

# Metrogro in 2020

## A Year of Challenges and Success



Madison Metropolitan Sewerage District



# 2020 Metrogro Overview

- 38 million gallons of biosolids recycled
- 5000 acres of farmland received nutrients
- Collaborated with 50+ area growers
- 5 full time staff members (+1 since 2019)
- Up to 4 contracted applicator operators and 16 contracted trucks and drivers at peak times



# The Fall of 2019



**Late plantings, poor weather**



**Limited land application opportunities**



**Storage problem**





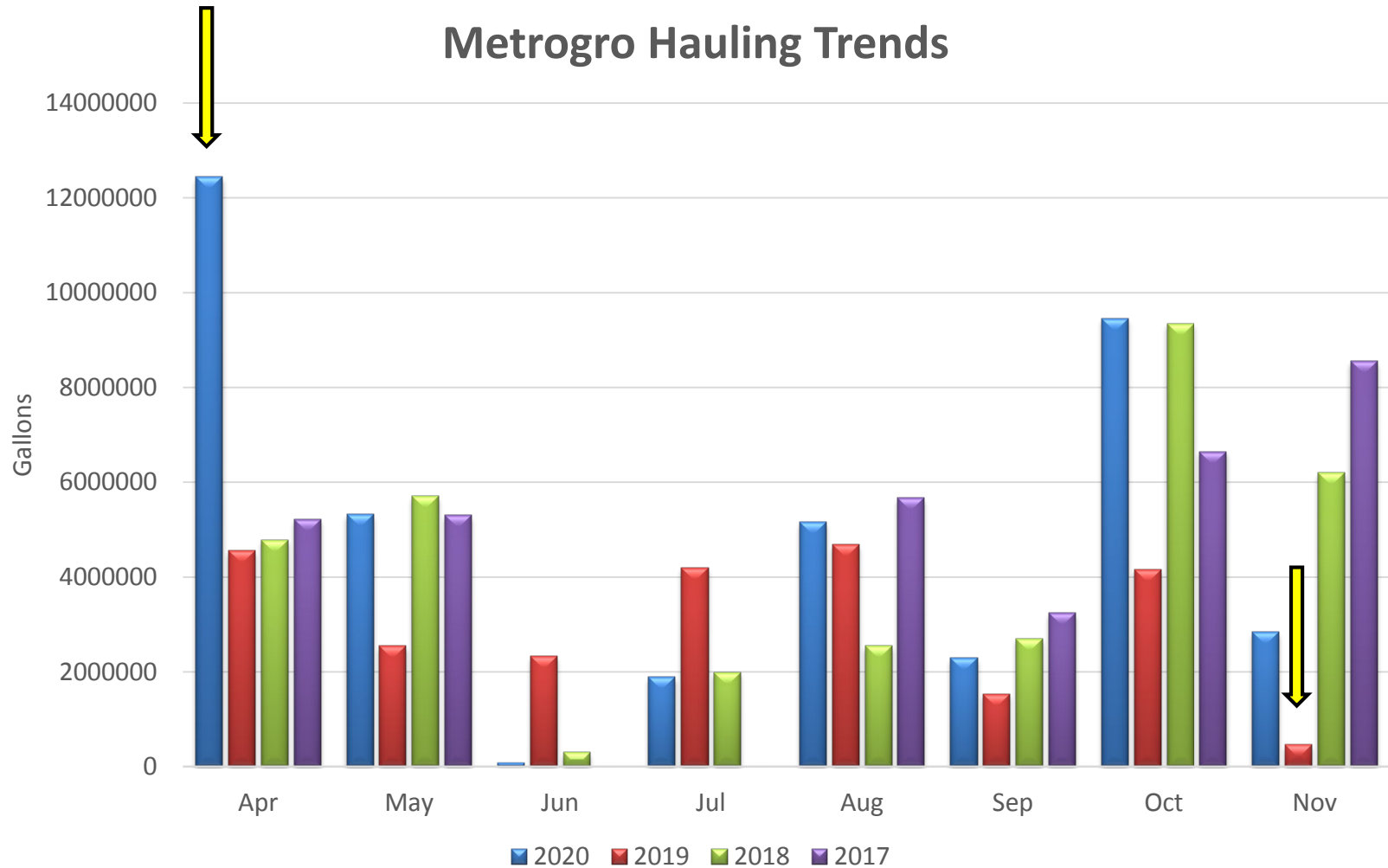
# Solving the Storage Problem



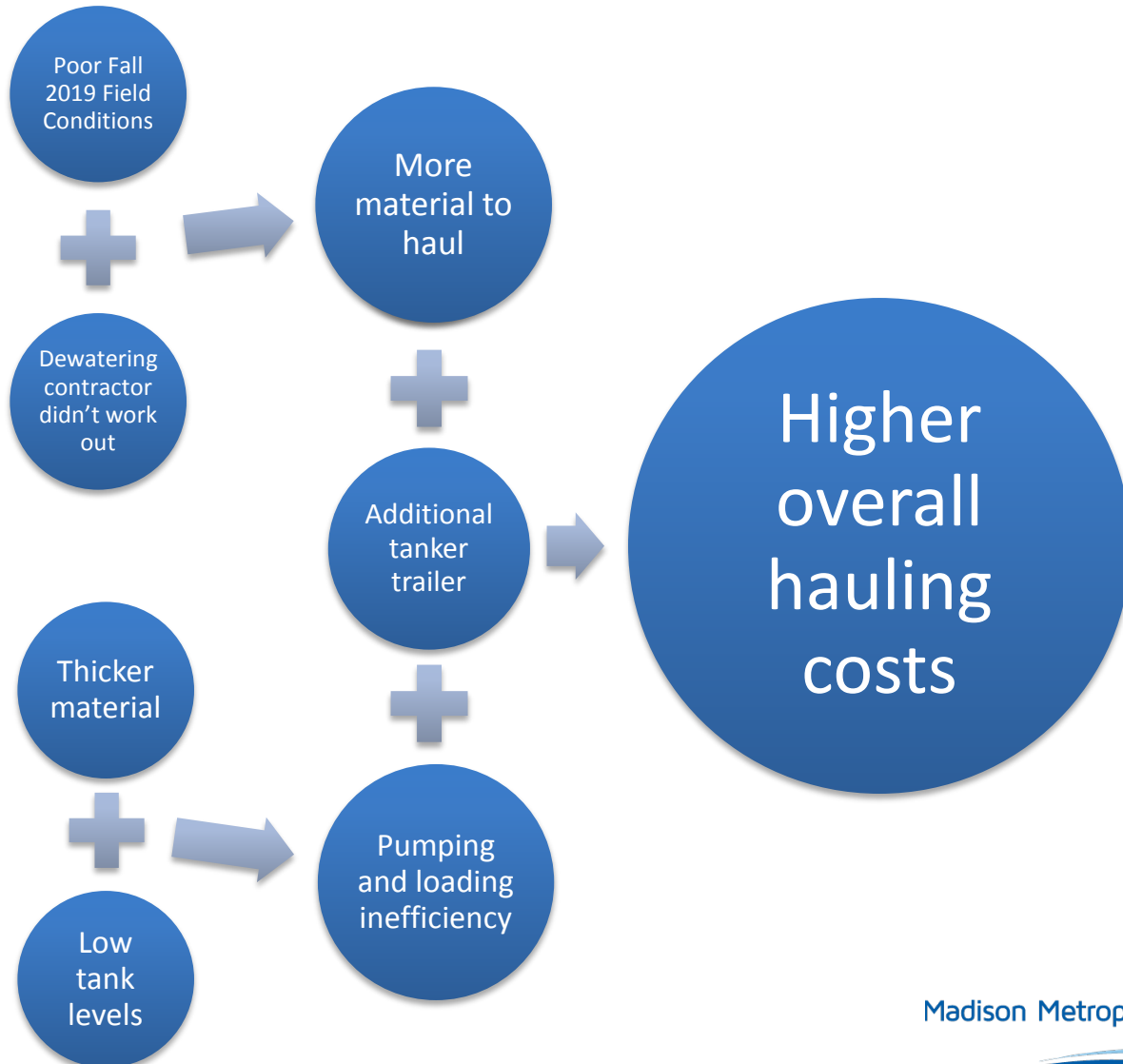
- Contracted dewatering (failed to meet specifications)
- In-house dewatering
  - Switched from Class A to Class B cake production
- Contracted offsite storage and land application
- **Record 2020 hauling**



# Record hauling in April 2020!



# 2020 Hauling Landscape



# 2020 Metrogro Overview

## Successes:

- Completed movement of Class B cake generated during winter to the landfill
- Excellent hauling conditions
- Successful outreach efforts led to many available field options
- Storage tanks empty by mid-October
- Concluded hauling with storage until late May 2021
- **Outstanding dedication from staff**



# 2020 Metrogro Overview

## **Successes (continued):**

- Navigated the challenges of Covid-19 without any known staff or contractor illness
- Equipment upgrades contributed to increased efficiency
- Low disturbance tillage trials revealed a viable option
- Biosolids Study in progress





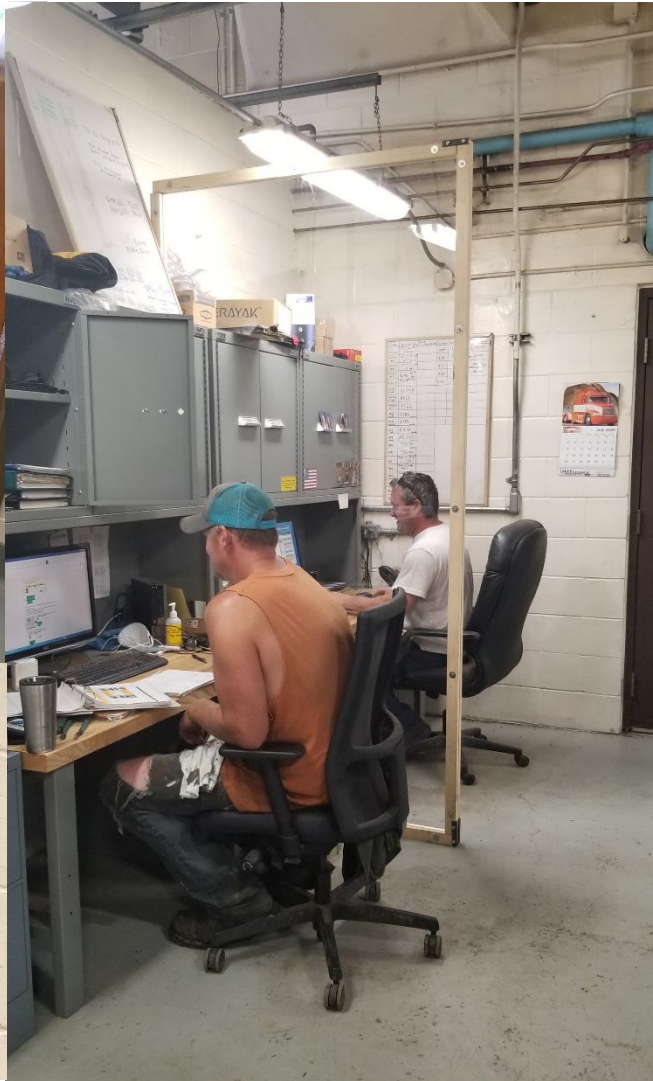
# Adapting to Covid-19



	Trailer	Truck	Field	Loading Location
1				
2	501	HOWE	MICKELSON	VLB Left side
3	502	HOWE	MICKELSON	VLB Left side
4	503	KLONDIKE	HOMBURG	VLB Right side
5	504	KLAHN (Chad)	MICKELSON	VLB Left side
6	505	JIM ACE	HOMBURG	VLB Right side
7	506	ACE	HOMBURG	VLB Right side
8	507	MARSHALL	MARSHALL	Hill Left
9	508	MARSHALL	MICKELSON	VLB Left side
10	509	SCHMITT	ACE	Hill Right
11	510	BRADLEY	MARSHALL	Hill Left
12	511	BRADLEY	MARSHALL	Hill Left
13	512	MARSHALL	MARSHALL	Hill Left
14	513	UPHOFF	ACE	Hill Right
15	514	UPHOFF	ACE	Hill Right
16	515	DOERFER	ACE	Hill Right
17	516			
18	209			
19	210	Dusty	MICKELSON	
20	211	Erick	MARSHALL	
21	212			
22	213	Matt	HOMBURG	
23	214	Kurtis	ACE	







# Ongoing installation of top valves on tanker trailers

## AKA “Straws”

### Without top valves:

Tanker trucks load to nurse tank, applicator loads from nurse tank

### With top valves:

Applicators load directly from trucks, no nurse tank necessary

- Loading time reduction
- Increased operational flexibility



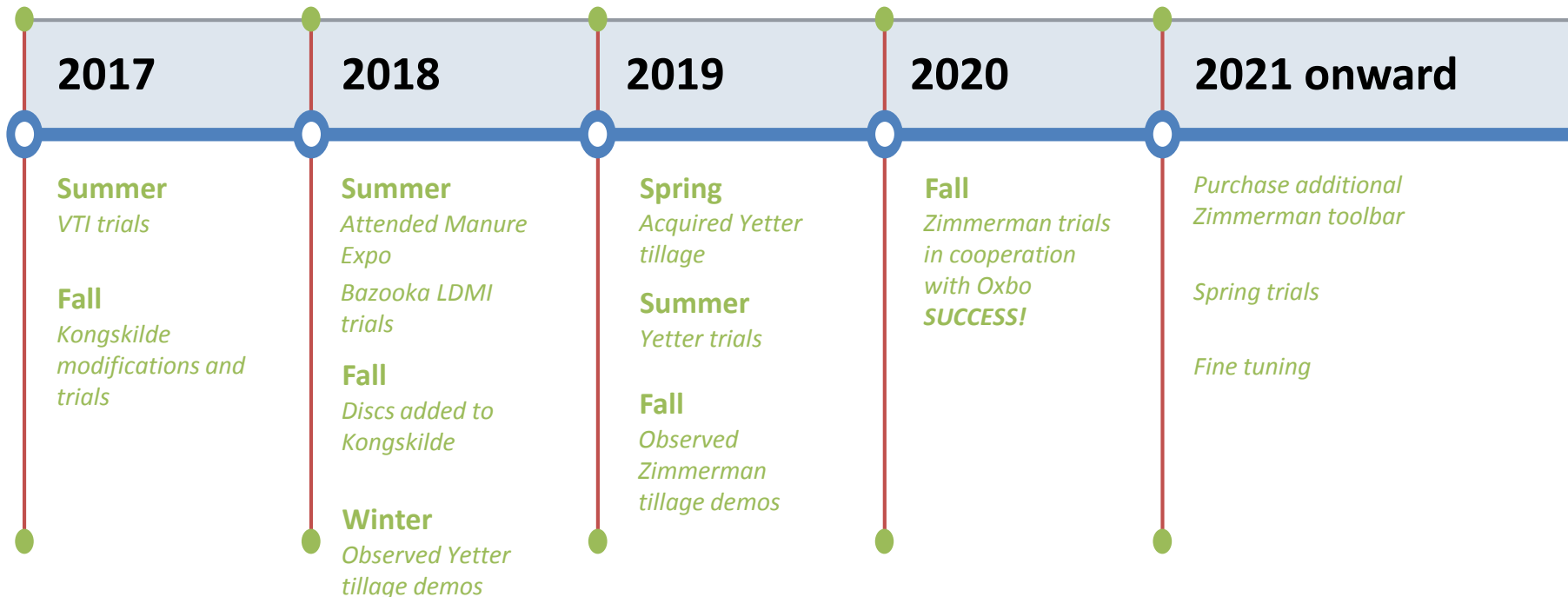


## Low Disturbance Tillage trials



# Low Disturbance Tillage Trial Timeline

*A multi-year process*





Zimmerman Red Viper  
Low disturbance tillage  
on corn stalks





# Kongskilde vs Zimmerman on soybean straw



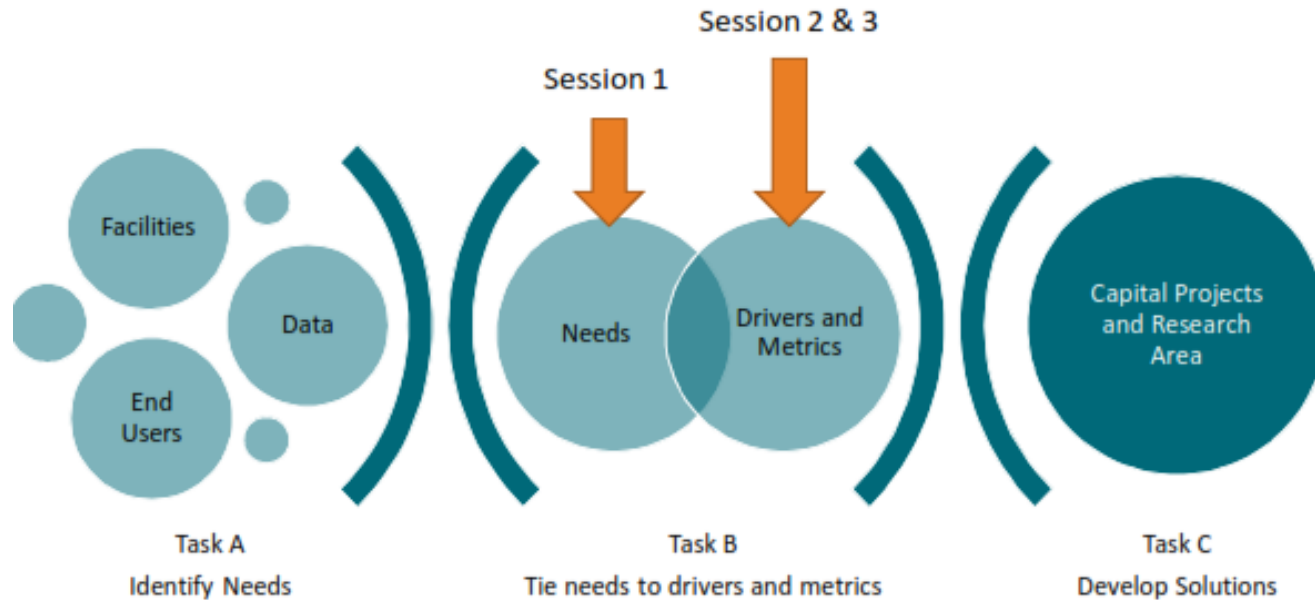


# Zimmerman tillage on soybean straw





# Biosolids Study



**Goal:** Determine MMSD's future needs and options related to biosolids processing, storage and recycling.



Nearing end of evaluation





Thank You!

Questions?

Madison Metropolitan Sewerage District mmsd

