



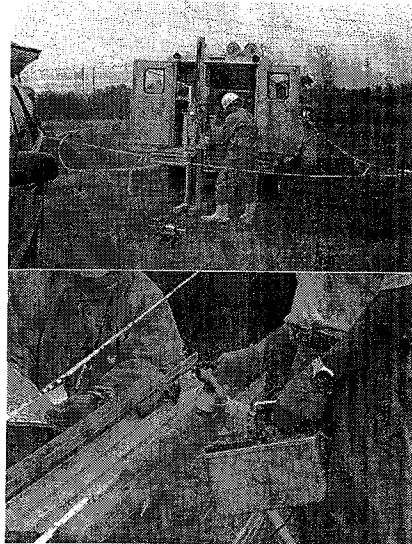
## FUSRAP Investigation History

- 1990 - 1994
  - DOE investigations find radioactive elements at the site that are similar to elements found at other FUSRAP sites.
  - However, no documentation has been found indicating where the material came from or how it got to the site.
- 1997
  - Congress transfers execution of FUSRAP from DOE to USACE.
- 1999
  - USACE completes Radiological Health Assessment, which concludes risks are below USEPA guidelines.
- 2001
  - USACE conducts additional remedial investigation sampling at the site.
- 2006
  - USACE releases Remedial Investigation Report, including updated Baseline Risk Assessment.



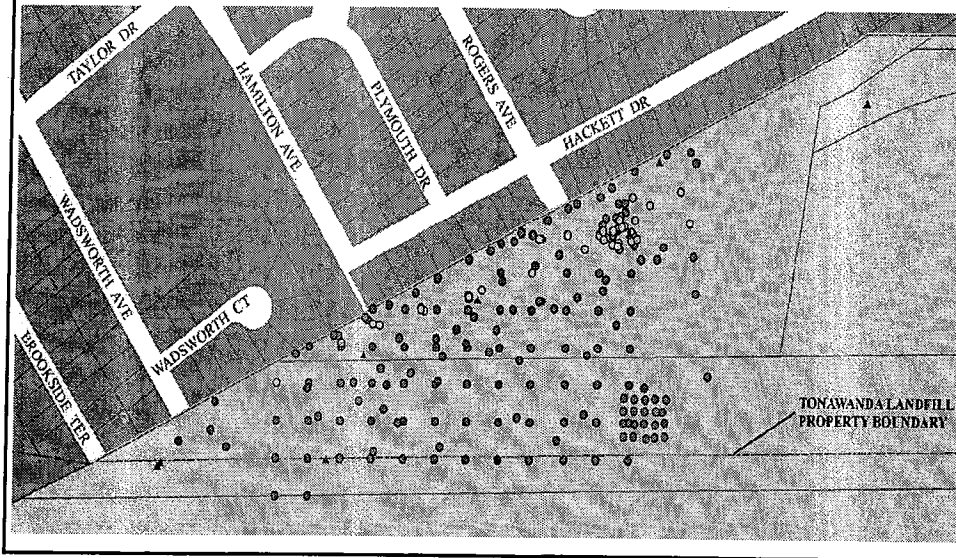
## FUSRAP Sampling

- Soil samples collected from 202 locations in Landfill (23 along residential fence line)
- Groundwater samples collected from 10 wells in Landfill
- Samples analyzed for uranium, radium and thorium





## Landfill Investigation Results



## Landfill Risk and Dose

User	Lifetime Risk
Recreational - Current	At or Below USEPA Limits
Recreational - After Town's Cap	Well Below USEPA Limits

User	Dose (mrem/year)	Federal Limit (mrem/year)	State Guideline (mrem/year)
Recreational	6	25	10



## Next Steps

---

- **Proposed Plan (March 2007)**
  - Presents plan to complete USACE activities
  - 30 day public review and comment period
  - Public comment meeting in March 2007
- **Record of Decision (February 2008)**
  - Responds to all comments on the Proposed Plan
  - Documents final decision on completion of USACE activities



## For More Information

---

### FUSRAP Questions

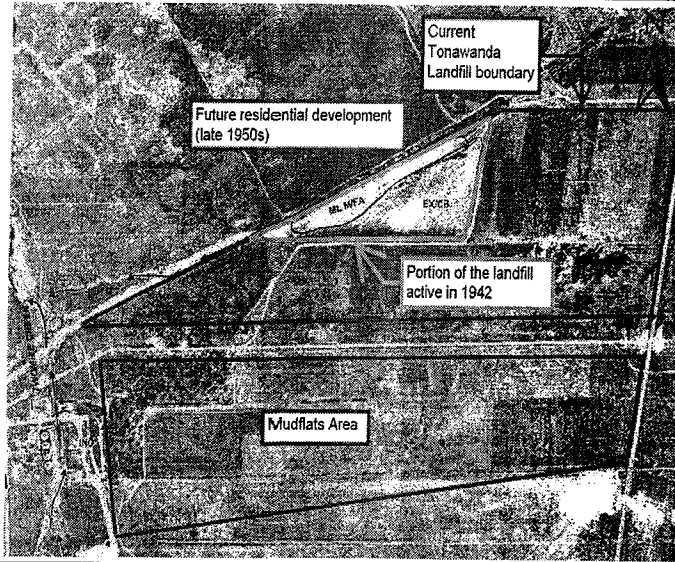
- By phone: 716-879-4396  
800-833-6390
- By e-mail: [fusrap@usace.army.mil](mailto:fusrap@usace.army.mil)
- By writing: U.S. Army Corps of Engineers  
FUSRAP Information Center  
1776 Niagara Street  
Buffalo, NY 14207
- On the web: [www.lrb.usace.army.mil/fusrap](http://www.lrb.usace.army.mil/fusrap)



## 1942 Aerial Photo

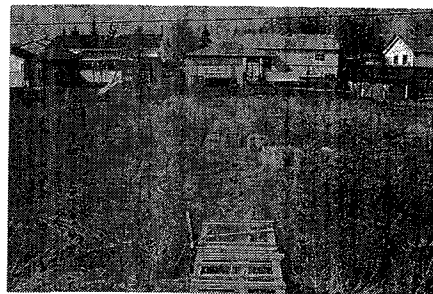
Town of Tonawanda Landfill accepted municipal waste, incinerator ash, and sludge from the 1930s to 1989.

Mudflats Area was vacant except for Town's incinerator.



## Investigation Rationale

- The Corps considered the presence of residences adjacent to the landfill, and the fact that some residents use the landfill for recreational purposes
- The Corps sampled along the residential fence line in the landfill
- The Corps evaluated risks to residents coming onto landfill

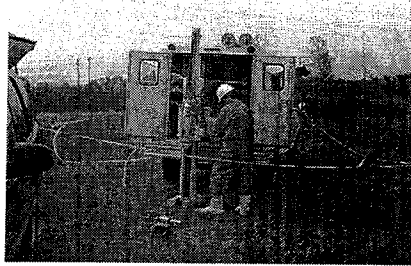




## Groundwater Sampling Results

---

- Groundwater is not a drinking water source for the area
- The well closest to the residential area did not exceed Federal drinking water limits
- Of 10 wells sampled – only 1 had uranium exceeding Federal drinking water limits



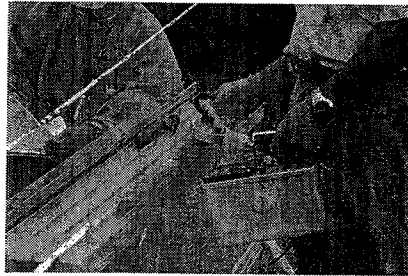
**Field Work –  
Soil Sampling**



## Soil Sampling Results

---

- All sample locations within 50 feet of the residential fence line had results at site background levels
- In the Landfill, 40 sample locations had results above site background
- In the Mudflats, only 1 sample location had results elevated above site background



**Field Work –  
Soil Sampling**



## **Landfill Risk Assessment**

---

- Baseline Risk Assessment took sampling data and evaluated the health risks from uranium, radium and thorium
- Risks were evaluated for current site conditions, and for potential future site uses
- Risks were compared to limits established by USEPA
- Also evaluated the dose from uranium, radium and thorium; and compared the dose to Federal limits and State guidelines



## **Mudflats Investigation Results**

---



## Mudflats Area Risk Assessment

User	Lifetime Risk
Recreational	Below USEPA Limits
Industrial/Commercial	Below USEPA Limits
Residential	Below USEPA Limits



## Mudflats Dose

User	Dose (mrem/ year)	Federal Limit (mrem/year)	State Guideline (mrem/year)
Recreational	0.01	25	10
Industrial	0.8	25	10
Residential	4	25	10