

## North Las Vegas Water Reclamation Facility, North Las Vegas, Nevada

- New 25 million gallon per day (MGD), \$257-million membrane bioreactor (MBR) water reclamation facility
- Facilities to be constructed include an influent pump station, grit and screening facility, MBR equipment gallery, ultraviolet (UV) disinfection building, biosolids handling center, and administration and maintenance buildings
- The initial phase of the project will provide 25 mgd of capacity to meet both discharge and reuse standards, with the ability to expand future capacity up to 50 mgd

CNLV Constructors II, a joint venture between CH2M HILL and New-Com Construction, was selected by the City of North Las Vegas in 2008 to provide Construction Manager at-Risk services for a new 25 MGD, \$257-million membrane bioreactor water reclamation facility. Scheduled to be operational by May 2011, the new facility will provide reclaimed water for use in industrial and recreational applications, including turf irrigation for golf courses, schools, and municipal parks.

Designed by Greeley & Hansen with assistance from CH2M HILL, the treatment process features screening and grit removal followed by MBR treatment process with chlorine disinfection and solids processing for disposal to landfill. Facilities to be constructed include an influent pump station, grit and screening facility, bioreactor and membrane equipment gallery, UV disinfection building, biosolids handling center, and administration and maintenance buildings.



CH2M HILL's preconstruction services for the City of North Las Vegas included value engineering and constructibility reviews of the design documents developed by the City's selected engineer. CH2M HILL identified numerous opportunities to save capital costs, including relocating the project site, rearranging facility layouts, optimize treatment processes for long-term operations, and realigning access roads to provide simplified entry and exit for deliveries and maintenance vehicles.

In addition to providing the value engineering and constructibility services as part of preconstruction, CH2M HILL's construction personnel worked with the City's and their design team to identify, prepare applications for, and obtain all necessary regulatory approvals and government permits needed to commence construction.

Construction began in November 2008, with substantial completion anticipated in May 2011. From California to Kansas to Massachusetts, more than 800 people across America have been put to work providing materials and equipment for this landmark project—a project that has also given the local economy a boost by creating more than 500 jobs in Las Vegas alone. "Construction of the facility has provided some stability in our struggling economy," said North Las Vegas Mayor Shari Buck. "It has created 500 jobs locally and is generating business that reverberates across the country by the type of supplies and technology it takes to make this a state-of-the-art facility."

As a direct result of CH2M HILL's value engineering and constructibility reviews, project costs were reduced by up to 20 percent from original project estimates. The project is being delivered under a guaranteed maximum price contract which contains provisions for shared savings to be split equally between CNLV and the City.