



Syed Zahid Aziz, Chairman PWON announce to launch PWON's new independent and fully owned website on a new domain PWON.PK on 18th March, 2017



Syed Zahid Aziz, Chairman Pakistan Water Operators Network has planned to launch PWON's new website on a new domain i.e pwon.pk on its upcoming steering Committee meeting at Multan on 18th March, 2017. This is going to be PWON first fully owned and independent website with a new modern look and dynamic interface. This website being established to provide more result oriented reports and comparable report feature to all stake holders keeping in view the importance of Key performance Indicators analysis in decision making on multiple levels by relevant W&S operators and department throughout the country.

PWON Participation in GWOPA Steering Committee Meeting at Barcelona Spain on 1st -2nd Feb, 2017

Pakistan Water Operators Network (PWON) as member of Global Water Operators Partnership Alliance (GWOPA), participated in its Steering Committee meeting held at Barcelona, Spain from 1st Feb to 2nd Feb, 2017. Ms. Maqsooda Fatima, National Coordinator PWON participated in "Regional Platforms Meeting" and "9th International Steering Committee Meeting" of GWOPA, 19 different Water and Sanitation Operators Networks / Associations and water utilities like WaterLinks, IAWD, Public Service International (PSI), Kisumu Water and Sewerage Company Limited,

PERPAMSI (Indonesia Water Supply Association), Barcelona City Council, EYDAP S.A. (Athens Water Supply and Sewerage Company), Federacion Nacional de Cooperativas de Servicios Sanitarios Chile Ltda. (FESAN), Aquanet BV, Cari-WOP, AECID (Agencia Española de Coop. Internacional para el Desarrollo), North Lebanon Water Establishment, UNESCO-IHE, Integrated Social Development Center (ISODEC), Aqua Publica Europa, Ingenieria Sin Fronteras, and WOP-LAC were also presented from across the world. GWOPA's



performance, future strategy related to WOPs and possible opportunities worldwide for Water Operators Partnerships were discussed during the sessions. Mr. Neil Macleod chaired the GISCM.

PWON Strategic Meeting with Development Partners

PWON met with Development Partners for strategic discussion on 23rd Jan, 2017 in Islamabad. Meeting was attended by Syed Zahid Aziz - Chairman Pakistan Water Operator Network, has planed to launch POWN's new websiite. Ms. Maqsooda Fatima – National Coordinator PWON, Mr. Siddique Khan - Country Director, Ms. Asiya Ashraf Chaudhary – WASH Specialist UNICEF, Ms. Jannat Durrani – WASH Officer UN-HABITAT, Mr. Sajid Ali Jafri – Project Associate UN-Habitat, Mr. Mahmud Jillani – Manager JICA, Mr. Abrar Khan - Program Officer JICA, Mr. Ahsan Pracha - Program Manager French Development Agency and Mr. Masroor Ahmed – WASH Expert.



Meeting was sponsored by

Discussion / Agreed Points



- Internal and external review of PWON activities
- Support to National and International Water Operators Partnerships (WOPs) through PWON.
- Adaptation of

PERPAMSI model for the approval of the public sector utilities membership requests.

- Water retreat planned for the development of five years' work plan and twinning.
- Support to Re vamping and maintenance of PWON website
- Reach out to GWOPA for the diagnosis / Benchmarking tools
- Support to expending PWON Newsletter publication and circulation and development of PWON Introductory documentary.
- Support to Independent

PWON Secretariat and enhancement of staff.

- Implementation of annual fee as per 20th March, 2015 SCM decision



MIT Assigns Research Project on PWON

On 17th January, 2017, Ms. Haleemah Qureshi, a student of Masters of City Planning Candidate 2018, from MIT Department of Urban Studies and Planning, USA, met with Syed Zahid Aziz - Chairman PWON and National Coordinator PWON in Lahore to know the

history of PWON and informal WOP practices in Pakistan, in connection to her research on WOPs around the world and specifically in Pakistan. She also visited WASA Faisalabad, WSS Peshawar, WSSC Mardan, WASA Lahore, KW&SB for the said purpose.

PWON-PERPAMSI WORKSHOP 14th – 15th December, 2016 at Karachi

Indonesian Water Supply Association – PERPAMSI delegation visited Pakistan Water Operators Network – PWON at Karachi with the joint support of GWOPA and WSP-World Bank on 14th and 15th December, 2016. PERPAMSI delegation was consisting of Mr. Benny Andrianto - Head of Partnership Department PERPAMSI / President Director of PT Adhya Tirta Batam), Mr. Erlan Hidayat - Secretary General PERPAMSI / President Director of PAM Jaya Jakarta and Mr. Dwiki Riantara -

Head of Performance Improvement Bureau PERPAMSI. PWON members including Managing Directors / CEOs and other representatives of WASA Lahore, WASA Faisalabad, WASA Multan, WASA Rawalpindi, WASA Gujranwala, WSS Peshawar, WSSC Mardan, WSSC Abbottabad, WSSC Kohat, WASA Hyderabad and KW&SB participated in the workshop. PWON observers UNICEF, AFD, UN-HABITAT and Urban Unit were also present. In two days, two focused and two general

sessions were organized between PERPAMSI delegation and PWON to discuss the facilitation guidelines for the organization of National WOPs in Pakistan in the view of PERPAMSI experience and best practices. PERPAMSI brief PWON members, about PERPAMSI structure as an association of Water suppliers in Indonesia. The similarities & differences between PERPAMSI and PWON were also discussed to understand the role and responsibility of a W&S Operators Network.

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PWON Steering Committee met at Gujranwala on 26th November, 2016

PWON Steering Committee Meeting met at Gujranwala on 26th November, 2016. Meeting was chaired by Syed Zahid Aziz – Chairman PWON, representatives of member utilities, and representatives of development partners / observers including Mr. Khalid Bashir Butt – MD WASA Gujranwala (Host), Mr. Rao Muhammad Qasim - MD WASA Multan, Mr. Khanzeb Khan - CEO WSSP, Peshawar, Mr. Nasir Ghafoor - CEO WSSC, Mardan, Mr. Shahid Sohaid - Member Engg CDA, Mr. Syed Mohsin Nazar - Director Finance, WASA Hyderabad, Mr. Ali ur Rehman - General Manager Operations WSSP, Peshawar, Mr. Idress Khan - Manager Technical WSSC, Mardan, Mr. Hammad Fazal - Deputy Director WASA Rawalpindi, Mr. Roohan Javed - DD Tech WASA FDA, Mr. Muhammad Adnan Yunus - DD Bulk Waste Management Cell CDA, Mr. Maqsood Anjum - Dir (A & F) WASA Gujranwala, Mr. Jabbar Anwar -

Director I & C, WASA Faisalabad, Mr. Muhammad Afzal - DD Engg, WASA Gujranwala, Mr. Tahir Hussain - DD Engg. WASA Gujranwala, Mr. Muhammad Ramzan, Executive Engr - WASA Quetta, Mr. Ahsan Kajeas – SDO WASA Quetta, Mr. Muhammad Tanveer - Director WASA Lahore, Mr. Iftikhar – ud-Din Naeem Director - WASA Lahore, Mr. Muazzam Jamil - DS UD, HUD&PHED Govt. of the Punjab, Mr. Zia Mustafa - Water Specialist Al-Jazari Academy Lahore, Mr. Mubasher Cheema - Technical Skill Training Specialist Al-Jazari Academy Lahore, Ms. Asia Ashraf Chaudhary - WASH Specialist, UNICEF, Mr. Touqeer Abbasi - Manager Urban Program Water Aid, Mr. Masroor Ahmad - Sr. Water Specialist, World Bank, Mr. Ahsan Paracha - Project Manager AFD (French Development Agency) and Ms. Maqsooda Fatima - National Coordinator PWON participated in the meeting.

PWON's first exclusive SC Meeting
sponsored by Water Aid



Hosted by WASA Gujranwala



PWON Welcomes New Member WSSCM

SC approved membership request
of Water & Sanitation Services
Company Mardan



PWON wishes AFD dynamic role as its new observer

PWON Steering Committee
approved the French
Development Agency
(AFD) as new observer in
PWON and wishes that
AFD will play a dynamic
role as observer /
development partner in
PWON for the betterment
of water and sanitation
sector in Pakistan.



SCM Highlights

- Two members, membership committee formed to present recommendations on membership and annual fee criteria.
- A criteria set for premium members to update KPIs on PWON website on regular basis to be eligible for national and international training and WOPs opportunities.
- National Coordinator assigned to resolve the issues faced by WASA Lahore and other utilities, in process to update KPIs on PWON website by taking appropriate measures.
- Issues related to tariff, subsidy water containment and water shortage were discussed in the meeting
- Observers Committee formed to review the eligibility of water utilities for upcoming Water Operators Partnership with an Indonesian Utility, from the joint platform of GWOPA, PERPAMSI and PWON.
- AFD offered fully funded foreign scholarships for W&S staff.
- GWOPA proposed Technicians training Program in Barcelona by Catalan Operators at the start of next year.
- WSP announced to sponsor the PWON – PERPAMSI workshop in Karachi.
- Chairman PWON appreciated Water Aid and WASA Gujranwala for sponsorship and hospitality respectively for organization of this meeting.



Knowledge Sharing Within Network

WASA Faisalabad shared with WSSCM and KW&SB

Sewerage and Drain Regulations, 2015

WASA Tariff

The Punjab Private Housing Schemes and Land Sub division Rules 2010

Water Supply Regulations 2015

Customer Care Center Information.

WASA Lahore Shared with WASA Hyderabad

Android Based Consumer Survey Form

WASA Gujranwala Shared with WASA Faisalabad

Experience of Beautification of Disposal Station (Rajkot)

WSS Peshawar Shared with NSUSC

Human Resource Management Manual

Finance Manual

NSUSC Shared with WASA Hyderabad

Complaint Management System Operational Manual

PWON Distributed Safety Guidelines to W&S Utilities

Effluent Quality and Bio Solids Management

Waste Water Treatment Plant

Performance Goals:

. In order to protect the environment and human health, high-quality plant effluent, meeting the minimum water quality standards required by the authority having jurisdiction, must be produced and distributed regardless of plant influent characteristics. Bio solids management must include achieving minimum standards for disposal/reuse. Staff shall establish goals for plant performance for water quality and biosolids, conduct monitoring to determine conformance with the goals, and take appropriate action if goals are not achieved.

Operational Goals and Objectives:

The plant shall establish goals for effluent and biosolids quality, conduct monitoring to determine conformance with the goals, and take appropriate action if goals are not achieved. The goals should provide a margin of safety so as to avoid exceeding regulatory limits.

Monitoring Performance:

The plant shall have a monitoring system that can track plant performance and can be used to assess achievement of effluent and biosolids quality and performance goals.

Monitoring for Targets:

The plant shall establish a routine sampling plan that is representative of the monitoring points and adequately covers all key elements in the process. The sampling plan shall be reviewed annually and adjustments made based on historical trends, changes in treatment patterns, or other changes affecting water quality, biosolids quality, or plant efficiency.

Control Measures:

a) **Sample Sites:** The plant shall use sampling sites that are representative of all known system conditions, including where wastewater is stored and where wastewater quality deterioration is known, or suspected, to occur. Samples shall include locations that represent changes in treatment requirements.

b) **Sample Collection:** Samples shall be collected in accordance with the procedures approved by the appropriate regulatory permitting authority.

c) **Laboratory Analytical Methods:** The laboratory shall establish basic quality requirements to be incorporated into any contracts for commercial procurements for analytical services. The plant shall develop standard operating procedures for all analytical measurements done by the organization. The SOP shall include the analytical procedures, any instrument calibration requirements, quality control practices and documentation, and reporting protocol sufficient to document the traceability and quality of the result. All personnel conducting analysis shall be trained in the analytical technique.

d) **Remote Analytical Measurements:** The plant shall develop standard operating procedures for the care, calibration, calibration verification, and data collection for any remote or in-line measurement devices.



Corrective Response:

The plant shall have defined corrective responses for each of the effluent and biosolids quality goals. Response must include who will take action and when to expect correction to achieve the goals.

Data Evaluations:

The process and compliance monitoring data shall be entered into a process tracking system that facilitates routine data analysis to ensure plant performance and regulatory compliance. Suggested input for this system would also include data generated through the facility's SCADA system, including flow and other metering data, immediate action taken, results of an investigation,

formal response to the regulatory authority, and final disposition of the issue. In addition, the plant shall collect and analyze data for trends and have an action plan to respond to nonconformances or processes trending toward out of-control situations. For recurring or significant nonconformances, a root-cause analysis and corrective action plan shall be conducted.

The system shall record all compliance violations and the records shall include date, parameter, actual value, and limits.

The record shall include the immediate action, the investigation team and investigation results, and the final disposition of the issue.

Drinking Water Quality Guidelines

Monitoring and Control:

a) Sampling plan: The utility shall establish a routine distribution system sampling plan that is representative of the entire distribution system as required by the regulatory agencies. It should include sampling sites, water quality parameters to be tested, and frequency of sampling and sampling procedures. The sampling plan shall be reviewed annually and adjustments made based on historical data trends, changes in water use patterns, applicable regulatory requirements, modifications requested by regulators, or other changes that may affect water quality. The utility shall analyze data trends and have an action plan to respond to changes.

b) Sample sites: Sample sites shall include, at a minimum, sites required for regulatory compliance monitoring. Additional sites shall be sampled as necessary to provide a complete picture of water quality in the system. The utility shall use sampling sites that are representative of all known distribution system conditions, including the following: variations in hydraulic detention time, pipeline materials, where booster disinfection is applied, where water is stored, and where water quality deterioration (e.g., loss of disinfectant residual and increased microbial growth) is known or suspected to occur. Samples shall include locations that represent the longest detention time in the system, deadend locations, areas of low circulation, connections to adjoining agencies, and finished water storage facilities. Locations where problems have occurred in the past require more frequent sampling.

c) Sample collection: Samples shall be collected in accordance with Standard Methods for the Examination of Water and Wastewater (or other applicable analytical method). Chain-of-custody forms shall be used throughout the sampling process in accordance with

Standard Methods for the Examination of Water and Wastewater or regulatory requirements. Both sample collectors and the laboratory shall use standardized labels and forms.

d) Sample taps: Sample taps shall be protected from outside sources of contamination. The integrity of the sample taps shall be inspected and evaluated annually to correct leaks or other potential sources of contamination.

Disinfectant Residual Maintenance:

a) Disinfectant residual: The utility shall maintain a detectable disinfectant residual or a heterotrophic bacteria (or plate) count (HPC) of 500 or fewer colony forming units (cfu) per mL at all points in the distribution system at all times. The utility shall monitor and record disinfectant residual or HPC as described in the sampling plan and the results shall be reported to the appropriate agencies as per prescribed regulations. The utility should take appropriate actions, such as increased disinfection where applicable and continued flushing, if high HPC is found in the distribution system.

b) Nitrification control: If the utility adds ammonia to the water as part of the disinfection process or if there is a significant concentration of ammonia in the source water, the following procedures shall be used:

- Monitoring of the free ammonia concentration prior to and after chloramination. The weight ratio of chlorine to ammonia must be monitored and controlled to minimize the presence of free ammonia in the system.
- Adjustment of the ammonia feed rate to compensate for the source water ammonia concentration, or the ammonia is oxidized prior to chloramination. Establish and periodically review a disinfectant goal based on the historical database to avoid nitrification.

i) The utility shall routinely monitor for other key nitrification indicator parameters in the distribution system (e.g., nitrite, nitrate, ATP [adenosine triphosphate], and free ammonia) and take appropriate corrective action as required.

- Booster disinfection.

i) The utility shall set and document residual goals and a program to monitor compliance with goals.

ii) The utility shall have clear written operating procedures for each booster disinfection facility based on maintaining residual goals at critical points. Plans should take into account seasonal variations, water quality, flow, and system operation variations.

iii) The utility shall have a written plan to respond to any variance between operational goals and actual measured results.

- Disinfection by-product monitoring and control.

i) The utility shall have a program to monitor and control disinfection by-products. The program shall establish goals for DBPs at critical points in the distribution system.

ii) The utility shall have an action plan to respond to DBP problems in the distribution system. This plan shall include specific actions to take should the DBP levels exceed the established goals.

Additional Requirements for Utilities not Using a Disinfectant Residual. The Utility Shall Monitor and Record HPC.

a) Response Program: The utility shall have an action plan to respond in the event the HPC goal is not met in the distribution system. The action plan shall include

- Goals for HPC at critical points in the distribution system.
- Criteria for initiation of actions defined in the plan.
- Criteria for initiation of actions that correct a problem before it becomes a health or regulatory concern.
- Description of specific responsibilities of staff and assignment of responsibilities.

Internal Corrosion Monitoring and Control:

a) Prevention and Response Program: The utility shall have a prevention and response plan established to detect and respond to internal corrosion and deposition problems in the distribution system. The action plan, at a minimum, shall include the following:

- Monitoring and sampling plan for corrosion-related

parameters (e.g., pH, alkalinity, conductivity, phosphates, silicates, calcium, metals, asbestos, turbidity, chloride). The scale-forming potential shall be measured by the appropriate indexes (calcium carbonate precipitation potential [CCPP] or the Langelier saturation index [LSI] or some other set of parameters proven to protect the system).

- Inspection, when exposed, of the condition of piping for perforations, tuberculation, and other conditions related to structural integrity and hydraulic capacity. This information should be recorded for use in pipeline condition assessment.

- Procedures to control lead and copper levels.

- Guidelines for controlling other corrosion-related by-products, such as iron, color, zinc, and taste and odor, in the distribution system.

Aesthetic Water Quality Parameters:

a) Taste, Odor, Color, and Staining: The utility shall have an action plan to address taste, odor, color and staining problems. The action plan, at a minimum, shall include the following:

- An inquiry call system in place that can differentiate between taste, odor, color, and staining problems and other inquiries and track them to resolution.
- Trained personnel who can handle customer inquiry calls, can explain system problems that are known, and can collect pertinent information for response personnel.
- Communication of inquiry information to a response team for timely resolution. Review of inquiry records for data trends to identify problem areas of the distribution system.



Upgrading of Mechanical System for Sewerage & Drainage Services in WASA Gujranwala

Japan International cooperation Agency (JICA) COMPLETED THE Grant-In-Aid project namely "Upgrading of Mechanical System for Sewerage & Drainage Services in Gujranwala" in which following machinery is added to the system of WASA Gujranwala. Disposal Pumps (14), Generators (14), Jet Cleaner & Suction machine (06), Excavators (03), Dump Trucks (10),

Pick-Up Trucks (03), Dewatering Pumps (15), Winching Machine (07). A successful completion and handing over ceremony was held on 2nd December 2016 in Gujranwala in which Highness Takashi Kurai (Ambassador of Japan), Engr. Khurram Dastgir Khan (Federal Minister) participated with other staff participated.



WSSP Awareness Campaign on Sanitation Concludes

An awareness drive "Guloona Pekhwar" about sanitation in the provincial capital Peshawar ended. The drive was jointly organized by Water and Sanitation Services Peshawar (WSSP), Town Municipal Administrations I, II, III & IV, and Peshawar Development Authority (PDA) in collaboration with WATSAN cell Department of Local Government Elections, and

Rural Development Khyber Pakhtunkhwa and AVT Khyber Channels. UNICEF, Al-Khidmat Foundation, Sabawon, SRSP, SHED, EHSAR Foundation, Tameer Khalq Foundation, and Peshawar University Teachers Association also took part in the drive. CEO WSSP, Engr. Khanzeb, GM (Ops) Ali Khan zonal managers supervised the drive. Chief Minister Pervez Khattak lauded the drive and



WSSP efforts for a clean city and stressed that more efforts be put in place to achieve targets. He narrated the steps of his government for cleanliness of cities and rural areas and asked the authorities to expedite the pace of activities.

"Energy Saving in Water Supply System Project" by JICA in WASA Lahore

For the provision of drinking water to the citizens of Lahore, WASA had installed 527 numbers of Tube wells of 2 Cfs and 4 Cfs capacity in different areas of Lahore. With the passage of time and completing the useful life of tube wells, a number of tube wells have become uneconomical. In order to tackle this issue, WASA Lahore initiated a Project in Lahore "Energy Saving in Water Supply System in Lahore" which is energy saving through replacement of



inefficient and outlived 105 number of tube wells in WASA Lahore through JICA Grant Aid Project. This project costs Rs. 2608.907 million and approximately 1.280 million people will be benefited from this project.

The contractors and consultants of this project are appointed by JICA Japan after competitive bidding in Japan. At 47 sites work is in progress and this project is scheduled to be completed in January 2018.

WASA Lahore has installed 280 numbers of Arsenic Removal Filtration Plants in different areas of Lahore City.

WASA Lahore to Initiate Android Based Consumer Survey

An android base consumer survey by WASA Lahore has been initiated. This will enhance the own source revenue of the WASA Lahore. The consumer survey will also identify the potential consumers and eradicate the illegal connections, which will help to foresee the future planning. For this Purpose two firms have been qualified, naming "G3 &

CS Red" and "Fincon Consultants". G3 & CS Red (in package-A) will be conducting the Survey in Shalimar Town, Aziz Bhatti, D.Gunj Bux Town, Whereas Fincon Consultants (in Package-B) will be conducting the survey in A.I Town, Nishter Town, G.B Town. GIS Sheets, Maps has been prepared by the Urban Unit team town-wise and ward-wise.

The survey has been started on January 18, 2017 and monitoring of Survey is continue/ongoing by WASA-Lahore and CPU-Team. This survey has already been completed by WASA Rawalpindi and will be completed by other three WASAs in Punjab by May ,2017 as per commitment made with World Bank under PCGIP.

WASA Hyderabad Launched Website

WASA-Hyderabad launched its website on 10th December, 2016. Commissioner Hyderabad Division holding the additional charge of Director General - H.D.A, Qazi Shahid Pervez, was the chief guest of the occasion.

He appreciated the efforts taken by the WASA-Hyderabad, to facilitate its customers, especially services of duplicate billing. All WASA – H officers were present on the occasion.



Upgradation of Master Plan of WASA Faisalabad (JICA GA Project)

To assess the long term requirements of the Faisalabad city, a Master Plan was prepared in the years 1975-76 for 25 years (i.e. upto 2000) with the financial assistance of Asian Development Bank (ADB). In view of the rapid expansion of the city,

changing development trends and growth patterns, WASA -F got the original master plan updated in 1993 from M/S Inter-Consult of Norway for the next 25 years i.e. up to the year 2018. The World Bank provided financial assistance for this Master

Plan Study. After last updation of 1993, the characteristics and features of the city have drastically been changed due to the development on the side of industrial, commercial and infrastructures. The drinking water resource development, drainage

infrastructure extension, waste water treatment facility development and distribution/arterial network needed to be re-prioritized according to the present and future requirement of the city. Accordingly, JICA has been requested through P&DD/EAD in July 2014 to finance/support updation of master plan of WASA Faisalabad for next 20 years under its technical assistance program. The Minutes of Discussion containing all modalities of technical assistance were signed in this regard between JICA and Govt. of the Punjab/Pakistan on 18.11.15 containing draft record of discussions signed on 3.3.2016. According, the Master Plan study has been commenced from 19th July 2016. Objectives / Benefits: Improvement in infrastructure of water supply, sewerage and drainage system in the city



including planning for extension up to the boundary of peri-urban area. The master plan study will be completed by the end of 2017, followed by implementation of NRW control project in three pilot area of the city.

Eastern Wastewater Treatment Plant (Denmark Government commitment) in WASA Faisalabad

Total sewage generated in Faisalabad is about 310 million gallon per day. There is only a small wastewater treatment plant of 20 MGD capacity and rest whole of the wastewater is being disposed off into river Ravi & Chenab without treatment, which is causing hazards for the inhabitants living along downstream of the Rivers. Provision of wastewater treatment services is also an obligation as per Pakistan Environmental Protection Laws. A feasibility study is required to determine the suitable sites and appropriate technology for wastewater treatment plants. Economic Affairs Division, Islamabad informed in January 2017 about the willingness of Danish Government to finance the said study as a Grant Aid. As such the Deputy Head of Mission of Royal Danish Embassy, Islamabad visited WASA Faisalabad to get



first hand information about the scope and location of the project. The feasibility study, in this regard will be finance by Danish Govt. for the construction of Waste water Treatment Plants in Faisalabad will be commenced and completed in current year. After this study Danish Govt. will finance the construction of Eastern waste treatment plant in the city. This financing will include Grant -Aid component of 35% and loan of 65% of the project value.

Extension of Water Resources for Faisalabad City (French Phase-II)

In March 2013, His Excellency the Ambassador of France Mr. Philippe THIEBUAD visited Faisalabad along with Chief Minister Punjab, gave some indication for funding of Phase-II project. In March 2015, Chief Minister Punjab, approved the concept of the project in principle and desired to take it on priority. Feasibility Study, PC-I completed by Consultant, Mott MacDonald Pakistan (Pvt.) Ltd. PC-I has been forwarded to

Govt. of Punjab for approval. Scope of work: Water Treatment Plant at Lower Gogera Branch (25 MGD Capacity). Extension of Jhal Water Treatment Plant - 05 MGD capacity, Ductile Iron Pipeline / Arterial Main (1000-1200mm)24 Km, NRW, further improvements reducing water losses, better control of the resources to allow improved revenue collection by WASA. Project Outcomes: 24/7 water supply for

another 600,000 inhabitants of the city, Improved pressure in the network, for 700,000 inhabitants of the city, more efficient Management of the city Water Network, Sufficient revenue from water to fund WASA-F and enhancement per capita from 30 to 40 GPCD. The estimated project cost will be Rs. 14,000 millions including French loan component about 11,000 millions

PWON GALLERY



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