



## UTAH

### BIOSOLIDS MANAGEMENT 2018 - STATE SUMMARY

This summary, a dashboard of state statistics, & further data are at [www.biosolidsdata.org](http://www.biosolidsdata.org)

Composting of wastewater solids is common and effective in Utah's relatively arid climate, where soil organic matter is needed. Composts go to a variety of beneficial uses in landscaping, gardens, and horticulture in the state's major metropolitan area in the eastern portion of the Great Salt Lake Valley at the foot of the Wasatch Range. Much also goes to disposal as landfill cover.

Landfill disposal is also common, with abundant, relatively inexpensive landfill space available at several large landfills close to the population centers, some with 100 years or more of available space at their current levels of disposal. In all, 17 Utah landfills are available to receive wastewater solids.

There is no incineration of wastewater solids in Utah, in large part because the populated Wasatch front area is an air quality non-attainment area that precludes further air emissions.

The Division of Water Quality at the UT Department of Environmental Quality (UT DEQ) is delegated by U.S. EPA for the Part 503 biosolids regulations and is responsible for overseeing biosolids management in the state. The agency issues wastewater permits that include all the requirements for biosolids use or disposal; those requirements are essentially the same as Part 503. Water resource recovery facilities (WRRFs) are required to report annually to UT DEQ regarding their biosolids management; those data are the basis for the numbers reported here by the National Biosolids Data Project (NBDP). Example of permit: <https://documents.deq.utah.gov/water-quality/facilities/south-valley-water-reclamation-facility/DWQ-2020-001077.pdf>

One major separate preparer treats wastewater solids in Utah: E.T. Technologies' Soils Regeneration Site at the Salt Lake Valley Solid Waste Landfill, 10 miles west of downtown Salt Lake City. It manages a wide variety of non-hazardous bulk organic, soil, and industrial wastes, creating stabilized Class A and/or Class B soils used as cover for the landfill.

The largest and notable biosolids management programs in Utah are summarized below. Four large water resource recovery facilities (WRRFs) [serve the greater Salt Lake City area](#):

- **Salt Lake City** has a population of about 200,000. Its WRRF treats 30+ million gallons per day (MGD). In 2018, its 2,067 dry metric tons (dmt) of anaerobically-digested solids went to the E.T. Technologies site for treatment and final use as cover material at the Salt Lake Valley Landfill. Since 2004, two co-gen engines burning biogas have provided up to 60% of the WRRF's electricity needs. As of 2022, a new Salt Lake City WRF is being built, aimed to be operational by 2025.
- **The Central Valley Water Reclamation Facility** (CVWRF, ~55 MGD) in Salt Lake City, Utah "has been operating a biosolids composting operation since 1992" ([BioCycle, 2012](#)). Before being composted, CVWRF solids are stabilized with anaerobic digestion (AD). In 2018, according to

UT DEQ, 1,137 dmt of the biosolids went to lawn and garden uses and 3,960 dmt was used in agriculture. This "[Oquirrh Mountain Compost](#)" sells for \$5/1.5 cu. ft. in bags, or \$33 - \$48 per cubic yard.

- **South Valley Water Reclamation Facility (WRF)**, serving 325,000 people in the cities and towns south of Salt Lake City, treats about 20 MGD of wastewater. The solids produced are [thickened with dissolved air flotation \(DAF\)](#) and dewatered with belt filter presses to ~15% solids. About 60% is heat-dried to Class A EQ standards, and the rest is untreated. In 2018, 291 dmt of the EQ biosolids was used in local agriculture, but the large majority of both products went to landfill.
- **Jordan Basin WRF** is the smallest (~8 MGD) and southern-most of the four WRRFs serving greater Salt Lake City. Operational since 2012, it uses an advanced bioreactor membrane process. In 2018, its solids were hauled to the E.T. Technologies site, eventually ending up at the landfill. In the early 2020s, Jordan Basin installed heat-drying and can now recycle to soils rather than only landfilling.

**Provo**, the state's third largest city (after Salt Lake and West Valley City, population ~117,000), situated at the south end of the valley just west of the Wasatch Range, recycles its anaerobically-digested (AD) solids, composting some and directly land applying Class B biosolids. In 2018, its ~1,000 dmt of biosolids were all land applied for area agriculture.

**Orem**, the state's 5<sup>th</sup> largest city, just north of Provo, has a WRRF serving ~95,000 people, treating about 8.5 MGD. Since [an upgrade in the mid-2010s](#), the solids are treated with thermophilic AD followed by mesophilic AD. Biogas is used in plant processes (e.g. digester heating), with some flared. The biosolids all go to farm fields farther south.

**South Davis, Central Davis, and North Davis** WRRFs provide service to the communities north of Salt Lake City:

- South Davis has two WRRFs, and, in 2018, about half their solids were land applied in agriculture and half were landfilled. At the time, the WRRF had started a co-digestion program – the joint venture Wasatch Resource Recovery Project – involving expansion of AD capacity, receipt of food waste, and increased biogas utilization. Receipts of food waste and other organic liquid wastes (e.g. fats, oils, grease – FOG) began in March 2019. South Davis implements an Environmental Management System in accordance with the National Biosolids Partnership.
- In 2018, Central Davis (~10 MGD) applied 130 dmt of Class B biosolids to agricultural lands (for hay and turf crops), landfilled 320 dmt, and made compost with the remaining solids, distributing 1,913 dmt of biosolids compost.
- The North Davis Sewer District sent 3,552 dmt of anaerobically-digested Class B biosolids to agricultural uses in 2018.

**St. George**, in the southwest corner of the state, is the 7<sup>th</sup> largest city in Utah and the largest outside of the Wasatch front region. Its WRRF treats about 10 MGD from several communities using oxidation ditches and aeration basins. Some of the effluent is recycled, a critical resource in this arid region. The solids are sent to the Washington County landfill – 3,100 dmt in 2018.

**Brigham City** (population ~19,000), near the northeast corner of the Great Salt Lake, can treat up to 6 MGD in aeration ditches. Solids are treated with aerobic digestion and land applied and distributed.

**Links:**

Salt Lake City:

<https://slco.org/globalassets/1-site-files/watershed/symposium/symposium2012/wastewaterfacilities.pdf>

Central Valley:

<https://www.biocycle.net/biosolids-composting-in-salt-lake-city/>  
<https://www.omcompost.com/CompostProcess>

South Valley:

<https://www.tpomag.com/editorial/2019/05/no-odors-no-trash-no-violations-for-this-utah-water-reclamation-facility>

Orem:

<https://www.tpomag.com/editorial/2019/04/win-win-biosolids-program-holds-down-solids-management-costs-and-delivers-quality-product-to-farmers>