



# Public Health Response Through Partnerships

## "WATER" Our Options?

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# Objectives



- Apply public health policy development skills from lessons in the field
- Describe effective ways to enhance partnerships with community leaders on emerging health topics
- Develop skills through effective models of response to localized public health issues

# Central District Health Department

- 3 counties in Central Nebraska
- East of Denver, NW of KC
- District population of 78,000
  
- Home of the **Cornhuskers**
  - Go **Hawkeyes!**

# Nebraska



# Environmental Health's Focus?

- Refers to the interrelation between human health and the environment
  - Water, waste, food, air...
  - Chair, floor, air, pencil, lighting...
- How about the person sitting next to you?

# Environment?

- The Natural Environment
- Man-made or Built Environment
- The Social Environment

# Central District's Social Environment



- High ground water table/sandy soils
- City shut off wells
- Cancer clusters
- RDX, VOC east and west
- Fluoride
- Pesticide study
- Fish kill
- Water diversion
- Plastic bottles
- Dropped onsite program
- Wet cell complaint
- Pharmaceuticals school nurse
- Dead cows
- Rain!!!
- Standing water
- Septic failures
- Pumping wars
- Mold
- Underpasses
- City sewer failures
- Wells inundated
- Sandbagging
- WWTP overflows
- Pumping sewer
- Portable toilets
- Political drainage problem
- Tornadoes
- Disaster declared

# Example #1

**Contaminated  
Groundwater**

**Nebraska Solvents Co.  
Voluntary Cleanup**

# Release Site

- East Edge of Grand Island, East end of Hall County, East end of Merrick County
- 1973 to 1988 leased to Nebraska Solvents Company (NSC)
- Property owned by Union Pacific RR
- NSC declared bankruptcy

# Chemical of Concern

- Tetrachloroethene or PCE
- Used in dry cleaning and metal degreasing
- It's in the water...this is what we know
  - Inhalation, ingestion, contact?
  - Possible cancer risks?



HALL  
COUNTY



MERRICK COUNTY

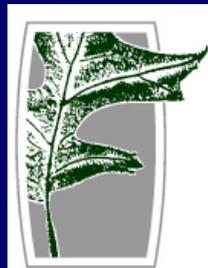


# November 2004

- Sampling begins near release
- Contamination identified
  - Industrial area
  - Nearby residential area on municipal water
- Sampling continues in 2008 to map plume

# Early 2008

- Forrester Group (UP) contacts LHD
- Plum larger than expected
  - Another residential area in the path
  - Private water supply
- Develop sampling plan



THE FORRESTER GROUP  
INSIGHTFUL ENVIRONMENTAL SOLUTIONS™

# Early 2008

- First notification to residents about possible contamination
  - The approach is critical!
- Door to door
- Led by Forrester staff but accompanied by our EH staff
  - Why?



# April 2008

- 109 wells sampled
- 26 exceeded EPA MCL of 5 ppb
  - 16 ppb high
- 23 positive but below MCL
- 60 no detects

# Communication

- EH staff onsite
- Informational flyers
- Bottled water supplied
  - Immediate health risk addressed
- Questions about
  - Showering
  - Cooking
  - Gardens
  - Property values
  - Fault



# May 2008

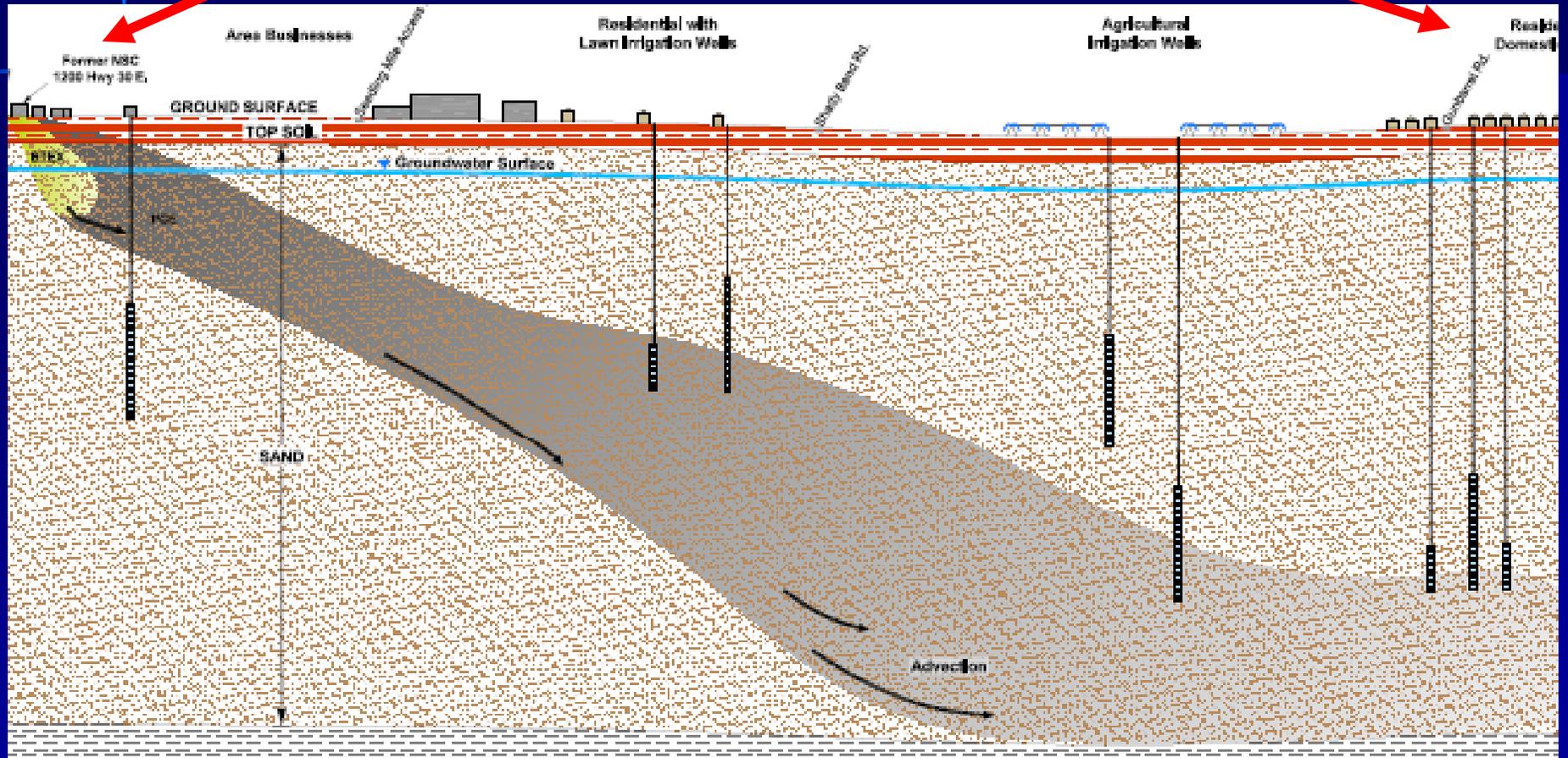
- 24 additional wells sampled
- 1 positive - below MCL
- 23 no Detects
- CDHD Water Lab
  - Nitrates
  - Bacteria
  - Hardness
  - ph





Release Site

Domestic Wells



# Heating Up

- Make or break time for you
- Merrick County Board Meeting
  - CDHD, Forrester Group, and UP
  - Residents from impacted area
    - Interested parties\*
  - City of Grand Island officials
  - Land value
  - Filtration systems
  - Mode of communication with residents

# September 2008

- Begin installation of in-home filtration units on homes with contamination.
  - Above MCL
  - Any detection



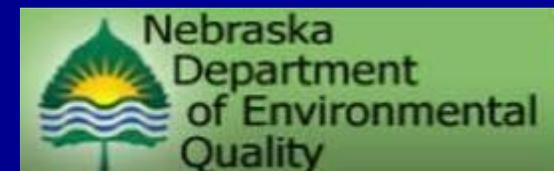
# Think Long Term

- When they leave who remains???
  - City water supplied? (one mile away)
  - Water District?
  - Contamination migrates out of area?
  - Remediation system?

# Partners



- Union Pacific RR
- Forrester Group
- Central District Health Dept.
- NDEQ
- City of Grand Island
- Merrick County
- Hall County
- Central Platte NRD



# Example #2

## Wastewater Discharge

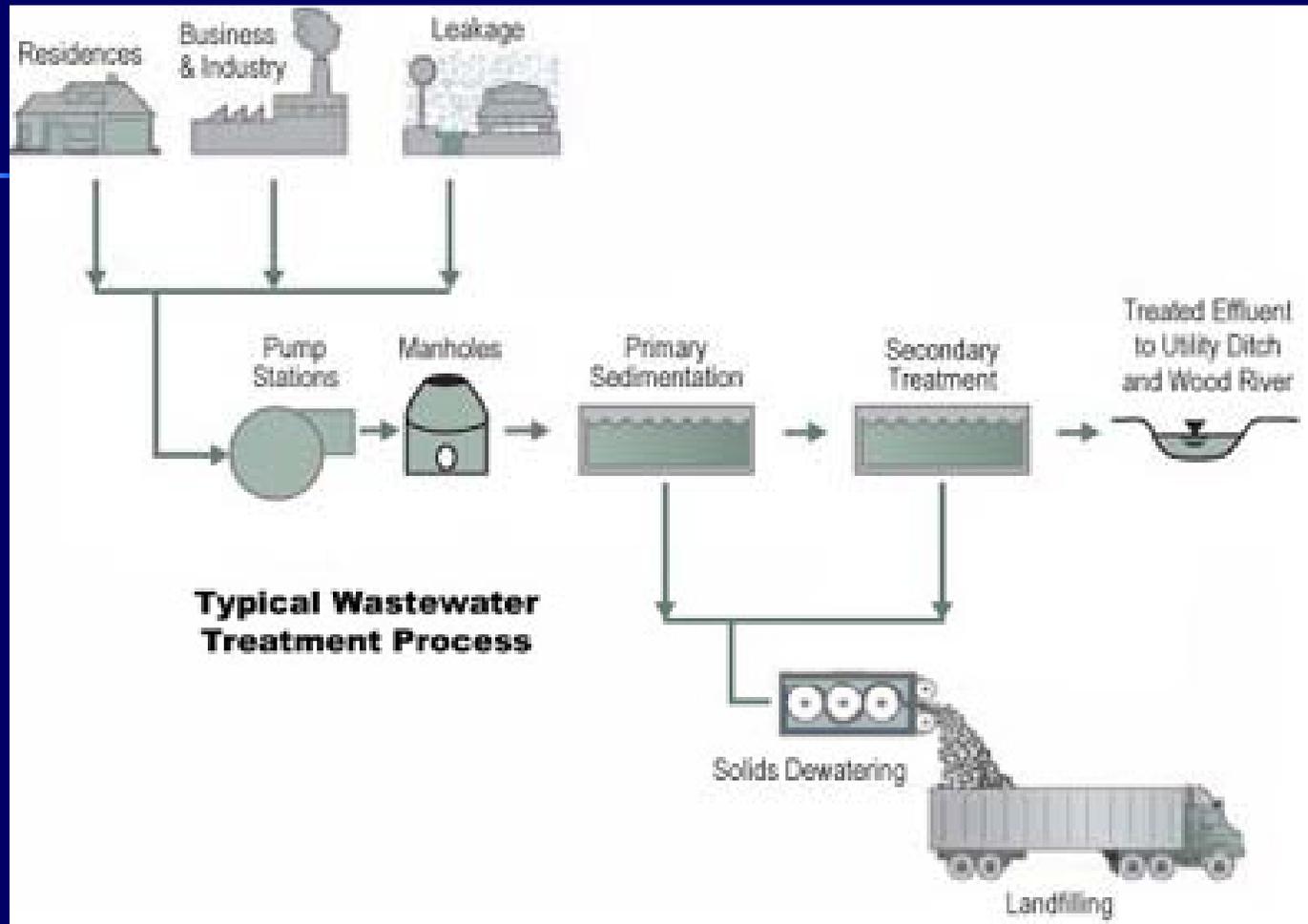
*The leader  
in assuring a  
healthy community*



# We All Live Downstream

- March 28<sup>th</sup>, WWTP
- WWTP, Packing Plant
  - 215 miles of sewers
  - 4,000+ manholes
  - 15 lift stations (20,230 gal/min)
  - Treats 12 mill gal/day
- 10,000 + fish killed
  - Outfall ditch
  - Wood River
  - Platte River









# 24 Miles



# Questions?

- What should EH be asking?
- What is our community wondering?

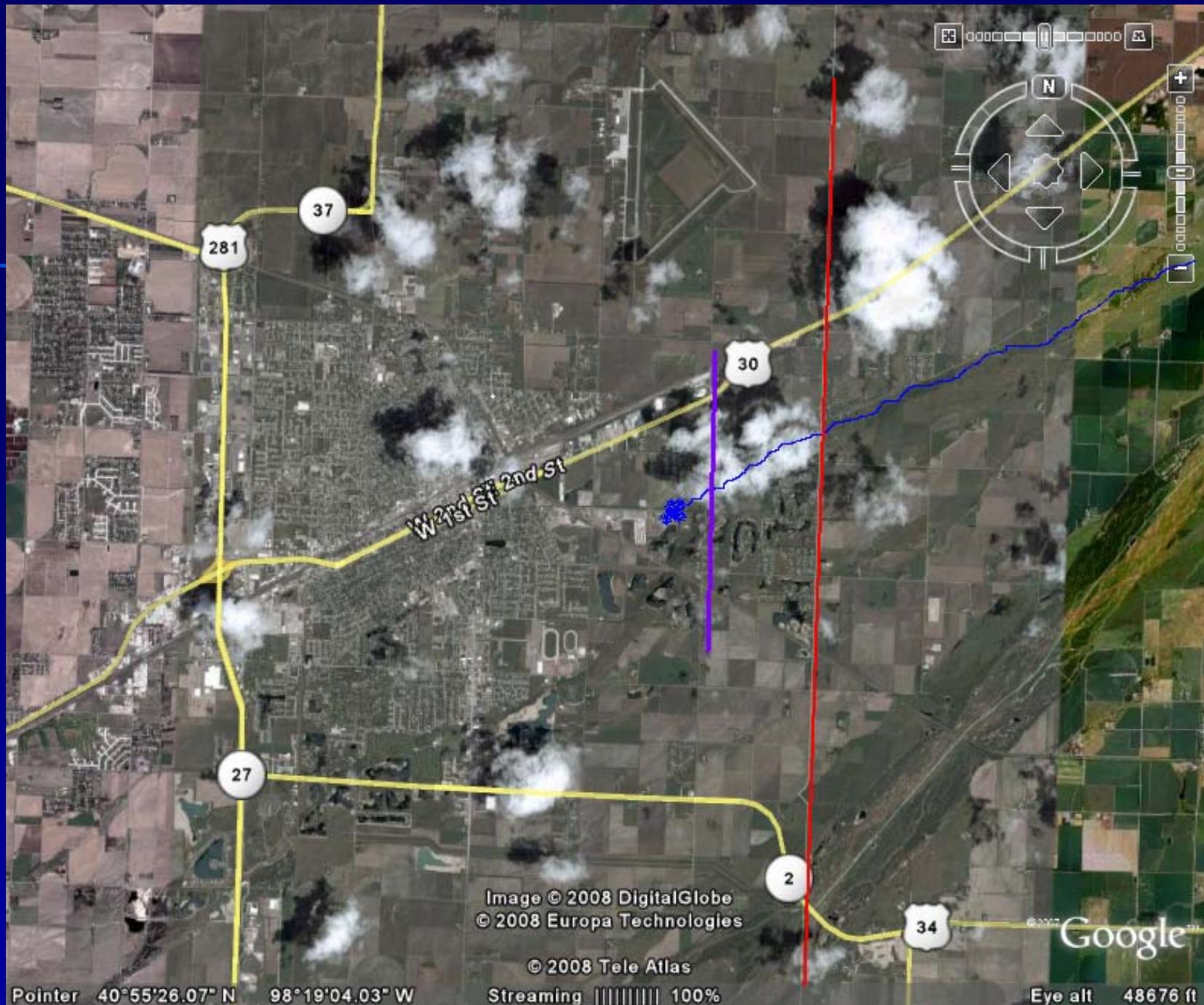


# Make or Break Time

- Should you get involved?
- Look for the opportunities!
- Be willing
- Know your science
  
- **BOD**    **Biochemical Oxygen Demand**
- **SS**      **Suspended Solids**
  
- Solid science = simple solution...?
- Social Environment

# Relationships

- Remember the social environment
- It is more about the environment
- Politics



W 2nd St  
1st St

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Google

Pointer 40°55'26.07" N 98°19'04.03" W

Streaming ||||| 100%

Eye alt 48676 ft







# Media

- *Dead fish found in area of wastewater treatment plant*
- **State investigates Wood River fish kill**
- Major upgrade proposed for wastewater plant; Swift ordered into meeting with mayor
- **Pipe capped at Swift**
- Mayor: Nothing decided on privatizing wastewater treatment plant
- **LETTER: Don't privatize wastewater treatment plant**
- Construction of Swift sewage lagoon hits snag
- **G.I. official tells Merrick County board Swift waste level is down**
- Merrick County officials want a say in resolving wastewater problems
- **Merrick County board votes no on water committee**
- Without board OK, Merrick water group to form anyway

# Series of Events

- Dead fish
- Media interest
- City takes heat
- Citizen involvement...questions policy
- BOH , interlocal, deny
- Attorney, retainer, interlocal agreement
- BOH
- Merrick county board, deny
- Planning and Zoning Board
- Merrick County Hoard, more info
- Senator
- State agency sets up meeting

# Lessons Learned

- WHAT WENT WELL
- Earn credibility before an issue
- Build relationships
- Communication is the key
- Science and social environment
- NEXT TIME
- Any questions call public health
- Bring all parties to the table early

# What do you do for a living?



- They still may not know
- Little authority, no expertise, but still important
- Where does environmental health fit in?

# Back to the Basics: Core Functions

- **Assessment**
  - Science and the Social Environment
- **Policy Development**
  - This is where we make our impact
- **Assurance**
  - Continue to communicate

# Critical point in Environmental Health

- We need to build our identity
- Take control, get involved, be at the table
- Define your role

# Questions?

