



GOVERNMENT OF TELANGANA

MISSION BHAGIRATHA DEPARTMENT



Foundation laid by Hon'ble CM at Choutuppal
on 08.06.2015



Hon'ble PM commissioned Gajwel scheme
on 07.08.2016

WELCOME

PRESENTATION ON MISSION BHAGIRATHA 4-Nov-2019



“Whoever wished to investigate medicine properly should consider the seasons of the year, the winds and the waters to health and disease”

.....so said Hippocrates (460-370 BC)

“Number of water taps per 1000 population will be an infinitely more meaningful health indicator than the number of hospital beds per 1000 population”

.....Dr.Halfdan T. Mahler, three terms DG, WHO

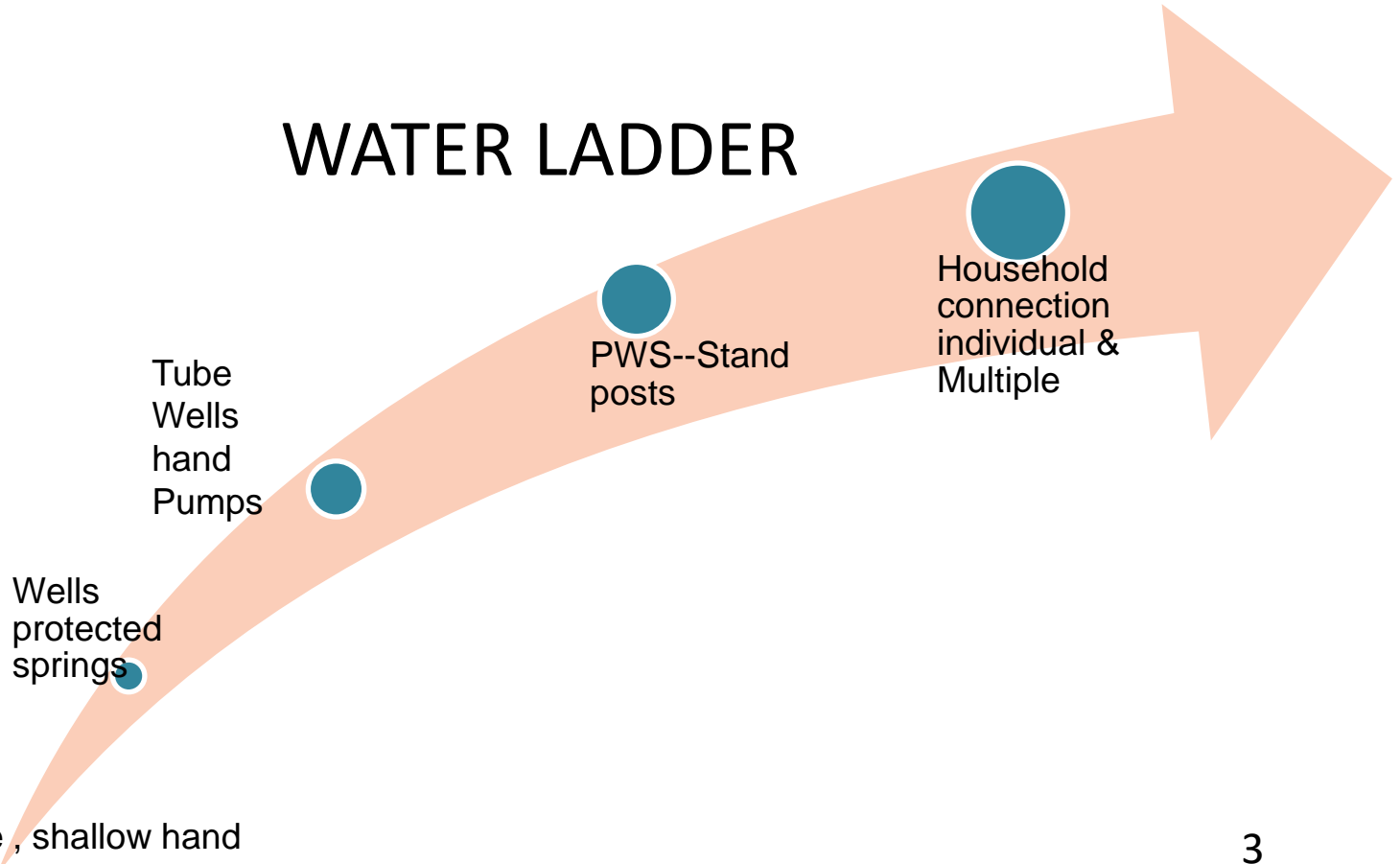


NRDWP - GOAL



- ❖ Move up the “water ladder” of service delivery so that ultimately all rural house holds are provided with adequate piped safe drinking water supply with in the household premises. This is necessary to relieve women & girls especially from the drudgery of fetching water

WATER LADDER



Unprotected source , shallow hand pumps , canals, tanks/ ponds



Development of water supply systems

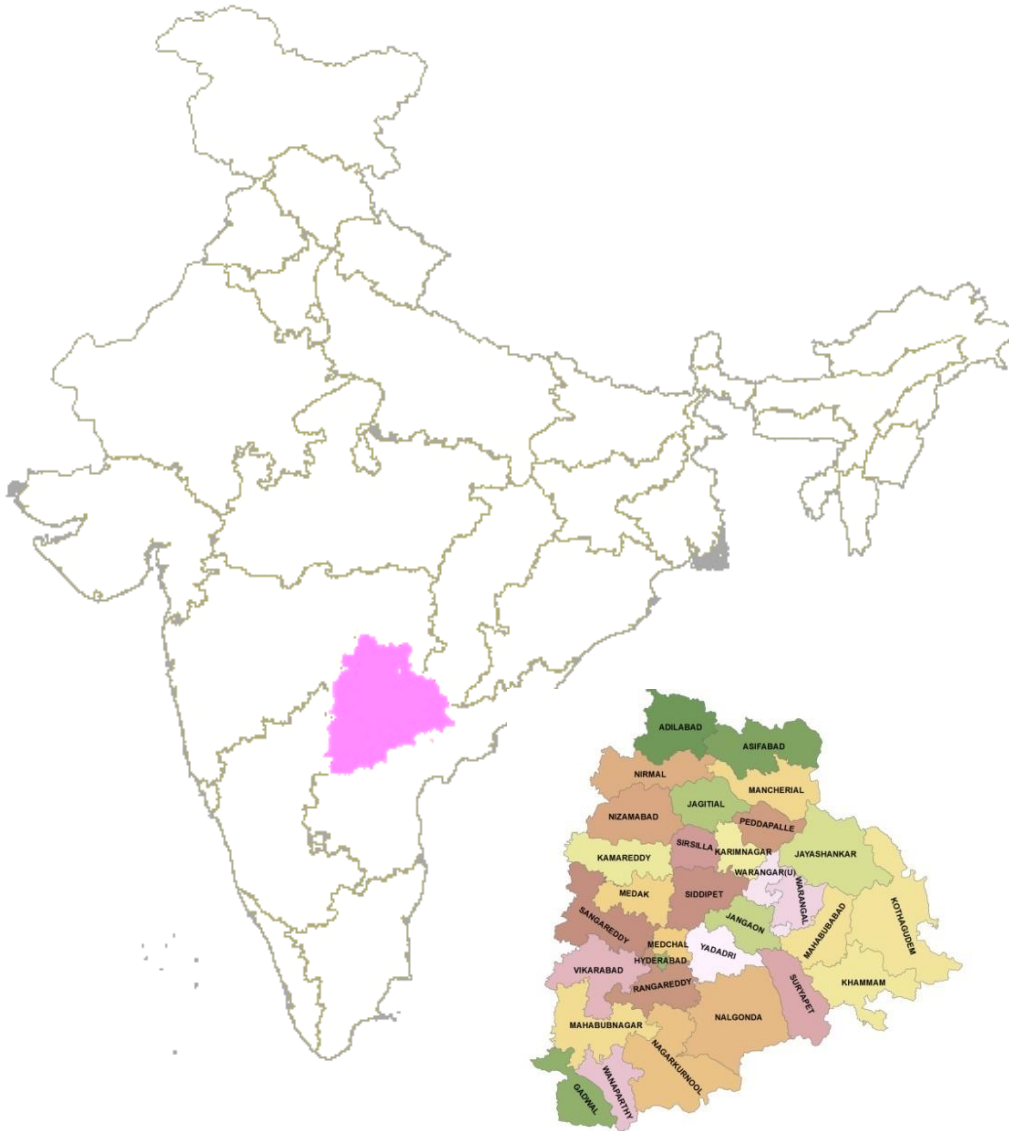
- Rural water supply started with provision of sanitary wells, bore-wells fitted with Hand Pumps;
- Concerted efforts started in 1972-73 with the introduction of Accelerated Rural Water Supply (ARWS) programme by the GoI (1972-86);
- 1986-87 Technology Mission on Drinking Water : 1991-92 renamed as Rajiv Gandhi National Drinking Water Mission;
- 1999-2000 saw Sector Reforms-Swajaladhara;
- In 2009 – ARWSP renamed as National Rural Drinking Water Programme (NRDWP);
- In 2017 – NRDWP restructured with focus on sustainability of schemes;
- In 2017 – a sub-programme under NRDWP, National Water Quality Sub-Mission started for providing potable water to Arsenic and Fluoride affected habitations;



Development of water supply systems



- World Bank assisted Rural Water Supply and Sanitation projects in Assam, Bihar, Jharkhand and UP are also part of NRDWP;
- Since 2018, Swajal scheme implemented in Aspirational districts;
- Presently the major emphasis is on ensuring sustainability of water availability in terms of potability, adequacy, convenience, affordability and equity;
- Water Quality Testing Laboratories setup in various parts of country for water quality testing; and
- 2% of allocation under NRDWP is earmarked for Japanese Encephalitis/ Acute Encephalitis Syndrome affected 60 high priority districts spanning in 5 States.



TELANGANA- At a Glance

| | |
|--------------------------|--------|
| Districts | 32 |
| Mandals | 539 |
| Gram Panchayats | 12,751 |
| Villages | 10,939 |
| Rural Habitations | 24,359 |
| SC Dominated Habitations | 1703 |
| ST Dominated Habitations | 9642 |
| Rural Population (Lakhs) | 213.95 |
| SC Population(Lakhs) | 42.23 |
| ST Population (Lakhs) | 29.80 |



Drinking Water Supply Strategy



Strategic Plan (MoDWS GOI)/UN

- To ensure that every rural person has enough safe water for drinking, cooking and other domestic needs as well as live stock through out the year including during natural disasters
- By **2022**, every rural person in the country will have access to **70** lpcd within their household premises
- Individual states can adopt higher quantity norms such as **100** lpcd

UN Sustainable Development Goal 6 : Ensure universal and equitable access to safe and affordable drinking water for all by **2030**

Strategic Plan Telangana

- ✓ **“Mission Bhagiratha”** is one of the flagship programmes with a commitment to provide safe, adequate, sustainable and treated drinking water for the entire rural and urban areas.
- ✓ The project is envisaged to bring down disease burden, a causative factor for consuming contaminated water and improve health standards as well as family’s economic status thereby.
- Bulk Supply is achieved by **2018** and House Hold Supply is targeted by **2019**
- ❖ Per Capita Supply with treated surface water
 - ✓ Rural - **100** lpcd
 - ✓ Municipalities - 135 lpcd
 - ✓ Municipal Corporations - 150 lpcd
 - ✓ Providing House Connection to each and every House Hold
 - ✓ Providing water to the industrial needs up to 10 % of the Domestic Demand

❖ Achieving the goal by **2019**



SUSTAINABLE DEVELOPMENT GOALS

| | | | | | |
|--|--|--|--|--|--|
| 1 NO POVERTY | 2 ZERO HUNGER | 3 GOOD HEALTH AND WELL-BEING | 4 QUALITY EDUCATION | 5 GENDER EQUALITY | 6 CLEAN WATER AND SANITATION |
| 7 AFFORDABLE AND CLEAN ENERGY | 8 DECENT WORK AND ECONOMIC GROWTH | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | 10 REDUCED INEQUALITIES | 11 SUSTAINABLE CITIES AND COMMUNITIES | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION |
| 13 CLIMATE ACTION | 14 LIFE BELOW WATER | 15 LIFE ON LAND | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS | 17 PARTNERSHIPS FOR THE GOALS | SUSTAINABLE DEVELOPMENT GOALS |

SDG Goal 6



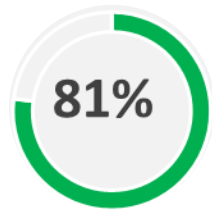
- **Ensure access to water and sanitation for all**



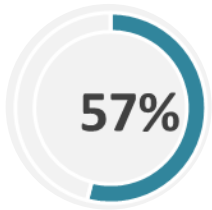
Present status of Piped Water Supply



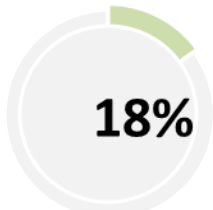
National Rural Drinking Water Programme (NRDWP) was launched in April 2009 with the objective of providing every person in rural India with adequate safe water for drinking, cooking and other domestic basic needs on a sustainable basis



Percentage of fully covered habitations (>40 LPCD)



Percentage of population having access to Piped Water Supply (Public Standpost)



Percentage of households with Piped Water Supply(HH)*

*Updated data is being collected from States, the number is expected to rise

Piped Water Supply (Last 5 years)

| Financial Year | % of PWS coverage in terms of population | % of PWS coverage in terms of house hold connection provided |
|----------------|--|--|
| 2013-2014 | 47 | 12 |
| 2014-2015 | 48 | 13 |
| 2015-2016 | 52 | 14 |
| 2016-2017 | 54 | 16 |
| 2017-2018 | 56 | 17 |



Recent initiatives taken by Gol to improve the lives of people



Housing

Toilet

Electricity

Cooking Gas

Social Security/ Pension

Healthcare/
Ayushman Bharat

Financial Inclusion

Roads

Now, potable WATER

**Gol has now decided to provide “Functional Household Tap Connection (FHTC)”
to every rural Household by 2024**



Need of 'Mission Bhagiratha'



➤ Infrastructure and supply (Before Mission)

- Single Village Schemes (PWS) : 17,340
- Multi Village Schemes (CPWSS) : 168
- Only 30 % households have tap connections



➤ Chronic drought conditions-scarcity of drinking water

- Every alternative year, the state is facing drought situation.
- Deficit rainfall in 6 years during last decade.
- Due to over exploitation, the ground water table depleted
- Depletion of Ground water – by more than 2 metres in last 10 years
- 82% Drinking water Schemes dependent on Ground Water sources
- Water quality issues-excess fluoride(1043 habs),nitrates(163 habs),TDS(187 habs)
- Transportation to about 15% habitations in Summer

➤ Productivity loss due to time spent on fetching water

➤ Loss of human lives due to water borne diseases

➤ GOI (NRDWP guidelines) – to shift from Ground water to perennial surface sources





Inspiration for Mission Bhagiratha



- ✓ Siddipet Comprehensive Drinking water scheme (tap to each household) conceived and implemented in the year 1996 by the then MLA of Siddipet and present Hon'ble Chief Minister Shri K. Chandrasekhar Rao garu.





Parameters of Potability of Safe Drinking water



❖ Water is defined as safe if it is free from biological contamination (cholera, guinea worm, typhoid etc) and within permissible limits of chemical contamination (i.e.,) excess fluoride , brackishness, iron, arsenic, nitrates etc., as per IS-10500 standard of BIS





Drinking Water Quality Parameters IS10500 : 1994



| Sl. No. | Chemical Parameters | Desirable Limit | Maximum Permissible Limit |
|---------|---|-----------------|---------------------------|
| 1 | Colour Hazen units | 5 | 25 |
| 2 | Odour | Unobjectionable | -- |
| 3 | Taste | Agreeable | -- |
| 4 | Turbidity NTUs | 5 | 10 |
| 5 | p ^H value | 6.5 to 8.5 | No relaxation |
| 6 | Dissolved Solids Mgr. Lt. | 500 | 2000 |
| 7 | Alkalinity Mgr. / Lt. (as CaCO ₃) | 200 | 600 |
| 8 | Total Hardness Mgr. / Lt. (as CaCO ₃) | 300 | 600 |
| 9 | Calcium (as Ca) Mgr. Lt. | 75 | 200 |
| 10 | Chlorides (as Cl) Mgr. / Lt. | 250 | 1000 |
| 11 | Sulphate (as SO ₄) | 200 | 400 |
| 12 | Nitrate (as NO ₃) Mgr. / Lt. | 45 | 100 |
| 13 | Nitrites (as NO ₂) Mgr. Lt. | Nil | Nil |
| 14 | Fluoride (as F) Mgr. / Lt. | 1.0 | 1.5 |
| 15 | Iron (as Fe) Mgr. / Lt. | 0.3 | 1.0 |
| 16 | Magnesium (as Mg) Mgr. / Lt. | 30 | 100 |
| 17 | Residual free chlorine Mgr. / Ltr. | 0.2 | 0.5 |



Mission Bhagiratha : Stages Involved in Supply



- ❖ Stages involved in the entire Water supply chain;
 - Sourcing water from Major rivers or reservoirs
 - Purify the raw water in near by Water treatment Plant.
 - Pump treated water to the major OHBRs & GLBRs at the highest points
 - Transmit from the highest point through secondary pipeline network to all the habitations by gravity (98%)
 - Distribute to each house hold through a modern, rationalised intra village network by providing tap connections to each household.

Typical methodology





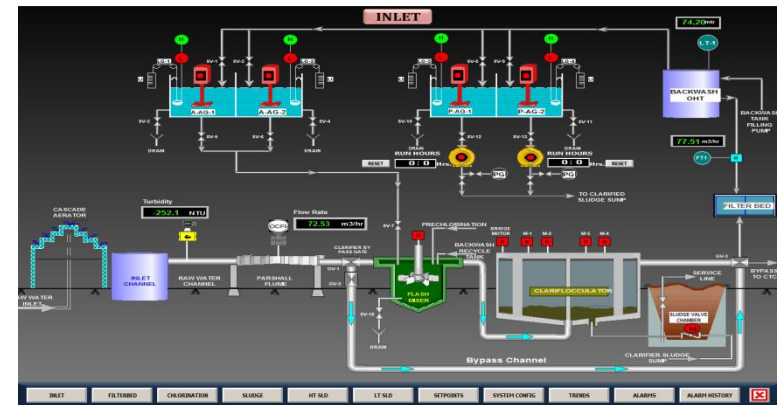
Design Period

(as per CPHEEO – Manual on Water Supply)



| S.No | DESIGN COMPONENT | Design Period in Years |
|------|---|------------------------|
| 1. | Intake Structures | 30 |
| 2. | Pumping | |
| | i) Pumping House (Civil Works) | 30 |
| | i) Electric Motors and Pumps | 15 |
| 4. | Water Treatment Units | 15 |
| 5. | Pipe Connections to Several Units and small other appurtenances | 30 |
| 6. | Raw Water & Clear Water conveying mains | 30 |
| 7. | Clear Water Reservoir at head works, balancing tanks and service reservoirs | 15 |
| 8. | Distribution System | 30 |

- Rapid Sand Filtration Technology
 - ✓ Operation - 23.5 Hours
 - ✓ Recycling of Back Wash Water - 3 % savings
- Establishing Water Quality Laboratories with adequate manpower
- SCADA System
 - ✓ Monitoring Inflows and outflows of treated water
 - ✓ Automated back wash system
 - ✓ Effective chemical dosing



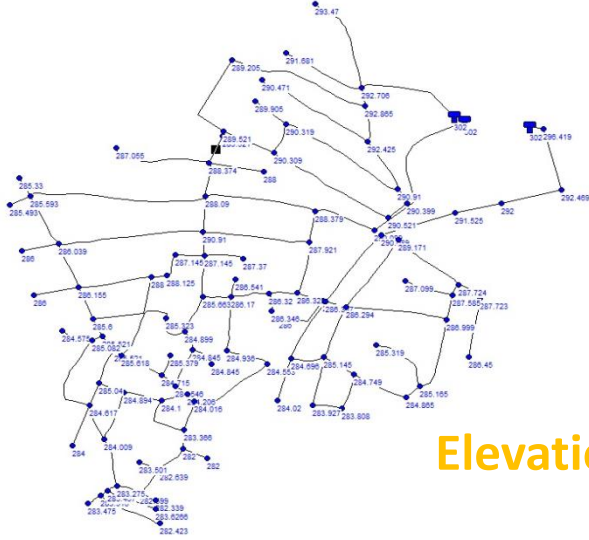


Pipe Policy

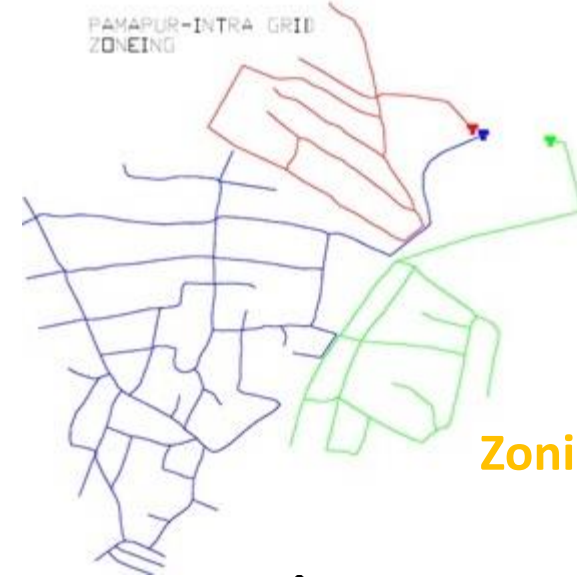


- ❖ The pipe policy for the project has been set based on the CPHEEO Guidelines and local terrain conditions
- ✓ Transmission Lines - Mild Steel, Ductile Iron, BWSCP, PCCP and HDPE
- ✓ Intra-Village Lines - HDPE and PVC

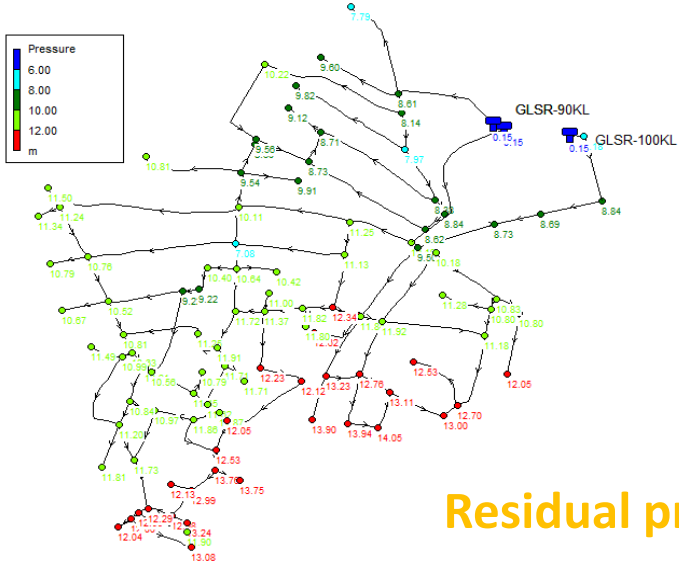




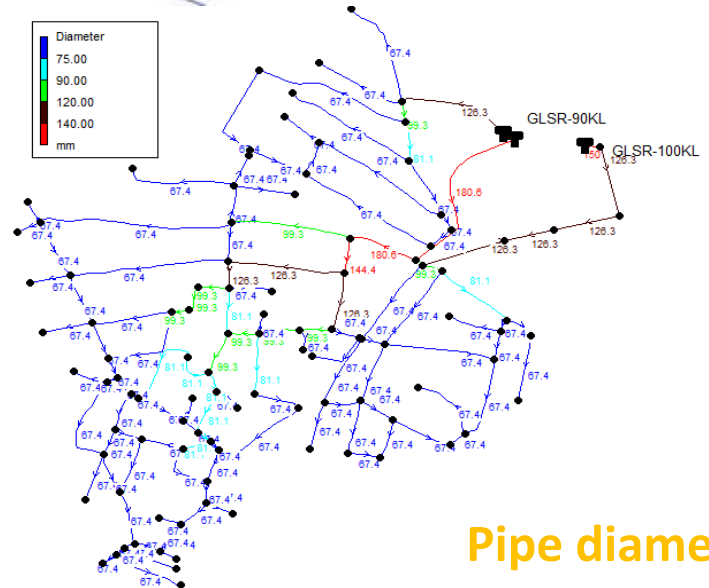
Elevations



Zoning



Residual pressure



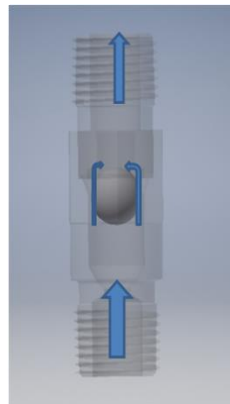
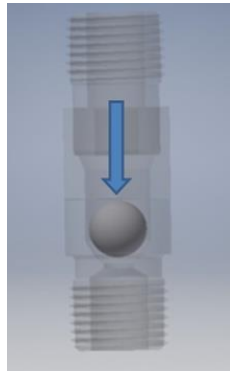
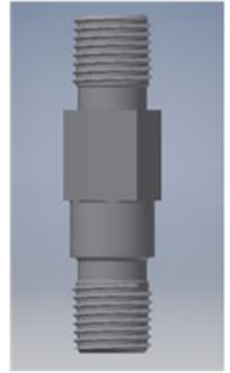
Pipe diameter



Intra Village System Cont.....



- House Connections are provided for each and every house hold.
- Flow control valves are being installed with a design flow of 5 LPM at house hold connection point. Flow control valve also disables drawing excess water through pumps by the individuals.
- The required capacity of OHSRs, i.e 50% of the demand, are being constructed duly integrating the existing OHSRs which are good condition.
- All the estimates are prepared based on Standard Schedule of Rates(SSR) approved by the Government





State Initiatives



- ❖ Mission Bhagiratha declared as Flagship programme
- ❖ Telangana Drinking Water Supply Corporation Limited (TDWSCL) formed under the chairmanship of Hon'ble CM.
- ❖ In all the surface water bodies, a reserve is maintained for Drinking Water Purpose by fixing Minimum Draw Down Levels and monitored regularly
- ❖ Right of User (RoU) Act for laying of pipelines in Private Land
- ❖ Reviews by Hon'ble Chief Minister for effective inter departmental coordination to complete the project within the stipulated time lines.
- ❖ Effective coordination mechanism put in place at both State and district levels.
- ❖ 1718 Additional posts created .



Highlights of Mission Bhagiratha



- Unique , Comprehensive and saturation mode
- Massive project with an outlay of Rs 45,028 crores
- Bulk Supply completed in a record time of 3 years.
- Covers 2.72 crore people and 68.46 lakhs households.
- Instead of earlier practise of EPC system for mega projects, Project investigated, designed and estimated by RWS&S Department.
- Modern survey equipment like DGPS and hydraulic modeling soft wares like Epanet ,Water Gems & KY Pipe utilised
- All DPRs, Designs prepared by the department and vetted by WAPCOS
- Telangana State power generation corporation (TS GenCo) is the technical consultant for vetting the designs of Electro Mechanical works.



Highlights of Mission Bhagiratha



- Transparent tendering process:
 - E Procurement
 - No EPC
 - Not permitted any firm with CDR in the last five years
 - No Mobilization advance
 - Strict payment conditions (incentives and penalties)
- 5 years defect liability and 10 years O&M on executing agencies
- Recycling system has been introduced to minimize the wastage of water during back wash of the Filters at Water Treatment Plants
- Mission Bhagiratha to be a SMART GRID with Optic Fiber Network provided along the pipe line
- Equitable distribution of water will be ensured by maintaining pressure heads. Flow control valves will be provided to ensure designed quantum
- IT enabled Monitoring Systems- Smart Project with Automated Systems. Mobile applications have been developed for effective monitoring the progress while execution and also for O&M



Mission Bhagiratha

Salient Features



- **Project Geographical Area** : 1.11 lakh sqkm
- **Coverage**
 - Rural Habitations : 23,968 (Outside ORR)
 - ULB's : 118 (66 Old + 52 New)
- **Population in lakhs** : 272.36 (2011)
 - Rural : 203.32 (2011)
 - Urban : 69.04 (2011)
- **Sources** : Krishna & Godavari rivers and their tributaries and reservoirs.
- **Water requirement - 2018** : 59.94 TMC
- **Water requirement - 2048** : 86.11 TMC
 - Krishna Basin : 32.43 TMC
 - Godavari Basin : 53.68 TMC
- **Project Outlay** : Rs 45,028 Cr



Mission Bhagiratha

Salient Features



| | | |
|---|---|-------------------------|
| ➤ No of segments | - | 26 |
| ➤ No of Constituencies | - | 99 |
| ➤ Total Households to be covered | - | 68.46 lakhs |
| ➤ Rural house holds | - | 51.87 lakhs |
| ➤ Urban households | - | 16.59 lakhs |
| ❖ Infrastructure (incl New & Existing) | | |
| ➤ Intake Structures | - | 69 (New 19) |
| ➤ Water Treatment Plants | - | 113 (New 50) |
| | | [4109 MLD] |
| ➤ Major Structures | - | 1708 (New 1163) |
| ➤ Pipeline network(Kms) | - | 1,46,022 (New 1,05,744) |
| ➤ Village OHSRs | - | 36,087 (New 18,811) |
| ➤ Power requirement | - | 235 MW |



Inter Departmental permissions & Land acquisition Status



❖ Service crossings (Total) - 13901 Nos

- Railway crossings 242
 - NH crossings 560
 - R&B crossings 4526
 - PR Road crossings 6953
 - Canal crossings 1453
 - River/Riverlet crossings 167
- Rs 20.40 crores paid to Railways towards crossings.

❖ Land acquisition

- | | |
|-----------------|--------------|
| | <i>Acres</i> |
| ➤ Govt Land | 636.33 |
| ➤ Assigned land | 115.38 |
| ➤ Private land | 222.54 |
| ➤ Total | 973.80 |

➤ Rs 13.92 crores paid towards land acquisition.

❖ Forest Permissions

- Total area - 475 hectares in 24 segments
 - Forest units - 97
- Rs 65 crores were paid to Forest department towards permissions.

❖ Power Infrastructure

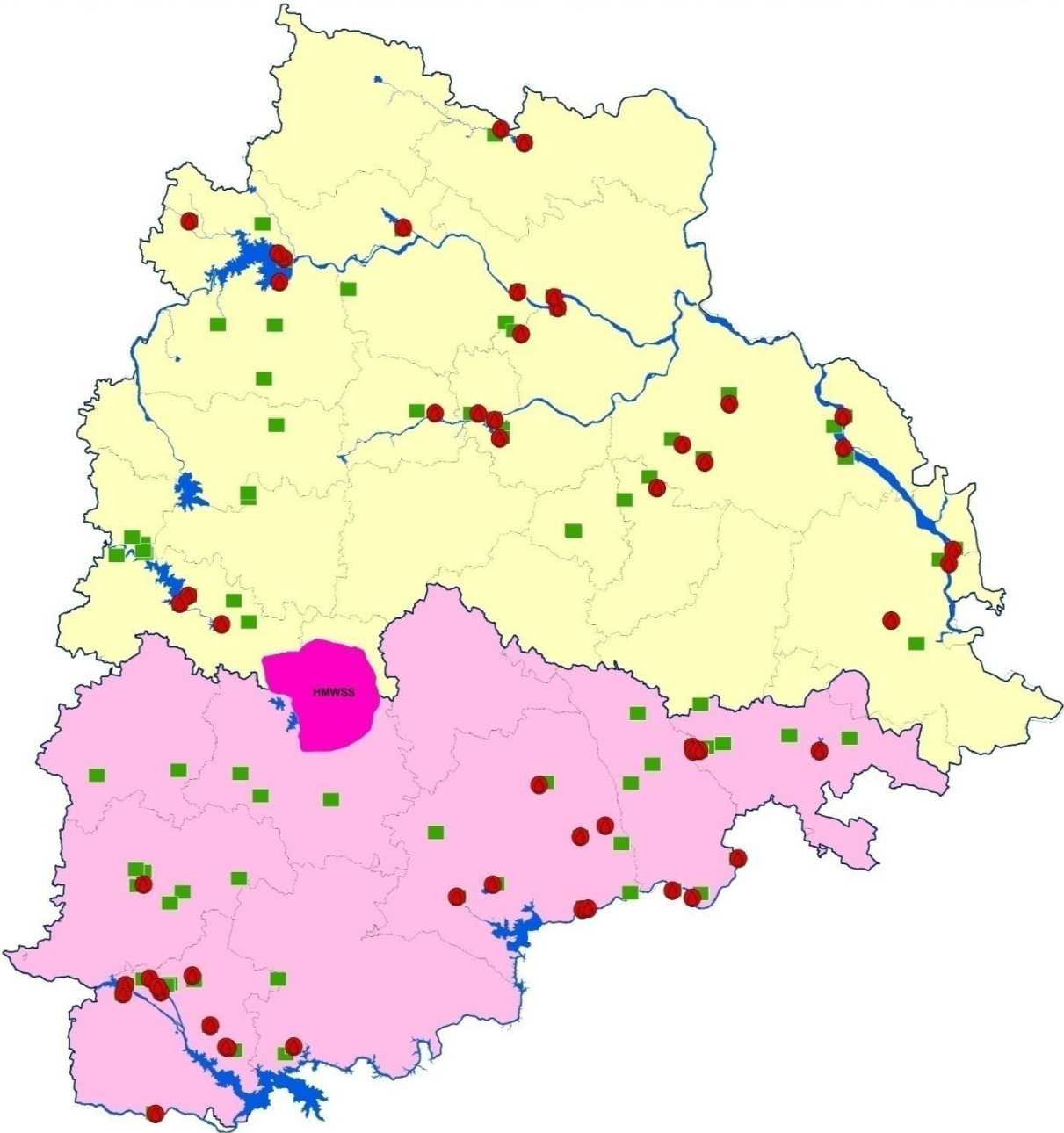
➤ HT Sub stations -201

| | |
|-------|------------|
| | <i>Nos</i> |
| 220KV | 2 |
| 33KV | 41 |
| 11KV | 158 |

➤ LT connections - 278

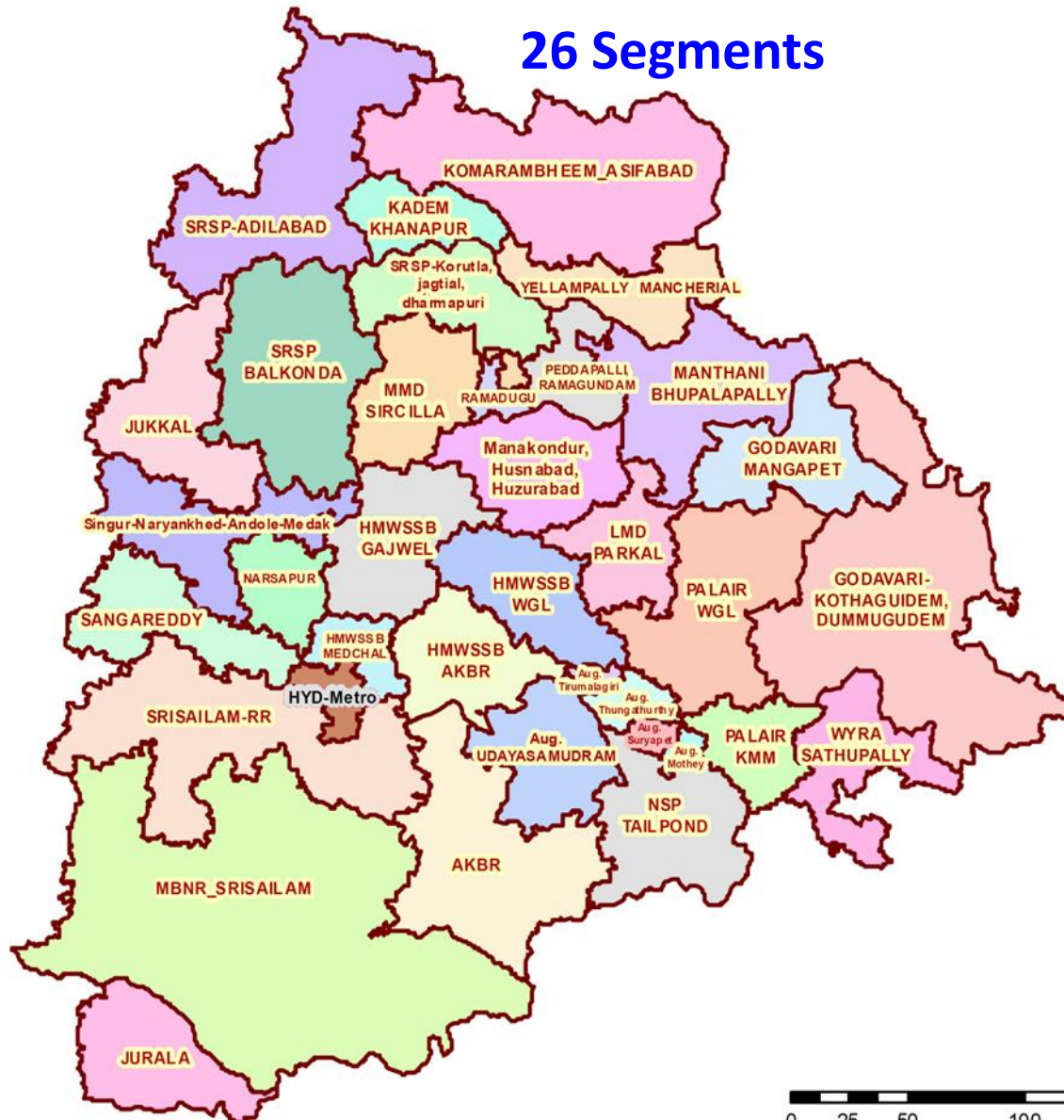
➤ Rs 301.59 crores paid to Electricity dept

COVERAGE UNDER KRISHNA AND GODAVARI RIVER BASINS



MISSION BHAGIRATHA PROJECT-TELANGANA

26 Segments





Resource mobilization



- For implementing a massive project with huge financial outlay and in order to provide safe and sustainable drinking water to the people of the State in a strict time frame, mobilising the resources outside the budget has become necessary which will not only bring immense social benefits to masses but also avoid any possible cost over run in the project
 - HUDCO Loan
 - NABARD Loan
 - Commercial Banks Loan
 - State Government Budgetary support
 - GOI-NRDWP WQSP Project



Mission Bhagiratha –Financial model



- ❖ Average Per capita Cost Rs 9,590 less than GOI suggested Rs 11,000
- ❖ A special purpose vehicle i.e.,Telangana Drinking Water Supply Corporation Limited (TDWSCL) formed.
- ❖ **Funds**
 - Transmission system-Rs 36255.64 cr
 - ✓ 77% from HUDCO & NABARD ,Commercial Banks ,GOI
 - ✓ Remaining 23% is budgetary support by the State Government as a margin money.
 - Intra village system –Rs 8771.97 cr
 - ✓ NABARD-RIDF (38%),Commercial Banks (37.3%),GOI (2.7%)
 - ✓ Remaining 23% is budgetary support by the State Government as a margin money.
- ❖ Revenue planned through Tariff Collection for some extent from Industries and ULBs



Mission Bhagiratha-Execution



❖ Speed of execution

- Covered bulk supply within (3) years by obtaining permissions before grounding the works.
- 13,901 service crossings & clearances are obtained with co-ordination and convergence at highest level at planning stage
- Right of User in Land (ROU) Act for giving rights to the RWS&S department, for laying the pipelines in private lands to reduce the land acquisition time
- Monitoring the activities of the project by utilizing modern systems like Video conference, creating Whatsapp user groups, etc
- Continuous funds flow are maintained for implementation
- Selection of Agencies who are qualified, experienced and financially sound

❖ Modern technology

- Modern survey equipment like DGPS & hydraulic modeling software like EPANET & KY Pipe are used .
- For Equitable distribution of water to households flow control valves are used
- Mobile applications developed for effective monitoring the progress while execution and also for O&M



Monitoring



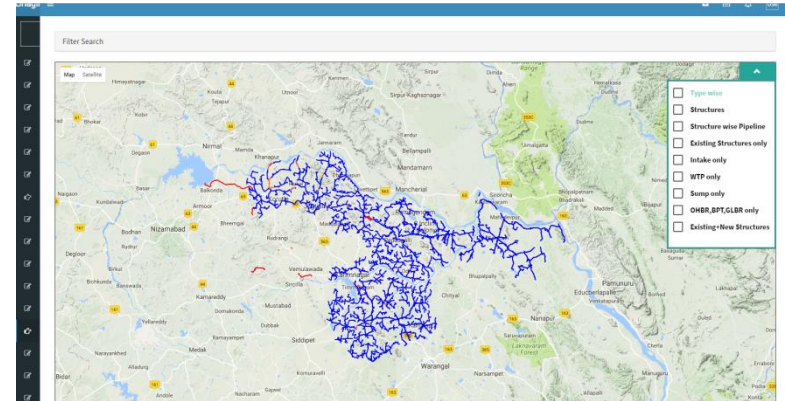
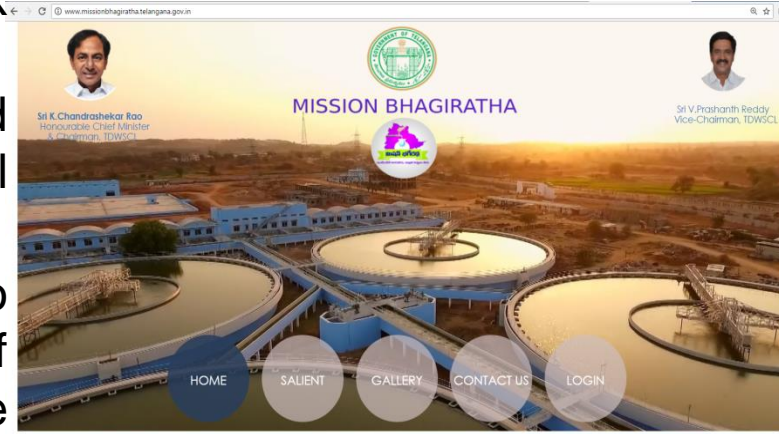
❖ Handling huge volume of data is most complex task.

❖ Department developed in house web-based application as Project monitoring portal www.missionbhagiratha.telangana.gov.in.

❖ Different functionalities incorporated in the tool to simplify the data capturing for proper planning of the project and for effective monitoring of the project.

- Asset Management functionality
- Project Monitoring Functionality
- File Management functionality
- Quality Control functionality
- Reports functionality
- Public Reports and Downloads
- GIS Management functionality
- Bulk Water Supply Management functionality
- Industries single window functionality

❖ Special feature is the ‘Dash board’ designed to allow the alerts at different escalations such as alerts for milestone shortfalls, alerts for extension of agreement time initiations, alerts for quality control inspection, etc

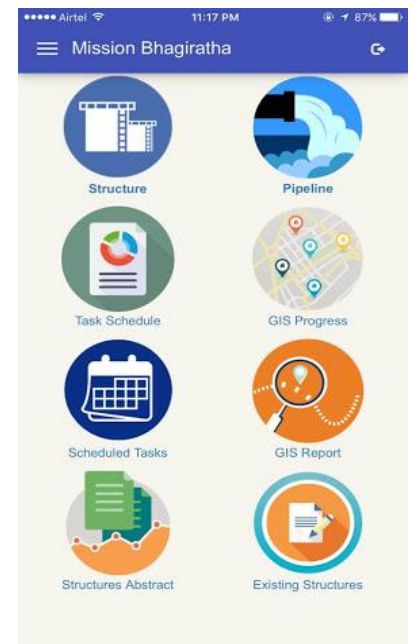
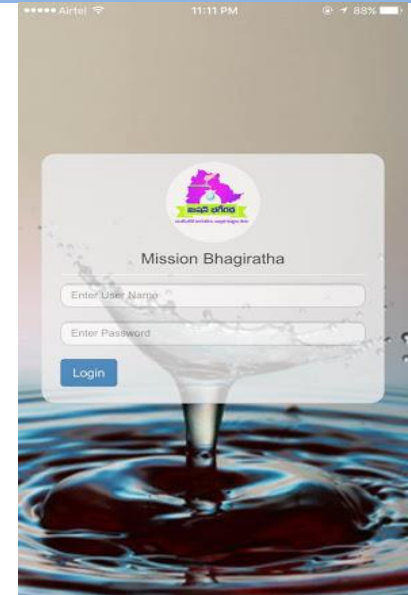




Monitoring



- ❖ Department Developed in house **Mobile application** for
 - Geo tracking the laying of pipeline by traversing along the pipeline so as to build as laid drawings of the pipeline and thus making the execution process more transparent.
 - Enabling to geo tag the pipeline, structures, valves and crossings along the pipeline.
 - capturing the physical and financial progress of works at the site with a mandatory provision to capture the image for assessing real time scenario of the progress.
 - E-tracking of the employee location for effective monitoring of the resources.





Present stage



| | | |
|--|---|---------------|
| ➤ Total target habitations | - | 23,968 |
| • Number of habitations supplied with bulk supply | - | 23,968 |
| • Number of habitations daily supplied through MB Taps | - | 23,398 |
| • Balance habitations | - | 570 |
| ➤ Household connections | | |
| • Total households | - | 55,59,172 |
| • Completed till date | - | 55,59,172 |
| ➤ Construction of new village OHSRs | | |
| • Sanctioned | - | 18,811 |
| • Completed | - | 16,124 |
| • Balance | - | 2,687 |
| ➤ Total ULBs under MB | - | 118 |
| • Completed bulk supply connections | - | 118 |



O & M cost



| | | |
|--|---|-----------------|
| ❖ Total Estimated O&M Cost per Year | - | 2250 Cr. |
| ▪ Power | - | 740 Cr. |
| ▪ Chemicals | - | 105 Cr. |
| ▪ O&M staff | - | 990 Cr. |
| ▪ Repairs/Renewals | - | 200 Cr. |
| ▪ Administrative expenditure | - | 215 Cr. |
| ▪ Bulk Supply O&M Cost | - | 1700 Cr |



Socio Economic impact study



- The study is taken up jointly by UNICEF-CESS and Govt. of Telangana .
- To understand the current status of drinking water scenario and to monitor different benefits accrued to different segments of people within the village and impact on a short term & long term basis on Socio Economic aspects. Further understand the necessary mid course modifications required in implementation of the program periodically.
- The study taken up with a National perspective, especially with respect to increase/ decrease of burden on women and with a focus on use of water for Sanitation & use of existing Sanitation facilities, apart from the other indicators



Hon'ble Prime Minister's inauguration



➤ Gajwel Sub-segment Commissioned by Hon'ble PM on 7.8.2016



➤ Work completed in **record time of 9 months.**

➤ Coverage

- Population -3.350 Lakhs
- Geographical Area -9690 Sqkm
- House holds -0.78 lakhs
- Habitations and ULBs -244



Hon'ble Chief Minister 's inauguration



➤ Suryapet Sub-segment Commissioned by Hon'ble CM on 12.10.2017



Intake wells



Palair segment



55m x 12m x 14m Intake well



Singur Medak segment



Singur Reservoir capacity: 29.61 TMC ;
Annual requirement: 1.88 TMC
Habs covered: 873

30m x 12m Intake well at Singur reservoir near Peddareddipet



Yellore Segment

130.25 x 36m Intake Well at Yellore



Srisailem capacity: 215.8 TMC ; Dead storage : 53.85 TMC
Annual requirement: 9 TMC ; Habs covered: 4469 (3088 MBNR+1381 RR)





Yellore Segment

130.25 x 36m Intake Well at Yellore



Srisailem capacity: 215.8 TMC ; Dead storage : 53.85 TMC
Annual requirement: 9 TMC ; Habs covered: 4469 (3088 MBNR+1381 RR)





Yellore Segment



Intake Well @ Yellore **130.25 x 36m Intake Well at Yellore**



SHOT ON REDMI NOTES PRO
MI DUAL CAMERA



Intake well @ Chali vagu



Pusuru sub segment – Khammam Dist



8m dia Intake at Godavari Pusuru (Wazeedu mandal)



Wyra segment – Khammam Dist



Intake well @ Wyra Reservoir



Intake at Dummugudem





Treatment Plants



Jurala Segment



70 MLD WTP @ Jurala





Peddapally Ramagundam segment

160 MLD WTP @ Murmur



సాగునీటి అభివృద్ధి, నాణ్యత నిర్ధారణ





AKBR segment 70 MLD @ Batlapally





Singur Jukkal Segment



సాగునీటి అభివృద్ధి, ప్రజలకు నీటి సౌకర్యం



145 MLD WTP @ Peddareddy pet



LMD MHH Segment



125 MLD WTP @ LMD colony





Palair segment



90 MLD WTP @ Jeellacheruvu





Singur Medak segment

90 MLD WTP at Peddareddipet





Yellore Segment



31 MLD WTP @ Yellore





SCADA



WTP OVERVIEW

17/02/2019 15:07:58

95 MLD MANCHERIAL GUDIPET

Designed By

TECH-MASTERS

HOME

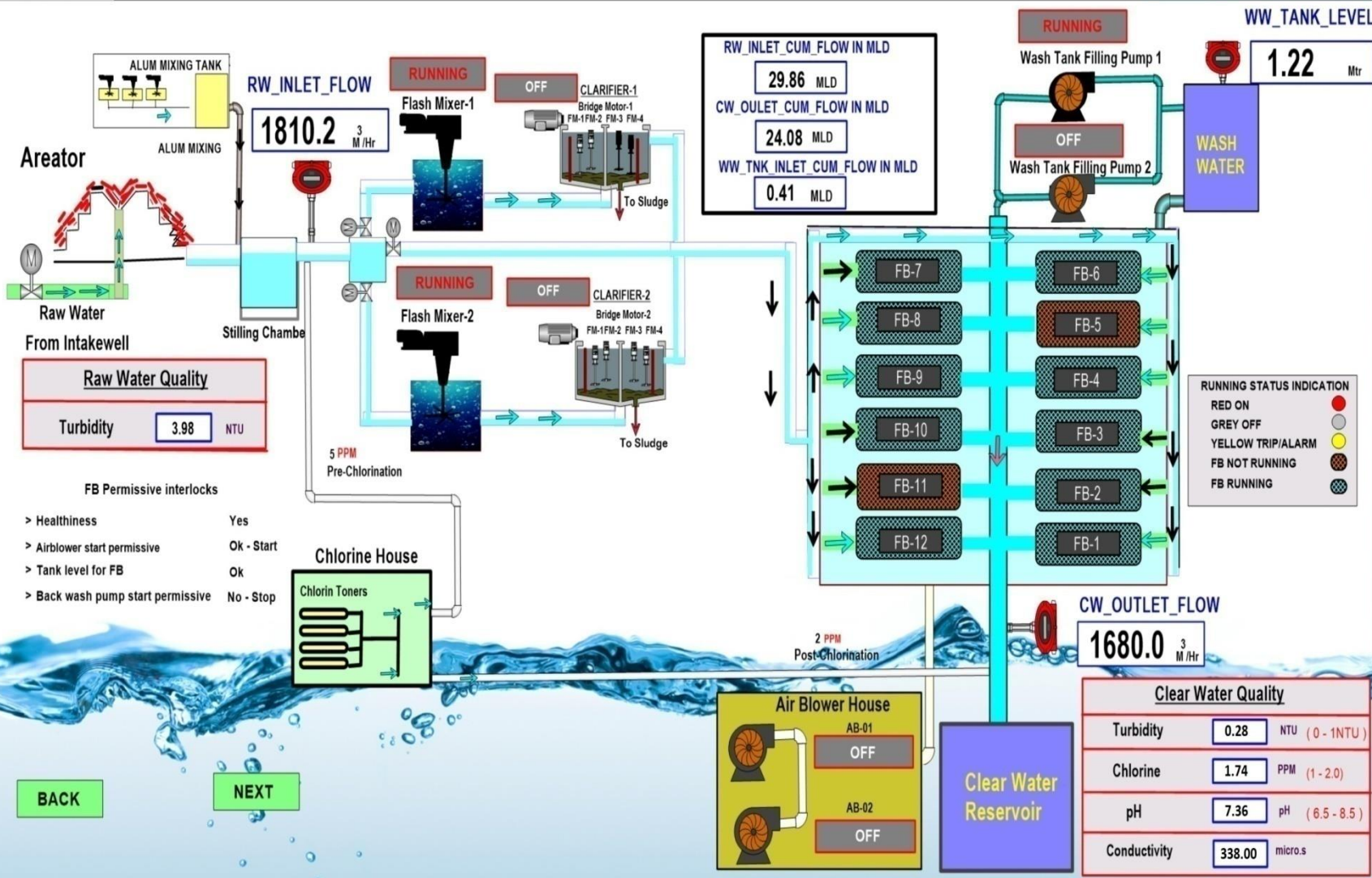
PROCESS OVERVIEW

FILTER HOUSE

EVENTS

DATA LOG

ALARM HISTORY





Structures & Pipelines



HMWSSB Gajwel segment



550 KL & 150 KI OHBRs @Komatibanda

14000 KL GLBR@Komatibanda



HMWSSB -Warangal segment



1800 KL OHBR @ komaravelly



SRSP Adilabad segment





AKBR segment -GLBRs on Gollakonda hillock





LMD Parkal segment -GLBRs on Ramappa hillock





MHH segment -GLBRs on Porandla hillock





Yellore Segment



2.4 mtrs dia MS Pipe line





Yellore Segment





Pumpsets @ Mallannagutta WTP





Srisailam segment



120 KL @ Shabad



1000 KL OHBR @ Rakamcherla



Electrical Sub stations





Railway crossing executed with Horizontal drilling by jack pushing method



Railway crossing @ Vangapally



Canal & Highway crossings



వనపర్తి జిల్లా, బాపట్ల తాలూకా, బాపట్ల రోడ్డు ద్వారా





Intra Village system-OHSRs





Intra Village system works



Tap Connection and Pipeline at Warangal X road, Khammam Rural mandal





HMWSSB Gajwel segment



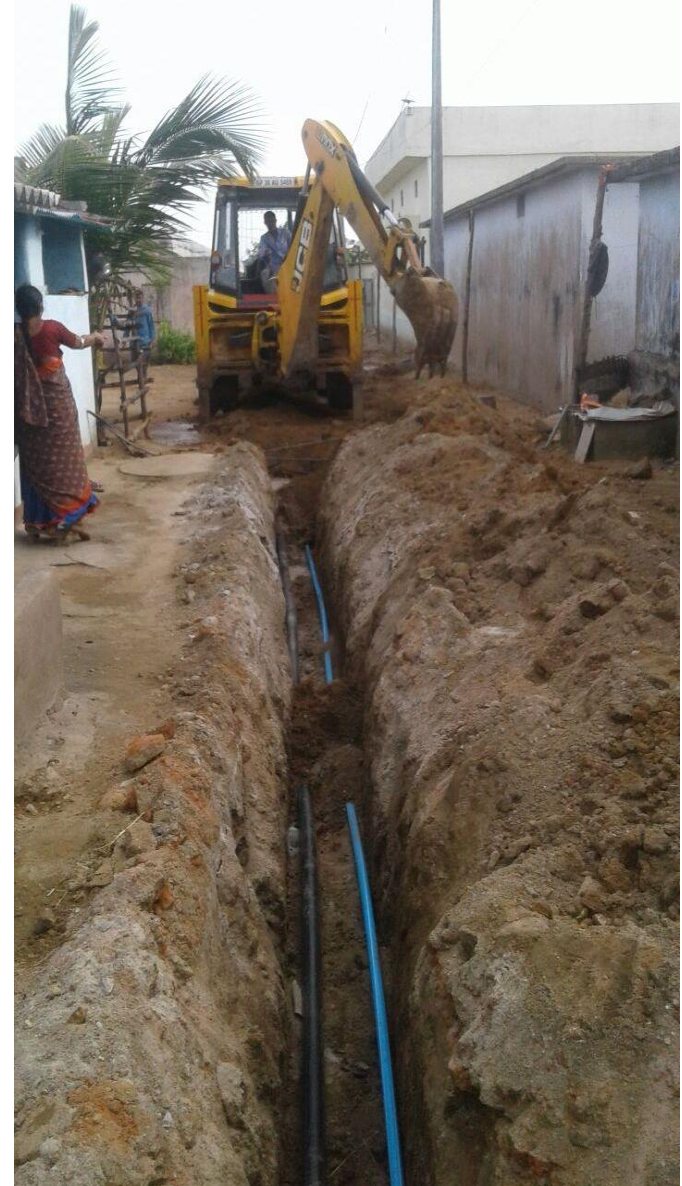


Last mile connectivity at Bhadrachalam tribal areas





OFC duct





Excavation for Pipeline laying in Agriculture fields of Hon'ble CM at Yerravally, Medak dist as per ROU act





Inspection of Bhagiratha Works by H.E Governor and Hon'ble Chief Minister





Appreciations

✓ HUDCO presented award thrice during 2014-15, 2016-17 & 2018-19 for best outstanding contribution in the infrastructure sector through innovative initiatives.





- ✓ Hon'ble Prime Minister made special mention of Mission Bhagiratha in his "Man ki Bath" on 22.5.2016 and applauded the efforts made by the Telangana government in water supply sector



Appreciations



✓ Skoch award 2018 for Mission Bhagiratha online monitoring system and Mobile Apps developed inhouse.





Appreciations



- ✓ This project received encomium from Hon'ble Prime Minister, Hon'ble Union Minister for PR, Niti Aayog, HUDCO, Secretary 15th FC and other states like UP , West Bengal, Maharashtra ,Tamilnadu, Bihar, Madhya Pradesh, Karnataka & Odisha.

Appreciations



Sri K.T.Rama Rao, Hon'ble Minister, Government of Telangana with Sri Akhilesh Yadav, Hon'ble CM, Uttar Pradesh (dt15.10.2015) discussing on the Telanagana Drinking Water Project model



Appreciations



Sri Sushil Kumar Modi, Hon'ble Deputy Chief Minister, Bihar visit to Bhagiratha sites on 10.9.2017



Sri Babarao Lonikar, Hon'ble Minister RWS&Sanitation, Maharashtra visit to Bhagiratha sites at Medak dist

'Mission Bhagiratha will be replicated in Marathwada'

Groundwater level in eight districts of Marathwada region has fallen to as low as 1,000 feet

R. AWADHANI

PEDDAREDDYPET (MEDAK DISTRICT): Maharashtra Water Supply and Sanitation Minister Babarao Lonikar said that Mission Bhagiratha will be replicated in Marathwada region to address the water problem.

He said that this scheme would be discussed in their cabinet shortly and requested the officials to present details of the scheme so that it would be easy for him to explain his colleagues.

Along with a team of officials, Mr. Babarao visited ongoing Mission Bhagiratha works at Peddareddypet near Singoor Project. Spending about an hour, the Minister enquired as to how the programme was planned and being implemented.

During his visit to the Singoor Dam he also asked as to how the groundwater level in the region was affected with the Mission Bhagiratha. Later, speaking to reporters Mr. Babarao said that it was amazing to see that the newly formed Telangana was able to make a progress on planning and implementation of schemes like Mission Bhagiratha within a short period of one year.

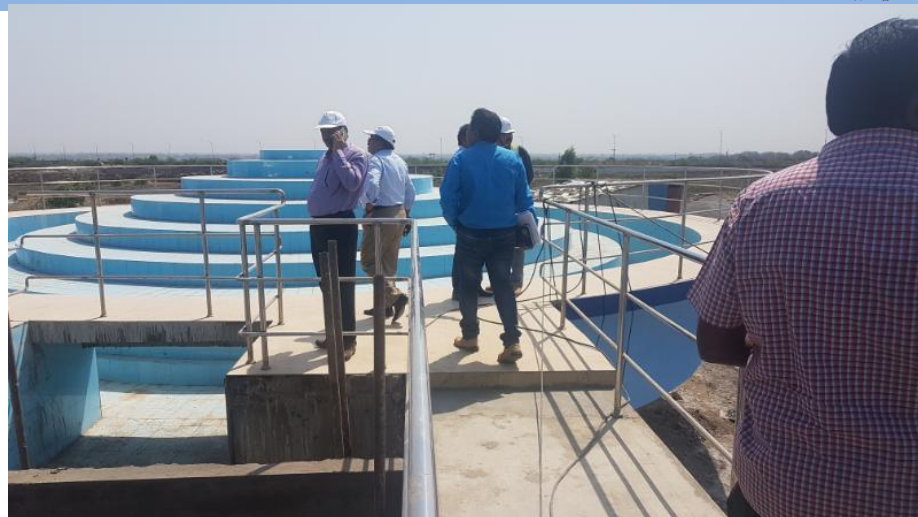
The Minister said that drinking water has become scarce commodity. We have to supply water to areas like Marathwada and to Lathur in tankers and sometimes even in trains. Groundwater level in eight districts of Marathwada region fell to as low as 1,000 feet. We have used 4,000 tankers to supply drinking water for the purpose, said Mr. Lonikar.

The Minister said that Chief Minister, Devendra Fadnis had sent them here to study Mission Bhagiratha Scheme and they were also studying the Gujarat model where drinking water supply was good. He informed that both the models would be tried to supply drinking water in Maharashtra.

Mission Bhagiratha Engineering in Chief Sunder Reddy and others were present.

STUDY TOUR: Maharashtra Water Supply and Sanitation Minister Babarao Lonikar inspecting a check dam in Medak district on Sunday. — PHOTO: SUDHANU

Appreciations



Chief Engineers & Team of Sr level Engineers, Tamilnadu visit to Bhagiratha sites



Madya Pradesh Sr level Engineers Technical Tour to Bhagiratha Works in Nagar kurnool & Sangareddy dists during September 2017



Visit of Senior IAS/IPS officers to Bhagiratha sites



THANK YOU