

**IDENTIFYING COLLABORATIVE
OPPORTUNITIES TO INCREASE THE
BENEFICIAL USE OF INDUSTRIAL
BYPRODUCTS
STATE AND REGIONAL PERSPECTIVE**

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STATE AND REGIONAL PERSPECTIVE

Overview of Presentation

- **REGION 5/RCC BENEFICIAL USE OVERVIEW**
- **WISCONSIN BENEFICIAL USE PROGRAM OVERVIEW**
- **REASONS FOR COLLABORATION**
- **ACCOMPLISHMENTS**
- **CHALLENGES**
- **FUTURE ACTIVITIES**

Region 5 Beneficial Use Efforts

- **Activity Pre-Dates the Resource Conservation Challenge**
 - Involvement Driven by States and Industry
 - Experience with non-msw recovery issues (asphalt shingles, tires, C&D)
- **Midwest Beneficial Use Summit; 8/02**
 - Coal ash, foundry sand, pulp and paper residuals
- **Internal network with biosolids, brownfields and dredging/sediments programs**

Region 5 Beneficial Use Efforts

- Regulatory
 - Support state decisionmaking
 - Target soil blending
- Market Development
 - Technical workshops and trainings
 - Soil blend model
- Education and Communication
 - Continue National Summits: www.byproductsummit.com
(Atlanta:'03, Kansas City:'04, Philadelphia:'05)
 - Web sites (www.foundryrecycling.org; www.drywallrecycling.org)
and materials
 - Regional stakeholder meetings

RCC Beneficial Use

- Coal ash, foundry sand, construction and demolition debris
- C2P2
- Construction Initiative (Marquette Interchange pilot)
- Modeling and risk analysis efforts
- Region 5 Co-lead
 - Increase focus on construction
 - Continue soil blending efforts and larger field of byproducts

WISCONSIN BENEFICIAL USE PROGRAM

- **WISCONSIN STATE STATUTE- ss. 289.43**
- **NR 500 RULE EXEMPTIONS-S. NR 500.08**
- **NR 538 RULE**

WISCONSIN BENEFICIAL USE PROGRAM

NR 538 CODE SUMMARY

- **NR 538.01 PURPOSE**
- **NR 538.02 APPLICABILITY**
- **NR 538.03 DEFINITIONS**
- **NR 538.04 PERFORMANCE AND STANDARDS**
- **NR 538.05 SOLID WASTE RULE EXEMPTION**
- **NR 538.06 INDUSTRIAL BYPRODUCT CHARACTERIZATION**
- **NR 538.08 INDUSTRIAL BYPRODUCT CATEGORIES**
- **NR 538.10 BENEFICIAL USES**
- **NR 538.12 BENEFICIAL USES FOR SPECIFIC CATEGORIES**
- **NR 538.14 REPORTING**
- **NR 538.16 STORAGE AND TRANSPORTATION**
- **NR 538.18 PUBLIC PARTICIPATION**
- **NR 538.20 ENVIRONMENTAL MONITORING**
- **NR 538.22 PROPERTY OWNER NOTIFICATION**

WISCONSIN BENEFICIAL USE PROGRAM BY-PRODUCT TYPES

- **Coal Ash**
 - fly ash
 - bottom ash
- **Foundry By-products**
 - slag
 - system sand
- **Papermill Sludge**
- **Others**

WISCONSIN BENEFICIAL USE PROGRAM

KEY NR 538 PROGRAM ELEMENTS

- **Mostly self implementing after initial waste characterization**
- **Creates five categories of industrial byproducts**
- **Specifies beneficial uses allowed for each category**
- **Notification of WDNR for larger projects**
- **Annual reports on use to the WDNR**
- **Property owner notification for geotechnical fill projects**

WISCONSIN BENEFICIAL USE PROGRAM

STATEWIDE BENEFICIAL USE

2003

AVAILABLE

BENEFICIALLY USED

- **COAL ASH**

1,450,568 yds³ 1,050,198 yds³ (72%)

- **FOUNDRY SAND AND SLAG**

848,186 yds³ 337,702 yds³ (45%)

- **PAPERMILL SLUDGE**

1,730,000 tons 1,150,000 tons (66%)

REASONS FOR COLLABORATION

- **Region 5 Perspective**
 - Experience and data
 - Valuable input and advice on projects/programs
 - Leverage connection to other State and Local agencies
 - Collaboration helps ensure wise use of limited resources
- **WI DNR Perspective**
 - Access to regional and national forums and projects
 - Leverage connection to other federal agencies
 - Interstate commerce

COLLABORATIVE ACCOMPLISHMENTS

- Workshops and Conferences
 - 12/04 Great Lakes Byproduct Management Association meeting on blending of byproducts
 - 6/05 WIDNR beneficial use workshop
 - Planning for 12/05 Foundry Sand Stakeholder Meeting
 - Focus Group on WI soil blending regulatory structure
 - Planning for Milwaukee workshops in 10/05 for construction engineers
- Documents and Reviews
 - review and comment on USDA foundry sand research protocols
 - Review and comment on EPA HQ document: Beneficial Use of Foundry Sand: A Review of State Practices and Regulations

CHALLENGES

- Resources
- Measurement
- Coordination of national vs. regional vs. state goals and activities
- Market economy
- Misconceptions
- Local prohibitions

FUTURE ACTIVITIES

- Construction Initiative
 - network with WI DOT, FHWA, County highway construction agencies to identify new opportunities and track results.
 - Prioritize targets (e.g., road builders association, county highway association, local engineering departments) for outreach and information and coordinate presentations and participation
- Facilitation/Networking
 - Continue to develop/hold regional information sharing forums
 - Follow-up to WI focus group on soil blending
- Work to identify underutilized materials and/or uses and possible projects to increase use