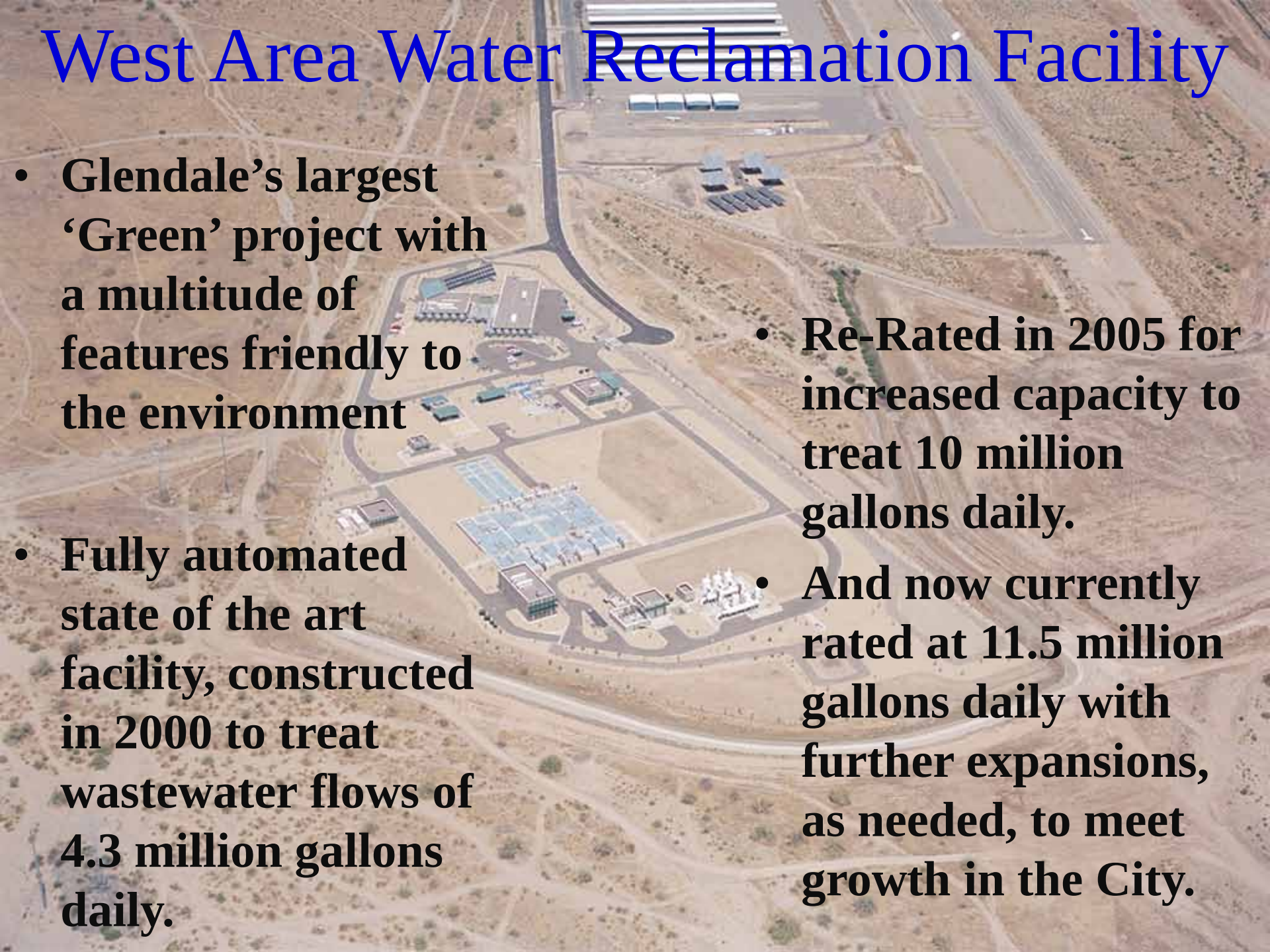
Glendale's Water Reclamation Program
Saving Valuable Resources

Green before Green was Cool

- Glendale's West Area Water Reclamation Facility was designed with the Green Movement in mind, even before it was called the Green Movement.
- Reclaimed materials were used in some of its construction features such as old windshield glass converted to floor tiles and reclaimed concrete converted to interior wall blocks.
- Renewable resources such as Bamboo Flooring instead of wood.
- Solar power and hot water were incorporated into the Administration Building design in order to save on operating cost and conserve fossil fuel.
- Of course, let's not forget the main function of the facility which is to reclaim the City's wastewater and help preserve the environment.

West Area Water Reclamation Facility

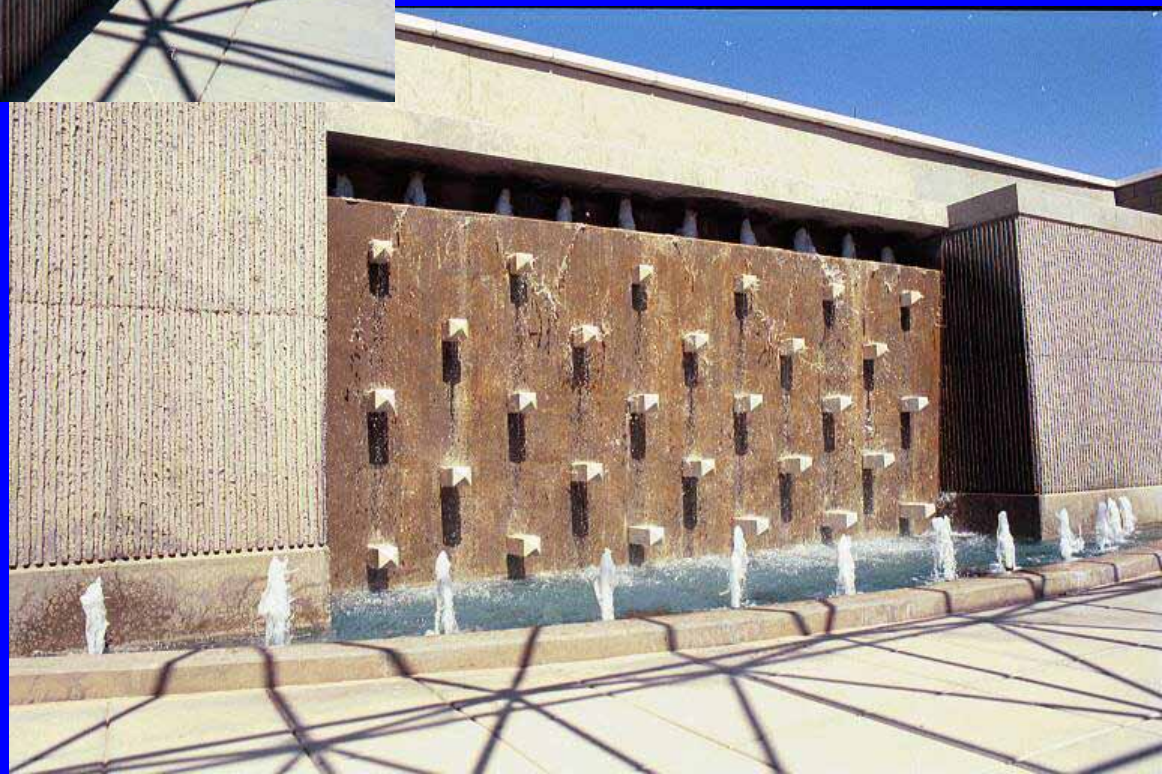


- **Glendale's largest 'Green' project with a multitude of features friendly to the environment**
- **Fully automated state of the art facility, constructed in 2000 to treat wastewater flows of 4.3 million gallons daily.**
- **Re-Rated in 2005 for increased capacity to treat 10 million gallons daily.**
- **And now currently rated at 11.5 million gallons daily with further expansions, as needed, to meet growth in the City.**

West Area Water Reclamation Facility ‘Green’ Features

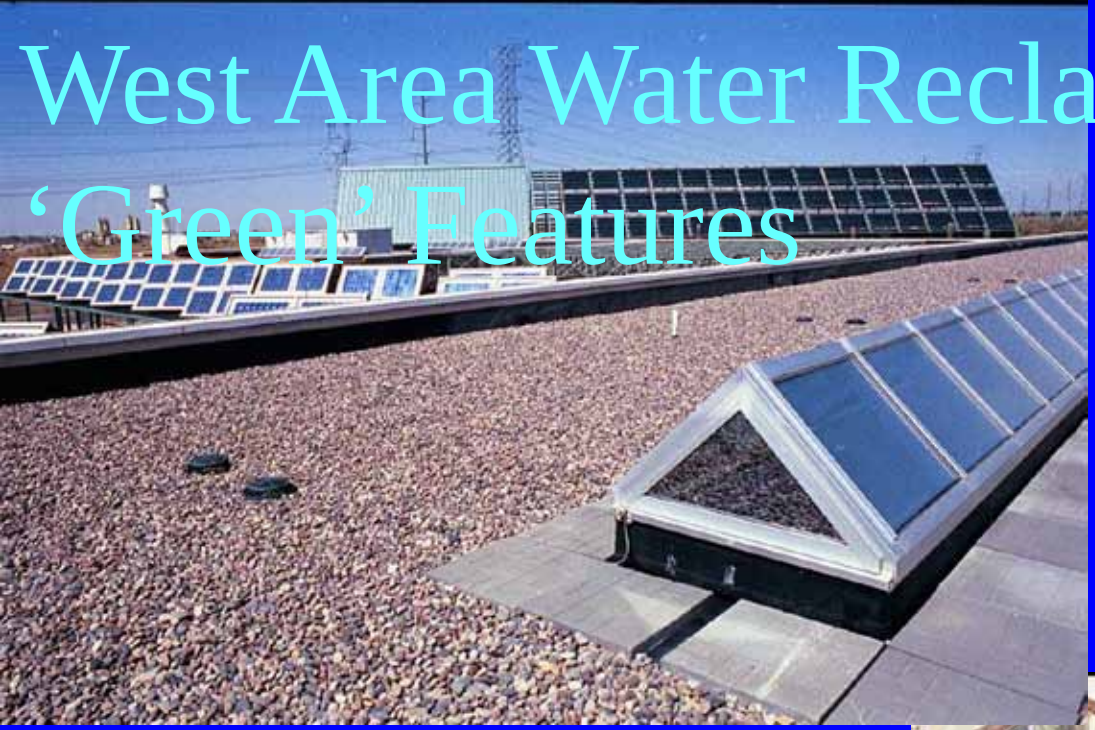
Recycled materials such as automobile windshield glass made into floor tiles and natural materials such as renewable bamboo comprise the facility flooring materials.

West Area Water Reclamation Facility ‘Green’ Features



Plants, evaporative misters, and the water feature all directly contribute to the cooling of the courtyard and indirectly the administration complex itself.

West Area Water Reclamation Facility ‘Green’ Features



Skylights and glass block capture natural lighting to save electricity.

West Area Water Reclamation Facility ‘Green’ Features

- **Solar Energy is converted to hot water for use in the buildings and for building heat.**
- **The system has approximately 4000 gallons of storage with an electrical back-up boiler.**

Solar Hot Water Units

West Area Water Reclamation Facility 'Green' Features

- **Solar Electricity is produced to power for computers, outlets and lights for the administrative complex and meeting rooms.**

Photovoltaic Cells for Electricity

Water Reuse in Glendale

- The majority of water reuse in Glendale is through underground aquifer recharge.
- The recharge operation provides Glendale with ADWR Water Bank recharge credits which are used in exchange for domestic well water.
- The Treated Effluent and the Domestic Well Water never come into contact underground.

Aquifer Recharge

Recharge is shallow at or near the surface while Domestic Water is pumped from another level separated by impervious layers of clay, rock and soil.

Treated Effluent **Domestic Well Water**

Direct Reuse

- **Direct reuse is the use of treated effluent to fill lakes, provide irrigation, construction dust control water and in some cases for decorative water features.**

Future Changes and Challenges

- **More energy efficient systems and equipment as older equipment is replaced.**
- **New low pressure high output UV disinfection.**
- **Additional Variable Frequency Drives (FVDs)**
- **New recharge and filtration technology as capacity needs increase.**