

# ORGANIC WASTE DIVERSION IN THE ROCKIES

## ECONOMICS, OPERATIONS, MARKETING

**JULY 19-22, 2009**  
**Jackson, Wyoming**  
**Snow King Resort**

Field Tours

Equipment Demos

Presentations

Exhibits

Sponsored by



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**BIOCYCLE**

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## PROGRAM

**Sunday**  
**July 19, 2009**

8:00 am - 4:30 pm

### Foundations of Composting Workshop

Intensive one-day training covers basic concepts, practices and "how to's" of compost production. Course provides foundation for novice compost operators, managers and regulators and will refresh veteran composters on underlying scientific principles. Information prepares composters for expanded job responsibilities, managerial duties and certification requirements\*. Subjects include: Basic principles of composting, monitoring and managing the process including fire prevention and odor control, basic siting and facility design principles, review of major processing methods, and an overview of compost uses, characteristics and markets.

Instructors

Robert Rynk, State University of New York Cobleskill  
Matthew Cotton, Integrated Waste Management Consulting, LLC

\*Certificate of Completion will be provided

**Monday**  
**July 20, 2009**

8:30 am — 9:15 am

Opening Plenary

### Regional Initiatives, Climate Protection, National Overview

#### Regional Organic Management Initiatives

Needs and opportunities for rural communities in the Rockies; Regional forest management and local diversion program integration; Partnership is the key.

Randy Williams, Teton Conservation District

#### Meeting Climate Protection Agreement Goals

Town initiatives to meet U.S. Conference of Mayors' Climate Protection Agreement; Overview of Jackson 10 X 10 plan.

Mark Barron, Mayor, Town of Jackson, Wyoming

#### National Organics Recycling Status Report

Composting and anaerobic digestion trends in the U.S.; Tracking diversion activity in Rocky Mountain region.

Nora Goldstein, BioCycle

10:00 am — 11:45 am

Concurrent Session A

### MSW and Biosolids Composting Systems — Public and Private Sector Experiences

#### Cocomposting — Cost-Effective Landfill Diversion Option

Why composting was significantly cheaper to build and operate than waste to energy; Tapping available mining and agricultural markets for compost; Lessons learned.

Jerry Wright, Rapid City, South Dakota Public Works Department

#### Why Compost?

Composting as key component of a waste management program; How composting works for Yellowstone National Park; What's next in the organics arena.

Kathy O'Hern, Gallatin County (Montana)/West Yellowstone Composting Facility

#### Managing Multiple Feedstocks

Feedstock recipes and process optimization; Equipment efficiencies with multiple sites; Facility permitting.

Bob Yost, A1 Organics

#### Small Mountain Community Partnership For Composting, Paper Recycling

In-vessel system processes communities' paper and cardboard for biosolids composting; Partnership with Waste Management to supply bins and delivery to site; Community involvement in recycling program and compost usage.

Phil Hayes, Pinetop/Lakeside (Arizona) Sanitary District

### Objectives

A regional conference in Jackson, Wyoming focused on developing and operating organic diversion systems, with a particular focus on:

- Addressing the challenges of operating composting systems in cold/arid climates
- Working with limited access to landfills and distant markets for recycled products
- Designing food waste diversion programs that can be integrated into existing infrastructures
- Creating programs that meet regulatory standards for odor, wildlife management, food waste storage/collection, and compost quality
- Developing markets for woody biomass

This conference is intended to focus on the challenges of operating organic waste recycling programs in the western United States and Canada where many communities are geographically isolated. These communities are seeking to understand the best way to reduce solid waste disposal costs by recycling their organic waste.

## Concurrent Session B

### Collection, Processing and Marketing Of Recyclable Materials — Logistics And Challenges of Recycling Markets

#### Rural Recycling Options

Strengths of regional rural drop-off recycling; How it is funded; Mechanics of how the material is collected and transported.

Bill Crane, Headwaters Cooperative Recycling

#### Recycling — A View From The Inside And Out

Tracking markets — from local to global; Transportation versus labor issues; Commodity value or liability?

Dave Leverett, Full Circle Recycling/Four Corners Recycling

#### Building a Rural Recycling Vision

How to evaluate a rural region's residential demographics and commercial corridors by involving waste haulers and breaking down costs of running the extra miles; Why source separation combined with hand-sorting insures marketability; Building a regional MRF/composting facility.

Kate Blevins, Verde Earth Works

#### Practical Application of Recycling For Maximum Waste Diversion At Major University

Collection logistics to capture and transport source separated organics; Materials processing; Compost utilization and markets; Assessment of food waste composting.

Roy Peterman, Brigham Young University

## Lunch & Exhibits

1:30 pm — 4:45 pm

### Site Tours & Equipment Demonstrations

#### Jackson Community Recycling Center

Program overview; Materials recovered and recycled; Market options and transport.

#### Teton County Transfer Station And Composting Facility

Organic materials inspection and processing; Product refinement and marketing; Equipment demonstrations.

## RECEPTION AND EXHIBITS

4:45 pm: Return to Snow King

5:00 pm - 6:30 pm: Reception in Grand Room, Exhibit Area Open

# Tuesday July 21, 2009

8:00 am — 9:45 am

## Concurrent Session A

### Composting Logistics — From Permits to Profits

#### Biosolids And Green Waste Composting

Contracting for municipal biosolids; Cold weather operations; Marketing bagged product to retail garden centers.

Tom Pawlish, EKO Systems, Inc.

#### Compost Entrepreneurship In The Rockies

Company history and evolution; Building wholesale, retail markets; Short and long-term contracts with municipal, commercial and industrial generators.

Chuck Wilson, A1 Organics

#### Cold Weather Composting

How to compost in temperatures as low as -30°C; ASP and in-vessel systems; Process control, biofiltration; Lessons learned.

Steve Diddy, Engineered Compost Systems

#### Compost — “Feed Your Food”

What is the true value of compost?: Meeting Mother Nature's needs; Managing operations to yield high quality compost.

Craig Witt, Full Circle Compost

## Concurrent Session B

### Woody Biomass — Processing And Utilization of Forest By-Products

#### Biomass-Heated Greenhouse Scenarios In The Teton Region

Assessing potential for regionally abundant biomass sources to support year-round greenhouse crop production and markets; Results of feasibility studies for projects in Dubois, Star Valley and Alta (at the Grand Targhee Resort).

Bruce Fulford, City Soil and Greenhouse

#### Fuels for Schools and Beyond

Overview of small to medium-scale woody biomass boiler systems; Review of existing examples in operation around the country; Fuel supply, delivery and air quality considerations; What makes a good candidate for installation of boiler.

Dave Atkins, Fuels for Schools, U.S. Forest Service Northern and Intermountain Regions

#### Biomass Opportunities From Wildlife Habitat Projects

Quantifying biomass available from wildlife habitat enhancement projects; Addressing expense of expertise out of the mountains to move programs forward; Pooling expertise and resources to make these biomass projects viable and effective.

Al Christophersen, Director of Habitat Stewardship Services, Rocky Mountain Elk Foundation

10:15 am — 12:00 pm

## Concurrent Session A

### Teton County Food Waste Composting Pilot — Collection Challenges, Program Costs

#### “Venture Philanthropy” —

#### Funding Worthwhile Pilot Programs

Funding sustainability initiatives such as food waste composting pilot; Tapping into the community's resources; Jackson Hole's successes and failures with food waste pilot.

Jonathan Schechter, Charture Institute

#### Perspectives On Food Waste Collection

Expanding organics recovery to second tier materials including food waste and waxed cardboard; Program limitations; Potential solutions for a long-term program.

Dane Buk, Terra Firma Organics

#### Dirt Cheap — A Grocer's Perspective

Establishing a source separated organics program; Staff training, costs and environmental savings; Future needs.

Steve Michael, Jackson Whole Grocer

#### Waste Diversion Systems At Luxury Resorts

Encouraging innovation and ideas from employees; Philosophical and structural principles that support recycling at the resort; Employee training.

Laura Cuddie, Four Seasons Resort

## Concurrent Session B

### Wet and Dry Anaerobic Digestion — Options To Process Agricultural, Municipal And Industrial Organics

#### Successful Anaerobic Digester Projects

Permitting and interconnection; Construction logistics; Assessing options for project ownership.

Marlin Statema, Andgar Corporation

#### Energy Generation From Organic Waste Using Dry Fermentation

Review of anaerobic digestion (AD) technology for processing dry organic waste streams; Batch processing; Case studies of international dry fermentation AD installations.

Nadeem Afghan, BIOFerm Energy Systems

#### Anaerobic Digestion of Yard And Food Wastes

European experience with dry fermentation and application to the Rocky Mountain region; Analyzing biogas production; Marketing digestate product.

Paul Sellow, Harvest Power

## Lunch & Exhibits

1:00 pm — 2:45 pm

## Concurrent Session A

### Food Waste and Recycling At Resorts And Parks — Case Studies in Yellowstone And Grand Teton National Parks

#### Concessions Perspective On Recycling In National Parks

Program development and implementation in public and associate areas; Impacts of purchasing on recycling; Importance of communication, including training and signage.

Deb Friedel, Delaware North Parks and Resorts

#### Keeping Yellowstone Green: Xanterra's Waste Diversion Efforts

Diverting 72 percent of waste from landfill in 2008; Why key to success is employee training, awareness and participation (e.g., waste sorting in kitchen); System to use 10,000 gallons of cooking oil generated in kitchen as heating fuel for company's hotels.

Beth Pratt, Xanterra Parks and Resorts

#### Inter-Governmental Partnerships —

#### Challenging, But Worth It

Park's role in communities — public works and waste management; Why make the effort? Keeping the boss in the loop; Political realities of partnerships.

Steve Iobst, Yellowstone National Park Service

#### On Your Mark, Get Set, Try Again

Wildlife vs. composting — addressing the challenge; Balancing the big picture — post consumer recyclables vs. compostables; Finding the magic bullet.

Gina Madlwaith, Grand Teton Lodge Company

## Concurrent Session B

### Land Restoration, Erosion Control — Compost Utilization and Markets

#### Erosion, Sediment Control And Storm Water Management

Review of compost-based tools to stabilize slopes, trap sediment and filter storm water, and restore stream banks; Trapping and treating hydrocarbons in runoff; Why project economics improve due to performance of compost and blends; Applications in urban and community gardens.

Rodney Tyler, Filtrexx International

#### Compost Use In Wildfire Restoration

Case study of compost application after the Angora Fire in Lake Tahoe; Before and after photos of high altitude wildfire restoration demonstration project; Review of management practices for wildfire restoration using compost.

Matthew Cotton, Integrated Waste Management Consulting, LLC

3:30 pm — 4:30 pm

## Closing Plenary, Panel Discussion

### Organic Waste Management In The Rocky Mountain Region — Next Steps

Nora Goldstein, BioCycle

Ginny Newsome, Teton County, Idaho Community Recycling  
Scott Gamble, CH2M Hill and Composting Council of Canada

# Wednesday July 22, 2009

7:30 am - 5:30 pm

### Tour of Yellowstone National Park Recycling, Composting Facilities

Optional all day bus tour to West Yellowstone composting facility and Old Faithful Inn. See Xanterra's recycling programs, with lunch at Old Faithful Inn cafeteria. Sit on the front porch and watch the Old Faithful geyser. Travel with a tour guide through Yellowstone National Park from Jackson, as well as Grand Teton National Park. Scenic site stops along the way.

Visit the website for more details and updates or call 307-413-6797

[www.tetonconservation.org/conference](http://www.tetonconservation.org/conference)