

Safe Drinking Water Program

Presented by

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Purpose and Objective: Ensure public safety by developing a regulatory program for private individual water wells.

Program Goal: To reduce the consumption of potentially harmful water, when its source is a private individual drinking water well.

Drinking Water Contaminants

MOST COMMON TYPES

Bacteria
Viruses

Microorganisms

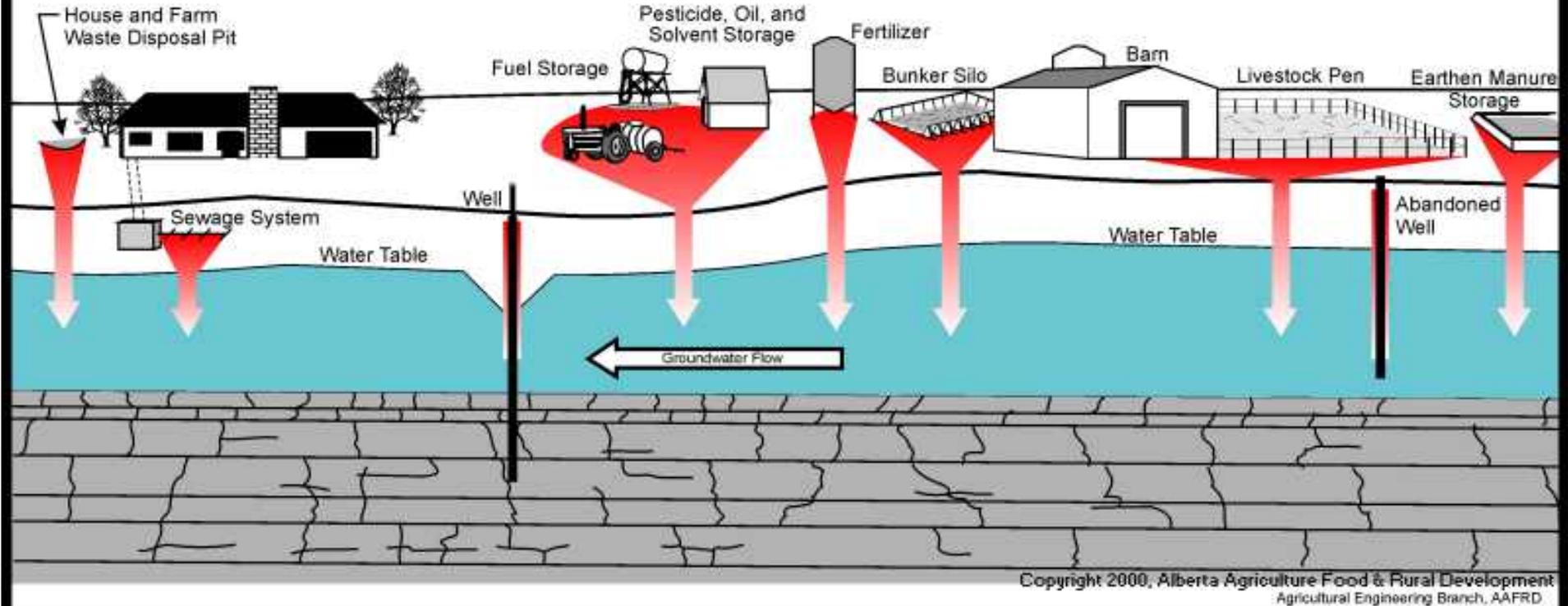
Human and Animal
Fecal Waste

Nitrates

Inorganic Chemicals

Leaching from
Septic Systems
Runoff from Fertilizer Use

Potential Rural Contamination Sources



- Not less than 10 feet from a sewer line
- Not less than 50 feet from a septic tank
- Not less than 100 feet from a septic absorption field
- Not less than 150 feet from a cesspool or seepage pit
- Not less than 100 feet from an animal or fowl enclosure

Georgia Well Water Standards Act of 1985

VISION

Ensure public safety by preventing the consumption of water from contaminated wells.

0 contaminated wells



1 in 5 wells sampled by the health department, are positive for coliform bacteria

This may be causing gastrointestinal illnesses.

CURRENT CONDITION



Well Water Statistics

<u>Year</u>	<u>Samples</u>	<u># Positive</u>	<u>%</u>
2000	1016	236	23%
2001	1087	275	25%
2002	1287	308	24%
2003	1130	277	25%
2004	1181	253	21%
2005	1140	228	20%

Safe Drinking Water



Bacteriological Indicators

The coliform group of bacteria is recognized as a microbial indicator of drinking water quality.

E. coli

The presence of coliform bacteria in a water system indicates vulnerability to contamination.

waterborne disease

GEORGIA

Department of Human Resources

Division of Public Health
Environmental Health Section

EPD is responsible
for all water well programs

Public Health offers
private well testing for
total coliform bacteria



Department of Natural Resources
Environmental Protection Division

- This is EPD's program, let them worry about it.
- I wish I could help, but there is nothing I can do.
- We do not have the manpower, time, or resources to add a new program.

Environmental Health is reinforcing these Mental Models by not getting involved to correct the problem.

No action is taken to intervene on behalf of well owners.

People continue to drink water from contaminated sources.

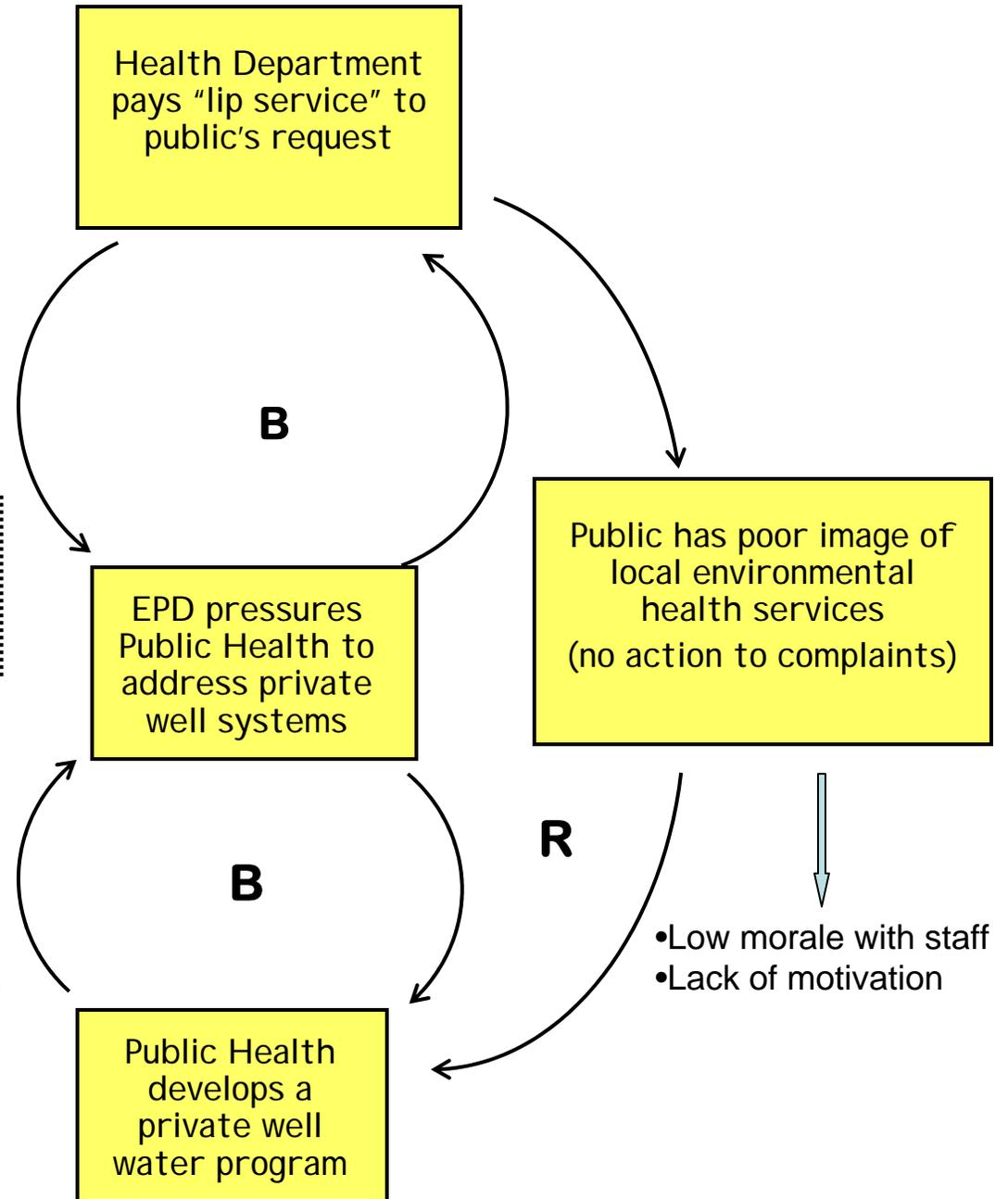
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“Shifting the Burden”

Currently we are ignoring the problem that 1 in 5 wells within the District are positive.

Ensure Public Safety (Strong water well program)

Public Health’s goal should be to help ensure the public’s safety to the best of its ability.



Program Goal: Ensure public safety by preventing the consumption of contaminated water.

ACTIONS THE NEW PROGRAM WILL TAKE

- **Inspect wells following construction.**
- **Sample well water for bacteria.**
- **Issue letter to well owner on the status of well.**
- **Follow-up sample, if needed.**
- **Issuing permits for well site.**

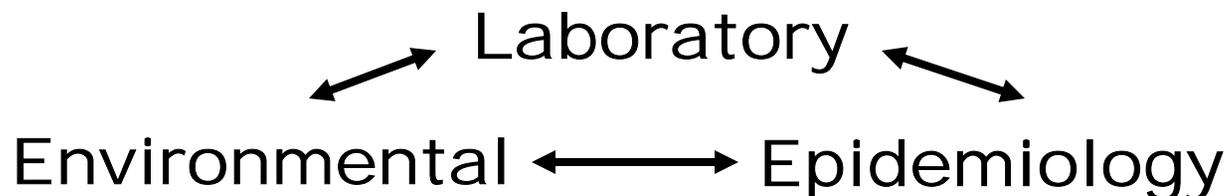
These measures will help in the reduction of positive wells, which will lead to the goal of the program.

Implementing the 10 Essential Environmental Health Services into the Safe Drinking Water project:

1. **Monitor** – collecting water samples, health data reports
2. **Diagnose and investigate** – untreated wells, poor well location
3. **Inform, educate, and empower** – potential risks will be explained as part of the application process
4. **Mobilize** – good working relationships with EPD, well drillers, county commissioners and local board of health
5. **Develop policies and plans** – DHR Public Health Rules for Safe Drinking Water Supply, local board of health policies
6. **Enforce** – ordinances passed by local county commissioners
7. **Link** – local citizens will be able to utilize the health department for education and support
8. **Assure competency** – trained environmental health workforce
9. **Evaluate** – determine if short, medium, and long term goals are achieved
10. **Conduct research** – for new insights and innovative solutions

Standards and Indicators

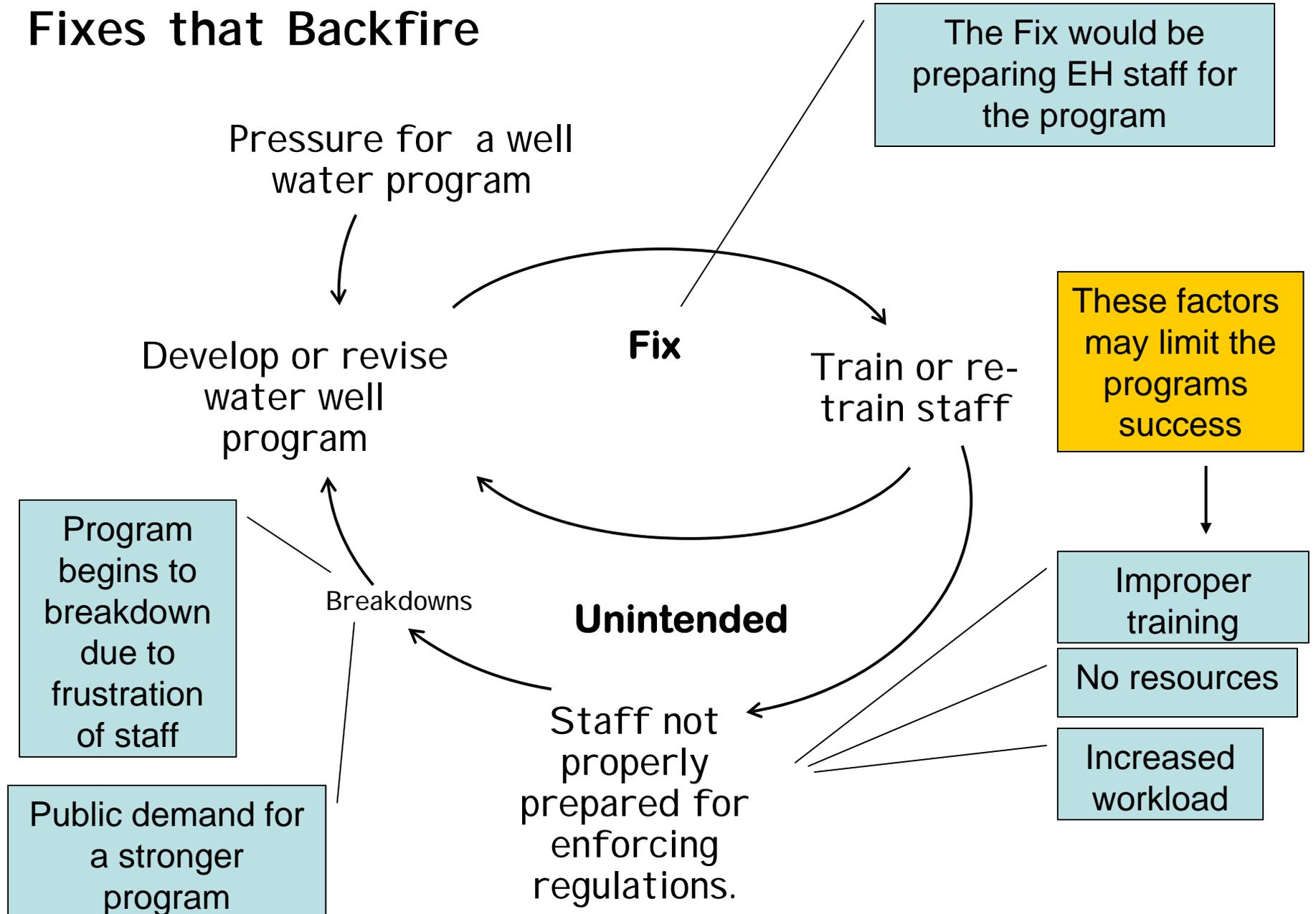
- **Standard** – A system will be in place to collect environmental health related data (positive water samples - laboratory). Also the system will help to ensure that environmentally related factors (environmental) do not contribute to well contamination.
- **Indicator** – Should a reduction in the number of positive water samples appears after the program is in place (time?), this may be a good indicator that the program is beneficial. Develop a process for sharing data (epidemiology) with district epidemiology department. (notifiable disease reporting)



Safe Drinking Water Pilot Project 2006

- *2 Counties to begin January 1*
- *Well Location Permit Fee Adopted*
- *All new water wells will be evaluated for proper location and sampled*
- *Fees generated will help to fund the program*

Fixes that Backfire



Goals

- Short Range Goal – develop policy to implement standards and obtain Board of Health approval.
- Medium Range Goal – Build relationship with EPD and epidemiology department. Decrease the number of initial positive well samples.
- Long Range Goal – Provide nitrate testing, create database for follow-up well monitoring, and eliminate the consumption of potentially harmful water from private individual wells.

Southeast Health District

