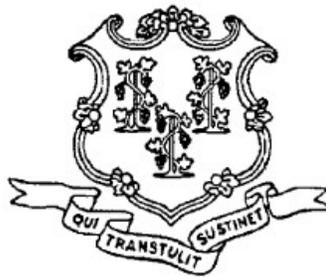




# Connecticut Statewide Fluoridation Plan



**December 2011**

**Jewel Mullen, M.D., M.P.H., M.P.A.  
Commissioner**

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## **Introduction**

Fluoride is a chemical ion of the element fluorine (from the Latin *fluo* meaning to flow). Fluoride is found naturally in water, foods, soil, and several minerals. However, it is also synthesized in laboratories where it may be added to drinking water. Fluoride is most commonly associated with dental hygiene products and tooth protection. Most people are exposed to fluoride through treated drinking water or products such as toothpaste and mouthwash.

Fluoride protects teeth from decay and cavities in two ways: 1) when bacteria in the mouth combine with sugars, acid is produced that can erode tooth enamel and damage teeth. Fluoride can protect teeth from demineralization that is caused by the acid; and 2) if teeth have already been damaged by acid, fluoride accumulates in the demineralized areas and begins strengthening the enamel - a process called re-mineralization.

Community water fluoridation (CWF) is the process of adjusting the natural fluoride concentration of a community's water supply to a level that is best for the prevention of dental caries. All public water supplies in the country contain at least trace amounts of natural fluoride. In the United States (U.S.), community water fluoridation has been the basis for the primary prevention of dental caries for 60 years and has been recognized as one of the ten (10) great achievements in public health of the 20th century.<sup>1</sup> Water fluoridation is an effective, inexpensive, and eminently safe public health method, which requires no behavior change by individuals, and does not depend on access or availability of professional services. It is equally effective in preventing dental caries among different socioeconomic, racial, and ethnic groups. Fluoridation helps to lower the cost of dental care and helps residents retain their teeth throughout life.<sup>2</sup>

Water fluoridation can reduce the amount of tooth decay in children by as much as 60%. When used in combination with fluoride toothpaste, mouth rinses, and professionally-applied fluoride treatments (including: gels, foams, and varnishes), fluoridation can reduce tooth decay by 18-40% in children and nearly 35% in adults.<sup>3</sup>

Not only does community water fluoridation effectively prevent dental caries, it is one of very few public health prevention measures that offer significant cost savings to almost all communities. It has been estimated that about every dollar invested in community water fluoridation saves approximately \$38 in averted dental care costs.<sup>4</sup> The cost per person of instituting and maintaining a water fluoridation program in a community decreases with increasing population size.

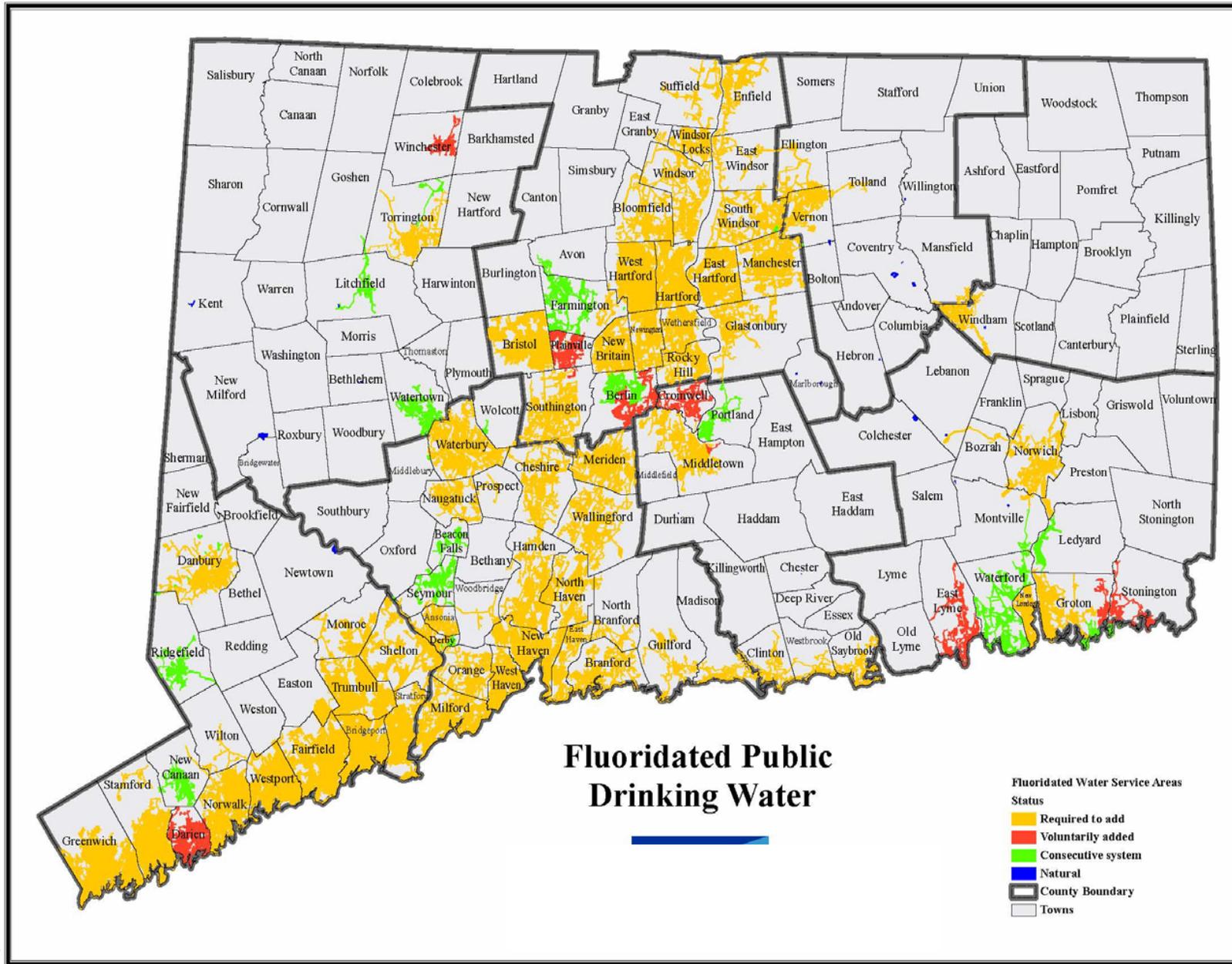
Strong evidence exists that water fluoridation aids in the re-mineralization of the tooth, reversing the decay process after it has begun. In addition, fluoride may also make teeth more resistant to bacterial acids and inhibit the growth of certain kinds of bacteria that

produce these acids. However, excessive fluoride consumption can cause mottled enamel or fluorosis (i.e. whitish or brownish spots on teeth). Dental fluorosis in the U.S. appears mostly in the very mild or mild form – as barely visible lacy white markings or spots on the enamel. Dental fluorosis results from the ingestion of high levels of fluoride during tooth development in children less than 8 years old. The severe form of dental fluorosis, with staining and pitting of the tooth surface, is rare in the U.S. Dental fluorosis causes no adverse health effects.

## **Capacity**

Recognizing the importance of community water fluoridation, *Healthy People 2010* Objective 21-9 is to “Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water to 75 percent.”<sup>5</sup> In the U.S. during 2006, approximately 184 million persons (69.2 percent of the population served by public water systems) received optimally fluoridated water.<sup>6</sup>

Connecticut (CT) has exceeded the level of fluoridation set forth by *Healthy People 2010*, and if current trends continue, will also exceed the *Healthy People 2020* levels. The *Healthy People 2020* Objective OH-13 is to “Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water to 79.6 percent. Overall, an estimated 2.37 million people (88 %) in CT are receiving optimally fluoridated drinking water from a public water system (PWS).



## **Laws and Regulations**

There are several ways in which CT PWS provide fluoridated drinking water. Connecticut General Statute § 19a-38 requires all public water suppliers serving 20,000 or more people, where the fluoride content in the water is less than 0.8 mg/L, to add a measured amount of fluoride to maintain a fluoride content in the water supply between 0.8 mg/l and 1.2 mg/l.<sup>7</sup> As a result of this statute requiring PWSs with 20,000 or more people to add fluoride to the water, enacted in 1965, approximately 81 % of the population served by a PWS in Connecticut receives the benefits of community water fluoridation. The remaining 7 % of the population receiving fluoridated water is from PWSs that voluntarily add fluoride to their water systems, PWSs with naturally occurring fluoride above 0.7 mg/l, and PWSs receiving fluoridated water from one of the 32 PWSs that add fluoride to the water system. Public water systems may choose to voluntarily fluoridate their water supplies even if they are not required by statute. Some PWSs may purchase fluoridated drinking water from another public drinking water utility.

On January 7, 2010, the U.S. Department of Health and Human Services (HHS) and the U.S. Environmental Protection Agency (EPA) announced a change to the guidelines on fluoridation of drinking water. This change reflects a review of the scientific evidence regarding the safety and health benefits associated with community water fluoridation. The previous recommended level of fluoride in drinking water was a range of 0.7 to 1.2 mg of fluoride per liter of water; this has been modified to a single recommended level of 0.7 mg/L. The change in recommended fluoride level reflects the increase of fluoride availability from other sources including toothpaste, mouth rinses, and professional applications. The new recommended level seeks to maintain the oral health benefits of community water fluoridation while minimizing potential fluorosis. At this time, the EPA has not modified the Maximum Contaminant Level (MCL) for fluoride in drinking water which is 4.0 mg/l.

All PWS in Connecticut will continue to adhere to the water fluoridation levels outlined in the state statute and DPH regulations. The DPH is working with the Office of the Attorney General (OGA) to ensure that changes to the statutes and regulations are made in response to federal recommendations, and that procedures for statutory and regulation revisions will be followed.

## **Program Management**

The DPH Office of Oral Health (OOH) has a Fluoridation Liaison who is responsible for promoting community water fluoridation, well testing, educating communities, and water plant operators. Oversight and management of drinking water is a state responsibility managed by the CT DPH's, Drinking Water Section (DWS). The DWS ensures the purity and adequacy of the state's public drinking water systems and sources of supply including more than 2,600 PWS and 5,489 sources of public drinking water. Consistent with federal and state drinking water mandates, the DWS oversees water quality monitoring and reporting, approves treatment systems, infrastructure upgrades and new sources of supply, source protection, water conservation, water supply planning and the completion of sanitary surveys. The OOH and the DWS work jointly to manage water fluoridation activities. They are responsible for meeting the requirements set forth in statute, and accomplishing the U.S.

Centers for Diseases Control and Prevention (CDC) Cooperative Agreement as resources permit. Major activities are as follows:

- Monitor and report on a monthly basis water fluoridation data, consistent with the Water Fluoridation Reporting System;
- Submit Water Fluoridation Reporting System report number 510 annually;
- Maintaining consistency of fluoridation efforts within the state;
- Document review and approvals issued to PWS receiving new or replacement fluoridation equipment;
- Report on water systems receiving new or replacement fluoridation equipment and the communities and populations affected;
- Provide appropriate education and promotion of Community Water Fluoridation;
- Notify communities requiring replacement fluoridation equipment; and
- Web Site – Develop, update and maintain information posted on the DPH website

The DWS utilizes the Safe Drinking Water Information System (SDWIS), which helps states manage the information necessary to supervise PWSs. Fluoride sampling data from PWSs is uploaded into SDWIS via Electronic Data Interchange (EDI) or is added manually. Monthly operating reports of the fluoride levels at each fluoride treatment plant are entered manually into SDWIS. Treatment plant inventory information is entered manually into SDWIS when treatment plant upgrades are made or from information found during a sanitary survey.

The DWS staff reviews fluoride samples to determine compliance with the MCL of 4.0 mg/l and the Secondary Maximum Contaminant Level (SMCL) of 2.0 mg/l for fluoride. The MCL is based on a running annual average of quarterly samples. Additionally, the DWS verifies the fluoride treatment level average is within the range of 0.8 and 1.2 mg/l for each treatment plant. The DWS staff also queries the results to determine if a PWS failed to monitor for fluoride during a required monitoring period. Violations are identified and processed using SDWIS. Compliance with deliverables is tracked by the DWS, and needs for corrective actions are identified using compliance schedules.

### **Quality Assurance**

The Water Fluoridation Reporting System (WFRS) is the tool used by the CDC to help state water fluoridation programs, and is the basis for national reports on the percentage of the U.S. population receiving fluoridated drinking water. The DWS staff uploads CT fluoridation data, including water quality and inventory information into WFRS on a monthly basis. The WFRS allows DWS staff to

print operational reports of PWSs fluoride treatment plants. Fluoridation data from WFRS is published on the CDC website in a section titled, “My Water’s Fluoride”.

There are 32 public water systems in CT that add fluoride to their drinking water, and which are required to report daily fluoride levels to the DPH DWS. The DWS reviews daily fluoride levels for compliance with Connecticut Regulation Section 19-13-B102. By regulation, these 32 public water systems have to maintain a fluoride monthly average between 0.8 mg/l and 1.2 mg/l of daily readings. The fluoride water quality data is entered into the DWS’s SDWIS database. Reports are generated against the PWS fluoride water quality data and compared to the set standard (0.8 mg/L – 1.2 mg/L monthly average and a MCL of 4 mg/L). The reports will identify any public water system that is not maintaining the required fluoride monthly average or exceeding the MCL. The reports will also identify any public water systems that have failed to monitor/report the required fluoride water quality data to the DWS. Public water systems that do not comply with maintaining the monthly average, exceed an MCL, or fail to monitor/report results are issued a treatment technique, MCL, or monitoring/reporting violation letter. Public Notice is required for each violation type.

In addition to the review of the water quality data submitted to the DWS from fluoridated PWS, quality assurance measures are assessed through the sanitary survey inspection. A sanitary survey is an onsite inspection of the water source, treatment, distribution system, finished water storage, pumping facilities and controls, monitoring and reporting data, system management and operation, and operator compliance with department requirements. A sanitary survey is conducted every three years for a community PWS and every five years for a non-community PWS. During the sanitary survey, the DWS engineering staff will inspect the fluoride treatment equipment and associated accessories, including but not limited to bulk storage tanks, day tanks, chemical injection pumps, dry chemical hopper, mixing tank with agitator, fluoride saturators, scales, meters, continuous analyzers, chart recorders, and laboratory bench equipment. The sanitary survey also evaluates the maintenance and calibration of equipment, standard operating procedures, and the skills, knowledge and ability of the water treatment operator. Any deficiencies identified noted during the inspection are documented in a sanitary survey report issued to the PWS. The PWS is required to provide a written response with a corrective action plan addressing each deficiency

## **Education and Training**

Each year, one OOH staff and one DWS staff attend the annual CDC Fluoridation Training when funds allow. The training includes information on fluoridation and public health, fluoride additives, fluoridation equipment, system design, analytical procedures, monitoring, and state program requirements.

The DWS conducts routine training classes for CT’s drinking water operators of water systems serving fewer than 3,300 persons, and participates in operator training programs offered by training providers. Training sessions include operator duties/responsibilities, regulatory compliance, source protection, water quality, sampling, infrastructure components, customer service, safety and management. The DWS also approves other operator training course providers, as well the operator training course curriculum. Operators are required to maintain training contact hours for the renewal of their certificates.

On May 26, 2010, the DPH OOH and DWS co-sponsored a training on Community Water Fluoridation offered free of charge to Certified Treatment Operators, Chief Operators, and Local

Health Officials. The half-day training featured presentations on the oral health benefits of Community Water Fluoridation as well as the regulatory requirements, safety considerations, technical aspects of fluoridation procedures, and a vendor exhibition. Over 75 operators and local health personnel attended the training workshop. All participants received CDC-developed posters on Community Water Fluoridation as well as educational materials that could be distributed to educate community members. Reviews of the session were positive; a number of operators expressed gratitude for the training and materials that will enable them to better respond to questions and concerns raised by community members with respect to water fluoridation. In addition, a number of operators in attendance represent smaller water systems that are not required to fluoridate. Training provided to these operators will allow smaller water systems to make informed decisions about voluntary fluoridation. Building on the success of this training, the OOH and the DWS held the second Community Water Fluoridation training on May 18, 2011. The training was modeled after the 2010 training with minor adjustments according to last year's evaluations.

The OOH strives to build public awareness of community water fluoridation, increase the number of residents being served by fluoridated community water systems, provide appropriate education and develop, update and maintain information posted on the DPH's website. The OOH partnered with (4) Local Health Districts (LHDs) through small grants to provide education on the benefits and safety of drinking fluoridated water. The award criteria consisted of the following:

- LHDs with a population size less than 20,000 but greater than 14,000;
- LHDs with a minimum of four towns in their region have small community wells that are currently not fluoridated; and
- LHDs with a significant number of people in the towns on private well water with no public water supply available.

Award recipients included Farmington Health District, Ledge Light Health District, Naugatuck Valley Health District, and North Central Health District. These were the only applicants and all met the eligibility criteria as described above. The LHDs were charged with establishing goals that increase the following:

- a. the number of program participants able to correctly identify on post-test the benefits and safety of water fluoridation;
- b. the number of program participants able to correctly identify on post-test the benefits of testing their private well for fluoride levels; and
- c. the number of program participants able to correctly identify on post-test the provider(s) of fluoride level testing for private wells.

The Naugatuck Valley Health District presented their final report at the Commissioner's Semiannual Conference held on October 27, 2010. The report identified vehicles used to conduct educational opportunities, number of participants reached, program barriers and sustainability efforts. Another result of the grant is that all 77 LHDs updated their websites to include facts about community water fluoridation and other fluoride resource materials.

The OOH conducts other public outreach activities to assist in the provision and development of all communication planning; (i.e. press releases, public meetings/notices) publications; (fact sheets, brochures, pamphlets, etc.) internal training; electronic public information services (email, webpage,

Connecticut Health Alert Network, Wide Area Notification System); technical assistance initiatives; and assessment.

## **Surveillance**

The DPH OOH and the DWS continue to work toward maintaining a comprehensive evaluation system for all of its programs. Evaluation of the efforts towards community water fluoridation in CT requires a good working alliance between the OOH and DWS. The two offices meet as often as necessary to monitor progress made toward the goals outlined in the CDC Cooperative Agreement for Oral Health Infrastructure Development. The evaluation process also enables continuous quality improvement. The development and review of the Fluoridation Plan, effectiveness of the CWF, WFRS reporting, SDWIS reporting, and participant surveys are just a few of the tools used to complete the evaluation process. The Community Water Fluoridation Listing by Town, Logic Model, Evaluation Plan and Flow Chart are presented at the end of the document.

## **Conclusion**

Connecticut has been fluoridating community water systems since 1950 and has been recognized by the CDC for excellence in consistently maintaining fluoridation activities at the local and state level. In addition, the DWS within the DPH is well-versed in CDC recommendations regarding community water fluoridation. The DWS has instituted much of the Engineering and Administrative Recommendations for Water Fluoridation (EARWF), and has designed guidelines requiring PWSs to implement many of the recommendations of EARWF. These guidelines are posted on the DPH website. Connecticut currently exceeds the Healthy People 2010 goals for community water fluoridation, and is committed to meet the Healthy People 2020 goals. The close alignment of the DWS and the OOH enables CT to maintain its current level of success and expand the public's knowledge of the benefits of community water fluoridation in the future.

## Fluoridated Communities in Connecticut

Town	Public Water System
Ansonia	Regional Water Authority
	Aquarion Water Co of CT-Valley System
Avon	CTWC - Unionville System
Barkhamsted	Winsted Water Works
Beacon Falls	Aquarion Water Co of CT-Main System
	Aquarion Water Co of CT-Valley System
Berlin	Berlin Water Control Comm.
	Kensington Fire District
	Meriden Water Division
	Metropolitan District Commission
	New Britain Water Department
	Worthington Fire District
Bethany	Regional Water Authority
	Aquarion Water Co of CT-Valley System
Bethel	Danbury Water Department
	Bethel Consolidated Water Co- Berkshire
Bloomfield	Metropolitan District Commission
Bozrah	Norwich Public Utilities
Branford	Regional Water Authority
Bridgeport	Aquarion Water Co of CT-Main System
Bristol	Bristol Water Department
	CTWC - Unionville System
	Valley Water Systems, Inc.
Brookfield	Danbury Water Department
Burlington	Bristol Water Department
Cheshire	Meriden Water Division
	Southington Water Department
	Regional Water Authority
Clinton	CTWC - Shoreline Region-Guilford System
Cromwell	Metropolitan District Commission
Cromwell	Middletown Water Department
Danbury	Danbury Water Department
	Cornell Hills Assoc, Inc
	Rural Water Co, Inc-Ken Oaks
	Topstone Hyd Co-Hollandale Estates
	Topstone Hyd Co-Rolling Ridge
Darien	Aquarion Water Co of CT-Main System
	Aquarion Water Co of CT-Noroton System

## Fluoridated Communities in Connecticut

Town	Public Water System
	Second Taxing District City of Norwalk
	Aquarion Water Co of CT-Stamford
Derby	Regional Water Authority
	WPCA-City of Derby
East Granby	CTWC - Northern Reg-Western System
	Metropolitan District Commission
East Hartford	Metropolitan District Commission
East Haven	Regional Water Authority
East Windsor	CTWC - Northern Reg-Western System
Easton	Aquarion Water Co of CT-Main System
Ellington	CTWC - Northern Reg-Western System
Enfield	CTWC - Northern Reg-Western System
Fairfield	Aquarion Water Co of CT-Main System
Farmington	Metropolitan District Commission
	New Britain Water Department
	CTWC - Unionville System
	Valley Water Systems, Inc.
Franklin	Norwich Public Utilities
Glastonbury	Metropolitan District Commission
	Manchester Water Department
Goshen	Aquarion Water Co of CT-Litchfield Sys
Greenwich	Aquarion Water Co of CT-Main System
Greenwich	Aquarion Water Co of CT-Stamford
Greenwich	Aquarion Water Co of CT-Greenwich System
Groton	Aquarion Water Co of CT-Mystic
	Groton Utilities
	Noank Fire District
	Groton Long Point Association
	Ledyard WPCA, Gales Ferry System
Guilford	CTWC - Shoreline Region-Guilford System
Hamden	Regional Water Authority
Hartford	Metropolitan District Commission
Harwinton	Torrington Water Company
Lebanon	Norwich Public Utilities
Ledyard	Groton Utilities
	Aquarion Water Co of CT-Mystic
	Ledyard WPCA, Gales Ferry System
	Ledyard WPCA - Ledyard Center

## Fluoridated Communities in Connecticut

Town	Public Water System
Lisbon	Norwich Public Utilities
Litchfield	Torrington Water Company
	Aquarion Water Co of CT-Litchfield Sys
Madison	CTWC - Shoreline Region-Guilford System
Manchester	CTWC - Northern Reg-Western System
	Metropolitan District Commission
	Manchester Water Department
Mansfield	Windham Water Works
Meriden	Regional Water Authority
	Meriden Water Division
Middlebury	Waterbury Water Department
	CTWC - Naugatuck Reg - Hillcrest
	Watertown Water & Sewer Authority
Middlefield	Middletown Water Department
Middletown	Berlin Water Control Commission
	Middletown Water Department
	Connecticut Valley Hospital
	Portland Water Department
Milford	Regional Water Authority
Monroe	Aquarion Water Co of CT-Main System
Montville	Norwich Public Utilities
	Montville Water Supply
	Waterford WPCA
Naugatuck	CTWC - Naugatuck Region-Central System
New Britain	New Britain Water Department
New Canaan	Aquarion Water Co of CT-Main System
	Aquarion Water Co of CT-Noroton System
	Aquarion Water Co of CT-New Canaan Sys
	Norwalk First Taxing District
	Second Taxing District City of Norwalk
New Hartford	Torrington Water Company
New Haven	Regional Water Authority
New London	New London Dept. of Public Utilities
Newington	Metropolitan District Commission
	New Britain Water Department
	Berlin Water Control Commission
	Kensington Fire District
Newtown	Aquarion Water Co of CT-Main System

## Fluoridated Communities in Connecticut

Town	Public Water System
North Branford	Regional Water Authority
North Haven	Regional Water Authority
North Haven	Wallingford Water Department
Norwalk	Aquarion Water Co of CT-Main System
	Aquarion Water Co of CT-Noroton System
	Norwalk First Taxing District
	Second Taxing District City of Norwalk
Norwich	Norwich Public Utilities
Old Saybrook	CTWC - Shoreline Region-Guilford System
Orange	Regional Water Authority
	WPCA-City of Derby
Oxford	Aquarion Water Co of CT-Hawkstone System
	Aquarion Water Co of CT-Valley System
Plainville	Bristol Water Department
	CTWC - Unionville System
	New Britain Water Department
	Valley Water Systems, Inc.
Plymouth	Bristol Water Department
	CTWC - Naugatuck Reg-Thomaston System
Portland	Metropolitan District Commission
	Portland Water Department
Preston	Norwich Public Utilities
Prospect	Regional Water Authority
	Waterbury Water Department
	CTWC - Naugatuck Region-Central System
Redding	Aquarion Water Co of CT-Main System
Ridgefield	Aquarion Water Co of CT-Main System
	Aquarion Water Co of CT-Ridgefield Sys
	Aquarion Water Co of CT-McKeon System
	Aquarion Water Co of CT-Barnum System
	Danbury Water Department
Rocky Hill	Metropolitan District Commission
Seymour	Aquarion Water Co of CT-Main System
	Regional Water Authority
	Aquarion Water Co of CT-Hawkstone System
	Aquarion Water Co of CT-Valley System
Shelton	Aquarion Water Co of CT-Main System
South Windsor	CTWC - Northern Reg-Western System

## Fluoridated Communities in Connecticut

Town	Public Water System
	Metropolitan District Commission
	Manchester Water Department
Southington	Bristol Water Department
	Meriden Water Division
	Regional Water Authority
	Southington Water Department
	Valley Water Systems, Inc.
Stamford	Aquarion Water Co of CT-Main System
	Aquarion Water Co of CT-Greenwich System
	Aquarion Water Co of CT-Stamford
	Aquarion Water Co of CT-Noroton System
	Aquarion Water Co of CT-New Canaan Sys
Stonington	Aquarion Water Co of CT-Mystic
	CTWC - Shoreline Region-Masons Island
	Classee Water System - Latimer Point
	Fair Acres Mobile Home Park
Stratford	Aquarion Water Co of CT-Main System
Suffield	CTWC - Northern Reg-Western System
Thomaston	CTWC - Naugatuck Reg-Thomaston System
Tolland	CTWC - Northern Reg-Western System
Torrington	Torrington Water Company
	Aquarion Water Co of CT-Litchfield Sys
	Torrington Water Supply, City Of
Trumbull	Aquarion Water Co of CT-Main System
Vernon	CTWC - Northern Reg-Western System
	CTWC - Northern Reg-Reservoir Heights
	Manchester Water Department
Wallingford	Wallingford Water Department
	South Broad Street Service Area
	Regional Water Authority
	Meriden Water Division
Waterbury	CTWC - Naugatuck Region-Central System
	Watertown Water & Sewer Authority
	Wolcott Water Department
	Waterbury Water Department
Waterford	New London Dept. of Public Utilities
	Montville Water Supply
	Waterford WPCA

## Fluoridated Communities in Connecticut

Town	Public Water System
	Waterford
	Montville Water Supply
Watertown	Waterbury Water Department
	Watertown Water & Sewer Authority
West Hartford	Metropolitan District Commission
	New Britain Water Department
West Haven	Regional Water Authority
Westbrook	CTWC - Shoreline Region-Guilford System
Weston	Aquarion Water Co of CT-Main System
Westport	Aquarion Water Co of CT-Main System
	Norwalk First Taxing District
Wethersfield	Metropolitan District Commission
Wilton	Aquarion Water Co of CT-Main System
	Norwalk First Taxing District
	Second Taxing District City of Norwalk
Winchester	Winsted Water Works
Windham	Windham Water Works
Windsor	Metropolitan District Commission
Windsor Locks	CTWC - Northern Reg-Western System
Windsor Locks	Metropolitan District Commission
Wolcott	Wolcott Water Department
	Regional Water Authority
	Southington Water Department
	Waterbury Water Department
Woodbridge	Regional Water Authority
	Aquarion Water Co of CT-Valley System

## LOGIC MODEL

### RESOURCES

- Office of Oral Health Staff
- Drinking Water Section Staff
- CDC Community Water Fluoridation Engineers and Operators
- Connecticut Community Water Engineers and Operators
- CDC Cooperative Agreement for Oral Health Infrastructure Funding
- HRSA Targeted MCH Oral Health Service System Funding
- Oral Health Improvement Plan for Connecticut
- Burden of Disease Document

### SUPPORT

- Connecticut Coalition for Oral Health
- Connecticut Oral Health Initiative
- Connecticut State Dental Association
- Connecticut Dental Hygienist Association
- Community Support:
  - Local Health Departments
  - Community Health Centers
  - Dental Home Providers

## CONNECTICUT COMMUNITY WATER FLUORIDATION

### ACTIVITIES

- Monthly monitoring through WFRS
- Submit WFRS report number 510 annually
- Monitor & report CWS receiving new or replacement fluoridation equipment
- Report progress on maintaining 88 % CWF
- Measure & report % of population using CWS to receive fluoridated water
- Request replacement plan from CWS in need of upgrades
- Conduct inspections of all fluoridated CWS (at least every 3 yrs)
- Education on & promotion of Fluoridation Practice and Importance
  - CWF Workforce
  - Public
  - Policy Makers
- Promote well-water testing
- DWS and OOH working to implement statewide Fluoridation Plan
- Development of Educational materials
- Development of Surveillance Plan for CWF activities
- Arrange for CDC training in water fluoridation for staff of DWS and Office of OH

### INTERMEDIATE OUTCOMES

- Maintain 88 % CWF
- DWS and OOH working to implement statewide Fluoridation Plan
- DWS and OOH trained in water fluoridation
- Increased awareness of Oral Health status of CT residents
  - Legislators
  - General Public
  - Oral Health Providers
- Continuous evaluation of program gaps
- Broadened population of state served by CWF
- Increase the number of CT residents testing well-water
- Quality controls will demonstrate consistent ppm between 0.8 mg/l and 1.2 mg/l

### LONG-TERM OUTCOMES

- Improved Oral Health for the people of CT
- Reduced prevalence of caries
- Reduced prevalence of untreated dental decay
- Reduced disparities in oral health outcomes
- Documented trends in oral health indicators
- Improved process based on evaluation results
- Ongoing surveillance Program sustainability
- Maintain 88 % CWF

**Community Water Fluoridation Evaluation Plan**

Evaluation Question	Indicators/Measures	Data Source	Data Collection	Time Frame	Data Analysis	Communicate Results	Lead
Was a Statewide Fluoridation Plan developed?	Published State Fluoridation Plan	DWS, OOH,	DWS and OOH meetings, published reports	By July 2011	NA	Upload document to MOLAR; Burden of Disease document; surveillance plan; share document with relevant stakeholders	Fluoridation Liaison
Was the Water Fluoridation Reporting System (WFRS) monitored and reported on a monthly basis?	510 report in Molar	DWS	DWS to populate WFRS and forward to OOH	2011 & beyond	Submit 510 report from WFRS to CDC, CDC Annual Reports	Upload 510 in MOLAR, Data posted on CDC Website	Fluoridation Liaison
Has the OOH arranged for CDC training of DWS and OOH staff?	Documentation of travel arrangements, participation in CDC training opportunities; training logs	DWS, OOH	Training Logs; travel documents	Ongoing	# of OOH and DWS staff trained, % of trainings where CT is represented	Upload information to MOLAR; Have staff attending training share material with those who have yet to attend	Fluoridation Liaison

**Community Water Fluoridation Evaluation Plan**

Evaluation Question	Indicators/Measures	Data Source	Data Collection	Time Frame	Data Analysis	Communicate Results	Lead
Has Connecticut participated in WFRS? Has reporting been timely?	Documentation of data provided to WFRS, timeline of submissions	DWS, OOH WFRS	WFRS reports	Ongoing	# reports submitted on monthly basis	Upload information to MOLAR, provide feedback to DWS	Fluoridation Liaison
Has the installation of new or replacement fluoridation equipment by CWS been reviewed and approved?	Records of approvals of new or replacement fluoridation equipment by CWS	DWS, CWS	Documentation of record review	Ongoing	#, % of CWS acquiring new or replacement equipment	Share information with CWS to encourage replacement planning; OOH to upload to MOLAR	DWS
Have systems in need of replacement equipment been notified?	Records of systems in need of replacement equipment	DWS	Document review	Ongoing	#, % of CWS needing replacement equipment	Share information with CWS operators to encourage replacement planning; upload to MOLAR	DWS

**Community Water Fluoridation Evaluation Plan**

Evaluation Question	Indicators/Measures	Data Source	Data Collection	Time Frame	Data Analysis	Communicate Results	Lead
Does the DWS conducted inspections of all fluoridated CWS at least every 3 years?	Documentation of inspections conducted	DWS	Document inspection	Ongoing	#, % of fluoridated CWS being inspected; on annual basis; #,% meeting 3 year goal	Share information with CWS to ensure compliance; ensure that goal can be reached, upload to MOLAR	DWS
Have educational materials on water fluoridation been developed?	Published factsheets and other educational materials	OOH	Document review	Ongoing	# of educational materials produced; % of materials produced which are population-specific; #,% of educational materials which include CT specific data; #,% which are produced in multiple languages	Distribute educational materials broadly, share materials with DWS/ develop collaboratively; upload to MOLAR	Fluoridation Liaison

**Community Water Fluoridation Evaluation Plan**

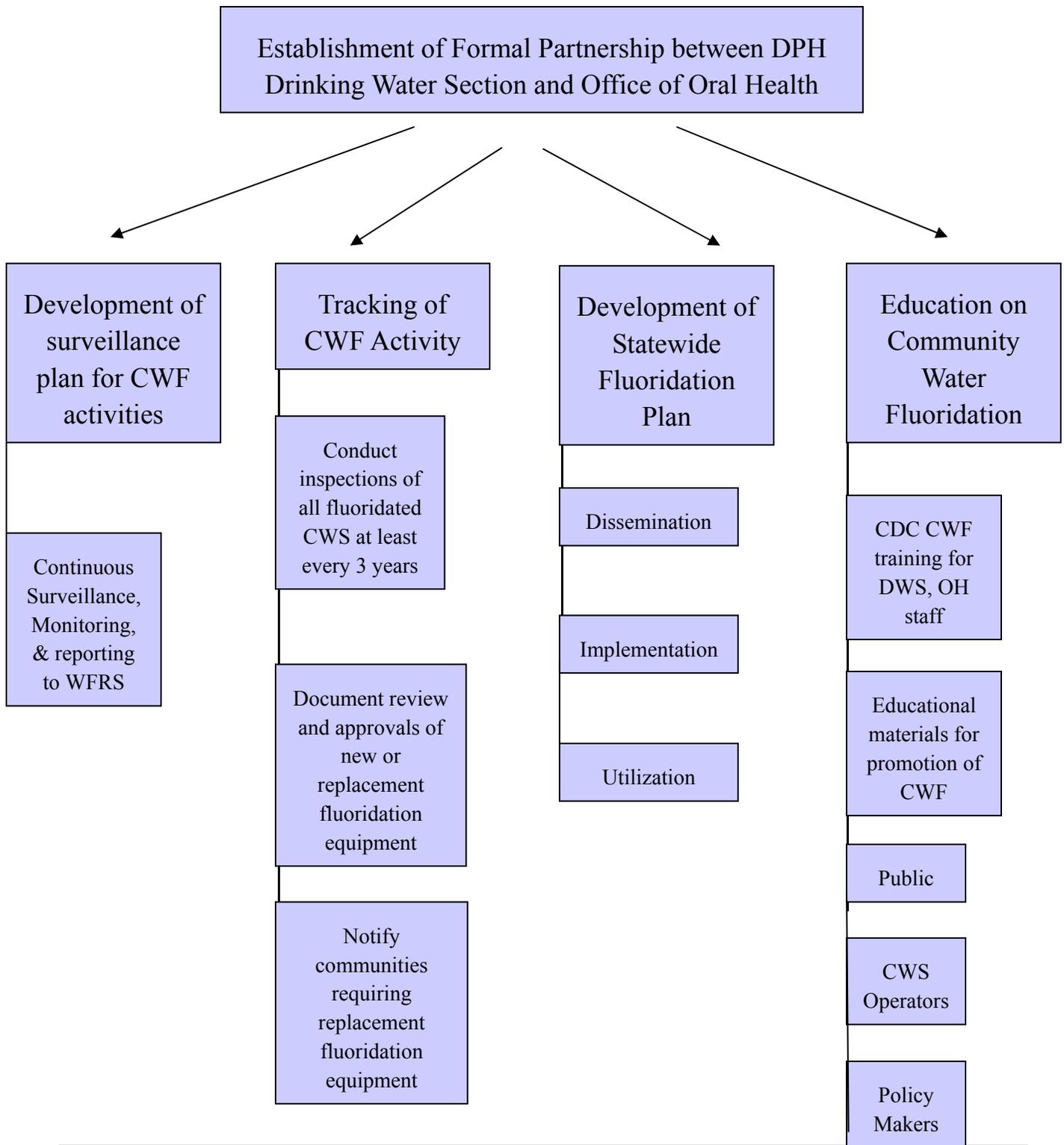
Evaluation Question	Indicators/Measures	Data Source	Data Collection	Time Frame	Data Analysis	Communicate Results	Lead
Have educational materials on water fluoridation been disseminated?	Dissemination plan for specific educational materials	OOH	Document review	Ongoing	# of copies distributed, # of website placements (hits?)	Communicate results with DWS- use results to strategize further dissemination; upload to MOLAR	Fluoridation Liaison,
Have educational materials on water fluoridation been utilized?	Collection of Success Stories relative to utilization	OOH, stakeholder input	Collection of Success Stories	Ongoing	# of instances educational materials are utilized	Communicate results with DWS- use results to strategize further dissemination; upload to MOLAR	Fluoridation Liaison

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Evaluation Question	Indicators/Measures	Data Source	Data Collection	Time Frame	Data Analysis	Communicate Results	Lead
Have fluoridation trainings been held for CWS operators?	Documentation of trainings held, # of attendees, attendee assessments of trainings	DWS, Office of OH CWS operator attendees	Evaluation of attendees	Ongoing	# of trainings held, # of CWS operators trained, % of CWS operators trained, % of attendees who increased their understanding of the importance of CWF following training, % of attendees who perceived the training as valuable	Communicate availability of trainings to CWS operators to encourage participation, communicate results to DWS trainer to inform development of future trainings; upload to MOLAR	Fluoridation Liaison

# Community Water Fluoridation

## Activity Flow Chart



## References

1. Centers for Disease Control and Prevention. Achievements in public health, 1900–1999: Fluoridation of drinking water to prevent dental caries. *MMWR* 1999;48(41):933–40.
2. U.S. Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Institute of Dental and Craniofacial Research; 2000a. NIH Publication No. 00-4713.
3. Centers for Disease Control and Prevention (US). Water Fluoridation: Nature’s Way to Prevent Tooth Decay. Atlanta (GA): Centers for Disease Control and Prevention (US); 2006. Available from: <http://www.cdc.gov/fluoridation/index.htm>
4. Griffin SO, Jones K, Tomar SL. An economic evaluation of community water fluoridation. *J Public Health Dent* 2001;61(2):78–86.
5. U.S. Department of Health and Human Services. Healthy People 2010. Washington: U.S. Department of Health and Human Services; 2000.
6. Centers for Disease Control and Prevention. Recommendations for using fluoride to prevent and control dental caries in the United States. *MMWR Recomm Rep* 2001;50(RR-14):1–42.
7. Connecticut General Statutes § 19a-368a-38.