



SWAA Winter Training

Leading in Organics Recycling: The Shakopee Mdewakanton Sioux Community (SMSC) Organics Program



952.233.9191 • SMSCORF.COM
1905 MYSTIC LAKE DRIVE S, SHAKOPEE, MN

OWNED AND OPERATED BY THE SHAKOPEE MDEWAKANTON SIOUX COMMUNITY



NATIVEGREEN

Caring for Unci Maka, Grandmother Earth, is at the heart of what the SMSC strives to do—now and for future generations.

December 2017: Increase environmental stewardship, create long-term financial sustainability, and enhance social engagement.



ENERGY + GREENHOUSE GASES



NATURAL AREAS



WATER MANAGEMENT



WASTE REDUCTION



Process



NATIVEGREEN

EARLY FOCUS ON WASTE REDUCTION AND DIVERSION

- Swapping products for more sustainable options
- Expanding recycling: standardized bins and labels
- Implementing commercial composting
- Non-traditional Recycling: Expanding diversion
- Transition to bulk products
- Creative reuse and partnerships



Sustainable Product Sourcing



NATIVEGREEN

Straws:

Only available upon request. If they're requested, they're compostable.

Cups:

Pilot program at Little Six. All other cups will transition to compostable throughout the year.

Disposables:

Converting all disposables throughout the property to a recyclable or compostable versions, allowing us to divert as much material as possible.

Product Conversion:

Transitioned to bulk creamers and sugars, butter pats placed in compostable containers. Working to transition to bulk cooking oil.





Must Haves



NATIVEGREEN

- Executive leadership
- Systems Thinking: Lifecycle costs / Impacts
- Commitment of time: Sorting
- Team approach: Interdepartmental meetings and collaboration
- Identifying Champions
- Ongoing Education / Education / Promotion
- Outside partnerships

Bundles
of Love
Charity



Clean the World®

Challenges / Unique Success



NATIVEGREEN

- Behavior change
- Financial commitments
- Complex system:
 - Ability to get creative
- Recognize opportunities for increased revenue
- Increased diversion rate by 50%





Ribfest



NATIVEGREEN



Diverted 80% of waste through recycling and composting



SMSC Organics Recycling Facility



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Background- SMSC Organics Recycling Facility

- Opened in 2011
- Large-Scale Facility
 - Open to the public
- 70,000 tons/year





Accepted Materials

Incoming Material

- Food Waste
- Compostable Products
- Yard Waste
- Wood
- Horse Manure





Drop Off Programs

FREE
YARD WASTE
RECYCLING

FOR SCOTT COUNTY
RESIDENTS (MUST SHOW ID)

EVERY SUNDAY ⁱⁿ
APRIL
& MAY

8AM - 2PM
BEGINS APRIL 8

For more information,
visit SMSCORF.com

RECYCLE YOUR PUMPKIN

FREE

PUMPKIN
DROP-OFF



Recycle
YOUR TREE
for FREE!

CHRISTMAS TREE DROP-OFF
» DECEMBER 28 - JANUARY 29
» MONDAY - FRIDAY
» 8AM - 3PM

Open to the public!

Tree must be free of all non-compostable decorations, tinsel, and flocking

» CLOSED NEW YEAR'S EVE, NEW YEAR'S DAY, AND MARTIN LUTHER KING JR. DAY
(DECEMBER 31, JANUARY 1 & 18)







Load Inspections

Unacceptable materials include:

- Glass
- Metal
- Plastic



- Front End Loader/Long handled hooks
- Load must contain less than 5% contamination to be accepted



Grinding and Recipe Creation





Turned Windrow Facility





Windrow Monitoring

- Oxygen
- Moisture
- Temperature
 - 131-160 degrees Fahrenheit

Process to Further Reduce Pathogens (PFRP)

- Windrow temps held above 131 degrees for 15 consecutive days



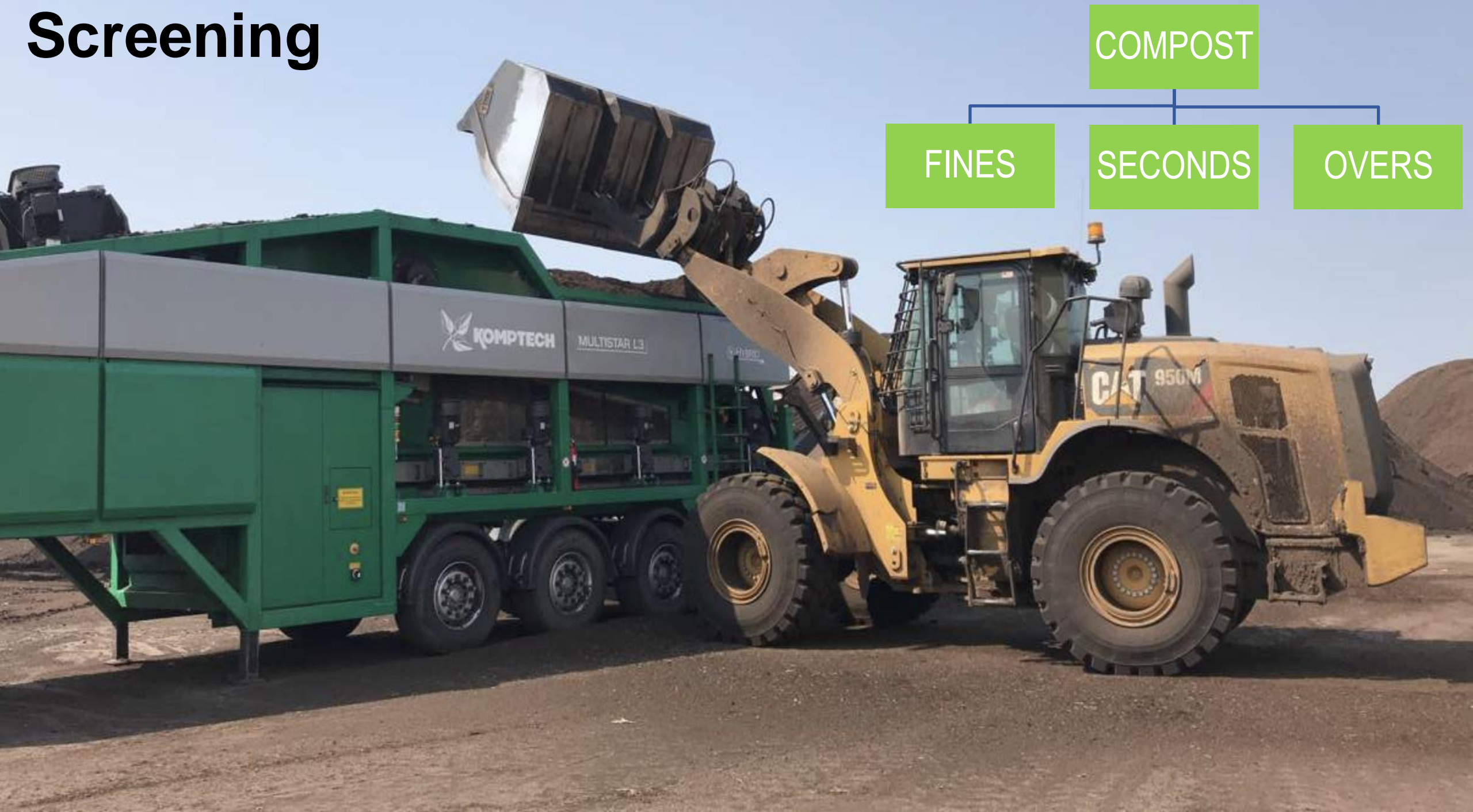


Turning





Screening



COMPOST

FINES

SECONDS

OVERS



FINES

SECONDS

Last Step: Curing





STA Certified Compost

- USCC's Seal of Testing Assurance program (STA)
- Rigorous testing for
 - Heavy metals
 - Pathogens
 - Maturity
 - Stability
 - Nutrients
 - pH
 - Organic matter



US Composting Council
Seal of Testing Assurance[®]

<https://www.youtube.com/watch?v=-RUdnJo4nJ4>





Compost Products



Compost/Blends



SEVEN GENERATIONS COMPOST

1/2" Screened Compost
\$21/CY

RAIN GARDEN BLEND

30% Compost | 70% Sand
\$30/CY



HALF MOON (50/50) BLEND
50% Compost | 50% Topsoil
\$26/CY

TOP DRESSING

1/4" Screened Compost
\$24/CY



HARVEST MOON (GARDEN) BLEND
40% Compost | 40% Topsoil |
20% Peat
\$33/CY



BAGGED COMPOST

1/2" Screened Compost
\$5.50/bag

* CY=Cubic Yards

Products Sold

- 500,000 CY compost and compost blends
- Biggest Customers
 - Bagging companies
 - Road reconstruction
 - Municipal projects
 - Landscapers
 - Homeowners



SEVEN GENERATIONS COMPOST

SOIL AMENDMENT - GARDENING - LANDSCAPING

MADE IN
MINNESOTA



NUTRIENT-RICH SOIL AMENDMENT
FOR GARDENS, LANDSCAPING, TURF ESTABLISHMENT, HORTICULTURE, AGRICULTURE, AND MORE.

ORIGIN OF NAME
THE DAKOTA PEOPLE PRACTICE A TRADITION OF PLANNING FOR THE NEXT SEVEN GENERATIONS.

SEVEN GENERATIONS COMPOST

SOIL AMENDMENT - GARDENING - LANDSCAPING

SEVEN GENERATIONS COMPOST

NET CONTENTS 1 CUBIC FT (28.3L)



Commercial Compost Use: Before and After
Whitewater State Park



Compost Use: Before and After

Northstar Rowing



Compost Use:
Minnehaha Academy Green Roof
Compost Bio-roll



What's next for SMSC?



New Facility Coming Soon



New Facility Coming Soon

- Relocation and expansion
- 3x food waste capacity
- Permitting phase
- Aerated static pile (ASP) system





Concrete Bunkers

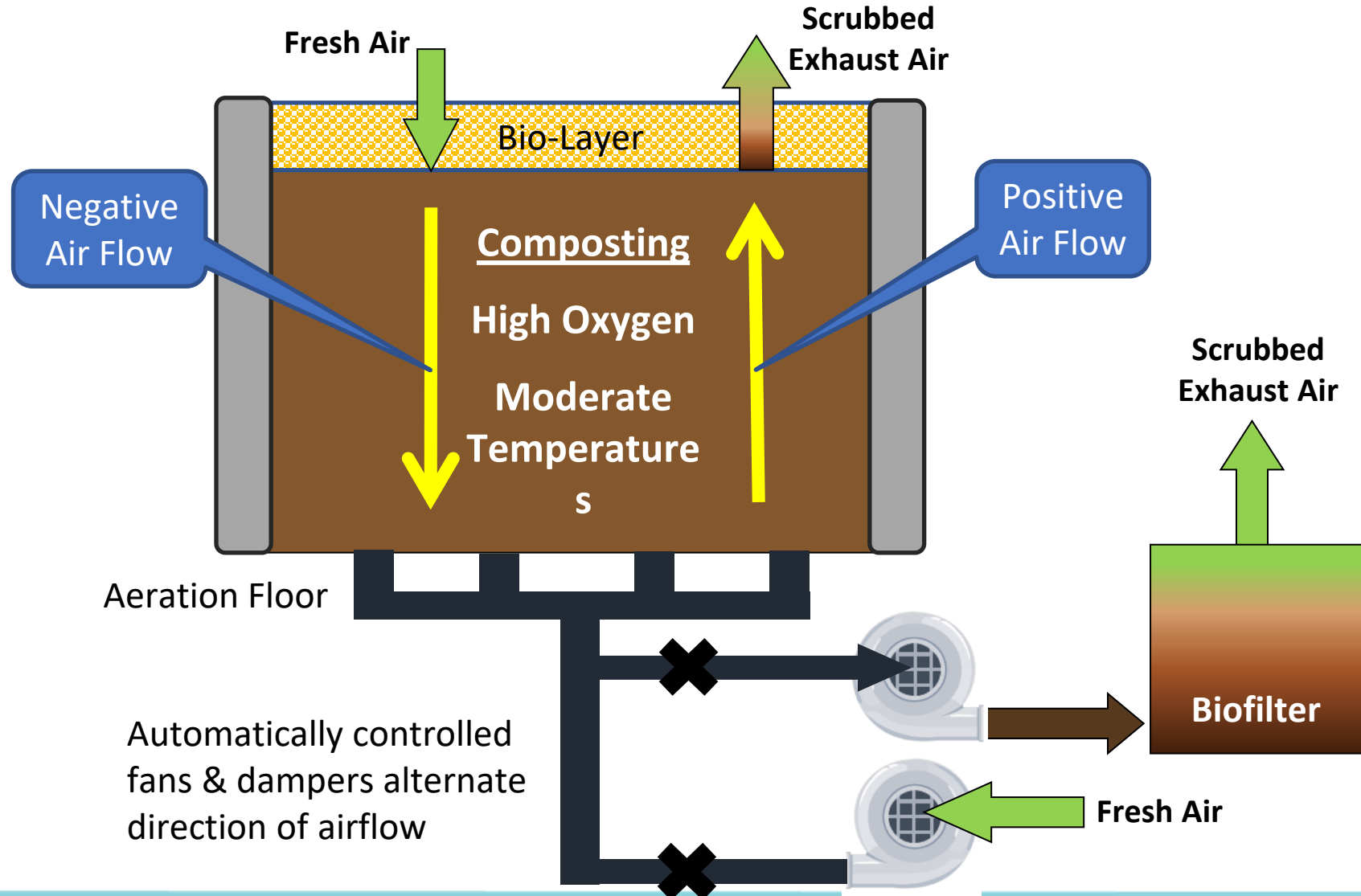


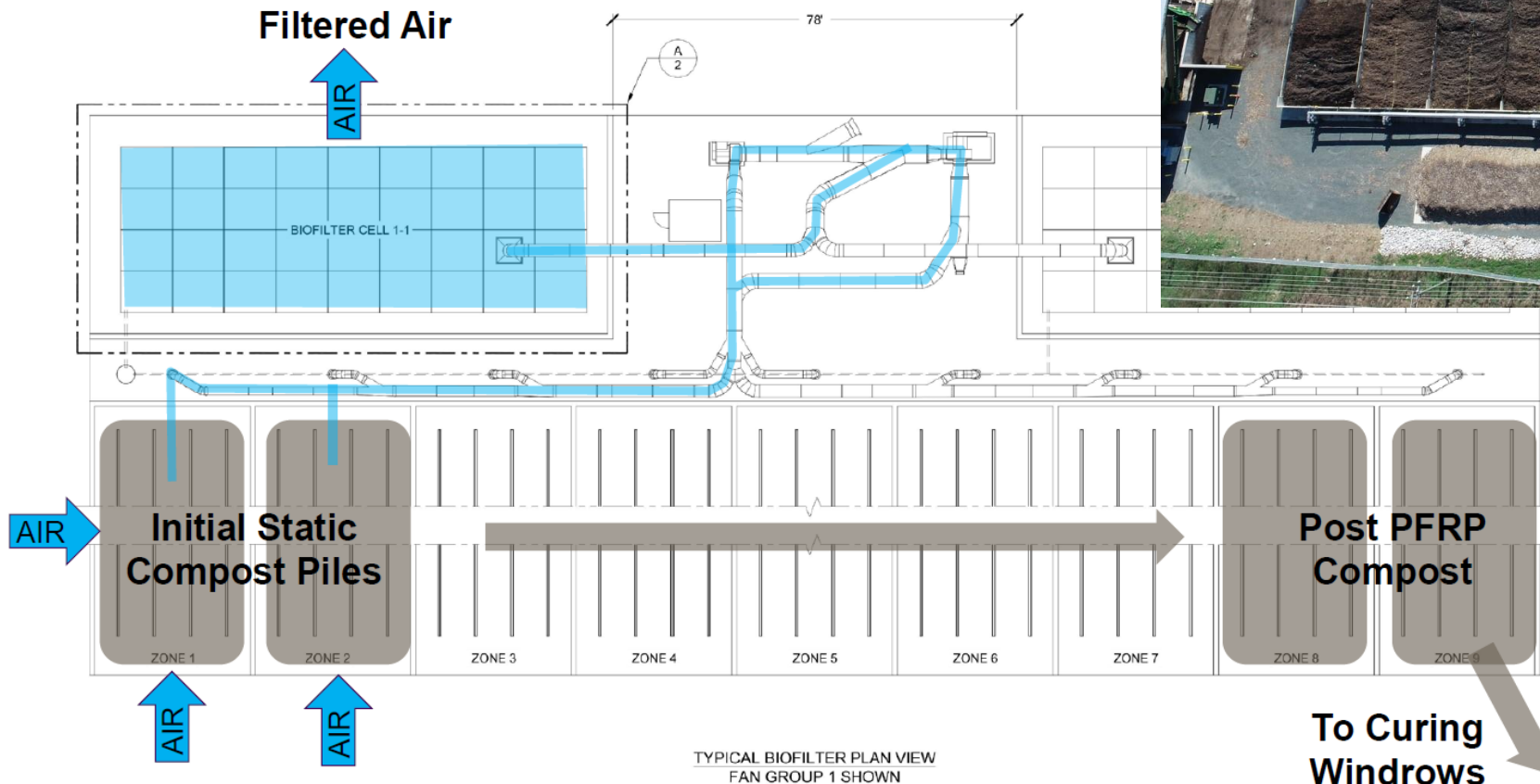


Aerated Floors

ECS Reversing Aeration

Optimized Process Conditions + Odor Control







Aerated Static Pile Composting Benefits

- Faster processing time (From 5-6 months to 2 months)
- Better process control
- Odor Control



BAYFORD LAKE

SCREENING FINISHED PRODUCT/FINISHED PRODUCT STORAGE

MAIN OFFICE/SHOP

STORAGE BUILDING (EXISTING)

STORMWATER POND

FINISHED PRODUCT PICKUP

CURING WINDROWS

WEIGH SCALE

COMPOSTING BUNKERS

TIPPING/MIXING BUILDING

YARD WASTE/BRUSH DROP OFF

CHAIN LINK FENCING SURROUNDING ENTIRE SITE

EXISTING BUILDING

BAYFIELD ROAD

www.41.com/our-services

Questions?

