



Information Session
Seaway, Ashland 1,
and Ashland 2, Sites
February 25, 1999



Agenda (Cont.)



Ashland 1 and Seaway D - Site Remediation

Update

- Estimated quantity
- Construction process
- Schedule
- Community relations
- Questions



Agenda

- **Summary of Historical Information**
- **Summary/Status of Recent Activities**
- **Overview of Alternatives Being Considered**
- **What to Expect Next**

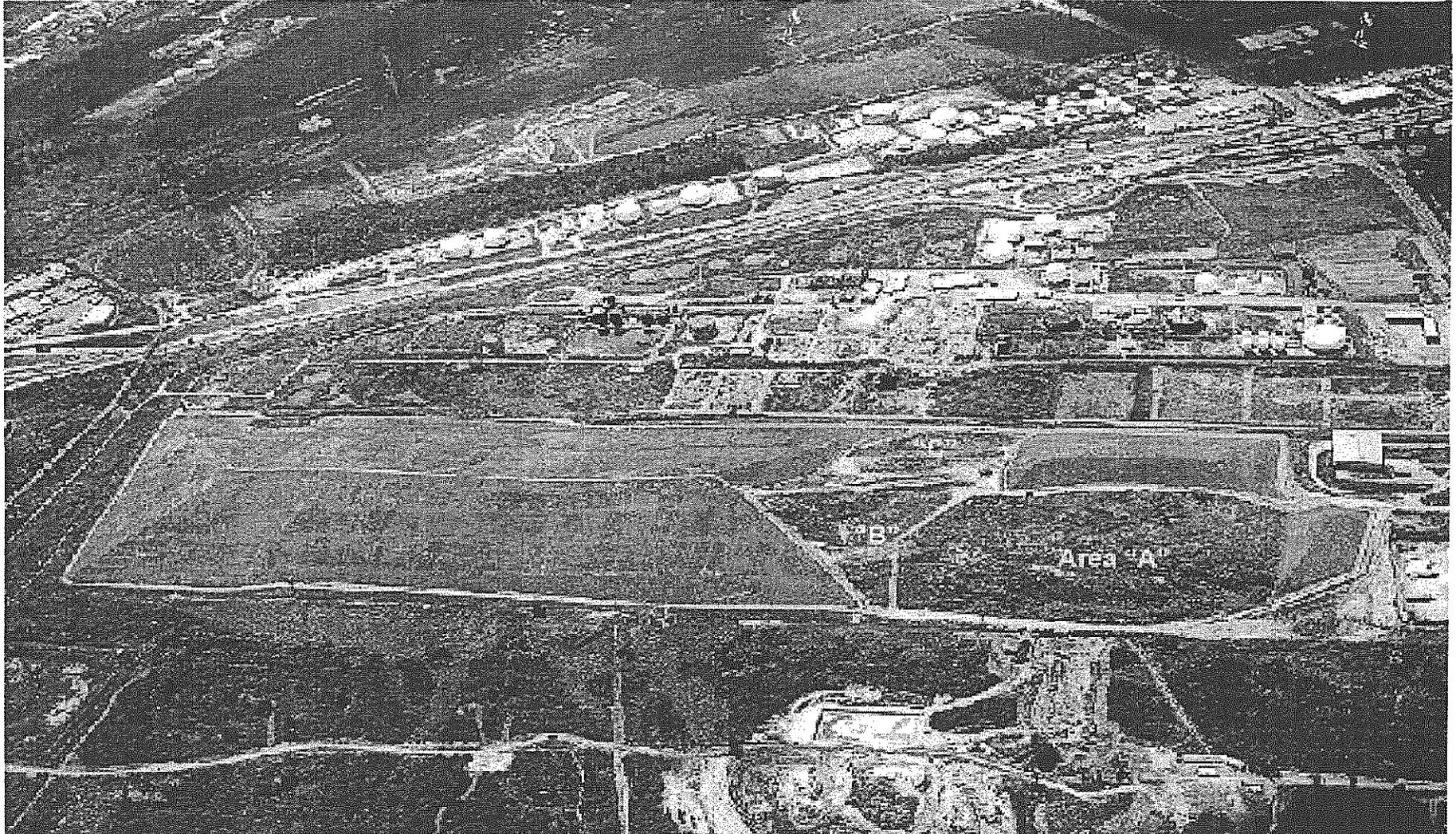
Status Update for the Seaway Site

Science Applications International Corporation

February 25, 1999



Summary of Historical Information - Site History/Location



February 25, 1999

An Employee-Owned Company

Summary of Historical Information - Site History (Continued)

- Residues from the Linde milling operations were deposited in Ashland 1 Area
- In 1974, approximately 6,000 cubic yards (yd³) of the residues were removed from Ashland 1 and placed in the Seaway Landfill (Areas A, B, and C)
- Residues placed in Area A were spread out and landfilling operations in that area ceased
- Up to 40 feet of refuse and cover placed over the residue piles dumped in Areas B and C
- Landfill operations continued through 1994
- Seaway Landfill is capped except in Areas A, B and C, as shown on previous slide

Summary of Historical Information - CERCLA Documentation

- Existing Principal CERCLA Documents
 - Remedial Investigation Report for Tonawanda Sites(1993)
 - Baseline Risk Assessment for Tonawanda Sites (1993)
 - Feasibility Study for Tonawanda Sites (1993)
 - Proposed Plan for the Tonawanda Sites (1993)

Summary of Historical Information - Program Responsibility

- FUSRAP originally with the Department of Energy (DOE) through 1997
- Pursuant to Public Law 105-62 (October 13, 1997), FUSRAP was transferred from the DOE to the U.S. Army Corps of Engineers (USACE)
- Eight (8) FUSRAP Sites assigned to the Buffalo District of USACE
- USACE - Buffalo immediately began assessing what needed to be done under CERCLA regarding the Seaway Site

Summary/Status of Recent Activities

- Began preparation of a Feasibility Study Addendum
- Re-evaluated all volume estimates using 3-D modeling
- Additional surface characterization conducted throughout 1998
- Alternatives evaluated
 - Risks
 - Costs
 - Other CERCLA Criteria

Seaway Areas B & C Surface Characterization

- **Objective**
 - Assess whether any MED-related material is at or near the surface as projected by recent 3-D modeling
- **Consisted of two components**
 - Conducted gamma walkover surveys
 - Followed up with soil sampling and analysis
- **Results Documented**
 - Seaway Gamma Walkover Report
 - Seaway Surface Characterization Report
- **Seaway volumes re-estimated based on results**

3-D Modeling Results for Areas B and C

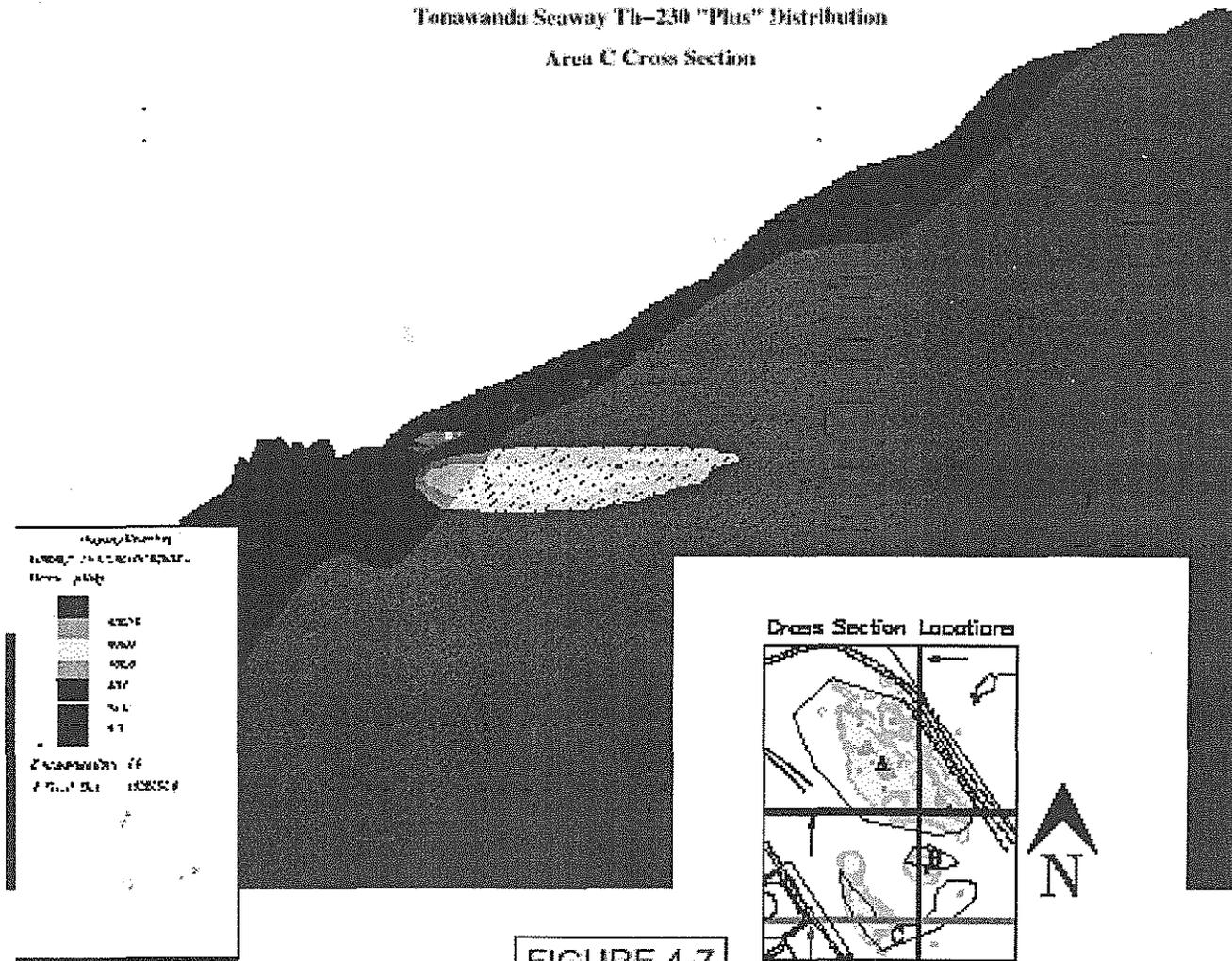


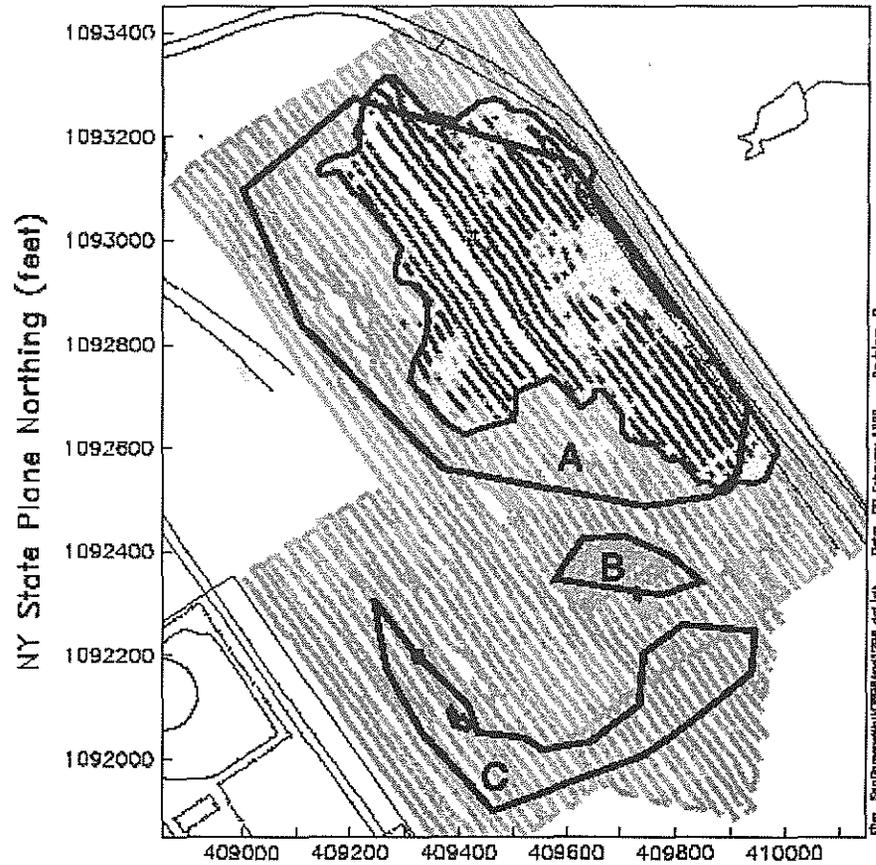
FIGURE 4-7

Seaway Areas B & C Surface Characterization - Gamma Walkovers

- **Gamma walkover surveys conducted during summer and fall of 1998**
 - Assess whether any radiological material was at or near the surface

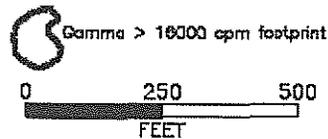
- **Results found a few areas with anomalies warranting further investigation**
 - One area found in Seaway Area B
 - Two areas found in Seaway Area C

Gamma Walkover Survey Results



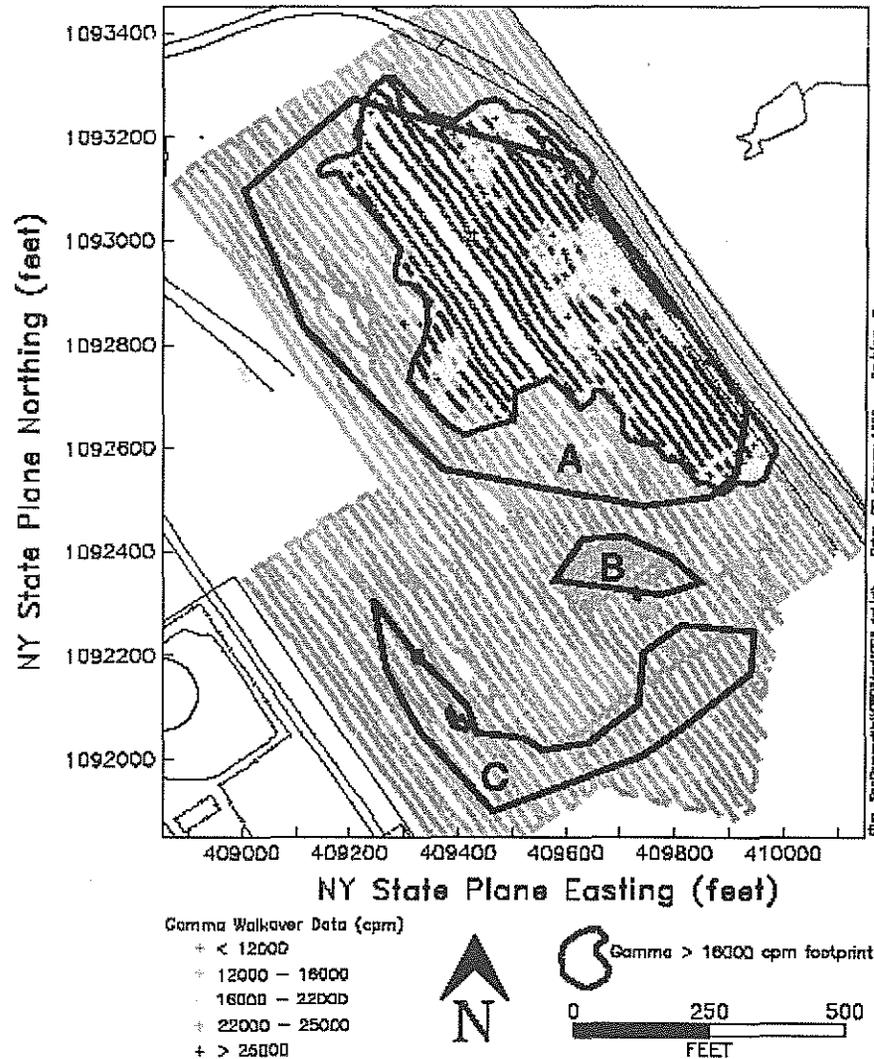
Gamma Walkover Data (cpm)

- + < 12000
- + 12000 - 16000
- + 16000 - 22000
- + 22000 - 25000
- + > 25000



February 25, 1999

Gamma Walkover Survey Results



February 25, 1999

Seaway Areas B & C Surface Characterization - Soil Sampling

- **Soil sampling conducted December 16-18, 1998**
 - Focused on anomalies identified during gamma walkovers
 - Focused on surface to a depth of four (4) feet

Surface Characterization Soil Sampling - Results

- **Seaway Area B**

- 15 samples analyzed
 - 12 in the 0-4 foot interval
 - 3 in the 4-8 foot interval

- **Seaway Area C**

- 24 samples analyzed
 - All in the 0-4 foot interval
- Refusal or refuse encountered at depths of 4 feet or less at 7 of the 12 sampling locations

Surface Characterization Soil Sampling - Results - Area B

(0-4 Feet)

Ra-226

Range (pCi/g)

0.12 - 0.30

Th-230

0.78 - 3.09

U-238

0.89 - 2.32

(4-8 Feet)

Ra-226

Range (pCi/g)

0.14 - 0.21

Th-230

1.35 - 2.33

U-238

1.65 - 2.15

Surface Characterization Soil Sampling - Results - Area C

(0-4 Feet)

Ra-226

Range (pCi/g)

0.16 - 10.93

Th-230

1.06 - 411.60

U-238

0.78 - 43.82

(0-2 Feet)

Ra-226

Range (pCi/g)

0.16 - 0.47

Th-230

1.06 - 11.98

U-238

0.78 - 13.51

Surface Characterization Summary

- Effort provided a better understanding of Areas B and C with minimal impact to overall Seaway schedule
- Results integrated into activities supporting CERCLA documentation
 - 3-D modeling
 - Radiological risk assessment
 - Refinements to volume estimates
- Results from these activities will be used in evaluating the alternatives

Seaway Alternatives Evaluated

- **Alt. 1: No Action**
- **Alt. 2: Complete Excavation, Off-Site Disposal**
- **Alt. 3: Complete Excavation, On-Site Disposal (N/A)**
- **Alt. 4: Partial Excavation, Off-Site Disposal**
- **Alt. 5: Partial Excavation, On-Site Disposal (N/A)**
- **Alt. 6: Containment**

Alternative 1: No Action - Description

- Leave material in place
- Apply institutional controls
- Conduct 5-year reviews

Alternative 2: Complete Excavation, Off-Site Disposal - Description

- Remove soils necessary to comply with the 40 CFR 192 standards
- Ship excavated soils exceeding criteria offsite for disposal
- Cover excavated area

Alternative 4: Partial Excavation, Off-Site Disposal - Description (Current)

- **Remove the top four (4) feet in Areas A, B and C which exceed the 40 CFR 192 standards**
- **Ship excavated materials offsite for disposal**
- **Cover Areas A, B and C with minimum 5-foot cover**
- **Precludes excavation of trash/refuse**
- **Apply institutional controls**
- **Conduct 5-year reviews**

Alternative 6: Containment - Description

- Leave all materials in place
- Cover Areas A, B and C with minimum 5 feet of cover
- Apply Institutional Controls
- Conduct 5-year reviews

Radiological Risks for Seaway Site Assessed

- **USACE performed a radiological risk assessment for possible scenarios**
- **Document being finalized and will be submitted to USACE**

Assessment of Alternatives to the CERCLA Criteria

- **The Proposed Plan will include an assessment of the alternatives to the CERCLA criteria**
- **CERCLA criteria**
 - **Threshold criteria**
 - **Compliance with ARARs**
 - **Overall protectiveness**
 - **Balancing criteria**
 - **Long-term effectiveness and permanence**
 - **Short-term effectiveness and environmental impacts**
 - **Reduction in toxicity, mobility or volume through treatment**
 - **Implementability**
 - **Cost**
 - **Modifying criteria of State and community acceptance is assessed after receipt of comments**

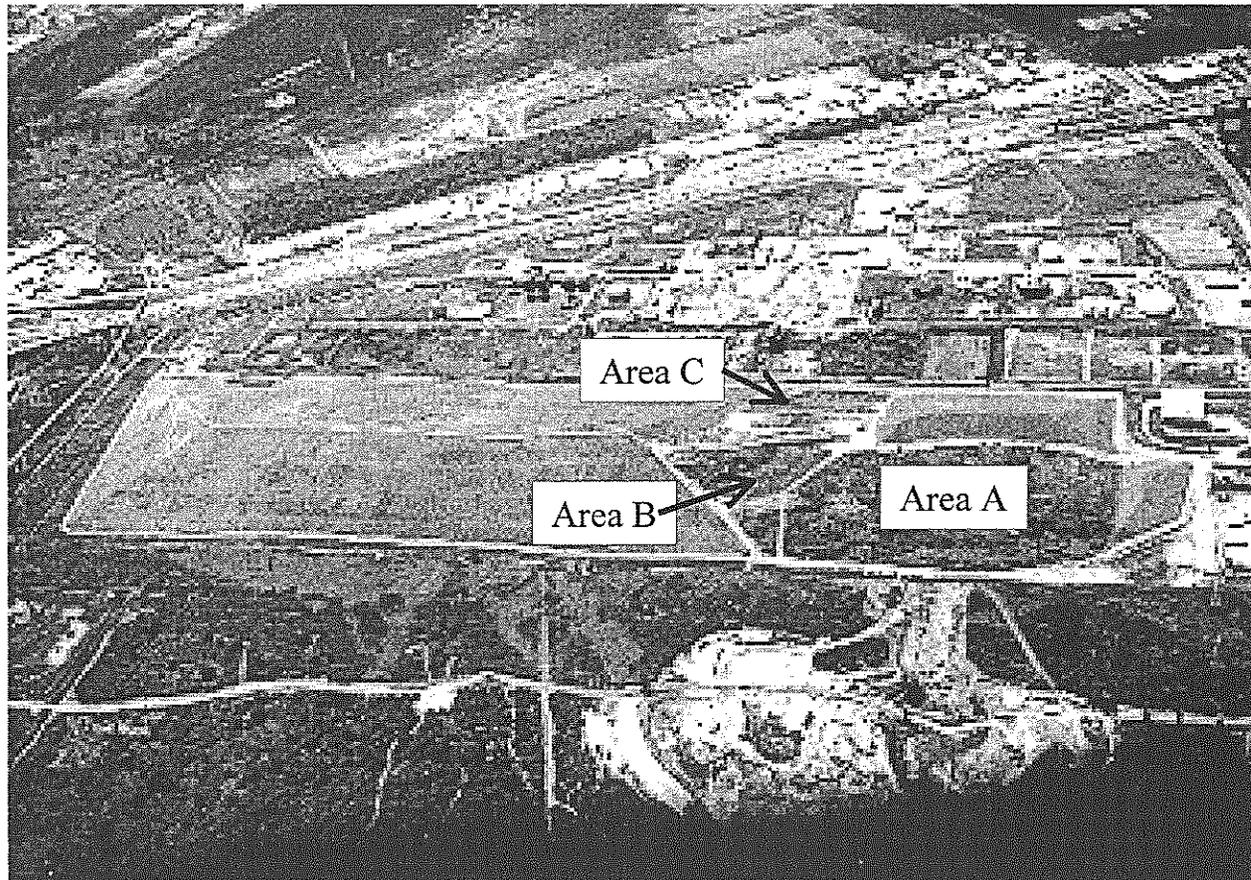
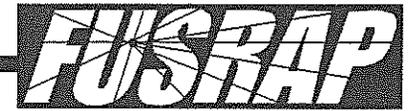
What to Expect Next

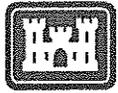
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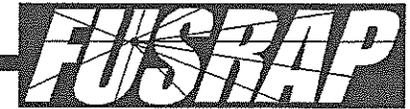


Seaway





Seaway Schedule



-
- Proposed Plan release for public comment May 1999
 - Record of Decision Fall 1999
 - Remedy implementation FY 2000



Seaway Community Relations



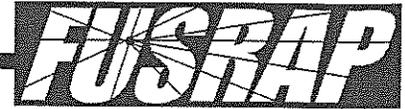
- Public meeting
- Group presentations
- Administrative Record
 - Tonawanda Library
 - USACE FUSRAP Information Center



Seaway



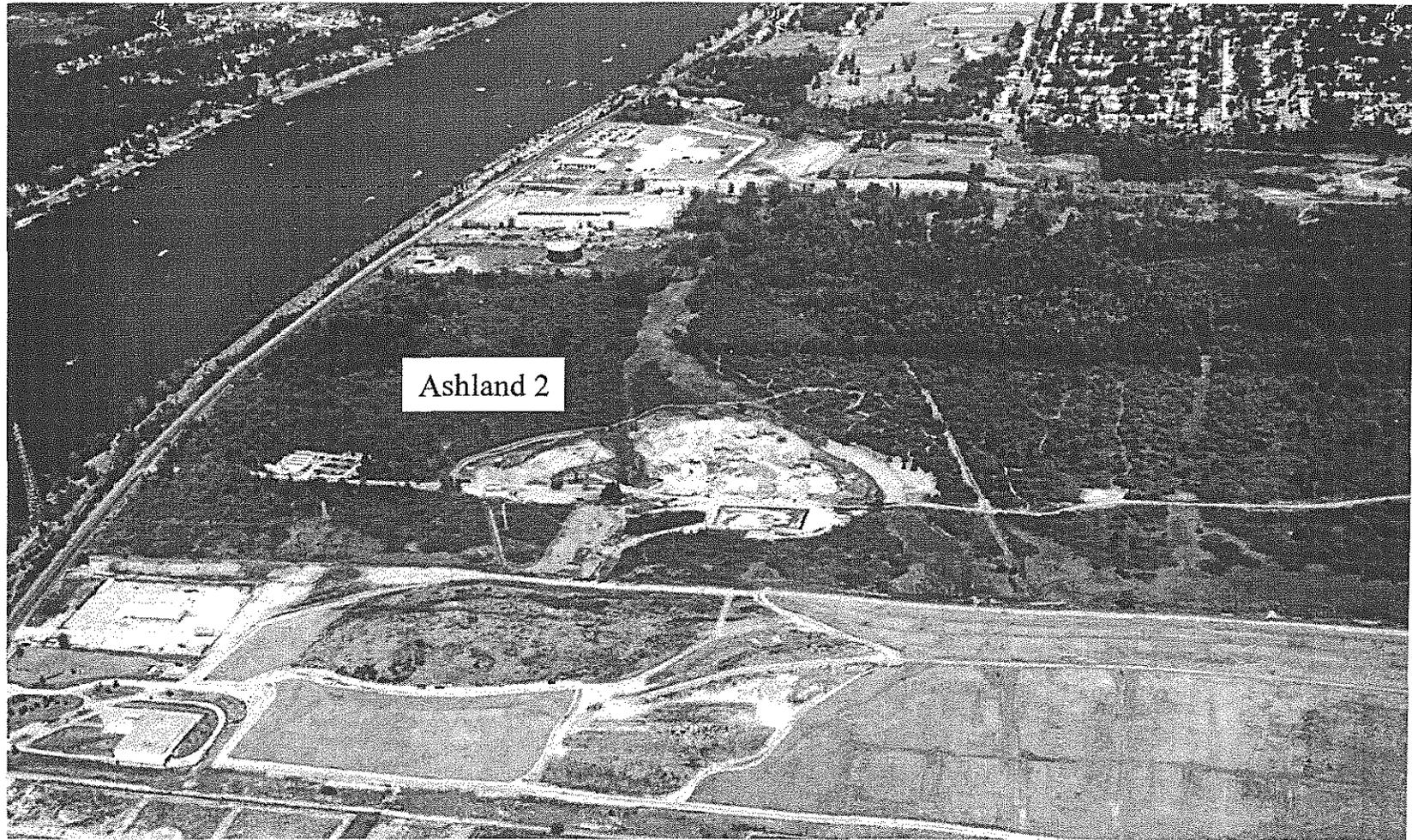
Questions?



Break



Ashland 2





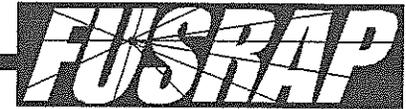
Ashland 2

FUSRAP





Ashland 2 History

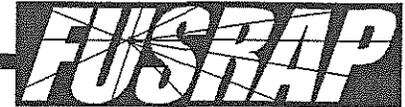


- Record of Decision (ROD) Apr 1998
- Excavation began Jul 1998
- Removed 17,500 cubic yards Sep 1998
- Approximately 45,000 cubic yards of material excavated and shipped Feb 1999
- On schedule removal of 17,500
- Commitment to continue removal to reach ROD protectiveness



Ashland 2

Excavation Status



- Worked about 51,000 man-hours without a lost-time accident
- About 900 air samples collected to ensure protection of the on-site worker and the community
- Engineering controls used



Ashland 2

Excavation Status (Cont.)



- Removed 3.5 times the original volume for 1.6 times the original estimated cost
- Saved tax dollars through use of:
 - Precision excavation
 - Disposal/recycling



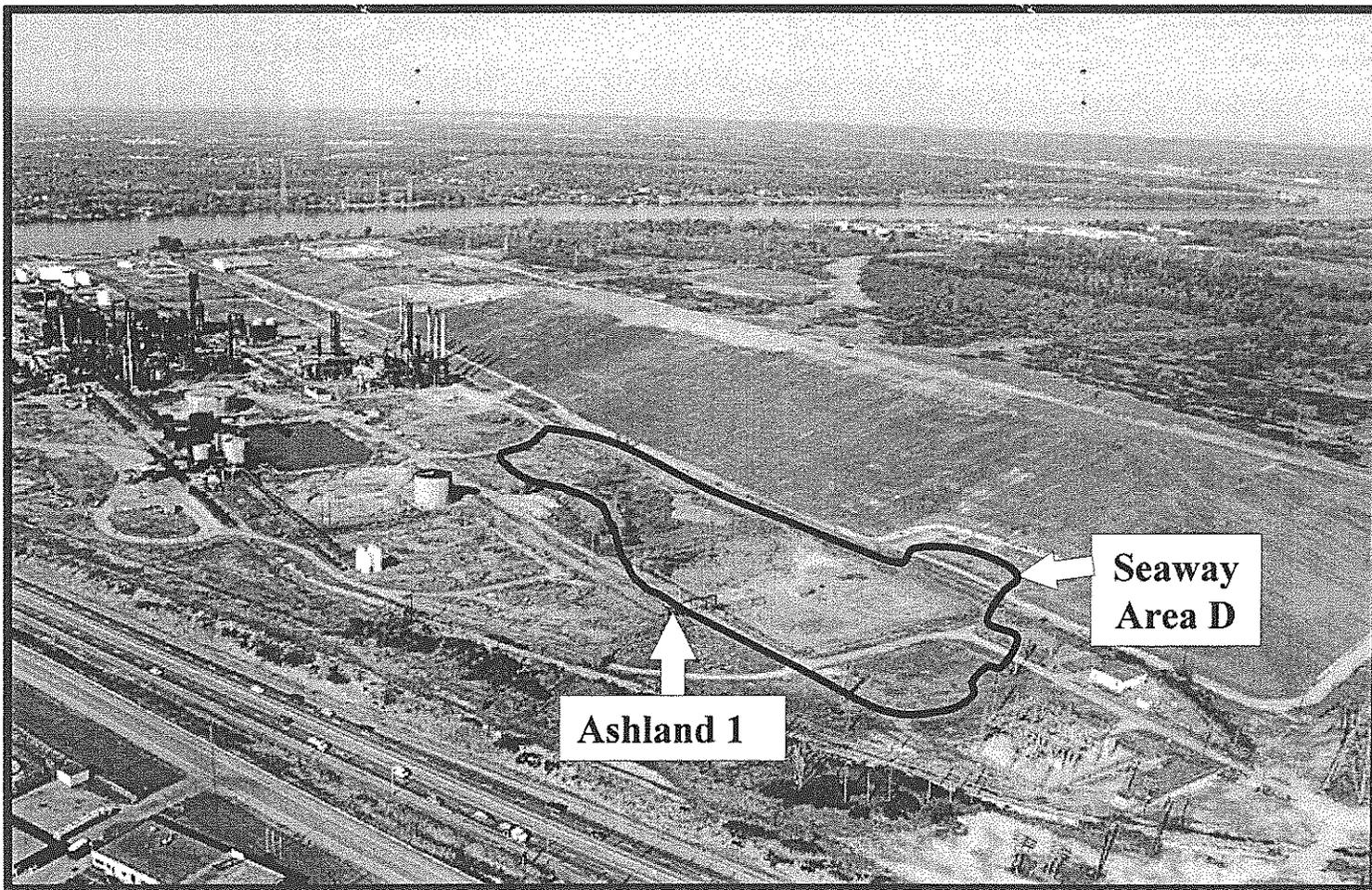
Ashland 2 Final Status Survey Process



- Testing is underway where excavation is complete
- Remainder of testing should be completed in March
- Results will be analyzed to confirm that the remediation is complete
- After this the site will be restored



Ashland 1, Seaway D

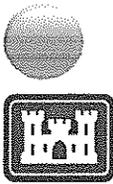




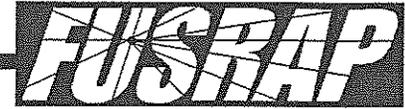
Ashland 1 and Seaway D Estimated Quantity



- Estimated 120,000 cubic yards of material above site-specific guideline
- Volume estimate has increased due to lessons learned from the Ashland 2 remediation



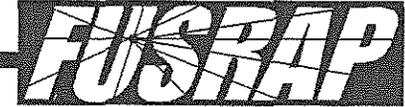
Ashland 1 and Seaway D Construction Process



- Safety will be a primary focus
- Buffalo District personnel will be overseeing the work to ensure compliance with safety rules
- Experienced contractor (ICF Kaiser) will be used
- Excavated material above the guideline will be placed into intermodal containers



Ashland 1 and Seaway D Construction Process (Cont.)



- Scanned intermodal containers will be transferred to the rail loading area
- After confirmatory scanning, the loaded intermodals will be sent for disposal on flatbed rail cars



Ashland 1 and Seaway D Schedule



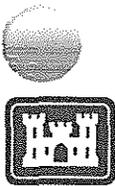
- Site preparation and mobilization March 1999
- Excavation begins April 1999
- Projected completion of excavation and site restoration 2001



Ashland 1 and Seaway D Community Relations



- Based on positive feedback Corps will continue:
 - Information sessions
 - Group presentations



Ashland 1 and Seaway D



Questions