

## What are Biosolids?

**Biosolids** are the primary organic solid products that are produced by wastewater treatment processes, and can be beneficially recycled.

By recycling Biosolids we are returning resources back into nature's cycle, and are utilizing waste as a resource rather than landfilling or incineration. This adds nutrients to the soil that may not be added to commercial fertilizers, which can improve the soil structure and overall soil fertility.

### Benefits of Biosolids:

- Recycles nutrients back to rural farms
- Provides free nutrients to farmers
- Reduces dependence on chemical fertilizers
- Improves soil porosity and infiltration
- Enhances moisture retention
- Reduces soil erosion
- Reduces soil compaction
- Provides organic matter

### How Garden City Treats Sludge:

This matter is moved to a belt filter press that uses gravity and pressure to remove water from the solids. This process produces a dry cake that is trucked to licensed sites where it is spread and used as a fertilizer.



## Determining Biosolids Class B

There are two classifications of Biosolids. Biosolids Class A and Biosolids Class B. At the Garden City Wastewater Treatment Facility, we work solely with Class B Biosolids.

### Class B Biosolids

To qualify as Class B Biosolids, the heavy metal concentration must be below the following levels:

<u>Metal</u>	<u>Concentration (mg/kg) dry weight basis</u>
Arsenic	75
Cadium	85
Copper	4,300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
	7,500

## Garden City WWTP Class B Biosolids

### Class B Biosolids

The City of Garden City Wastewater Treatment Plant Class B Biosolids heavy metals concentrations were reported as follows:

<u>Pollutant</u>	<u>Concentration (mg/kg) dry weight basis *</u>
Arsenic	3.90
Cadium	1.60
Copper	419.75
Lead	47.63
Mercury	1.80
Molybdenum	12.80
Nickel	12.58
Selenium	14.13
Zinc	604.50

\*averages from 2011

## Disbursement Site Restrictions

Class B biosolids are intended to be PSRP (Process to Significantly Reduce Pathogens)

Class B biosolids are treated, but still contain detectible levels of pathogens. There are buffer requirements, public access, and crop harvesting restrictions for virtually all forms of Class B biosolids.

### SITE RESTRICTIONS:

- Food Crops: No harvesting after sludge application for 14 months to 38 months depending on type of crop grown and how sludge is applied.
- Feed Crops: No harvesting for 30 days after sludge application.
- Pasture: No animal grazing for 30 days after sludge application.
- Public Access: Restricted for 30 days.

