# Water, Wastewater, Environmental & Fire Solutions

### **Company Profile**

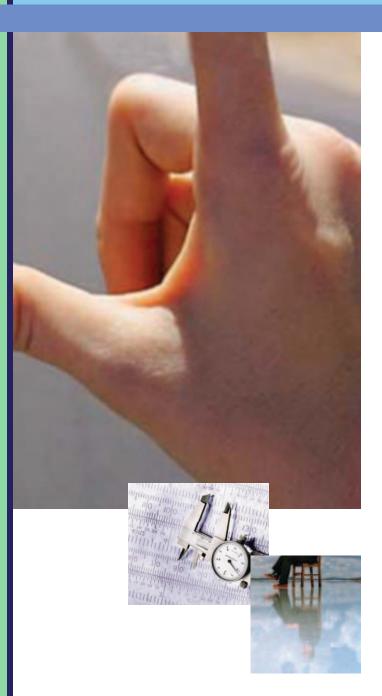




(ISO 9001, 14001, 18001 Certified)



# Mission



We are Specialized Engineering Organization providing System Solutions in Water, Wastewater, Environmental & Fire Applications. With our in-house expertise and state of the art software, we are providing "Total System Solutions" that are Cost Effective, Technology Responsive and Tailor Made to our Environmental Matrix.

We have attained a significant market position and intend to become Leading Engineering, Procurement and Construction (EPC) Company in our sector by Providing Environmental Solutions sustainable for our clients.

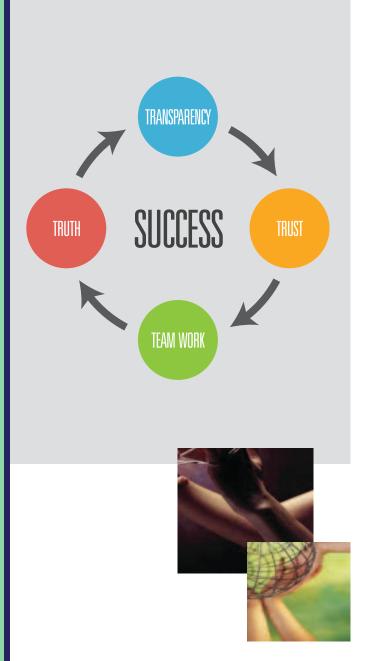
We are pooling our professional resources through strategic business alliances to provide comprehensive solutions to our valued customers. We Gauge our Success through Customer delight, Exponential Growth and Satisfied Employees.

# **QHSE** Policy

he management, employees & stake holders of 3W Systems are committed to provide value for money in the Design, Engineering, Product Manufacturing, Supplies and Services rendered to its customers. The company realizes its obligation and moral responsibility in promoting culture of Safety, Health & Environment compliance within the company as well as at customer's premises. The management is fully committed to implement fool proof procedures and guidelines to ensure compliance of QHSE standards at all level in the company. The successful implementation of QHSE Policy shall be judged from accreditation and certification from international agencies.



### Values-4T's



Create an atmosphere of Harmony, Trust and Teamwork within the organization.

To promote Leadership through Empowerment and Accountability System.

Follow Merit in all Decision Making Processes and Promote Justice in all Sphere of Activities.

Provide Equal Opportunity to all Employees irrespective of their Gender, Cultural, Religious or Ethnic back ground.

rain people to Accept Reality, encouraging people to Speak Truth and promoting an environment of Self Respect.

o promote a culture of Safety, Health and Environmental awareness

# **Chief Executive Officer**

#### Arshad Mahmood Awan

Mr. Arshad has done Bachelor in Civil Engineering and has 25 years of experience in the field of Water and Wastewater Engineering in Pakistan as well as abroad. He has participated in several local & international seminars, conferences and training programs.

His expertise include General Management, Project Management, EPC Contracts, Project Acquisition, Contract Management, Technical Procurement, Imports and Commercial Affairs.

He is a professional member of following bodies:

- Pakistan Engineering Council (PEC)
- Islamabad Chamber of Commerce & Industry (ICCI)
- Water Environment Federation (WEFtec) US
- Dutch Business Council Pakistan



### **Board of Management**



Rashid Javed Chughtai Manager Commercial B.E. Electronics Engineering



Muhammad Saqib Raza Manager Technical B.Sc. Mechanical Engineering



Masood-ul-Hassan Manager Accounts & Admin MS. (Computers, Accounts & Finance)



Dr. Muhammad Saqib Nawaz Manager Environment Division & BD PhD Environmental Engineering



Sabour Khan Wazir Manager Project & Services B.Sc. Civil Engineering MS. Construction Management

### Key Team Members



**Farhan Nawaz** B.Sc. Mechatronics Engineering



**Umul Baneen Zafar** B.Sc. Environmental Engineering



**M. Abubakar** B.Sc. Mechanical Engineering



Shahzaib Shabbir B.Sc. Electrical Engineering



Maria Aftab M. Phil. Environmental Sciences



Taimoor Azhar B.Sc. Chemical Engineering MBA (Marketing)



Muhammad Ali B.Sc. Electrical Engineering



**Neeshay Imran** B.Sc. Environmental Engineering



Ammad Ahmad B.Sc. Mechanical Engineering



3W Systems is serving the needs of its clients through following four business divisions.

#### 1. Environmental Engineering Division

3W Systems specializes in the field of Environmental Engineering and we do complete engineering as well as manufacturing of Water and Wastewater Treatment Plants locally and source their equipment from European and US based principals as per clients requirement.

#### **Water Treatment Plants**

We can Design, Engineer, Manufacture and Supply Water Treatment Plant for use in municipal water filtration as well as industrial process water treatment. We produce Reverse Osmosis (RO) Plants, Ultra Filtration (UF) and Micro Filtration (MF), Forward Osmosis (FO) Desalination systems, Boiler Feed Water Treatment plants, Water Softening, Ultra violet (UV) Water Disinfection, Demineralization, Ion Exchange Resins, Multimedia Filters and Activated Carbon Filters.

#### **Environmental Laboratory Services**

With our in house fully equipped Environmental Laboratory we can conduct all type of Wastewater and Water Quality Parameters testing and Treatability Studies of industrial Wastewater Samples.

#### Wastewater Treatment Plants (WWTP)

We have the capabilities to conduct treatability studies and do process designing, detailed engineering for the construction of various types of Wastewater Treatment Plants including Package WWTP. Depending on clients requirement and reuse of the treated effluent, we can follow various treatment processes like Conventional Activated Sludge (CAS), Moving Bed Bioreactor (MBBR), Sequencing Batch Reactor (SBR), Membrane Bioreactor (MBR), Extended Aeration, Dissolved Air Floatation (DAF) Systems, Anoxic and Anaerobic Systems and Upflow Anaerobic Sludge Blanket (UASB) reactor etc. We also offer Sludge thickening and dewatering systems like Belt Filter Press, Filter Press, Anaerobic digester etc. We can also design and install Odor Control System for treating malodorous gases produced during the Wastewater treatment.

#### **Solid Waste Management**

Our technical expertise dwell upon in an other major evolving sector of solid waste management. We cater services involving recycling of material, energy recovery, power-gen using Biogas from organic waste & RDF, fertilizer from organic waste, heating system of houses, landfill for the leftover waste after treatment. Our Specialized engineering technology implies efficient usage of Extruder Press, VM Press, Orex Press, OCC screens, amongst many others for the purpose of generation of significant amount energy from solid waste treatment.





#### **Environmental Assessments**

We have an experienced team of EIA (Environmental Impact Assessment ) and IEE (Initial Environmental Examination) personals. We are proficient enough to conduct research and studies to minimize negative environmental impacts and in turn apply mitigation measures.

#### **O & M Services**

We also do operation and maintenance (O & M) contracts for operation of Pumping Stations, Water & Wastewater treatment plants, Retrofitting and Upgradation of existing Wastewater treatment plants.

#### **Research and Development**

3W Systems understands the importance of R & D for the development of client specific and cost effective water and wastewater treatment solutions. 3W is currently doing research in collaboration with National and international Universities We are offering research based internships programs to environmental, mechanical, Electrical & chemical engineering students.

#### 2. Engineering Division

3W Systems provides its Engineering Services to the clients, consultants and contractors in the following areas;

Detailed Engineering & Hydraulic Design of Water Supply Systems

Sewage Network Design, Leak Identification Systems, Drainage Network Design, Solid Waste Management (SWM) System

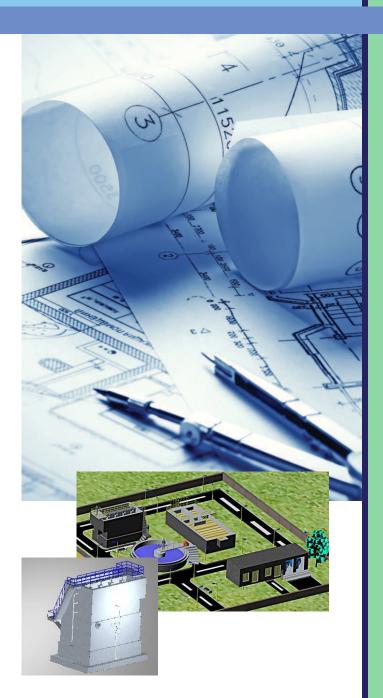
Process Design, Detailed Design and Engineering of Wastewater Treatment Plants

Process Design, Detailed Design and Engineering of Water Treatment Plants

#### **Software Skills**

We use the following softwares for the analysis of our design:

- Water CAD
- Sewer CAD
- AFT Mercury
- AFT Impulse
- IView Opps
- Smart Plant 3D
- Staad Pro
  Solid works
  Indosoft
  Wplsoft
  DOP Soft
  RSLOGIX

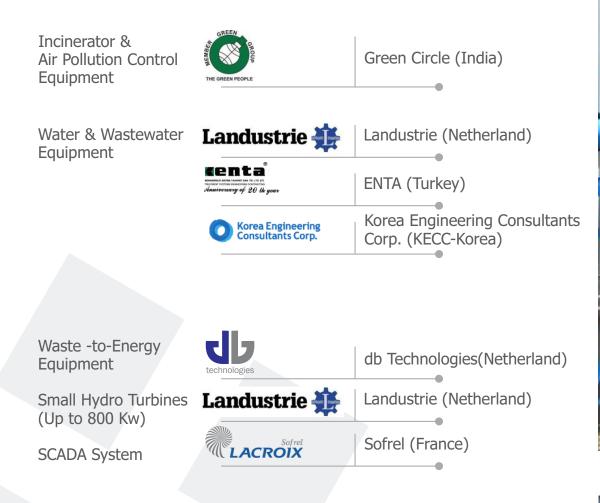




#### 3. Equipment Division

3W Systems have acquired representation rights and distributorship agreement from various renowned international equipment manufacturers of Water & Wastewater equipment. They include following:-









#### 4. Fire Division

3W Systems provides complete design, supply, installation and commissioning services for Fire Detection and Fire Suppression Systems.

Fire Equipment	<b>fike</b>	Fike Ltd. (UK)
Fire Detection & Suppression		Multi-Stage Alarm and Smoke detection Systems, heat Detectors etc.
Fire Indication		Fire control panel, Manual call points, Fire Alarms with and without sounders etc.
Fire Cables		Special heat resistant (Upto 800 °C) cables for fire detection system
Fire Fighting		Water Based Systems (Nozzle, Hose Reel, Sprinklers)
		Gas Based Systems (FM 200, IG 55), Powder/Chemical Based Systems

# Partial List of Projects

### Wastewater Treatment

Our company has been involved in the various stages for design, engineering, consultancy, management, and operation & maintenance of the following projects:

- 5500 m3/day Dairy Wastewater treament plant at Nestle Sheikhupura with 1200 m3/day water recycling using membrane filtration.
- 6800 m3/day Activated sludge based wastewater treatment plant at Benazir Bhutto International Airport Islamabad with 100% water recycling through rapid Sand Filtration.
- 421 m3/day Upflow Anaerobic sludge Blanket (UASB) based wastewater treatment plant for fruits & vegetables processing plant, Fauji Fresh n Freeze, Sahiwal.
- 80 m3/Day Package Type Wastewater treatment plant with water recycling for Metro Cash & Carry (Lahore, Faisalabad, Karachi & Islamabad)
- 300 m3/Day Package Type Wastewater treatment at Quaid-E-Azam International Hospital Complex Islamabad – 500 Beds Hospital
- 400 m3/Day Package Type Wastewater treatment plant with water recycling at Minawa Construction – Condominium on Murree expressway
- 200 m3/Day Package Type Wastewater treatment plant with water recycling at Paradise Valley Housing Project, Faisalabad
- O & M of sewage treatment plants and SCADA system for pipelines operation for Al-Mansoor International Co. LLC Oman
- Upgradation of Mechanical system for sewer cleaning mechanism For Japan Techno (JAT) with WASA, Faislalabad
- Supply and installation of mechanical and electrical equipment to Nestle Kabirwaala.

Details pertaining to the scope of these projects can be seen in Wastewater Treatment Plant brochures.



### Partial List of Projects

### Water Treatment, Water Supply & Dewatering

Our company has been involved in the various stages for design, engineering, consultancy, management, and operation & maintenance of the following projects:

- Engro Water Supply project, Dharki Sindh for Descon Engineering Limited
- Design review of Water , DHA Islamabad, Tariq Gardens Lahore, Alhamra Hills Islamabad for Habib Rafiq (Pvt.) Ltd. (HRL).
- Rainwater harvesting project for Walls, Uniliver
- Urban water supply and sanitation project for Amen Saleh Naji, Yemen
- Water & Sanitation Agency Faisalabad, designing & top supervision of Water Treatment Plant of 10 MGD.
- Peshawar Development Authority, designing of Water Treatment Plant of 20 MGD – Jabba Dam, 20 MGD – Bara Dam, 254 MGD – Munda Dam and 162 MGD – Warsak Dam

3W Systems (Pvt.) Limited has well-versed footing in the execution of Water Treatment Projects in collaboration with our Partner company.

- 40m3/h Reverse Osmosis Plant for Colony Sugar Mills Punjab Pakistan
- 10m3/h Mineral Water Plant for Alhilal Ghee Mills
- 15m3/h Reverse Osmosis Plant for Fresher Juice Plant
- 2m3/h for Reverse Osmosis Plant for Raj Textile Mills
- 4m3/h Ultra-filtration (4Nos) Plant for Chunia Cantt
- Water purifier and UV sterilizer mineral water plant for MCBIT Center



# Partial List of Projects

### Fire Detection & Suppression

- Complete EPC job of Fire Detection and Suppression system for a total area of 3,000,000 ft<sup>2</sup> at Interloop (Pvt) Ltd, Faisalabad
- EPC job for Fire Detection and Suppression systems for 11 Satellite buildings as per Class I and Class II NFPA standard at NESCOM Complex, Islamabad
- Fire Detection and Suppression system for Quaid-e-Azam International Hospital (QIH), Islamabad; A 400 bed hospital with total 11 floors.
- Fire Detection and Suppression for Canteen Store Department (CSD), Rawalpindi and Sialkot; A big shopping store.
- Fire Detection and Suppression for Amson Pharmaceutical, Rawalpindi.
- Fire Detection system for National Defense Complex (NDC), Islamabad; A Strategic building complex
- Fire Detection system for PMO, Islamabad; A Strategic building complex
- Fire Detection system for Kahuta Research Laboratories (KRL) Kahuta; A Strategic building complex
- Fire Detection system for Defense Science and Technology Organization (DESTO); A Strategic building complex, Islamabad
- Fire Detection Suppression for Pakistan Atomic Energy Commission (PAEC), Islamabad.
- Fire Suppression system for Fatima Fertilizer near Rahim Yar Khan



# Think Green

In todays progressive world and visualizing it with a futuristic approach, conserving the natural resources and habitat have become extremely essential with the ever-growing industry and population of the world.

3W Systems (Pvt.) Limited is one of the devoted organizations engaged in an effort to educate and cultivate the current and future environmental development of Pakistan. Water is a basic human necessity and everyone's birthright. Improper waste management by industrial and domestic sector, are the leading factors of pollution of environment, plus the generation of unhealthy waste. The need for purity of water in our country is very dire; Poor drinking water quality and sanitation lead to major outbreaks of waterborne diseases. Each year, countless of many lives in our mother country are being lost due to lack of availability of this basic necessity and increasing magnitude of waste and pollution.

With pure intentions of developing a healthier and sustainable environment, 3W Systems (Pvt.) Limited envisions' to achieve a "green" and healthier environment in Pakistan. We pride ourselves on contributing towards this cause by providing professional services, consultancy services and technical support to help the clients achieve the goal of "green" environment.

We call for environment lovers and general population all around the world to join hands with us in this noble cause, and help us reclaim our planet to make it a better place for generations to come.



No.SO(UD)8-41/2009. GOVERNMENT OF THE PUNDAB HOUSING URBAN DEVELOPMENT & PUBLIC HEALTH ENGG: DEPARTMEN

M/S. 3W SYSTEMS (PVT) LIMITED, Government Contractor, 34/A, Street No.27, Valley Road Westridge, Rawelphild Cantt.

bject: <u>RENEWAL OF CATEGORY "A" CLASS CONTRACTOR UPTO</u> R5.800.000 MILLION FOR THE YEARS, 2012-12, 2013-14 AND 2014-15.

Your firm has been approved for renewal in category "A" Class ontractor for the financial year, 2012-13, 2013-14 and 2014-15 upto s.800.000 Million.

 You are authorized to tender the works in the department under the administrative control of Secretary, HUD & PHE Department within the provision of Finance Department's Witter No.SO(IRR)PD-7-5(4)-74, dated 31.01.1982, subject to the following:

(i) In the event you did not carried out any work/participated in tendering for any work during the year 2014-15 in any Department, the Department may not consider your name for renewal for the next year unless you give cogent reasons for not only the same.

i) Should any department be dis-satisfied with your quality of work, conduct and technical efficiency, the department shall be at liberty to remove your name from the approved list of debarring your from all future tendening throughout the Punjab in any department without assigning any reasons thereof.

(II) Application for renewal for the year 2015-16 complete in all respect will be submitted to this Department well before 31.05.2015 or as notified later on.

### Our Clients





Head Office Location: 37-GCP Employees Cooperative Housing Society, Near Johar Town, Lahore, Pakistan.

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