

Presentation for the
*“Cleveland Harbor Dredging
Summit”*

City of Cleveland

**Beneficial Re-Use
in Conjunction
with Brownfield
Restoration**

February 2, 2010



CITY OF CLEVELAND
Mayor Frank G. Jackson



Mayor Jackson's Vision

- Cleveland will become a model of sustainability over the next 10 years through the efforts of *Sustainable Cleveland 2019*
 - 700 people from greater Cleveland & the nation came together for a 3-day summit
 - Focused on "Building an Economic Engine to Empower a Green City on a Blue Lake"
 - The groups continue to meet and implement their strategies
 - All City Departments to incorporate sustainable practices



Beneficial Re-Use In Brownfield Redevelopment

- Re-using materials from a Brownfield on another site, rather than trucking materials to a solid waste disposal facility
- Re-using materials from demolition, dredging or deconstruction at a brownfield site



Problem

- Funds are available for Brownfield remediation and therefore there may be less concern for cost containment
- Some materials may be re-used if more planning was done at the beginning of the remediation
- Each project is planned separately instead of looking at all projects being undertaken, so opportunities for re-use may be missed



Problem

- Different practices within and between construction industry and remediation industry results in varied and inefficient disposal and reuse decisions
- There is no coordination or sharing of information
- There are no incentives for working together



City of Cleveland- Leading the Way- Coke Plant Site

- Necessity is the Mother of Invention
- Lack of large shovel ready sites makes the City uncompetitive for large projects
- Coke Plant Site- with work, 54 acres with highway access and visibility
- Needs 1.1 million cubic yards of fill



Coke Plant Site



Address:

Rt 77 South of
Pershing

Acres: 54

Funding:

State Job
Ready Sites
Grant Winner



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Where to Find Fill Material?

- Need 1.1 m cubic yds VAP compliant fill
- Commercial/Industrial Point of Compliance is 2 feet for VAP
- Depth is up to 35-40 feet
- Need to re-use slag on site
- State has a time line for completion



Beneficial Re-Use Strategy

- Who has fill and needs to get rid of it?
- Army Corps!!!
- Worked with Army Corps on CDF as a source for fill
- How do we characterize?
- Unlike a Brownfield, the CDF does not have a “history” where we can determine “Areas of Concern”
- Army Corps has a lot of data



CDF material as a Beneficial Re-Use for Brownfield Projects

- Material is relatively benign- fine for Commercial Industrial re-use
- Cost to move the CDF fill is far less than the cost to build new containment areas
- There is a secondary benefit beyond cost reduction for Army Corps- economic development!



Issues with CDF Material

- Hard to estimate when we will hit wet material as we pull it from the CDF
- Until we remove all the material we expect to take, the CDF cannot be used for new material
- Army Corps has budget constraints
- We move the materials twice (once at dredging, once to move dried material to a new site)



Dredge Materials Wet Material Issues

Best Cost Savings would be from direct placement of dredge materials

PROBLEMS:

- Leaching- both from the new material and from the location it is placed
- Direct Contact- cannot characterize contaminants easily in aqueous form
- Geo-tech- Materials may need to be moved around once dry
- Liability- is it the gov't or the recipient?



Conclusions

- The City and other construction projects can continue to remove CDF material at a cost less than that of building new containment
- Can a cycle be developed to assure dredge needs are met?
- Wet material remains a challenge and should be studied



City of Cleveland

Department of Economic Development

Contacts:

Tracey Nichols

Director

(216) 664-3611

tnichols2@city.cleveland.oh.us

David Ebersole

Brownfield Program Manager

(216) 664-2204

debersole@city.cleveland.oh.us



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Mayor Frank G. Jackson