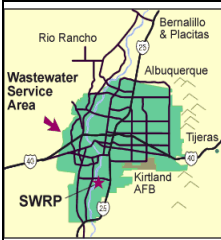




## Goal 3: Public Infrastructure

Desired Community Condition: **Wastewater systems meet quality standards.**



### Indicator: **Wastewater Treatment Plant Compliance with Permit**

**Progress Rating:**    **Local Trend: POSITIVE**    **National Comparison: NOT KNOWN**

#### Indicator Description

This indicator measures the extent to which the Southside Water Reclamation Plant (SWRP) and Soils Amendment Facility (SAF) meet the standards of the US Environmental Protection Agency National Pollution Discharge Elimination System (NPDES) permit and the New Mexico Environment Department Ground Water Discharge Permit (DP) by quantifying excursions (violations of standards). Current legal requirements for wastewater treatment have evolved since 1972, when the Clean Water Act was passed. A comprehensive renovation of the SWRP was completed in 1998, adding nitrogen removal capability to the pre-existing carbon and solids removal capabilities of the plant, which improved the plant’s capacity to increase the purity of effluent water and comply with standards.

The SWRP is designed to continuously treat 76 millions gallons per day of Albuquerque area wastewater on order to protect water quality in the Rio Grande and to avoid contamination of ground water. One hundred sixty tons per day of organic material (biosolids), removed during wastewater treatment, are transported to the SAF for beneficial reuse by land application on depleted range land, by further processing via composting or by local horticultural re-use, or by disposal on a dedicated parcel of land owned by the City.

#### Why is this indicator important?

The outfall water from the SWTF is the fifth largest tributary to the Rio Grande. Preventing pollution of the Rio Grande by municipal wastewater is necessary for the protection of both downstream users and the aquatic and riparian ecosystem. In addition, biosolids removed from wastewater must be responsibly managed to prevent pollution of soils and groundwater. The degree of compliance with NPDES and DP criteria provides a meaningful measure of success in achieving these objectives.

#### Data Sources

City of Albuquerque Wastewater Utility Division, Public Works Department

#### What can we tell from the data?

- Compliance with the requirements of the 1994 NPDES permit is improving for all categories presented except effluent quality, which shows an increase in excursions to 14 in FY/03 from 3 in FY/01; still

excursions are below the highest number of excursions experienced in FY/00. The increase in excursions was primarily a result of drought-induced low river flows that invoked more stringent permit limits.

- Surface disposal of biosolids has been minimized by an innovative partnership with ranchers in the area that began in FY02. The application of biosolids to depleted range lands has been shown to dramatically restore the health of range lands and allow their reuse in a much shorter cycle time.
- Albuquerque has a very effective and sophisticated capacity to produce compost, not only from biosolids, but from waste animal bedding, waste paper and green wastes (see recycling rates in Goal 5).
- The combination of range land application and composting has resulted in a very high rate of beneficial use of biosolids (93% in FY/03).
- Treating wastewater is highly maintenance intensive. When maintenance is deferred, excursions will likely increase.

### WASTEWATER TREATMENT PLANT COMPLIANCE WITH PERMIT

Permit Area	Compliance	FY/97	FY/98	FY/99	FY/00	FY/01	FY/02	FY/03
<b>SWRP Effluent Quality</b> (Carbon, solids, nitrogen, dissolved oxygen, metals, pH, bacteria content)	1440 Compliance Items							
	% compliance	98.80%	99.00%	99.30%	98.80%	99.80%	99.40%	98.90%
	# excursions	17	14	10	17	3	9	14
<b>Surface Disposal</b> (Metals content, soils loading with nitrogen, ground water quality)	85 Compliance Items							
	% Compliance	73%	72%	73%	75.29%	71.76%	100%	100%
	# excursions	23	23	23	21	24	0	0
<b>Compost Product Quality</b> (Metals and bacteria content)	108 Compliance Items							
	% Compliance	98.10%	97.20%	99.10%	99.10%	99.10%	100%	100%
	# excursions	2	3	1	1	1	0	0
<b>Biosolids Beneficial Reuse %</b> (Maximum beneficial reuse of biosolids)	(no percentages defined in permit)							
	% used beneficially	8	13	12	9	15	54	93

