

Manju Prakash Sharma, PE, DEE, DWRE

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Experience:

Metropolitan Water Reclamation District of Greater Chicago

July 2003 to Present

Assistant Director – Maintenance and Operations Department

As the Division Manager of General Division, with a staff of 90+ and an operating budget of \$20+ Million, responsibilities include:

- Preparation, coordination and management of Department budget, totaling approximately \$210 Million for maintenance and operations of the Water Reclamation Plants (WRP's), Biosolids Processing Facilities, and other ancillary facilities .
- Negotiations, review and reporting of the NPDES, air, and solids disposal regulatory and permitting issues as related to operation of the WRP's and biosolids processing facilities.
- Preparation and administration of approximately 150 Contracts and RFP's per year for repairs, construction, professional services, chemicals etc. as they pertain to the maintenance and operation of the WRP's, Biosolids Processing Facilities, and other ancillary facilities.
- Preparation and Administration of the District's Government Accounting Standards Board (GASB) Reports that include a complete itemization and triennial condition assessment of the District's assets, i.e., WRP's, Biosolids Processing Facilities, Pumping Stations, Waterways, and Flood Control Facilities.
- Review and administration of all personnel and union related issues such as grievances, performance appraisals, appointments, and disciplinary actions for the 1000+ employees of the Maintenance & Operations Department.
- Operation of Chicago River Controlling Works, Lockport Controlling Works, Wilmette Pumping Station and the Pump Back Station to minimize the risk of river reversal, in other words potential discharge of sewage contaminated waters into Lake Michigan.
- Operation of Lockport Powerhouse which generates electricity and revenue for the District.
- Operation of the Waterways Control Center to provide critical information pertaining to approaching storms, storm intensity, and elevation of the waterways system throughout the 872 square miles of the District's jurisdiction.
- Administration of the Small Streams Maintenance program providing debris removal for all streams to ameliorate flooding in the service area.
- Administration of the Rain barrel program.
- Maintenance and operation of District's Biosolids handling facilities that process and deliver over 127,000 dry tons of biosolids to landfills for daily and final cover, land application to farmland, and local controlled solids distribution where applicable.
- Administration of Site Remediation and Environmental Risk Management of District's land holdings.

October 2002 - July 2003

Supervising Civil Engineer – Process Facilities Division - Engineering Department

Project Management, supervision and administration of the Civil, Structural, and Architectural Design Section.

Specific activities included supervision of 25+ engineers, drafting and clerical staff; development and administration of section budget; manpower allocation; planning and technical review of design and post-award engineering; consultant selection and management; and coordination of multidiscipline projects related to expansion and/or renovation of WRP's, Biosolids Processing Facilities as well as the TARP tunnels, structures and reservoirs.

September 1997 – October 2002

Supervising Civil Engineer – Collection Facilities Division – Engineering Department

Project management, supervision, and administration of the Flood Control Section.

Specific activities included supervision of engineers, drafting and clerical staff; development and administration of section budget; planning and technical review of design and post-award engineering of combined sewage and flood control reservoir projects; procurement & administration of consultant services; negotiation of agreements with outside agencies such as Corp of Engineers, Environmental Protection Agency, Natural Resources Conservation Service, Illinois Department of Natural Resources-Office of Water Resources, Illinois Department of Transportation, City of Chicago, local municipalities and private entities such as Material Service Corp., Vulcan Material Corp, various consultants, and contractors; and administration of maintenance agreements for existing MWRD Flood Control Reservoirs.

September 1991 – September 1997

Principal, Senior, & Associate Civil Engineer – Process Facilities Div. – Engr. Department

Performed progressively increasing levels of responsibilities leading to supervision, project management, planning, design, post-award engineering; and procurement and administration of consultant services for projects related to expansion, modification and /or renovation of WRP's and Biosolids Processing Facilities.

February 1989 – September 1991

Associate Civil Engineer – Collection Facilities Div. – Engineering Dept.

Performed the planning, hydraulic/hydrologic modeling, design, and post-award engineering of Flood Control Reservoirs.

June 1988 – February 1989

Assistant Civil Engineer – Collection Facilities Division – Engineering Dept.

Responsibilities included review of MWRD Sewer permits.

January 1986 – June 1988

Staff Engineer - Dames & Moore, Park Ridge Illinois

Established a Geotechnical Laboratory including development of testing protocol, pricing for laboratory services and supervision of all laboratory activities; assisted in development and implementation of subsurface investigation programs, including drilling, laboratory analysis, engineering analysis and report preparation, performed field monitoring and supervision of construction, performed groundwater contamination modeling, assisted in performing air quality modeling for SO₂ plume prediction from small industry sources; performed hydraulic/hydrologic modeling.

October 1983 – May 1985

Research Assistant - University of Illinois

Developed liquefaction analysis protocol using dynamic triaxial apparatus; performed liquefaction analysis using the dynamic triaxial apparatus for various dams and foundations in Iceland, Venezuela, and Bangladesh, assisted the professor in teaching Soil Mechanics and Soil Dynamics courses to graduate and undergraduate students, trained professionals in the use of dynamic triaxial apparatus as it applies to liquefaction analysis of soils.

Conducted specific research on impact of pre-consolidation on liquefaction potential of cohesionless soils.

January 1980 – May 1982

Assistant Engineer - Stone & Webster Engineering Co., Denver, CO

Assisted the Project Engineer in design of various features of Nuclear Power Plants, including concrete and steel structures, foundations, retention ponds, roadways, parking lot and railroad.

January 1979 – January 1980

Engineer Intern - International Eng. Co., San Francisco, CA

Assisted the Project Engineer in preparing design calculations and drafting of concrete and steel structures as related to hydropower plants.

A complete list of projects and agreements is attached

Education:

MS - Civil Engineering; Completed 1985
University of Illinois – Chicago

BS - Civil Engineering; Completed 1979
California State University – San Jose

Professional Affiliations:

Member - Water Environment Federation
Member - American Society of Civil Engineers

Publications & Technical Presentations:

Environmental impact of rain, runoff, and infiltration on solid waste piles
International symposium on rain runoff modeling, May 1981

Hydrologic Safety and Rehabilitation of Old Dams
International Conference on Hydrology and Water Resources, December 1993

Professional Licenses/Titles:

Registered Professional Engineer in Illinois (PE)
Diplomate Environmental Engineering (DEE)
Diplomate Water Resources Engineering, (DWRE)

Computer Applications Experience:

MS Office (Word, Excel, PowerPoint etc), WSP2, TR20, HEC1, HEC2, QUAL2E, Civil Design,
Survey, Groundwater Contamination, SO2 Plume Prediction, Soil Boring log, FEDAM, DAMBRK

Personal Interests:

Reading
Traveling
Volunteer teaching pre-school children at the Hindu Temple of Greater Chicago
Fluent in Hindi & English