

Connecticut's Aquifer Protection Program

Joseph P. Williams

Shipman & Goodwin LLP

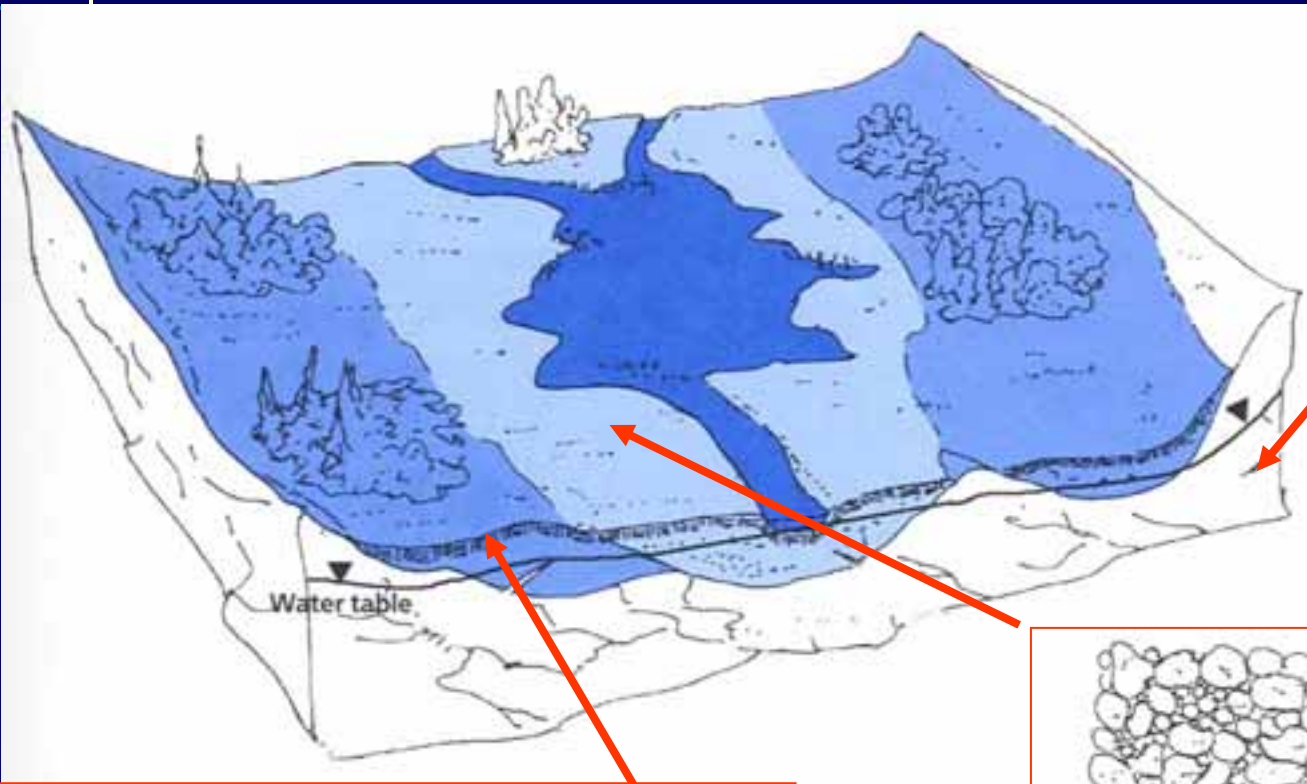
CBIA Environmental Policies Council

January 18, 2008

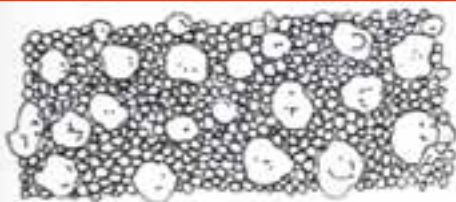


What is an Aquifer?

"Any geologic formation (rock or sediment) that can yield a usable amount of water"



BEDROCK – High yield if large spaces or cracks; low yield if few interconnected cracks.



GLACIAL TILL –
Low yield due to insufficient, poorly connected pore spaces



STRATIFIED DRIFT –
High yield if coarse-grained sand and gravel; low yield if fine sand, silt or clay.

Background

- Legislative Task Forces – 1988 and 1989
- Aquifer Protection Act adopted in 1989 after completion of task force reports (CGS Section 22A-354A et seq.)
- 1991– mapping regulations adopted
- February 2, 2004 – state land use regulations adopted

Program Elements

- Mapping Requirements
 - Stratified drift aquifers (thick sand and gravel deposits)
 - Serving 1,000 or more people
 - Areas of contribution and recharge
 - Level B (preliminary), then Level A (final)
- Land Use Regulations
 - Restrictions on new land uses
 - BMP standards for existing uses
 - Exemptions

Shared Program Responsibilities

- State DEP
- Water Companies
- Municipalities

Program Responsibilities

■ State DEP

- Program administration and training
- Model regulations, ordinance and guidance (2/2/04 & 6/1/05)
- Oversee municipal APA agencies
- Regulate major facilities and state facilities
- Level A Mapping Regulations (rev. 9/1/05)

Program Responsibilities

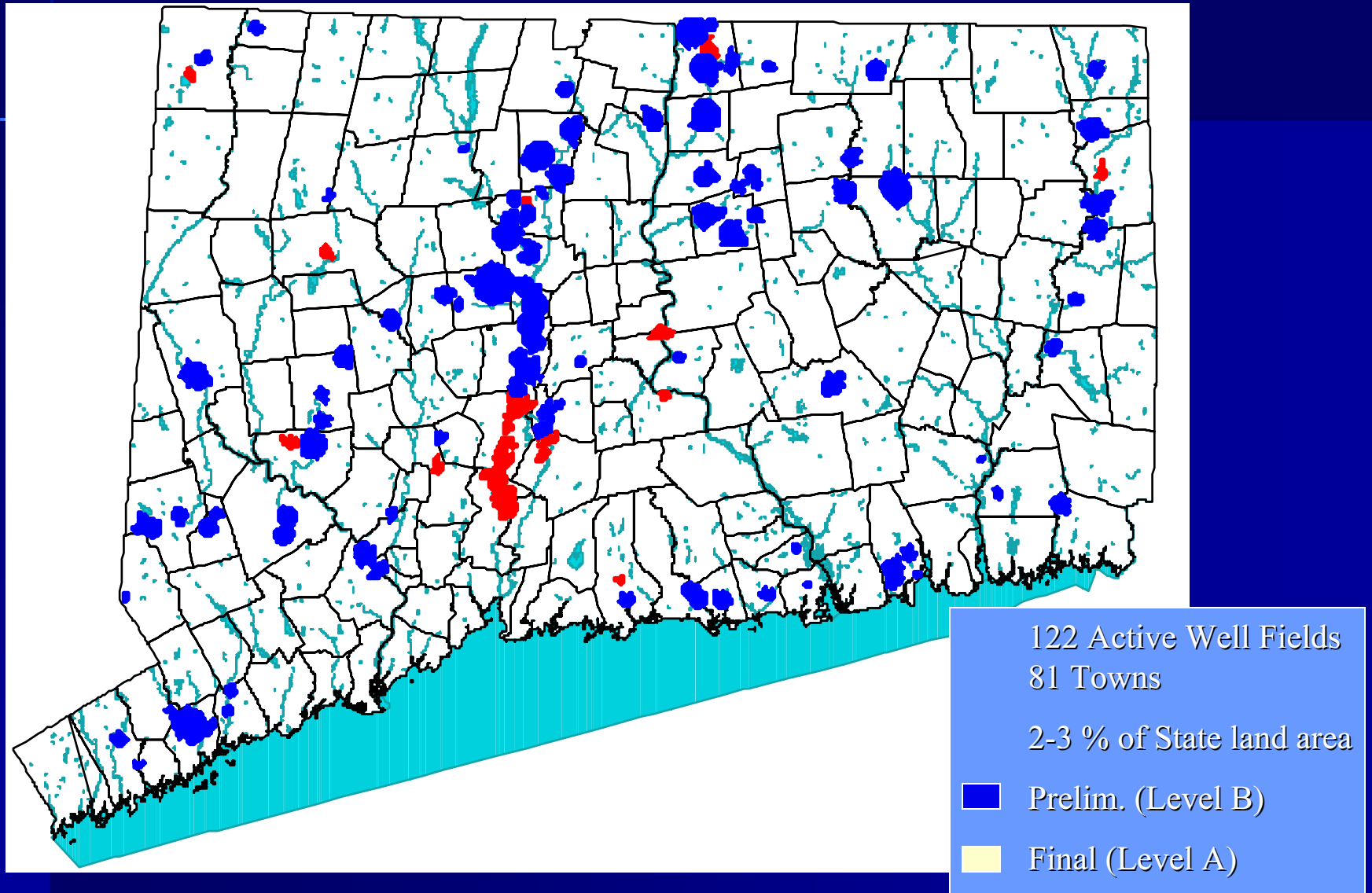
- Water companies
 - Conduct mapping
 - Assist towns
 - Inspect and monitor

Program Responsibilities

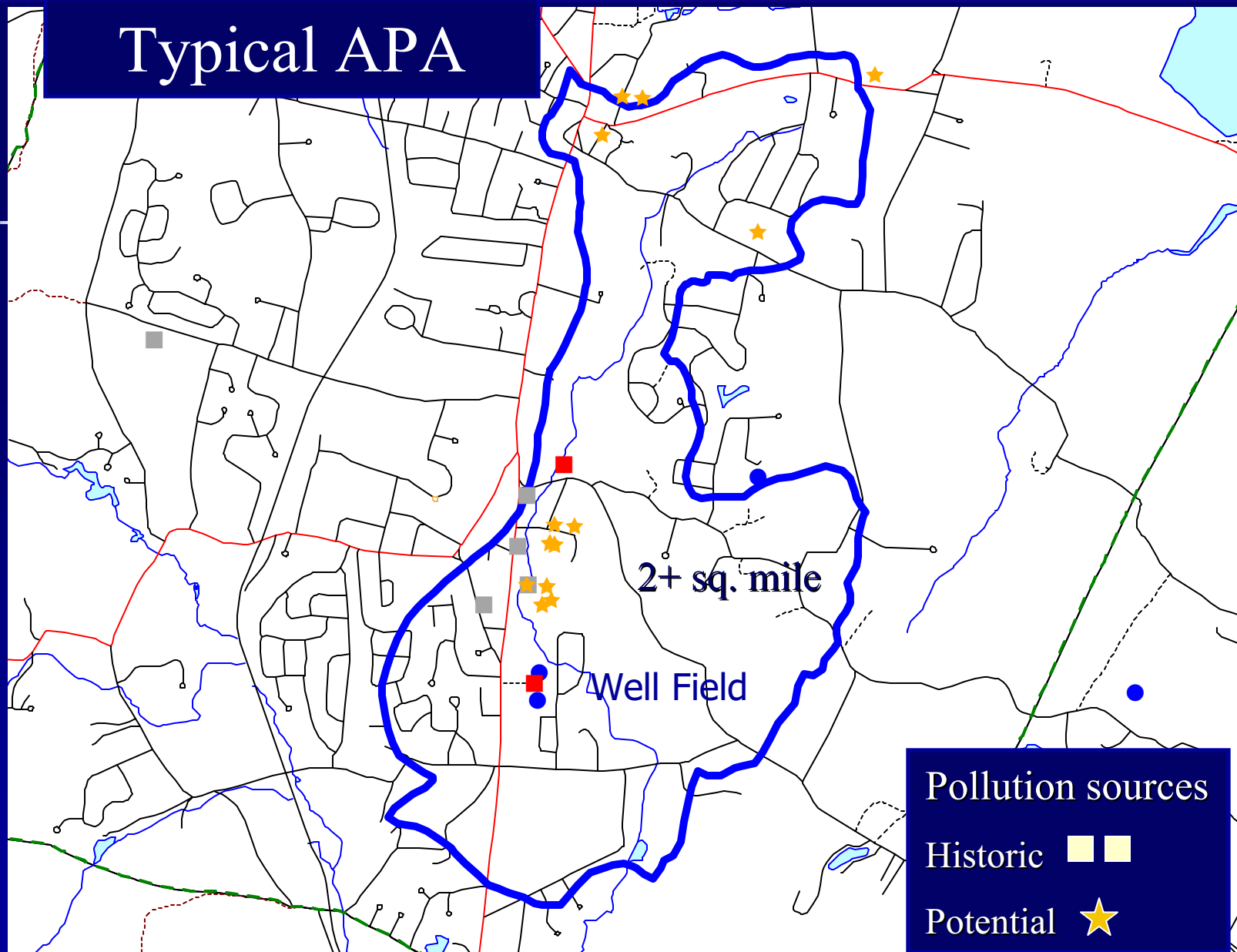
■ Municipalities

- Designate Aquifer Protection Agency
- Delineate APA boundaries
- Adopt APA land use regulations
- Process permits for regulated activities
- Enforcement

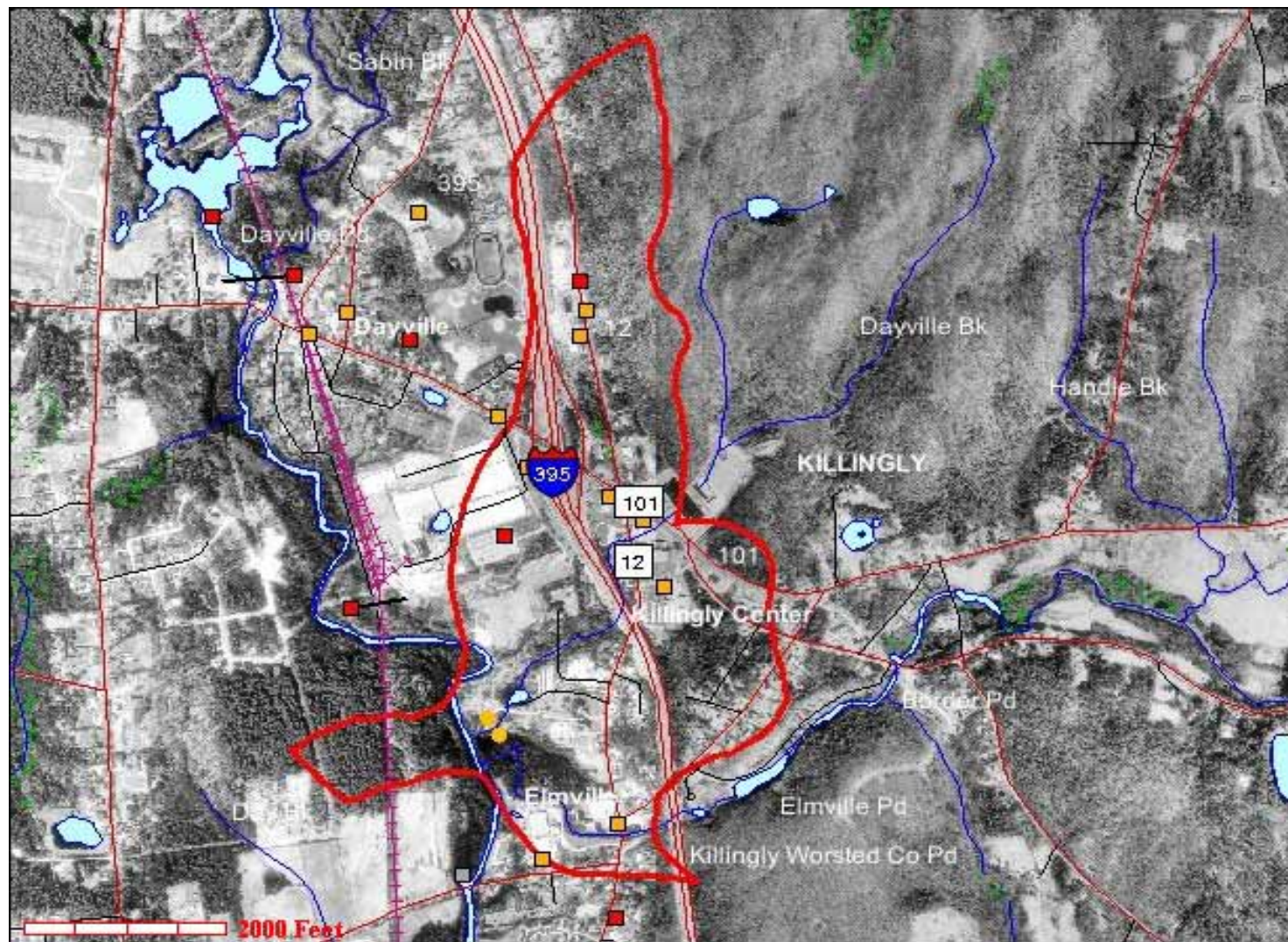
Aquifer Protection Areas



Typical APA



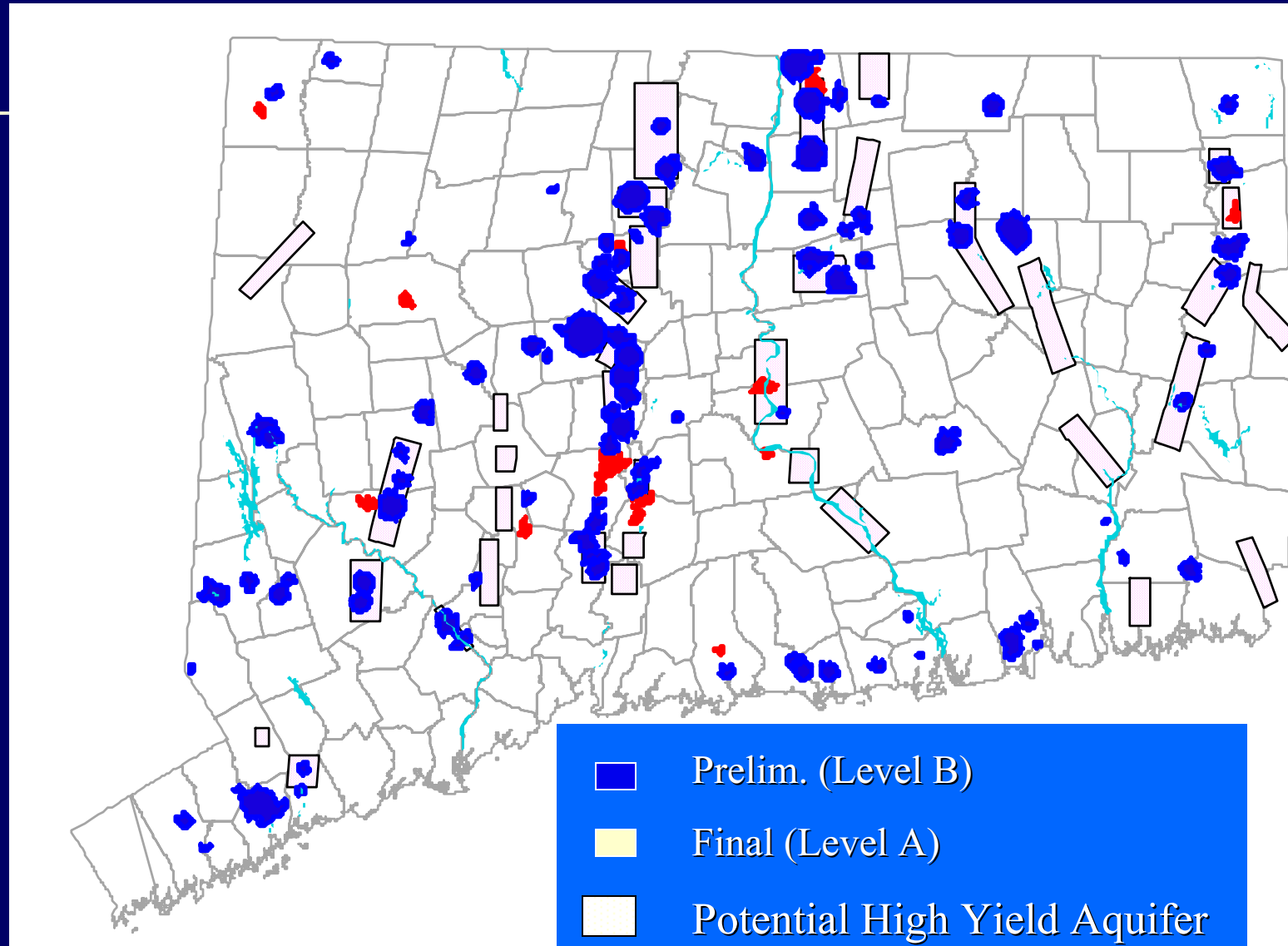
Killingly APA



1:23645
Mar 24, 2004



Aquifer Protection Areas and High Yield Aquifers



Aquifer Protection Area Mapping

- Level B Mapping – completed for all well fields
- Level A Mapping – June 1, 2008 (3 years after DEP issued model municipal aquifer protection regulations)
- Level A Mapping has begun for 91 APAs in the state; DEP has approved 43 (triggers town's duty to delineate APA boundaries)

Key Municipal Actions

- Designate an APA agency
- Delineate APA boundaries
- Adopt APA land use regulations
- Issue and enforce permits for regulated activities in APAs

Key Municipal Actions

- Designate an APA agency
 - Every town with an APA (81) must do it
 - By ordinance - designate existing board to act as its aquifer protection agency (PZC or IWWC?)
 - Deadline was May 2, 2004
 - Training required

Key Municipal Actions

- Delineate APA boundaries

When final Level A mapping confirms presence of an APA boundary . . .

- DEP notifies the town;
- Within four months, PZC must delineate APA boundaries on the zoning map; and
- PZC publishes notice of APA delineation in the newspaper.

Key Municipal Actions

- Adopt APA land use regulations
 - Within six months after DEP gives notice of Level A mapping approval
 - Town regulations must be consistent with DEP's land use regulations
 - 16 towns approved so far
 - DEP's model municipal regulations, guidance & Tracking Table now available

Key Municipal Actions

- Adopt APA land use regulations
 - Notice and public hearing before adopting regulations (similar to IWWA)
 - Must be approved by DEP
 - Standard: reasonably related to ground water protection and not inconsistent with the DEP regulations?
 - Town regulations are not inconsistent if they establish a greater level of protection than DEP regulations

Key Municipal Actions

- Permits for regulated activities
 - No regulated activity without a permit from A.P. Agency
 - Permit procedures and timing similar to IWWA
 - Filing fee – including cost of monitoring compliance with conditions

Key Municipal Actions

- Permits for regulated activities
 - Appeal to Superior Court – similar to IWWA
 - Enforcement – similar to IWWA

Program Timeline

Action	By Whom	Timeframe	Est. Date
Adopt State Land Use Regulations	DEP	Filed with Secretary of State	Feb. 2, 2004
Appoint Local Commission	Town	3 months from above	May 2, 2004
LU Inventory	(Town)	1 year from above	Done by DEP
Model Municipal Regulations	DEP	~6 months from adoption of state regulation	June 1, 2005
Final Mapping	Water Co.	3 years from above	June 1, 2008
Delineate Aquifer Protection Boundaries	Town	4 months from Level A map approval	varies
Adopt Local Regulations	Town	6 months from Level A map approval	varies
Register Regulated Activities	Town	6 months from regs	varies

DEP Land Use Regulations

DEP Land Use Regulations

1. Definitions
2. Delineation of areas
3. Adoption of municipal regulations
4. Extension of boundaries
5. Prohibited and regulated activities
6. Exemptions
7. Registration of existing activities
8. Permit requirements
9. Best management practices

DEP Land Use Regulations

- “All regulated activities are prohibited in aquifer protection areas,” unless:
 - Pre-existing and registered regulated activity
 - Activity has received a permit (only for expansions of existing activities)
 - Activity has been granted an exemption by DEP

Regulated Activities

- Definition
 - 28 categories of business activities conducted within an APA
 - Underground storage tanks
 - Waste handling and disposal
 - Industrial processing (haz mat)
 - Vehicle repair and washing
 - Dry cleaning

Excluded From Regulated Activities

- Categorical/as-of-right exceptions
 - Activity conducted at a residence without compensation
 - Hazardous material is < 2.5 gallons each and 55 gallons total
 - Agricultural activity

Excluded From Regulated Activities

- Conditional exceptions
 - Enclosed building with impermeable floor, and <10% of floor area
 - Activities solely involving the use of lubricating oil
 - Dispensing oil or petroleum from above-ground storage tanks of 2,000 gallons or less

Regulated Activities – Exemptions

- Apply to Commissioner of DEP
- Commissioner must determine that the activity will not pose a threat to any public supply well
- Applicant must demonstrate that a release of hazardous material would not require treatment to render the groundwater suitable for drinking

Registration of Existing Regulated Activities

- Only for existing facilities
- Prior to delineation of APA on the zoning map, activity must be:
 - Substantially commenced;
 - In active operation within the past five years; or
 - Has received a municipal building permit

Registration of Existing Regulated Activities

- Submit within 6 months after adoption of regulations or delineation of APA on zoning map
- Some filed with DEP (haz waste, LQG, state agency), the rest with the town A.P. Agency
- Must certify compliance with best management practices (BMPs)

Registration of Existing Regulated Activities

- Can expand existing activities under the registration within the site boundaries
- Expires in 5 years; must renew

Permits for New Regulated Activities

- To add a new regulated activity to a registered facility
- Some to DEP, all others to A.P. Agency
- Additional certifications
- Materials management and stormwater management plans required
- Must provide environmental compliance information going back five years

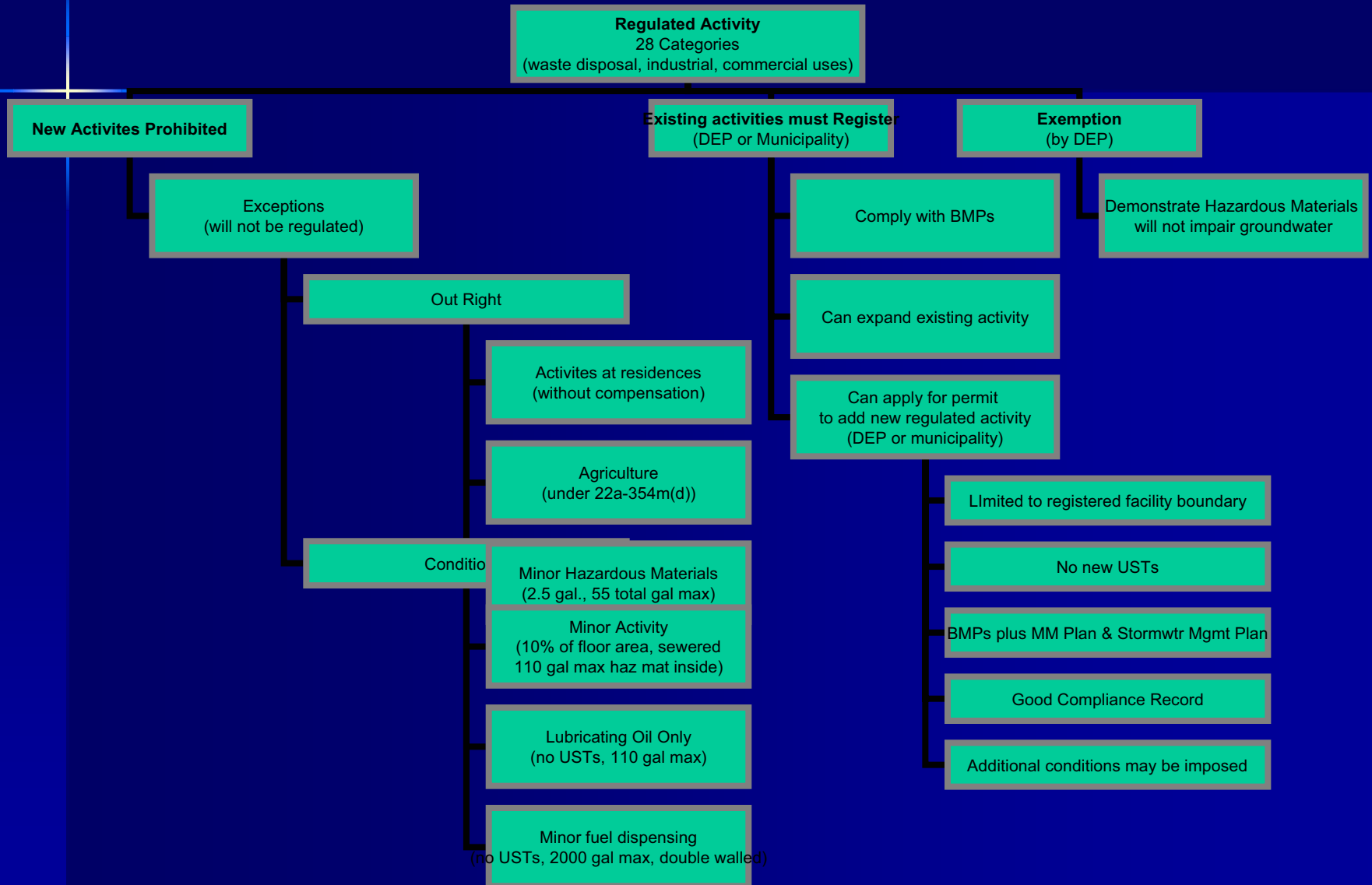
Permits for New Regulated Activities

- Major decision criteria:
 - No new USTs
 - Commitment to ongoing compliance with environmental laws and BMPs
 - Good compliance record

Permits for New Regulated Activities

- Permit conditions:
 - Reasonable; to assure protection of groundwater
 - Additional BMPs
 - Groundwater monitoring
- Permits expire in 10 years
- Permits renewed unless substantial change in the activity or enforcement action taken

APA Land Use Regulations



Key Issues

- Accuracy of APA boundary delineation
- Grandfathering of existing uses
- Degree of discretion in granting permits for new regulated activities at existing registered facilities

Web Links

- Joseph P. Williams Web Page
<http://www.shipmangoodwin.com/jwilliams>
- Environmental and Land Use Law at Shipman & Goodwin LLP
<http://www.shipmangoodwin.com/elu>