Draft Environmental Assessment

WATERBURY STATE OFFICE COMPLEX

Waterbury, VT

FEMA-4022-DR-VT

August 2012

Department of Homeland Security
Federal Emergency Management Agency
Region 1
99 High Street
Boston, MA 02110

Prepared for:

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Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation
ACM	Asbestos Containing Material
ADA	Americans with Disabilities Act
ANR	Agency for Natural Resources
APE	Area of Potential Effects
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DFIRM	Digital Flood Insurance Rate Map
DHP	Division for Historic Preservation
DOL	Department of Labor
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FR	Federal Register
GIS	Geographic Information System
MBTA	Migratory Bird Treaty Act
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollution
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
PA	Public Assistance
PHS	Priority Habitats and Species
SHPO	State Historic Preservation Officer
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
VAOT	Vermont Agency of Transportation
VEM	Vermont Emergency Management
VSA	Vermont Statutes Annotated
VSH	Vermont State Hospital
WSOC	Waterbury State Office Complex

1.0 INTRODUCTION

As a result of damages caused by Tropical Storm Irene between 27 August and 2 September 2011, a Presidential Disaster, referenced as DR-4022-VT, makes Public Assistance funding available to local governments, state agencies and eligible private non-profit organizations in all counties in Vermont. One of the purposes of the Federal Emergency Management Agency (FEMA) Public Assistance (PA) Program is to provide funding to restore eligible damaged facilities to their pre-disaster condition or to a condition sufficient to perform their pre-disaster functions. Mitigation to damaged facilities may also be applied.

The State of Vermont determined that the public interest and welfare of its agency staff would not be best served by simply repairing the Waterbury State Office Complex (WSOC) for re-occupation. The State took immediate steps to relocate the Vermont State Hospital (VSH) patients housed in three buildings within the WSOC to alternate facilities and found temporary locations for most staff from various agencies located within the WSOC. Peripheral properties used by non-state employees were closed. A massive clean-up of the entire facility followed.

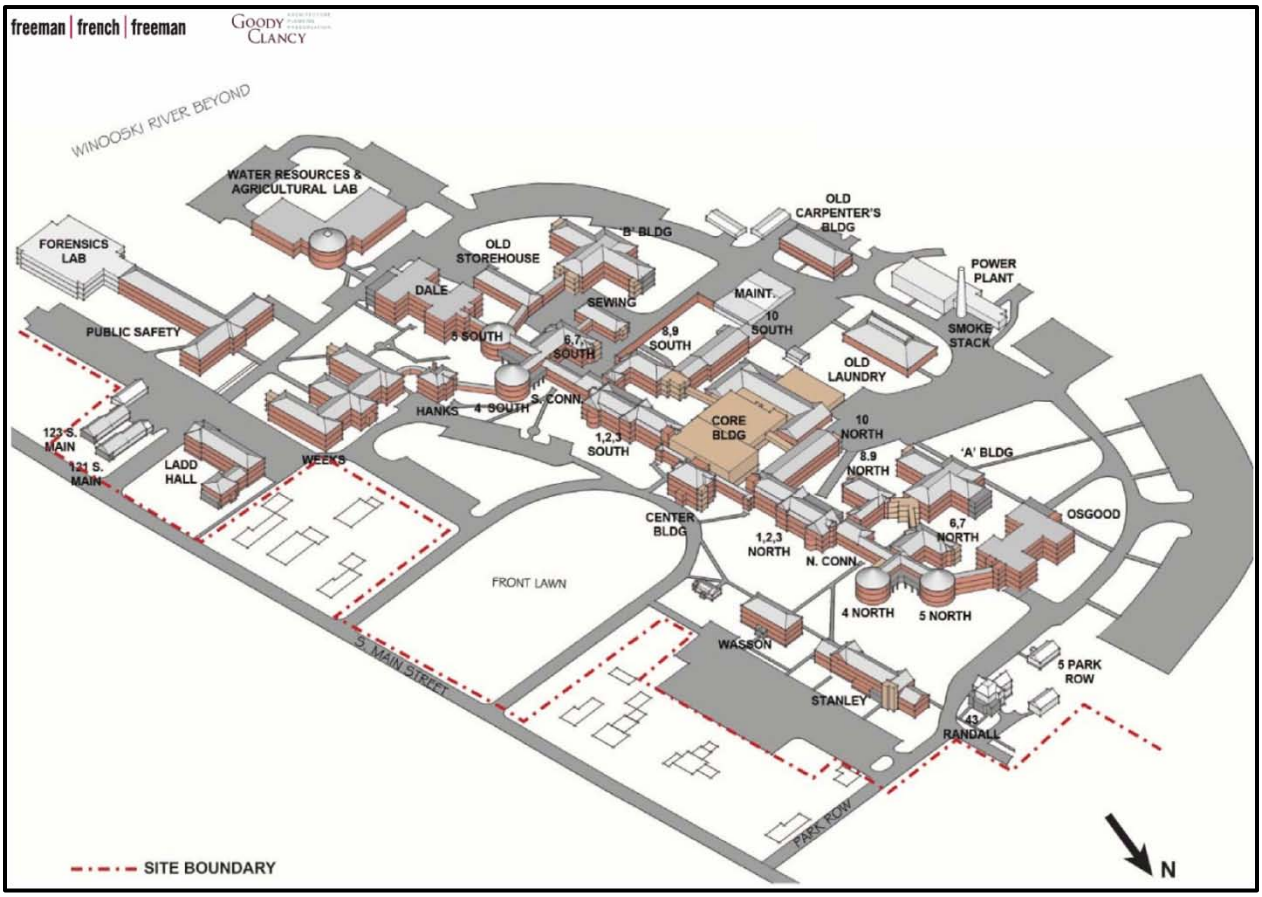

Figure 1.0-1. Pre-Disaster and Current WSOC Layout

Plans are currently underway to relocate the VSH patients now housed in several facilities to a new facility to be constructed in Berlin. Re-occupation of the Public Safety Building and Forensic Laboratory has occurred following limited clean-up and minor damage repairs. The installation of several flood mitigation measures is being proposed. To better plan beyond these limited measures, the State of Vermont Office of Purchasing & Contracting, on behalf of the Secretary of Administration, engaged the Burlington architectural firm Freeman French Freeman Architects (FFF) in January 2012 to assess and evaluate long-term options for housing the displaced state employees. Their report (March 9, 2012) compares four options for permanently relocating the displaced employees:

- Option A: Return and full re-use of the Waterbury Complex by the State
- Option B: Partial re-use and New Construction
- Option C1: Relocation and Construction of a new office complex at the site of the Department of Labor in Montpelier
- Option C2: New building at a previously undeveloped site. Because this option is not site- specific, it will not be considered further in this EA.

This Environmental Assessment (EA) has been prepared to help FEMA meet its environmental review responsibilities under the ***National Environmental Policy Act*** (NEPA) of 1969, the Council on Environmental Quality's (CEQ) implementing regulations (40 ***Code of Federal Regulations*** [***CFR***] Parts 1500 through 1508), and FEMA's implementing regulations (44 ***CFR*** Part 10). FEMA is also using the EA to document compliance with other applicable federal laws and executive orders, including the ***Endangered Species Act*** (ESA), the ***Magnuson-Stevens Fishery Conservation and Management Act*** (MSA), the ***National Historic Preservation Act*** (NHPA), Executive Order (EO) 11988 (***Floodplain Management***), EO 11990 (***Protection of Wetlands***), and EO 12898 (***Environmental Justice***).

Based on the analysis presented in this document and if no substantial public or agency comments are received on the Draft EA, FEMA may determine that the various elements of this multi-phased project would not significantly affect the quality of the human and natural environment. If this proves to be the case, FEMA would make a Finding of No Significant Impact (FONSI) and determine that preparation of an Environmental Impact Statement (EIS) would not be necessary. See Section 4.1.1 ("Comments on the Draft EA") for a summary of the process for review and comment on the Draft EA.

This document describes the purpose and need for the proposed action, project alternatives, the affected environment and potential impacts on that environment resulting from a No Action, Proposed Action and Alternate Action alternative, cumulative effects, public involvement, and resources consulted.

1.1 BACKGROUND AND LOCATION

Tropical Storm Irene struck on August 27, 2011. In its aftermath, the State is still recovering from the most severe flooding since the flood of record in November, 1927. Damage estimates in terms of private and public infrastructure may approach a half billion dollars statewide. The

Village of Waterbury was one of the hardest hit communities with flood damage to over 250 buildings (Figure 1.2-1). The WSOC, located on the southwest side of Main Street within the Village was awash. Floodwaters reached an elevation of 428.5 feet mean sea level, 2.5 feet above the 100-year flood level established by FEMA for the site. Of the 47 buildings on the campus, floodwaters reached the tops of foundations in the higher and oldest buildings, to nearly the top of the doorway on the boiler house located in the lowest lying area on the fringe of the floodway. Other low-lying, generally single-story buildings saw their first floors flooded. The greatest water and mud damage to the older and higher buildings occurred from flood waters surging through the heating tunnels emanating from the boiler house into their basements. Total costs for mucking out, stabilizing utilities, removing sheetrock walls, etc. is expected to exceed $30,000,000.

The Area of Potential Effect (APE) relative to the No Action and Proposed Action (Option B in the Freeman French Freeman ***Waterbury Office Complex Feasibility Study***) (Alternatives A & B) is a 44-acre campus centered at roughly coordinates N 44.33217, W -72.75318 (Figure 1.2-1 & 2). The APE relative to Alternative C (Option C1 in the Freeman French Freeman ***Feasibility Study***) is less than 5 acres at approximately coordinates N 44.25846, W -72.59014 (Figure 1.2-3 & 4). A specific site relative to Option C2 was not identified.

1.2 PURPOSE AND NEED

The purpose of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1973 (Stafford Act), as amended, is to provide a range of federal assistance to state and local governments to supplement efforts and resources in alleviating damage or loss from major disasters and/or emergencies. The purpose of the FEMA PA Grant Program is to provide assistance to state, tribal, and local governments, and certain types of Private Non-Profit (PNP) organizations so that communities can quickly respond to and recover from major disasters or emergencies declared by the president. Through the PA Grant Program, FEMA provides supplemental federal disaster grant assistance for debris removal, emergency protective measures, and the repair, replacement, restoration, or relocation of eligible disaster-damaged, publicly owned facilities and the facilities of certain PNP organizations. The need for the FEMA action is to provide funds to the State of Vermont to restore the functions of the WSOC through one or multiple options.

The State of Vermont engaged (FFF) to assess and evaluate long-term options for providing quality office space for state employees displaced by Tropical Storm Irene. FFF collaborated with the Boston design firm of Goody Clancy and seven consultants to collectively evaluate the conditions of the Waterbury Complex and the costs of four options. The results of their efforts are presented in the ***Waterbury Office Complex Feasibility Study*** (March, 2012). This EA draws heavily on the information presented in this two volume study.

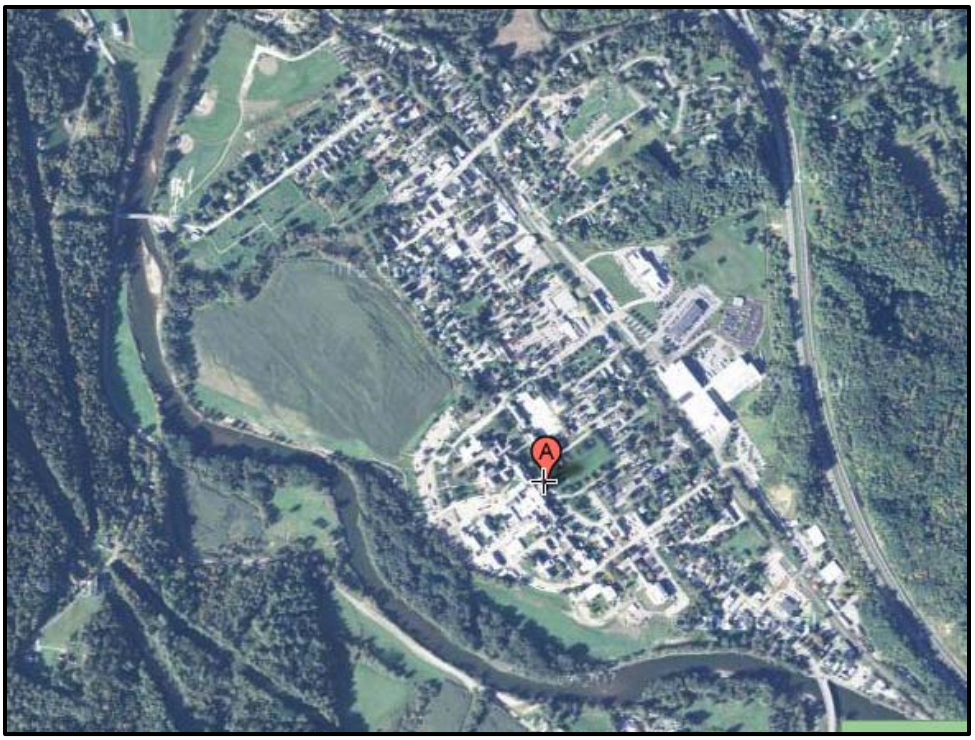

Figure 1.2-1: WSOC (A) and Surrounding Village; Winooski River (bottom and left)

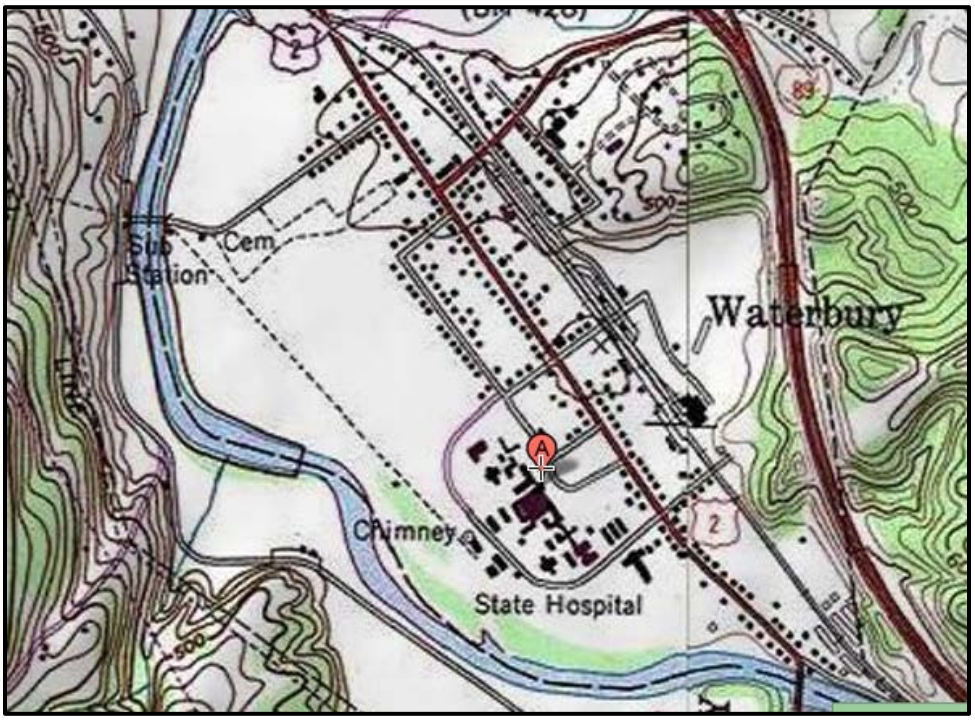

Figure 1.2-2: WSOC (A) and Surrounding Village; Winooski River (bottom and left)

Figure 1.2-3: New Site – DOL Building (B), Montpelier; Winooski River (immediately left)

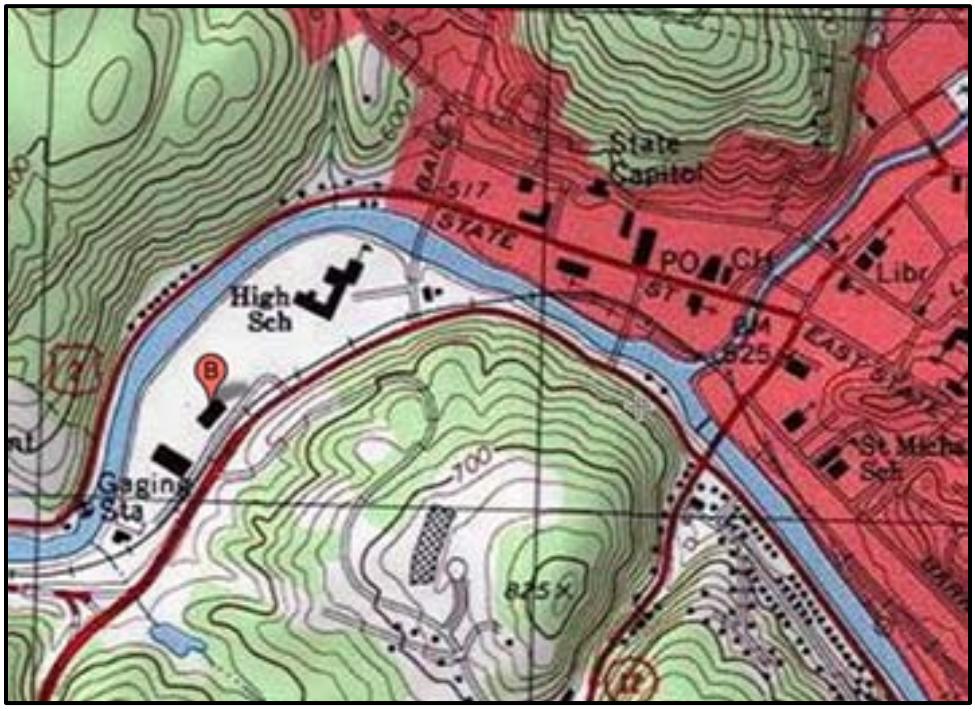

Figure 1.2-4: New Site – DOL Building (B), Montpelier; Winooski River (immediately left)

2.0 ALTERNATIVES ANALYSIS

CEQ regulations require federal agencies to consider a reasonable range of alternatives that meet the purpose and need of a proposed action in their NEPA review. Reasonable alternatives are alternative ways of meeting project needs, but with varying degrees of environmental impact. Under NEPA guidelines, a No Action alternative is also required, in large measure to set a baseline by which to judge the other practicable alternatives.

The following sections describe various alternatives considered for the Waterbury State Office Complex Rehabilitation or Relocation Project. The process used to develop four potential "Action" alternatives which the State could employ is documented in FFF's ***Waterbury Office Complex Feasibility Study*** (March, 2012).

This EA presents an analysis of three alternatives: Alternative A (No Action Alternative - abandonment and mothballing the WSOC facility until such time as the Vermont legislature decides what to do with it); Alternative B (Proposed Action or Option B in the FFF ***Feasibility Study***) – to rebuild the Waterbury complex with substantial modifications and new construction to minimize the potential damage from future floods and enhance floodplain values; and Alternative C (Alternative Action or Option C1 in the FFF ***Feasibility Study***) – to relocate personnel from the WSOC to a new building in Montpelier after demolition of the Department of Labor office building. The FFF ***Feasibility Study*** also identifies two alternatives that were considered but not carried forward for further analysis (Option A and Option C-2) under this NEPA review.

2.1 Alternatives Considered but Not Carried Forward

Option A in the FFF's ***Waterbury Office Complex Feasibility Study*** (March, 2012) proposed a full return and reuse of most of the structures on the WSOC campus. The proposed configuration would provide office space for approximately 1,160 workers, a number consistent with the estimate of actual occupancy before Tropical Storm Irene. Specific elements of Option A include:

- Fully renovating 23 buildings totaling 316,694 square feet to meet modern open-office standards;
- Relocate patients and Vermont State Hospital staff from three buildings to a permanent off-site facility;
- Demolishing 8 buildings totaling 92,821 square feet that are either in very poor condition and/or have first-floor levels below 428.5 feet [the elevation of floodwaters during Irene];
- De-accessioning 8 buildings and 3 associated out-buildings that are currently unused or leased out and make them available for private development;
- Immediate re-occupation of the Public Safety Building and Forensics Lab on the southeastern margin of the WSOC.

Under this alternative, renovation, as well as some deferred maintenance, would be kept to a minimum for both exterior and interior elements. However, reuse of the site and buildings

would depend upon meeting requirements for creating a safe working environment within a floodplain. This would be addressed using the following mitigation measures.

Each of the buildings on the site would either be wet or dry flood proofed. Wet flood proofing of 13 buildings would minimize damage to buildings during flood events by abandoning the ground floor, removing all mechanical systems and protecting and isolating the occupied upper floors. Dry flood proofing of 19 buildings would be accomplished through the use of flood-damage-resistant materials and techniques to make the ground levels of buildings substantially impermeable to the passage of floodwater. In addition, lowering the existing parking areas at the perimeter of the site approximately 3 feet would provide for additional storage of water in the event of another flood and decrease the risk to the buildings and possibly the town as well. The power house, located on the edge of the floodway, would also be relocated to a proposed site on the north edge of the campus in what is currently a parking lot. Much of the current infrastructure is beyond its expected design life; modifications and upgrades were recommended.

With respect to a NEPA evaluation of environmental considerations, Option A and Option B, as presented in the FFF ***Feasibility Study,*** are located in the same physical and environmental setting and actions are similar enough that consideration of the environmental consequence under Option B (the Proposed Alternative) would yield virtually the same results for Option A. In addition, in late March, 2012, the Vermont legislature requested that State Buildings and General Service pursue the further study of Option B. Thus, to avoid excessive redundancy and accommodate the will of the legislature, Option A was dropped from further consideration under this NEPA review.

Under **Option C1**, FFF's ***Waterbury Office Complex Feasibility Study*** (March, 2012) offered a conceptual building site that:

- does not sit in a floodplain;
- is not in an existing town or city center, and
- has not been previously developed.

A new building to consolidate the Agency of Human Services (AHS) facility on a previously undeveloped site would provide enough office space to house all displaced workers from Waterbury; this conceptual option has capacity for 1,138 employees. These site selection criteria would eliminate many of Vermont's city, town, and village centers, which are often located in river valleys due to historical settlement patterns. Given the fact that no actual site was identified, consideration during an alternatives analysis is not possible.

2.2 Alternative A - NO ACTION

For purposes of this EA, the No Action alternative consists of closing the Waterbury State Office Complex. Except for the Public Safety Building and Forensic Laboratory which are currently operating, the remaining buildings would be moth-balled until such time as the legislature determines their future use. Minimum maintenance would keep the buildings from further deterioration; no improvement to the infrastructure would be undertaken; no intentional modifications to or remediation of the environment within the WSOC would be initiated. The

No Action alternative essentially reflects what would occur as a result of any complete relocation alternative selected for the WSOC, including Alternative C or any other selected site.

2.3 Alternative B - PROPOSED ACTION

Alternative B, proposed as Option B in FFF's ***Waterbury Office Complex Feasibility Study*** (March, 2012), re-uses the historically significant core buildings constructed in the 1890s, and other useful buildings on campus where future flood damages can be mitigated, while adding a new, state-of-the-art building at an elevation above the projected 500-year flood level. This old-and-new hybrid will accommodate approximately 1,160 workers, a number consistent with the estimate of occupancy before Tropical Storm Irene. (Although 1,500 state employees had been assigned to Waterbury, actual occupancy was estimated to be 1,200). The facility would be contracted from a 44 to a roughly 30-acre parcel (Figure 2.3-1). Major conceptual elements employed to avoid the potential of future flood damage include:

- Full renovation of 13 buildings (117,673 square feet) in the historic core of the complex to modern open space standards. These structures are situated along the edge of an alluvial terrace above the modern developing floodplain, at the highest point on the WSOC campus but still marginally below the projected 100-year flood elevation.
- Construction of a new office building on the interior margin of the modern floodplain, but whose occupied space is located above the 500-year flood elevation.
- Up to twenty-five buildings most vulnerable to future flooding, comprising 310,349 square feet, may be removed. These buildings, including those in use by the Vermont State Hospital, are primarily located on the modern floodplain with first-floor levels below 428.5 feet [the elevation of floodwaters during Irene] and are typically in poor condition, a situation compounded by recent flooding.
- Sale of up to 14 peripheral buildings for potential redevelopment, the majority of which are located in former residential areas or leased for other uses.
- Immediate re-occupation of the Public Safety Building and Forensics Lab on the southeastern margin of the WSOC that was minimally affected by flooding, although it was temporarily abandoned during the flood due to loss of power and other utilities.

Figure 2.3-2 depicts the projected layout after 25 buildings, mostly located in the lowest-lying area at the rear of the complex, are demolished (highlighted in red). The power house, located near the edge of the floodway, will be relocated to the former site of the Agricultural and Environmental Lab on the southeast edge of the campus.

Reuse of the site and remaining buildings depends on meeting requirements for creating a safe working environment within the re-occupied portions of the 100-year floodplain. Dry floodproofing of 13 buildings that make up the historic core will be accomplished through the use of flood-damage-resistant materials and techniques to make the ground levels of buildings substantially impermeable to the passage of floodwater. To protect the oldest buildings on the site and avoid the visual intrusion of concrete retaining flood walls around the perimeter of buildings, flowable fill concrete will be used in the ground floors to brace the exterior walls and counteract the buoyancy effect. Existing door and window openings below the flood level will be in-filled with masonry. (Figure 2.3-3 shows the distribution of structures to be floodproofed,

demolished or de-accessioned. Table 2.3-1 provides a summary of building date of construction and proposed actions.)

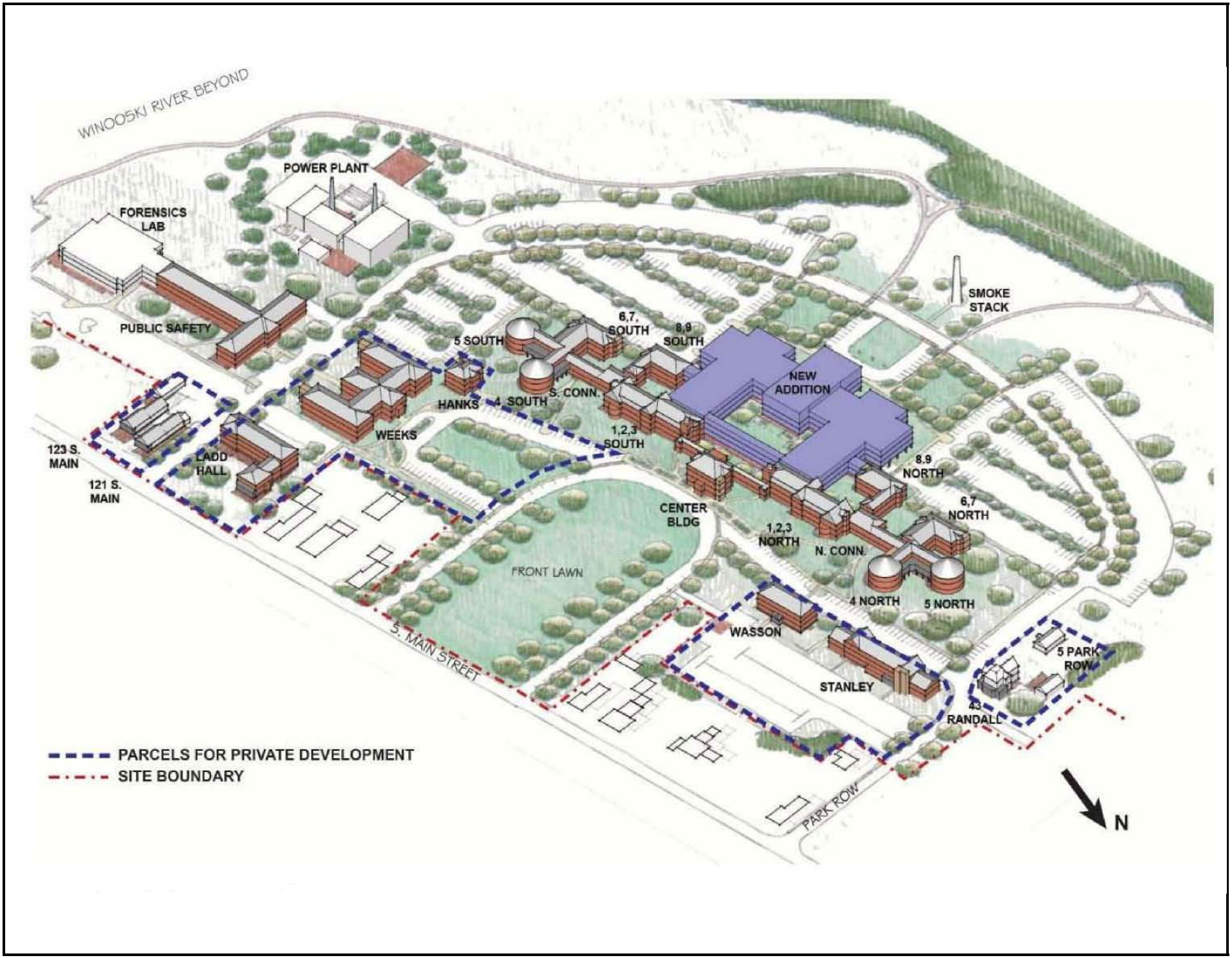

Figure 2.3-1. Proposed Project Layout.

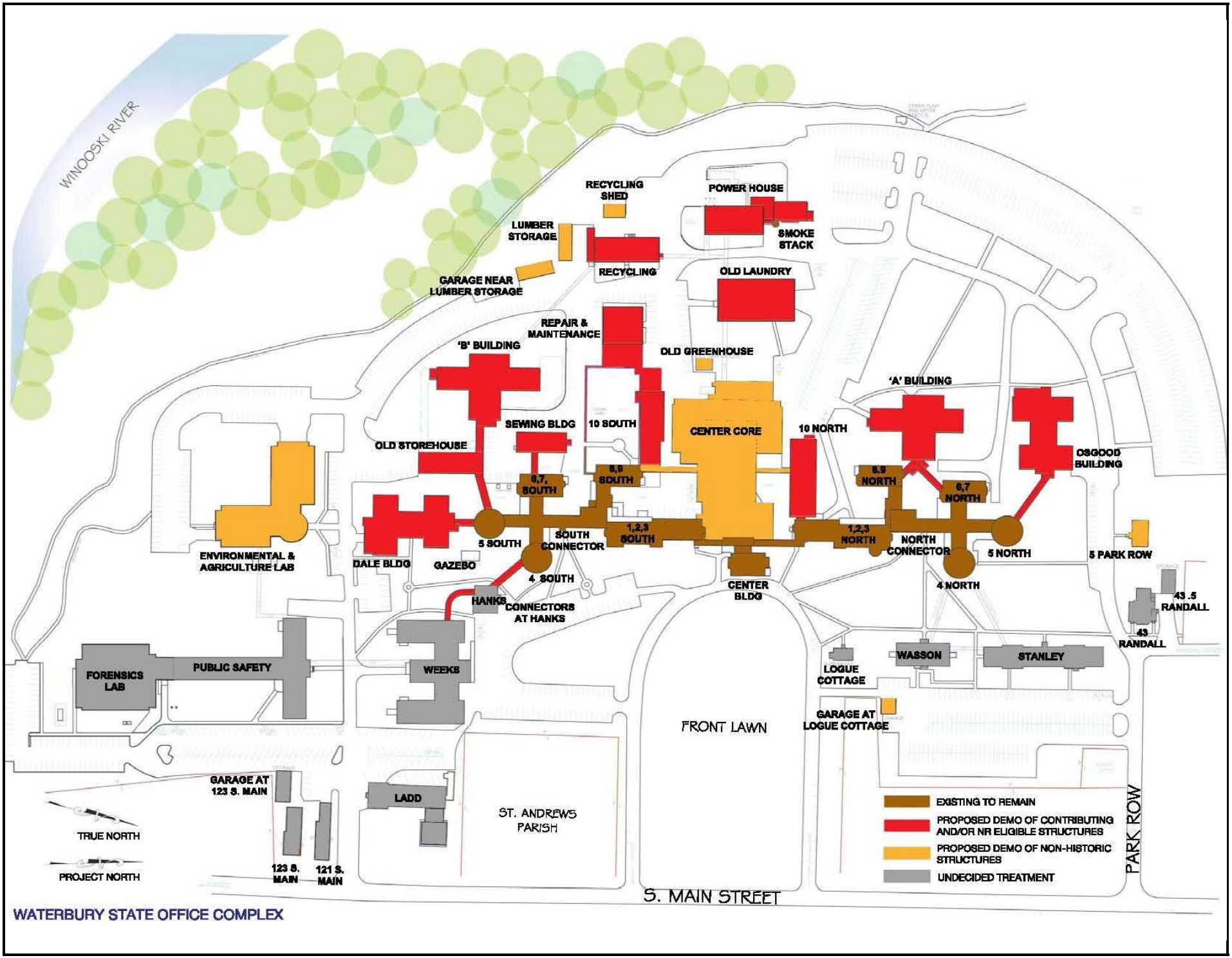

Figure 2.3-2. Buildings Proposed for Demolition (in red).

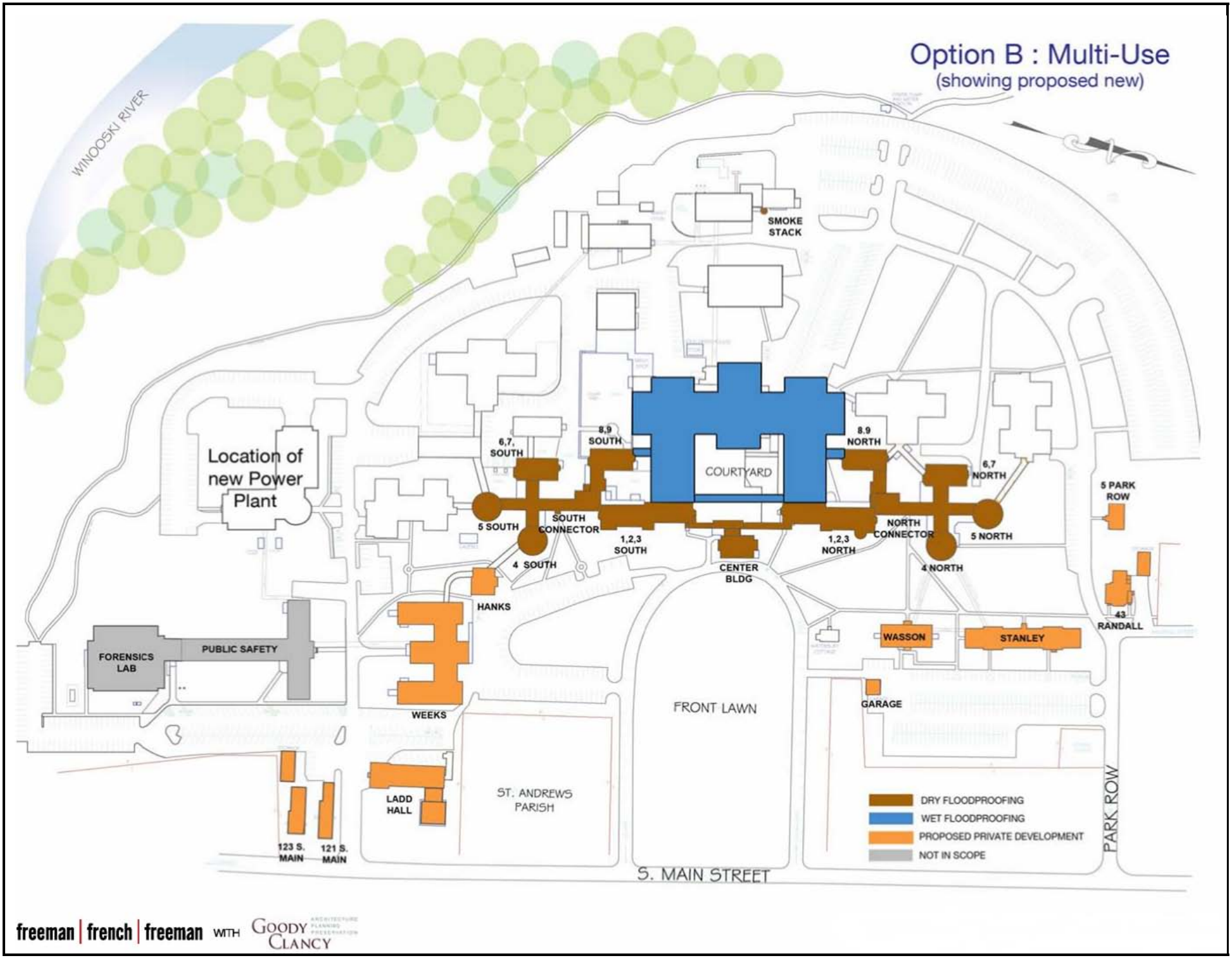

Figure 2.3-3. Floodproofing Options and Buildings To Be De-Accessioned.

Table 2.3-1. Structures, Dates of Construction, Disposition and Floodproofing Options

BUILDING REFERENCE			AGE	Option B - Partial Reuse & New Construction	
FEMA Bldg #	Building Name	State Bldg ID	Year Built	Demo/ Retained/ Private	Basement/ Groundfloor/ Floodproofing
1	BGS Maintenance Building	06391	1950	Demo	NA
2	Powerhouse	06378	1925	Demo	NA
3	Sewage Pump Station	06617			
4	Osgood Building	06350	1953	Demo	NA
5	4 North	06353	1896	Retained	Dry Floodproof
6	5 North	06354	1896	Retained	Dry Floodproof
7	6 & 7 North	06355	1896	Retained	Dry Floodproof
8	8 & 9 North	06356	1896	Retained	Dry Floodproof
9	A Building	06366	1953	Demo	NA
10	10 North	06357	1914	Demo	NA
11	1, 2 3 North	06351	1896	Retained	Dry Floodproof
12	North Connector	06352	1896	Retained	Dry Floodproof
13	Center Building	06373	1898	Retained	Dry Floodproof
14	Center Core-Kitchen	06374	1962	Demo	NA
15	Old Laundry	06385	1921	Demo	NA
16	1,2,3 South	06358	1890	Retained	Dry Floodproof
17	South Connector	06359	1891	Retained	Dry Floodproof
18	4 South	06396	1891	Retained	Dry Floodproof
19	5 South	06361	1891	Retained	Dry Floodproof
20	6 & 7 South	06362	1891	Retained	Dry Floodproof
21	Sewing Building	06375	1901	Demo	NA
22	8 & 9 South	06363	1891	Retained	Dry Floodproof
23	10 South	06364	1912	Demo	NA
24	Dale Building	06365	1953	Demo	NA
25	Hospital Administration	06392	1919	Demo	NA
26	Hospital/B Bldg-Brooks	06397	1938	Demo	NA
27	Hanks Building	06372	1898	Private	NA

Table 2.3-1. Structures, Dates of Construction, Disposition and Floodproofing Options

BUILDING REFERENCE			AGE	Option B - Partial Reuse & New Construction	
FEMA Bldg #	Building Name	State Bldg ID	Year Built	Demo/ Retained/ Private	Basement/ Groundfloor/ Floodproofing
28	Weeks Building	06367	1924	Private	NA
29	Ladd Hall-Newer	06369	1951	Private	NA
30	Ladd Hall-Older		1895	Private	NA
31	DPS Building	06384	1942	Retained	NA
32	DPS Forensic Lab	06398	2011	Retained	NA
33	Ag/Environmental Lab	06394	1990	Demo	NA
34	Stanley Hall	06370	1946	Private	NA
35	Wasson Hall	06371	1901	Private	NA
36	43.5 Randall-Barn	06376	1936	Private	NA
37	43 Randall	06377	1936	Private	NA
38	5 Park Row	06380	1968	Private	NA
39	121 S Main Street	06382	1891	Private	NA
40	123 S Main Street	06381	1881	Private	NA
41	Old Carpenter Shop	06386	1921	Demo	NA
42	Garage-behind 123 S	06616		Demo	NA
43	Storage Shed-BGS	06387	1952	Demo	NA
44	Garage-Carpenter Shop	06388		Demo	NA
45	Old Green House-Equipment	06389	1979	Demo	NA
46	Salt-Lumber Storage	06390		Demo	NA
47	Logue Cottage	06393	1937	Demo	NA
48	Garage-Logue Cottage	06619		Demo	NA

Lowering the existing parking areas at the perimeter of the site approximately 3 feet will provide for additional storage of water in the event of another flood and decrease the risk to the buildings and possibly the town as well (Figure 2.3-4).

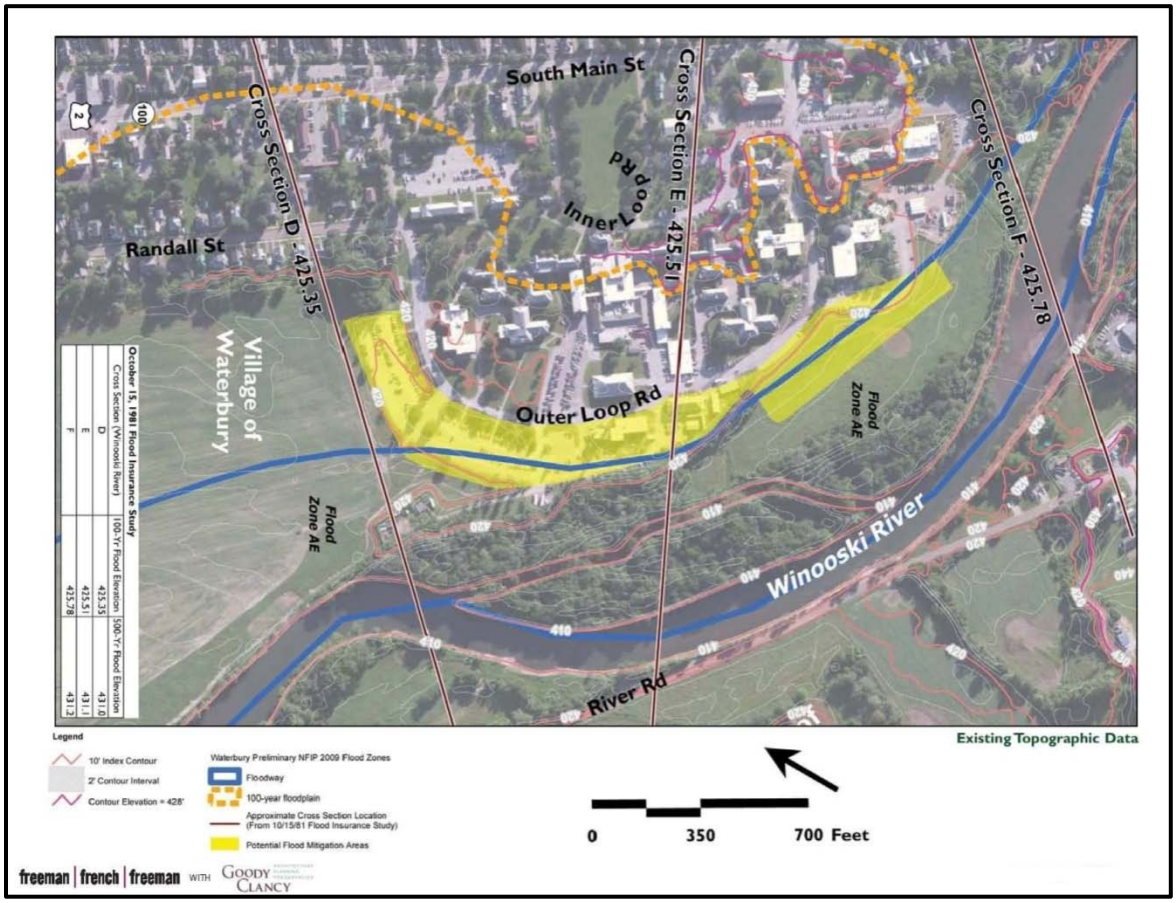

Figure 2.3-4. Flood Mitigation Area (Highlighted in Yellow) to be Lowered.

After 120 years of construction, expansions, renovations and repairs, much of the infrastructure at the site has gone beyond its expected design life. Modifications are recommended with respect to roadways and parking lots, sewer infrastructure, sewer pump station, stormwater system and tunnels. More specifically, improvements would include:

- Roadways and parking lots:
  - Remove existing outer loop road and parking west of core buildings
  - Construct new parking lots and driveways bordering the core and new office building
- Replace and realign sewer collection system west of core buildings and to Weeks building
  - Replace or reroute all sewer lines running under buildings
  - Install new 8-ft diameter duplex pump station and control panel to replace the current pump station located in the floodway
  - Connect new force main to existing force main
  -

- Repair water system:
  - Install new concrete risers and hatches over water meter vaults
  - Install 500 ft of 8" water main
  - Install 12 new or replaced hydrants and 12 new gate valves at culvert outfalls to limit floodwater entry
- Replace drywells with stormwater collection system, including the installation of 4 stormwater treatment basins
- Reroute electrical ducts to new power plant location
- Remove fuel tanks adjacent to old power plant
- Install new heating and chill water lines throughout campus
- Fill pedestrian, steam and utility tunnels with controlled low strength materials
- Remove all abandoned underground utilities.

2.4 Alternative C – RELOCATION AND NEW CONSTRUCTION IN MONTPELIER

Alternative C acts essentially as one of many possible relocation options to counter the No Action Alternative to abandon the current site of the Waterbury Complex. A new building consolidating the Agency of Human Services (AHS) at the site of the existing Department of Labor (DOL) building off Memorial Drive in Montpelier would provide enough additional office space to house workers displaced from Waterbury. A hypothetical design proposed by the consultant group could house 1,298 workers—the combined total of current AHS staff plus the DOL staff displaced by demolition of the existing building. The site cannot accommodate this quantity of workers if the existing building remains. The envisioned project would consist of 5.5 acres of building site, 1.5 acres of parking.

The DOL site, like the Waterbury Complex, is situated in a floodplain, is located adjacent to an existing town center with access to municipal services, and has previously been developed. The DOL building is 3 stories high (two stories on grade) and houses 160 people in about 53,500 square feet. The proposed structure to replace it is envisioned as a 5-story building of 227,760 square feet to house 1,024 people. The ground floor would be 2 feet above the 100-yer flood elevation and would have no basement (Figure 2.4-1). This building would be attached to a 4-level parking structure of roughly 60 x 180 feet to accommodate 486 vehicles. The FFF study notes that the large building and 486 parking spaces in this design represent a very intensive use of this site that would require a zoning variance, but still not be sufficient to meet the current state needs. The purchase of all or part of the adjacent Green Mountain Power property is suggested to provide additional parking.

This facility could be tied into the city's existing electrical, sewer and water systems. The proposed physical plant would consist of a geothermal well system supplanted by an array of oil or propane fueled, small boilers. Any external boiler plant would have to be elevated above the 500-year floodplain. Construction of a facility of the proposed size would likely trigger improvements to the intersection of Green Mountain Drive and Memorial Drive/US Route 2, with addition of traffic signal and turning lanes. Constructed wetlands on the site are recommended for storm water management.

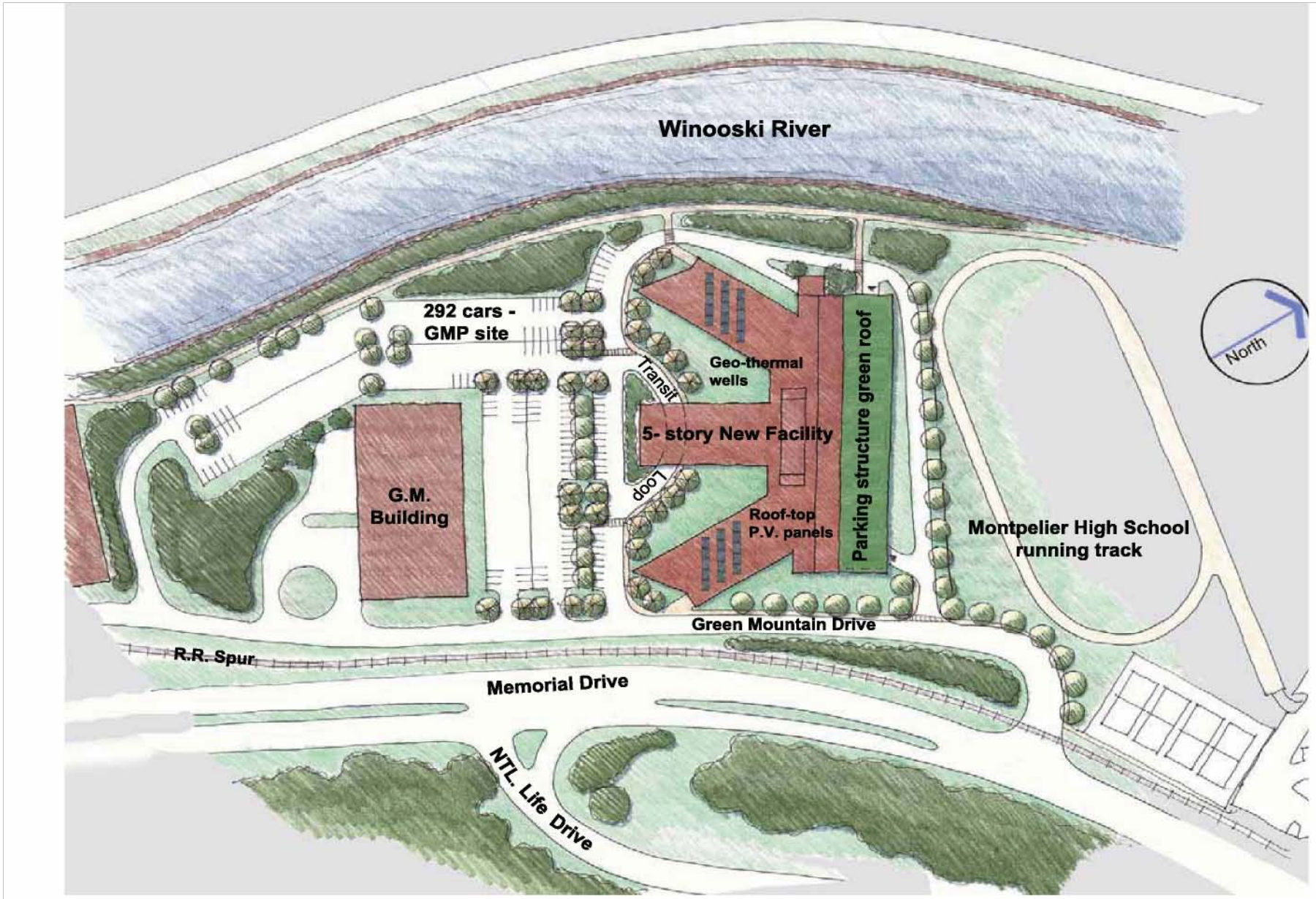

Figure 2.4-1. Working Model of a Layout to Replace the DOL Building in Montpelier

2.5 Summary of Effects

Table 2.5-1 summarizes the effects described and analyzed in Chapter 3 (Affected Environment, Environmental Consequences and Mitigation). Levels of potential effect are defined as follows:

* Negligible: The resource area would not be affected, or changes would be non-detectable or if detected, effects would be slight and local. Impacts would be well below regulatory limits.

* Minor: Changes to the resource would be measurable, although the changes would be small and localized. Impacts would be within or below regulatory limits. Mitigation measures may be necessary to reduce potential effects.

* Moderate: Changes to the resource would be measurable and have localized and potentially regional scale impacts. Impacts would be within or below regulatory limits, but historical conditions would be altered on a short-term basis. Mitigation measures may be necessary to reduce potential effects.

* Major: Changes would be readily measurable and would have substantial consequences on a local and potentially regional level. Impacts would exceed regulatory limits. Mitigation measures to offset the effects would be required to reduce impacts, although long-term changes to the resource would be possible.

Table 2.5-1. PROJECT ALTERNATIVES: SUMMARY OF POTENTIAL EFFECT, COORDINATION AND MITIGATION APPLIED

Affected Environment/ Resource Area	Alternatives	IMPACT				Agency Coordination/ Permits	Mitigation/BMPs	Comments
		Negligible	Minor	Moderate	Major			
Geology 3.2.1	**Alternative A - No Action**	X						No resources affected
	Alternative B - Preferred Alternative	X				Addressed under Act 250, Criterion 9		No resources affected
	Alternative C - New Site Montpelier	X				Addressed under Act 250, Criterion 9		No resources affected
Soils 3.2.2	**Alternative A - No Action**	X						No Effect
	Alternative B - Preferred Alternative		X			Addressed under Act 250, Criteria 4 & 9	Implement BMPs for erosion control during construction	Minor erosion may occur during construction
	Alternative C - New Site Montpelier		X			Addressed under Act 250, Criteria 4 & 9	Implement BMPs for erosion control during construction	Minor erosion may occur during construction
Vegetation 3.2.3	**Alternative A - No Action**	X						No Effect
	Alternative B - Preferred Alternative	X				Addressed under Act 250, Criterion 8		No disturbance or degradation of sensitive plant communities or habitats
	Alternative C - New Site Montpelier	X				Addressed under Act 250, Criterion 8		No disturbance or degradation of sensitive plant communities or habitats
Wildlife 3.2.4	**Alternative A - No Action**	X						No Effect
	Alternative B - Preferred Alternative	X				Addressed under Act 250, Criterion 8		No Significant Effect
	Alternative C - New Site Montpelier	X				Addressed under Act 250, Criterion 8		No Significant Effect

Table 2.5-1. PROJECT ALTERNATIVES: SUMMARY OF POTENTIAL EFFECT, COORDINATION AND MITIGATION APPLIED

Affected Environment/ Resource Area	Alternatives	IMPACT				Agency Coordination/ Permits	Mitigation/BMPs	Comments
		Negligible	Minor	Moderate	Major			
Threatened and Endangered Species 3.2.5	**Alternative A - No Action**	**X**						No rare, threatened, endangered species located within the project area
	Alternative B - Preferred Alternative	**X**				Informal Consultation with U.S. FWS and ANR - completed 4/23/2012		No rare, threatened, endangered species located within the project area
	Alternative C - New Site Montpelier	**X**				Informal Consultation with U.S. FWS and ANR - completed 4/23/2012		No rare, threatened, endangered species located within the project area
Floodplains 3.3.1	**Alternative A - No Action**			**X**		Consultation with State Floodplain Manager required	None proposed.	Most of campus remains unprotected within the 100-year floodplain.
	Alternative B - Preferred Alternative			**X**		Consultation with State Floodplain Manager required. E.O. 11988 – FEMA to complete an 8-Step review.	Multiple mitigation measures proposed including demolition and flood-proofing of buildings located within the 100-year floodplain.	Major steps are being taken to restore floodplain values and prevent future loss of property.
	Alternative C - New Site Montpelier				**X**	Consultation with State Floodplain Manager required. E.O. 11988 – FEMA to complete an 8-Step review.		Half of the proposed site is located within the regulatory floodway. No new construction typically allowed.

Table 2.5-1. PROJECT ALTERNATIVES: SUMMARY OF POTENTIAL EFFECT, COORDINATION AND MITIGATION APPLIED

Affected Environment/ Resource Area	Alternatives	IMPACT				Agency Coordination/ Permits	Mitigation/BMPs	Comments
		Negligible	Minor	Moderate	Major			
Wetlands 3.3.2	**Alternative A - No Action**	**X**				Based on U.S. Fish & Wildlife Wetlands Mapper and ANR Natural Resource Atlas, no wetlands are present within project area.		No impact
	Alternative B - Preferred Alternative	**X**				Based on U.S. Fish & Wildlife Wetlands Mapper and ANR Natural Resource Atlas, no wetlands are present within project area.		BMPs (erosion and sediment controls) during construction will prevent impact to any peripheral wetlands
	Alternative C - New Site Montpelier	**X**				Based on U.S. Fish & Wildlife Wetlands Mapper and ANR Natural Resource Atlas, no wetlands are present within project area.		BMPs (erosion and sediment controls) during construction will prevent impact to any peripheral wetlands
Archeological Resources 4.3.1	**Alternative A - No Action**	**X**				No consultation required.		No ground disturbance proposed.
	Alternative B - Preferred Alternative		**X**			Section 106 consultation required between FEMA and SHPO based on FEMA-State Programmatic Agreement		UVM Consulting Archeology Program to conduct initial site surveys; limited sensitivity suspected
	Alternative C - New Site Montpelier	**X**				Limited Section 106 Consultations between FEMA and SHPO		No undisturbed land exists due to prior construction.

Table 2.5-1. PROJECT ALTERNATIVES: SUMMARY OF POTENTIAL EFFECT, COORDINATION AND MITIGATION APPLIED

Affected Environment/ Resource Area	Alternatives	IMPACT				Agency Coordination/ Permits	Mitigation/BMPs	Comments
		Negligible	Minor	Moderate	Major			
Historic Campus and Peripheral Buildings 3.4.2	**Alternative A - No Action**		**X**			Limited Section 106 Consultations between FEMA and SHPO		Lack of long-term maintenance could lead to deterioration of historic properties.
	Alternative B - Preferred Alternative				**X**	Extensive Section 106 Consultation with SHPO, ACHP, and consulting parties required.	Mitigation activities addressed in Secondary Programmatic Agreement.	Secondary Programmatic Agreement to be developed as umbrella document. Renovation of 14 historic core buildings, demolition of up to 25 buildings, sale of up to 12 buildings,construction of new office building and power house.
	Alternative C - New Site Montpelier	**X**				None required.		No historic properties present.
Recreation 3.5.1	**Alternative A - No Action**	**X**						
	Alternative B - Preferred Alternative	**X**				Coordination required at local levels to resolve concerns.		Improved aesthetics around Vermont Cross Country Trail
	Alternative C - New Site Montpelier	**X**				Coordination required at local levels to resolve concerns.		Expansion may overtax existing recreation path adjacent to the DOL site
Visual Quality 3.5.2	**Alternative A - No Action**	**X**						No changes to existing conditions
	Alternative B - Preferred Alternative		**X**			Addressed under Act 250, Criterion 8	Mitigation possible through compatible design	Proposed design increases visual qualities of historic and new campus
	Alternative C - New Site Montpelier		**X**			Addressed under Act 250, Criterion 8	Difficult to achieve	Replacement structure visually obtrusive.

Table 2.5-1. PROJECT ALTERNATIVES: SUMMARY OF POTENTIAL EFFECT, COORDINATION AND MITIGATION APPLIED

Affected Environment/ Resource Area	Alternatives	IMPACT				Agency Coordination/ Permits	Mitigation/BMPs	Comments
		Negligible	Minor	Moderate	Major			
Transportation 3.6.1	**Alternative A - No Action**	**X**						Traffic volume will remain well below pre-Irene level.
	Alternative B - Preferred Alternative		**X**			Addressed under Act 250, Criterion 8 and through local permitting.		Short-term increase in heavy equipment and truck traffic doing construction and demolition; long-term traffic at or below pre-Irene levels.
	Alternative C - New Site Montpelier		**X**			Addressed under Act 250, Criterion 8 and through local permitting.	May require installation of turning lane and traffic light.	Project may change traffic flow and increase congestion.
Potable Water 3.6.2	**Alternative A - No Action**	**X**						Limited need.
	Alternative B - Preferred Alternative	**X**				Addressed under Act 250, Criteria 2 & 3		Existing allocation from town is sufficient.
	Alternative C - New Site Montpelier	**X**				Addressed under Act 250, Criteria 2 & 3		Sufficient capacity exists.
Wastewater 3.6.3	**Alternative A - No Action**	**X**						Limited need.
	Alternative B - Preferred Alternative	**X**				Addressed under Act 250, Criterion 1		Existing allocation from town is sufficient.
	Alternative C - New Site Montpelier	**X**				Addressed under Act 250, Criterion 1		Sufficient capacity exists.
Stormwater (Water Quality) 3.6.4	**Alternative A - No Action**	**X**						No change to existing system.
	Alternative B - Preferred Alternative		**X**			Addressed under Act 250, Criterion 8 and through State permits	New stormwater retention ponds to be constructed.	New Stormwater Management System will be installed
	Alternative C - New Site Montpelier		**X**			Addressed under Act 250, Criterion 8 and through State permits	New stormwater retention ponds to be constructed.	New Stormwater Management System will be installed

Table 2.5-1. PROJECT ALTERNATIVES: SUMMARY OF POTENTIAL EFFECT, COORDINATION AND MITIGATION APPLIED

Affected Environment/ Resource Area	Alternatives	IMPACT				Agency Coordination/ Permits	Mitigation/BMPs	Comments
		Negligible	Minor	Moderate	Major			
Air Quality/Emissions 3.7.1	**Alternative A - No Action**	X						Limited use of existing boiler will continue to produce particulate matter.
	Alternative B - Preferred Alternative		X			Air Pollution Control Permit required to construct and operate new heat plant	Biomass boilers will be equipped with an advanced particulate matter emission control system; short-term construction will require dust abatement.	New heating system will improve air quality, as well as quality of air conditioning
	Alternative C - New Site Montpelier		X			Air Pollution Control Permit To Construct and Operate required	short-term construction will require dust abatement.	Modern boilers are expected to keep emission rates low.
Asbestos 3.7.2	**Alternative A - No Action**	X						No disturbance.
	Alternative B - Preferred Alternative		X			Certification and State permits required	Conduct any remediation required.	An initial inspection survey will assess presence and extent of asbestos for both demolitions and anticipated repairs.
	Alternative C - New Site Montpelier		X			Certification and State permits required	Conduct any remediation required.	An initial inspection survey will assess presence and extent of asbestos for both demolitions and anticipated repairs.
Fuel Tanks 3.7.3	**Alternative A - No Action**		X			Comply with Vermont Underground Storage Tank Regulation	Conduct any site remediation required.	Abandonment of site would require removal of all underground storage tanks.
	Alternative B - Preferred Alternative		X			Comply with Vermont Underground Storage Tank Regulation	Remove all underground storage tanks. Conduct site assessment & any site remediation required.	4 underground storage tanks are located on-site: (2) 10,000 gallon and (2) 20,000 gallon capacity. Past spills have occurred.
	Alternative C - New Site Montpelier	X				Comply with Vermont Underground Storage Tank Regulation	Conduct any site remediation required.	Old tank replaced in 2008. Recent study concluded no contaminated soil exists.

Table 2.5-1. PROJECT ALTERNATIVES: SUMMARY OF POTENTIAL EFFECT, COORDINATION AND MITIGATION APPLIED

Affected Environment/ Resource Area	Alternatives	IMPACT				Agency Coordination/ Permits	Mitigation/BMPs	Comments
		Negligible	Minor	Moderate	Major			
Structural Debris and Dust 3.7.4	**Alternative A - No Action**	X						No structural debris created.
	Alternative B - Preferred Alternative			X		Addressed under Act 250, Criterion 8; comply with Vermont's Solid Waste Mgt. Plan	Construction Site Waste Management Plan will be developed and implemented.	Estimated 15,000 T of structural debris will be generated.
	Alternative C - New Site Montpelier		X			Addressed under Act 250, Criterion 8; comply with Vermont's Solid Waste Mgt. Plan	Construction Site Waste Management Plan will be developed and implemented.	Estimated 2,700 T of structural debris will be generated. Granite veneer can most likely be recycled.
Noise 3.7.5	**Alternative A - No Action**	X						
	Alternative B - Preferred Alternative		X			Comply with an conditions imposed by Act 250 permit or by Town	Follow any permit requirements.	Short-term increase in noise from construction and demolition activities. Long-term: no measurable impact for residential area.
	Alternative C - New Site Montpelier		X			Comply with an conditions imposed by Act 250 permit or by Town	Follow any permit requirements.	Short-term increase in noise from construction and demolition activities. Long-term: no measurable impact for residential area.
Community Economics 3.8.1	**Alternative A - No Action**				X	Addressed under Act 250, Criterion 9		Abandonment of Waterbury Complex would result in substantial economic decline.
	Alternative B - Preferred Alternative			X		Addressed under Act 250, Criterion 9	Community planning activities have identified multiple uses for excess state properties within the campus.	Reoccupation and revitalization of complex will Increase growth and economic vitality of community.
	Alternative C - New Site Montpelier			X		Addressed under Act 250, Criterion 9		May create upturn in Montpelier's economic base while resulting in economic decline in Waterbury.

Table 2.5-1. PROJECT ALTERNATIVES: SUMMARY OF POTENTIAL EFFECT, COORDINATION AND MITIGATION APPLIED

Affected Environment/ Resource Area	Alternatives	IMPACT				Agency Coordination/ Permits	Mitigation/BMPs	Comments
		Negligible	Minor	Moderate	Major			
Operational Considerations 3.8.2	**Alternative A - No Action**	**X**				None required		Only minor operational considerations.
	Alternative B - Preferred Alternative			**X**		None required		Work environment substantially improved.
	Alternative C - New Site Montpelier		**X**			None required		Work environment improved. Expansion cannot occur without additional land and zoning changes.
Environmental Justice 3.8.3	**Alternative A - No Action**	**X**				None required		Population statistics indicate that the project will have no disproportionate effect on a minority population.
	Alternative B - Preferred Alternative	**X**				None required		Population statistics indicate that the project will have no disproportionate effect on a minority population.
	Alternative C - New Site Montpelier	**X**				None required		Population statistics indicate that the project will have no disproportionate effect on a minority population.
Climate Change 3.9	**Alternative A - No Action**	**X**				None required		No attempt to integrate into planning process.
	Alternative B - Preferred Alternative	**X**				None required		Floodplain relief may be a positive accommodation for long-term climatic change.
	Alternative C - New Site Montpelier	**X**				None required		No attempt to integrate into planning process.

3.0 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES AND MITIGATION

In order to meet the proposed purpose and need of a permanent state office facility sufficient to house the majority of displaced state agency staff, an environmental review was conducted to analyze all appropriate natural and human environmental issues associated with the alternate sites. Background research, data compiled in Freeman French and Freeman's ***Waterbury Office Complex Feasibility Study*** (March, 2012), field observations, and an extensive review of census statistics, wetland, floodplain and soils maps, threatened and endangered species information, hazardous materials databases, archaeological and historic structures databases and National Register nominations, and other information was completed. Consultation with Waterbury Town officials, U.S. Army Corps of Engineers, State River Corridor and Floodplain Manager, various program staff within the VT Department of Environmental Conservation, VT State Historic Preservation Office and the Coordinator of the District 5 Environmental Commission was initiated.

The following sections describe the affected environment (including regulatory considerations) and environmental consequences of the project alternatives on physical, biological, cultural, and social resources in the projects' vicinity. The need for mitigation to address adverse effects is noted; specific mitigation requirements will be addressed primarily through the Act 250 and state regulatory agency review processes (see below). The level of detail for each resource topic is commensurate with the scale of the project and potential impacts of the project alternatives on that resource.

3.1 Initial Scoping – Environmental Laws Not Addressed in Detail

The CEQ and FEMA regulations (44 ***CFR*** Section 10) that implement NEPA require NEPA documents to be concise, focus on the issues relevant to the project, and exclude extraneous background data and discussion of regulatory issues that are not evaluated in this EA.

Environmental reviews typically conducted for FEMA-funded projects consider a variety of federal environmental laws to determine if they are triggered by a proposed action. The following laws were considered, but were determined not to apply to actions related to any of the three alternatives: ***Coastal Barrier Resources Act; Coastal Zone Management Act; Fish and Wildlife Coordination Act; Migratory Bird Treaty Act***; and the ***Wild and Scenic Rivers Act***.

Under FEMA's Public Assistance Program all applicants are required to comply with all federal, state and local environmental laws and regulations. The principal regulatory mechanism to ensure that the requirements of state and local laws and ordinances are met is ***Act 250*** (10 ***VSA*** Chapter 151) – Vermont's Development and Control Law. Act 250 is administered by the District Environmental Commissions of the Natural Resources Board. For either Alternative B or C, the Act 250 District 5 Commission must ensure that the development meets the following 10 criteria:

1. Will not result in undue water or air pollution, including:

   A. Headwaters
   B. Waste disposal (including wastewater and storm water)
   C. Water Conservation
   D. Floodways
   E. Streams
   F. Shorelines
   G. Wetlands
2. Has sufficient water available for the needs of the development.
3. Will not unreasonably burden any existing water supply.
4. Will not cause unreasonable soil erosion or affect the capacity of the land to hold water.
5. Will not cause unreasonably dangerous or congested conditions with respect to highways or other means of transportation.
6. Will not create an unreasonable burden on the educational facilities of the municipality.
7. Will not create an unreasonable burden on the municipality in providing governmental services.
8. Will not have an undue adverse effect on aesthetics, scenic beauty, historic sites or natural areas, and 8(A) will not imperil necessary wildlife habitat or endangered species in the immediate area.
9. Conforms with the Capability and Development Plan which includes the following considerations:
   A. The impacts the project will have on the growth of a town or region;
   B. Primary agricultural soils;
   C. Productive forest soils;
   D. Earth Resources;
   E. Extraction of earth resources;
   F. Energy conservation;
   G. Private utility services;
   H. Costs of scattered development;
   I. ***There is no (I) under this Criterion***
   J. Public utility services;
   K. Development affecting public investments; and
   L. Rural growth areas
10. Is in conformance with any local or regional plan or capital facilities program.

The Act 250 program provides a public, quasi-judicial process for reviewing and managing the environmental, social and fiscal consequences of major subdivisions and developments in Vermont. ***Act 250*** considers a number of environmental resource variables covered in this EA. However, the specifics of these reviews may differ. The Act 250 review may incorporate other permits required by the State of Vermont including, but not limited to, permits issued by the Agency of Natural Resources, review by the Division for Historic Preservation, and review by the Agency of Agriculture. ***Act 250*** also considers town and regional plans.

Town ordinances and plan reviews by the Development Review Boards will address local concerns with respect to both long-term and short-term impacts from construction and demolition. Such mitigating measures as restricted hours of construction, trip generation, traffic control, and other short term impacts are addressed thru conditions imposed by permits. In

addition, municipal Planning Commissions can comment on Act 250 reviews with respect to conformance with the municipal plan. The Village of Waterbury will be a party to the Act 250 review, so trustees could raise any issues of concern. Both involve publicly-warned meetings so that neighbors can provide input as well. Construction of new structures, repair of older structures, and rehabilitation of historic buildings will also be required to meet a number of ***Life Safety Codes***, as well as ***ADA*** standards. See FFF, ***Waterbury Office Complex Feasibility Study***, II, Chapter 14 for an elaboration of details. No further consideration of the requirements under Act 250 or local reviews are discussed.

3.2 **Terrestrial Resources**

Terrestrial resources combine to form a mosaic landscape. Factors related to geology, soils, vegetation and wildlife are considered during project development to determine if one or more actions could adversely affect one or multiple resources or offset the balance among them.

3.2.1 **Geology**

3.2.1.1 *Affected Environment*

Underlying bedrock geologic features significantly affect regional and local topographic variability, forest type, wildlife habitat, weather and have been exploited for mineral and building resources. All Alternatives are located in valley bottom settings. The WSOC (Alternative A & B) sits on a series of early to late Holocene alluvial terraces and the inner margins of a modern developing floodplain; the Department of Labor Building in Montpelier (Alternative C) is situated on a mid-late Holocene alluvial terrace. Bedrock outcrops are rare and extractive quarries are not located nearby. There are no unique or protected geologic resources or geologic hazards in either project vicinity.

3.2.1.2 *Environmental Consequences*

No environmental consequences are recognized for any alternative.

3.2.2 **Soils**

3.2.2.1 *Affected Environment*

The physical landscape encompassed by the APE of the WSOC consists of a level, early Holocene terrace composed mostly of fine silts and sands deposited in a pro-glacial lake or as glacial outwash, a gently sloping terrace front, and a broad floodplain that extends southwest to the Winooski River. Based on studies of the floodplain's geomorphology, it went through a period of active deposition and aggregation during the nineteenth century when Vermont's uplands were largely clear cut. By the early twentieth century, flood shoots related to higher magnitude flood events had formed and active deposition had slowed substantially (Thomas 1989). A total of 47 buildings, parking areas and roadways dominate much of the terrace, terrace front and the inner margins of the historic floodplain.

Dominant soils within the Waterbury Complex are mapped as Salmon very fine sandy loams and Sunday fine sand. A much smaller acreage of alluvial soils is located in the meadow west of the complex. These are mapped as Waitsfield silt loam and Weider very fine sandy loam. All of these soils are deep and level to gently sloping. Salmon, Sunday and Waitsfield soils have water tables that are typically five feet below surface. The water table is higher in Weider soils from late fall to late spring. All soils are well suited for cultivation.

The Montpelier project area is located on an alluvial terrace that is nearly fully built out with offices and parking areas. Soils surrounding the DOL are mapped as Weider very fine sandy loam. Substantial quantities of fill are likely to be present.

Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture (USDA) recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland. The ***Farm Protection Policy Act*** (7 USC 4201) states, "the purpose of the Act is to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses". NRCS assists federal agencies to determine if prime or unique farmlands might be affected by an undertaking; it may also assist to identify farmland that is determined by the appropriate state or local government to be farmland of statewide or local importance. Salmon, Sunday and Waitsfield soils are considered soils of state agricultural interest. Weider soils are considered prime agricultural land. However, such soils already affected by prior urban development are not subject to this Act.

Within the WSOC, soils of state interest are mapped as surrounding the heavily built out part of campus. Prime agricultural Weider soils are mapped well west of the proposed APE in the large hay field southwest of Randall Street. The DOL Building site is mapped as Weider soils.

3.2.2.2 *Environmental Consequences*:

The No Action Alternative would result in negligible short-term or long-term impacts on soil resources due to incidental soil disturbance.

Under the Proposed Action, short-term impacts on soil resources would be limited to construction-related activities associated with relocation of the power plant, demolition of approximately 20 buildings, mitigation measures aimed at flood proofing the rehabilitated historic core complex and excavation of the proposed flood mitigation area during which soil exposure might last for one or two construction seasons. Overall, minimal site disturbance would have short-term minor adverse impacts. The potential for substantial soil erosion impacts would be reduced with the implementation of localized Best Management Practices when excavation is required. No additional conversion of previously undisturbed agricultural soils will occur. No consultation with NRCS under the ***FPPA*** is required.

With the Alternative Action, land surrounding the DOL in Montpelier is covered with roadways, parking lots, a large structure and small grassy areas. Under the ***FPPA***, no consultation with NRCS, UDSA is required. It is anticipated that short-term impacts on soil resources would be limited to soil exposure and minor erosion due to construction-related

activities. Overall, the project would have short-term minor adverse impacts from construction during one or two construction seasons. The potential for limited soil erosion impacts would be reduced with the implementation of BMPs.

No project would have a significant unavoidable adverse effect on soil resources.

3.2.3 **Vegetation**

3.2.3.1 *Affected Environment*

The areas of potential effect related to the WSOC and DOL Building have been developed for decades. The State of Vermont manages these facilities as a campus of one or more office buildings; surrounding areas are predominantly maintained as lawns or have been paved over. Within the Waterbury Office Complex, a few old trees line roadways or paths; shrubs have been planted for landscape purposes. A sweeping lawn and drive dominate the landscape between South Main Street and the early buildings associated with the Vermont Hospital for the Insane constructed in the 1890s. A large field southwest of the complex is maintained in hay and will remain primarily unaffected by actions associated with No Action and Proposed Alternatives. Vegetative cover of lands surrounding the DOL Building in Montpelier is limited to a few decorative trees and landscape shrubs.

3.2.3.2 *Environmental Consequences*

No disturbance or degradation of sensitive plant communities or habitats will occur; no conflicts with applicable federal, state, or local regulations protecting native vegetation are anticipated with respect to any of the alternatives.

3.2.4 **Wildlife**

3.2.4.1 *Affected Environment*

The Waterbury Office Complex is situated solidly within a village setting. It is bordered on the northwest, northeast and southeast by Randall Street, South Main Street and Healy Court along which linear arrangements of residential and commercial structures occupy relatively small lots. A large floodplain maintained as open space, a thin wooded riparian buffer and the Winooski River dominate the land to the west and south. The wooded riparian buffer provides a home for small animals and birds, but it is disconnected from similar habitats along the river. No habitat for larger animals exists within the property; squirrels and moles are most prevalent within the developed part of the campus.

The DOL building, small grassed area and parking lots dominate a roughly 5-acre parcel. Except for occasional squirrels, mice and birds in season, wildlife habitat does not exist.

3.2.4.2 *Environmental Consequences*

Short-term phases of construction and demolition and long-term re-occupation or expansion of the WSOC campus or DOL site will have no significant effect on wildlife habitat. A brief

period of adjustment to increased noise levels might be anticipated during the construction phase.

3.2.5 **Threatened and Endangered Species**

3.2.5.1 *Affected Environment*

The ***Endangered Species Act*** (ESA) serves as the primary federal protection for species and habitat, by providing a formal designation and implementing programs through which the conservation of both populations and habitats may be achieved. The ***Magnuson Stevens Fishery Conservation and Management Act*** (MSA) requires federal agencies that fund activities that may adversely affect the essential fish habitat (EFH) of federally managed fish species to consult regarding the potential adverse effects of their actions on EFH.

There are no federally-listed, state-listed or candidate threatened or endangered species, nor any critical habitats that might be affected by Alternatives A-C. There are no essential fish habitats of federally-managed species in western and central Vermont. Consultation with the Natural Heritage Program, VT Agency of Natural Resources has indicated that no state-listed threatened or endangered species are present within or close to either project area.

3.2.5.2 *Environmental Consequences*

None identified. Further consideration of ESA or MSA is not required.

3.3 **Aquatic Resources**

Most of Washington County is drained by the Winooski River and its tributaries. The Winooski River has seven important tributaries, three of which enter from the north: the Little River joins below the village of Waterbury; the North Branch joins at the city of Montpelier; and Kingsbury Branch joins in East Montpelier. Four branches flow from the south. The Huntington River comes in at the village of Jonesville; the Mad River joins in Middlesex; the Dog River enters just west of the city of Montpelier; and the Stevens Branch joins just north of Montpelier (Figure 3.3-1). Between Montpelier and Waterbury, the stream gradient is approximately 1%.

The corridor along the main stem of the Winooski River has been subject to agricultural and development pressure; has experienced extensive channel straightening due to development of highways and railroads parallel to the river; and has exhibited historically active movement, channel adjustment, and meander migration. In particular, the reach of the river in Waterbury area has experienced "significant channel and floodplain modifications which have resulted in a change in platform, profile, and dimension such that the stream is no longer in balance with the flow and sediment regime of its watershed." Due to these dynamics, the river is undergoing "significant channel adjustment" and may pose a continued flooding threat (BCE, 2007:2, 31, 37). As a likely consequence, flood waters during Tropical Storm Irene reached elevations some 2-3 feet higher than those established for the 500-year event on the Flood Insurance Rate Map (FIRM) for Waterbury Village.

FEMA-funded projects are required to comply with the ***Clean Water Act*** (CWA). Actions affecting waters of the U.S. that involve the discharge of dredged or fill material into waters of

the U.S., including wetlands, are regulated by Section 404 of the CWA. Section 401 of the CWA, administered by the VT Agency for Natural Resources, requires that activities permitted under Section 404 meet state water quality standards.

Although both the WSOC and DOL Building sites border the Winooski River, proposed demolition or construction at either site does not involve in-stream dredge or fill. Neither the Winooski nor other streams or wetlands will be directly affected by any of the Alternatives. Any indirect effects from resulting storm water discharge at either site can be addressed through a ***National Pollutant Discharge Elimination System*** (NPDES) permit. No further consideration is provided.

Under State regulations, efforts are required to maintain a 100-ft riparian buffer adjacent to streams and rivers. With the exception of a wastewater pump station that serves the WSOC, any construction and disturbance associated with the Preferred Alternative should not encroach within 300-500 feet of the east bank of the Winooski River, outside the required buffer zone. No such buffer can be achieved adjacent to the DOL Building, as only a narrow walking trail will remain between the proposed structures and the river bank.

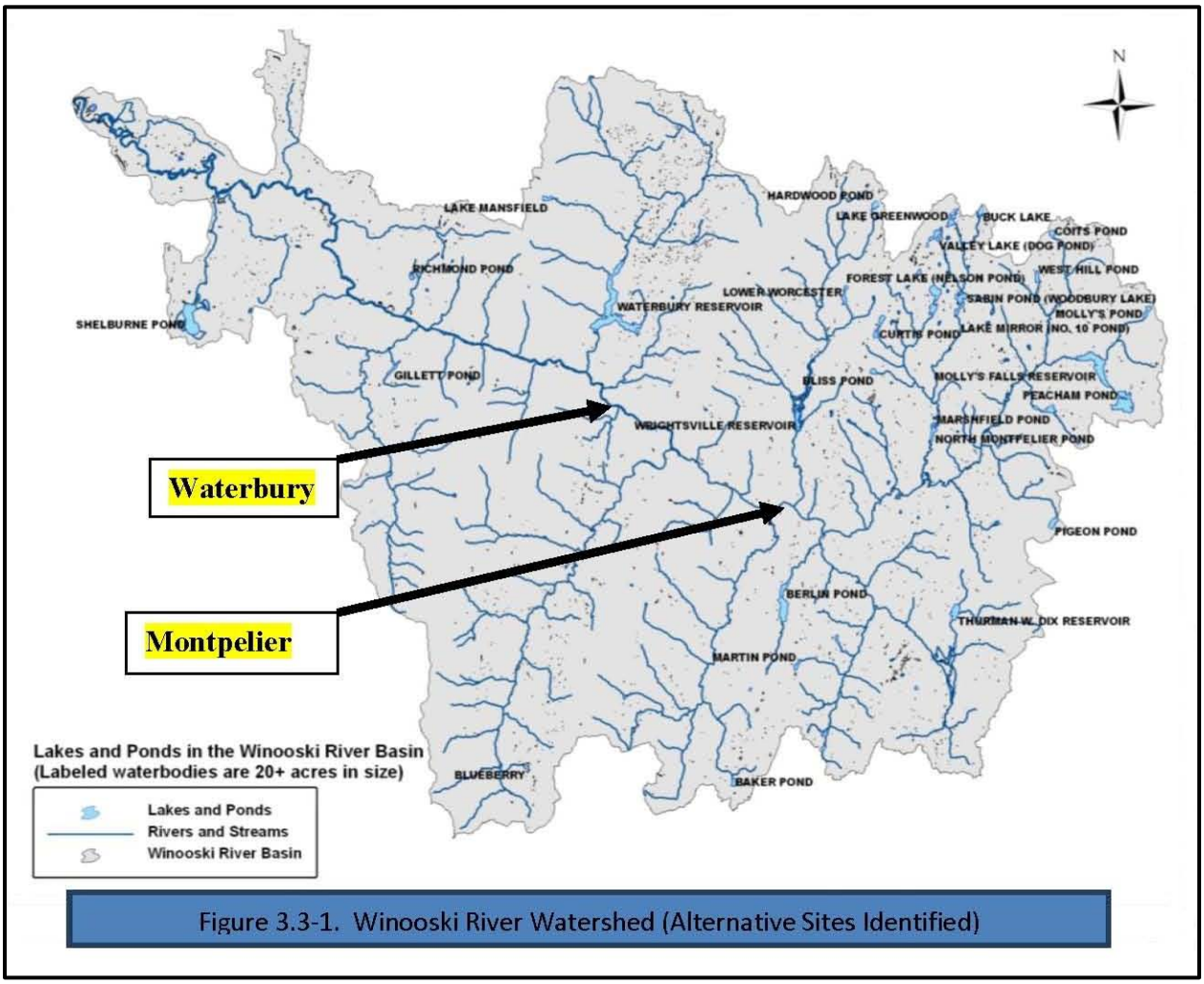

Figure 3.3-1. Winooski River Watershed (Alternative Sites Identified)

3.3.1 **Floodplains**

3.3.1.1 *Affected Environment*

FEMA's National Flood Insurance Program (NFIP) publishes maps identifying areas at risk from potential flooding. Flood hazards are identified for areas subject to flooding from 100- and 500-year storm events.

No Action and Proposed Alternative - On 04/09/2012, a formal determination was made by the State River Corridor and Floodplain Manager that, with the exception of a small pump lift station on the western fringe of the complex, all buildings, including the Power House and Agricultural/ Department of Environmental Conservation Laboratory, are located outside of the regulatory floodway. Most buildings within the WSOC are located in the Special Flood Hazard Area of the Winooski River as mapped on the preliminary Digital FIRM for the Village of Waterbury (Figure 3.3-2). A few structures situated closer to Main Street are built on higher ground, within the 500-year floodplain. These buildings include Public Safety, elements of the 1890s historic core of the Vermont State Hospital, Hanks, Logue Cottage, Ladd Hall, 121 and 123 Main Street, and part of Wasson Hall.

Alternative C - Based on a preliminary Digital FIRM created by the State's Floodplain Manager on May 2, 2012, the DOL building in Montpelier is located in the Special Flood Hazard AE Zone. The parking area behind is located in the 100-year floodway (Figure 3.3-3).

Executive Order 11988* (*Floodplain Management*)** and ***Executive Order 11990* (*Protection of Wetlands*)** require federal agencies to reduce the risk of flood loss; minimize the impact on human health, safety, and welfare; and restore the natural and beneficial values served by floodplains and wetlands. Under FEMA's implementing regulations at 44 ***CFR (***Code of Federal Regulations***) Part 9, FEMA must evaluate the potential effects of any actions it may take in a floodplain and consider alternatives to avoid adverse effects. For FEMA, this would include providing funds for the repair, construction and/or improvements of facilities.

Further guidance found in 44 ***CFR***, Part 9 clarifies the EO with respect to development in floodplains and emphasizes the requirement for agencies to select alternative sites for projects outside the floodplains, if practicable, and to develop measures to mitigate unavoidable impacts.

The guidelines address an 8-step process that agencies should carry out as part of their decision-making on projects that have potential impacts to or within the floodplain. The 8 steps, which are summarized below, reflect the decision-making process required in Section 2(a) of the Order.

1. Determine if a proposed action is in the base floodplain (that area which has a one percent or greater chance of flooding in any given year).
2. Conduct early public review, including public notice.
3. Identify and evaluate practicable alternatives to locating in the base floodplain, including alternative sites outside of the floodplain.
4. Identify impacts of the proposed action.

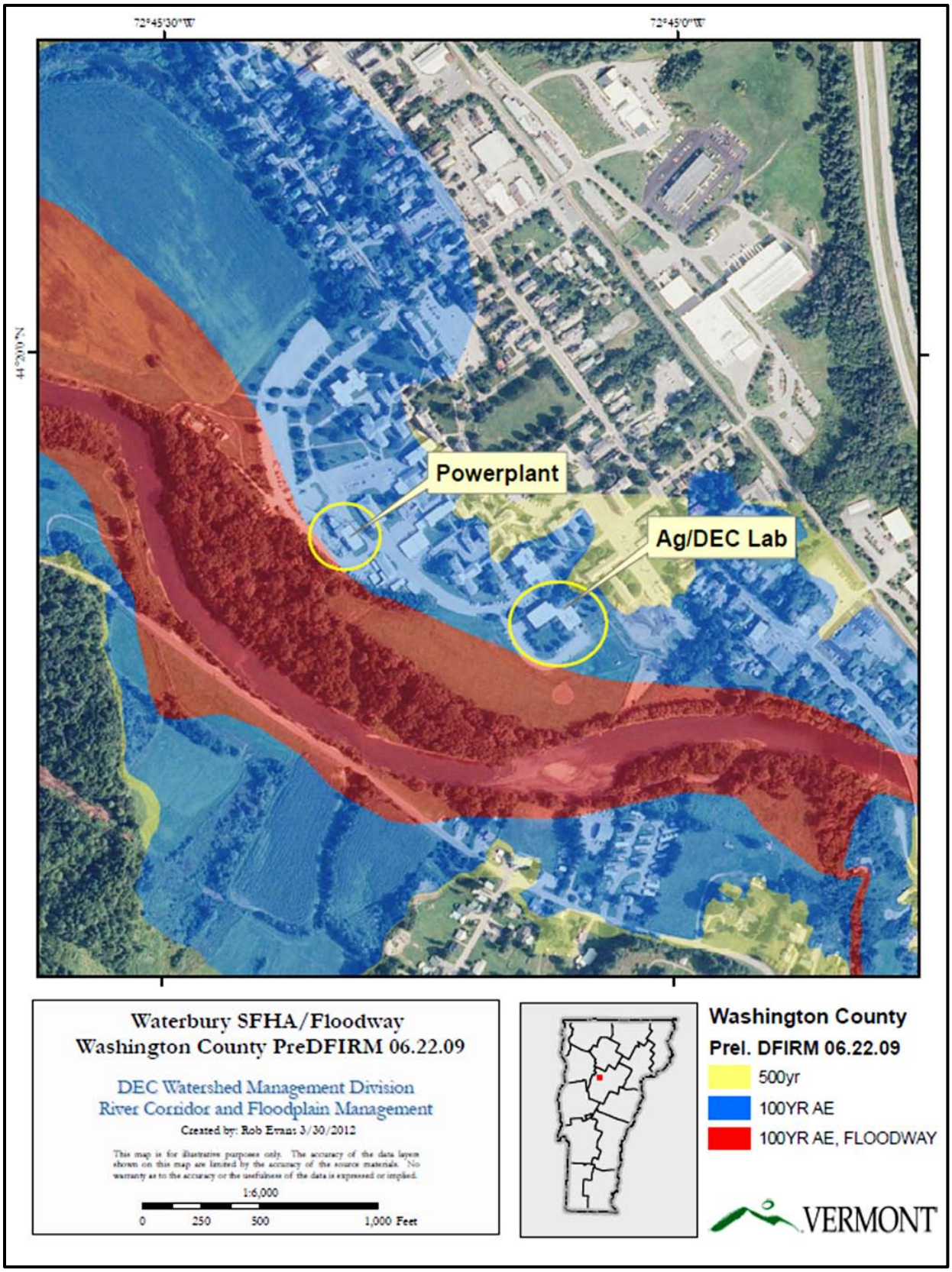

Figure 3.3-2. Preliminary DFIRM for WSOC Portion of Waterbury Village.

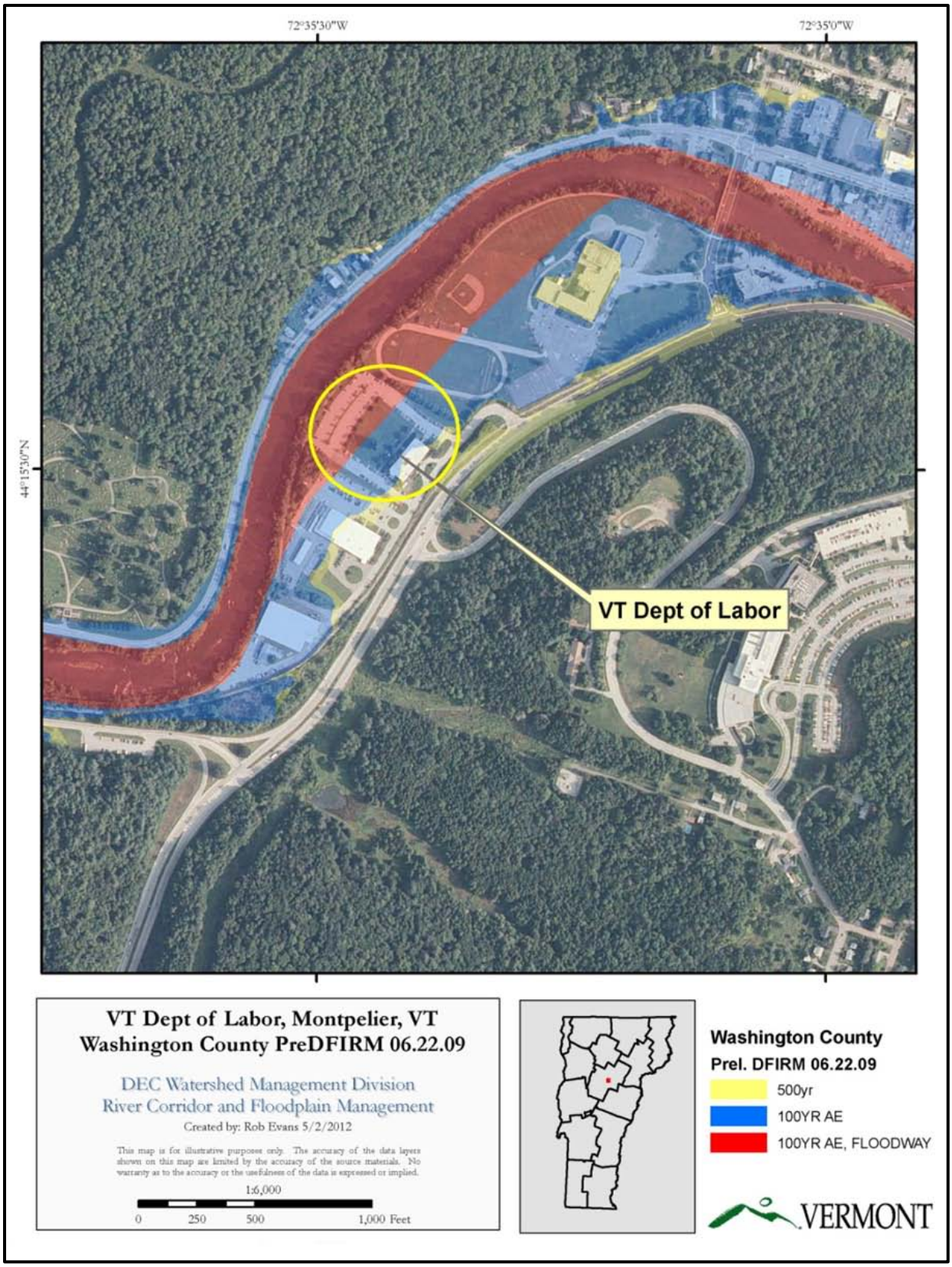

Figure 3.3-3. DFIRM for Proposed Redevelopment of the DOL Site in Montpelier.

5. If impacts cannot be avoided, develop measures to minimize the impacts and restore and preserve the floodplain, as appropriate.
6. Reevaluate alternatives.
7. Present the findings and a public explanation.
8. Implement the action.

Consultation with the local Zoning Administrator and State Flood Insurance Program Coordinator pursuant to 10 VSA Chapter 32 will be required as part of the local and state planning process.

3.3.1.2 *Environmental Consequences*

No Action – Under this alternative, virtually all properties within the WSOC would remain subject to high magnitude floods, along with the concomitant expense of clean-up and stabilization should a flood occur. In addition, in its built-out condition in terms of structures, extensive paved surfaces and filled parking areas, no options exist to restore or preserve the natural and beneficial values served by this Winooski River floodplain.

Proposed Alternative – Based on the facts that virtually the entire WSOC campus lies within the 100-year/500-year floodplain (Figure 3.3-2), that no undeveloped area of comparable size exists within the village, and that the WSOC is a significant element of the economic base of the village and town, rebuilding the $ 100 million complex nearby or in another community is both spatially and economically unfeasible, i.e. no practicable option for relocating the entire campus completely out of the floodplain has been identified. However, significant topographic variability does exist within the campus, thus allowing flexibility with respect to individual buildings. For this reason, strategies focus on reducing the risk of future flood loss and minimizing the impact of floods on human health, safety and welfare through various measures. Consideration is also given to reversing the encroachments on the floodplain that have occurred during the past century.

Proposed actions incorporate a significant element of demolition, avoidance, minimization, and mitigation measures into project design and implementation. Even though losses did not exceed the substantial damage threshold, at least twenty buildings most vulnerable to future flooding, comprising over 300,000 square feet, are slated to be demolished (Figure 2.3-2). These buildings are located on the modern 100-year floodplain with first-floor levels below 428.5 feet, the elevation of floodwaters during Irene. To compensate for the loss of such substantial functional space, a new office building will be constructed on the interior margin of the modern floodplain, but with occupation space elevated above the projected 500-year flood level. Among the group of buildings to be demolished are three that were used by the Vermont State Hospital to house mentally ill patients and attendant staff -- Dale Building, B Building and the Old Storehouse. This critical facility will be permanently relocated to one or more alternate sites beyond the WSOC campus. With the exception of its 1925 chimney, which will be retained as an historic element of the complex, the boiler house will be demolished and a new facility constructed whose functional components will be elevated above the 500-year floodplain.

To complement the working space provided by the new office building, 13 buildings (117,673 square feet) in the historic core of the complex will be fully renovated to modern open space standards. These structures are situated along the edge of an alluvial terrace above the modern developing floodplain, at the highest point on the WSOC campus. Even during Irene, when floodwaters reached 2 feet above the projected 100-year level, the first floors of these buildings were not reached. However, their basements were flooded to depths up to five feet, primarily by water surging through the utility tunnels. Dry flood-proofing of the buildings in the historic core is recommended in the FFF study. Proposed procedures include using flowable concrete to address hydrostatic pressure, coating/sealing the wood framing of the sills and underside of the first floor joists, and hardening the windows to withstand possible floodwaters. Additional mitigation measures include removing all mechanical, electrical, and plumbing (MEP) services from the lower levels and away from the hazard of flooding in the future, as well as moving all elevator controls out of the lower level and developing a telephone data entrance/hub room in an area above the threat of flooding.

The Public Safety Building and Forensics Lab on the southeastern margin of the WSOC was minimally affected by flooding through a utility tunnel and was temporarily abandoned during the event due primarily to loss of power and other utilities. It was reoccupied within a few months of Irene. Proposed mitigation strategies include installation of a "submarine" type door at the lower entrance to the Public Safety Building, as well as installation of two sump pumps and sealing all pipe entrances against water infiltration, moving elevator controls above the height of potential flooding and developing a secondary electric power source.

The sale of up to 14 peripheral buildings is proposed for potential redevelopment, the majority of which are located in former residential areas or leased for other uses. Several of these properties may also be demolished and new buildings constructed that meet modern flood codes. Waterbury is a participating community in the NFIP.

The demolition of low-lying buildings not only negates the potential cost of future flood damage, but paves the way for remediation of the floodplain as well, by reclaiming some of the floodplain's original storage capacity. Removing existing tarmac and deepening a roughly 9-acre area behind the campus will also increase the area of flood storage and reduce the impact of future flooding (Figure 2.3-4).

These actions, including removing a significant number of buildings from the floodplain, elevating all office space above the 100-year flood elevation (either directly through new construction or by floodproofing the historic core) and lowering current roads and parking areas to restore former storage capacity, would have moderate beneficial long-term effects on floodplain values and substantially reduce the potential for future flood losses. Finally, the State and Village propose to conduct a review of the "choke point" downstream of the WSOC at the Winooski Street Bridge to determine if multiple flood mitigation strategies might be used in tandem to reduce flood inundation in the WSOC and within the Village. This study has strong support from village residents. All of these measures contribute to meeting the intent of ***EO 11988*** and ***44 CFR, Part 9.***

Alternative C - The DOL site sits upstream of the Waterbury Complex and there is less of a catchment area to contribute to major flooding. As a result, flood risk is slightly lower. However, while the current structure is located within the designated 100-year floodplain, the preliminary DFIRM indicates a major impediment to an expanded use of this site. Alternative C is to demolish the three-story DOL building of about 53,500 square feet and replace it with a five-story building of 227,760 square feet. This building would be attached to a four-level parking structure of roughly 60 x 180 feet. The principal mitigation strategy proposed for the new structures is to elevate any occupied space above the 100-year flood level.

This substantially expanded structure, oriented perpendicular to the river, would significantly encroach on the floodway of the Winooski River. This would be particularly problematic given the fact that there is virtually no floodplain on the opposite side of the river to absorb any resulting increased flow during flood events. In addition, construction of this or any other site would continue to leave the Waterbury floodplain in its current condition with little or no chance for remediation.

Under ***EO 11988*** and 44 ***CFR*** Part 9.11(d)(1), FEMA would not participate in a project that involved new construction in a floodway unless all other practicable alternative sites had been considered and the Regional Administrator had determined that the necessity to build the structure at the DOL site outweighed the need to maintain the values of the floodplain. It is also extremely unlikely that this expanded structure and connected parking facility could be constructed in a floodway under NFIP flood ordnances without demonstrating an extreme need and without obtaining a variance to Montpelier's floodplain ordinance.

3.3.2 **Wetlands**

3.3.1.1 *Affected Environment*

Neither the USFWS National Wetlands Inventory (NWI) maps nor the Vermont Agency for Natural Resources' Natural Resource Atlas show any wetlands associated directly with the WSOC or DOL Building. Soils mapped by the Natural Resources Conservation Service (NRCS) and described in the ***Soil Survey of Washington County*** are Salmon, Sunday, Waitsfield and Weider, which are well-drained, non-hydric soils. Wetlands are present along the river south and west of the WSOC facility, but these are located well away from the site of any proposed action.

EO 11990 **(*Protection of Wetlands*)** requires federal agencies to take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial effects of wetlands. Federal agencies, in planning their actions, are required to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided.

In addition, federal agencies are required under 44 ***CFR*** Part 9 to provide public notice and review of plans for actions in floodplains and wetlands. The public notice for this disaster and public review of the Draft EA meet FEMA's public notice and review obligations.

3.3.1.2 *Environmental Consequences*

The No Action Alternative, the Proposed Alternative, and Alternative C in Montpelier would have no effect on wetlands. Wetland resources pertinent to CWA Section 404, the U.S. Army Corps of Engineers' *Programmatic General Permit for Vermont*, and those subject to local jurisdiction are not present in the affected environments. No further action under ***EO 11990*** is required by FEMA.

3.4 **Historic Resources**

Cultural resources include properties of historical, cultural, and/or archaeological significance. The ***National Historic Preservation Act*** (1966) defines a historic property as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the National Register. Criteria for listing a property on the National Register of Historic Places are found at 36 ***CFR*** Part 60. Two types of historic properties may be associated with the WSOC and DOL parcels – archaeological sites and historic buildings.

3.4.1 **Archaeological Resources**

3.4.1.1 *Affected Environment*

Native American communities have lived in present-day Vermont for approximately 11,000 years. The archaeological remains they left behind are the only tangible link to their past. Archaeological sites have been identified along the Winooski River and in its tributary drainages dating from the initial period of human migration into Vermont following retreat of the glaciers. Chance finds of Indian artifacts are reported in nineteenth-century town histories; archaeological surveys conducted during the past 30 years have identified and sometimes explored specific sites.

Alternative A and B - Three professional archaeological surveys have been conducted within or in close proximity to the Waterbury Office complex. As part of the planning process for building the Water Resources and Agricultural Laboratory, a Phase 1A archaeological survey was conducted to assess the probability of finding a prehistoric site (Thomas 1988). Based on the geological profiles exposed in three long backhoe trenches, higher portions of the terrace front were found to contain fairly old flood deposits and several buried soil horizons that represent former surfaces suitable for occupation. Subsequent sampling of these sediments did not lead to the identification of any Native American cultural deposits. At lower elevations, the entire sequence of flood deposits dates to the nineteenth and early twentieth centuries. These have no archaeological potential.

Two later studies, one located just upstream where a new bridge was planned across the Winooski River identified evidence of a small Native American camp site, most likely dating to the past 1,000 years (Thomas 1989). A more recent survey conducted to evaluate the archaeological sensitivity of a site proposed for the Forensic Lab within the WSOC again identified evidence of a very brief Native American occupation of unknown age (Mandel, Kenny and Crock 2011). Although indications of past Native American use of the general project area clearly exist, the extensive excavation, construction and filling that have occurred

throughout much of the Waterbury campus suggest that the potential for a significant prehistoric site to survive intact is low.

Archaeological deposits associated with early historic period residential or industrial sites can often yield valuable information about aspects of daily life and early historic settlement that are not often reported. Although Waterbury was granted a charter in 1763, only twelve of the First Division lots were located in what became Waterbury Village (A Plan of the Town of Waterbury on Onion River, 1803). Late eighteenth and early nineteenth-century settlement here was sparse. By 1858, however, a thriving village existed. Houses and businesses were focused near the intersection of Main and Stowe Streets; residences extended east along both sides of Main Street past a then recently constructed station of the Central Vermont Railroad. In 1873, the pattern of small residential lots focused along Main Street remained unchanged. The land between the back of these lots and the Winooski River seems to have remained undivided. The three First Division lots currently encompassed within the Waterbury Office Complex were owned by Dr. H. Fales, D.C. Caldwell and W.W. Randall and were either unimproved or used for agricultural purposes (H.F. Walling (1858) ***Map of Washington County, Vermont***; F.W. Beers (1873) ***Atlas of Washington County, Vermont***). No significant historic archaeological sites are anticipated within the area affected by Alternative A or B.

Alternative C - No archaeological surveys with the intent to identify pre-contact Native American sites have been conducted south of the Winooski River in Montpelier. Historic development in the vicinity of the Vermont Department of Labor Building remained rural until 1921, and probably for several decades thereafter. Given the extensive build-out of the DOL parcel, no archaeological sites of any age are likely to have survived within the area affected by Alternative C (U.S.G.S. 1921 Montpelier, VT 15 Minute Quadrangle, reprinted 1938).

3.4.1.2 *Environmental Consequences*

No Action Alternative – No disturbance of an archaeological site is anticipated.

Proposed Alternative – Substantial demolition, construction and excavation will occur between the historic core of buildings constructed in the 1890s and the power plant. Although the probability of encountering an archaeological site is low, subsurface testing within a few areas is planned to assess the extent of prior disturbance and age of and surviving landforms. Should old buried soils be identified, further evaluation may be needed. Should significant archaeological deposits be discovered, limited data recovery could be completed to address any adverse effects prior to site development.

Alternative C – Site disturbance is so extensive that further archaeological consideration is not warranted.

3.4.2 **Historic Campus and Peripheral Buildings**

3.4.2.1 *Affected Environment*

An "Architectural History Report" of the Waterbury Office Complex, formerly known as the Vermont State Hospital and the Vermont State Asylum for the Insane, was prepared by Goody Clancy as part of the FFF ***Feasibility Study***. It provides a historical framework for assessing the historical and architectural significance of the WSOC campus. It includes a developmental history that records the chronological evolution of the campus, conveys relevant historical contexts, identifies the character-defining features of the core historic buildings dating to the 1890s, and provides general recommendations for future treatment.

The chronological evolution of the campus can be understood as divided into four main phases: Early Construction Phase (1889-1896), Expansion Phase (1897-1926), Modernization Phase (1927-1962), and Deinstitutionalization and Adaptive Reuse (1963-2011). See Figure 3.4-1 and Table 3.4-1. Over the course of 122 years, construction, subsequent additions, alterations and demolitions have taken place at the site. Much of the development reflects larger socio-economic trends and changes that took place in the field of mental health and in social norms of American society at large.

Early Construction Phase (1889-1896)

Construction of the Vermont State Hospital at Waterbury was prompted by overcrowding at the Vermont Asylum for the Insane at Brattleboro, first opened in 1834. Since overcrowding was considered detrimental to the effective treatment of patients, a bill was initiated in the Vermont General Assembly to construct a new asylum. The town of Waterbury was chosen as the site of this new asylum and in 1889 land was purchased for the enterprise.

The architectural firm of Rand and Taylor of Boston was retained to design the buildings. The design called for a central administration building with wings to either side, one for male and another for female patients, connected by corridors and having a total capacity of 400 patients. This layout was fairly typical of asylum design in the nineteenth century. The outermost flanking wards on either side were designed as 3-story circular buildings. Construction began on the male wing in 1890. A temporary kitchen, laundry, and accommodations for employees were located in the basement rooms of the wards. A makeshift farm with wood frame sheds was located along South Main Street. On August 8, 1891, the first group of 25 patients arrived at Waterbury.

In 1892, construction started on the Center and Administration building. It was formally dedicated on May 31, 1894. The first boiler house which had been built to the rear of the ward buildings was deemed to be of insufficient size and lacking in proper infrastructure. Therefore between 1891 and 1894, a new boiler-house was constructed further to the rear and the old building was converted to a laundry. A new kitchen was also constructed to the rear of wards along with other support structures such as a coal shed, ice house etc. By 1896, the fifth male ward building was completed on the south side and the entire north wing for women patients was built, mirroring the south side. This completed the original symmetrical

layout as designed by Rand and Taylor. At this point the hospital population was 498 patients.

The asylum trustees purchased an additional 45 acres of land in 1895 adjoining the asylum property to the south. Upon this property stood a large 18-room brick house which became known as the 'Asylum Annex'. The old farm structures on South Main Street were demolished at this time and a new cluster was established to the southwest of the Annex. In addition, several houses standing between the Asylum and the street were also removed. Two of these were moved farther south to what are today121 and 123 S. Main Street.

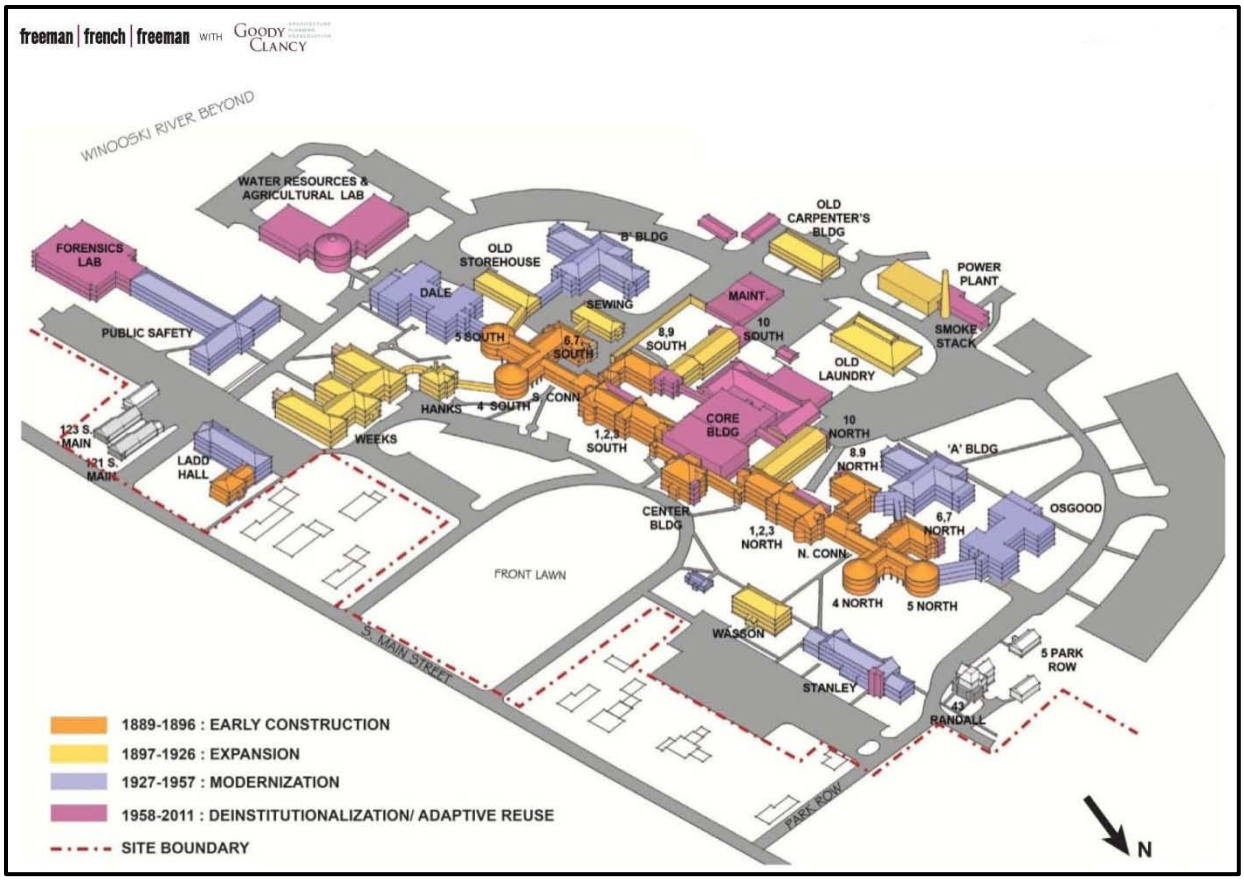

Figure 3.4-1 Evolution of the Historic Waterbury State Office Complex Campus.

Expansion Phase (1897-1926)

By 1896, the original vision of the Vermont State Asylum was complete with a symmetrical interconnected cluster of buildings. However, the need for additional space was continually being recognized. This led to the next phase of building and gradual expansion of the original 1896 configuration. By 1926, the patient population at Vermont State Hospital had reached 841 with 193 employees. The period from 1897 to 1926 saw a marked expansion in the hospital infrastructure and buildings to accommodate this growth.

The first building to break away from the symmetry was a small two-story structure built in 1898 called the Pathological Building, later known as the Hanks Building. The building projects were accompanied by much-needed site improvements including grading, planting of shrubbery and trees, and the construction of walks and roads. It was around this time that the iconic horseshoe green and entrance drive was introduced. In the rear of the asylum, where the grounds fell rapidly away from the buildings, much filling in was done, though the extent of it is unclear.

The next building to go up was a Nurses Home (later called Wasson Hall) in 1901that housed 40 resident nurses. This was followed in 1904 by a building for tuberculosis patients. It was constructed by using hospital labor and lumber salvaged from a burned down section of the hospital farm. This building was later used as an occupational therapy ward and is today known as the 'Sewing Building'. The importance of fireproof construction was increasingly being recognized and the first "genuinely fireproof building in Vermont", was built on the campus in 1912. In 1919, a new storehouse was constructed behind the male ward building '5 South'. Occupational Therapy or industrial work amongst patients was introduced in the hospital in 1920. One of the dining halls on the female wing was fitted up as the occupational center.

In 1921, many improvements were made to the service buildings on campus with the construction of a new Laundry and Carpenter Shop further to the rear of the main group of buildings. The Carpenter Shop also served as the Male Occupational Therapy Ward. Then in 1924, a new Kitchen, Bakery and Dining Hall were constructed behind the Center Building, replacing the structures that existed before. More construction followed on site with the building of a new 'Admissions Building' later known as 'Weeks Building'. Again patients were used to a great extent as common labor in the construction. A new power house with a 160 foot-high radial smoke stack was also constructed in 1925 behind the new laundry building, thus locating it far enough from the ward buildings to minimize the effects of noise and pollution.

Modernization (1927-1962)

On November 3, 1927, after two days of torrential downpour, the level of the Winooski River behind the hospital property rose considerably. Flood water soon filled all the basement floors and commenced to the Center Building *port cochere* and the front lawn. Basements and first floors of all the buildings were flooded up to 6' in height or more. The dairy barn was completely destroyed killing 121 cattle and 3 horses. The newly constructed Power House and Laundry Building were severely affected owing to their proximity to the river. In Building 10 South, where water had almost risen to the second floor, patients had to be moved to the attic. The damage to the buildings and grounds was extensive and it took almost 2 years for all restoration work to be complete. The entire farm operation was removed from Waterbury and relocated in Duxbury.

During the Great Depression, Vermont State Hospital continued to grow and patient population reached 924 in 1930. To ease overcrowding, especially on the female side, a new 3-story ward building 'A Building' was constructed in 1932 for acutely disturbed patients. A

corresponding ward on the male side 'B Building' was also built in 1939. Many of the original historic buildings had also started showing signs of age by this time and funds were sanctioned, primarily to repair the wooden verandahs.

World War II halted construction work at the Vermont State Hospital, but in 1945 a vast two-fold modernization program was started – this involved not only modern patient care but also an improvement of the physical infrastructure. To this end, a new 'Medical Surgical Building' was built in the south portion of the site and a new Nurses Home 'Stanley Hall' was built adjacent to 'Wasson Hall' in 1948. But overcrowding was still a problem. Ladd Hall was designed as an addition to the existing Annex Building. In 1953, two new 4-story buildings, 'Osgood Building' and 'Dale Building' were constructed as wards. Finally, after years of planning and indecision, a new Dining Hall, Kitchen and Auditorium were built in 1962.

Beginning in 1956, a defining step in the future of Vermont State Hospital was the establishment of a rehabilitation program that created out-patient houses in Montpelier and Burlington. By 1958 the daily patient population had declined to what it was ten years prior, thus setting the stage for the next phase in the hospital's history.

Deinstitutionalization & Adaptive Use (1963-2011)

From 1963 to 1970, the chronic patient population continued to decline at the Vermont State Hospital and many patients were successfully rehabilitated through community programs. By 1975 many of the ward buildings were vacant. The State was interested in occupying this space whenever economically feasible. In 1978, a viable tenant was found in the Vermont Agency of Human Services (AHS).

In order for the hospital to be functional as state offices, building renovations were necessary, if fairly minimal. Typical renovations included painting, laying carpet, removing some interior walls, adding partitions, removing bars from windows, updating bathrooms and modernizing lighting and heating systems. The most drastic renovations occurred in the circular ward buildings where the central octagonal heating shafts were removed. The south wing (including B Building, Hanks, Weeks, Dale and Medical-Surgical Building) was largely retained by the hospital for its use.

Over the years, the hospital ceded ownership of many of these buildings and additional State agencies moved on campus, including the Department of Public Safety (1983) and the Agency of Natural Resources (1987). By 2011, the Vermont State Hospital occupied only the Dale Building, B Building, Old Storehouse and parts of 1,2,3 South and 5 South. While some smaller buildings of a utilitarian nature were added to the campus from 1978 to 2011, the major additions were the Water Resources and Agricultural Lab built in 1989 and the Forensics Lab in 2010.

Building Name	Alternate Names	Building No.	Year Constructed
1,2,3 North	None	51	1896
1,2,3 South	None	58	1891
121 S. Main St.	Thorington House	84	1891
123 S. Main St.	None	83	1891
4 North	None	53	1896
4 South	None	60	1891
43 Randall St.	None	77	1936
5 North	None	54	1896
5 Park Row	None	80	c. 1960
5 South	None	61	1891
6,7 North	None	55	1896
6,7 South	None	62	1891
8,9 North	None	56	1896
8,9 South	None	63	1896
A Bldg	None	66	1932
Admissions Building	Weeks Building	67	1924
Auditorium	Core Building	74	1962
B Bldg	Brooks Building	85	1938
Carpenter Shop	State Building Warehouse/ Recycle Building & Fleet	88	1921
Center Building	Administration Building	73	1894
Dale Building	None	65	1953
Dining Room	Core Building	74	1962
Female Criminal Building	10 North	57	1914
Forensics Lab	None	unknown	2011
Kitchen	Pantry Food Service/ Cannery/Old Dining Room/ Core Building	74	1924
Ladd Hall (newer bldg)	None	68	1951
Ladd Hall (older bldg)	Asylum Annex	69	1895
Laundry	Public Records	87	1921
Maintenance Shop	None	93	1950
Male Criminal Building	10 South	64	1912
Medical Surgical Building	Public Safety	86	1948
North Connector Bldg	None	52	1896
Nurses Home	Wasson Hall	71	1901
Old Greenhouse	Storage	91	unknown
Osgood Building	None	50	1953
Pathological Building	Hanks Building	72	1898
Power House	None	78	1925
South Connector Bldg	None	59	1891
Staff Cottage	Waterbury Cottage/ Logue Cottage	95	1937
Stanley Hall	None	70	1949
Store House	State Hospital/ B Bldg Annex/Old Buildings & Grounds	62	1919
Tuberculosis Building	Juvenile Jail/Sewing Bldg	75	1904
Water Resources & Agricultural Lab	None	unknown	1989

Table 3.4-1. Summary of Structures and Dates of Construction.

Section 106 of the ***National Historic Preservation Act*** (NHPA) requires federal agencies to take into account the effects of their actions on properties on or eligible for listing on the National Register of Historic Places (NRHP), and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. The regulations are published in the ***Code of Federal Regulations*** at 36 CFR Part 800, "Protection of Historic Properties." Section 106 applies only if a federal agency is carrying out the project, permitting it, or funding it.

Federal agencies are responsible for initiating Section 106 review, most of which takes place between the agency and the State Historic Preservation Officer (SHPO). Where adverse effects are identified, a public component of the consultation process is typically required. A *Programmatic Agreement among the Federal Emergency Management Agency, Vermont State Historic Preservation Officer, Vermont Emergency Management Division of the Department of Public Safety, and the Advisory Council for Historic Preservation* (executed 05/09/2011) guides the Section 106 review process in Vermont.

To successfully complete Section 106 review, federal agencies must do the following:

- determine which properties in the area that may be affected by the project are listed, or are eligible for listing, in the National Register of Historic Places (referred to as "historic properties");
- determine how those historic properties might be affected;
- explore measures to avoid or reduce harm ("adverse effect") to historic properties; and
- reach agreement with the SHPO (and the ACHP in some cases) on such measures to resolve any adverse effects or, failing that, mitigate for the loss of historic properties.

When historic properties may be harmed, Section 106 review usually ends with a legally binding agreement that establishes how the federal agency will avoid, minimize, or mitigate the adverse effects. Section 106 review ensures that federal agencies fully consider historic preservation issues and the views of the public during project planning. Section 106 reviews do not mandate the approval or denial of projects.

As noted, the first step in the Section 106 review entails determining if one or more properties that might be affected by an undertaking are eligible for listing on the National Register of Historic Places. Much of the groundwork for the WSOC has been completed.

An individual listing for the Vermont State Hospital on the National Register of Historic Places (NRHP) does not exist. However, in 1978, it was listed on the NRHP as a contributing resource to the 'Waterbury Village Historic District' -- a primarily linear district that includes properties along two major axes- Main Street and Stowe Street, and on several secondary streets that join them. The more than 200 structures that comprise the district represent a wide range of building types and 19th and 20th century architectural styles. The district includes residential, commercial, institutional and industrial buildings. The district is listed as significant under the areas of architecture, community planning, industry and transportation.

In the district nomination, the "Vermont State Hospital" is described as "a sprawling array of more than 17 structures" constructed between 1891 and 1896, or essentially the Center Building with the two symmetrical flanking wings as described in the section titled, 'Early Construction Phase 1889-1896.' This set of buildings is determined to be contributing to the 'Waterbury Village Historic District'. In 1978, all later buildings were deemed non-contributing.

Recent research conducted by Goody Clancy significantly expands the National Register district documentation for the core of buildings dating to the 1890s. The concept of historic contexts has been fundamental to the study of history. Historic contexts are those patterns or trends in history by which a specific occurrence, property, or site is understood and its meaning (and ultimately its significance) within history or prehistory is made clear. Goody Clancy develops several contexts for understanding and evaluating elements of the Vermont State Hospital: changes in the design of mental health institutions, the Eugenics movement in Vermont, and hospitals designed by the nationally prominent, architectural firm of Rand & Taylor.

Design of Mental Health Institutions

Dedicated facilities for the mentally ill were built on the outskirts of many American cities after the Civil War and by the turn of the twentieth century almost 300 'insane asylums' had been built in the country. Although they are today perceived as rather dismal reminders of an outmoded system, the construction of these facilities was actually viewed as a huge step towards humane care of the mentally ill, and the buildings that housed them once exemplified innovation and progress. Most important though, was the emphasis that medical practitioners, scientists and philanthropists placed upon the architecture of the buildings and its surroundings as part of the treatment of mental illness.

As early as 1844, the Association of Medical Superintendents of American Institutions for the Insane (AMSAII) began to publish guidelines and articles on the construction of asylums and paved the way for the 'linear' or 'congregate' type of asylum design to be the dominant typology for all such institutions by the 1870s. A linear or congregate plan asylum consisted of an interconnected cluster of individual ward buildings or 'pavilions'. It was distinct in that all or most functions were located 'under one roof'. Towards the end of the 19th century, the 'linear plan' was waning in popularity; a 'cottage plan" gained acceptance. Asylums began to add buildings as free-standing structures for better segregation (tuberculosis and other infectious diseases demanded seclusion) and also to provide a more 'home-like' atmosphere.

The early architecture of Vermont State Asylum can be seen as intermediate between the 'linear plan' and 'cottage plan'. The patient ward buildings here can be understood as individual 'pavilions' connected to each other via linear connector buildings that housed more public functions (such as dining halls, day-rooms etc.). In addition, two of the five buildings on either side of the Center Building were built as circular ward buildings. This is quite a distinctive feature of the Vermont State Asylum. There are very few examples of circular hospital wards all over the world, even fewer in the United States, and hardly any that are still intact within their original layout. The circular wards at Waterbury are historically significant and worthy of preservation.

The Eugenics Movement in Vermont

Eugenics is the "applied science or the bio-social movement which advocates the use of practices aimed at improving the genetic composition of a population". The Eugenics movement emerged and flourished in the United States during the latter part of the 19th century through the first half of the 20th century. The Eugenics Survey of Vermont (1925-1936), founded and directed by University of Vermont zoology professor Henry F. Perkins, functioned as Vermont's official agency of eugenics research and education during the interwar years. The Vermont legislature enacted a law permitting sexual sterilization of "feebleminded and insane" persons in 1931. This law was not overturned until the 1950s.

While the Eugenics Survey operated as an official adjunct to the Zoology Department at the University of Vermont, Professor Perkins depended upon the cooperation and support of an impressive roster of civic leaders, private charities, government officials, and professors in relevant fields, who endorsed the enterprise through their official role as advisors to the Survey. One of these individuals was Dr. Eugene A. Stanley, Superintendent of the Vermont State Hospital from 1918-1936. An advocate of eugenics, Dr. Stanley testified in favor of the sterilization bills in 1927 and 1931, provided the Eugenics Survey access to patient records, and played an influential role as an advisor to the Eugenics Survey. He was a member of the sub-committee on "Care of the Handicapped" for the Vermont Commission on Country Life.

Although the association of the Vermont State Hospital with the Eugenics Movement is more or less understood, architectural implications of this association need more investigation. During Dr. Stanley's tenure, two large ward buildings were constructed – Admission Building (Weeks) in 1924 and Building A for "acutely disturbed female patients" in 1932. This building included provision for treatments such as 'hydrotherapy' and 'colonic irrigation' and patients were often restrained to control disruptive behavior (a companion male building 'B Building' was built shortly after Dr. Stanley's tenure in 1939). The Vermont Eugenics Movement's documentary history mentions Building A in its context, but the extent to which this building architecturally manifests any association to the Eugenics movement is debatable. Its interiors have been extensively remodeled over the years and there are no remaining vestiges of any treatment equipment. The small patient cells on most floors have also been reconfigured to create larger spaces when the building was renovated for state offices. 'B Building' on the other hand, which was used by the Vermont State Hospital until recently as a ward for criminal patients, retains the original cellular layout of rooms, but they have also seem to have been largely renovated since 1939.

Hospital Design by Architects Rand & Taylor

The Vermont State Asylum in Waterbury was designed by Rand & Taylor, a nationally known architecture firm based in Boston whose principals had both been born in Vermont. Their projects include Worcester State Hospital in Worcester, Massachusetts; Mary Hitchcock Memorial Hospital in Hanover, New Hampshire; and Watts Hospital in Durham, North Carolina. The Vermont State Hospital at Waterbury is by far the largest and most intact collection of hospital buildings by Rand & Taylor anywhere in the United States. By 1896, the construction of the central administration building with flanking patient wings of five wards each was complete, as originally designed by the architects. These buildings are still present

and retain a high level of historic integrity due to minimal and reversible changes to the historic fabric.

Based on the developmental history of the hospital complex and the contexts outlined above, the Goody Clancy consultant group recommends that the" Early Construction Phase of 1889-1896" be established as the *period of significance* for this site. Begun in 1889, the original layout of the "linear" / "pavilion" plan hospital as envisaged by architects Rand and Taylor, including the distinctive circular wards, was in place by 1896. From 1897 to 2011, many new structures were added to the complex. These structures varied in building functions and architectural styles. Some merely extended the design philosophy espoused by the original construction while others departed from it.

Although the core 1890s building are historically significant and eligible for inclusion on the National Register under Criterion A, B and C, the post-1897 properties strongly reflect the evolution of the Waterbury State Hospital for the next six decades. In 1978, when the Village district nomination was prepared, many of these buildings were also less than fifty years old and not considered historic. In 2012, however, these structures need to be evaluated as historic resources in their own right. Based on the historic contexts presented by Goody Clancy in its "Architectural History Report" for the Waterbury Office Complex, formerly known as the Vermont State Hospital and the Vermont State Asylum for the Insane, FEMA has determined that all principal structures and several landscape features associated with the former State Hospital are eligible for inclusion in the National Register as a "mini" district under Criterion A and C within the larger Waterbury Village district. All eligible structures are listed in Table 3.4-2. Table 3.4-3 lists properties within the WSOC campus owned by the State that are not eligible for the National Register. The Vermont State Historic Preservation Office concurred with these determinations of eligibility on June 11, 2012.

The second step in a Section 106 review is to determine how identified historic properties might be affected. Under the Proposed Alternative, the 1890s core buildings, already much altered on the interior to provide office space for several agencies, would be rehabilitated for reuse as modern offices. To comply with the Secretary of the Interior's Standards for rehabilitation, case-specific reviews of each building will be needed to identify the specific work required.

At a general level, a flexible approach is needed. Over the years, the exterior of these buildings is more or less unchanged while the interiors have been largely reconfigured to adapt to new uses. The Goody Clancy report recommends treating the exterior of these buildings to a higher preservation standard than the interior. Consideration should be given to reinstating missing historic features on the exterior such as cupolas on the towers flanking the Center Building and elsewhere on the roofs of the 1896 buildings. Rebuilding of other elements like the front porch on the Center Building should be investigated. These measures could also serve as part of a mitigation package to offset the loss of other historic buildings on the campus that post-date the period of significance. The report does not recommend reinstatement of missing historic features on the interior, such as walls, central shafts in circular wards, etc. Rather, the approach on the interior should be to respect extant character defining features. All work should be designed and executed in a manner that minimizes damage to or removal of character defining elements.

Development Phase	Building Name	Alternate Name	Year Built	Listed on the National Register of Historic Places	Eligible for Listing on the National Register	Criteria for Evaluation
Acquired by WSOC	121 S Main Street	Thorington House	1850	Yes		
Acquired by WSOC	123 S Main Street		1850	Yes		
Acquired by WSOC	43 Randall		1885	Yes		
Early Construction	1,2,3 South		1890	Yes		
Early Construction	South Connector		1891	Yes		
Early Construction	4 South		1891	Yes		
Early Construction	5 South		1891	Yes		
Early Construction	6 & 7 South		1891	Yes		
Early Construction	8 & 9 South		1891	Yes		
Early Construction	Center Building	Administration Building	1892	Yes		
Early Construction	Ladd Hall-Older	Asylum Annex	1895	Yes		
Early Construction	4 North		1896	Yes		
Early Construction	5 North		1896	Yes		
Early Construction	6 & 7 North		1896	Yes		
Early Construction	8 & 9 North		1896	Yes		
Early Construction	1, 2, 3 North		1896	Yes		
Early Construction	North Connector		1896	Yes		
Expansion	Front Lawn	Horseshoe Green	1897	No	Yes	A & C
Expansion	Hanks Building & Connecting Tunnel	Pathological Building	1898	No	Yes	A & C
Expansion	Wall, Male Criminal Yard		1898	No	Yes	A & C
Expansion	Wasson	Nurses Building	1901	No	Yes	A & C
Expansion	Sewing Building	Tuberculosis Building	1904	No	Yes	A & C
Expansion	10 South	Male Criminal Building	1912	No	Yes	A & C
Expansion	10 North	Female Criminal Building	1914	No	Yes	A & C
Expansion	Old Storehouse	State Hospital, B Blding Annex	1919	No	Yes	A & C
Expansion	Old Laundry	Public Records	1921	No	Yes	A & C
Expansion	Recycling Building	Carpenter Shop, State Blding Warehouse	1921	No	Yes	A & C
Expansion	Weeks Building & Connecting Tunnel	Admissions Building	1924	No	Yes	A & C
Expansion	Powerhouse & Stack		1925	No	Yes	A & C
Modernization	A Building		1932	No	Yes	A & C
Modernization	Logue Cottage	Waterbury/ Staff Cottage	1937	No	Yes	A & C
Modernization	B Building	Brooks	1938	No	Yes	A & C
Modernization	Stanley		1946	No	Yes	A & C
Modernization	Department of Public Safety Building	Medical Surgical Building	1948	No	Yes	A & C
Modernization	Repair & Maintenance	Maintenance Shop	1950	No	Yes	A & C
Modernization	Ladd Hall-Newer		1951	No	Yes	A & C
Modernization	Osgood Building		1953	No	Yes	A & C
Modernization	Dale Building		1953	No	Yes	A & C
Deinstitution/Reuse	43.5 Randall Barn			No	Yes	C
Deinstitution/Reuse	Garage, 123 So Main St			No	Yes	C

Table 3.4-2. National Register Listed or National Register Eligible Properties within the Waterbury State Office Complex.

Development Phase	Building Name	Alternate Name	Year Built	Listed on the National Register of Historic Places	Eligible for Listing on the National Register
Modernization	Recycling Shed	Maintenance Storage/ BGS Storage Shed	1952	No	No
Modernization	Center Core Building	Kitchen, Auditorium, Dining Room	1962	No	No
Deinstitution/Reuse	5 Park Row		1968	No	No
Deinstitution/Reuse	Old Green House	Equipment Storage	1979	No	No
Deinstitution/Reuse	Environmental & Ag Lab		1989	No	No
Deinstitution/Reuse	Public Safety Forensics Lab		2011	No	No
Other	Sewage Pump Station			No	No
Other	Garage Near Lumber Storage	Garage-Carpenter Shop, Maintenance Garage		No	No
Other	Lumber Storage	Salt-Sand-Lumber Storage		No	No
Other	Garage-Logue Cottage			No	No

Table 3.4-3. Properties within the Waterbury State Office Complex Not Eligible for National Register Listing.

The developmental history of the campus reveals that the front sides of the 1896 buildings were treated more formally than the rear side which saw continual demolition and addition of buildings, mostly of a utilitarian nature. This is fairly typical of 19th-century mental institutions that presented a formal "public" front and a more informal "private" rear portion. Accordingly, the Goody Clancy report recommends that any new buildings or additions on the site be made to the rear of the 1896 buildings. New buildings or additions should be designed in such a manner that they are minimally visible from the front, either by use of appropriate transparent materials, or generous setbacks, etc. The architectural style and treatment of the new buildings or additions should be visibly distinct from, as opposed to mimicking the historic 1896 buildings. The design proposed in the FFF ***Feasibility Study*** does just this.

Until considerably more study of individual buildings within the core and wider hospital campus has been completed, FEMA cannot make a final determination of effect. This is particularly so, because the Proposed Alternative includes demolishing many of the post-1897 structures and selling others to serve alternative functions, thus potentially requiring substantial alterations. (See Table 2.3-1 for a summary of proposed actions.)

Alternative C - The Department of Labor building located at 5 Green Mountain drive in Montpelier was built in 1966 and designed by architect Payson Webber. As such it does not meet the minimum 50 year age requirement for inclusion on the National Register.

3.4.2.2 *Environmental Consequences*

No Action Alternative – Given any long-term moth-balling of the complex, deterioration of one or more historic buildings might occur. As no FEMA funding or action would be involved in this scenario, Section 106 consultation is unlikely to be required.

Proposed Alternative - To address a variety of historic preservation issues, FEMA, the State Historic Preservation Office, Vermont Agency of Transportation as Grantee, Buildings and General Services as sub-Grantee, and potentially other consulting parties will enter into a ***Secondary Programmatic Agreement***. This agreement will provide an umbrella for decisions made about historic properties within the WSOC to which FEMA, the SHPO, BGS, and other consulting parties will subscribe. It will identify responsible parties; the review process(es) by which individual properties will be evaluated, including archaeological resources; assess the effects of various actions; consider alternatives to avoid any adverse effects; identify a treatment plan to offset any adverse effects; provide for public participation with respect to mitigation decisions; and define how unanticipated discoveries will be addressed. It is anticipated that the use of a Secondary Programmatic Agreement will facilitate decision-making and streamline the review of multiple undertakings. This agreement was executed on August 6, 2012.

Alternative C – As no historic structures are located on the DOL lot in Montpelier, no Section 106 consultation is required.

3.5 **Land Use**

3.5.1 **Recreation**

3.5.1.1 *Affected Environment*

Both the Waterbury Complex and DOL Building in Montpelier are located in urbanized settings and offer little potential for recreation as facilities. However, a segment of the "C*ross Vermont Trail"* traverses the floodplain immediately behind the power house at the WSOC. This is both a bike and walking path. The trail lies within walking distance of downtown Waterbury and the village park on the north side of Main Street. The mowed field behind the campus allows access for fishing along the river and limited cross-country skiing in winter.

A pedestrian and bike path runs along the south bank of the Winooski River behind the DOL Building in Montpelier. This path is not immediately accessible from State Street or downtown Montpelier so it tends to see only moderate use.

3.5.1.2 *Environmental Consequences*

No Action Alternative – Use of the "C*ross Vermont Trail*" is expected to continue, but its maintenance may be curtailed.

Proposed Alternative – Conceptual plans take advantage of the open space produced by the demotion of many buildings to enhance the landscape. Vegetated walkways and open green space would be blended into the trail. The availability of extensive parking would also encourage visitors to join the trail from this location, particularly on the weekends when the office complex would be at reduced capacity. Clean-up of the floodplain and maintenance buildings will enhance the trail. Maintenance functions will be transferred to a new power house, so there should be no need for visually obtrusive small buildings. No direct impact to other recreation facilities, like parks and sports fields, would occur within the village.

Alternative C – The addition of roughly 1,000 office workers to the new building would undoubtedly increase the use of the walking and biking trail along the river. Peak usage is likely to occur during lunch hour, particularly during warm weather. At such times, crowding may become an issue.

3.5.2 **Visual Quality**:

3.5.2.1 *Affected Environment*

The dominant visual elements of the WSOC date to the 1890s with construction of the Vermont State Asylum for the Insane. The Biennial Report of 1896 noted, "The sooner the surroundings are beautified and made attractive the sooner nature can assist the physician in his efforts to heal the disordered mind." It was about this time that the iconic horseshoe green was introduced along with an entrance drive from Main Street. The green and drive form the foreground of the 1890s hospital buildings as viewed from South Main Street. Buildings have been added to the side and rear of the original complex, but the core visual elements remain (Figure 1.2-1; cover).

The visual setting of the DOL Building in Montpelier reflects post -World War II urban growth across the Winooski River from the City. Formerly agricultural land and open space, the Vermont DOL Building was constructed in 1966. The adjacent parcel to the north contains athletic fields associated with Montpelier High School; the office and storage yards of Green Mountain Power are located just to the south; Route 2 and an off ramp from I 89 merge to form Memorial Drive immediately to the east; the Winooski River lies just to the west behind a tree line (Figure 1.2-3).

3.5.2.2 *Environmental Consequences*

No Action Alternative – No visual alterations would occur, although minor reductions in aesthetic quality might occur as a result of a reduction in grounds maintenance.

Proposed Alternative – The expansive horseshoe-shaped green and drive that visually connect South Main Street and the historic, 1890s core buildings will not be changed. By removing some of the later structures and by designing the proposed addition on the back of the core in such a way as to reduce its height, the silhouette of the original hospital will actually be enhanced. On the south and west sides of the complex, the replacement of demolished buildings and paved areas with a designed landscape will greatly increase the visual experience

of the professional office staff, visitors, and passers-bye walking or biking along the "Cross Vermont Trail".

Alternative C – The DOL building is a relatively unobtrusive, granite clad structure of moderate size. A small area of grassed lawn divides it from a walking trail along the Winooski River. Proposed design plans call for a five-story replacement structure, including a multi-level parking structure. The sheer size of these structures would substantially alter the existing viewscape and reduce the visual quality of the surroundings for people using the walking and bike path. It would also be out of proportion to other structures along Memorial Drive.

3.6 **Infrastructure**

3.6.1 **Transportation**

3.6.1.1 *Affected Environment*

Access to the Village of Waterbury and the WSOC is via US Route 2/VT 100/South Main St. The complex is accessed from Park Row and the Inner Loop. US Route 2 and VT 100 form the primary east-west and north-south travel corridors in this part of Vermont. Both of these routes carry local and regional commercial and tourist traffic. Interstate 89, which runs southeast-northwest across the state, relieves some of the regional and long distance traffic by providing on and off ramps on VT 100 just north of the Village. Traffic studies indicated that approximately 40,000 vehicles per day enter or exit at this intersection.

US 2/VT 100/Main Street is the major street running through the downtown Village and business district. Classified as a Rural Minor Arterial by the VAOT, the roadway has a single lane of travel in both directions with on-street parallel parking. Railroad Street runs parallel to South Main Street.

At the northwest end of the Village a traffic light at the junction of Main and Stowe Streets modulates traffic. A second light is located at the intersection of South Main Street and Park Row. Park Row (part of the outer loop road connecting to Main Street on the west and east sides of the WSOC) provides access to nearly all of the parking areas within the complex (Figure 2.3-4). The traffic light modulates traffic in and out of the complex, particularly during rush hours. A VAOT study of traffic flows in 2008 at the Park Row and US2/VT 100/Main Street intersection found an average of 10,500 vehicles per day coming and going to the west and 10,100 vehicles per day coming and going from the east.

A *Traffic Impact Study for Green Mountain Coffee Roasters, Demerrit Place Extension* (July, 2010) was performed to determine the potential effect of expanding truck traffic generated by a facility expansion at a time when the WSOC was fully operational. Green Mountain Coffee is located almost immediately north of South Main Street from the WSOC; Demerrit Place is situated just beyond the east end of the outer loop road (unsignaled) that provides access and egress from the WSOC onto South Main Street. As a result of the analysis, the following conclusions were reached:

- background growth in traffic had not been substantial during the previous five years;

- based on a signal warrant analysis, traffic conditions did not warrant installation of a traffic signal;
- based on a review of local crash data, five crashes have occurred at or near the intersection of Main and Demerrit Place between 2005 and 2009, leading to the inference that this is not a High Crash Location; and
- addional truck traffic and change in traffic patterns would not cause a significant degradation in the level of service, delay or queue lengths during both AM and PM peak traffic periods.

Comments by Waterbury Village officials further confirm that traffic congestion has never been a particular issue or concern, noting only that traffic might be stalled at a light for one or two minutes during holiday events, at the height of the fall foliage season or on a Friday afternoon before a long weekend.

Alternative C - The DOL Building is located along US 2/Memorial Drive, just north of the Montpelier entrance and off ramps for Interstate 89. VT Route 12, which conveys traffic north-south through Montpelier intersects with US 2 about two miles to the east. The entrance to the National Life Building that houses over 1,000 office workers is located directly across Memorial Drive from the DOL Building.

Recent traffic studies for this segment of US 2 were not located, but a traffic study dating to 2001 indicates that morning and evening peak flows were 5,312 and 6,310 vehicles per hour in 1999. Occupation of the DOL Building may expand these numbers by 8-10%. Due to the convergence of major transportation routes and the daily influx of state workers to various agency offices in Montpelier, US 2/Memorial Drive is susceptible to high volumes of traffic. Some of this might be offset by the fact that the site is well served by bus transit and is situated near other state workers in downtown Montpelier and at the National Life Complex, which are also located within walking distance.

Occupation of a new structure on the site of the DOL Buildings would bring roughly 1,300 additional workers to Montpelier on a daily basis. Short-term, the new site alternative would require intensive transporting of construction equipment for demolition and the development of a new office structure multi-leveled parking garage.

3.6.1.2 *Environmental Consequences*

No Action – Under a limited use and maintenance program, traffic in and out of the WSOC would be minimal and much reduced from the pre-Irene period. Demand for on-street and off-street parking might also be reduced.

Proposed Alternative – The demolition and reconstruction of the complex would require transporting construction equipment and supplies, although efforts to recycle much of the construction debris may reduce the volume. Nonetheless, added trips with heavy equipment at the beginning and end of each construction day can be anticipated. Additional passenger car trips would also be necessary to transport workers and inspection staff to and from the site throughout the construction phase. These trips would be a minor addition to local traffic

volumes and would not likely cause congestion; local disruption or blockage, if any, would be temporary and minor. Any short-term mitigation measures needed to regulate demolition or construction traffic will be handled at the local level by the Development Review Board and/or through ACT 250 permit conditions.

Long-term, as strongly suggested by recent traffic studies, re-occupation of the WSOC of office staff at levels at or below those of the pre-Irene period would not cause unreasonable congestion or unsafe conditions with respect to the use of US 2/VT 100/Main Street. No hazards would be created or increased due to any aspect of the proposed action. No need has been identified to implement measures to avoid, reduce, or mitigate traffic congestion.

Alternative C - A traffic study will likely indicate an increase in traffic congestion. Roadway improvements as well as new traffic signals will be required. Traffic flow will be significantly restricted during construction periods. After the traffic lights are installed, commuter traffic derived from I 89 and US 2 will be delayed due to the increase in vehicles simply accessing the new facility, as well as by the addition of the traffic light.

3.6.2 **Potable Water**

3.6.2.1 *Affected Environment*

The WSOC is connected to the water system maintained by the Village of Waterbury. It has a current allocation of 63,000 gallons per day – a level that was not fully utilized when the WSOC was in full operation. With the decrease in proposed occupants from a pre-Irene level exceeding 1,100, sufficient capacity remains for re-occupation of the site as a result of the Proposed Action. Some portion of this allocation may be conveyed to new owners if one or more structures near South Main Street are sold or leased. The Village has the hydraulic capacity to increase the water allocations if needed.

The DOL Building in Montpelier is connected to the public water supply maintained by the City of Montpelier. Sufficient capacity of potable water is anticipated to exist for the expanded staff in the new office complex.

3.6.2.2 *Environmental Consequences*

No significant adverse effect is anticipated with respect to any of the alternatives. Potable Water Supply and Water Supply Construction permits may be required as a result of local and Act 250 review.

3.6.3 **Wastewater**

3.6.3.1 *Affected Environment*

Both the WSOC and proposed office structure on the DOL Building site would be connected to municipal wastewater treatment systems. Based on discussions with Village personnel, the WSOC has an existing discharge allocation of 58,600 gallons per day, which was not needed in full when the old facility was occupied. Capacity exists to expand this allocation if needed. The DOL Building is currently served by the city's wastewater treatment facility. The City of

Montpelier should have sufficient capacity to accommodate the facility proposed under the Alternative Action.

3.6.3.2 *Environmental Consequences*

No adverse effects are anticipated for either alternative.

3.6.4 **Stormwater (Water Quality)**

3.6.4.1 *Affected Environment*

The Freeman, French, Freeman (FFF) ***Feasibility Study*** (2012) states that the existing stormwater collection system within the WSOC consists of deep drywells that "are vulnerable to silt from floodwaters." Under the Proposed Action, substantial improvements to the stormwater management system will be made. All existing drywells will be replaced and (3) three stormwater treatment basins will be installed. Several new methods of stormwater management will also be utilized. Examples include: bio-retention areas, "rain gardens" which use vegetation for treatment, and "gravel wetlands" (consisting of a lateral filter that removes nitrogen and phosphorus). FFF also recommends creating grass swales and treatment basins to protect downstream water quality and installing backwater valves at culvert outfalls to limit floodwater entry. During all phases of construction, best management practices (BMPs) will be utilized to control stormwater discharges from the site and reduce soil erosion and sedimentation.

Having been designed by the architectural firm of Payson-Webb and constructed in 1966, it is assumed that the stormwater system that services the DOL building in Montpelier is adequate to meet current standards. For the new building, constructed wetlands on the site are recommended for stormwater management.

Stormwater, which often contains excess sand and silt, debris, and various chemical pollutants has the potential to adversely affect water quality and, as a result, is regulated under the ***Clean Water Act*** (CWA). Section 301 (a) prohibits the discharge of pollutants to navigable waters unless the discharge complies with CWA and its permit requirements. The EPA has authorized the State of Vermont to implement a stormwater permitting program. The Vermont Department of Conservation (DEC) Stormwater Program issues permits for runoff from impervious surfaces, construction sites, and industrial facilities. A "Stormwater Discharge from New Development and Redevelopment General Permit" is required for discharges of stormwater from new development projects equal to or greater than one (1) acre or discharge from expansion or redevelopment of an existing impervious surface. A "Construction Stormwater Permit" addresses stormwater runoff from earth disturbance activity of one or more acres of land.

3.6.4.2 *Environmental Consequences*

No Action - Under the No Action alternative, no changes or improvements would be made to the existing stormwater management system infrastructure and, as a result, would allow for the

continued infiltration of both point source and non-point source discharges into the Winooski River.

Proposed Alternative – Stormwater permits will be required. If all conditions are followed, no adverse effects are anticipated.

Alternative C - Stormwater permits will be required. If all conditions are followed, no adverse effects are anticipated.

3.7 **Potential Hazards – Air Quality/Emissions, Asbestos, Fuel Tanks, Structural Debris and Noise.**

3.7.1 **Air Quality/Emissions**

3.7.1.1 *Affected Environment*

Proposed Alternative - The WSOC consists of a campus set back 350 feet or more from South Main Street. Village residences are located along South Main and Randall Streets and Healy Court on the northern, eastern and southern fringes of the campus. Hot water heat and domestic hot water are provided for virtually the entire WSOC facility from a central generating plant located at the rear of the complex, about 800 feet west of South Main Street. The power house contains 4 boilers: a 300 Boiler Horse Power (BHP) wood fired boiler used to base load the campus during the winter, two 600 BHP #6 fired water tube boilers which are used for peak load and redundancy, and a 125 BHP #2 fired scotch marine boiler which is used to make steam during the summer months. The plant currently operates under Air Pollution Control Permit #AOP-95-186. Four underground tanks are used for fuel storage. Average fuel usage over a 15 year period has been: 3,367 T of wood chips, 236,715 gallons of #6 fuel oil, and 42,396 gallons of #2 fuel oil, which are well below permit limits. Excluding biomass from wood chips, emissions are estimated at 2,119 tons of CO_2 per year, or 8,000 tons per year with biomass included.

The ***Clean Air Act*** (40 CFR part 50) requires the U.S. Environmental Protection Agency (EPA) to set, and states adopt, National Ambient Air Quality Standards (NAAQS for six principle or "criteria" air pollutants. These pollutants include: Carbon Monoxide (CO), Lead (Pb), Nitrogen Dioxide (NO_2), Particulate Matter with a diameter less than or equal to ten micrometers (PM_{10}) and less than 2.5 micrometers (PM2.5), Ozone (O_3), and Sulfur Dioxide (SO_2).

The EPA has designated specific areas as NAAQS Attainment or Non-Attainment areas. Attainment areas are those areas that meet ambient air quality standards and non-attainment areas are areas that do not meet quality standards for a specific pollutant. All of Vermont, including Washington County, is currently designated as an Attainment Area for all National Ambient Air Quality Standards (VANR, 2012).

At the local level, state and community goals are to keep emissions of pollutants as low as possible. As part of the FFF ***Feasibility Study***, II, Section 13, Rist Frost Shumway evaluated alternative heating systems for a new power plant whose proposed location is the current site of the Water Resources and Agricultural Lab that is proposed for demolition. This site is

approximately 500 feet south of both South Main Street and Healy Court. RFS recommends a combined heating, cooling and electric power energy plant using wood chips with oil fired backup boilers. The biomass and backup boilers would provide steam (hot water) for space heating of the buildings as well as steam for a steam driven cooling system and a steam turbine for electric power generation. This was one of six options. The critical factor drawn from all options is that reliance on modern wood chip combustion technology can reduce the current level of emissions from non-renewable source to below 200 tons of CO_2 per year, or by at least 10 times current levels, and perhaps substantially more. This low carbon power generation could be further offset by installation of substantial solar arrays distributed in suitable locations.

Alternate C – The DOL Building is bordered by athletic fields of Montpelier High School to the north, two large offices and storage areas to the south, a wooded hillside to the east and the Winooski River to the west. Five residential structures are located about 1,000 feet to the north across the river; these are the only residences within a quarter mile.

The proposed heating facility would consist of a geothermal well system supplanted by oil or propane fueled by an array of small boilers. Alternatively, the building could tie into the new district heating plant (located across the river).

Temporary impacts to air quality could potentially occur during the construction period at either site. Specific mitigation measures to address short-term air quality impacts, including dust control, will be listed as Conditions of the issuance of an ACT 250 Permit.

3.7.1.2 *Environmental Consequences*

No Action - Under the No Action alternative, the old power plant would continue to function to generate heat sufficient to keep the buildings from freezing. Emissions would likely fall well below pre-Irene levels.

Proposed Alternative – Given the proposed use of modern wood chip combustion technology with advanced emission controls for particulates and the distance between the proposed new power plant and residential areas in the village, any direct impact to air quality is expected to be limited and within compliance standards. Because a new facility is being constructed, issuance of a new Air Pollution Control Permit will be required.

Alternative C – As with the WSOC facility, the large distance between the proposed site and residential areas in Montpelier, any direct impact to air quality is expected to be limited by expanded capacity. Although detailed analyses have not been conducted, modern high-efficient boilers should keep ambient pollutants to very low levels.

3.7.2 **Asbestos**

3.7.2.1 *Affected Environment*

The Proposed Alternative involves the demolition and removal of structural debris from upwards of 22 buildings dating to a time when the use of asbestos in construction was

common. In addition, repair and remodeling of over 100,000 square feet of buildings within the historic core will require the removal of some asbestos-embedded plaster walls and ceilings.

The potential for asbestos contamination is, however, low. Buildings flooded by Irene and now slated for demolition have been gutted and/or thoroughly cleaned under professional supervision. Little if any asbestos remains. In addition, the WSOC has had an active program of asbestos abatement as part of its routine maintenance activities. To date, 148 asbestos abatement permits for the Waterbury State Office Complex have been issued by the Vermont Department of Public Health's Asbestos and Lead Regulatory Program. As a result, only four structures remaining in the historic core are likely to contain any substantial amounts of asbestos. To insure compliance, Crothers Environmental, an approved asbestos abatement contractor, will conduct "destructive and intrusive asbestos inspection surveys" prior to any demolition activities. They will also develop asbestos removal contract specifications and will manage asbestos removal projects.

Alternative C - Construction here would be preceded by the demolition of the current DOL Building – a three-story, 53,500 square foot structure. This building was constructed in 1966, a decade or more before many asbestos products were banned by the ***Clean Air Act***. Under the Occupational Safety and Health Administration (OSHA) regulation 1926.1101 (k) (1), owners of buildings built prior to 1980 are required to presume that surfacing materials, thermal system insulation, roofing materials, and floor tiles contain asbestos until a certified asbestos inspector takes samples of the materials and verifies the materials do not contain asbestos.

Section 112 of the ***Clean Air Act*** requires EPA to develop emission standards for hazardous air pollutants. Asbestos presents a significant risk to human health as a result of air emissions and is classified as a hazardous air pollutant. Friable asbestos-containing material (ACM) is defined by the Asbestos NESHAP, as "any material containing more than one percent (1%) asbestos… that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure (Sec.61.141)." EPA regulates asbestos from "cradle to grave". Handling, transport, and disposal of asbestos demolition debris must be in compliance with all state and federal regulations. Disposal must be at an approved waste disposal facility permitted to accept ACM materials.

Pursuant to ***VSA***, Title 18, Chapter 26, when asbestos-containing materials will be disturbed, either by renovation or demolition, removal of the asbestos-containing materials is required prior to demolition commencing. Certification and permits must be obtained before asbestos abatement work commences. Applicants must notify the Department of Public Health ten (10) working days prior to the commencement of demolition of a facility.

3.7.1.2 *Environmental Consequences*

No Action - This alternative poses no threat to air quality. No asbestos-containing materials will be disturbed because neither renovation nor demolition would occur.

Proposed Action – Given the anticipated permitting requirements and use of a certified asbestos abatement contractor, no asbestos issues are anticipated.

Alternative C – Should asbestos be identified as a result of testing, abatement measures taken during demolition should alleviate any adverse environmental effects.

3.7.3 **Structural Debris**

3.7.3.1 *Affected Environment*

The Proposed Alternative involves the demolition and removal of structural debris from upwards of 22 buildings, including multi-story structures, much smaller maintenance buildings and a power house. Total demolition is estimated to exceed 300,000 square feet. Significant elements consist of wood or steel framing, concrete or stone foundations, brick veneers, slate or shingle roofing, pipes and wire. Following demolition, the asphalt pavement surrounding many of these buildings will be stripped and removed.

Alternative C - Construction here would be preceded by the demolition of the current DOL Building – a three-story, 53,500 square foot structure. A paved parking area would also be removed to accommodate the expansion.

The **Resource Conservation and Recovery Act** (RCRA) mandates control over the treatment, storage, and disposal of hazardous waste. Subtitle D addresses the management of non-hazardous solid waste (EPA, 2012).

At the state level, the Solid Waste Program (part of the Vermont Agency for Natural Resources) does not regulate site owners or contractors with respect to managing on-site materials, but does regulate the hauling and disposal of waste. By Executive Order, however, all State Building projects must have a "Construction Site Waste Management Plan". The contractor must abide by the plan, and there are monetary penalties if they do not. ANR has worked closely with the Department of Buildings and General Services on formulating and approving plans for large projects and would certainly offer to help on projects of the magnitude of Alternatives B or C. Such plans call for a good faith effort to reduce the amount of waste generated on the job-site, to follow designated handling procedures and to provide documentation to verify material reuse, recycling, and disposal in furtherance of Vermont's ***Solid Waste Management Plan***.

3.7.3.2 *Environmental Consequences*

No Action – No structural debris would be created.

Proposed Alternative - The handling, hauling, reuse, recycling and disposal of the structural debris is expected to require considerable planning and monitoring. It is estimated that about 50 pounds of construction and demolition waste is generated per square foot of light building demolition. Considering that most buildings to be demolished contain stone, brick and heavy framing, average weight estimates are likely to be double, or roughly 100 pounds per square foot. With an estimated 310,000 square footage of buildings to be demolished, in excess of 15,000 T of debris is a minimal estimate. The proposed "Construction Site Waste

Management Plan" calls for the collection and recycling of all metals, salvage of slate roofing, salvage of all wood, and salvage of concrete and brick waste to be crushed and reused on site to fill foundation holes of demolished buildings and for batching into new low strength concrete for flood proofing. This should preclude any significant short or long-term adverse effects. Consideration of this issue will be addressed as part of the Act 250 review.

Alternative C – Similar to the Proposed Alternative, but with far less tonnage of demolition debris.

3.7.4 **Fuel Tanks**

3.7.4.1 *Affected Environment*

The WSOC is comprised of approximately 47 buildings, including the Public Safety Building, power house, laboratories and maintenance structures. These are all potential sites of underground storage tanks, hazardous waste generators and past hazardous waste spills.

A review of the databases and follow-up phone conversation with Susan Thayer, Vermont Underground Storage Tank Program (3/20/2012), indicates, in the past, there were three underground gasoline storage tanks located at the State Police Headquarters. All tanks were listed as "in good condition" at time of removal (1994, 1999 and 2008); no tanks remain. Currently four underground storage tanks are located on-site at the power plant - a 10,000 gallon #2 fuel oil tank, a 10,000 gallon diesel fuel tank, and two 20,000 gallon #6 fuel oil tanks.

Five listed "Hazardous Waste Generators" are located at the WOSC at the Vermont Department of Agriculture Lab, Vermont Department of Building Maintenance Shop, Vermont Department of Public Safety, Vermont State Hospital, and the Environmental Lab. All five facilities are categorized as "conditionally exempt" which means they generate less than 220 lbs of waste per month (Personal communication with Elayna Mellas, 3-21-2012)

The Vermont Waste Management Interactive Database (VWMID) lists 10 documented hazardous waste spills that occurred at the WSOC between 2002 and 2011. Some were minor incidents involving limited gasoline spills, while others involved substantial quantities of fuel oil or antifreeze and required professional remediation. No overall Environmental Site Assessment has been conducted on this property.

In the aftermath of Hurricane Irene, floodwaters deposited numerous oil and hazardous material tanks and containers and oil-contaminated soils on the grounds of the WSOC. ENPRO, a hazardous waste cleanup contractor, was hired to "assess the Complex and remediate chemical and petroleum-impacted areas throughout the facility." Contractors treated an estimated 250,000 gallons of petroleum-contaminated water and 60 tons of contaminated sediment (ENPRO, 2012).

Alternative C – No underground fuel tank is registered for the DOL Building and there are no recorded hazardous waste spills ("VT Registered Underground Storage Tank List"). However,

subsurface contamination was discovered in the vicinity of a 10,000 gallon, underground fuel storage tank during its replacement in 2008. Monitoring wells installed to test the site were closed in January, 2012 with no groundwater contamination recorded (Report 20083878, Waste Management Division, Agency for Natural Resources). [http://www.anr.state.vt.us/DEC/WASTEDIV/SMS/WMID_reports/20083878.ISI.report.pdf].

The ***Resource Conservation and Recovery Act*** (RCRA) mandates control over the treatment, storage, and disposal of hazardous waste. Subtitle C establishes a system for controlling hazardous waste from the "cradle-to-grave" including generation, transportation, treatment, storage, and disposal. RCRA Subtitle I regulates underground storage tanks containing hazardous substances and petroleum products (EPA, 2012).

Vermont Hazardous Waste Management Regulations (§ 7-101) are intended to protect public health and the environment by regulating the generation, storage, collection, transport, treatment, disposal, use, reuse, and recycling of hazardous waste in Vermont. Vermont Underground Storage Tank Regulations are rules adopted to establish standards for the design, installation, operation, maintenance, monitoring and closure of underground storage tanks.

3.7.4.2 *Environmental Consequences*

No Action - Under the No Action Alternative existing underground storage tanks would remain intact and continue to be utilized as the primary source of heat generation. The tanks are located within the 100-year floodplain and the floodway. In addition, several large volume hazardous materials releases have occurred in this location. Their continued presence in the floodway would increase the threat of contamination in the future.

Proposed Action - One component of this alterative includes relocation of the power plant. In accordance with the Vermont Hazardous Waste Management Regulations, when closing an underground storage tank system, the tanks must be removed from the ground. Regulations also stipulate that the site is subject to a full site assessment at the time of removal.

If at any time during the construction phase hazardous materials are discovered, all reporting, testing and any associated cleanup must be conducted in compliance with all applicable state and Federal hazardous waste regulations. Any hazardous materials discovered, generated, or used during construction must be disposed of and handled in accordance with applicable local, state, and Federal regulations.

Alternative C – Potential consequences are similar to those of the Proposed Action.

No significant unavoidable adverse effects are anticipated from any of the proposed alternatives.

3.7.5 **Noise**

3.7.5.1 *Affected Environment*

Proposed Alternative - The WSOC consists of a campus set roughly 350 feet back from South Main Street. Village residences are located along South Main and Randall Streets and on

Healy Court on the northern, eastern and southern fringes of the campus. With respect to potential noise levels created by demolition, such levels are anticipated to be inversely proportional to the distance from a specific building on the WSOC campus to a residential neighborhood, in this instance roughly 500 to 1,500 feet from the streets noted above.

The DOL Building is bordered by athletic fields of Montpelier High School to the north, two large offices and storage areas to the south, a wooded hillside to the east and the Winooski River to the west. The nearest residential area consists of five structures located about 600 feet to the north across the river.

The EPA has developed federal noise-emission standards, identifying major sources of noise and determining appropriate noise levels for activities that would infringe on public health and welfare (EPA, 2009). The "Levels Document" is the standard reference in the field of environmental noise assessment. EPA identifies a 24-hour exposure level of 70 decibels as the level of environmental noise which will prevent any measurable hearing loss over a lifetime. Levels of 55 decibels outdoors and 45 decibels indoors are identified as "preventing activity interference and annoyance". U.S. Department of Transportation (USDOT) has established acceptable noise levels and ranges for construction equipment (USDOT, 2009). State, local and residential concerns will be addressed through conditions imposed by community Development Review Boards or in an Act 250 permit.

3.7.5.2 *Environmental Consequences*:

Construction activities would temporarily increase noise levels in the vicinity of both project areas. Regardless, both sites are sufficiently removed from residential properties to reduce noise levels to acceptable standards and not for extended periods. Local and state permits are anticipated to address and manage any increased noise resulting from demolition, stockpiling and processing of materials, construction equipment or construction-related traffic.

In both instances, noise from general operations is expected to be well within acceptable limits. No significant adverse effects are anticipated.

3.8 **Socioeconomic Considerations**

3.8.1 **Community Economics**

3.8.1.1 *Affected Environment*

Based on US Census 2010 data, the Town of Waterbury has a population of 5,064, with 1,763 individuals living in the Village of Waterbury. The post-Irene population dynamics are unclear, but more than 400 individuals may have found alternative housing following the flood. It is uncertain how many may permanently relocate.

Prior to Irene, Waterbury was home to two large employers. The WSOC employed approximately 1500, with roughly 1,100 workers present at any one time. Green Mountain Coffee Roasters employs roughly 1,000 (now back to full operation). As noted by FEMA's ESF14 team in their ***Post Irene Business Impact Report, "***The Fiscal Year 2011 operating

expenditures for the State facility in Waterbury are estimated at $13 million with approximately $2.7 million being sourced to vendors in Waterbury."

Following Irene several studies were undertaken to assess the economic impacts to the community. A post-Irene business survey was conducted by the Waterbury Select Board, Village Trustees and the non-profit Revitalizing Waterbury in September and October, 2011. Of 175 businesses polled, 72 participated. Some businesses had been hard hit, others less so.

Of particular note for this study was the response to questions about the economic effects of the WSOC closing with respect to three variables – the estimated percentage of annual revenues attributable to spending by state employees based at the state office complex, by individuals visiting the state complex, and from providing goods/services to the complex as a vendor prior to Irene. "Three in four businesses (75%) indicated that *at least some* of their annual revenues are attributable to spending by state office complex workers. On average, businesses estimate this to be 13% of annual revenues, with a majority estimating up to between 1-30% of annual revenues. Over half (54%) indicated that at least some of their annual revenue is attributable to spending by individuals visiting the state complex. On average, businesses estimate 7% of annual revenues. Four in ten (39%) attribute at least some of their annual revenues to providing goods/services to the state complex as a vendor. On average, businesses estimate 8% of annual revenues.

The Economic Development Research Group prepared an analysis of the potential economic impact that might result from relocating the WSOC someplace other than the Village. Their "conservative" estimate, published in January, 2012, was that the ripple effect of locating the WSOC and its associated work force outside of Waterbury Village could result in a loss of approximately $10.7 million in total economic output, a loss of $3.7 million in total labor income, and a loss of an additional 111 jobs in the surrounding village.

Alternative C consists of constructing a new building to consolidate the Agency of Human Services (AHS) at the site of the existing Department of Labor (DOL) building off Memorial Drive in Montpelier. The hypothetical design could house 1,298 workers—the combined total of current AHS staff plus the DOL staff displaced by demolition of the existing building. No comparable studies of the potential economic consequences of such a staff shift to Montpelier exist. However, one might surmise that such an expanded number of state employees would cause Montpelier's economic climate to be roughly the inverse of Waterbury's estimated losses.

3.8.1.2 *Environmental Consequences*

No Action – Based on the studies conducted following Irene, if the trends in economic decline were to continue, Waterbury Village would likely see an increase in business failures, some out migration, and a reduction in property values. Degradation in community spirit and enterprise might follow, although the revitalization initiatives undertaken in Waterbury following Irene have countered any such movement in this direction, at least for the short-term. "Mothballing" of the Waterbury site would also incur expenses and potential liabilities.
Proposed Alternative – The return of 700-1,000 WSOC staff would substantially reverse the economic downturn experienced by area businesses to date and would re-establish the status

quo and economic value of state workers in Waterbury. In addition, the substantial repairs to core buildings, construction of a state-of-the-art office and refurbishment of the aging infrastructure at the WSOC would create a substantial number of local jobs in the next few years.

Alternative C – Construction of a modern office building in Montpelier and the influx of state workers could hardly help but encourage the growth of the local economy and the large construction project would undoubtedly create a number of new jobs for the next few years. Relocation to Montpelier would also come with hidden costs, not the least of which is the expense of mothballing the WSOC.

3.8.2 **Operational Considerations**

3.8.2.1 *Affected Environment*

Throughout the planning process that preceded this EA, considerations were given to a variety of factors related to individuals and the work space. Variables include such factors as worker comfort, efficiency of operation, economy of scale, and modern workspace adaptations. A few of the design factors that affect operations are summarized below.

3.8.2.2 *Environmental Consequences*

No Action - Such considerations do not apply to a No Action Alternative in which the WSOC is mothballed.

Proposed Alternative – Design principles for the WSOC would:

- provide an office complex in a beautiful natural setting with an improved campus landscape;
- allow appropriate and efficient matching of space to departmental and functional needs with a balance of relatively narrow existing buildings and the large open floor plans of a new building;
- allow flexible and open groupings of workers, which have been shown to improve productivity and worker satisfaction, thanks to large, open floor plans;
- create refurbished and modern workplaces with healthy, environmentally sustainable strategies;
- offer opportunities for on-site, low-carbon power generation and installation of substantial solar arrays; and
- incorporate a wide array of sustainable features in the new building, with an emphasis on Vermont-sourced materials such as granite, slate, and woods.

Operational and environmental disadvantages include:

- demolition of a substantial number of existing buildings eliminates potential partial re-use; and
- portions of the site still remains within the limits of the 100-year flood plain (but in a substantially improved condition to retard any future flood damage).

Alternative C - Operational considerations relative to choosing the site include:

- consolidating state government agencies and leadership in Montpelier;
- creating a modern workplace with healthy, environmentally sustainable strategies;
- and siting the new building so it is well served by transit, is adjacent to other state workers in downtown Montpelier and at the National Life Complex, is connected to services in downtown Montpelier, which are within walking distance along a recreation path; and is located so that the new building could be tied into the new state district heating plant.

Operational disadvantages suggested by the State's consultant group include:

- The proposed design exceeds what is currently permitted by zoning; the site cannot accommodate the AHS and DOL workers and the required parking while adhering to current zoning regulations. Relief from zoning requirements would be necessary.
- Additional land acquisition would be required; even as designed with a multilevel parking structure, the site cannot accommodate the required parking for workers and visitors, fleet-vehicle storage, and park-and-ride functions currently located on the property.
- Demolition of the existing DOL building will be required to accommodate the program on this site. 160 DOL employees would be displaced during construction, but the design allows them to move back to this site.

3.8.3 **Environmental Justice**

3.8.3.1 *Affected Environment*

Executive Order 12898 (Environmental Justice, 59 ***CFR*** 7629) directs federal agencies to make achieving environmental justice part of their mission by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations, particularly when such analysis is required by NEPA (EPA 1998).

Project areas in both Waterbury (population 4,871) and Montpelier (population 7,880) are located in Washington County (population 58,696). For the purpose of evaluating low income and minority populations, census statistics for Washington County, Waterbury and Montpelier were considered; statistics for the State of Vermont are provided for comparison and context.

Low-income households are defined by the U.S. Census Bureau as those households with incomes at or below 80 percent of area median household income. For the period 2009/2010, the median household income in Washington County was estimated at $51,334; for Waterbury at $46,336; for Montpelier at $55,894; and for Vermont as a whole, it was $49,393. Approximately 11.2% of Waterbury's population and 11.5% of Montpelier's population live below the poverty threshold, compared to 11.4% of the population of Vermont as a whole. Racial/ethnic minorities make up a very small percentage of state, county and community populations in Vermont. In Washington County, the minority population totals less than 1,500 individuals. The White non-Hispanic population makes up 96.8%, 96.1%, 97.8% and 92.3% of the state, county, Waterbury and Montpelier populations, respectively. Black non-Hispanic populations make up less than 1% of the population in all cases. Asian populations make up 0.9%, 0.6%, 1.2% and 2.1% of the state, county, Waterbury and Montpelier populations,

respectively. Hispanic-Latino populations constitute 0.9%, 1.5%. 0.7% and 2.1% of the state, county, Waterbury and Montpelier populations, respectively.

3.8.3.2 *Environmental Consequence*

The scattered, low-income and minority populations living within Washington County or within Waterbury or Montpelier are not statistically different than in other parts of Vermont. All alternative actions involve re-use or alteration of pre-existing facilities. No disproportionately high or adverse human health or environmental effects to low income or minority populations will arise from any of the Alternatives considered.

3.9 **Climate Change**

The CEQ has issued a draft NEPA guidance document encouraging federal agencies to improve their consideration of the effects on greenhouse gas emissions and climate change in their evaluations of proposals subject to NEPA documentation (CEQ 2010). Although the cause of the August 2011 tropical storm cannot be directly attributed to climate change, changes in precipitation patterns and volatility in precipitation-driven systems that have the potential to increase damage from flooding cannot be ruled out in the foreseeable future. The attention paid and the various mitigation methods proposed for all alternatives may go a long way towards reducing future flooding. No mitigation measures related to climate change are specifically proposed for the project alternatives, but the anticipated reduction in carbon emissions by using new technology for heating is certainly a positive step.

3.10 **Cumulative Effects**

Cumulative effects are those that result from the incremental effect of the Alternative Actions when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other action (40 CFR 1508.7).

The Vermont State Hospital and Waterbury State Office Complex have been a prominent physical, economic and social component of the Village of Waterbury for over 100 years. To evaluate all of the possible cumulative effects that might arise from not re-occupying the Complex or with revitalizing the Complex would be a daunting task, and one that is un-necessary for this environmental assessment. However, some interplay of actions is worth noting.

Over the past months, Waterbury residents, with the assistance of FEMA's ESF-14 team, have been engaged in a visioning program to look to the future and decide where they would like to be. The results provide a measure of the cumulative effects that might be expected.

It was clear from the beginning that the impacts of what the State decides to do with the WSOC campus would have long-term implications for the Town and Village of Waterbury. Taking a very positive stance, the Town, Village and community partners were interested in helping build a vision for the use of any "surplus" property identified by the state. In the end, many of the

projects identified in the ***Waterbury Long-Term Community Recovery Plan*** have elements that include portions of the State Complex.

Many other options were discussed in community meetings. Some of these projects include:

- Increased opportunity for small business development and/or future increased tax base;
- Possible development of surplus property to support development of a "center for resilient technology business incubator";
- Possible re-development of Wasson Hall and Ladd Hall to support affordable housing;
- Possible development of 121 and 123 S. Main to support child day-care provider(s);
- Opportunity to "piggy-back" off of the State Complex' new power-plant to provide power/heat to additional "non-complex" users in the community; and
- Potential use of surplus property to house a Village Police Station.

Irene carried with it an important lesson: the flooding that affected the WSOC directly affected much of the infrastructure, as well as residential and commercial properties throughout the Village. Efforts taken to reduce future flood damage within the WSOC could have benefits beyond the campus. Efforts are on-going to look at flood mitigation options at the Complex in light of a proposed "Winooski Street Bridge Restriction Study". An RFP for this study was issued by the Town of Waterbury in June, 2012 to assess a significant "choke" point in the channel of the Winooski River as it navigates a narrow constriction produced by a bedrock ridge and bridge crossing just downstream from the Village and WSOC. The study would also consider variables for a considerable distance above and below the choke point. Three questions are posed:

- Do the Winooski Street Bridge and the surrounding natural topography have a significant effect on the flood risk within the Village of Waterbury and surrounding floodplain?
- Would alterations to the bridge, abutments, or street have an impact or change flooding within the village?
- Would lowering the fields or parking lots adjacent to the State Office Complex reduce the risk of flooding within the village?

In the future, the State proposes to remove a small wastewater treatment plant located on the Winooski River floodplain beyond the project area. It was developed for the WSOC in the 1950s and abandoned in the 1960s when the system was tied into the Village wastewater treatment facility. Removal of the structure and surrounding fill may compliment other undertakings currently proposed as part of the re-occupation of the WSOC and resulting from the "Winooski Street Bridge Restriction Study".

Alternative C - No cumulative effects were identified as a result of expansion of the DOL lot in Montpelier.

3.11. **Mitigation**

Mitigation measures are actions that are intended to avoid or minimize the impacts of the alternatives on social, cultural, and natural environmental resources when appropriate. As described earlier (Table 2.5-1), the environmental consequences of the alternatives with respect to specific federal laws are individually addressed below in terms applicable mitigation measures. The State will also be required to implement mitigation measures based on necessary compliance with local, State, or other laws, regulations, permits, and codes and standards. Implementation of such conditions is a condition of receiving Federal financial assistance from FEMA. A list of regulatory agencies, division and programs that issue such permits is provided in Section 4.2.

3.11.1 *No Action Alternative*

If the No Action alternative is selected, the following mitigation measures will be required:

1. Abandonment of the WSOC campus would require removal of all underground storage tanks and completion of any required site remediation.

3.11.2 *Proposed Alternative*

If the Proposed Alternative is selected, the following mitigation measures will be required:

1. The UVM Consulting Archeology Program will conduct an initial archaeological site survey; any further study or mitigation required to address an adverse effect as defined in 36 C.F.R. 800 will be addressed through the *FEMA-State Programmatic Agreement for Historic Properties* (2011).

2. If human remains are discovered during the course of project implementation, Buildings and General Services shall immediately stop construction activities in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm until FEMA concludes consultation with the signatories of this agreement. The Signatories shall consult to determine the appropriate disposition of the remains in accordance with applicable laws of the State of Vermont, including 13 VSA 3761 (Unauthorized Removal of Human Remains), 13 VSA 3764 (Cemeteries and Monuments – Grave markers and historic tablets) and 18 VSA 5212 (Permit to Remove Dead Bodies).

3. Under the National Historic Preservation Act, any Section 106 mitigation resulting from the alteration or loss of a National Register eligible property receiving FEMA funding will be addressed through consultation protocols outlined in the *FEMA-State Secondary Programmatic Agreement* (August 2012) and guided by the "Mitigation Treatment Plan" contained in Appendix E.

4. The State will coordinate with the River Corridor and Floodplain Manager at ANR and comply with the appropriate floodplain ordinance.

5. A *Construction Site Waste Management Plan* will be developed and implemented.

6. Hazardous materials used in construction of the new facility must be managed (store, used, transported, and disposed of) in accordance with federal, state, and local hazardous waste, hazardous material, and hazardous substance requirements. If hazardous substances are released to the project area during construction, these federal, state, and local requirements must be followed in response and cleanup.

7. The State will follow all conditions imposed by the local Zoning and Development Review Board, all State Agency permits, codes and standards, and all conditions imposed as a resulted of the *Act 250* review including, but not limited to, construction, demolition, transportation, potable water, wastewater, stormwater, air quality, hazardous material (including asbestos) and erosion control.

8. Construction vehicles and equipment will be stored on site during project construction and appropriate signage will be posted on affected roadways. All construction activities will be performed using qualified personnel and in accordance with the standards specified in Occupational Safety and Health Administration regulations. Construction will take place only during normal business hours and all equipment will meet local, State and federal noise regulations.

3.11.3 *Alternative C*

If Alternative C is selected, the following mitigation measures will be required:

1. Coordinate with the State River Corridor and Floodplain Manager and comply with the local floodplain ordinance.

2. A *Construction Site Waste Management Plan* will be developed and implemented.

3. The State will follow all conditions imposed by the local Zoning and Development Review Board, all State Agency permits, codes and standards, and all conditions imposed as a resulted of the *Act 250* review including, but not limited to, construction, demolition, transportation, potable water, wastewater, stormwater, air quality, hazardous material (including asbestos) and erosion control.

4. Construction vehicles and equipment will be stored on site during project construction and appropriate signage will be posted on affected roadways. All construction activities will be performed using qualified personnel and in accordance with the standards specified in Occupational Safety and Health Administration regulations.

Construction will take place only during normal business hours and all equipment will meet local, State and federal noise regulations.

5. If human remains are discovered during the course of project implementation, Buildings and General Services shall immediately stop construction activities in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm until FEMA concludes consultation with the signatories of this agreement. The Signatories shall consult to determine the appropriate disposition of the remains in accordance with applicable laws of the State of Vermont.

4.0 PUBLIC PARTICIPATION

4.1 Initial Public Involvement

FEMA published a public notice in *The Waterbury Record* on Thursday, May 17, 2012 announcing that a public meeting would be held at the Thatcher Brook Primary School Cafeteria, 47 Stowe Street, Waterbury on May 30 from 6:30-8:30 pm to review the State's plans related to the re-occupation and new construction initiatives at the Waterbury State Office Complex. To provide information on proposed plans and elicit public discussion, a preliminary draft of the Environmental Assessment for the Waterbury Complex was made available two weeks before the meeting at the Waterbury Village Office and Village Library for public review. [See Appendix A for related documents.] Sign-in sheets indicate that 26 local residents attended the public meeting that was held as planned, including several families on Randall Street that had received heavy flood damage to their homes from Irene, head of the historical society, head of the library, chair of the select board and other town officials.

The intent of the meeting, moderated by FEMA's Environmental/Historic Preservation Advisor, was to provide information to the community on what is being proposed and what environmental resources might be affected. The Environmental Assessment (EA) developed as a requirement of the National Environmental Policy Act is designed to ensure that FEMA and applicants make informed decisions with respect to the environment. Based on the EA, two resources will be primarily affected – the floodplain and historic properties. Further consideration of the floodplain will be developed as part of the 8-Step process required by EO 11988; further consideration of historic properties will be addressed through the development of a Secondary Programmatic Agreement.

Twenty-two queries were voiced by members of the audience. Questions from several residents focused on what might be done to modify the floodplain on state land behind Randall Street to increase its capacity to contain floodwaters and reduce flooding in the village. A town representative informed the audience that the Village, with State support, is about to issue an RFP for a study to address this and other issues along a stretch of the Winooski that extends both up and downstream of the village.

The historic development of the campus was presented by Steve Mosman of FFF, as was the proposed general treatment of historic buildings within the campus. The audience was favorably disposed towards the proposed plans; no objection was voiced to the planned demolition of a number of historic buildings; the town has already proposed village uses for several historic buildings located fairly close to South Main Street that the State has been considering de-accessioning.

Several residents asked if FEMA funding might be made available to provide space for the Waterbury Historical Society and its collections, and to provide a vault for storing documents of historic importance. It was indicated that the Secondary Agreement would be posted for public comment. Several residents indicated a willingness to form a small local group to act as a consulting party to the Agreement.

The meeting was taped by ORCA (Onion River Community Access) TV in Montpelier and made available for viewing through local broadcasts. To facilitate the further dissemination of information, FEMA worked with the Town of Waterbury to have the preliminary Draft EA posted to the Town website (http://www.waterburyvt.com/recovery/) on June 2, 2012. It was announced in the public notice that written comments from meeting participants and others about their concerns and ideas growing out of the public meeting or originating from their reading of the preliminary Draft EA could be forwarded to FEMA for consideration by June 15, 2012. [Comments were received from eight individuals, organizations and local governmental entities.]

TO BE DEVELOPED

4.2 Public Comments on the Draft EA

A Public Notice and Draft EA were posted to the FEMA and State of Vermont websites. The Final EA and FONSI will be available on the FEMA and DHP websites.]

5.0 AGENCY COORDINATION AND CONSULTATION

FEMA has consulted with federal agencies, state agencies and stakeholders throughout the EA process to gather valuable input and to meet regulatory requirements. This coordination was integrated with the analysis of project effects and the public involvement process. Because there are no federally threatened or endangered species present under the Endangered Species Act and no essential fish habitat affected under the MSA, no consultation with USFWS and NMFS was undertaken.

A "Permit Stakeholders Meeting" was held on April 5, 2012, hosted by Buildings and General Services. Its purpose was for Agency representatives to clarify permitting issues and to determine the feasibility of an expedited review process. Attendees included:

John Ostrum, Project Manager, Architect
Jeb Spaulding, Secretary of Administration
Steve Mosman, Freeman French Freeman, Architects
Ken Worden, Engineering Ventures (Storrmwater Mgt)
Paul Boisvert, Engineering Ventures (Stormwater Mgt)

Steve Lotspeich, Town Planner
Clare Rock, Zoning Administrator
Jennifer Mojo, Assistant Planner
Boolie Sluka, Act 250 Land Use Permit, District 5 Coordinator
Christina Hutchinson, Stormwater Discharge
Ellen Parr Doering, Wastewater Systems and Potable Water Supply
Greg Bostock, Public Water Supply
Doug Elliott, State Air Pollution Division
Judith Ehrlich, VT Division for Historic Preservation
Devin Colman, VT Division for Historic Preservation
Vernon Nelson, Dept of Health, Lead & Asbestos Regulatory Program Chief
Stan Baranowski, Division of Fire Safety Plans Review
Peter Thomas, FEMA Environmental/Historic Preservation Advisor
Rosemarie Bradley, FEMA Environmental Specialist

FEMA followed up with a memo to state agency representatives requesting their response to a draft Environmental Assessment for the WSOC by April 20. Based on descriptions of the proposed project alternatives, agency staff members were requested to comment on issues and concerns, the range of alternatives, and potential effects regarding the project. Comments provided by the following agencies have been incorporated into this draft EA:

- Vermont Department of Environmental Conservation, Air Pollution Control Division, Permitting and Engineering Section, Doug Elliott, Section Chief
- Vermont Department of Environmental Conservation, Solid Waste Management Program, James "Buzz" Surwilo
- Vermont Department of Environmental Conservation, Water Quality Division, District Wetlands Ecologist, Shannon Morrison
- Vermont Department of Environmental Conservation, Stormwater Program, Christina Hutchinson
- Vermont Department of Environmental Conservation, Watershed Management Division, State River Corridor and Floodplain Manager, Rob Evans
- Vermont Department of Environmental Conservation, Hazardous Waste Management Program, Environmental Program Manager, Marc Roy, RCRA Compliance, Elayna Mellas, Underground tank Program Susan Thayer, Spills Program, Tim Cropley
- Vermont Agency of Natural Resources/Department of Environmental Conservation, Drinking Water & Groundwater Protection Division, Assistant Regional Engineer, Ellen E. Parr Doering
- Vermont Department of Environmental Conservation, Air Pollution Control Division, Air Toxics Program, Planning Section and Air Toxics Coordinator, Heidi C. Hales, Ph.D.
- Vermont Division for Historic Preservation, Director of Operations and Project Reviews, Judith Ehrlich, Review Coordinator, Devin Coleman
- Vermont Division for Historic Preservation, Archeologist, Scott Dillon
- Vermont Fish & Wildlife Department, Wildlife Diversity Program, Natural Heritage Information Manager, Everett Marshall

- VT Department of Health, Asbestos and Lead Regulatory Program, Program Chief, Vernon Nelson, and Program Engineer, Christopher Kinnick
- VT Natural Resources Board, District 5 Environmental Commission, Boolie Sluka, District 5 Coordinator
- U.S. Army Corps of Engineers, New England District, Vermont Project Office, Marty Abair

6.0 PREPARERS

Environmental/Historic Preservation Staff, JFO for DR-4022-VT
Peter Thomas, Environmental/Historic Preservation Advisor/Team Lead
Rosemarie Bradley, Environmental Specialist
Marcus Tate, Historic Preservation Specialist
Christopher Dooley, Historic Preservation Specialist
Robert Quivey, Floodplain Specialist
Rebecca Phelps, Historic Preservation Specialist

7.0 DISTRIBUTION TO BE DEVELOPED

FEDERAL AGENCIES

STATE AGENCIES

TOWN

LIBRARIES

WEB SOURCES

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Appendix A. Public Meeting – Notice, Press, Comments

PUBLIC NOTICE

The Federal Emergency Management Agency (FEMA) and State of Vermont are requesting public participation and input at an upcoming meeting to review the State's plans related to the re-occupation and new construction initiatives at the Waterbury State Office Complex. Discussions will focus on historic and environmental resources that could be affected by proposed demolitions, construction and re-occupation.

The public and all interested parties are invited to attend and participate in the meeting, which will be held Wednesday, May 30, 2012 at 7:00 pm in Thatcher Brook Primary School cafeteria, 47 Stowe Street, Waterbury. The meeting will be preceded by an open house from 6:30 – 7:00 pm, where meeting attendees will have the opportunity to view general information and talk directly to federal and state representatives.

Public comments will be solicited on FEMA's development of an Environmental Assessment as part of the review process required by the National Environmental Policy Act (NEPA). A preliminary copy of the Draft Environmental Assessment for the Waterbury State Office Complex will be available by May 21, 2012 at the Waterbury Municipal Office, 43 South Main Street, Waterbury (8:00 am to 4:30 pm, Monday-Friday), and the Waterbury Public Library, 28 North Main Street, Waterbury (10:00 am to 8:00 pm Monday-Wednesday, 10:00 am to 5:00 pm Thursday and Friday, 9:00 am to 2:00 pm Saturday) for public review.

Proposed changes to the historic complex and options to reduce future flooding and restore floodplain values will be specifically discussed. Comments about changes to the historic campus and floodplains would be particularly appropriate as part of FEMA's review under the National Historic Preservation Act and Executive Order 11988 (Floodplain Management). After the meeting, public comments will continue to be accepted until June 15, 2012 at 4 p.m. Comments can be mailed to Peter Thomas, Essex Junction Joint Field Office, 30 Allen Martin Drive, Essex Junction, Vermont, 05452.

The May 30 meeting will ensure that the public has an opportunity to inform FEMA and the State about environmental impacts that might result from planned activities. These comments will be integrated into the final Draft Environmental Assessment, the review and public notice process required by Executive Order 11988 (Floodplain Management) and during the detailed reviews of individual historic properties within the Waterbury State Office Complex as they occur in the coming months

Sign-In for Public Meeting, May 30, 2012:

FEMA-4022-DR-VT– Sign In Sheet
Waterbury State Office Complex
Public Meeting

Date: May 30, 2012

(PLEASE PRINT ALL ENTRIES)

NAME	RESIDENCE	AGENCY	Phone (include area code)	E-MAIL
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John Ostrum	East Montpelier	State VT - BGS	828-5652	john.ostrum@state.vt.us
STEPHEN MOSMAN	SOUTH HERO	FFF ARCHITECTS	864-6844	SMOSMAN@FFFINC.com
Chris Dodey	W. Ilister	FEMA	598-3946	Chris.Dodey@DHS.gov
Andrew Bessette	Richmond		434-2578	cabessette@juno.com
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Donald Bicknell	Waterbury, VT.		244-5795	
Chris Viens	Waterbury Ctr	Select Board	244-5546	C.P. Viens@Comcast.Com
Skip Flanders	Waterbury	P. Wright Trustee Historical Soc	244-5299	wtbskip@comcast.net
Rebecca Ellis	Waterbury	Town Select Board	839-0515	ellisvermont@yahoo.com
Kristen Fountain		Waterbury Record	253-2101	kfountain@waterburyrecord.com
Nancy Reynen		Burlington Free Press	578-5885	nreynen@burlingtonfreepress.com
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Alison Friedkin	DUXBURY	CVCLT	802 476 4493	afriedkin@cvclt.org
Mame McKee	Duxbury	ReBuild Waterb.	802-793-7182	mame.rebuildwaterbury@gmail.com
BOB EVANS	Williston	VT ANR	802-338-4857	rob.evans@state.vt.us
ROSS NAGY	RUTLAND	VSM	(800) 347-0488	ross.nagy@state.vt.us
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ROBERTA QUIVEY	NORTH DAKOTA	FEMA-EHP		roberta.quivey@fema.dhs.gov
Margaret Luce	Waterbury Ctr VT	Waterbury Library	802-244-7809	mfmcmVT@aol.com
David Luce	" " "	Resident	" "	dlucearch@aol.com
Wade Hodge	Waterbury	Resident	802-371-9550	wade.hodge@gmcr.com
Steve Lotspeich	Waterbury Ctr.	Town of Waterbury	802-244-1012	slotspeich@waterburyvt.com
Bill Shepeluk	Waterbury CTR	Town of Waterbury	244-7033	wshepeluk@aol.com
TOM STEVENS	WATERBURY	STATE REP.	802 244 4161	tom@stevensvermont.com

Follow-up Article in Local Newspaper:

DR-4022-VT and DR-4043-VT
Media Monitoring Report
Thursday, May 31, 2012

Opinions sought on offices overhaul

Waterbury Record

May 31, 2012

Kristen Fountain

The plan for renovating Waterbury's State Office Complex calls for tearing down a half-dozen large buildings that have been part of the town landscape for more than 80 years.

Before helping to fund the massive demolition and reconstruction project, the Federal Emergency Management Agency wants to know what residents in and around Waterbury think about losing that connection to history.

That is one of several reasons the agency is seeking public comment on a draft "environmental assessment" available at the town offices and library. A public hearing Wednesday night offered one opportunity for people to air their views. Comments will also be accepted in writing until June 15 at 4 p.m.

"People have different kinds of attachments," said Peter Thomas, an archeologist formerly with the University of Vermont who co-authored the report on behalf of the agency. "Part of what we need to do is to get a sense of what people are thinking in the community."

Every project that the federal government either undertakes or, in this case, funds must undergo this kind of assessment. The goal is to consider what effects the project would have on the surrounding environment, both natural and manmade, and whether the project conforms with federal laws and regulations.

For the State Office Complex, the main impacts will be on the floodplain and on historic buildings, and those impacts are related, Thomas said. To restore the floodplain to its original state, many historic buildings there will have to be demolished.

“What it winds up in part being is a balancing act,” Thomas said. “There is definitely a trade-off.”

FEMA, the Vermont Division of Historic Preservation, and the Department of Buildings and General Services are close to an agreement on how to handle the historic buildings, Thomas said.

Each one, whether it is being demolished or preserved, must be looked at individually and a holistic plan developed. “If you are going to have an adverse effect, you look to do something to counterbalance it,” he said.

Historic Complex

Construction of the Vermont State Hospital began in 1889, prompted by overcrowding at the Vermont Asylum for the Insane in Brattleboro, which opened in 1834.

The early core of the complex was designed by the Rand & Taylor architectural firm of Boston, which was involved in the design of many of the country’s early hospitals and asylums.

The Waterbury buildings constructed between 1889 and 1896 are the most historically significant, according to a recent analysis by another Boston-based firm, Goody Clancy.

“The Vermont State Hospital at Waterbury is by far the largest and most intact collection of hospital buildings by Rand & Taylor anywhere in the United States,” the draft environmental assessment states. The firm also designed Worcester (Mass.) State Hospital and Mary Hitchcock Memorial Hospital in Hanover, N.H., but neither still exists in its former condition.

The alignment and structure of these hospital buildings — in one long, connected line — was thought by physicians and scientists at the time to be particularly conducive to the treatment of mental health. For a period, they also emphasized the importance of circular wards, which are another prominent feature of the Vermont State Hospital’s design.

“There are very few examples of circular hospital wards all over the world, even fewer in the United States,” the report states. “And hardly any that are still intact within their original layout.”

The first group of patients arrived in Waterbury in 1891 and by the turn of the century the population was already greater than the original design was intended to house. The first additional buildings constructed included a residence for nurses, now called Wasson Hall, in 1901 and a unit to house patients with tuberculosis, now called the Sewing Building, in 1904.

More and more buildings were added to the complex over the next 50 years, until outpatient programs, begun in the mid-1950s, began to slow the demand for space. The Vermont Agency of Human Services was the first non-hospital tenant of the buildings, starting in 1978.

Over time, many historical aspects of buildings were changed to adapt to the new use as office buildings. The report suggests that the state government could make up for the impact of tearing down some of the historic buildings by restoring exterior aspects, such as cupolas and towers, to the buildings it plans to keep and restore.

The A Building, which is slated for demolition, is of particular interest to historic preservationists. It was built in 1932 as a treatment center for “acutely disturbed female patients.” The construction occurred when Eugene A. Stanley was superintendent of the state hospital; he headed operations from 1918 and 1936, and Stanley Hall is named after him.

Stanley was a proponent of eugenics, a movement that advocated the forced sterilization of the “feebleminded and insane.” He testified in favor of bills approved in 1927 and 1931 that made the practice legal in Vermont until the mid-1950s.

Because A Building has been remodeled, “the extent to which this building architecturally manifests any association with the eugenics movement is debatable,” the report states, but says the issue should be studied.

Comments can be mailed to Peter Thomas, FEMA Essex Junction Joint Field Office, 30 Allen Martin Drive, Essex Junction, VT 05452.

Comment Received 06/05/2012 from Waterbury Resident

We read the recent article in the Waterbury Record by Kristen Fountain about the historical significance of the Waterbury State Complex buildings. It was interesting and informative. That the residents of Waterbury are being asked their opinions of the fate of the Complex is appreciated.

We live directly across from the Complex and have enjoyed the beauty and serenity of these structures and their landscape for many years. It would be a shame to see the architecture destroyed. It would be wonderful to continue to see all the visible-from-the-road buildings with their turrets, cupolas and towers kept exteriorly the same. We mean kept in good repair, inside and out.

The Dale building , "A" building, other damaged out-buildings in back need to come down. However, we are given to understand the Weeks building and the Environmental Lab, which has new brick work and improvements already, will be torn down. Surely, they are not going to be destroyed?

We hear from State workers that they would really like to return to the Complex, not in new, modern buildings, but in fully improved existing buildings.

Thank you for giving us the opportunity to have our say in the future of the Waterbury State Complex.

Sincerely,

Sheryl L. Standcliffe

Sheryl L. Standcliffe
Howard L. Delozier
100 South Main St., Apt 1
Waterbury, VT 05676