



# Windy City

## Biosolids/Compost

Summer 2020

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Compost is available now

### Exceptional Quality (EQ) Biosolids and Compost means sustainable!

#### What are EQ Biosolids and Compost?

The Metropolitan Water Reclamation District of Greater Chicago (MWRD) follows standards set by the U.S. EPA Part 503 Rule to provide Exceptional Quality (EQ) biosolids and compost to parks, school athletic fields, golf courses, nurseries, residents, businesses, and large landscape use. Criteria for meeting the EQ standard require diligent testing of the products showing that no pathogens remain, the material meets (in our case exceeds) pollutants concentration standards including metals, and the material is not attractive to vectors such as rodents or other vermin.

Our EQ Biosolids are made with biosolids resulting from the microbially digested organic matter that remains after wastewater treatment processing. This means EQ biosolids are rich in organic matter, important soil components. The air-dried biosolids are excellent soil amendments on their own, but we also provide an alternative product, known as EQ Compost, by composting biosolids with locally sourced woodchips, creating a more stable product that can be used in other applications such as mulching.

Why does this mean it's sustainable?

**Location** - Rather than hauling valuable biosolids hundreds of miles for farmland application, local usage is a win-win that saves taxpayer



*Maggie Daley Park used MWRD biosolids to help create its beautiful lawn.*

dollars and improves our local soils right here in the Chicago area at no cost, reducing carbon emissions. At the same time, local users can source their soil amendments locally, rather than buying and trucking in fertilizer, manure, topsoil or other products from distant locations.

**Soil health** - Using EQ Compost or air-dried biosolids as a soil amendment improves soil structure. Improved soil structure allows better root penetration and better water management. That translates to less flooding during rain events and better water holding during dry periods. The organic matter provides carbon for the microbial community, which helps provide nutrients and water to plants. This is a win-win!

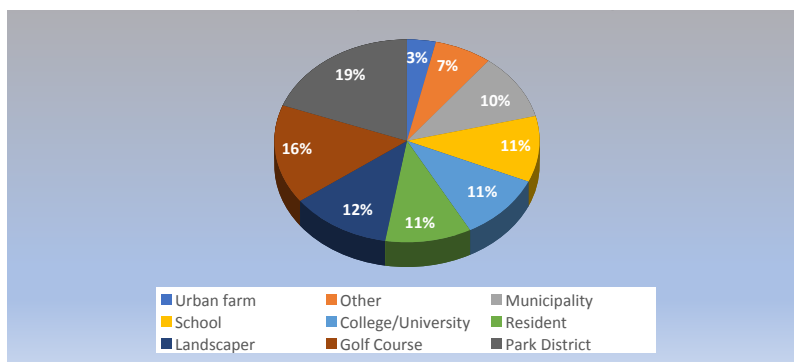
## How is EQ Compost created?

The MWRD's Exceptional Quality (EQ) Compost is a sustainable and environmentally beneficial product derived from the water reclamation process. The MWRD partners with the City of Chicago and other organizations by collecting woodchips from routine tree trimming programs and blending this with MWRD biosolids in open windrow machines. Woodchips, grass clippings and leaves are used as a bulking agent. The process raises the temperature of the biosolids and bulking agent mixture which destroys pathogens.

EQ Compost can be blended with topsoil and potting soil for establishing plants or used as a mulch around already established plants. EQ Compost supplies organic matter and improves the structure and porosity of soils which allows plants to more effectively utilize nutrients. Biosolids have been used to improve soil quality at popular destinations like Maggie Daley Park and the 606 Trail and on golf courses and athletic fields at both public parks and schools in the Chicago area for more than 20 years.

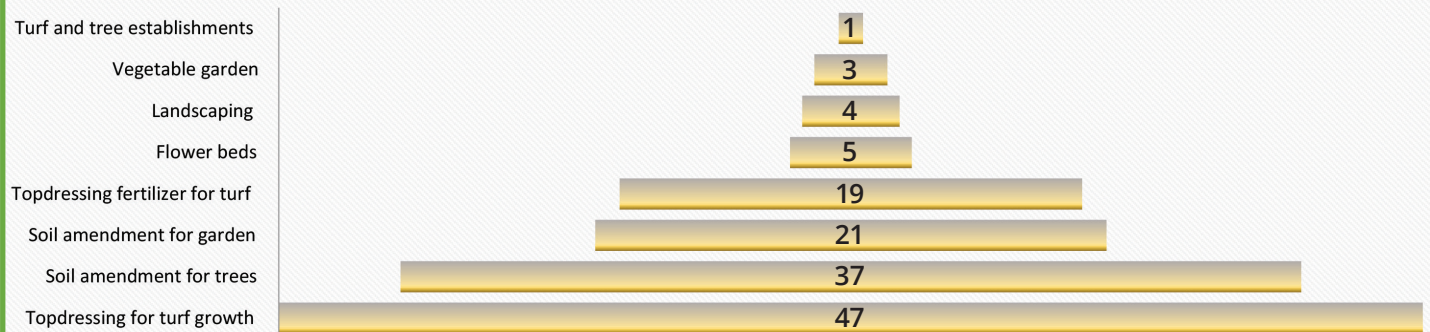
## The Rundown: Who is using our EQ materials and how?

MWRD biosolids/compost users in the Chicago area



**Figure 1.** The percentage of users in each category out of total number of users. Data are based on 2017 EQ biosolids and compost distribution.

## How are biosolids and compost used?



**Figure 2.** The number of times EQ materials were used for each of the listed applications during 2017 as reported by our users.

## How well do you know our EQ Compost?

- What is the germination rate (%) for seeds tested in our EQ Compost?
  - 80-85
  - 85-90
  - 90-95
  - 95-100
- How does EQ Compost differ from synthetic fertilizer?
  - It adds valuable organic matter to the soil.
  - It benefits the soil by adding structure, allowing better root penetration.
  - Both A and B.
- True or false, biosolids can be applied on steep slopes along surface water?

**Answers on back page.**



Jim Walsh

In this issue we are highlighting long-term biosolids user Jim Walsh, owner of Sportsfields, Inc., who has established or renovated over 1,000 sportsfields in the Chicago area. Biosolids were used to establish or maintain many of these fields.



Baseball field in Ford Heights



Memorial Park in Midlothian

**MWRD soil scientist:** How long have you been using MWRD biosolids?

**Jim:** I have used biosolids for almost 30 years.

**MWRD soil scientist:** How do you use biosolids?

**Jim:** We have incorporated them into the root zone. We have topdressed with straight biosolids and have also topdressed mixing biosolids with topsoil, sand, etc.

**MWRD soil scientist:** Are there any challenges to working with biosolids compared to other materials?

**Jim:** The smell has gotten better over the years but we do need to make customers aware. Due to weather and site issues, it can be difficult coordinating projects with biosolids.

**MWRD soil scientist:** Biosolids generally have an earthy odor. There could be a temporary smell/odor associated with biosolids only if they are stockpiled and not spread upon delivery, particularly when wettened by rain.

Be sure to schedule deliveries for the time you plan to apply. Alternatively, use our EQ compost, which is nearly odor-free. MWRD has improved the system to better match production and demand.

**MWRD soil scientist:** What are the results of using biosolids in turfgrass applications?

**Jim:** As long as we do not [over apply]. The biosolids do help us establish a better turf.

**MWRD soil scientist:** Like all soil amendments, biosolids should be applied at an ideal rate. We recommend 1/4"-1/8" for topdressing.

**MWRD soil scientist:** What is your advice to others who have never tried biosolids for turfgrass management?

**Jim:** I always suggest trying MWRD biosolids. I also suggest using the proper amount vs. too much.

**MWRD soil scientist:** Thank you! We look forward to continued collaboration with Sportsfields, Inc.

## Pre-Covid 19 Events



Senior Environmental Soil Scientist Wale Oladeji discusses composting ideas at iLandscape.



Rain barrel winners from McAdam Landscaping with MWRD Senior Environmental Soil Scientist Theresa Johnston.



Environmental Soil Scientist Ben Morgan explains the benefits of MWRD soil amendments.

MWRD soil scientists participated in an exhibition with public affairs personnel at the iLandscape Show in Schaumburg January 29-31. We gave away many free samples of EQ compost, along with information about our biosolids and other programs at the MWRD. Thank you to all who stopped by our booth.

We hope to be sending some EQ biosolids and compost your way soon!

In February, Theresa Johnston attended the Illinois TURF Conference and was happy to meet many golf course superintendents and turfgrass researchers.

## Compost is available now!

MWRD compost is available through self-service pickups at six of our water reclamation plants. See the location and times at <https://mwrdd.org/eq-compost> and bring your own bucket and shovel! Large load pickups can be obtained at the Harlem Avenue Solids Management Area in Forest View by scheduling in advance through the link on the website.

For more information on the use of EQ biosolids or to include them in your projects, please visit our website or contact:

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### Answers

1. D. The Illinois standard for germination in compost is 80-100%, but we have shown germination rates in our compost at 95-100%!
2. C. Both A and B..
3. False. Best Management Practices require a 10 meter buffer between biosolids application and surface water. They can be applied on a steep slope, but measures should be taken to avoid erosion, such as immediate seeding.

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