Vernon

Vernon is a fully suburban community on the eastern edge of the Capitol Region. The town encompasses a land area of 17.7 square miles and has a population of approximately 29,600. Vernon’s elevation ranges from about 150 feet in the west to over 800 feet in the east. Vernon’s land area contributes primarily to the Hockanum River Watershed; however, the southeastern corner of town drains to the Willimantic River Watershed. Major watercourses include the Hockanum and Tankerhoosen Rivers, as well as Clarks and Railroad Brooks. Vernon is bisected by Interstate 84 which travels east-west. Other major thoroughfares that run through Vernon include state routes 30, 31, 74 and 83. Principal industries in Vernon include: anodizing, metal surface treatments, bacteriological media production, communications equipment, fire retardant paints, dyeing and finishing of fabrics, plastics, tools and dies, and woodworking.

Goals, Objectives and Strategies

Goal: Preservation of life and property

Objective 1:
Improve snow removal equipment at public works.

Strategies:
1.1 Incorporate needs in Capital Improvement Plan and pursue opportunities to upgrade equipment.

  Lead: Public Works, Administration
  Priority: Medium

Objective 2:
Provide police/fire/EMS with dedicated 4-wheel drive vehicles.

Strategies:
2.1 Pursue opportunities to obtain vehicles - through grants, surplus military equipment, etc..

  Lead: Police and Fire
  Priority: Medium

Objective 3:
Provide public works with mobile generator to power shelters.

Strategies:
3.1 Work with CREPC to identify grant programs for purchasing portable generators and modifying buildings for hook-up.

  Lead: Emergency Management, Police
  Priority: High

Objective 4:
Ensure emergency preparedness of residents and businesses.
**Strategies:**

4.1 Conduct periodic educational outreach to residents on storm readiness and property maintenance issues.

   Lead: Emergency Management, Police
   Priority: High

4.2 Conduct periodic outreach to private medical-care facilities and apartment complexes to encourage installation of generators.

   Lead: Emergency Management, Building
   Priority: Medium

4.3 Consider completing the requirements to join FEMA's Community Rating System to reduce flood insurance premiums for residents.

   Lead: Planning, Emergency Management
   Priority: Medium

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**Goal:** Implement preventative programs to mitigate storm damage

**Objective 1:**
Purchase and implement GIS mapping program.

**Strategies:**

1.1 Continue planning to implement GIS for use by all town departments, including emergency services.

   Lead: Planning, Administration, Emergency Management
   Priority: Medium

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**Objective 2:**
Maintain adequate manpower and equipment for preventative tree program and assessment.

**Strategies:**

2.1 Investigate CRCOG service sharing initiative for opportunities to share equipment used in tree maintenance.

   Lead: Public Works, Administration
   Priority: High

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**Objective 3:**
Make improvements to town Emergency Operations Center and communications facility.

**Strategies:**

3.1 Acquire telephones, computer server and back-up, mobile hand-held radios and enable wireless connections.

   Lead: Police, Fire, Emergency Management
   Priority: Medium

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**Goal:** Improve drainage in flood zones
Objective 1:
Conduct study of existing drainage problem areas for improvements.

Strategies:
1.1 Study improvements to Franklin Rd. - road floods. (The Town made claims for FEMA assistance in repair costs following Oct. 2005 flood).
   - Lead: Engineering, Public Works
   - Priority: Medium

1.2 Study improvements to Manchester Flats area - Route 83, Welles and Main Streets. (During Oct. 2005 flood, a motel on Rt. 83 became inaccessible, isolating guests.)
   - Lead: Engineering, Public Works
   - Priority: Medium

1.3 Study improvements along Frederick Road. (Residents in area currently carry flood insurance and town sandbags during high water events.)
   - Lead: Engineering, Public Works
   - Priority: Medium

Objective 2:
Upgrade or repair identified problem areas.

Strategies:
2.1 Upon completion of above studies, prioritize and implement recommended improvements.
   - Lead: Engineering, Public Works, Administration
   - Priority: Medium

Objective 3:
Obtain public notification system
Map 52: Vernon Critical Facilities and Population Density

Persons per Square Mile by Census Block

- Hazardous Materials
- Hospitals & Medical Facilities
- Emergency Management Centers
- Fire Stations
- Police Stations
- Rivers and Streams
- Freeways
- Major Arterials
- Minor Arterials
- Waterbodies
  - Less than 800
  - 801 - 1600
  - 1601 - 3200
  - More than 3200

Data Sources: Connecticut Department of Environmental Protection, Flood Zones, Dams, Repetitive Loss Data, Town Boundaries, Hydrography and Streams; Connecticut Department of Transportation
Projection: Connecticut State Plane 1983 feet
For Planning and Analysis Use Only
Prepared: Spring 2007
West Hartford

West Hartford is a fully suburbanized community located in Hartford County that encompasses a land area of 22 square miles. It is a largely residential community with a population of approximately 60,700. The major transportation routes that travel through West Hartford include Interstate 84, State Routes 4, 44, 71, 173, 185, 189 and 218. The Town hosts the University of Hartford, St. Joseph College and the Hartford Branch of the University of Connecticut. About 21% of the Town’s non-agricultural employment is in manufacturing.

West Hartford is within the Park River Watershed, and contains several reservoirs that supply the Metropolitan District Commission’s system. Major watercourses in town include Meadow, Piper, Rockledge, Trout, and Tumbledown Brooks, and the North Branch of the Park River.

Existing Strategies

The Town of West Hartford undertook significant structural mitigation projects in the early 1980s, including rechanneling the Trout Brook to remove 238 houses from the floodplain. In 2001, the Town adopted a Repetitive Flood Loss Plan, and has consistently worked to implement the action plan contained within. The Town periodically ensures that repetitive flood loss property owners have adequate information for retro-fitting flood-prone structures. The Town also holds regular meetings with residents to provide technical advice on flood protection and flood preparedness. The 2001 Repetitive Flood Loss Plan, contained in Appendix C, is incorporated into this regional pre-disaster hazard mitigation plan.

Challenges

Some of the remaining flooding issues in West Hartford result from sanitary sewer service back-ups. The Metropolitan District Commission owns and operates the sewer system in West Hartford. The Clean Water Project should alleviate overflow problems in this area.

Goals, Objectives and Strategies

Goal: Minimize loss of life and property from natural hazards

Objective 1:
Reduce risk to flood-prone structures.

Strategies:

1.1 Continue to implement Repetitive Flood Loss Plan.

Lead: Various
Priority: High
Map 54: West Hartford Critical Facilities and Population Density

Data Sources: Connecticut Department of Environmental Protection, Flood Zones, Dams, Repetitive Loss Data, Town Boundaries, Hydrography and Streams; Connecticut Department of Transportation
Projection: Connecticut State Plane 1983 feet
For Planning and Analysis Use Only
Prepared: Spring 2007
Map 55: West Hartford Repetitive Flood Loss Claims, Dams, Flood Zones and Open Space

Data Sources: Connecticut Department of Environmental Protection, Flood Zones, Dams, Repetitive Loss Data, Town Boundaries, Hydrography and Streams; Connecticut Department of Transportation
Projection: Connecticut State Plane 1983 feet
For Planning and Analysis Use Only
Prepared: Spring 2007
Wethersfield

Wethersfield is located in the south-central portion of the Capitol Region. It encompasses a land area of 12.4 square miles and has a population of approximately 26,000. Wethersfield’s land area contributes primarily to the main stem of the Connecticut River Watershed, although the northeast corner drains to the Park River Watershed. The Connecticut River flows along the eastern boundary. Other watercourses include Beaver, Folly and Golf Brooks. Wethersfield has several major transportation routes that run through town and intersect within its borders. These include Interstate 91 and state routes 3, 5/15, 99, 175, 287, and 314. Principal industries include professional offices, restaurants, marine dock, Kell-Strom, printing, the Hartford Hospital Wellness Center, and several state offices including Department of Corrections, the Labor Department and Motor Vehicles.

Goals, Objectives and Strategies

Goal: Reduce loss of life, property damage and economic consequences as a result of winter storms

Objective 1:
Improve the ability of public works to prepare and respond to severe weather.

Strategies:
1.1 Replace sand/salt storage facility.
   Lead: Public Works, Administration
   Priority: Medium

1.2 Expand capacity for public works trucks and equipment storage.
   Lead: Public Works, Administration
   Priority: Medium

Goal: Minimize damage caused by high winds

Objective 1:
Improve preventive tree maintenance in local right-of-way and on town properties.

Strategies:
1.1 Conduct a tree inventory.
   Lead: Public Works, Administration
   Priority: Medium

1.2 Formulate maintenance plan based on inventory and integrate it into Public Works operating budget.
   Lead: Public Works, Administration
   Priority: Medium

Objective 2:
Minimize power outages.

Strategies:
2.1 Determine areas in Town with frequent outages.
   Lead: Engineering, Administration
   Priority: Medium

2.2 Work with Connecticut Light & Power to relocate transformers underground in repetitive outage areas.
   Lead: Engineering, Administration
   Priority: Medium

*Goal: Reduce loss of life, property damage and economic consequences as a result of flooding*

**Objective 1:**
Implement remaining recommended measures from 1995 town-wide watershed management study and other priority drainage and infrastructure projects.

**Strategies:**
1.1 Pursue opportunities to implement further dredging and drainage projects through the capital improvement program and any other available funding sources.
   Lead: Engineering, Administration
   Priority: Medium

1.2 Improve natural and artificial drainage areas that affect road flooding.
   Lead: Engineering, Administration
   Priority: Medium

1.3 Investigate making improvements to channel and underground conduit of Folly Brook with Army Corps of Engineers.
   Lead: Engineering, Administration
   Priority: Medium

1.4 Develop plan for relocating public works equipment in the event of flooding of Town Garage.
   Lead: Public Works
   Priority: Medium

**Objective 2:**
Ensure safety of residents and businesses in all areas of Wethersfield during flood events.

**Strategies:**

2.1 Educate residents on new flood zone maps.
   Lead: Engineering, Administration
   Priority: Medium

2.2 Consider participating in FEMA’s Community Rating System program to reduce flood insurance premiums for residents.
   Lead: Planning, Engineering, Administration
   Priority: Medium
2.3 Ensure that any future development of the Interchange Zone/Elm Street area will not increase the risk of flooding and is built to withstand flooding.
   Lead: Planning, Engineering, Building
   Priority: Medium

2.4 Actively participate in and monitor planning and implementation of MDC’s Clean Water Project.
   Lead: Engineering, Administration
   Priority: Medium
Map 57: Wethersfield Repetitive Flood Loss Claims, Dams, Flood Zones and Open Space

Data Sources: Connecticut Department of Environmental Protection, Flood Zones, Dams, Repetitive Loss Data, Town Boundaries, Hydrography and Streams; Connecticut Department of Transportation

Projection: Connecticut State Plane 1983 feet

For Planning and Analysis Use Only

Prepared: Spring 2007
Windsor

Windsor is a suburban community just north of Hartford. It has a land area of 31 square miles and an estimated population of about 28,700. Windsor’s elevation ranges from about 32 feet on the eastern side to about 200 feet in the western edge. Its land area drains to two regional basins: the main stem of the Connecticut River Watershed and the Farmington River Watershed in the southeast area. The Town also encompasses several sub-regional drainage basins. The Connecticut River flows the length of the eastern town boundary. The Farmington River runs from west to east and joins the Connecticut River in Windsor. Other watercourses that run through town include Deckers, Meadow, Mill, Phelps, and Rainbow Brooks. Interstates 91 and 291 run through and intersect in Windsor. In addition, the highway connector between Interstate 91 and Bradley International Airport (Route 20) runs along the northern boundary of Windsor. An active railroad parallels Route 91, running north-south through Windsor. Other major transportation routes through town include state routes 75, 159, 178, 187, 218 and 305. Power generation, aerospace, insurance, computer aided design and manufacturing software development, medical technology, financial services, manufacturing of computer components, electronics, machine tools, adhesives, measuring devices, automotive parts, air movement equipment, and shade grown tobacco are the principal industries in Windsor.

Windsor is a growing center of employment within the region, and as such, experiences an increase in daytime population. Using CT Department of Labor non-farm employment data for 2000 and Census 2000 population data, the Town estimates an increase of 4,586 people during the day versus at night. This represents an approximate 16% increase over the residential population. There is a particular concentration of employment in the Day Hill Road area. This additional population and areas with concentrated employment must be factored into disaster planning.

Goals, Objectives and Strategies

**Goal: Reduce the impact of flooding on property, transportation and town infrastructure**

**Objective 1:**
Review and analyze (Mill, Meadow and Deckers Brooks) watersheds.

**Strategies:**

   - Lead: Planning
   - Priority: Medium

1.2 Prioritize watersheds based on historic negative impact.
   - Lead: Planning, Public Works, Engineering
   - Priority: Medium

1.3 Implement identified improvements.
   - Lead: Engineering, Public Works, Planning
   - Priority: Medium
Objective 2:
Ensure emergency service accessibility through transportation infrastructure improvements.

Strategies:
2.1 Develop and implement maintenance plan for River Street retaining wall.
   Lead: Public Works
   Priority: Medium

2.2 Identify, prioritize and implement local road improvements.
   Lead: Public Works
   Priority: Medium

2.3 Pursue improvements of state roads with the CT Department of Transportation.
   Lead: Administration, Public Works
   Priority: Medium

Objective 3:
Reduce flooding impacts through infrastructure enhancements.

Strategies:
3.1 Increase stormwater retention capacity.
   Lead: Engineering, Public Works
   Priority: Medium

3.2 Develop and implement maintenance plan for stormwater facilities.
   Lead: Engineering, Public Works
   Priority: Medium

3.3 Support Metropolitan District Commission efforts to prevent flood water infiltration of sewer system.
   Lead: Public Works, Administration
   Priority: Medium

3.4 Conduct public information campaign on property maintenance with respect to flooding, wind, freezing and other hazards.
   Lead: Emergency Management, Administration
   Priority: Medium

Objective 4:
Ensure adequate flood insurance coverage for residents.

Strategies:
4.1 Pursue Community Rating System designation from FEMA.
   Lead: Planning, Administration, Emergency Management
   Priority: Medium
Goal: Reduce the impact of winter storms and high wind events on power disruption, emergency access, and business disruption

**Objective 1:**
Ensure adequate and timely removal of snow and ice from transportation network.

**Strategies:**
1. Evaluate alternative technologies for snow and ice removal.  
   **Lead:** Public Works  
   **Priority:** High

2. Review and install roadway management system to determine optimal time for liquid ice control application.  
   **Lead:** Public Works  
   **Priority:** Medium

**Objective 2:**
Enhance capacity of emergency response.

**Strategies:**
1. Increase sheltering capacity.  
   **Lead:** Emergency Management, Administration  
   **Priority:** Medium

2. Work with local hotels to ensure adequate emergency generating equipment to reduce reliance on municipal emergency shelters.  
   **Lead:** Emergency Management, Building  
   **Priority:** Medium

3. Increase training for hazard response, e.g. National Incident Management System (NIMS).  
   **Lead:** Emergency Management, Police, Fire  
   **Priority:** Medium

4. Consider and develop a secondary Emergency Operations Center.  
   **Lead:** Emergency Management, Police, Fire  
   **Priority:** Medium

**Objective 3:**
Minimize access disruptions at public safety buildings.

**Strategies:**
1. Bury power lines at public safety buildings.  
   **Lead:** Emergency Management, Administration  
   **Priority:** Medium
Map 59: Windsor Repetitive Flood Loss Claims, Dams, Flood Zones and Open Space

Data Sources: Connecticut Department of Environmental Protection, Flood Zones, Dams, Repetitive Loss Data, Town Boundaries, Hydrography and Streams; Connecticut Department of Transportation
Projection: Connecticut State Plane 1983 feet
For Planning and Analysis Use Only
Prepared: Spring 2007

Repetitive Flood Loss Claims, Dams, Flood Zones & Open Space Land Ownership
- Dams w/ At Least Moderate Risk
- Freeways
- Major Arterials
- Minor Arterials
- Rivers and Streams
- 2 - 4 Repetitive Loss Claims
- 5 - 9 Repetitive Loss Claims
- 10 - 17 Repetitive Loss Claims
- 18 - 44 Repetitive Loss Claims
- 100 Year Flood Zone
- 500 Year Flood Zone
- Waterbodies
- Private Ownership Open Space
- Municipal OS & Rec Property

Mile Markers:
- 0
- 1

Locations:
- East Granby
- Simsbury
- Bloomfield
- Windsor Locks
- West Hartford
- Hartford
- East Windsor
- South Windsor
- East Hartford

Streets and Roads:
- Main St
- Spring St
- River St
- Stoner Rd
- Birchwood Rd
- Minor Rd
- Sunset Rd
- Mirror Rd
- Stone Rd
- Day Hill Rd
- Adam Rd
- Scantic Rd
- Filley St
- Lang Rd
- Maple Ave
- Prospect St
- Griffin Rd
- Eastview Dr
- Allyn Rd
- Rockwell Ave
- Chapel Rd
- Hilton Dr
- Chapel Rd
- Denslow St
- Dunfey Ln
- Portman St
- Privilege Rd
- Douglas St
- Tunxis St
- Pigeon Hill Rd
- Pines Rd
- Hitchcock Ridge
- Pines Rd
- Pines Rd
- Pines Rd
- Old Post Rd
- East St
- Mountain Ave
- Ebb St
- Joyce St
- Clover St
**Windsor Locks**

Windsor Locks is a fully suburban community in northern Hartford County. The town encompasses only nine square miles, but has a population of approximately 12,400. The land area of Windsor Locks ranges from about 75 to 150 feet above sea level and contributes to three watersheds: primarily the main stem of the Connecticut River Watershed, but also the Stony Brook Watershed in the northwest and the Farmington River Watershed in the southwest. The Connecticut River forms the eastern town boundary. Other watercourses include Addes, Dibble Hollow, Kettle and Waterworks Brooks. Principal industries include food servicing and distribution, manufacture of aerospace products, paper products, electronics and machines. Major transportation routes through Windsor Locks include Interstate 91 and state routes 75, 140 and 159. In addition, highway 20, the connector between Interstate 91 and Bradley International Airport forms the southern town boundary. The majority of Bradley International Airport, the second largest commercial airport in New England, is located within Windsor Locks, as well as significant numbers of hotels and related travel services.

**Goals, Objectives and Strategies**

*Goal: Reduce the loss of life and property and the economic consequences that result from flooding, high winds, severe winter storms and other natural disasters.*

**Objective 1:**
Reduce future flooding by improving, modifying and/or replacing existing man-made and natural drainage systems.

**Strategies:**

1. **1.1 Address drainage issues on Papermill Brook at Center Street/ Whitton Street.**
   
   *Lead:* Public Works, Administration
   *Priority:* Medium

2. **1.2 Address drainage issues at Chestnut and Main Streets.**
   
   *Lead:* Public Works, Administration
   *Priority:* Medium

3. **1.3 Address drainage issues on Kettle brook at middle school on Center Street.**
   
   *Lead:* Public Works, Administration
   *Priority:* Medium

4. **1.4 Address drainage issues on Industrial Road.**
   
   *Lead:* Public Works, Administration
   *Priority:* Medium

5. **1.5 Address drainage issues at West and Spring Streets.**
   
   *Lead:* Public Works, Administration
   *Priority:* Medium

6. **1.6 Address drainage issues in the Smally Road area.**
   
   *Lead:* Public Works, Administration
1.7 Address drainage issues on Bristol Road.
   Lead: Public Works, Administration
   Priority: Medium

1.8 Address drainage issues at Dibble Hollow and Bel Air Circle.
   Lead: Public Works, Administration
   Priority: Medium

1.9 Address drainage issues at Gaylord and Lowndes Drive.
   Lead: Public Works, Administration
   Priority: Medium

Objective 2:
Ensure that new development will not increase flooding threats to existing properties.

Strategies:
1.1 Review, amend as necessary, and enforce land use regulations.
   Lead: Zoning Officer, Planning & Zoning
   Priority: Medium
Map 60: Windsor Locks Critical Facilities and Population Density

Data Sources: Connecticut Department of Environmental Protection, Flood Zones, Dams, Repetitive Loss Data, Town Boundaries, Hydrography and Streams; Connecticut Department of Transportation
Projection: Connecticut State Plane 1983 feet
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Prepared: Spring 2007