Connecticut Department of Public Health

Coordinated Water Supply Planning Law

Water Utility Coordinating Committee

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Drinking Water Section

WUCC Informational Meeting, Middletown, CT.
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Presentation Outline
Coordinated Water Supply Planning Process

- History – Connecticut’s drinking water regulation
- Department of Public Health’s Drinking Water Section
- Coordinated Water System Water Supply Process
  - Statutes and Regulations
  - Current Status
  - Future Plan and Timeline
History –
Connecticut’s Drinking Water Program
Public Drinking Water Regulation

- History of Public Health & Drinking Water
- US Public Health Service – 1798 & 1912
- Connecticut Health Department - 1880s & 1917
- US Environmental Protection Agency - 1970
- CT DPH received primacy for the SDWA - 1976
Public Health Concerns
Water Supply 19th Century

- Significant public health issue - consuming drinking water, ground water and surface water
- Waterborne disease
- Gastrointestinal infection
- Typhoid, cholera, dysentery were prevalent
- Microorganisms in 19th century,
- Beginning of 20th century filtration, build technology, disinfection, sanitary protections at source, protection of raw water quality
Water Supply Problems – 19th century

- Industries need water for production, fire safety, consumption
- Population growth in Cities
- Water supply inadequate
- Unfiltered
- Untreated water
- Unprotected, poor distribution systems
- Unsanitary conditions, waste disposal
- 1878 CT State Agency Public Health oversight created
Abundant and Safe Water
CT Laws – early 20th Century

- 25-32 purity and adequacy DPH to assure and responsible for oversight, broad authority
- 25-33 source approval
- 25-34 investigate and order to stop pollution or threat of pollution
- 25-43 no pollution, no one is allowed to pollute
- 19a assure sanitary conditions
Typhoid Fever & Cholera

- Bacterial disease
- Transmitted in water contaminated with feces of infected person
- Occurrence of the disease fell sharply in the developed world with the rise of 20th century sanitation techniques (chlorination) and antibiotics
- 2013 – 161,000 deaths from Typhoid worldwide
Abundant & Safe Public Drinking Water – late 20th Century

- 25-32d water supply plans 1985
- 25-33c to n – Coordinated water system water supply plans
- Updated plans periodically
- 25-32 & 25-37 – Water Company Lands
- 25-32b – Emergency Response
- 25-32 – Certified Operators
Environmental Protection Agency
Public Water Systems

- What is a Public Water System?
- 155,700 Public Water Systems in United States
- 52,000 community systems – serves residential population
- 286 million people served
- 70% by surface water
Connecticut Public Water Systems

- 2,550 Public Water Systems
  - 2,000 Non-Community
  - 550 Community

- Largest number of systems of the New England states

- Considered a Medium Size State by the Environmental Protection Agency
Department of Public Health’s Drinking Water Section
To protect the public health of Connecticut residents and visitors that consume public drinking water in Connecticut

Responsible for purity and adequacy oversight statewide for all public water systems

No waterborne disease outbreaks
CT DPH Drinking Water Section

Responsibilities

- Regulate 2,550 Public Water Systems
- 2.8 million CT residents served – 3.5 million total population
- 550 community systems
- 2,000 non-community systems
- 150 reservoir systems, over 4,000 ground water sources
Connecticut's Public Drinking Water Sources
Reservoir system in Connecticut
Small public water system well
CT DPH Drinking Water Section

- **Primacy of Safe Drinking Water Act - EPA**
  - system engineering reviews
  - treatment/source review & approval
  - Drinking Water State Revolving Loan Fund
  - drinking water quality – oversight of monitoring and reporting
  - ground water rule
  - revised total coliform rule

- **State Statutory Oversight**
  - purity and adequacy of public drinking water
  - water company land regulation
  - recreation permitting, sale of excess water, certified operators, enforcement
  - water supply planning and regional planning (WUCC)
Responsibilities – 50 Staff

- Administer drinking water protection laws
- SDWA, primacy since 1976
- Water quantity oversight – Margin of Safety
- Water quality review, over 500,000 samples per year
- Review and approve all significant improvements to public water systems
- Review and approve new treatment plants and systems
- Conduct sanitary engineering surveys, every 3 or 5 years
- Review and approve water supply plans and regional plans
- Responsive to all hazards, emergency preparedness
- Review of sale/use of 100,000 acres of water company land
DWS Responsibilities

- Drinking Water State Revolving Loan Fund $150 million since 1999, with another $200 million moving forward, infrastructure projects, repair, replace upgrade, extend to pollution
- Proactively protect public drinking water sources
- Proactive enforcement of violations, follow-up with system owner, issue NOVs and Orders to assure system compliance
- System takeover if failure, system review, violations, etc.
- Tracking of SDWA compliance and reporting to EPA
- Sources of bottled water in CT and bulk water hauling
- 24/7 coverage and response concerning public water system emergencies
- Track and report program measures
- Administer EPA grants since 1980s
- Assure compliance for all 2500 public water systems
Top Causes
Public Drinking Water Outbreaks

- Giardia
- Legionella
- Norovirus
- Shigella
- Campylobacter
- Salmonella
- Hepatitis A
- Cryptosporidium
- E. Coli
Importance of an Abundant Supply of Safe and Pure Water for a Community

- Public health protection
- Preservation of public trust
- Allows for community growth
- Allows for a community to plan for future growth
- Assure sanitary conditions for multiple facilities, schools, nursing homes, restaurants, hospitals, town facilities
- Provides sustainability and viability for community
- Public safety, fire protection
- Economic growth
- Priceless
Coordinated Water System
Water Supply
Planning Process
Coordinated Water System Plans (CWSP)

1. What is it – CT General Statutes Section 25-32d & 25-33h
2. Why does it exist
3. How does it operate
4. When convened
5. What is the present status
6. Why is it important
7. What is the future vision/thinking
8. How to accomplish this vision
CWSP - What is it? & Why does it exist?

- 1981 Drought
- Water Resources Task Force Report
- Legislature created water supply planning – CGS Section 25-32d & Sections 25-33c – 25-33i - 1985
- Regulations
- CGS Section 25-33c – Legislative Intent – ...adequate supply of potable water is vital, readily available water for use is limited and should be developed with a minimum of loss and waste, DPH administer a process to coordinate water supply planning
CWSP Statutes

- 25-33d - Definitions
- 25-33e – Delineation of public water supply management areas, including the eight factors.
- 25-33f – WUCC Membership, includes representatives of public water systems and councils of government.
- 25-33g – Assessment of water supply conditions and problems & exclusive service areas.
- 25-33h – Coordinated water system plan.
- 25-33i – Consistency with the coordinated plan adopted pursuant to section 25-33h.
CWSP Regulations

- 25-33h-1
  - (b) – Initiation of the Planning Process
  - (c) – Responsibilities of the WUCC
  - (d) – Contents of the Coordinated Water System Plan
    - (A) – Water Supply Assessment
    - (B) – Exclusive Service Area Boundaries
    - (C) – Integrated Report
    - (D) – Executive Summary
  - (e) – Plan Preparation
  - (f) – Plan Submission
  - (g) – Plan Approval
  - (h) – Plan Distribution
  - (i) – Plan Updates
  - (j) – Alteration of Public Water Supply Management Area Boundaries and Priorities
  - (k) – Plan Implemented
Water Utility Coordinating Committee - How does it operate?

- Map
- Organization
- Committee
- Procedures
- Practices
- Plan creation
- Schedule of WUCCs, priority order
Public Water Supply Management Areas

[Blank map of Connecticut with town names and regional labels]

Northwest Hills

Southwest

Housatonic

Northwest

Upper CT River

South Central

Southeast

Northeast
WUCC – When were they convened?

- Housatonic WUCC – plan completed 1988
- Upper CT River WUCC – plan completed 1989
- South Central CT WUCC – plan completed 1991
- Southeast WUCC – plan completed and approved 2001
- Northeast WUCC – not convened
- North West WUCC – not convened
- South West WUCC – not convened
WUCC – What is the present status?

- 4 of 7 areas convened, one plan approved in 2002
- 2014 WUCC boundary revisions – Report to Commissioner Mullen
- Connection to Certificate process
2014 WUCC Boundary Revisions

- Held three public hearings
- Reviewed all comments
- Followed law in the revision of the boundaries
- Reviewed 8 factors while considering all comments
- WUCC boundaries assured that Town and Council of Government boundaries are upheld
- Report to Commissioner Mullen October 2014
Delineation of Public Water Supply Management Areas

In delineating the final boundaries the following eight factors were considered consistent with CGS Section 25-33e:

- Similarity of water supply problems among water companies
- Population density and distribution
- Locations of existing sources of public water supply, services areas or franchise areas
- Existing interconnections between public water systems
- Municipal and Councils of Government boundaries
- Natural drainage basins
- Topographic and geologic characteristics
- Any other factor the Commissioner deems relevant
WUCC – Why are they important?

- Discussion of water supply issues
- Regional planning effort
- Use of plan as a guide
- Certificate process
- Bring together CEOs, LHD, COGs, Town Planners, and public water systems
- Highlight on regional water supply needs
- Forum to resolve issues locally
- Guide for water system growth and individual water supply plans – set Exclusive Water Service Areas
WUCC – What is the future vision?

• Continue to actively engage WUCCs
• Continue to work with ESA providers
• Continue to meet
• Outline a method to address plan development for three new WUCC areas
WUCC – Moving forward

- Fall 2015 data gathering
- Fall 2015 WUCC informational meetings
- Develop & follow standard procedures
- Early 2016 DPH to hire a consultant to assist the three WUCCs
- Convene three WUCCs in early 2016
Need to Complete Statewide Water Supply Planning

- Understand water supply needs and excess capacity
- Plan to meet future supply needs
- Include partners and stakeholders
- Additional focus on water conservation and emergency preparedness
- Completion of a State wide Coordinated Water Supply Plan
- Dynamic Plan
Thank you