terrain, the perusal of the iso-conductivity map reveals that the good quality groundwater with EC of less than 750 micro siemens/cm at 25°C occurs in the firkas of Muthunenthal, Seikalathur, Manamadurai, Mallal, Ilayankudi, A. Thiruvendipuram. These firkas are mainly covered under recent river alluvium. Whereas the area covered by coastal alluvium i.e., firkas like Paramakudi, Manjur, Nainarkovil, Saligramam, Keelathuval the groundwater quality is moderate with the EC value of 2000-3000 micro siemens/cm. The high salinity with Electrical Conductivity (EC) of more than 3000 micro siemens/cm at 25° C in ground water has been observed in part of Ramanathapuram covering firkas like Ramanathapuram, Teruruveli, Nainarkoil, Seliyakudi, T.V. Mangai, Bogalur, Keelathuval, Kilayur, Thirupulani, Reganathapuram Rameshwaram. These is a solid patch of very high salinity with Electrical Conductivity (EC) of more than 5000 micro siemens/cm at 25°C in ground water has been observed in Devipatinum, Kilakarai, Sikkal and Perunkulamarea. Thirupulani, Sikkal, Mudukulathur & Melachelvanur firkas of Ramanthapuram district which falls in the study area which occupies the coastal part are classified as saline blocks due to the high concentration of salt in the groundwater.



**Figure 14: Distribution of EC in Aquifer I of the Vaigai Aquifer system.**



### **3.3.2. Chloride**

About 47% of the groundwater samples of phreatic aquifer has chloride concentration in the range of 0 to 250 mg/l and about 47% of groundwater sample has chloride concentration in the range of 250 to 1000 mg/l and 6% of the groundwater samples have chloride concentration > 1000 mg/l. Analysis of distribution of chloride concentration shows that most part of the study area is having chloride concentration in the range of 250 to 1000 mg/l and some patches in the western part of the study area shows chloride concentration in the range of 0 to 250 mg/l. High chloride concentration values are recorded in the eastern part of the study area particularly in the coastal alluvium formation. The distribution of chloride concentration in aquifer-I is present in **Figure 15**.

### **3.4. Aquifer Maps**

#### **3.4.1. 2D&3D models showing Aquifer Disposition**

Aquifer Disposition (Vertical & Lateral) is generated based on the inputs of data collected through geological, geophysical, hydrogeological, and hydrochemical studies. In particular the aquifer disposition and aquifer characterization has been brought mainly by analyzing the data collected from different groundwater agencies such as 91 lithologs and 137 Nos. of VES data, water level data of 247 wells, 52 hydrograph of dugwells with long term trend, 61 piezometric head data of the piezometers tapping different aquifer units, 247 hydrochemical data and field inputs carried out during the study period. 2D & 3D aquifer disposition models of the aquifer system have been deciphered by using ROCKWORKS software and generate numbers of 2D cross section along different directions of the Vaigai aquifer system. All such 2D cross sections were verified and the model was calibrated to bring out the 3D aquifer disposition of the aquifer system. The type cross sections generated in different direction of the aquifer system is given in **Figures 16, 17** & the 3D aquifer disposition is shown in **Figure 18**.

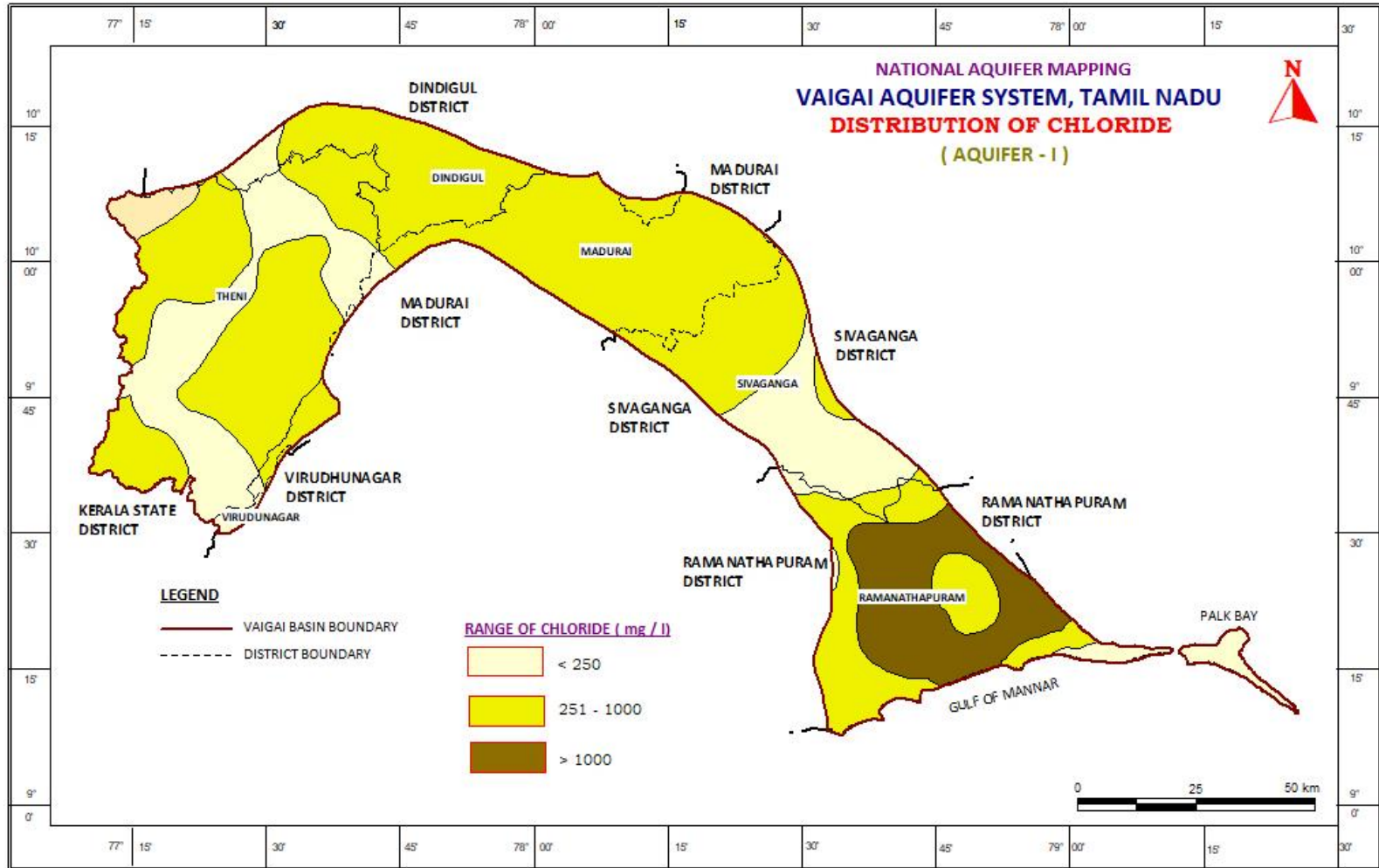


Figure 15: Distribution of Chloride in Aquifer-I of the Vaigai aquifer system



## 2D Aquifer Disposition

Vaigai Aquifer System  
Tamil Nadu

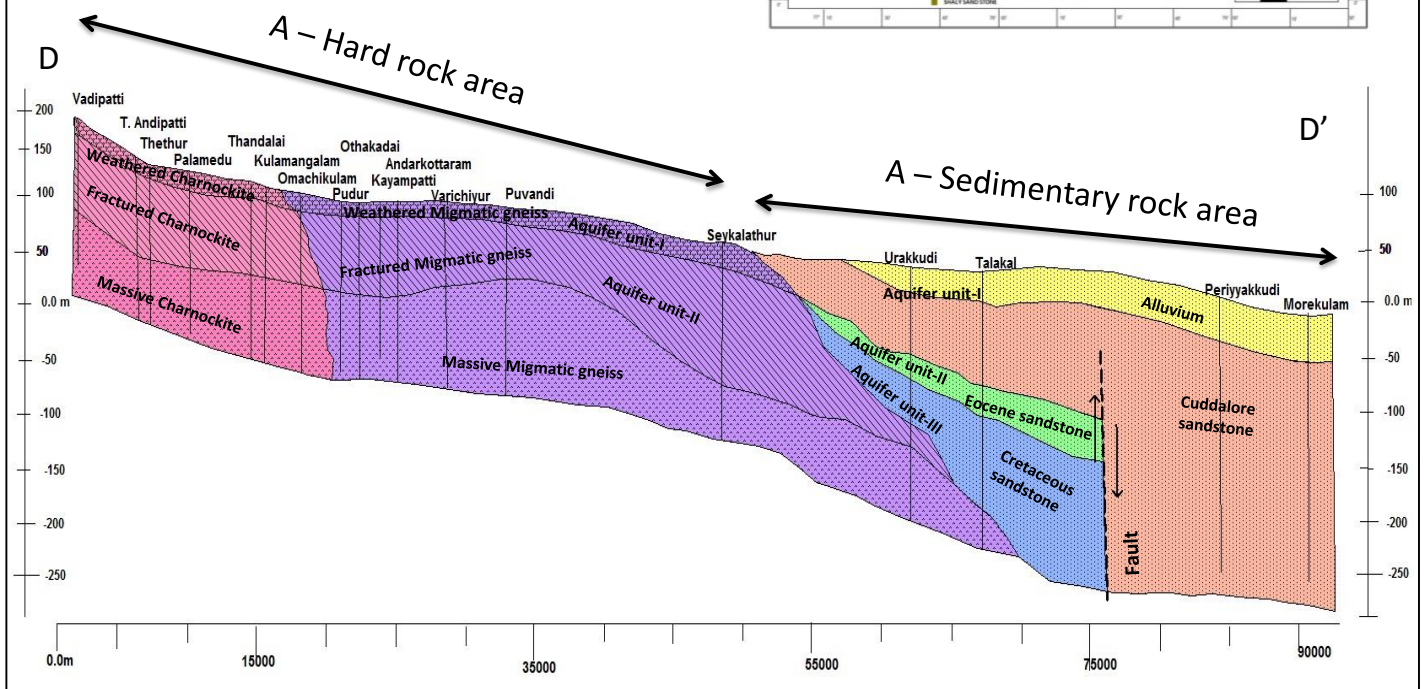
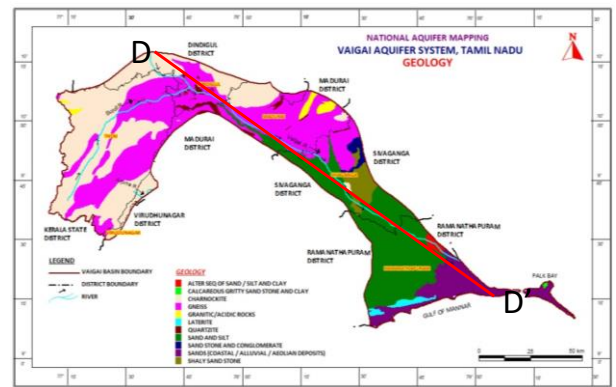


Figure 17: 2D Aquifer Disposition along D-D' (NW-SE direction in Hard rock terrain of the Vaigai Aquifer system).

### 3D Aquifer Disposition

Vaigai Aquifer System  
Tamil Nadu

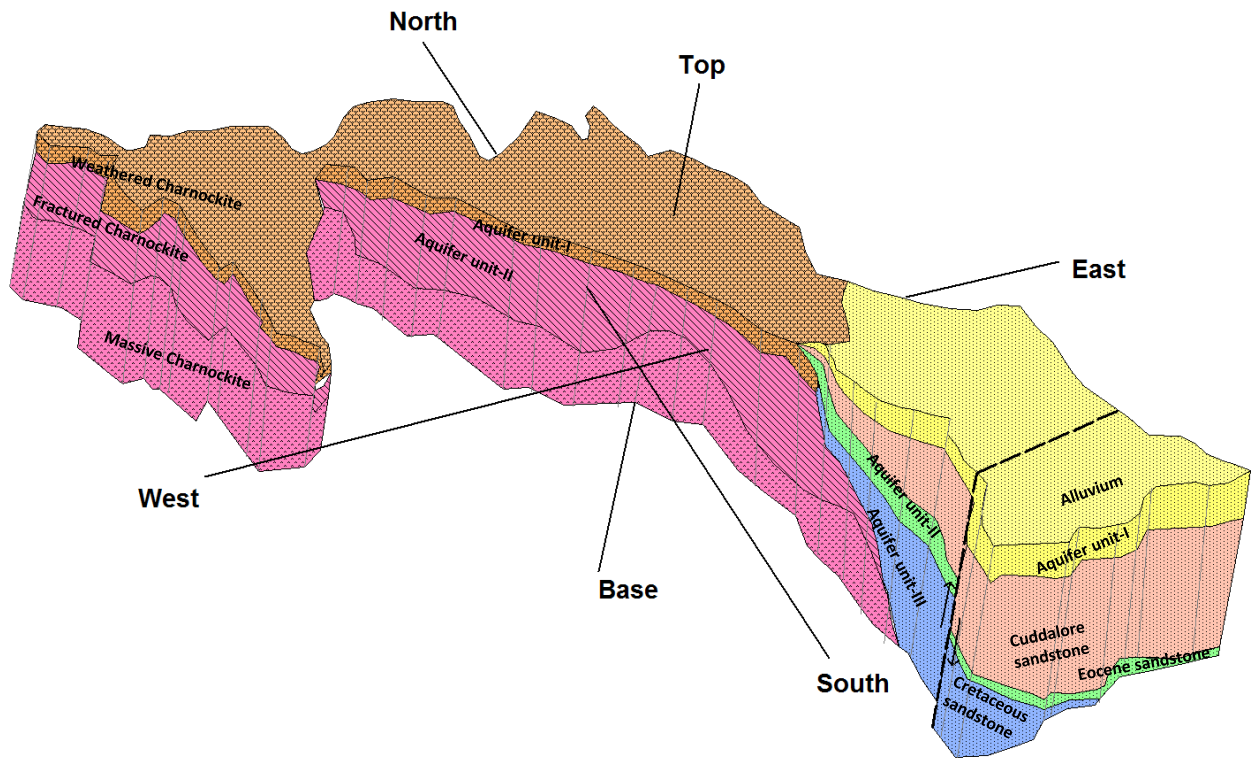


Figure 18: 3D Aquifer Disposition of the Vaigai Aquifer system.

## 4.0 AQUIFER MANAGEMENT PLAN

### Management Strategies

Both supply side and demand side interventions are required for efficient management of groundwater resources within the Vaigai aquifer system. About 14 firkas within the Vaigai Aquifer System are categorised as over exploited and 2 firkas as critical. The Net availability of the resource is 1455 MCM. The total ground water demand for the basin is 824 MCM. Based on the supply of groundwater resources, the stage of groundwater development of the basin is 57%. The stage of groundwater development of the over exploited and critical firkas are 124.4% (based on 2011). To bring safe groundwater development, 64% of groundwater development (i.e.79.69 MCM) should be added to the groundwater system of the basin. Therefore, supply side intervention is proposed in the basin through groundwater augmentation

plan as sufficient uncommitted surplus runoff of 142 MCM is available in the basin. The most acceptable method for augmentation plan is artificial recharge to groundwater.

#### **4.1 Supply side intervention**

Based on the water level monitoring in different seasons across the basin, as well as after having better understanding of the disposition and extent of the aquifer system through exploratory drilling, pumping tests etc. the volume of unsaturated zone available for recharge (upto 3m bgl) is 97 MCM. The annual uncommitted runoff is 142 MCM and 55% of water from uncommitted runoff is required to fill the available void space of aquifer-I. Artificial recharge and Water conservation plan is prepared firka wise in the basin to harness 20.7 MCM of water with a total out lay of Rs. 79.69 Crores. The suggested artificial recharge structures are mainly Nala bunds, Check Dams and Recharge Shafts in addition to removal of silt in the surface tanks.

A total number of 177 check dams, 504 Nala bunds and 307 recharge shafts are proposed in the OE and critical firkas of the basin. A total number of 284 Recharge Rejuvenation Ponds are selected for desilting followed by construction of recharge shafts within the tanks. The expected recharge through these artificial recharge structures is 20.73 MCM which contributes 7% of the 264 MCM. The stage of groundwater development would reduce from 124 % to 114% through these techniques.

#### **Water Conservation Plan**

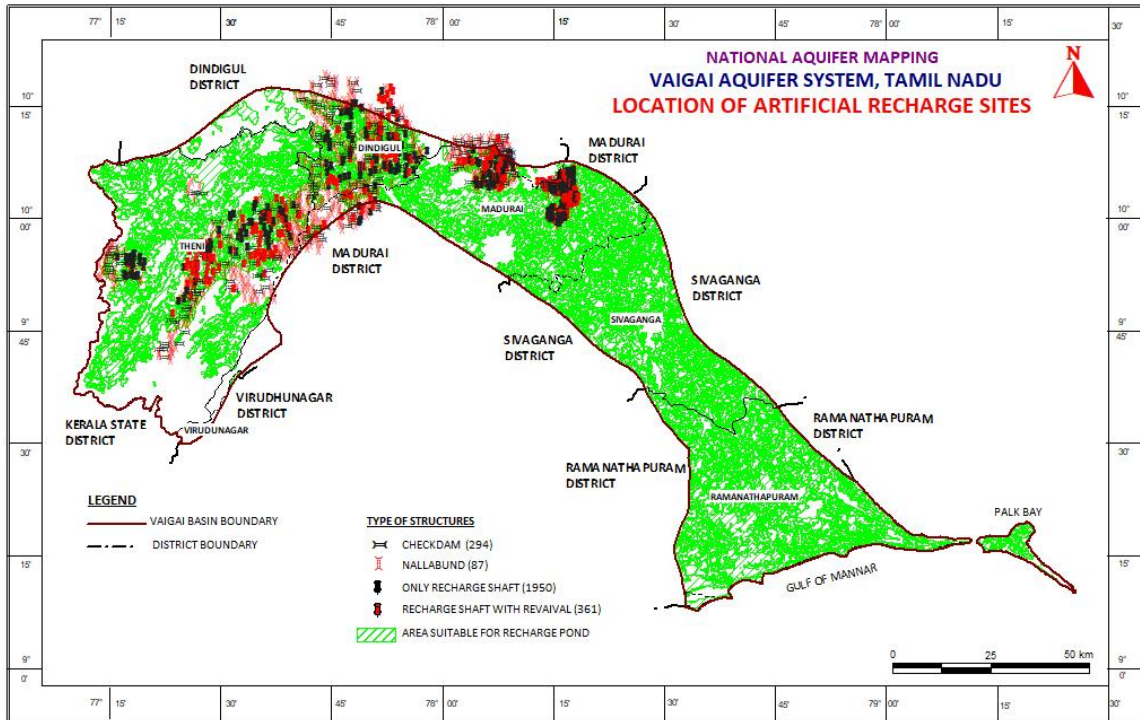
A total number of 1444 recharge ponds covering an area of 722 sq km is proposed which will act as storage tanks in farm as well as augment groundwater recharge and the expected annual groundwater recharge through these ponds are in the order of 0.43MCM. The recharge pond area has been selected based on the wet and dry crop area from the landuse / landcover maps using remote sensing data.

#### **4.2 Demand side Management Plan**

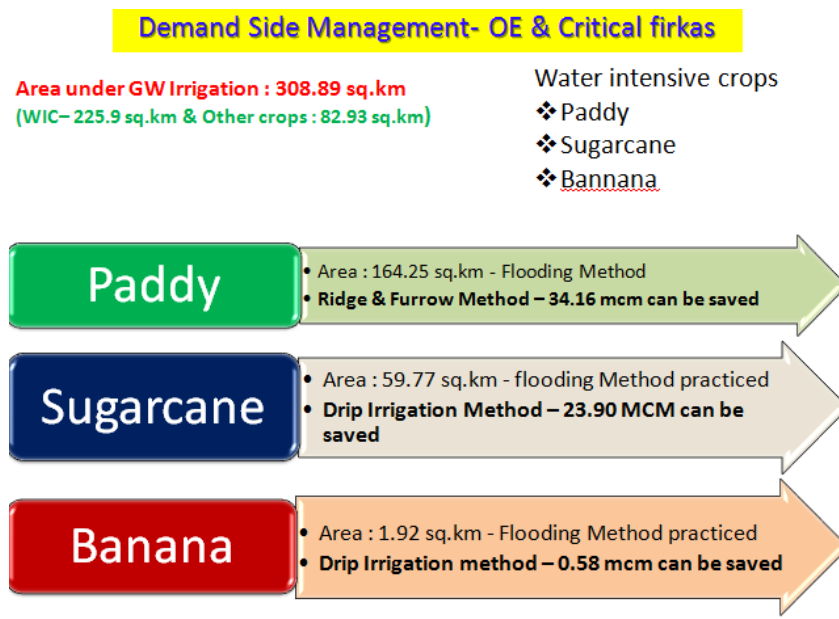
Demand side management can be accomplished through modification in the irrigation practice. It is recommended to modify the irrigation pattern and practices for paddy, Sugarcane and Banana crops. The general practice for paddy irrigation is by flooding method. It is recommended for ridge and furrow method instead of flooding method in 164.25 sq.km and this would save 34.16 MCM of water annually (**Figure19**).

Similarly, for sugarcane and banana crops shift from flooding method to drip irrigation would save 23.90 MCM and 0.58 MCM respectively. The total water saved is 58.04 MCM. The total cost for the change in the irrigation pattern for those water intensive crops would be 215 crores.





**Figure 19: Artificial Recharge structures proposed**



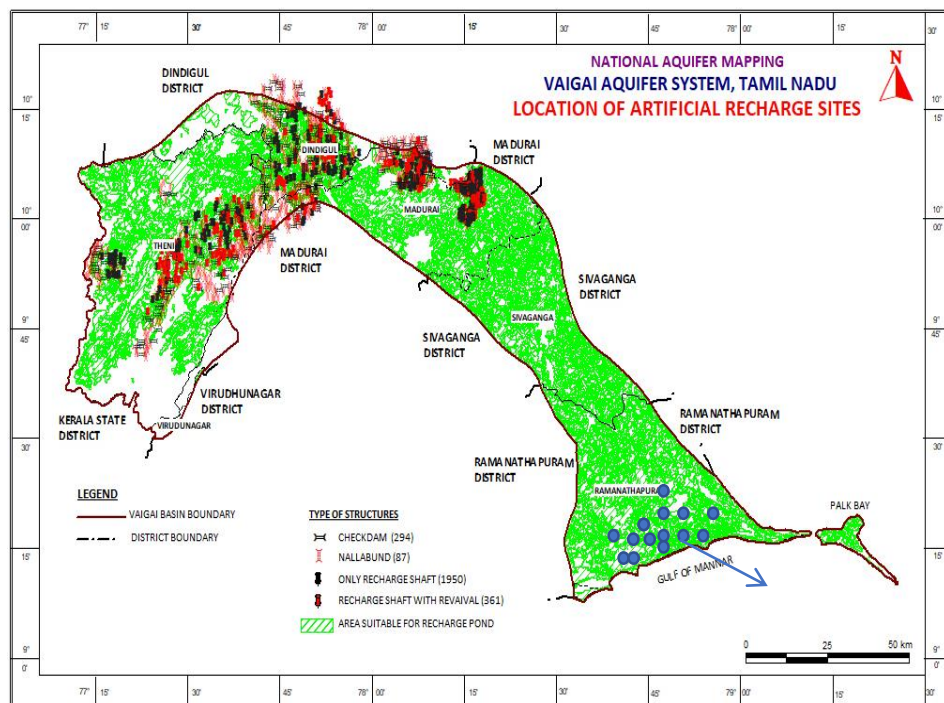
The stage of groundwater development would reduce from 124 % to 90% through these methods of irrigation. The stage of groundwater development of the OE and critical firkas would reduce from 124 % to 83% by managing supply and demand side intervention.

#### **Aquifer management plan along the coastal region of Vaigai aquifer system**

The eastern part of the Vaigai aquifer system borders the Bay of Bengal. Though brackish groundwater exists at different depth as pockets in Ramanathapuram districts, fresh groundwater exists. More than 2/3<sup>rd</sup> of paddy cultivation is under rainfed in the

Ramanathapuram district. Only 1/3 of paddy irrigation is done mainly through tanks and wells. Groundwater irrigation is done mainly through dugwells and to a limited extent through borewells on right banks of Vaigai in parts of Pramakudi, Bogalur and Mudukulathur blocks. In these areas, to enhance the potentiality of the operating dug/borewells farm ponds can be constructed nearer to the wells. This intervention shall improve the quality of water in the wells.

Many system tanks exist along the eastern portion of Vaigai aquifer system. These tanks receive supplemental water from major streams or tanks in addition to the yield of their own catchment area. Generally, more than one crop is grown around these tanks. The system tanks over the years had flushed the aquifer beneath. The system tanks can be strengthened by Renovation and repair measures. Strengthening of these system tanks shall induce recharge during monsoon periods and can support irrigation practices. Restoration of system tanks along with other non-system tanks should be taken up periodically to facilitate more recharge and thus should be given utmost priority by the local administration. The system tanks along with shafts shall facilitate more recharge to groundwater in the coastal region of Vaigai aquifer system. **(Figure 20)** Further, the Kanmois and Ooranis are the life line of the people in the coastal region. The Kanmois called as tanks (earthen bunded reservoirs constructed across the slope) were constructed before a period of centuries and is still the main stay of agriculture in the coastal region. Ooranis are called as ponds. These are the earthen reservoirs bounded by earthen bunds along the sides and receive water from the monsoon runoff and stored for the whole year. Hence, along with system tanks, the kanmois and ooranis should be repaired after every monsoon as they are the main sources of drinking water in the saline affected regions of Ramanathapuram district. The local people along with the local administration should ensure for optimum storage of water in the oorani in order to meet the demand during the summer months.



**Figure 20: Locations/zones where system tanks to be renovated to facilitate recharge.**



In the entire parts of the Ramanathapuram district, paddy is cultivated through seed broadcasting. This requires more quantity of seed and hampers the productivity. At least in the areas where groundwater is assured, System of Rice Intensification method can be adopted to enhance the crop productivity. By adopting the above interventions, groundwater quality can be improved in the coastal parts of the Vaigai aquifer system and additional groundwater potential created shall improve crop production.

Details of Artificial Recharge Structures Proposed in Vaigai Basin Aquifer system							
SI No	STRUCTURES	LONGITUDE	LATITUDE	DISTRICT	BLOCK	FIRKANAME	CATEGORY
1	Nalabund	77.8021	10.2661	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
2	Nalabund	77.7691	10.2567	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
3	Nalabund	77.7595	10.2658	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
4	Nalabund	77.7048	10.2956	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
5	Nalabund	77.7366	10.3178	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
6	Nalabund	77.7258	10.2898	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
7	Nalabund	77.7069	10.2886	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
8	Nalabund	77.7598	10.3081	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
9	Nalabund	77.7607	10.2926	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
10	Nalabund	77.7555	10.2917	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
11	Nalabund	77.7511	10.3051	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
12	Nalabund	77.7428	10.3130	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
13	Nalabund	77.7901	10.3011	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
14	Nalabund	77.8068	10.3014	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
15	Nalabund	77.8000	10.2895	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
16	Nalabund	77.7907	10.2853	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
17	Nalabund	77.7966	10.2740	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
18	Nalabund	77.7882	10.2667	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
19	Nalabund	77.8003	10.2545	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
20	Nalabund	77.7480	10.2695	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
21	Nalabund	77.7375	10.2618	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
22	Nalabund	77.7548	10.2728	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
23	Nalabund	77.7295	10.2628	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
24	Nalabund	77.7156	10.2664	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
25	Nalabund	77.7066	10.2640	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
26	Nalabund	77.6869	10.2698	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
27	Nalabund	77.6804	10.2701	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED

28	Nalabund	77.6702	10.2740	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
29	Nalabund	77.6918	10.2564	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
30	Nalabund	77.7060	10.2491	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
31	Nalabund	77.7082	10.2399	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
32	Nalabund	77.7137	10.2336	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
33	Nalabund	77.7298	10.2272	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
34	Nalabund	77.7221	10.2354	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
35	Nalabund	77.7385	10.2199	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
36	Nalabund	77.7434	10.2159	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
37	Nalabund	77.7518	10.2129	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
38	Nalabund	77.7796	10.2582	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
39	Nalabund	77.7746	10.2491	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
40	Nalabund	77.7437	10.2482	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
41	Checkdam	77.7443	10.2223	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
42	Checkdam	77.7487	10.2308	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
43	Checkdam	77.7264	10.2433	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
44	Checkdam	77.7045	10.2557	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
45	Checkdam	77.6822	10.2606	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
46	Checkdam	77.7644	10.2433	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
47	Checkdam	77.7929	10.2518	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
48	Checkdam	77.8077	10.2816	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
49	Checkdam	77.8000	10.2986	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
50	Checkdam	77.7555	10.2448	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
51	Checkdam	77.7178	10.2512	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
52	Checkdam	77.7490	10.2956	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
53	Checkdam	77.7165	10.2956	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
54	Checkdam	77.7323	10.3105	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
55	Checkdam	77.7471	10.3059	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
56	Recharge shaft with Revival	77.7838	10.2392	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED

57	Only shaft	77.7717	10.2221	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
58	Only shaft	77.7978	10.2422	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
59	Only shaft	77.8045	10.2419	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
60	Only shaft	77.7930	10.2337	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
61	Only shaft	77.7814	10.2244	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
62	Only shaft	77.7865	10.2240	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
63	Only shaft	77.7912	10.2223	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
64	Only shaft	77.7952	10.2151	DINDIGUL	Attur	Ayyampalayam	OVER EXPLOITED
65	Nalabund	77.8707	10.2868	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
66	Nalabund	77.8769	10.2825	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
67	Nalabund	77.8457	10.2320	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
68	Nalabund	77.8516	10.2305	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
69	Nalabund	77.8612	10.2226	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
70	Nalabund	77.8448	10.2165	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
71	Nalabund	77.8534	10.2116	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
72	Nalabund	77.8494	10.2156	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
73	Nalabund	77.8602	10.2153	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
74	Nalabund	77.8346	10.2205	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
75	Nalabund	77.8364	10.2113	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
76	Nalabund	77.8531	10.1998	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
77	Nalabund	77.8633	10.2022	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
78	Nalabund	77.8466	10.1891	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
79	Nalabund	77.8275	10.2263	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
80	Nalabund	77.8337	10.2326	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
81	Nalabund	77.8380	10.2418	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
82	Nalabund	77.8272	10.2120	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
83	Nalabund	77.8859	10.1916	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
84	Nalabund	77.8160	10.1870	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
85	Nalabund	77.8448	10.1767	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED

86	Nalabund	77.8757	10.1776	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
87	Checkdam	77.8673	10.1990	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
88	Checkdam	77.8704	10.1619	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
89	Checkdam	77.8368	10.1884	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
90	Checkdam	77.8568	10.2404	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
91	Checkdam	77.8717	10.2249	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
92	Checkdam	77.8439	10.2054	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
93	Only shaft	77.8797	10.1566	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
94	Recharge shaft with Revival	77.8419	10.1546	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
95	Recharge shaft with Revival	77.8544	10.1590	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
96	Recharge shaft with Revival	77.8940	10.1514	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
97	Only shaft	77.8269	10.1824	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
98	Only shaft	77.8284	10.1717	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
99	Only shaft	77.8559	10.1795	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
100	Only shaft	77.8879	10.1688	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
101	Only shaft	77.8771	10.1676	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
102	Only shaft	77.8604	10.1629	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
103	Recharge shaft with Revival	77.8793	10.2125	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
104	Recharge shaft with Revival	77.8617	10.2130	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
105	Recharge shaft with Revival	77.8610	10.1932	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
106	Recharge shaft with Revival	77.8617	10.1836	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
107	Recharge shaft with Revival	77.8609	10.1777	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
108	Recharge shaft with Revival	77.8348	10.1926	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
109	Recharge shaft with Revival	77.8873	10.2704	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
110	Recharge shaft with Revival	77.8589	10.2530	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
111	Recharge shaft with Revival	77.8657	10.2491	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
112	Recharge shaft with Revival	77.8698	10.2507	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
113	Recharge shaft with Revival	77.8748	10.2611	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED
114	Recharge shaft with Revival	77.8842	10.2759	DINDIGUL	Batlagundu	Nilakottai	OVER EXPLOITED

115	Only shaft	77.8640	10.2696	DINDIGUL	Batlagundu	Nilakkottai	OVER EXPLOITED
116	Nalabund	77.9459	10.1520	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
117	Nalabund	77.9493	10.1459	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
118	Nalabund	77.9520	10.1417	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
119	Nalabund	77.9477	10.1310	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
120	Nalabund	77.9403	10.1207	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
121	Nalabund	77.9332	10.1484	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
122	Nalabund	77.9332	10.1675	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
123	Nalabund	77.9335	10.1764	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
124	Nalabund	77.9310	10.1913	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
125	Nalabund	77.9264	10.2053	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
126	Nalabund	77.9193	10.2074	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
127	Nalabund	77.9156	10.2141	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
128	Nalabund	77.9088	10.2217	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
129	Nalabund	77.8949	10.2150	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
130	Nalabund	77.8973	10.2031	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
131	Nalabund	77.9017	10.2329	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
132	Nalabund	77.9088	10.2384	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
133	Nalabund	77.8884	10.2439	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
134	Nalabund	77.8819	10.2488	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
135	Nalabund	77.8865	10.2342	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
136	Checkdam	77.9471	10.1348	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
137	Checkdam	77.9282	10.1589	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
138	Checkdam	77.9054	10.1966	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
139	Checkdam	77.9285	10.1446	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
140	Checkdam	77.9100	10.2030	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
141	Checkdam	77.8911	10.2295	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
142	Checkdam	77.9047	10.2225	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
143	Checkdam	77.9041	10.1144	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL

144	Recharge shaft with Revival	77.9289	10.1163	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
145	Only shaft	77.9091	10.1478	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
146	Only shaft	77.9168	10.1247	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
147	Only shaft	77.9232	10.1215	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
148	Only shaft	77.9377	10.1262	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
149	Only shaft	77.9422	10.1157	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
150	Only shaft	77.9193	10.1020	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
151	Only shaft	77.9346	10.0947	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
152	Only shaft	77.9157	10.0837	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
153	Only shaft	77.9015	10.0948	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
154	Only shaft	77.8927	10.0906	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
155	Only shaft	77.8987	10.1102	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
156	Only shaft	77.9647	10.1364	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
157	Only shaft	77.9011	10.1301	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
158	Only shaft	77.9046	10.1367	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
159	Only shaft	77.9256	10.1152	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
160	Only shaft	77.8902	10.1358	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
161	Only shaft	77.8837	10.0930	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
162	Recharge shaft with Revival	77.9229	10.0896	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
163	Recharge shaft with Revival	77.8949	10.1374	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
164	Recharge shaft with Revival	77.9008	10.1524	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
165	Recharge shaft with Revival	77.8929	10.1336	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
166	Recharge shaft with Revival	77.8938	10.1208	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
167	Only shaft	77.9157	10.1750	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
168	Only shaft	77.8991	10.1667	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
169	Only shaft	77.8995	10.2097	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
170	Recharge shaft with Revival	77.8952	10.1690	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
171	Recharge shaft with Revival	77.9196	10.1963	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
172	Recharge shaft with Revival	77.8963	10.2179	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL

173	Only shaft	77.8895	10.2256	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
174	Only shaft	77.8783	10.2370	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
175	Recharge shaft with Revival	77.8831	10.2431	DINDIGUL	Nilakkottai	Oruthattu	CRITICAL
176	Nalabund	77.8238	10.1468	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
177	Nalabund	77.8590	10.0793	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
178	Nalabund	77.8868	10.0756	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
179	Nalabund	77.8355	10.0869	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
180	Nalabund	77.8272	10.1082	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
181	Nalabund	77.8429	10.1039	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
182	Nalabund	77.8602	10.1082	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
183	Nalabund	77.8531	10.1088	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
184	Nalabund	77.8136	10.1149	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
185	Nalabund	77.8225	10.1161	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
186	Nalabund	77.8701	10.1210	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
187	Nalabund	77.8494	10.1481	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
188	Nalabund	77.8769	10.1395	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
189	Nalabund	77.8803	10.1444	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
190	Nalabund	77.8701	10.1210	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
191	Nalabund	77.8343	10.1380	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
192	Nalabund	77.8225	10.1243	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
193	Nalabund	77.8380	10.1243	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
194	Nalabund	77.8099	10.1182	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
195	Nalabund	77.8649	10.1541	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
196	Checkdam	77.8266	10.1517	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
197	Checkdam	77.8358	10.1325	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
198	Checkdam	77.8491	10.1030	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
199	Checkdam	77.8324	10.1252	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
200	Checkdam	77.8550	10.0869	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
201	Only shaft	77.8844	10.0974	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL



202	Only shaft	77.8807	10.1063	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
203	Only shaft	77.8844	10.1397	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
204	Only shaft	77.8833	10.1432	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
205	Only shaft	77.8740	10.1487	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
206	Recharge shaft with Revival	77.8844	10.1281	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
207	Recharge shaft with Revival	77.8930	10.1176	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
208	Recharge shaft with Revival	77.8722	10.1176	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
209	Recharge shaft with Revival	77.8740	10.0987	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
210	Recharge shaft with Revival	77.8425	10.1051	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
211	Recharge shaft with Revival	77.8515	10.1221	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
212	Recharge shaft with Revival	77.8666	10.1279	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
213	Recharge shaft with Revival	77.8338	10.1541	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
214	Recharge shaft with Revival	77.8394	10.1492	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
215	Recharge shaft with Revival	77.8334	10.1634	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
216	Recharge shaft with Revival	77.7926	10.1191	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
217	Only shaft	77.8810	10.0988	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
218	Only shaft	77.8675	10.1034	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
219	Only shaft	77.8502	10.1173	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
220	Only shaft	77.8471	10.1293	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
221	Only shaft	77.8587	10.1491	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
222	Only shaft	77.8678	10.1430	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
223	Only shaft	77.8378	10.0874	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
224	Only shaft	77.8468	10.0929	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
225	Only shaft	77.8147	10.1037	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
226	Only shaft	77.8213	10.1018	DINDIGUL	Nilakkottai	Pillaiyarnatham	CRITICAL
227	Nalabund	77.7895	10.2007	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
228	Nalabund	77.7437	10.1830	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
229	Nalabund	77.7672	10.1992	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
230	Nalabund	77.8185	10.2451	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED

231	Nalabund	77.7178	10.2110	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
232	Nalabund	77.7094	10.1980	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
233	Nalabund	77.7069	10.1858	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
234	Nalabund	77.7307	10.2007	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
235	Nalabund	77.7586	10.1861	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
236	Nalabund	77.7394	10.1949	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
237	Nalabund	77.7351	10.1995	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
238	Nalabund	77.7691	10.1949	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
239	Nalabund	77.7202	10.1697	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
240	Nalabund	77.7375	10.1691	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
241	Nalabund	77.7675	10.1712	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
242	Nalabund	77.7564	10.1596	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
243	Nalabund	77.7827	10.1614	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
244	Nalabund	77.7975	10.1849	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
245	Nalabund	77.7990	10.1757	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
246	Nalabund	77.7620	10.1459	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
247	Nalabund	77.8099	10.1639	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
248	Nalabund	77.7907	10.1587	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
249	Nalabund	77.7987	10.1496	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
250	Nalabund	77.8049	10.1344	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
251	Checkdam	77.8024	10.1596	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
252	Checkdam	77.7854	10.1325	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
253	Checkdam	77.7666	10.1629	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
254	Checkdam	77.7888	10.1480	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
255	Checkdam	77.7938	10.1827	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
256	Checkdam	77.7737	10.1964	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
257	Checkdam	77.7623	10.2125	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
258	Checkdam	77.7181	10.1842	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
259	Checkdam	77.7218	10.1718	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED

260	Checkdam	77.7354	10.1791	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
261	Only shaft	77.7907	10.1377	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
262	Only shaft	77.7915	10.1325	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
263	Only shaft	77.7963	10.1606	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
264	Only shaft	77.7879	10.1721	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
265	Only shaft	77.7847	10.1897	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
266	Only shaft	77.7906	10.1911	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
267	Recharge shaft with Revival	77.7630	10.1827	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
268	Only shaft	77.8165	10.2325	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
269	Only shaft	77.7406	10.1750	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
270	Only shaft	77.7360	10.1626	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
271	Only shaft	77.7468	10.1431	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
272	Only shaft	77.7470	10.1492	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
273	Only shaft	77.7468	10.1559	DINDIGUL	Batlagundu	VATLAGUNDU	OVER EXPLOITED
274	Nalabund	77.7722	10.1325	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
275	Nalabund	77.6915	10.1344	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
276	Nalabund	77.6899	10.1198	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
277	Nalabund	77.7227	10.1262	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
278	Nalabund	77.7039	10.1155	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
279	Nalabund	77.7471	10.1249	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
280	Nalabund	77.7360	10.1252	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
281	Nalabund	77.7317	10.1158	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
282	Nalabund	77.7066	10.1055	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
283	Nalabund	77.6782	10.1286	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
284	Nalabund	77.7023	10.0927	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
285	Nalabund	77.7100	10.0823	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
286	Nalabund	77.7261	10.0933	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
287	Nalabund	77.7236	10.0699	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
288	Nalabund	77.7320	10.0687	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED

289	Nalabund	77.7521	10.0830	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
290	Nalabund	77.7613	10.0705	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
291	Nalabund	77.7678	10.0833	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
292	Nalabund	77.7425	10.0614	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
293	Nalabund	77.7626	10.0638	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
294	Nalabund	77.7570	10.0531	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
295	Nalabund	77.7317	10.0397	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
296	Nalabund	77.7626	10.0629	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
297	Nalabund	77.7888	10.0826	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
298	Nalabund	77.7839	10.0589	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
299	Nalabund	77.7434	10.0461	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
300	Nalabund	77.7922	10.0607	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
301	Nalabund	77.7978	10.0680	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
302	Nalabund	77.8052	10.0763	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
303	Nalabund	77.8142	10.0714	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
304	Nalabund	77.8219	10.0790	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
305	Nalabund	77.7289	10.0352	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
306	Nalabund	77.7156	10.0242	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
307	Nalabund	77.7224	10.0233	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
308	Nalabund	77.8272	10.0738	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
309	Nalabund	77.7629	10.1259	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
310	Nalabund	77.7178	10.0513	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
311	Nalabund	77.7419	10.0717	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
312	Checkdam	77.7465	10.1094	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
313	Checkdam	77.7786	10.1380	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
314	Checkdam	77.7153	10.1158	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
315	Checkdam	77.7156	10.0933	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
316	Checkdam	77.7737	10.0930	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
317	Checkdam	77.7981	10.0738	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED

318	Checkdam	77.8182	10.0796	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
319	Checkdam	77.7122	10.0665	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
320	Only shaft	77.8156	10.0888	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
321	Only shaft	77.8133	10.0811	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
322	Only shaft	77.7770	10.1173	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
323	Only shaft	77.7697	10.0727	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
324	Only shaft	77.7372	10.1077	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
325	Only shaft	77.7485	10.1030	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
326	Only shaft	77.7417	10.0890	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
327	Only shaft	77.7879	10.0818	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
328	Only shaft	77.7791	10.0779	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
329	Only shaft	77.7736	10.1122	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
330	Only shaft	77.7436	10.0573	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
331	Recharge shaft with Revival	77.7536	10.0740	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
332	Recharge shaft with Revival	77.7443	10.0687	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
333	Recharge shaft with Revival	77.7559	10.0689	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
334	Recharge shaft with Revival	77.7617	10.0652	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
335	Recharge shaft with Revival	77.7477	10.0750	DINDIGUL	Batlagundu	Viruveedu	OVER EXPLOITED
336	Nalabund	78.2971	10.0451	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
337	Checkdam	78.2691	10.0901	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
338	Nalabund	78.2523	10.0839	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
339	Nalabund	78.2492	10.0831	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
340	Nalabund	78.2639	10.0918	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
341	Nalabund	78.2766	10.0956	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
342	Nalabund	78.2556	10.0719	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
343	Nalabund	78.2349	10.0739	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
344	Nalabund	78.2315	10.0729	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
345	Nalabund	78.2261	10.0742	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
346	Nalabund	78.2237	10.0691	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED

347	Nalabund	78.2416	10.0696	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
348	Nalabund	78.2795	10.0629	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
349	Nalabund	78.2580	9.9823	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
350	Nalabund	78.2486	10.0019	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
351	Nalabund	78.2744	10.0029	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
352	Nalabund	78.2382	10.0513	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
353	Checkdam	78.2596	10.0743	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
354	Checkdam	78.2521	10.0667	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
355	Checkdam	78.2521	10.0667	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
356	Recharge shaft with Revival	78.2155	10.0679	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
357	Recharge shaft with Revival	78.2249	10.0691	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
358	Recharge shaft with Revival	78.2298	10.0650	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
359	Recharge shaft with Revival	78.2429	10.0698	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
360	Recharge shaft with Revival	78.2311	10.0585	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
361	Recharge shaft with Revival	78.2378	10.0552	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
362	Recharge shaft with Revival	78.2392	10.0619	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
363	Recharge shaft with Revival	78.2321	10.0545	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
364	Recharge shaft with Revival	78.2490	10.0609	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
365	Recharge shaft with Revival	78.2478	10.0526	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
366	Recharge shaft with Revival	78.2546	10.0606	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
367	Recharge shaft with Revival	78.2522	10.0598	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
368	Recharge shaft with Revival	78.2528	10.0498	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
369	Recharge shaft with Revival	78.2658	10.0641	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
370	Recharge shaft with Revival	78.2640	10.0721	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
371	Recharge shaft with Revival	78.2249	10.0697	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
372	Recharge shaft with Revival	78.2693	10.0721	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
373	Recharge shaft with Revival	78.2671	10.0711	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
374	Recharge shaft with Revival	78.2653	10.0708	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
375	Recharge shaft with Revival	78.2753	10.0759	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED

376	Recharge shaft with Revival	78.2790	10.0758	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
377	Recharge shaft with Revival	78.2753	10.0716	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
378	Recharge shaft with Revival	78.2807	10.0780	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
379	Recharge shaft with Revival	78.2667	10.0476	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
380	Recharge shaft with Revival	78.2527	10.0450	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
381	Recharge shaft with Revival	78.2597	10.0492	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
382	Recharge shaft with Revival	78.2588	10.0459	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
383	Recharge shaft with Revival	78.2630	10.0472	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
384	Recharge shaft with Revival	78.2548	10.0425	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
385	Recharge shaft with Revival	78.2585	10.0424	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
386	Recharge shaft with Revival	78.2883	10.0365	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
387	Recharge shaft with Revival	78.2675	10.0460	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
388	Recharge shaft with Revival	78.2668	10.0444	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
389	Recharge shaft with Revival	78.2749	10.0584	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
390	Recharge shaft with Revival	78.2766	10.0632	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
391	Recharge shaft with Revival	78.2780	10.0546	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
392	Recharge shaft with Revival	78.2780	10.0472	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
393	Recharge shaft with Revival	78.2763	10.0426	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
394	Recharge shaft with Revival	78.2732	10.0419	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
395	Recharge shaft with Revival	78.2715	10.0405	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
396	Recharge shaft with Revival	78.2918	10.0778	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
397	Recharge shaft with Revival	78.2906	10.0659	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
398	Recharge shaft with Revival	78.2882	10.0628	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
399	Recharge shaft with Revival	78.2948	10.0527	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
400	Recharge shaft with Revival	78.2947	10.0496	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
401	Recharge shaft with Revival	78.2973	10.0488	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
402	Recharge shaft with Revival	78.2993	10.0500	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
403	Recharge shaft with Revival	78.2866	10.0401	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
404	Recharge shaft with Revival	78.2790	10.0387	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED

405	Recharge shaft with Revival	78.2780	10.0345	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
406	Recharge shaft with Revival	78.2885	10.0390	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
407	Recharge shaft with Revival	78.2578	10.0510	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
408	Recharge shaft with Revival	78.2933	10.0403	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
409	Recharge shaft with Revival	78.2910	10.0388	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
410	Recharge shaft with Revival	78.2984	10.0450	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
411	Recharge shaft with Revival	78.3021	10.0469	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
412	Recharge shaft with Revival	78.2978	10.0435	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
413	Recharge shaft with Revival	78.3015	10.0428	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
414	Recharge shaft with Revival	78.2977	10.0421	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
415	Recharge shaft with Revival	78.2950	10.0348	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
416	Recharge shaft with Revival	78.3029	10.0364	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
417	Recharge shaft with Revival	78.3057	10.0370	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
418	Only shaft	78.2340	10.0640	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
419	Only shaft	78.2278	10.0602	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
420	Only shaft	78.2429	10.0577	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
421	Only shaft	78.2436	10.0546	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
422	Only shaft	78.2475	10.0488	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
423	Only shaft	78.2497	10.0504	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
424	Only shaft	78.2661	10.0578	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
425	Only shaft	78.2498	10.0586	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
426	Only shaft	78.2718	10.0627	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
427	Only shaft	78.2940	10.0660	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
428	Only shaft	78.2639	10.0557	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
429	Only shaft	78.2613	10.0520	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
430	Only shaft	78.2576	10.0450	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
431	Only shaft	78.2732	10.0704	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
432	Only shaft	78.2680	10.0424	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
433	Only shaft	78.2737	10.0542	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED



434	Only shaft	78.2722	10.0508	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
435	Only shaft	78.2703	10.0476	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
436	Only shaft	78.2835	10.0676	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
437	Only shaft	78.2861	10.0686	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
438	Only shaft	78.2900	10.0680	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
439	Only shaft	78.2812	10.0580	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
440	Only shaft	78.2836	10.0583	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
441	Only shaft	78.2749	10.0467	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
442	Only shaft	78.2829	10.0515	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
443	Only shaft	78.2813	10.0453	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
444	Only shaft	78.2896	10.0508	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
445	Only shaft	78.2862	10.0440	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
446	Only shaft	78.2856	10.0421	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
447	Only shaft	78.2810	10.0285	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
448	Only shaft	78.2913	10.0611	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
449	Only shaft	78.2951	10.0606	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
450	Only shaft	78.2606	10.0644	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
451	Only shaft	78.2970	10.0657	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
452	Only shaft	78.2946	10.0751	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
453	Only shaft	78.2981	10.0392	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
454	Only shaft	78.3007	10.0393	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
455	Only shaft	78.2960	10.0727	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
456	Only shaft	78.2783	10.0311	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
457	Only shaft	78.2800	10.0356	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
458	Only shaft	78.2905	10.0298	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
459	Only shaft	78.2932	10.0305	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
460	Only shaft	78.2975	10.0319	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
461	Only shaft	78.2987	10.0298	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
462	Only shaft	78.2956	10.0269	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED

463	Only shaft	78.2694	10.0211	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
464	Only shaft	78.2683	10.0194	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
465	Only shaft	78.2820	10.0193	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
466	Only shaft	78.2880	10.0221	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
467	Only shaft	78.2870	10.0187	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
468	Only shaft	78.2841	10.0169	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
469	Only shaft	78.2897	10.0177	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
470	Only shaft	78.3012	10.0275	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
471	Only shaft	78.3027	10.0259	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
472	Recharge shaft with Revival	78.2753	10.0334	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
473	Recharge shaft with Revival	78.2739	10.0301	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
474	Recharge shaft with Revival	78.2744	10.0279	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
475	Recharge shaft with Revival	78.2807	10.0314	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
476	Recharge shaft with Revival	78.2864	10.0290	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
477	Recharge shaft with Revival	78.2851	10.0312	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
478	Recharge shaft with Revival	78.2860	10.0279	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
479	Recharge shaft with Revival	78.2905	10.0323	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
480	Recharge shaft with Revival	78.3036	10.0321	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
481	Recharge shaft with Revival	78.3058	10.0321	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
482	Recharge shaft with Revival	78.3023	10.0229	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
483	Recharge shaft with Revival	78.2893	10.0248	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
484	Recharge shaft with Revival	78.2895	10.0221	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
485	Recharge shaft with Revival	78.2930	10.0200	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
486	Recharge shaft with Revival	78.2902	10.0201	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
487	Recharge shaft with Revival	78.2996	10.0212	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
488	Recharge shaft with Revival	78.2823	10.0154	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
489	Recharge shaft with Revival	78.2807	10.0032	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
490	Recharge shaft with Revival	78.2766	10.0029	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
491	Recharge shaft with Revival	78.2661	10.0050	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED

492	Recharge shaft with Revival	78.2671	10.0008	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
493	Recharge shaft with Revival	78.2642	10.0006	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
494	Recharge shaft with Revival	78.2511	10.0113	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
495	Recharge shaft with Revival	78.2537	10.0097	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
496	Recharge shaft with Revival	78.2650	9.9971	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
497	Recharge shaft with Revival	78.2623	9.9927	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
498	Recharge shaft with Revival	78.2661	9.9947	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
499	Recharge shaft with Revival	78.2685	9.9936	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
500	Recharge shaft with Revival	78.2735	9.9956	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
501	Recharge shaft with Revival	78.2791	9.9989	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
502	Recharge shaft with Revival	78.2815	9.9964	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
503	Recharge shaft with Revival	78.2805	9.9943	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
504	Recharge shaft with Revival	78.2797	9.9934	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
505	Recharge shaft with Revival	78.2376	9.9895	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
506	Recharge shaft with Revival	78.2496	9.9873	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
507	Recharge shaft with Revival	78.2518	9.9851	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
508	Recharge shaft with Revival	78.2561	9.9808	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
509	Recharge shaft with Revival	78.2680	9.9838	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
510	Only shaft	78.2474	10.0097	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
511	Only shaft	78.2440	10.0060	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
512	Only shaft	78.2405	10.0040	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
513	Only shaft	78.2375	10.0003	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
514	Only shaft	78.2420	9.9959	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
515	Only shaft	78.2375	9.9925	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
516	Only shaft	78.2483	9.9913	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
517	Only shaft	78.2432	9.9860	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
518	Only shaft	78.2599	10.0008	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
519	Only shaft	78.2656	10.0034	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
520	Only shaft	78.2701	10.0091	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED

521	Only shaft	78.2798	10.0123	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
522	Only shaft	78.2739	10.0075	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
523	Only shaft	78.2784	10.0050	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
524	Only shaft	78.2771	9.9983	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
525	Only shaft	78.2725	9.9932	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
526	Only shaft	78.2747	9.9892	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
527	Only shaft	78.2712	9.9881	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
528	Only shaft	78.2603	9.9899	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
529	Only shaft	78.2684	9.9898	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
530	Only shaft	78.2654	9.9855	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
531	Only shaft	78.2625	9.9882	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
532	Only shaft	78.2633	9.9813	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
533	Only shaft	78.2617	9.9811	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
534	Only shaft	78.2589	9.9786	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
535	Only shaft	78.2630	9.9766	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
536	Only shaft	78.2448	9.9891	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
537	Recharge shaft with Revival	78.2783	10.0816	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
538	Recharge shaft with Revival	78.2793	10.0895	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
539	Recharge shaft with Revival	78.2776	10.0872	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
540	Recharge shaft with Revival	78.2674	10.0866	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
541	Recharge shaft with Revival	78.2709	10.0838	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
542	Recharge shaft with Revival	78.2652	10.0828	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
543	Recharge shaft with Revival	78.2969	10.0951	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
544	Only shaft	78.2633	10.0816	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
545	Only shaft	78.2817	10.0912	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
546	Only shaft	78.2823	10.0791	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
547	Only shaft	78.2870	10.0822	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
548	Only shaft	78.2901	10.0801	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
549	Only shaft	78.2885	10.0922	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED

550	Only shaft	78.2920	10.0865	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
551	Only shaft	78.2925	10.0923	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
552	Only shaft	78.2956	10.0906	MADURAI	Melur	A.VELLALAPATTI	OVER EXPLOITED
553	Nalabund	78.1341	10.0726	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
554	Nalabund	78.1486	10.0766	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
555	Nalabund	78.1532	10.0814	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
556	Nalabund	78.1056	10.0653	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
557	Nalabund	78.1610	10.0863	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
558	Nalabund	78.1647	10.0909	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
559	Nalabund	78.1634	10.1027	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
560	Nalabund	78.1430	10.0957	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
561	Nalabund	78.0794	10.0638	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
562	Nalabund	78.0713	10.0714	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
563	Nalabund	78.0741	10.0802	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
564	Nalabund	78.0862	10.0890	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
565	Nalabund	78.0710	10.0951	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
566	Nalabund	78.0723	10.0924	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
567	Nalabund	78.0778	10.0948	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
568	Nalabund	78.1613	10.1182	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
569	Checkdam	78.1607	10.0937	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
570	Checkdam	78.1452	10.1010	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
571	Checkdam	78.1406	10.0756	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
572	Checkdam	78.0614	10.0796	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
573	Checkdam	78.0835	10.0829	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
574	Recharge shaft with Revival	78.1494	10.1206	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
575	Recharge shaft with Revival	78.1324	10.1108	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
576	Recharge shaft with Revival	78.1357	10.1102	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
577	Recharge shaft with Revival	78.1480	10.1124	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
578	Recharge shaft with Revival	78.1445	10.1105	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED

579	Recharge shaft with Revival	78.1469	10.1104	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
580	Recharge shaft with Revival	78.1410	10.1112	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
581	Recharge shaft with Revival	78.1331	10.1089	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
582	Recharge shaft with Revival	78.1464	10.1051	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
583	Recharge shaft with Revival	78.1315	10.1048	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
584	Recharge shaft with Revival	78.1337	10.1013	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
585	Only shaft	78.1446	10.1175	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
586	Only shaft	78.1510	10.1171	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
587	Only shaft	78.1567	10.1100	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
588	Only shaft	78.1587	10.0978	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
589	Only shaft	78.1397	10.1076	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
590	Only shaft	78.1416	10.1051	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
591	Only shaft	78.1214	10.1024	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
592	Only shaft	78.1384	10.0919	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
593	Only shaft	78.1354	10.0914	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
594	Only shaft	78.1365	10.0893	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
595	Only shaft	78.1267	10.0866	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
596	Only shaft	78.1246	10.0867	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
597	Only shaft	78.0942	10.0740	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
598	Only shaft	78.0925	10.0847	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
599	Recharge shaft with Revival	78.1279	10.0990	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
600	Recharge shaft with Revival	78.1461	10.0989	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
601	Recharge shaft with Revival	78.1328	10.0953	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
602	Recharge shaft with Revival	78.1243	10.0950	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
603	Recharge shaft with Revival	78.1269	10.0905	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
604	Recharge shaft with Revival	78.1303	10.0870	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
605	Recharge shaft with Revival	78.1250	10.0838	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
606	Recharge shaft with Revival	78.1311	10.0796	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
607	Recharge shaft with Revival	78.1243	10.0759	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED

608	Recharge shaft with Revival	78.1374	10.0753	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
609	Recharge shaft with Revival	78.1396	10.0749	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
610	Recharge shaft with Revival	78.1348	10.0704	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
611	Recharge shaft with Revival	78.1338	10.0701	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
612	Only shaft	78.1089	10.0819	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
613	Only shaft	78.1149	10.0793	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
614	Only shaft	78.1196	10.0789	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
615	Only shaft	78.1199	10.0744	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
616	Only shaft	78.0762	10.0616	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
617	Only shaft	78.1092	10.0723	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
618	Only shaft	78.1131	10.0730	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
619	Only shaft	78.0917	10.0729	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
620	Only shaft	78.1046	10.0855	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
621	Only shaft	78.0743	10.0704	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
622	Only shaft	78.0776	10.0711	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
623	Recharge shaft with Revival	78.1348	10.0657	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
624	Recharge shaft with Revival	78.1350	10.0600	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
625	Recharge shaft with Revival	78.1329	10.0584	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
626	Recharge shaft with Revival	78.1274	10.0540	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
627	Recharge shaft with Revival	78.1165	10.0579	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
628	Recharge shaft with Revival	78.0935	10.0659	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
629	Only shaft	78.1141	10.0620	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
630	Only shaft	78.1104	10.0624	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
631	Only shaft	78.1053	10.0558	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
632	Only shaft	78.0999	10.0628	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
633	Only shaft	78.0876	10.0621	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
634	Only shaft	78.0825	10.0617	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
635	Only shaft	78.1229	10.0707	MADURAI	Alanganallur	MUDUVARPATTI	OVER EXPLOITED
636	Recharge shaft with Revival	78.1242	10.1633	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED

637	Only shaft	78.1241	10.1317	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
638	Nalabund	78.1161	10.0936	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
639	Nalabund	78.0837	10.1006	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
640	Nalabund	78.0902	10.0988	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
641	Nalabund	78.0973	10.1122	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
642	Nalabund	78.1137	10.1036	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
643	Nalabund	78.0911	10.1198	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
644	Nalabund	78.1016	10.1259	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
645	Nalabund	78.1097	10.1350	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
646	Nalabund	78.1084	10.1417	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
647	Nalabund	78.1124	10.1523	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
648	Nalabund	78.1365	10.1249	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
649	Nalabund	78.1254	10.1377	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
650	Nalabund	78.1350	10.1432	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
651	Nalabund	78.1347	10.1496	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
652	Nalabund	78.1418	10.1554	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
653	Nalabund	78.1495	10.1572	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
654	Nalabund	78.0908	10.1475	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
655	Nalabund	78.0964	10.1405	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
656	Nalabund	78.1273	10.1554	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
657	Nalabund	78.1229	10.1520	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
658	Nalabund	78.1511	10.1408	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
659	Nalabund	78.1171	10.1642	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
660	Nalabund	78.1359	10.1636	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
661	Nalabund	78.1446	10.1684	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
662	Nalabund	78.1449	10.1764	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
663	Nalabund	78.1112	10.1806	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
664	Nalabund	78.1325	10.1210	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
665	Nalabund	78.0865	10.1316	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED



666	Nalabund	78.0849	10.1441	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
667	Nalabund	78.0843	10.1557	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
668	Nalabund	78.0908	10.1770	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
669	Nalabund	78.0825	10.1748	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
670	Nalabund	78.0648	10.1718	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
671	Nalabund	78.0599	10.1760	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
672	Nalabund	78.0463	10.1748	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
673	Nalabund	78.0973	10.1122	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
674	Nalabund	78.0729	10.1602	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
675	Nalabund	78.0281	10.1709	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
676	Nalabund	78.0108	10.1338	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
677	Nalabund	78.0216	10.1557	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
678	Nalabund	78.0222	10.1401	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
679	Nalabund	78.0176	10.1328	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
680	Nalabund	78.0531	10.1602	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
681	Nalabund	78.0386	10.1490	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
682	Nalabund	78.1038	10.1736	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
683	Nalabund	78.1205	10.1748	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
684	Nalabund	78.1307	10.1703	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
685	Nalabund	78.0590	10.1398	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
686	Nalabund	78.0509	10.1502	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
687	Nalabund	78.0282	10.1452	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
688	Nalabund	78.0404	10.1350	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
689	Nalabund	78.0407	10.1447	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
690	Nalabund	78.0302	10.1633	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
691	Nalabund	78.0976	10.1478	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
692	Nalabund	78.0571	10.1122	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
693	Nalabund	78.0321	10.1134	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
694	Nalabund	78.0262	10.1149	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED

695	Nalabund	78.0633	10.1268	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
696	Nalabund	78.0475	10.1164	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
697	Nalabund	78.0834	10.1581	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
698	Checkdam	78.1532	10.1449	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
699	Checkdam	78.1539	10.1296	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
700	Checkdam	78.1437	10.1518	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
701	Checkdam	78.1472	10.1500	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
702	Checkdam	78.1268	10.1620	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
703	Checkdam	78.1356	10.1709	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
704	Checkdam	78.1158	10.1480	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
705	Checkdam	78.1140	10.1287	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
706	Checkdam	78.1243	10.1672	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
707	Checkdam	78.1155	10.1719	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
708	Checkdam	78.1064	10.1547	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
709	Checkdam	78.0940	10.1657	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
710	Checkdam	78.1126	10.1344	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
711	Checkdam	78.0914	10.1398	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
712	Checkdam	78.1392	10.1824	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
713	Checkdam	78.1455	10.1353	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
714	Checkdam	78.1404	10.1432	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
715	Checkdam	78.0761	10.1727	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
716	Checkdam	78.0672	10.1590	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
717	Checkdam	78.0338	10.1703	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
718	Checkdam	78.0403	10.1634	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
719	Checkdam	78.0298	10.1529	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
720	Checkdam	78.0295	10.1371	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
721	Checkdam	78.0477	10.1433	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
722	Checkdam	78.0611	10.1470	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
723	Checkdam	78.0582	10.1661	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED

724	Checkdam	78.0662	10.1268	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
725	Checkdam	78.0786	10.1214	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
726	Checkdam	78.0389	10.1135	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
727	Checkdam	78.0271	10.1062	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
728	Checkdam	78.0995	10.0986	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
729	Recharge shaft with Revival	78.1138	10.1393	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
730	Recharge shaft with Revival	78.1182	10.1362	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
731	Recharge shaft with Revival	78.1212	10.1366	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
732	Only shaft	78.1208	10.1276	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
733	Only shaft	78.1161	10.1258	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
734	Only shaft	78.1482	10.1296	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
735	Only shaft	78.1526	10.1291	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
736	Only shaft	78.1092	10.1158	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
737	Recharge shaft with Revival	78.1092	10.1245	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
738	Recharge shaft with Revival	78.0993	10.1129	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
739	Recharge shaft with Revival	78.1082	10.1094	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
740	Recharge shaft with Revival	78.1023	10.1060	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
741	Recharge shaft with Revival	78.0956	10.1053	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
742	Recharge shaft with Revival	78.0971	10.0999	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
743	Recharge shaft with Revival	78.0995	10.0986	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
744	Recharge shaft with Revival	78.1350	10.1162	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
745	Recharge shaft with Revival	78.1366	10.1164	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
746	Recharge shaft with Revival	78.1212	10.1366	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
747	Only shaft	78.1197	10.1008	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
748	Only shaft	78.1066	10.1070	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
749	Only shaft	78.1030	10.0941	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
750	Recharge shaft with Revival	78.0957	10.0926	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
751	Only shaft	78.0768	10.1124	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
752	Only shaft	78.0811	10.1091	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED

753	Only shaft	78.0607	10.1152	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
754	Recharge shaft with Revival	78.0658	10.1124	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
755	Recharge shaft with Revival	78.0526	10.1136	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
756	Recharge shaft with Revival	78.0586	10.1221	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
757	Recharge shaft with Revival	78.0454	10.1148	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
758	Only shaft	78.0692	10.1394	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
759	Recharge shaft with Revival	78.0352	10.1122	MADURAI	Alanganallur	PALAMEDU	OVER EXPLOITED
760	Nalabund	77.8157	10.0559	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
761	Nalabund	77.8352	10.0598	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
762	Nalabund	77.8457	10.0617	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
763	Nalabund	77.8547	10.0574	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
764	Nalabund	77.8318	10.0522	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
765	Nalabund	77.8405	10.0501	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
766	Nalabund	77.8377	10.0467	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
767	Nalabund	77.8043	10.0471	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
768	Nalabund	77.8111	10.0401	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
769	Nalabund	77.7938	10.0388	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
770	Nalabund	77.8062	10.0346	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
771	Nalabund	77.8445	10.0331	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
772	Nalabund	77.8562	10.0233	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
773	Nalabund	77.8275	10.0309	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
774	Nalabund	77.8355	10.0306	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
775	Nalabund	77.8139	10.0212	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
776	Nalabund	77.8238	10.0248	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
777	Nalabund	77.8290	10.0169	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
778	Nalabund	77.8290	10.0054	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
779	Nalabund	77.7712	10.0474	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
780	Nalabund	77.7666	10.0388	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
781	Nalabund	77.7545	10.0230	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED

782	Nalabund	77.7558	10.0318	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
783	Nalabund	77.7657	10.0148	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
784	Nalabund	77.7830	10.0331	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
785	Nalabund	77.7681	10.0209	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
786	Nalabund	77.7521	10.0105	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
787	Nalabund	77.7926	9.9883	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
788	Nalabund	77.7666	9.9901	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
789	Nalabund	77.7737	9.9752	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
790	Nalabund	77.8037	9.9828	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
791	Nalabund	77.7839	10.0072	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
792	Nalabund	77.7715	9.9868	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
793	Nalabund	77.7919	9.9984	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
794	Nalabund	77.7066	10.0142	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
795	Nalabund	77.7162	10.0023	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
796	Nalabund	77.7073	9.9944	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
797	Nalabund	77.7354	9.9914	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
798	Nalabund	77.7434	10.0041	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
799	Nalabund	77.7239	9.9898	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
800	Nalabund	77.7144	9.9874	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
801	Nalabund	77.7079	9.9862	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
802	Nalabund	77.7382	9.9834	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
803	Nalabund	77.6964	9.9691	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
804	Nalabund	77.7008	9.9755	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
805	Nalabund	77.7128	9.9643	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
806	Nalabund	77.7307	9.9877	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
807	Nalabund	77.6881	9.9594	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
808	Nalabund	77.6853	9.9475	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
809	Nalabund	77.6927	9.9418	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
810	Nalabund	77.6940	9.9323	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED

811	Nalabund	77.7212	9.9424	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
812	Nalabund	77.7134	9.9494	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
813	Nalabund	77.7196	9.9287	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
814	Nalabund	77.7054	9.9542	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
815	Nalabund	77.7286	9.9439	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
816	Nalabund	77.7026	9.9408	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
817	Nalabund	77.7249	9.9734	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
818	Checkdam	77.8423	10.0552	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
819	Checkdam	77.8497	10.0272	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
820	Checkdam	77.8497	10.0187	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
821	Checkdam	77.8000	10.0260	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
822	Checkdam	77.8003	10.0126	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
823	Checkdam	77.7960	10.0002	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
824	Checkdam	77.7984	9.9892	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
825	Checkdam	77.7861	9.9807	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
826	Checkdam	77.7372	10.0218	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
827	Checkdam	77.7728	10.0373	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
828	Checkdam	77.7345	9.9786	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
829	Checkdam	77.7048	9.9600	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
830	Checkdam	77.7267	9.9515	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
831	Checkdam	77.6952	9.9573	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
832	Checkdam	77.6952	9.9466	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
833	Checkdam	77.7150	9.9773	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
834	Checkdam	77.7236	9.9600	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
835	Only shaft	77.8473	10.0573	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
836	Only shaft	77.8310	10.0540	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
837	Only shaft	77.8252	10.0527	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
838	Only shaft	77.8487	10.0261	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
839	Only shaft	77.8128	10.0132	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED

840	Recharge shaft with Revival	77.8253	10.0466	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
841	Recharge shaft with Revival	77.7853	10.0403	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
842	Recharge shaft with Revival	77.7935	10.0354	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
843	Recharge shaft with Revival	77.7737	9.9905	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
844	Recharge shaft with Revival	77.7782	10.0374	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
845	Recharge shaft with Revival	77.7986	9.9871	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
846	Recharge shaft with Revival	77.8184	10.0056	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
847	Recharge shaft with Revival	77.8382	10.0279	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
848	Recharge shaft with Revival	77.8426	10.0124	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
849	Recharge shaft with Revival	77.8164	9.9917	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
850	Recharge shaft with Revival	77.7337	9.9736	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
851	Recharge shaft with Revival	77.6970	9.9600	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
852	Only shaft	77.8133	9.9827	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
853	Only shaft	77.8378	10.0001	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
854	Only shaft	77.8116	9.9791	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
855	Recharge shaft with Revival	77.7164	9.9512	MADURAI	Usilampatti	UTHAPPANAICKANUR	OVER EXPLOITED
856	Nalabund	77.6915	10.0653	THENI	Andipatti	Andipatti	CRITICAL
857	Nalabund	77.7026	10.0671	THENI	Andipatti	Andipatti	CRITICAL
858	Nalabund	77.6797	10.0617	THENI	Andipatti	Andipatti	CRITICAL
859	Nalabund	77.6788	10.0486	THENI	Andipatti	Andipatti	CRITICAL
860	Nalabund	77.6782	10.0434	THENI	Andipatti	Andipatti	CRITICAL
861	Nalabund	77.6683	10.0434	THENI	Andipatti	Andipatti	CRITICAL
862	Nalabund	77.6559	10.0397	THENI	Andipatti	Andipatti	CRITICAL
863	Nalabund	77.6779	10.0312	THENI	Andipatti	Andipatti	CRITICAL
864	Nalabund	77.6943	10.0413	THENI	Andipatti	Andipatti	CRITICAL
865	Nalabund	77.6961	10.0327	THENI	Andipatti	Andipatti	CRITICAL
866	Nalabund	77.6992	10.0467	THENI	Andipatti	Andipatti	CRITICAL
867	Nalabund	77.6998	10.0191	THENI	Andipatti	Andipatti	CRITICAL
868	Nalabund	77.6804	10.0251	THENI	Andipatti	Andipatti	CRITICAL

869	Nalabund	77.6850	10.0157	THENI	Andipatti	Andipatti	CRITICAL
870	Nalabund	77.6937	10.0078	THENI	Andipatti	Andipatti	CRITICAL
871	Nalabund	77.6519	10.0163	THENI	Andipatti	Andipatti	CRITICAL
872	Nalabund	77.6847	10.0044	THENI	Andipatti	Andipatti	CRITICAL
873	Nalabund	77.6739	9.9506	THENI	Andipatti	Andipatti	CRITICAL
874	Nalabund	77.6726	9.9539	THENI	Andipatti	Andipatti	CRITICAL
875	Nalabund	77.6767	9.9454	THENI	Andipatti	Andipatti	CRITICAL
876	Nalabund	77.6865	9.9749	THENI	Andipatti	Andipatti	CRITICAL
877	Nalabund	77.6791	9.9676	THENI	Andipatti	Andipatti	CRITICAL
878	Nalabund	77.6921	9.9898	THENI	Andipatti	Andipatti	CRITICAL
879	Nalabund	77.6454	9.9987	THENI	Andipatti	Andipatti	CRITICAL
880	Nalabund	77.6597	9.9771	THENI	Andipatti	Andipatti	CRITICAL
881	Nalabund	77.6606	9.9679	THENI	Andipatti	Andipatti	CRITICAL
882	Nalabund	77.6634	9.9573	THENI	Andipatti	Andipatti	CRITICAL
883	Nalabund	77.6618	9.9527	THENI	Andipatti	Andipatti	CRITICAL
884	Nalabund	77.6665	9.9414	THENI	Andipatti	Andipatti	CRITICAL
885	Nalabund	77.6711	9.9329	THENI	Andipatti	Andipatti	CRITICAL
886	Nalabund	77.6340	9.9987	THENI	Andipatti	Andipatti	CRITICAL
887	Nalabund	77.6288	9.9956	THENI	Andipatti	Andipatti	CRITICAL
888	Nalabund	77.6686	9.9293	THENI	Andipatti	Andipatti	CRITICAL
889	Nalabund	77.6692	9.9241	THENI	Andipatti	Andipatti	CRITICAL
890	Nalabund	77.6649	9.9192	THENI	Andipatti	Andipatti	CRITICAL
891	Nalabund	77.6575	9.9226	THENI	Andipatti	Andipatti	CRITICAL
892	Nalabund	77.6491	9.9262	THENI	Andipatti	Andipatti	CRITICAL
893	Nalabund	77.6519	9.9211	THENI	Andipatti	Andipatti	CRITICAL
894	Nalabund	77.6445	9.9329	THENI	Andipatti	Andipatti	CRITICAL
895	Nalabund	77.6402	9.9323	THENI	Andipatti	Andipatti	CRITICAL
896	Nalabund	77.6315	9.9329	THENI	Andipatti	Andipatti	CRITICAL
897	Nalabund	77.6349	9.9497	THENI	Andipatti	Andipatti	CRITICAL



898	Nalabund	77.6498	9.9418	THENI	Andipatti	Andipatti	CRITICAL
899	Nalabund	77.6170	9.9929	THENI	Andipatti	Andipatti	CRITICAL
900	Nalabund	77.6436	9.9542	THENI	Andipatti	Andipatti	CRITICAL
901	Nalabund	77.6525	9.9378	THENI	Andipatti	Andipatti	CRITICAL
902	Nalabund	77.6170	10.0309	THENI	Andipatti	Andipatti	CRITICAL
903	Nalabund	77.5555	9.9792	THENI	Andipatti	Andipatti	CRITICAL
904	Nalabund	77.5441	9.9801	THENI	Andipatti	Andipatti	CRITICAL
905	Nalabund	77.5357	9.9847	THENI	Andipatti	Andipatti	CRITICAL
906	Nalabund	77.5453	10.0105	THENI	Andipatti	Andipatti	CRITICAL
907	Nalabund	77.6473	9.9481	THENI	Andipatti	Andipatti	CRITICAL
908	Nalabund	77.6726	10.0215	THENI	Andipatti	Andipatti	CRITICAL
909	Nalabund	77.6702	9.9831	THENI	Andipatti	Andipatti	CRITICAL
910	Nalabund	77.6751	9.9828	THENI	Andipatti	Andipatti	CRITICAL
911	Nalabund	77.6763	9.9719	THENI	Andipatti	Andipatti	CRITICAL
912	Nalabund	77.6575	9.9926	THENI	Andipatti	Andipatti	CRITICAL
913	Nalabund	77.6674	9.9978	THENI	Andipatti	Andipatti	CRITICAL
914	Checkdam	77.7097	10.0546	THENI	Andipatti	Andipatti	CRITICAL
915	Checkdam	77.7039	10.0449	THENI	Andipatti	Andipatti	CRITICAL
916	Checkdam	77.7066	10.0741	THENI	Andipatti	Andipatti	CRITICAL
917	Checkdam	77.6655	10.0260	THENI	Andipatti	Andipatti	CRITICAL
918	Checkdam	77.6393	10.0330	THENI	Andipatti	Andipatti	CRITICAL
919	Checkdam	77.6495	9.9758	THENI	Andipatti	Andipatti	CRITICAL
920	Checkdam	77.5818	10.0105	THENI	Andipatti	Andipatti	CRITICAL
921	Checkdam	77.6430	9.9609	THENI	Andipatti	Andipatti	CRITICAL
922	Checkdam	77.6634	9.9305	THENI	Andipatti	Andipatti	CRITICAL
923	Checkdam	77.5629	9.9853	THENI	Andipatti	Andipatti	CRITICAL
924	Checkdam	77.6232	10.0194	THENI	Andipatti	Andipatti	CRITICAL
925	Only shaft	77.6732	9.9963	THENI	Andipatti	Andipatti	CRITICAL
926	Recharge shaft with Revival	77.6535	9.9674	THENI	Andipatti	Andipatti	CRITICAL

927	Recharge shaft with Revival	77.6400	9.9520	THENI	Andipatti	Andipatti	CRITICAL
928	Recharge shaft with Revival	77.6409	9.9841	THENI	Andipatti	Andipatti	CRITICAL
929	Recharge shaft with Revival	77.6467	9.9730	THENI	Andipatti	Andipatti	CRITICAL
930	Recharge shaft with Revival	77.6191	9.9748	THENI	Andipatti	Andipatti	CRITICAL
931	Recharge shaft with Revival	77.6411	9.9896	THENI	Andipatti	Andipatti	CRITICAL
932	Recharge shaft with Revival	77.6318	9.9966	THENI	Andipatti	Andipatti	CRITICAL
933	Recharge shaft with Revival	77.6465	10.0072	THENI	Andipatti	Andipatti	CRITICAL
934	Recharge shaft with Revival	77.6766	9.9932	THENI	Andipatti	Andipatti	CRITICAL
935	Recharge shaft with Revival	77.6085	9.9823	THENI	Andipatti	Andipatti	CRITICAL
936	Recharge shaft with Revival	77.6091	9.9912	THENI	Andipatti	Andipatti	CRITICAL
937	Recharge shaft with Revival	77.6110	9.9976	THENI	Andipatti	Andipatti	CRITICAL
938	Recharge shaft with Revival	77.5923	9.9958	THENI	Andipatti	Andipatti	CRITICAL
939	Recharge shaft with Revival	77.5796	10.0246	THENI	Andipatti	Andipatti	CRITICAL
940	Recharge shaft with Revival	77.6255	10.0310	THENI	Andipatti	Andipatti	CRITICAL
941	Recharge shaft with Revival	77.6394	10.0252	THENI	Andipatti	Andipatti	CRITICAL
942	Recharge shaft with Revival	77.5494	9.9865	THENI	Andipatti	Andipatti	CRITICAL
943	Only shaft	77.6638	10.0153	THENI	Andipatti	Andipatti	CRITICAL
944	Only shaft	77.6392	10.0016	THENI	Andipatti	Andipatti	CRITICAL
945	Only shaft	77.6459	9.9846	THENI	Andipatti	Andipatti	CRITICAL
946	Only shaft	77.6510	9.9642	THENI	Andipatti	Andipatti	CRITICAL
947	Only shaft	77.6562	9.9454	THENI	Andipatti	Andipatti	CRITICAL
948	Only shaft	77.6346	10.0045	THENI	Andipatti	Andipatti	CRITICAL
949	Only shaft	77.6179	9.9809	THENI	Andipatti	Andipatti	CRITICAL
950	Only shaft	77.5997	9.9532	THENI	Andipatti	Andipatti	CRITICAL
951	Only shaft	77.5762	10.0107	THENI	Andipatti	Andipatti	CRITICAL
952	Only shaft	77.5638	9.9791	THENI	Andipatti	Andipatti	CRITICAL
953	Only shaft	77.5705	9.9785	THENI	Andipatti	Andipatti	CRITICAL
954	Only shaft	77.5912	9.9807	THENI	Andipatti	Andipatti	CRITICAL
955	Only shaft	77.6045	10.0118	THENI	Andipatti	Andipatti	CRITICAL

956	Only shaft	77.6008	9.9973	THENI	Andipatti	Andipatti	CRITICAL
957	Only shaft	77.5967	9.9890	THENI	Andipatti	Andipatti	CRITICAL
958	Only shaft	77.5984	9.9680	THENI	Andipatti	Andipatti	CRITICAL
959	Only shaft	77.5766	10.0182	THENI	Andipatti	Andipatti	CRITICAL
960	Recharge shaft with Revival	77.6323	9.9534	THENI	Andipatti	Andipatti	CRITICAL
961	Nalabund	77.5895	10.0434	THENI	Periyakulam	Devathanapatti	SEMI CRITICAL
962	Nalabund	77.4211	9.8593	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
963	Nalabund	77.4322	9.8645	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
964	Nalabund	77.4300	9.8575	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
965	Nalabund	77.4325	9.8532	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
966	Nalabund	77.4371	9.8474	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
967	Nalabund	77.4285	9.8425	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
968	Nalabund	77.4214	9.8316	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
969	Nalabund	77.4266	9.8337	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
970	Nalabund	77.4152	9.8273	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
971	Nalabund	77.4099	9.8185	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
972	Nalabund	77.4340	9.7881	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
973	Nalabund	77.4285	9.7789	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
974	Nalabund	77.4680	9.8508	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
975	Nalabund	77.4764	9.8517	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
976	Nalabund	77.4257	9.7631	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
977	Nalabund	77.4597	9.8301	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
978	Nalabund	77.4467	9.8212	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
979	Nalabund	77.4439	9.8142	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
980	Nalabund	77.4405	9.8091	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
981	Nalabund	77.4334	9.7987	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
982	Nalabund	77.3985	9.7111	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
983	Nalabund	77.4167	9.7658	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
984	Nalabund	77.4056	9.7607	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED

985	Nalabund	77.3988	9.7500	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
986	Nalabund	77.3852	9.7415	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
987	Nalabund	77.3908	9.7339	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
988	Nalabund	77.3864	9.7278	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
989	Nalabund	77.3895	9.7147	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
990	Nalabund	77.3911	9.6992	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
991	Nalabund	77.3834	9.6955	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
992	Nalabund	77.3868	9.6831	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
993	Nalabund	77.3599	9.6946	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
994	Nalabund	77.3620	9.6992	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
995	Nalabund	77.3895	9.7041	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
996	Checkdam	77.4634	9.8547	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
997	Checkdam	77.4535	9.8380	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
998	Checkdam	77.4356	9.8164	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
999	Checkdam	77.4319	9.8371	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1000	Checkdam	77.4226	9.7936	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1001	Checkdam	77.4248	9.8030	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1002	Checkdam	77.4439	9.8295	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1003	Checkdam	77.4510	9.8602	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1004	Checkdam	77.4439	9.8295	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1005	Checkdam	77.4164	9.7787	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1006	Checkdam	77.4068	9.7202	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1007	Checkdam	77.4198	9.7434	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1008	Checkdam	77.3744	9.7190	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1009	Checkdam	77.3713	9.7069	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1010	Checkdam	77.3599	9.7065	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1011	Checkdam	77.3741	9.6898	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1012	Checkdam	77.3902	9.7723	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1013	Checkdam	77.3750	9.7132	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED

1014	Checkdam	77.3976	9.7668	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1015	Recharge shaft with Revival	77.4413	9.8398	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1016	Only shaft	77.4164	9.8779	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1017	Only shaft	77.4448	9.8701	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1018	Only shaft	77.4437	9.8438	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1019	Only shaft	77.4229	9.8261	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1020	Recharge shaft with Revival	77.4366	9.8664	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1021	Recharge shaft with Revival	77.4482	9.8584	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1022	Recharge shaft with Revival	77.4685	9.8602	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1023	Recharge shaft with Revival	77.4647	9.8479	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1024	Recharge shaft with Revival	77.4763	9.8468	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1025	Recharge shaft with Revival	77.4440	9.8517	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1026	Recharge shaft with Revival	77.4236	9.8397	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1027	Only shaft	77.4171	9.8077	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1028	Only shaft	77.4045	9.8019	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1029	Recharge shaft with Revival	77.4312	9.8121	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1030	Recharge shaft with Revival	77.3913	9.7741	THENI	Chinnamanur	Erasakkanaickanur	OVER EXPLOITED
1031	Nalabund	77.6263	9.9205	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1032	Nalabund	77.6309	9.9189	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1033	Nalabund	77.6346	9.9186	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1034	Nalabund	77.6368	9.9156	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1035	Nalabund	77.6439	9.9107	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1036	Nalabund	77.6118	9.9211	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1037	Nalabund	77.5240	9.9600	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1038	Nalabund	77.5190	9.9484	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1039	Nalabund	77.5283	9.9335	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1040	Nalabund	77.5583	9.9631	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1041	Nalabund	77.5657	9.9618	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1042	Nalabund	77.5846	9.9527	THENI	Andipatti	Kandamanur	OVER EXPLOITED

1043	Nalabund	77.5561	9.9019	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1044	Nalabund	77.5623	9.8785	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1045	Nalabund	77.5617	9.8587	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1046	Nalabund	77.5289	9.9265	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1047	Nalabund	77.5530	9.8602	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1048	Nalabund	77.5478	9.8663	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1049	Nalabund	77.5555	9.8444	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1050	Nalabund	77.5617	9.8432	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1051	Nalabund	77.5719	9.8401	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1052	Nalabund	77.5339	9.8699	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1053	Nalabund	77.5434	9.8781	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1054	Nalabund	77.5305	9.8797	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1055	Nalabund	77.5351	9.8897	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1056	Nalabund	77.5243	9.8897	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1057	Nalabund	77.5493	9.8395	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1058	Nalabund	77.5147	9.8928	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1059	Nalabund	77.5784	9.8310	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1060	Nalabund	77.5679	9.8185	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1061	Nalabund	77.5821	9.8185	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1062	Nalabund	77.6152	9.8462	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1063	Nalabund	77.6145	9.8288	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1064	Nalabund	77.6204	9.8194	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1065	Nalabund	77.5082	9.8733	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1066	Nalabund	77.5363	9.8450	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1067	Nalabund	77.5555	9.8222	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1068	Nalabund	77.5243	9.8684	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1069	Nalabund	77.5731	9.8152	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1070	Nalabund	77.5982	9.8292	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1071	Checkdam	77.6006	9.8651	THENI	Andipatti	Kandamanur	OVER EXPLOITED

1072	Checkdam	77.6084	9.8818	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1073	Checkdam	77.6003	9.8447	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1074	Checkdam	77.5858	9.8362	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1075	Checkdam	77.5926	9.8718	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1076	Checkdam	77.5864	9.9563	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1077	Checkdam	77.5676	9.9208	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1078	Checkdam	77.5744	9.9332	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1079	Checkdam	77.5138	9.9582	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1080	Checkdam	77.5354	9.9122	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1081	Checkdam	77.5098	9.8979	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1082	Checkdam	77.5209	9.8575	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1083	Checkdam	77.5221	9.8462	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1084	Checkdam	77.5299	9.8386	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1085	Recharge shaft with Revival	77.5731	9.9693	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1086	Recharge shaft with Revival	77.5799	9.9690	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1087	Recharge shaft with Revival	77.5799	9.9593	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1088	Recharge shaft with Revival	77.5732	9.9569	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1089	Recharge shaft with Revival	77.5440	9.9517	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1090	Recharge shaft with Revival	77.5893	9.9512	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1091	Only shaft	77.5513	9.9651	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1092	Only shaft	77.5581	9.9523	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1093	Only shaft	77.5453	9.9550	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1094	Only shaft	77.5391	9.9454	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1095	Only shaft	77.5470	9.9406	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1096	Only shaft	77.6077	9.9217	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1097	Only shaft	77.5610	9.9220	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1098	Recharge shaft with Revival	77.5967	9.8619	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1099	Recharge shaft with Revival	77.5301	9.8302	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1100	Only shaft	77.5343	9.9118	THENI	Andipatti	Kandamanur	OVER EXPLOITED

1101	Only shaft	77.5286	9.9955	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1102	Only shaft	77.5229	9.9931	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1103	Only shaft	77.5216	9.9887	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1104	Only shaft	77.5207	9.9155	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1105	Recharge shaft with Revival	77.4957	9.8788	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1106	Recharge shaft with Revival	77.5519	9.8855	THENI	Andipatti	Kandamanur	OVER EXPLOITED
1107	Nalabund	77.5027	9.9831	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1108	Nalabund	77.4829	9.9825	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1109	Nalabund	77.4934	9.9728	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1110	Nalabund	77.4807	9.9612	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1111	Nalabund	77.5033	9.9393	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1112	Nalabund	77.4755	9.9494	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1113	Nalabund	77.4702	9.9436	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1114	Nalabund	77.4649	9.9372	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1115	Nalabund	77.4581	9.9299	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1116	Nalabund	77.4560	9.9253	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1117	Nalabund	77.4464	9.9220	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1118	Nalabund	77.4464	9.9162	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1119	Nalabund	77.4439	9.9116	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1120	Nalabund	77.4408	9.9065	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1121	Nalabund	77.4415	9.9019	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1122	Nalabund	77.4393	9.8991	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1123	Nalabund	77.4390	9.8921	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1124	Nalabund	77.4334	9.8794	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1125	Nalabund	77.4884	9.9034	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1126	Nalabund	77.4863	9.9262	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1127	Nalabund	77.4866	9.8681	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1128	Nalabund	77.4538	10.0705	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1129	Nalabund	77.4356	10.0821	THENI	Theni	Kodivilarpatti	OVER EXPLOITED



1130	Nalabund	77.4275	10.0718	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1131	Nalabund	77.4254	10.0523	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1132	Nalabund	77.4399	10.0413	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1133	Checkdam	77.4891	9.8809	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1134	Checkdam	77.4761	9.8642	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1135	Checkdam	77.4578	9.9144	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1136	Checkdam	77.4915	9.9898	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1137	Checkdam	77.4365	10.0541	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1138	Checkdam	77.4461	10.0566	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1139	Recharge shaft with Revival	77.4972	9.9506	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1140	Only shaft	77.4952	9.9600	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1141	Only shaft	77.4467	9.8846	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1142	Only shaft	77.4782	9.9278	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1143	Only shaft	77.4663	9.9232	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1144	Only shaft	77.4715	9.9167	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1145	Only shaft	77.4746	9.9113	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1146	Only shaft	77.4601	9.9130	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1147	Only shaft	77.4630	9.9098	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1148	Only shaft	77.4675	9.9074	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1149	Only shaft	77.4627	9.9028	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1150	Only shaft	77.4697	9.8984	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1151	Only shaft	77.4793	9.8925	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1152	Only shaft	77.4753	9.9322	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1153	Recharge shaft with Revival	77.4995	9.9276	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1154	Recharge shaft with Revival	77.4629	9.9302	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1155	Recharge shaft with Revival	77.4649	9.9267	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1156	Recharge shaft with Revival	77.4545	9.9330	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1157	Recharge shaft with Revival	77.4310	9.9117	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1158	Recharge shaft with Revival	77.4255	9.8891	THENI	Theni	Kodivilarpatti	OVER EXPLOITED

1159	Recharge shaft with Revival	77.4425	9.8859	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1160	Recharge shaft with Revival	77.4473	9.8826	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1161	Recharge shaft with Revival	77.4329	9.8820	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1162	Recharge shaft with Revival	77.4473	9.8782	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1163	Recharge shaft with Revival	77.4219	9.8782	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1164	Recharge shaft with Revival	77.4705	9.8766	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1165	Recharge shaft with Revival	77.4830	9.8674	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1166	Recharge shaft with Revival	77.4834	9.8975	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1167	Recharge shaft with Revival	77.4748	9.8993	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1168	Recharge shaft with Revival	77.4754	9.8966	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1169	Recharge shaft with Revival	77.4626	9.9005	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1170	Recharge shaft with Revival	77.4545	9.9141	THENI	Theni	Kodivilarpatti	OVER EXPLOITED
1171	Nalabund	77.3293	9.8915	THENI		Markayankottai	SAFE
1172	Nalabund	77.6167	9.9414	THENI	Andipatti	Rajathani	CRITICAL
1173	Nalabund	77.5805	9.8988	THENI	Andipatti	Rajathani	CRITICAL
1174	Nalabund	77.5818	9.9192	THENI	Andipatti	Rajathani	CRITICAL
1175	Checkdam	77.6093	9.9466	THENI	Andipatti	Rajathani	CRITICAL
1176	Checkdam	77.6291	9.9125	THENI	Andipatti	Rajathani	CRITICAL
1177	Checkdam	77.6260	9.9068	THENI	Andipatti	Rajathani	CRITICAL
1178	Checkdam	77.6102	9.9128	THENI	Andipatti	Rajathani	CRITICAL
1179	Checkdam	77.6000	9.9131	THENI	Andipatti	Rajathani	CRITICAL
1180	Checkdam	77.5818	9.8712	THENI	Andipatti	Rajathani	CRITICAL
1181	Checkdam	77.5762	9.8970	THENI	Andipatti	Rajathani	CRITICAL
1182	Recharge shaft with Revival	77.6232	9.9176	THENI	Andipatti	Rajathani	CRITICAL
1183	Only shaft	77.6131	9.9620	THENI	Andipatti	Rajathani	CRITICAL
1184	Only shaft	77.6071	9.9486	THENI	Andipatti	Rajathani	CRITICAL
1185	Only shaft	77.6065	9.9352	THENI	Andipatti	Rajathani	CRITICAL
1186	Recharge shaft with Revival	77.5859	9.9094	THENI	Andipatti	Rajathani	CRITICAL
1187	Recharge shaft with Revival	77.5964	9.9112	THENI	Andipatti	Rajathani	CRITICAL

1188	Recharge shaft with Revival	77.6014	9.9089	THENI	Andipatti	Rajathani	CRITICAL
1189	Recharge shaft with Revival	77.6120	9.9078	THENI	Andipatti	Rajathani	CRITICAL
1190	Recharge shaft with Revival	77.6188	9.9057	THENI	Andipatti	Rajathani	CRITICAL
1191	Recharge shaft with Revival	77.5906	9.9037	THENI	Andipatti	Rajathani	CRITICAL
1192	Recharge shaft with Revival	77.5853	9.8885	THENI	Andipatti	Rajathani	CRITICAL
1193	Recharge shaft with Revival	77.5989	9.8978	THENI	Andipatti	Rajathani	CRITICAL
1194	Recharge shaft with Revival	77.5765	9.9042	THENI	Andipatti	Rajathani	CRITICAL
1195	Recharge shaft with Revival	77.5671	9.9028	THENI	Andipatti	Rajathani	CRITICAL
1196	Recharge shaft with Revival	77.5887	9.9307	THENI	Andipatti	Rajathani	CRITICAL
1197	Checkdam	77.4615	10.0543	THENI	Theni	Theni	SEMI CRITICAL
1198	Nalabund	77.2603	9.8444	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1199	Nalabund	77.2634	9.8578	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1200	Nalabund	77.2934	9.8778	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1201	Nalabund	77.2594	9.8663	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1202	Nalabund	77.2542	9.8693	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1203	Nalabund	77.2477	9.8733	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1204	Nalabund	77.2857	9.8708	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1205	Nalabund	77.2282	9.8657	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1206	Nalabund	77.2242	9.8684	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1207	Nalabund	77.2372	9.8785	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1208	Nalabund	77.2341	9.8836	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1209	Nalabund	77.2273	9.8940	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1210	Nalabund	77.2381	9.8991	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1211	Nalabund	77.2424	9.9165	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1212	Nalabund	77.2427	9.9086	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1213	Nalabund	77.3215	9.8657	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1214	Nalabund	77.2495	9.9241	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1215	Nalabund	77.2486	9.9296	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1216	Nalabund	77.2566	9.9408	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED

1217	Nalabund	77.2545	9.9360	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1218	Nalabund	77.2594	9.9071	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1219	Nalabund	77.2675	9.9335	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1220	Nalabund	77.2458	9.9265	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1221	Nalabund	77.3188	9.8596	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1222	Nalabund	77.3095	9.8800	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1223	Nalabund	77.2693	9.9189	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1224	Nalabund	77.3058	9.8961	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1225	Nalabund	77.2832	9.9262	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1226	Nalabund	77.2628	9.8794	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1227	Checkdam	77.2715	9.8632	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1228	Checkdam	77.2480	9.8778	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1229	Checkdam	77.2492	9.8879	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1230	Checkdam	77.2477	9.8961	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1231	Checkdam	77.2746	9.8970	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1232	Checkdam	77.2498	9.9131	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1233	Checkdam	77.2505	9.9201	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1234	Checkdam	77.2739	9.9156	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1235	Checkdam	77.2579	9.9317	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1236	Checkdam	77.3039	9.9110	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1237	Checkdam	77.3154	9.8949	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1238	Only shaft	77.2984	9.8605	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1239	Recharge shaft with Revival	77.2923	9.8841	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1240	Only shaft	77.2825	9.8625	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1241	Only shaft	77.2878	9.8579	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1242	Only shaft	77.2998	9.8698	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1243	Only shaft	77.3045	9.8576	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1244	Only shaft	77.3133	9.8611	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1245	Only shaft	77.3105	9.8564	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED

1246	Only shaft	77.3263	9.8775	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1247	Only shaft	77.3014	9.8857	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1248	Only shaft	77.2980	9.8868	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1249	Only shaft	77.2873	9.8906	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1250	Only shaft	77.2661	9.8996	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1251	Only shaft	77.2875	9.9010	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1252	Only shaft	77.2947	9.8987	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1253	Only shaft	77.2966	9.9010	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1254	Only shaft	77.3171	9.8905	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1255	Only shaft	77.3029	9.9039	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1256	Only shaft	77.3042	9.9080	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1257	Only shaft	77.3270	9.8896	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED
1258	Only shaft	77.3190	9.9010	THENI	Uthamapalayam	Thevaram	OVER EXPLOITED