Final Environmental Assessment

WATERBURY STATE OFFICE COMPLEX

Waterbury, VT

FEMA-4022-DR-VT

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

Prepared for:

U.S. Department of Homeland Security
FEMA Region I
99 High Street, Boston, MA 02110
Contact: Jack Sullivan, Regional Environmental Officer
(617) 447-0479; jack.sullivan@fema.dhs.gov

Prepared by:

Environmental-Historic Preservation Section
DR-4022-VT JFO
30 Allen Martin Drive
Essex, VT 05452

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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
RFP	Request for Proposal
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 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 assistance 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 be applied. Improved or alternate projects may also be determined eligible for assistance.

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 (Figure 1.0-1). 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.

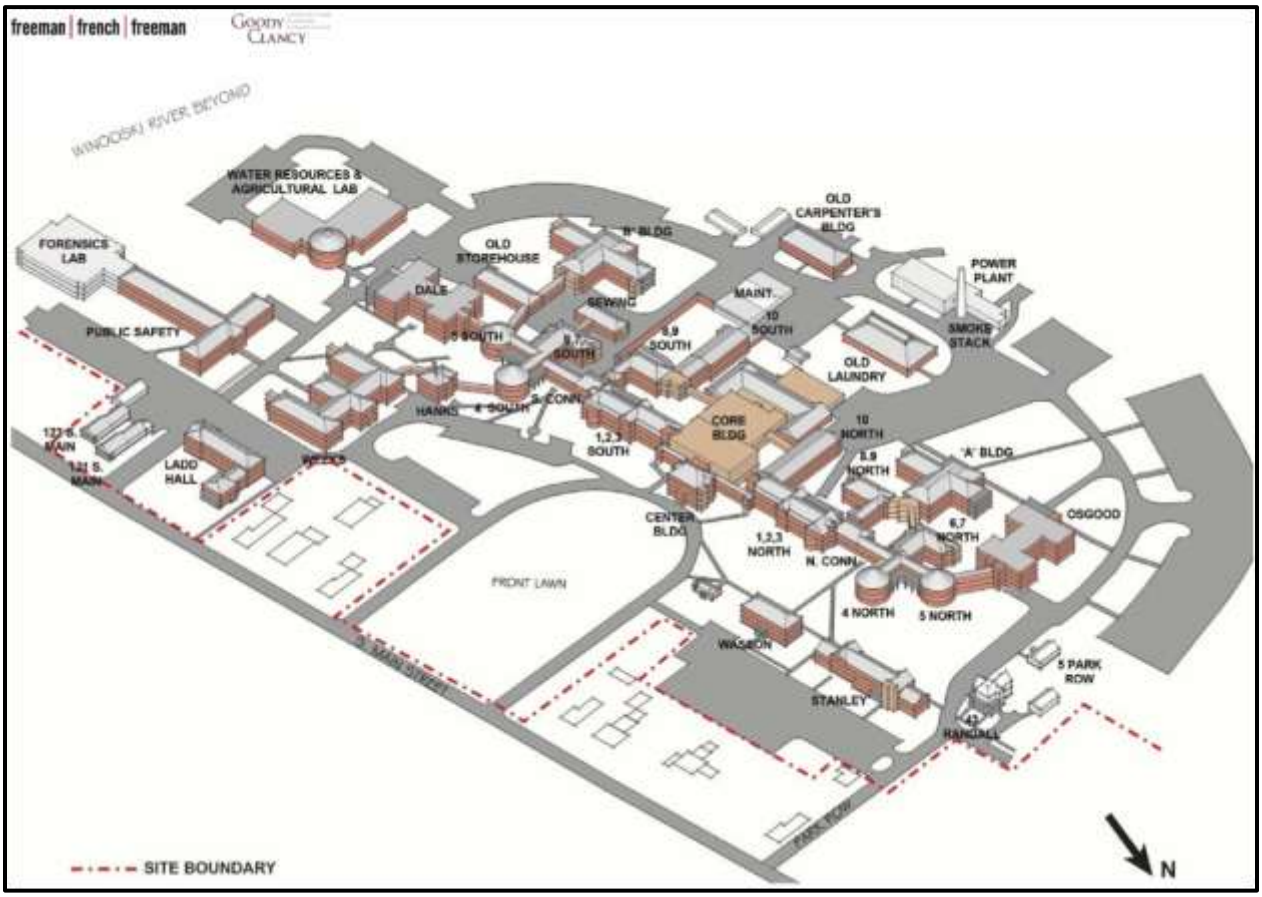

Figure 1.0-1. Pre-Disaster and Current WSOC Layout

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 assistance 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.

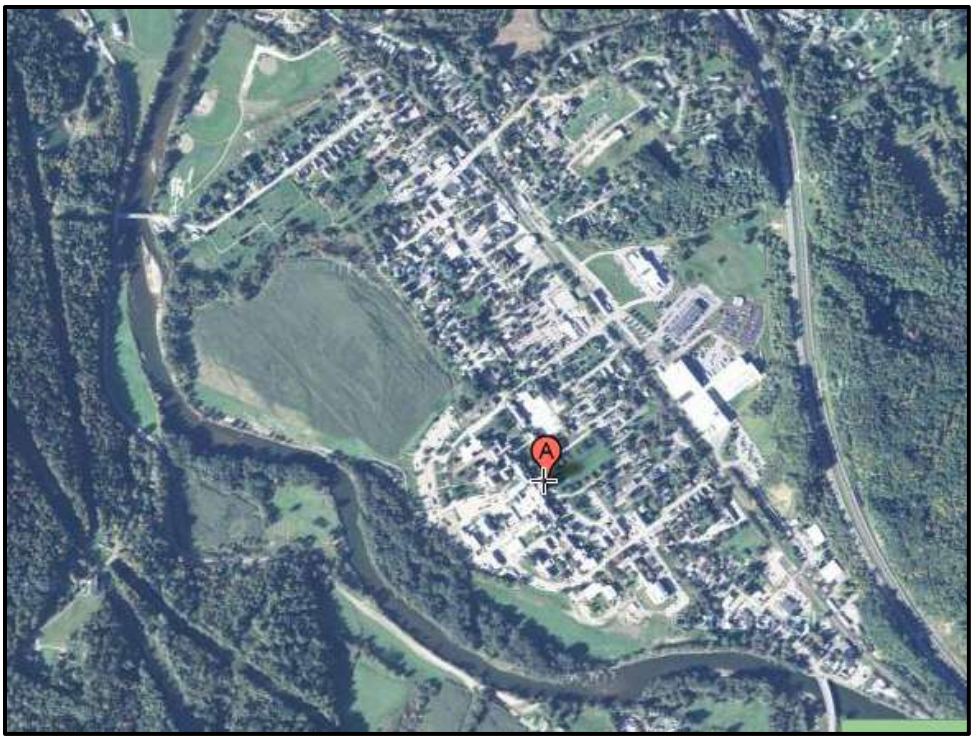

Figure 1.2-1: WSOC (A) and Surrounding Village; Winooski River (bottom and left)

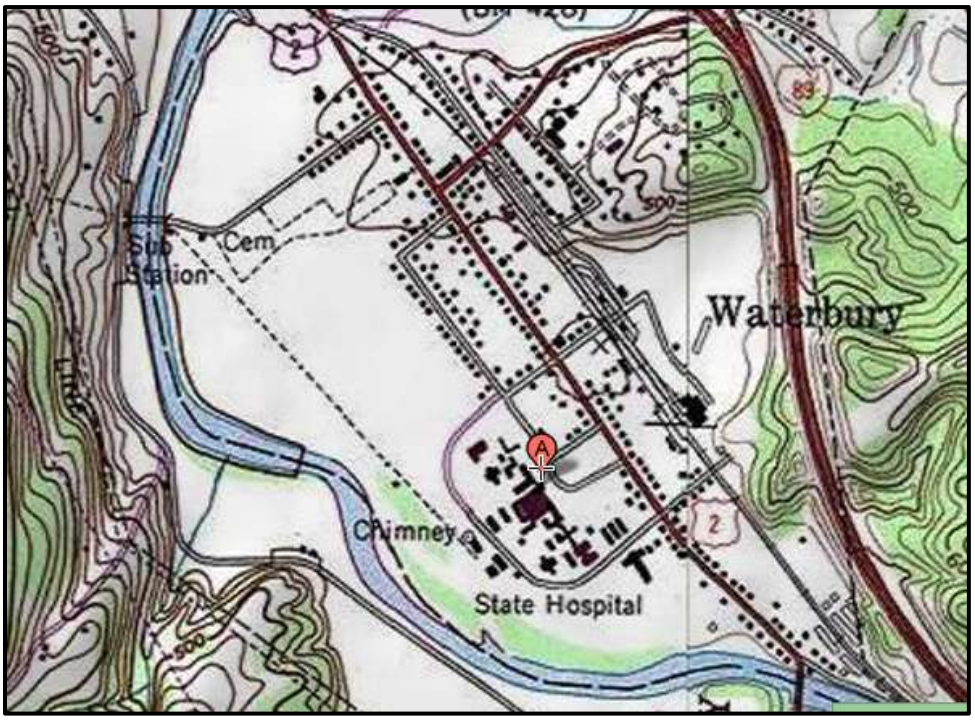

Figure 1.2-2: WSOC (A) and Surrounding Village; Winooski River (bottom and left)

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

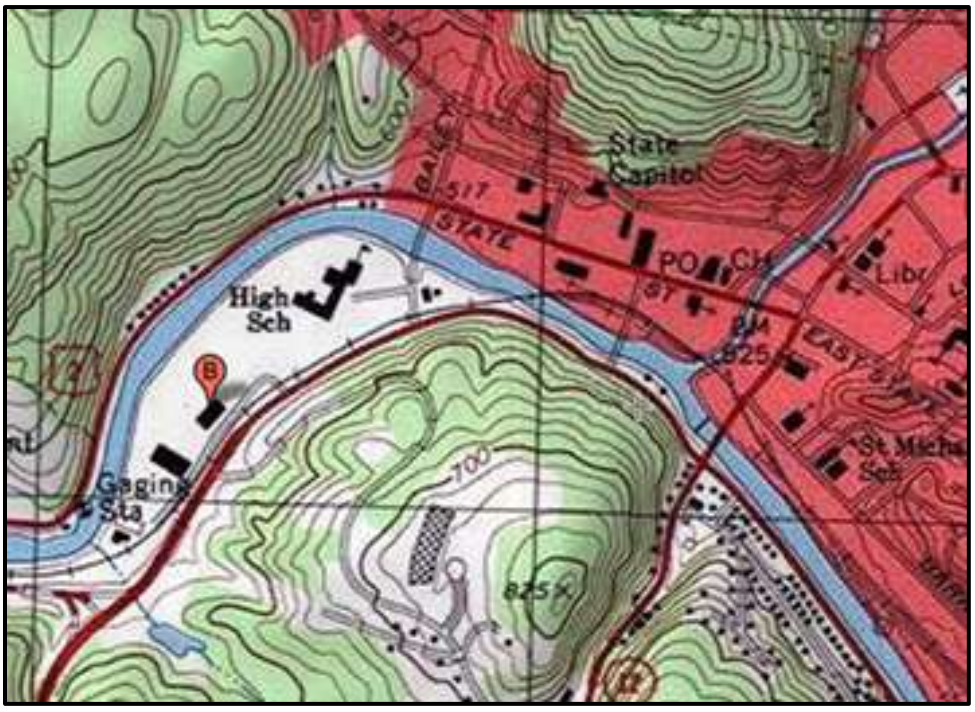

Figure 1.2-4: New Site – DOL Building (B), Montpelier; Winooski River (immediately left)

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 C2**, 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 dates of construction and proposed actions.)

Figure 2.3-1. Proposed Project Layout

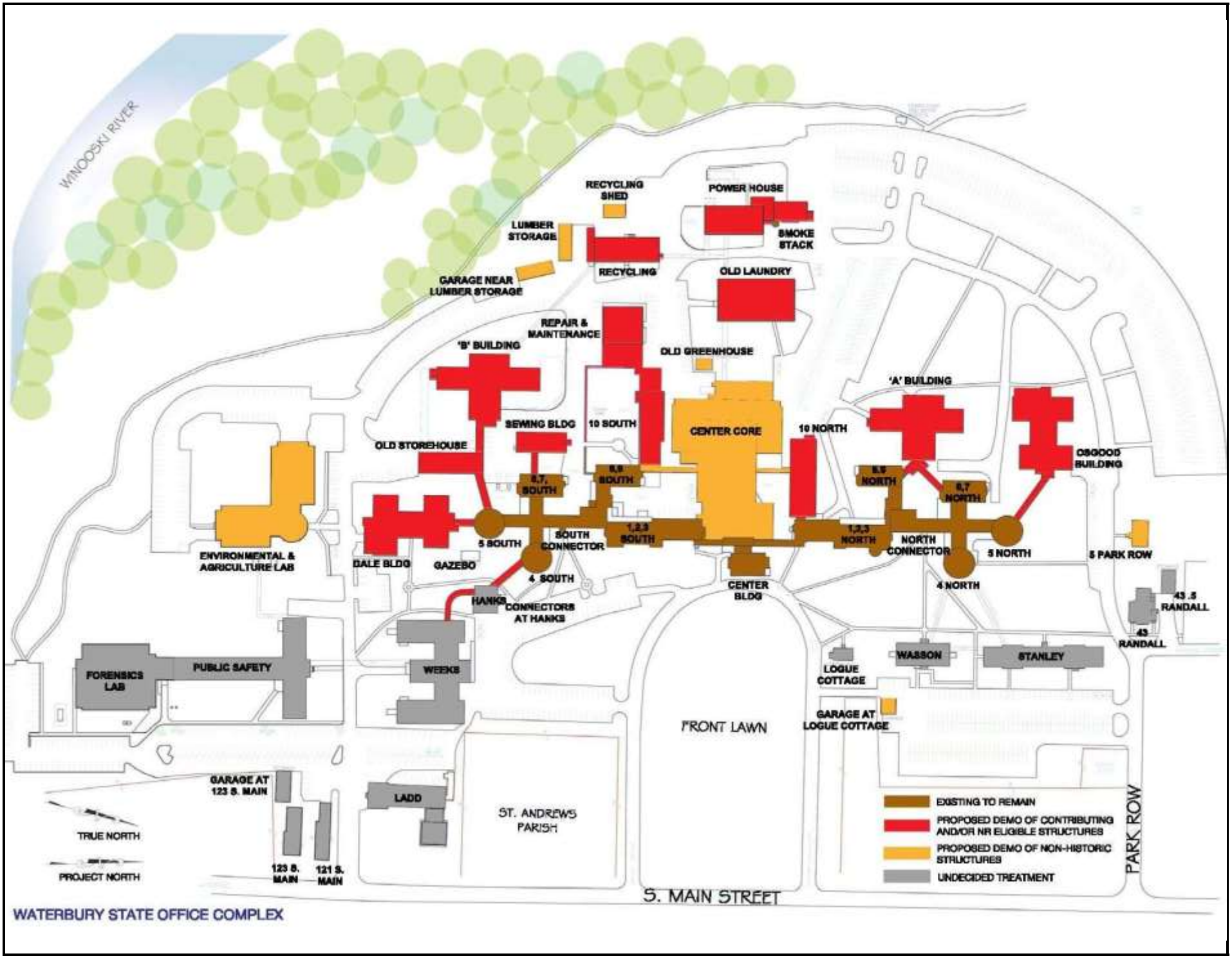

Figure 2.3-2. Buildings Proposed for Demolition (in red)

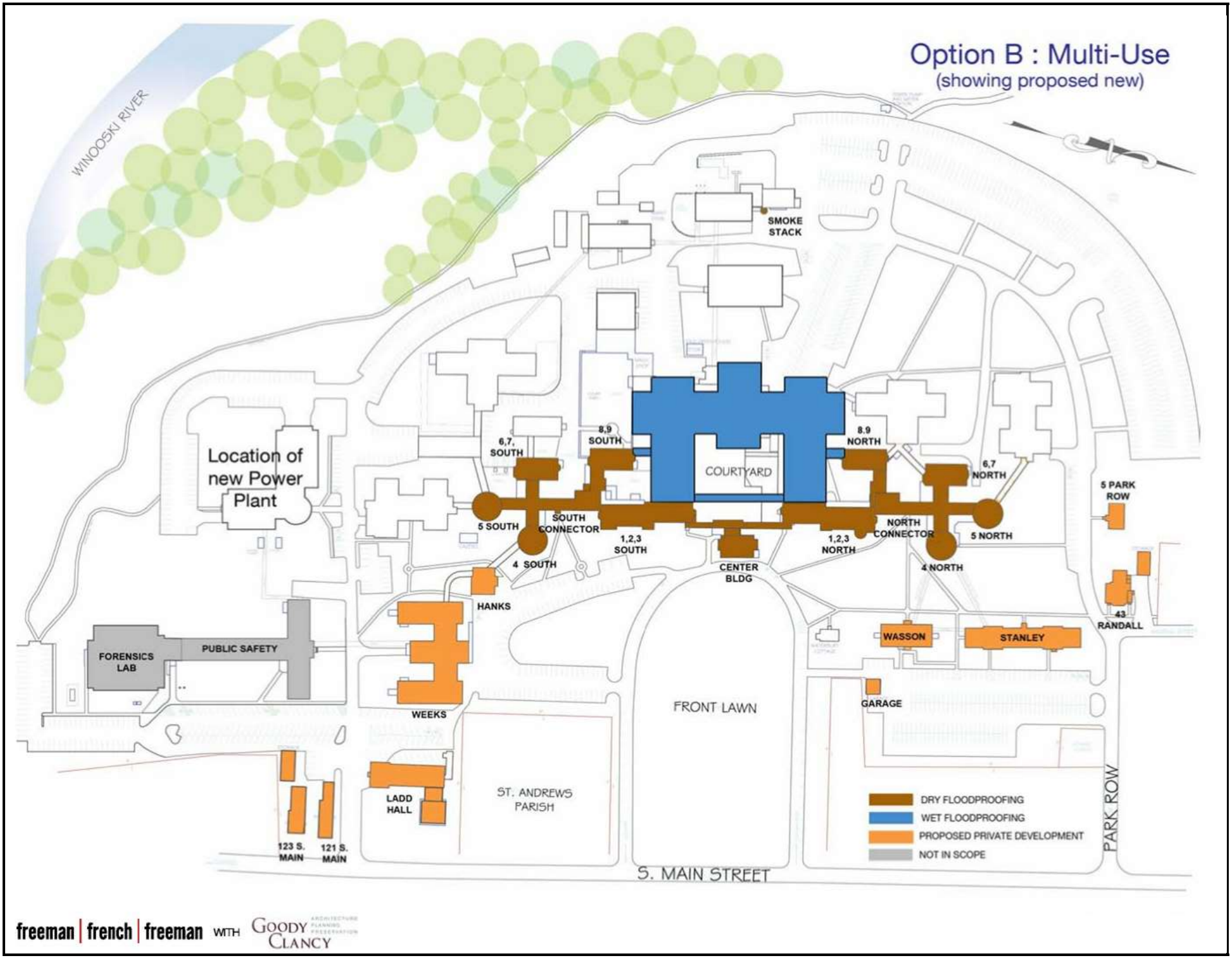

Figure 2.3-3. Floodproofing Options and Buildings to be Deaccessioned

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).

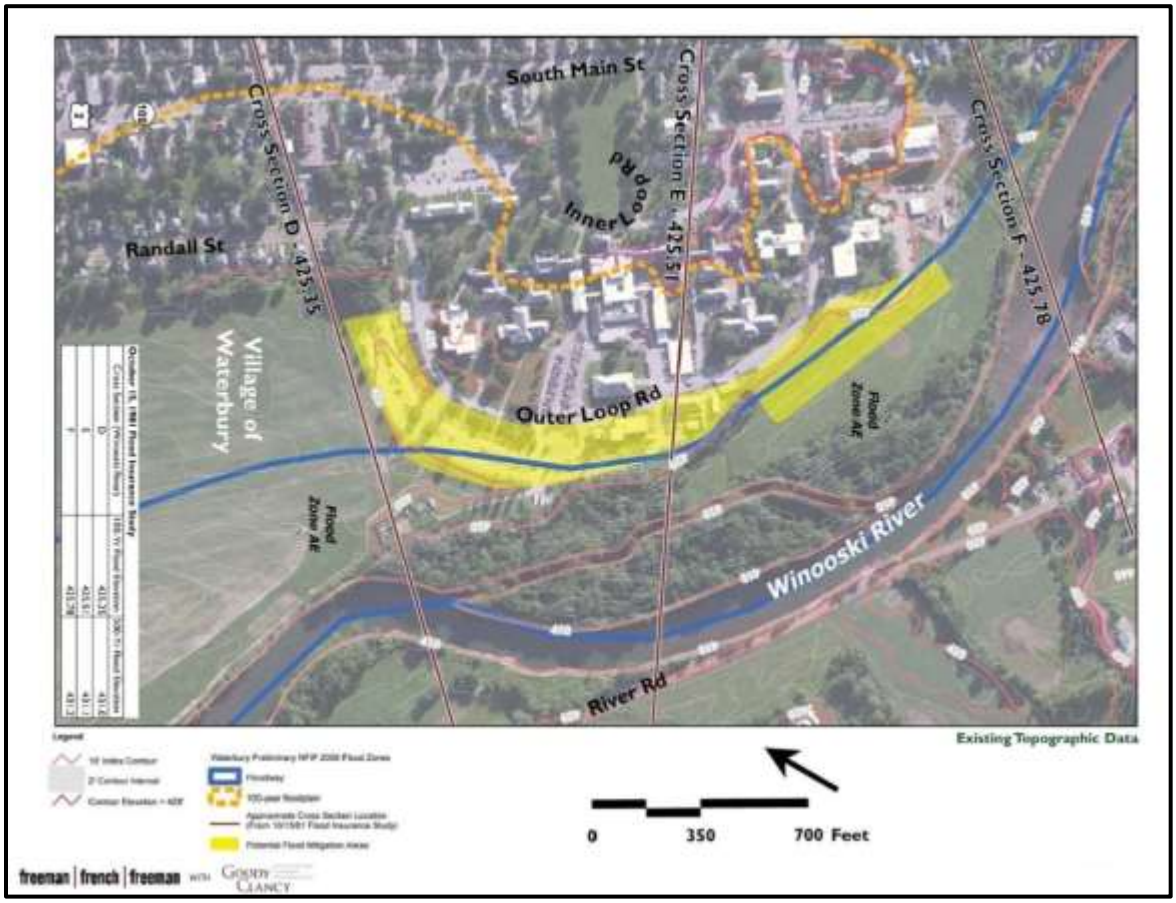

Figure 2.3-4. Flood Mitigation Area (Highlighted in Yellow) to be Lowered

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 3.4.1	**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.

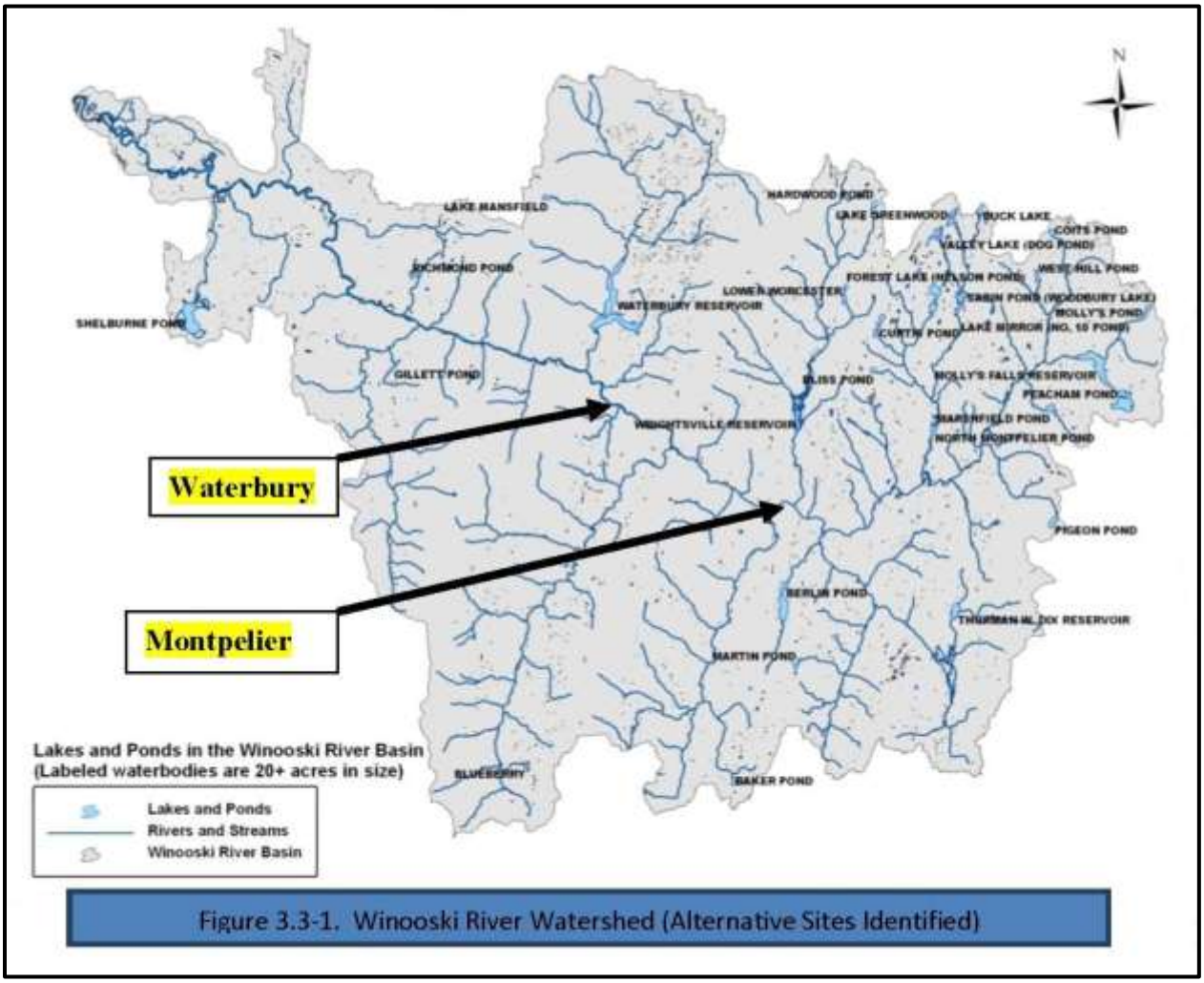

Figure 3.3-1. Winooski River Watershed (Alternative Sites Identified)

3.3.1 **Floodplains**

3.3.1.1 *Affected Environment*

***Executive Order 11988* (*Floodplain Management*)** requires federal agencies "to avoid to the extent possible, the long and short term adverse impacts associated with occupancy and modification of the floodplain, and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative." FEMA's implementing regulations are at 44 **CFR** Part 9, which includes an eight step decision-making process for compliance with this part. The 8-Step review is incorporated here as part of the Environmental Assessment. As such Section 3.3.1 takes on a slightly different format than remaining portions of Section 3. The Waterbury State Office Complex sustained damage from floodwaters from rain from Tropical Storm Irene between August 27, 2011 and September 2, 2011. A Presidential Declaration, DR 4022 VT, made the State of Vermont eligible for federal assistance through the Public Assistance Program.

Description of the effect of the floodplain during the event

Flood waters from Tropical Storm Irene inundated the Waterbury State Office Complex (WSOC). A critical facility, the Vermont State Hospital, was located in two buildings within the WSOC. Some of the buildings within the complex had water levels reaching seven (7') feet to the interiors of the buildings. Every structure within the complex sustained varying degrees of damages from flood waters.

Description of the Proposed Action

The Proposed Action includes deconstructing up to twenty-five buildings within the complex in close proximity to the river, and using those portions of the site as open space; relocating a critical facility, the Vermont State Hospital, to an alternate site outside of a floodplain; repairing thirteen buildings, including flood mitigation measures; selling or removing approximately fourteen minimally-flooded buildings; moving and elevating the power plant within the campus; and constructing a new office building on the interior margin of the modern floodplain, but whose occupied space is located above the 500-year flood elevation (see Figure 2.3-2).

3.3.1.2 *Environmental Consequences*

Step 1 Determine whether the proposed action is in the Floodplain

The site of this action is mapped on the Flood Insurance Rate Map (FIRM) Panel number 500122 0001 C, dated April 6, 1998 (Figure 3.3-2). Portions of the site are in the floodway, 100-year floodplain (1% annual chance of flooding) and the 500-year floodplain (0.5% annual chance of flooding; see below). The State of Vermont has provided a map with the floodplain superimposed over satellite imagery from future FIRM data, accepted by FEMA, and awaiting the Town of Waterbury's acceptance. Several of the buildings are identified on this map (Figure 3.3-3).

On April 9, 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 3.3-3). 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 (Figure 2.3-2).

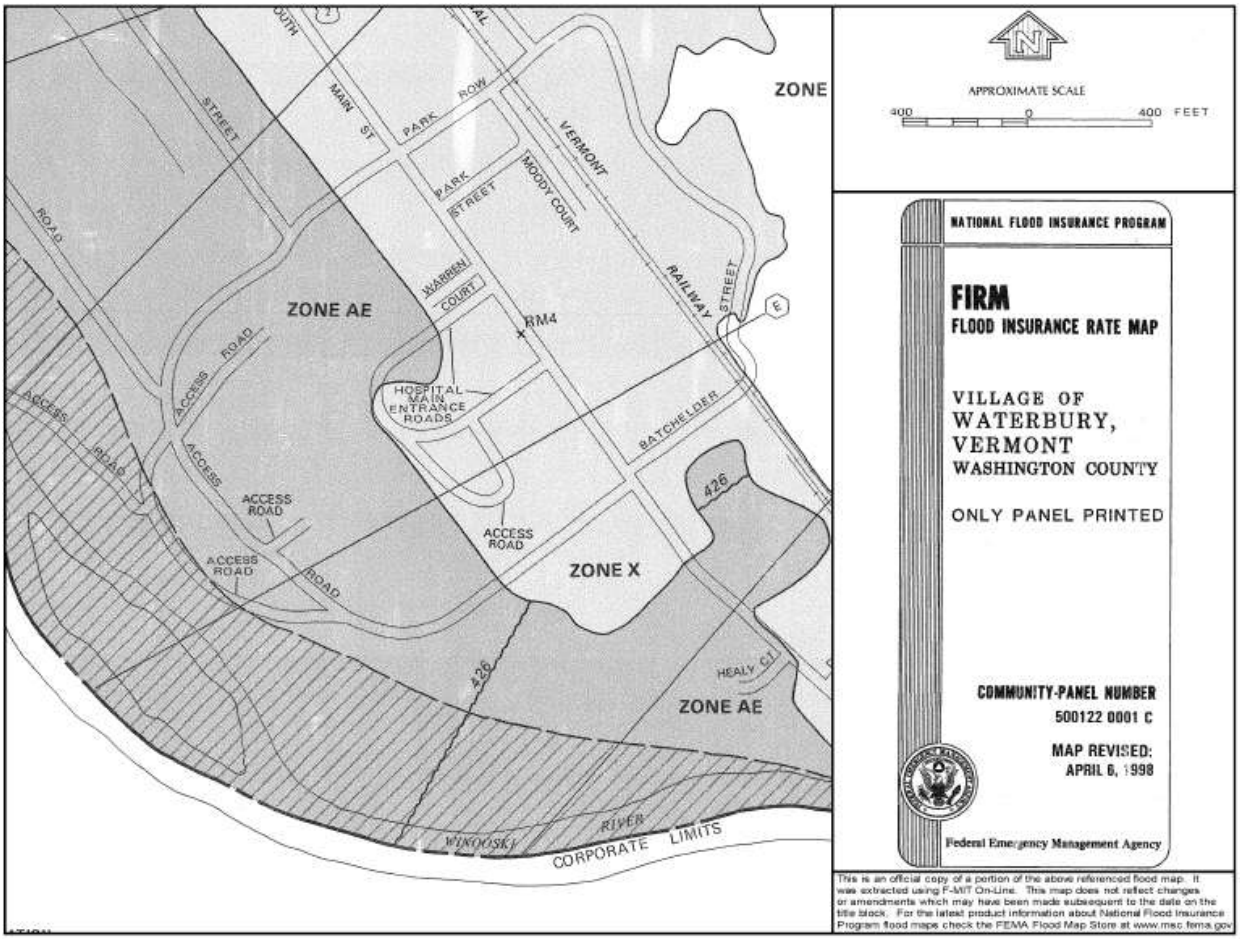

Figure 3.3-2. Flood Insurance Rate Map Panel Number 500122 0001 C, April 6, 1998

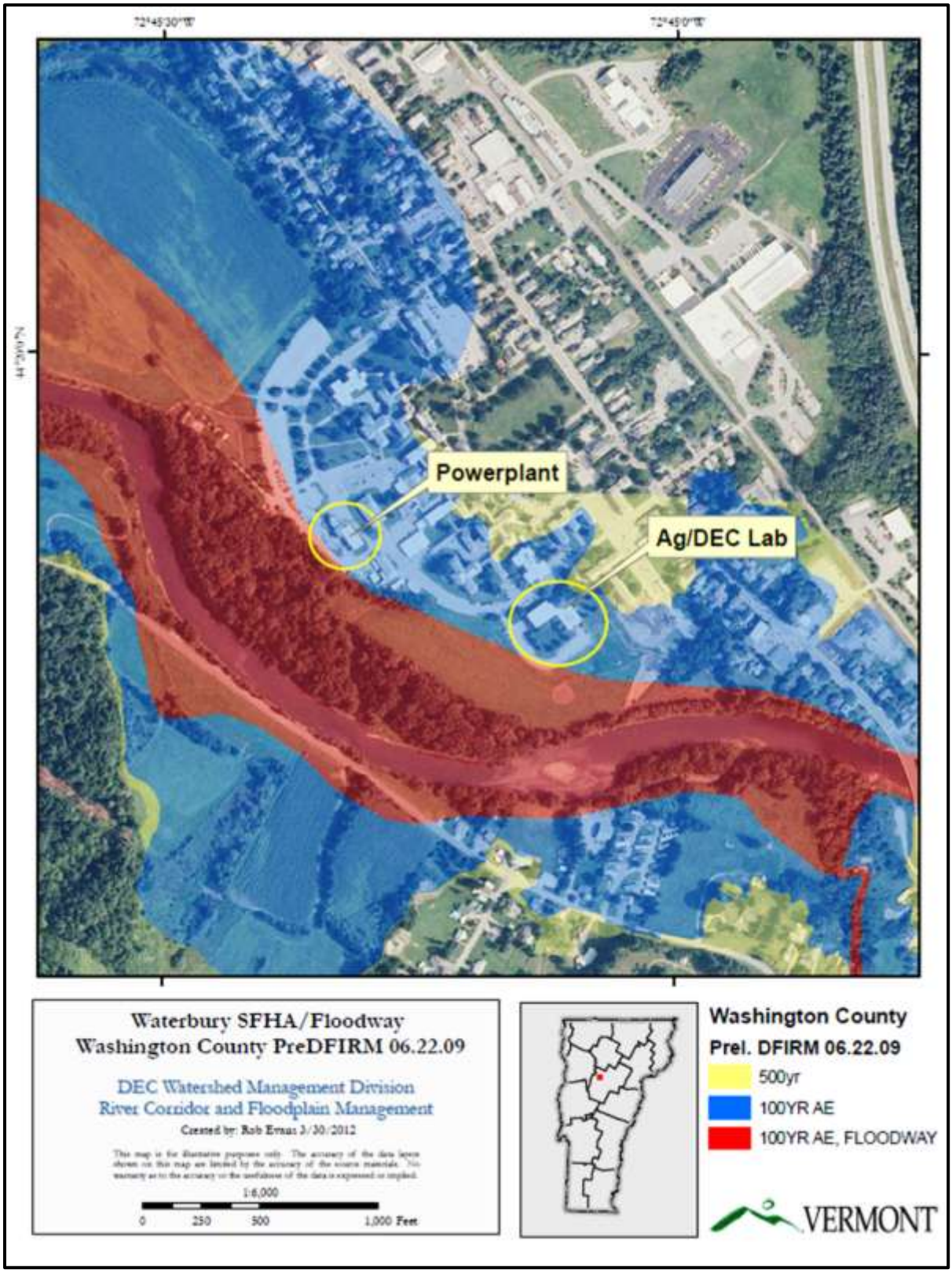

Figure 3.3-3. Preliminary DFIRM for WSOC Portion of Waterbury Village

Step 2 Early public notice (Preliminary Notice)

FEMA's Initial Public Notice for FEMA-4022-DR-VT was published in the *Burlington Free Press* and six additional local papers on October 14, 2011 to insure statewide coverage. A public scoping meeting, during which floodplain considerations were extensively discussed, was duly warned in the *Waterbury Record* on May 17, 2012 and held in Waterbury on May 30, 2012.

Step 3 Identify and evaluate alternative Actions

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. Most of campus remains unprotected within the 100-year floodplain.

Alternative B – Proposed Action - Multiple mitigation measures proposed include demolition and flood-proofing of buildings located within the 100-year floodplain. (Scope of work for this alternative describes fully renovating 13 buildings comprising 117,673 square feet to meet modern open-office standards; relocating patients and Vermont State Hospital staff from three buildings to a permanent off-site facility; deconstructing up to twenty-five buildings most vulnerable to future flooding, comprising 310,349 square feet; de-accessioning 8 buildings and 3 associated out-buildings that are currently unused or leased out and make them available for private development; re-occupation of the Public Safety Building and Forensics Lab on the southeastern margin of the WSOC; construction of an elevated office building to accommodate roughly 1,000 State employees.

Alternative C – (Alternative Action or Option C2 in the FFF Feasibility Study) - Move the facility out of the floodplain – Based on the facts that virtually the entire WSOC campus lies within the floodplain, 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 entire multi-million dollar complex nearby or in another community is both spatially and economically unfeasible. However, the State of Vermont has investigated another site which is available in Montpelier, Vermont to which it could transfer many of the State office workers after demolishing the three-story DOL building of about 53,500 square feet and replacing 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 (Figure 2.4-1).

Alternative D – Repair the WSOC facility and return it back to its former function.

Step 4 Identify impacts of the proposed action associated with occupancy or modification of the floodplain

Alternative A - No Action – Abandonment of the campus would not leave the infrastructure in a safe condition, but would leave the State without use of this essential facility. The condition of the buildings would likely deteriorate, thus posing a serious health issue for the area. In addition, many of the buildings are historic and contribute greatly to the historic fabric of the Village; abandonment and decay would leave the Village without this important cultural resource.

Alternative B – Proposed Action – This action would return a large portion of the complex back to open space, which would be beneficial to the floodplain. The Vermont State Hospital would be moved out of the floodplain, which would be highly beneficial. Even if floodproofing to the 500-year elevation could be accomplished, the patients housed in the facility would be surrounded by floodwaters during an event of the same magnitude as Tropical Storm Irene. This would make it difficult for emergency access to a disabled population. The remaining historic buildings would be mitigated to withstand future flooding events, making them less likely to be abandoned in the aftermath. Overall the proposed plan would be beneficial to the floodplain, village, state employees, and Vermont State Hospital.

Alternative C – Move the facility out of the floodplain – The State of Vermont has investigated the DOL site which is available in Montpelier, Vermont. 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 3.3-4). Because of legal, cost and time constraints, and with the exception of the state hospital, this is the only site found of adequate size to relocate the remaining functions of the complex. The substantially larger structure proposed would significantly encroach on the floodway of the Winooski River (Figure 2.4-1). 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. This is an impracticable solution which does not benefit the floodplain or the facility.

Alternative D – Repair the facility and return its functional capacity. Although this is perhaps the most cost effective solution, it would leave more than half the structures subject to future high magnitude floods, along with the resulting expense of clean-up and stabilization. Demolition of structures in the floodplain would not be possible, hence no options would exist to restore or preserve the natural and beneficial values served by this Winooski River floodplain. The hospital would remain in the floodplain, counter to the intent of EO 11988 with respect to such types of facilities.

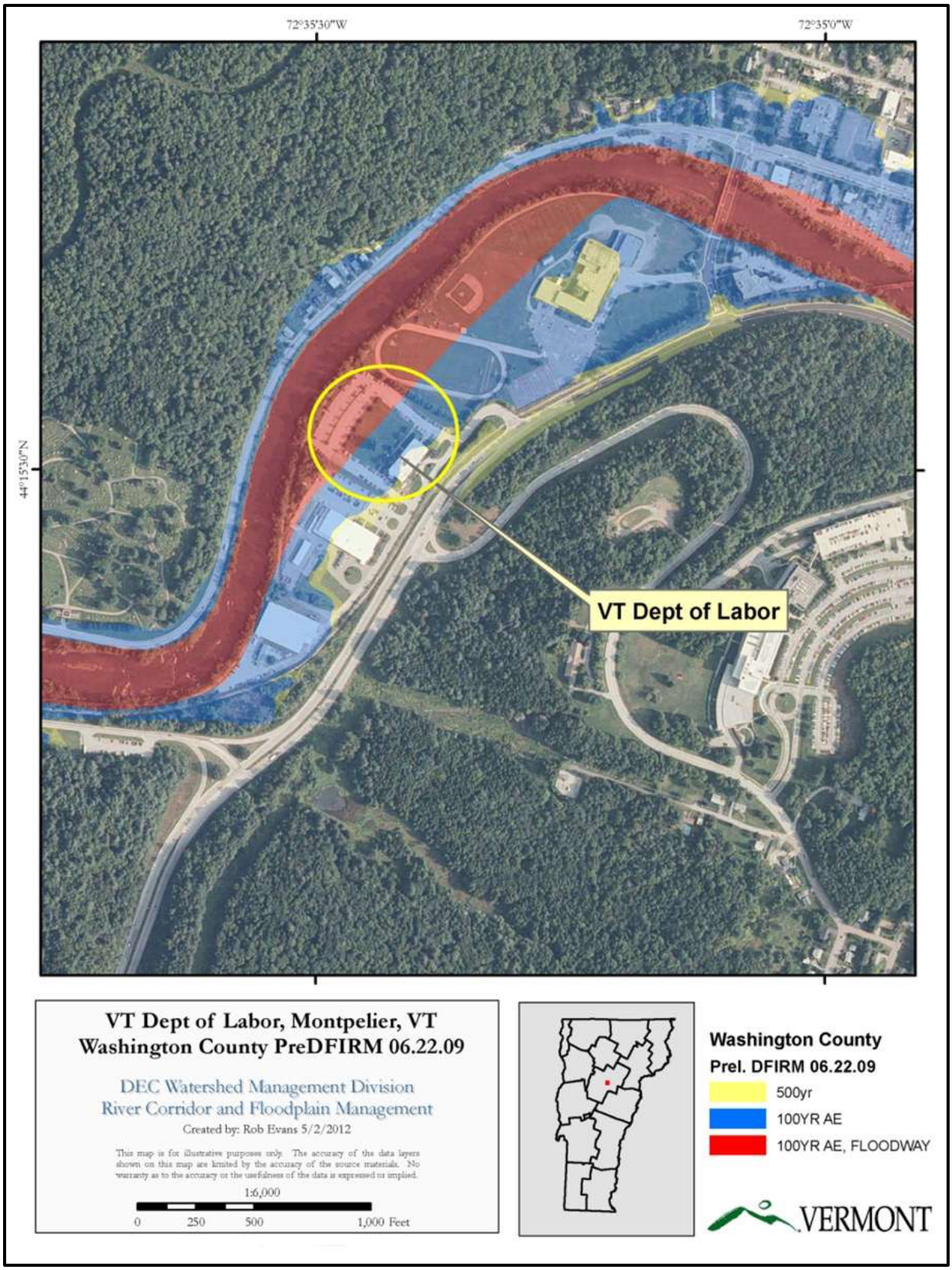

Figure 3.3-4. DFIRM for Proposed Redevelopment of the DOL Site in Montpelier

Step 5 Design or modify the proposed action to minimize threats to life and property and preserve its natural and beneficial floodplain values

Alternative A - No Action – The no action alternative creates no opportunity to minimize impacts to the floodplain.

Alternative B – Proposed Action – Besides the benefit of creating more open space which would be a step in restoring floodplain values to the complex, there is a possibility of engineering a portion of the newly created open space by removing existing tarmac and deepening a roughly 9-acre area behind the campus to increase the area of flood storage (Figure 2.3-4). In addition, 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.

Alternative C – Move the facility out of the floodplain – This option would minimize floodplain values to the WSOC site, but would leave historic buildings without necessary repairs, and adversely affect floodplain values in another area. There are legal, financial and time constraints on locating another acceptable location and is not practicable.

Alternative D – Reconstitute the capacity of the WSOC pre-Irene campus – This action would create no opportunity to minimize impacts to the floodplain and would leave both the infrastructure and employees in jeopardy during future flood events.

Step 6 Re-evaluate the proposed action

Alternative A - No Action – There is no minimization applied to this alternative, so it is not the most practicable alternative.

Alternative B – Proposed Action – This alternative was the best alternative before minimization of effects to the floodplain. If floodwater storage is possible at the site, this would add benefit to the floodplain and remain the best alternative.

Alternative C – Move the facility out of the floodplain – Although this alternative would minimize the adverse floodplain affects to the WSOC complex, it would add greater detrimental effects to the floodplain is other areas and may not be allowed in the only off-site location, making this alternative the least practicable of the four alternatives.

Alternative D - Reconstitute the functional capacity of the WSOC pre-Irene campus - Leaving both the infrastructure and employees in jeopardy during future flood events is not a practical alternate.

Step 7 Findings and Public Explanation (Final Notification)

Public comments relative to these findings were requested as part of the public comments for the draft EA. The public notice was placed in the *Waterbury Record* on August 24, 2012; hard copies of the draft EA were deposited in the town office and town library at the same time. Both the public notice and draft EA were posted on the Vermont Emergency Management and FEMA web sites on August 24, 2012. The public comment period closed on September 7, 2012. No public comments were received.

Step 8 Implement the action

This step will be achieved upon implementation of the various undertakings in accordance with all applicable floodplain requirements. 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.

3.3.2 **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.

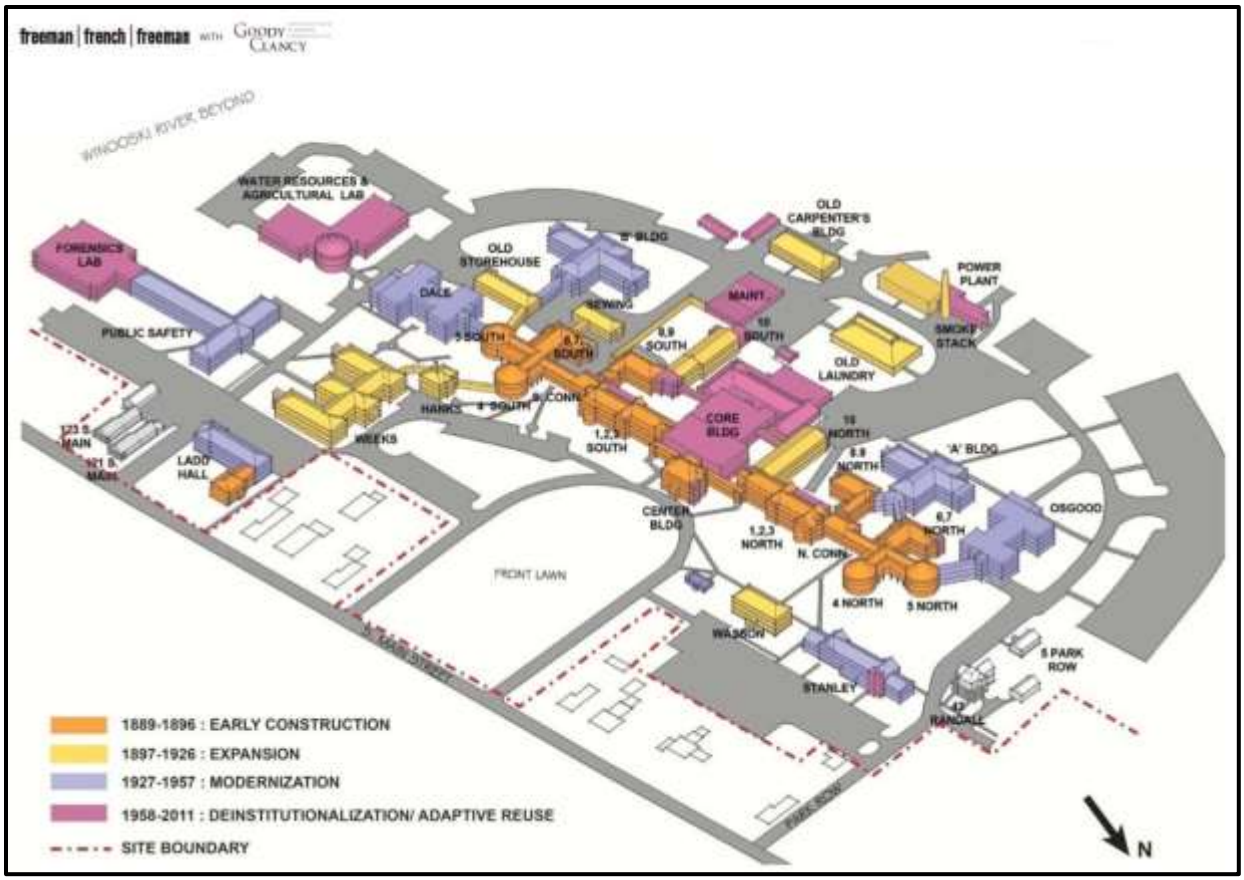

Figure 3.4-1 Evolution of the Historic Waterbury State Office Complex Campus

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.

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

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.

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 (Appendix C).

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 Building Annex	1919	No	Yes	A & C
Expansion	Old Laundry	Public Records	1921	No	Yes	A & C
Expansion	Recycling Building	Carpenter Shop, State Building 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, and Buildings and General Services as sub-Grantee will enter into a ***Secondary Programmatic Agreement Regarding Potential Undertakings at the Waterbury State Office Complex***. 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 October 1, 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 sitting 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 (Request for Proposal) 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.]

4.2 Public Comments on the Draft EA

A Public Notice for the Draft EA was posted in the *Waterbury Record* on August 23, 2012; hard copies of the Draft EA were made available for review at the Waterbury Town Office and Town Library on the same day. The Public Notice, Draft EA and draft FONSI were posted to the FEMA, Vermont Emergency Management and Town of Waterbury websites between August 21 and 23, 2012. The comment period closed COB September 7, 2012. No public or agency comments were received.

The Final EA and FONSI will be available on the FEMA website.

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 (Stormwater 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

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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

APPENDIX A - PUBLIC MEETING – Notice, Press, Comments

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
Michael Clasen	Montpelier	Sec of Admin	828-3322	michael.clasen@state.vt.us
DAVE RAPAPORT	WATERBURY	ERO	828-1385	DAVE.RAPAPORT@STATE.VT.US
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	Williston	FEMA	598-3946	Chris.Dodey@DHS.gov
Andrew Bessette	Richmond		434-2578	cabessette@juno.com
Gary Griffith	Waterbury		244-5459	gary@mpsvt.org
Donald Bicknell	Waterbury, VT		244-5795	
Chris Viens	Waterbury Ctr	Select Board	244-5546	C.P. Viens@Comcast.net
Skip Flanders	Waterbury	V. Wright Restoration 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@rutlandherald.com
Nancy Remsen		Burlington Free Press	578-5855	nremsen@burlingtonfreepress.com
Scott Mackey	Waterbury		802-236-7725	mackeye@KSEpartners.com
Kathy Mackey	Waterbury		802-244-7427	mackeyfive@gmail.com
Theresa Wood	Waterbury	ReBuild Waterbury	802 585-5[illegible]	theresawood@comcast.net
Amy Odefey	Waterbury		802 355 3691	amy.odefey@uvm.edu

APPENDIX A - PUBLIC MEETING – Notice, Press, Comments

(PLEASE PRINT ALL ENTRIES)

NAME	RESIDENCE	AGENCY	Phone (include area code)	E-MAIL
Luke Shullenberger	Wby		802-244-1658	lukes@greenlanternn development.com
Devin Colman	Burlington	Div. for Hist. Pres	802-828-3043	devin.colman@state.vt.us
JUDITH EHRLICH	MONTPELIER	DIV FOR HIST PRES	802-828-3049	judith.ehrlich@state.vt.us
Michael Griffith	Waterbury		0	michael.griffith@ccv.edu
Paul Boisvert	Burlington	Design Team	802 863-6225	paulb@engineeringventures.com
David Mace	Mont	FEMA	571-488-8411	david.mace@fema.dhs.gov
Anne Galloway	Montpelier	VTDigger.org	802.595.9159	agalloway@vtdigger
Diego Alvarado		FEMA	802-662-8652	DiegoAlvarado@fema.dhs.gov
Mark Hall	Waterbury VT		(802)244-6197	Heidi and Mark@comcast.net
LAWRENCE SAYAH	18 RANDALL WBY	VILLAGE TRUSTEE	802 244-8871	
Alison Friedkin	DUXBURY	CVCLT	802 476 4493	afriedkin@cvclt.org
Mame McKee	Duxbury	Re Build Watb.	802-793-7182	mame.rebuildwaterbury@gmail.com
BOB EVANS	Williston	VT ANR	802 338-4857	bob.evans@state.vt.us
ROSS NAGY	RUTLAND	VSM	(800) 347-0488	ross.nagy@state.vt.us
Barb Farr	Waterbury Center		(802)888-3810	bfarr54@comcast.net
Marc Metayer	Waterbury Ctr.		802 498-5618	amet56@comcast.net
Ben Rose	Williston	VT. IRO	802 310 9314	ben.rose@state.vt.us

(PLEASE PRINT ALL ENTRIES)

NAME	RESIDENCE	AGENCY	Phone (include area code)	E-MAIL
Bill Chase	Maine	FEMA	571-488-8380	william.h.chase@fema.gov
Lydia Kachadoorian	Newthampshire	FEMA		
Marcus Tate	Massachusetts	FEMA	571-371-0448	marcus.tate@dhs.gov
~~ROBERTA~~ GUILVEY	NORTH DAKOTA	FEMA-EHP		roberta.guilvey@fema.dhs.gov
Margaret Luce	Waterbury Ctr VT	Waterbury Library	802.244-7869	mfmcam17@aol.com
David Luce	" " "	Resident	~~802~~ " "	dluce@vhb.com
Wade Hodge	Waterbury	Resident	802-371-9550	wade.hodge@gmail.com
Steve Lotspeich	Waterbury Ctr.	Town of Waterbury	802-244-1012	slotspeich@waterbury.vt.us
Bill Shepeluk	Waterbury CTR	Town of Waterbury	244-7033	washeplk@aol.com
TOM STEVENS	WATERBURY	STATE REP.	(802)2444164	tom@stevensvermont.com

APPENDIX A - PUBLIC MEETING – Notice, Press, Comments

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.

APPENDIX A - PUBLIC MEETING – Notice, Press, Comments

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

Howard L. Delozier

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

APPENDIX B – PUBLIC NOTICE FOR DRAFT ENVIRONMENTAL ASSESSMENT

FEMA PUBLIC NOTICE

The Federal Emergency Management Agency (FEMA) proposes to assist the State of Vermont with its planned re-occupation of the Waterbury State Office Complex. To meet the requirements of the National Environmental Policy Act (NEPA), FEMA has prepared a Draft Environmental Assessment (EA) to identify and evaluate any historic and environmental resources that might be affected by proposed demolition, construction, mitigation or other actions associated with re-occupation. As part of its goal to ensure that good management decisions are made, FEMA invites the public to review and comment on the Draft EA and to provide the Agency with information it may not have considered in its review.

Beginning on August 24, 2012, the Draft EA will be posted on FEMA's website at https://edit.fema.gov/environmental-planning-and-historic-preservation-program/environmental-documents-and-public-notice-2, on the Vermont Emergency Management website at http://www.vem.vermont.gov and on the Town's website at http://www.waterburyvt.com. The comment period will last for a total of 14 days, ending on September 7, 2012. A copy of the Draft EA will also be available by August 24 at the Waterbury Municipal Office, 43 South Main Street, Waterbury (8:00 am to 4:30 pm, Monday-Friday), and at 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).

Comments on the Draft EA can be submitted by mailing Jack Sullivan, Regional Environmental Officer, FEMA Region 1, 99 High Street, 6th Floor, Boston, Massachusetts 02110, or by emailing Jack.Sullivan@fema.dhs.gov, or by faxing 617-956-7574.

APPENDIX C – SHPO CONCURRENCE LETTER ON NR ELIGIBILITY

U.S. Department of Homeland Security
FEMA Joint Field Office
DR-4022-VT
30 Allen Martin Drive
Essex Junction, VT 05452

FEMA

June 14, 2012

Ms. Judith Ehrlich
Director of Operations and Project Review
Vermont Division for Historic Preservation
National Life Building, 6th Floor
Montpelier, VT 05620-1201

RE: Section 106 Review of Proposed Undertakings within the Waterbury State Office Complex, Waterbury, VT: Determinations of National Register eligibility.
FEMA Ref: Multiple Project Worksheets Involved.

Dear Judith:

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 FEMA Public Assistance funding available to local governments, state agencies and eligible private non-profit organizations in all counties in Vermont. 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. 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. FEMA may provide funds to the State of Vermont to restore the functions of the Waterbury State Office Complex through multiple undertakings, which may include restoration, relocation, demolition and sale of properties, among other possibilities.

Project Description

To plan for its recovery, the State of Vermont 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. After much consideration, including considerable legislative debate, the State has selected "Option B" as presented in FFF's ***Waterbury Office Complex Feasibility Study*** (March, 2012). This approach re-uses the historically significant core buildings constructed in the 1890s and other useful buildings on the existing campus while adding a new, state-of-the-art building to consolidate state offices into a single, inter-connected complex. This old-and-new hybrid would accommodate approximately 1,000 workers. The facility would be contracted from a 44 to a 30-acre parcel. Major conceptual elements include:

- Full renovation of 13 buildings in the historic core of the complex to modern open space standards,
- Construction of a new office building over one level of on-grade parking
- Twenty buildings most vulnerable to future flooding will be removed
- Sale of up to 14 peripheral buildings for potential redevelopment
- Immediate reoccupation of the Public Safety Building and Forensics Lab

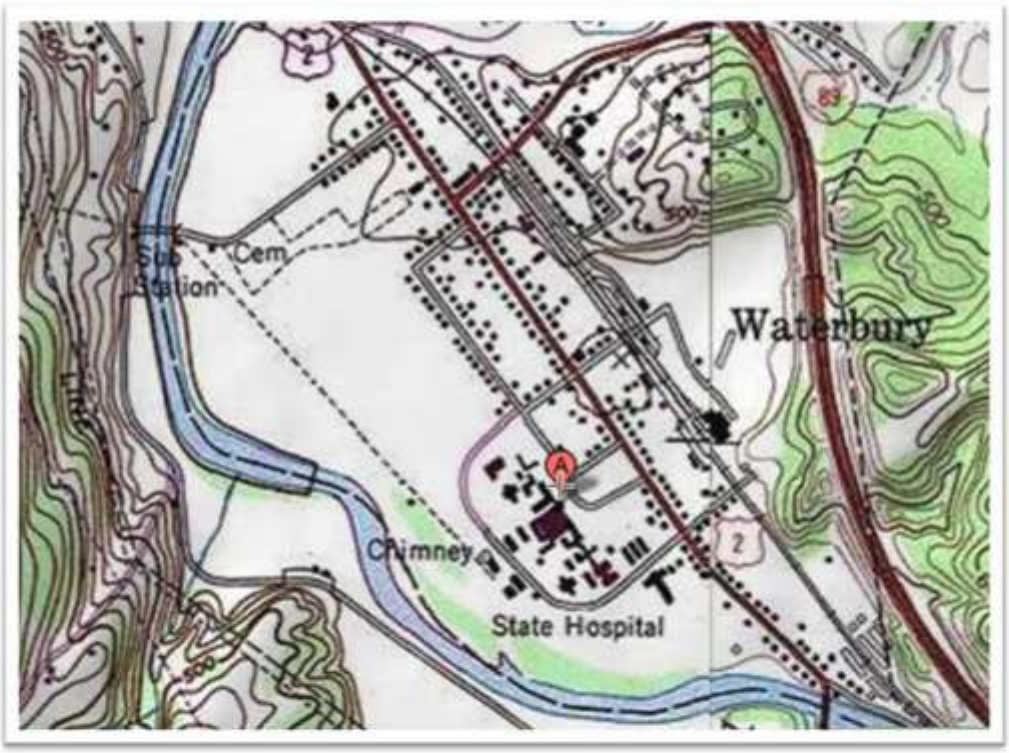

Figure 1: Waterbury State Office Complex (A) and Surrounding Village; Winooski River (bottom and left)

Historic Campus and Peripheral Buildings

An "Architectural History Report" of the Waterbury State Office Complex (WSOC), 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). 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 2: 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 porte cochere and the front lawn. Basements and first floors of all the buildings were flooded up to 6 feet 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.

Determination of Eligibility

Existing Determination

An individual listing for the Vermont State Hospital on the National Register of Historic Places (NRHP) does not exist. However, in 1978, "Vermont State Hospital" 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 was determined to be contributing to the "Waterbury Village Historic District" and all buildings constructed after 1896 were deemed non-contributing.

Development of Historic Contexts

Recent research conducted by Goody Clancy significantly expands the National Register district documentation for the core of buildings dating to the 1890s. 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.

Further Consideration

From 1897 to 2011, many new structures were added to the complex. These structures varied in building functions and architectural styles. Some extended the design philosophy espoused by the original construction while others departed from it. Although FEMA agrees that the 1889-1896 core buildings represent most strongly several of the historical contexts described above, the potential significance of buildings at the Vermont State Hospital built after 1897 need to be evaluated as historic resources in their own right. In 1978, when the National Register "Waterbury Village Historic District" nomination was prepared, many of these buildings were still less than fifty years old and not considered historic. Today, looking back at the historic phases of growth, adaptation and decline of Vermont's principal institution for the treatment of mental illness, as well as such interweaving contexts as the Eugenics Movement in Vermont (ca. 1920s-1950), this complex of buildings dating between 1889 and 1962 forms a coherent grouping of buildings that reflects the institution's evolution over a period of 120 years. As such, these buildings form a "mini" district within the larger "Waterbury Village Historic District".

Based on the developmental history and historic contexts provided in the "Architectural History Report" of the Waterbury Office Complex Feasibility Report prepared by Goody Clancy, FEMA concludes that the complex does constitute a "mini" district unto itself and that all primary structures dating between 1889 and 1962 should be considered contributing to this district under National Register Criterion A ("associated with events that have made a significant contribution to the broad patterns of our history"), i.e., that reflect the Vermont State Hospital's contribution to our understanding of the history of mental health in the United States and particularly in the state of Vermont. In addition, buildings are eligible under National Register Criterion C ("that embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction"). Eligible buildings reflect the functional needs of the hospital and the institutional styles of buildings in vogue at different periods of time.

In preparation for evaluating the potential adverse effects of specific actions that may occur campus-wide, FEMA has, per 36 CFR 800.4(c)(1), made a determination that the properties enumerated in Table 1 are eligible for the National Register, either because they are currently listed as contributing elements of the Waterbury Village Historic district, eligible for listing as elements of the Waterbury Village Historic district, or because they are eligible for listing as part of a "mini" district within the larger village district. Those properties within the WSOC enumerated in Table 2 are concluded to be ineligible for inclusion in the National Register of Historic Places.

APPENDIX C – SHPO CONCURRENCE LETTER ON NR ELIGIBILITY

Development Phase	Building Name	Alternate Name	Year Built	1978 -National Register Contributing Structure	NR Eligible	Criteria for Evaluation
Deinstitution/Reuse	121 S Main Street	Thorington House	1850	Yes		
Deinstitution/Reuse	123 S Main Street		1850	Yes		
Deinstitution/Reuse	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 Hall	Nurses Building	1901	No	Yes	A & C
Expansion	Sewing 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	Storehouse	State Hospital, B Blding Annex	1919	No	Yes	A & C
Expansion	Laundry	Public Records	1921	No	Yes	A & C

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Expansion	Carpenter Shop	Recycle, State Blding Warehouse	1921	No	Yes	A & C
Expansion	Weeks Building & Connecting Tunnel	Admissions Buidling	1924	No	Yes	A & C
Expansion	Powerhouse & Stack		1925	No	Yes	A & C
Modernization	A Building		1932	No	Yes	A & C
Modernization	Waterbury/ Logue Cottage	Staff Cottage	1937	No	Yes	A & C
Modernization	B Building	Brooks	1938	No	Yes	A & C
Modernization	Stanley Hall		1946	No	Yes	A & C
Modernization	Department of Public Safety Building	Medical Surgical Building	1948	No	Yes	A & C
Modernization	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-behind 123 So Main St			No	Yes	C

Table 1. National Register Listed or Eligible Properties within the Waterbury State Office Complex.

APPENDIX C – SHPO CONCURRENCE LETTER ON NR ELIGIBILITY

Development Phase	Building Name	Alternate Name	Year Built	1978 - National Register Contributing Structure	NR Eligible
Modernization	BGS Storage Shed	Maintenance Storage	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	Storage	1979	No	No
Deinstitution/Reuse	Ag / Environmental Lab		1989	No	No
Deinstitution/Reuse	Public Safety Forensic Lab		2011	No	No
Other	Sewage Pump Station			No	No
Other	Maintenance Garage	Garage-Carpenter Shop		No	No
Other	Salt-Lumber Storage			No	No
Other	Garage-Logue Cottage			No	No

Table 2. Properties within the Waterbury State Office Complex Not Eligible for Inclusion in the National Register of Historic Places.

Request for SHPO Concurrence

Under the terms of the FEMA-SHPO-VEM-ACHP Programmatic Agreement for Vermont (2011) and per 36 CFR 800.4(c)(2), FEMA requests SHPO concurrence with these determinations of eligibility and non-eligibility.

Sincerely,

Peter A. Thomas

Peter A. Thomas
FEMA Environmental/Historic Preservation Advisor

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APPENDIX C – SHPO CONCURRENCE LETTER ON NR ELIGIBILITY

Development Phase	Building Name	Alternate Name	Year Built	1978 - National Register Contributing Structure	NR Eligible
Modernization	BGS Storage Shed	Maintenance Storage	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	Storage		No	No
Deinstitution/Reuse	Ag / Environmental Lab		1989	No	No
Deinstitution/Reuse	Public Safety Forensic Lab		2011	No	No
Deinstitution/Reuse	Sewage Pump Station			No	No
Deinstitution/Reuse	Maintenance Garage	Garage-Carpenter Shop		No	No
Deinstitution/Reuse	Salt-Lumber Storage			No	No
Deinstitution/Reuse	Garage-Logue Cottage			No	No

Table 2. Properties within the Waterbury State Office Complex Not Eligible for Inclusion in the National Register of Historic Places.

Request for SHPO Concurrence

Under the terms of the FEMA-SHPO-VEM-ACHP Programmatic Agreement for Vermont (2011) and per 36 CFR 800.4(c)(2), FEMA requests SHPO concurrence with these determinations of eligibility and non-eligibility.

Sincerely,

Peter A. Thomas

Peter A. Thomas
FEMA Environmental/Historic Preservation Advisor

CONCUR
SHPO
DATE 6/15/12

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SECONDARY PROGRAMMATIC AGREEMENT AMONG THE FEDERAL EMERGENCY MANAGEMENT AGENCY, VERMONT STATE HISTORIC PRESERVATION OFFICER, VERMONT AGENCY OF TRANSPORTATION, AND VERMONT DEPARTMENT OF BUILDINGS AND GENERAL SERVICES REGARDING POTENTIAL UNDERTAKINGS AT THE WATERBURY STATE OFFICE COMPLEX, WATERBURY, VERMONT

WHEREAS, the President declared a major disaster under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Pub. L. No. 93-288 (1974) (codified as amended at 42 U.S.C. §§ 5121 *et seq.*) (Stafford Act) for the State of Vermont on September 1, 2011, as a result of Tropical Storm Irene; and

WHEREAS, this declaration (numbered FEMA-4022-DR) and its subsequent amendments authorized the Federal Emergency Management Agency (FEMA) of the Department of Homeland Security (DHS) to provide assistance under the FEMA Public Assistance Program (Program) for all counties in Vermont pursuant to Title IV of the Stafford Act and its implementing regulations at 44 C.F.R. pt. 206; and

WHEREAS, Tropical Storm Irene damaged various facilities at the Waterbury State Office Complex (WSOC) located in Waterbury, Vermont; and

WHEREAS, the entire WSOC is defined as the Area of Potential Effect (APE) (Appendix A), including 40 buildings that are either listed as contributing elements of the Waterbury Village Historic District (National Register of Historic Places 1978 listing) or have been determined eligible through FEMA-Vermont State Historic Preservation Officer (SHPO) consultation (Appendix B), 10 buildings that are ineligible for listing on the National Register of Historic Places (Appendix C), and limited areas of potential archaeological sensitivity previously assessed during past investigative studies; and

WHEREAS, the Vermont Department of Buildings and General Services (BGS or Applicant) intends to submit requests to FEMA through the Vermont Agency of Transportation (VAOT or Grantee) for financial assistance under the FEMA Program for both emergency work and permanent restoration of facilities at the WSOC; and

WHEREAS, the Grantee and Applicant have conceptually defined the work the Applicant intends to pursue "*Option B*" in Freeman French and Freeman's *Waterbury Office Complex Feasibility Study* (March 9, 2012) (Appendix D), which includes, but is not limited to, repair, rehabilitation, floodproofing, new construction, deconstruction, and landscape modifications; and

WHEREAS, the FEMA Program categorizes eligible work into various project categories which must meet certain eligibility requirements in order to be eligible for FEMA funding, and the majority of projects submitted to FEMA Program for funding must go through a review pursuant to Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. § 470f); and

WHEREAS, FEMA continues to work with the Grantee and Applicant to develop various projects at the WSOC for potential funding under the FEMA Program, but FEMA has not determined the eligibility of any projects for FEMA funding; not determined whether there are any Undertakings that will be implemented at future dates; and not determined the extent, nature, and severity of adverse effects for any Undertakings; and

WHEREAS, FEMA has consulted with the SHPO in accordance with Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f) (NHPA), its implementing regulations, 36 CFR Part 800, and the *Programmatic Agreement Among the FEMA, the SHPO, the Vermont Emergency Management Division of the Department of Public Safety, and the Advisory Council on Historic Preservation* executed on May 9, 2011*(2011 Statewide PA)*, and has determined in accordance with Stipulation III.C.5.a.iv of the *2011 Statewide PA* to address its responsibilities for potential Undertakings at the WSOC under Section 106 through a Secondary Programmatic Agreement (2PA); and

WHEREAS, FEMA, SHPO, and ACHP acknowledge that executing a 2PA to establish a Section 106 review process and identify treatment measures to address the adverse effects related to various potential Undertakings at the WSOC will streamline further consultation to allow FEMA to meet its obligations under Section 106 as well as minimize delays to the delivery of the FEMA Program at the WSOC; and

WHEREAS, the parties intend this 2PA to serve as a Section 106 compliance agreement to establish a project review process, make findings of effect, quantify adverse effects to historic properties, and resolve adverse effects using a scalable set of commensurate treatment measures through a framework of treatment measure plan proposals put forth by FEMA for SHPO, BGS, and VAOT concurrence; and

WHEREAS, FEMA notified the Advisory Council on Historic Preservation (ACHP) that it was determined to fulfill Section 106 responsibilities at the WSOC through the development and implementation of a 2PA, and the ACHP notified FEMA in a letter dated June 18, 2012, that it will not participate in the 2PA; and

WHEREAS, in accordance with 36 C.F.R. § 800.2(d) and 36 C.F.R. § 800.3(3) of the Section 106 regulations, FEMA has solicited public comment on potential Undertakings defined in "*Option B*" of the *Waterbury Office Complex Feasibility Study* and described in this 2PA; and

WHEREAS, FEMA has invited VAOT as the Grantee and BGS as the Applicant to be Invited Signatories to this 2PA and both parties have agreed; and

WHEREAS, VAOT and BGS are responsible for complying with state law in carrying out FEMA-funded Undertakings, the SHPO will review potential Undertakings at the WSOC for compliance with Criterion 8 of the State Act 250 (Land Use and Development Act) permitting process and the Vermont Advisory Council on Historic Preservation (VT ACHP) will review potential Undertakings for compliance with and pursuant to 22 V.S.A. Chapter 14 (Vermont Historic Preservation Act); and

NOW, THEREFORE, FEMA, SHPO, BGS, and VAOT agree that the potential Undertakings at the WSOC shall be implemented in accordance with the following Stipulations to satisfy

FEMA's Section 106 responsibilities. FEMA shall not approve funding of an Undertaking that may affect a historic property until the Undertaking is reviewed pursuant to this 2PA.

STIPULATIONS:

I. APPLICABILITY

A. This 2PA applies when FEMA authorizes federal funds under FEMA-4022-DR for an eligible project under the FEMA Program at the WSOC and determines that the project is an Undertaking as defined in 36 C.F.R. § 800.16(y). This may include Alternate and/or Improved Projects under the FEMA Program that are located at the WSOC.

B. It is anticipated that the majority, if not all, potential FEMA-funded Undertakings will fall within the conceptual parameters of "*Option B*" in the *Waterbury Office Complex Feasibility Study*. *"Option B"* includes proposed potential Undertakings associated with the following categories: repair/rehabilitation/ floodproofing of the 1890s historic core of connected buildings, new construction of an office building behind the 1890s historic core, new construction of a boiler plant in the vicinity of the current Agricultural/Environmental Laboratory, deconstruction of up to twenty-five (25) properties of which up to thirteen (13) may be historic (excluding the 1890s historic core), and landscape modifications.

C. This 2PA **only applies** to FEMA-funded Undertakings at the WSOC, as included in Stipulations I (A) and I (B). This 2PA does **not apply** to non-FEMA funded repair work and/or other actions administered by BGS or other entities at the WSOC.

D. All time designations are in calendar days. If any signatory does not comment on a determination related to a proposed action within an agreed upon timeframe, FEMA may assume the signatory's concurrence with FEMA's determination.

II. PROJECT REVIEW PROCESS FOR FEMA UNDERTAKINGS

A. FEMA and the Applicant are currently working to develop Project Worksheets (PW), under the FEMA Program for FEMA-4022-DR, for the facilities within the WSOC. As part of this process, FEMA Program staff will develop an approved scope of work and estimate funding for each project. FEMA Program staff will submit each PW to FEMA Environmental & Historic Preservation (EHP) staff for review. EHP staff will review PWs collectively, by activity type, to assist in the evaluation of cumulative effects.

B. PWs submitted for review may include Improved Projects and Alternate Projects located at the WSOC. An Improved Project is when BGS decides to make improvements to a damaged facility while restoring it to its pre-disaster function and at least its pre-disaster capacity. An Alternate Project is when BGS determines that the public welfare would not be best served by restoring a damaged facility or its function. Both Improved and Alternate Projects located at the WSOC will undergo project review in accordance with this 2PA. The project review of FEMA-funded WSOC

Alternate Projects will be compliant with federal law, regulation, and FEMA policy, including Disaster Assistance Policy 9525.13 (Appendix E).

C. FEMA will review a PW's scope of work for activities that have limited or no potential to affect historic properties pursuant to 36 CFR § 800.3(a)(1) and document that the agency has no further Section 106 responsibilities within the applicable project file.

D. FEMA will review a PW's scope of work for conformance with Programmatic Allowances (Allowances) listed in Appendix F. If FEMA determines that the entirety of an Undertaking conforms with Allowances, FEMA staff will not conduct any further Section 106 review. After documenting this determination in the project file, the PW will be forwarded to FEMA Program for final review.

E. For Undertakings that FEMA determines do not entirely meet Allowances, FEMA shall complete the Section 106 review process in accordance with the consultation protocols established in Stipulation II. G of this 2PA.

F. Two previously conducted archaeological surveys performed by the University of Vermont have provided indications that limited portions of the WSOC may be archaeologically sensitive. BGS will ensure that archaeological testing is conducted prior to the deconstruction of buildings and the results of this study will be used by FEMA to consult with the SHPO under the consultation protocols established in this 2PA.

G. Applying Criteria of Adverse Effect.

1. If FEMA determines that an Undertaking may affect identified historic properties, FEMA will apply the criteria of adverse effect within the APE(s), taking into account the views of the consulting parties concerning effects in accordance with 36 C.F.R. § 800.5(a).

    a. If FEMA finds that the Undertaking does not meet the adverse effect criteria or the Undertaking is modified by BGS or conditions are stipulated to avoid adverse effects, such as the subsequent review of plans to ensure consistency with the Secretary of the Interior's *Standards for the Treatment of Historic Properties* 1995 (Secretary's Standards), 36 C.F.R. pt 68 and applicable guidelines, FEMA shall propose a finding of "no adverse effect" in accordance with 36 C.F.R. § 800.5(b).

    b. FEMA shall notify the SHPO and all other consulting parties of its finding of "no adverse effect" and provide supporting documentation. Unless a consulting party objects within fifteen (15) days after receipt of the notification, FEMA will assume concurrence with its "no adverse effect" finding, and will forward the PW to FEMA Program staff final review.

c. Resolving Objections: If any of the consulting parties object within fifteen (15) days after receipt of the no adverse effect notification, FEMA shall consult with that party to resolve the objection.

i. If the objection is resolved, the PW will be forwarded to FEMA Program staff for final review in accordance with the resolution.

ii. If the objection is not resolved, FEMA shall request that BGS and VAOT modify the scope of work to avoid or minimize adverse effects to historic properties in consultation with the SHPO and other consulting parties. If the proposed modifications sufficiently address the objections, FEMA shall reconsult and provide supporting documentation for a subsequent finding of "no adverse effect." If there are no objections to the reconsultation notification within fifteen (15) days of receipt of the transmittal, FEMA will assume concurrence with its "no adverse effect" finding and will forward the PW to FEMA Program staff for final review.

iii. If the objection that cannot be resolved by further consultation, FEMA shall either:

A. Forward its findings and supporting documentation to the ACHP and request that the ACHP review the findings in accordance with 36 C.F.R. § 800.4(d)(1)(iv)(A) through 36 C.F.R. § 800.4(d)(1)(iv)(C); or

B. Initiate consultation to resolve the adverse effect in accordance with Stipulation II.H.

H. Resolution of Adverse Effects

1. If FEMA determines that an Undertaking will adversely affect a historic property, FEMA will initiate consultation to resolve the adverse effects. Depending on the circumstances, FEMA may elect to exercise one of the following options:

a. Option 1, Treatment Measure Plan Proposal (TMPP): In the event that FEMA determines the Undertaking adversely affects historic properties, FEMA shall confer with SHPO, BGS, and other consulting parties, including parties identified during project-specific outreach efforts, on potential treatment measure plan options, as outlined in Appendix G and H, to include in a treatment plan proposal. Following discussions, FEMA shall submit a written treatment measure plan proposal to the SHPO and BGS on the potential implementation of one or more treatment measures to minimize or mitigate adverse effects. In its treatment measure plan proposal, FEMA will take into account the nature of historic properties affected, the severity of adverse effects, and the level of projected FEMA funding assistance. If FEMA receives written concurrence on the treatment measure plan proposal from SHPO, BGS and VAOT within fifteen (15) days of receipt, FEMA will work with BGS to determine the funding mechanisms and an implementation

schedule for the treatment measure plan proposal. Should concurrence on a treatment measure plan proposal not be achieved, FEMA may resolve the adverse effect(s) pursuant to Option 2 outlined in Stipulation II.H.1.b. below.

b. Option 2, Memorandum of Agreement (MOA): The signatories, ACHP if participating, and any other consulting party may consult to develop a MOA in accordance with 36 C.F.R. § 800.6(c). The MOA may include treatment measures which serve an equal or greater public benefit and serve to delineate consulting party roles and responsibilities.

2. Failure to Resolve Adverse Effects

   a. Should any signatory, consulting party, or member of the public object within the timeframes provided to any plans, specifications, or activities pursuant to resolving an adverse effect, FEMA shall consult further with the objecting party to seek resolution by the most expeditious and appropriate method.

   b. If FEMA determines that the objection cannot be resolved among the consulting parties, FEMA shall forward all documentation relevant to the dispute to the ACHP, including FEMA's proposed resolution of the dispute.

      i. Within fifteen (15) days after receipt of all pertinent documentation, the ACHP will in writing:

         A. Advise FEMA that it concurs with FEMA's resolution of the dispute; or

         B. Provide FEMA with recommendations, which FEMA shall take into account in reaching a final decision regarding the dispute; or

         C. Notify FEMA that it shall comment pursuant to 36 C.F.R. § 800.7(c), and proceed to comment. Any comment provided shall be taken into account by FEMA in accordance with 36 C.F.R. § 800.7(c)(4) with reference only to the subject of the dispute.

      ii. If the ACHP does not provide FEMA with written comments or recommendations within fifteen (15) days of receipt of the request, FEMA will assume that the ACHP does not object to its recommended approach and it shall proceed accordingly.

   c. BGS will not be required to cease work on Undertakings unrelated to the objection while the objection is being reviewed and resolved.

   d. FEMA shall notify the signatories, consulting parties, and members of the public who have raised an objection to the proposed resolution within fifteen (15) days of the final resolution decision.

III. PUBLIC PARTICIPATION

A. In keeping with 36 C.F.R. §§ 800.2(d) and 800.3(e) of the Section 106 regulations, FEMA solicited the views of the public regarding the resolution of adverse effects through the posting of a public notice in *The Waterbury Record* on May 17, 2012. The public notice advertised the availability of paper copies of the first Draft Environmental Assessment (Draft EA), created for National Environmental Policy Act (NEPA) compliance, at the Town of Waterbury office and library. The public notice also invited community members to a NEPA Scoping Meeting. FEMA held the Scoping Meeting at the Thatcher Brook Primary School in Waterbury, VT, the evening of May 30, 2012, and documented both verbal and written comments pertinent to historic preservation issues in Appendix I of this 2PA. FEMA worked with the Town of Waterbury to have the first Draft EA posted to the Town website (http://www.waterburyvt.com/recovery/) on June 2, 2012. The public comment period for the first Draft EA closed June 15, 2012 and the public comment period for the second Draft EA closed on September 7, 2012.

B. FEMA recognizes that the views of the public are essential to informed decision making in the Section 106 review process. FEMA will consult with the SHPO to determine if there are individuals, organizations or other entities with a demonstrated interest in the preservation of specific historic resources that should be made aware of a particular Undertaking. If such parties are identified, FEMA will provide them with information regarding the Undertaking and its effect on historic properties, consistent with the confidentiality provisions of 36 C.F.R. § 800.11(c). When FEMA has determined that an Undertaking will have an adverse effect upon historic properties, FEMA will provide the public an opportunity to express their views on resolving the adverse effect.

C. FEMA will notify the public of proposed Undertakings in a manner that reflects the:

   1. Nature, complexity, and effect of the Undertaking on historic properties and FEMA's specific involvement; and

   2. Likely interest of the public in the effects on historic properties.

D. FEMA will consider views provided by the public within timeframes defined on a project by project basis.

E. FEMA will consider all written requests of individuals and organizations to participate as consulting parties in the resolution of adverse effects for specific Undertakings, and in consultation with the signatories and the ACHP, if participating, determine which should be consulting parties. FEMA may invite individuals and organizations that will assume a specific role or responsibility in the implementation of treatment measures to resolve adverse effects to participate as consulting parties.

IV. OTHER CONSIDERATIONS

A. Changes to an Approved Scope of Work

1. BGS will notify FEMA as soon as practicable of any proposed change to an approved scope of work for an Undertaking. FEMA will consult with the SHPO to determine if the change will have an effect on the historic property. FEMA may authorize BGS to proceed with the change if the work meets Allowances in Appendix F of this 2PA or if the change can be modified to conform to the Secretary's Standards.

2. If FEMA determines that the change does not meet Allowances, or if FEMA and SHPO determine that the change cannot be modified to conform to the Secretary's Standards, FEMA shall initiate adverse effect consultation pursuant to Stipulation II.H of this 2PA, as appropriate.

B. Unexpected Discoveries

1. BGS shall notify FEMA immediately if it discovers that a FEMA-funded Undertaking has affected a previously unidentified potentially historic property or affected a known historic property in an unanticipated manner.

2. BGS will immediately stop project activities in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the property until FEMA has completed consultation with the SHPO and other consulting parties.

3. FEMA will notify the SHPO and other interested parties of the discovery, at the earliest possible time, and consult to establish project-specific timeframes and develop protocols to address the effects of the Undertaking. Signatories will participate in this consultation in keeping with their level of responsibility for project implementation. FEMA will provide the SHPO with written recommendations to take into account the effects of the Undertaking and suggest a timeframe for the SHPO's response.

4. If the SHPO does not object to FEMA's recommendations within agreed upon timeframes, FEMA will require the BGS to modify the scope of work to implement the recommendations. If the SHPO objects to the recommendations, FEMA and the SHPO will consult further to resolve this objection through means including, but not limited to, identifying project alternatives that may result in the Undertaking having no adverse effect on historic properties, or proceeding in accordance with Stipulation II.H. The decision to pursue project alternatives will require FEMA review and approval.

5. If human remains are discovered during the course of project implementation, BGS shall immediately stop project activities in the vicinity of the discovery, take all reasonable measures to avoid or minimize harm, and immediately report the discovery to the Waterbury Police Department, FEMA, VAOT, and SHPO. If, after completion of an investigation pursuant to 18 V.S.A. § 5205, the Waterbury

Police Department determines that the burial site does not constitute evidence of a crime, the Waterbury Police Department will immediately notify the State Archeologist pursuant to established state protocols. The signatories shall consult to determine the appropriate disposition of the human remains in accordance with applicable laws of the State of Vermont, including 13 V.S.A. § 3761 (Unauthorized Removal of Human Remains), 13 V.S.A. § 3764 (Cemeteries and Monuments – Grave markers and historic tablets) and 18 V.S.A. § 5212 (Permit to Remove Dead Bodies).

C. Anticipatory Actions

1. FEMA shall not approve Program funding for a project at the WSOC if VAOT or BGS intentionally avoids the requirements of this 2PA, Section 106 of the NHPA, or 36 C.F.R. pt. 800, and subsequently causes an adverse effect to a historic property to which the funding relates, or having legal authority to prevent it, allowed such adverse effect to occur. However, after consulting with the SHPO and the ACHP, FEMA may determine that circumstances justify funding despite the adverse effect created or permitted, and will complete consultation for the Undertaking pursuant to Stipulation II.H of the 2PA.

2. FEMA has advised the State of Vermont through VAOT and BGS of this Anticipatory Actions Stipulation and requires that BGS not initiate an activity at the WSOC, for which they are seeking FEMA funding, prior to compliance with this 2PA. BGS may jeopardize eligibility for FEMA funding if it initiates work for individual Undertakings before compliance with this 2PA can be achieved.

V. IMPLEMENTATION OF THIS AGREEMENT

A. Execution and Implementation

1. Execution of this 2PA and implementation by FEMA evidences that FEMA has satisfied its Section 106 and 36 C.F.R. pt. 800 responsibilities for all its individual Undertakings.

2. This 2PA may be executed in counterparts, with a separate page for each signatory, and FEMA will ensure that each party is provided a complete copy, including all appendices. This 2PA will become effective on the date of the last signature.

3. At any time while this 2PA is in effect, should a member of the public object, in writing, to the implementation of its terms, FEMA will notify the other signatories in writing and take the objection into consideration. FEMA will consult with the member of the public and, if that party so requests, the other signatories to the Agreement, for not more than fifteen (15) days. In reaching its decision regarding the public objection, FEMA will take into consideration all comments received from the other signatories. Within fifteen (15) days after closure of this

consultation period, FEMA will provide the other parties with its written decision. FEMA's decision will be final.

B. Reporting Requirements

1. For FEMA Undertakings at the WSOC, FEMA shall provide the signatories with a brief annual report for the previous federal fiscal year on October 1st of each year that this 2PA is in effect. This annual report will summarize FEMA's progress on implementing the 2PA and include a summary of Undertakings reviewed using Allowances, treatment measures implemented, and recommendations for amendments to the 2PA and appendices.

2. BGS shall provide the signatories with a brief semi-annual report on the first day of each April and September that this 2PA is in effect. In this report, BGS will provide information on progress made towards the implementation of treatment measures and pertinent project scheduling information. BGS will also provide an account of any critical steps taken to ensure that Undertakings funded by FEMA also comply with state statutes.

C. Duration and Extension

1. This 2PA shall remain in effect from the date of execution for a period not to exceed seven (7) years, unless otherwise extended pursuant to Stipulation V.C.2.

2. The signatories may collectively agree to extend this 2PA beyond seven (7) years through the amendment process pursuant to Stipulation V.D1.

D. Amendments

1. If any signatory to the 2PA determines that the 2PA cannot be fulfilled, or that an amendment to this 2PA must be made, the signatories will consult for no more than thirty (30) days to seek amendment. This 2PA may be amended only upon the written consensus of the signatories.

2. Any appendix in this 2PA may be amended at the request of FEMA or other signatory in the following manner:

   a. FEMA, on its own behalf or on behalf of another signatory, shall notify the signatories of the intent to modify an appendix and shall provide the signatories with a written copy of proposed appendix revisions.

   b. If no signatory party objects in writing within fifteen (15) days, FEMA will date and sign the revised appendix and provide a copy to all signatories.

E. Severability and Termination

1. In the event any provision of this 2PA shall be deemed contrary to, or in violation of, any applicable existing law or regulation in the State of Vermont or the United

States of America, only the conflicting provision(s) shall be deemed null and void, and the remaining provisions of the Agreement shall remain in effect.

2. Any of the signatories may terminate this 2PA by providing thirty (30) days written notice to the other parties, provided that the parties consult during this period to seek amendments or other actions that would prevent termination. If this 2PA is terminated, FEMA will comply with 36 C.F.R. pt. 800 or with an applicable program alternative under 36 C.F.R. § 800.14. Upon such determination, FEMA will provide the signatories with written notice of the termination of this 2PA.

3. This 2PA may be terminated by the implementation of a subsequent Agreement that explicitly terminates or supersedes this 2PA.

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SECONDARY PROGRAMMATIC AGREEMENT
AMONG THE
FEDERAL EMERGENCY MANAGEMENT AGENCY,
VERMONT STATE HISTORIC PRESERVATION OFFICER,
VERMONT AGENCY OF TRANSPORTATION,
AND VERMONT DEPARTMENT OF BUILDINGS AND GENERAL SERVICES,
REGARDING POTENTIAL UNDERTAKINGS AT THE
WATERBURY STATE OFFICE COMPLEX, WATERBURY, VERMONT

SIGNATORY

FEDERAL EMERGENCY MANAGEMENT AGENCY

By: Mark F. Gallagher for
Paul F. Ford, Acting Regional Administrator
FEMA Region I

Date: 9/24/12

By: Jack Sullivan
Jack Sullivan, Regional Environmental Officer
FEMA Region I

Date: 9/21/12

SECONDARY PROGRAMMATIC AGREEMENT
AMONG THE
FEDERAL EMERGENCY MANAGEMENT AGENCY,
VERMONT STATE HISTORIC PRESERVATION OFFICER,
VERMONT AGENCY OF TRANSPORTATION,
AND VERMONT DEPARTMENT OF BUILDINGS AND GENERAL SERVICES,
REGARDING POTENTIAL UNDERTAKINGS AT THE
WATERBURY STATE OFFICE COMPLEX, WATERBURY, VERMONT

SIGNATORY

VERMONT DIVISION FOR HISTORIC PRESERVATION

By: _____ Date: 9/27/12
Giovanna Peebles, State Historic Preservation Officer

SECONDARY PROGRAMMATIC AGREEMENT
AMONG THE
FEDERAL EMERGENCY MANAGEMENT AGENCY,
VERMONT STATE HISTORIC PRESERVATION OFFICER,
VERMONT AGENCY OF TRANSPORTATION,
AND VERMONT DEPARTMENT OF BUILDINGS AND GENERAL SERVICES,
REGARDING POTENTIAL UNDERTAKINGS AT THE WATERBURY STATE OFFICE COMPLEX, WATERBURY, VERMONT

INVITED SIGNATORY

VERMONT AGENCY OF TRANSPORTATION

By: _____ Date: 9/26/2012
Brian R. Searles, Secretary of Transportation.

By: _____ Date: 09/25/2012
D. Scott Newman, Historic Preservation Officer

APPROVED AS TO FORM
DATE: 9/26/2012
_____
ASSISTANT ATTORNEY GENERAL

SECONDARY PROGRAMMATIC AGREEMENT
AMONG THE
FEDERAL EMERGENCY MANAGEMENT AGENCY,
VERMONT STATE HISTORIC PRESERVATION OFFICER,
VERMONT AGENCY OF TRANSPORTATION,
AND VERMONT DEPARTMENT OF BUILDINGS AND GENERAL SERVICES,
REGARDING POTENTIAL UNDERTAKINGS AT THE
WATERBURY STATE OFFICE COMPLEX, WATERBURY, VERMONT

INVITED SIGNATORY

DEPARTMENT OF BUILDINGS AND GENERAL SERVICES

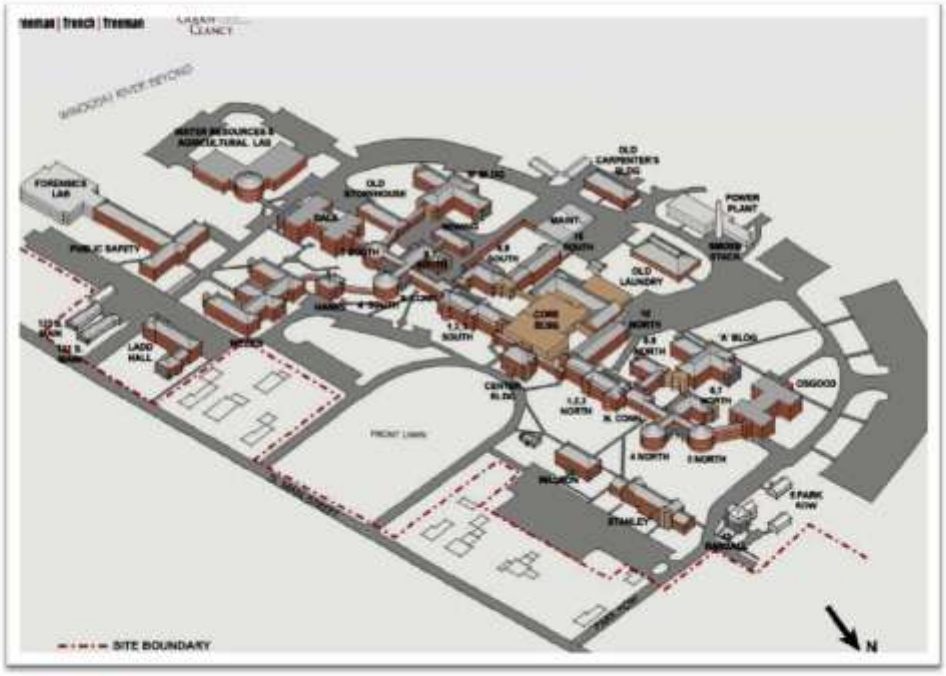
By: Michael J Obuchowski
Michael Obuchowski, Commissioner

Date: 9/21/2012

APPENDICES INDEX

APPENDIX A

Map of Area of Potential Effect (APE)



APPENDIX B

National Register Listed or Eligible Properties within the Waterbury State Office Complex

Development Phase	Building Name	Alternate Name	Year Built	1978 - National Register Contributing Structure	NR Eligible	Criteria for Evaluation
Acquired by WSOC	121 S Main Street	Thorington House	1891	Yes		
Acquired by WSOC	123 S Main Street		1891	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		

Development Phase	Building Name	Alternate Name	Year Built	1978 - National Register Contributing Structure	NR Eligible	Criteria for Evaluation
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 Building Annex	1919	No	Yes	A & C
Expansion	Old Laundry	Public Records	1921	No	Yes	A & C
Expansion	Recycling Building	Carpenter Shop, State Building Warehouse	1921	No	Yes	A & C
Expansion	Weeks Building & Connecting Tunnel	Admissions Building	1924	No	Yes	A & C

Development Phase	Building Name	Alternate Name	Year Built	1978 - National Register Contributing Structure	NR Eligible	Criteria for Evaluation
Expansion	Boiler Plant & 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 at 123 So Main St			No	Yes	C

APPENDIX C

Buildings within the Waterbury State Office Complex Not Eligible for the National Register

Development Phase	Building Name	Alternate Name	Year Built	1978 -National Register Contributing Structure	NR Eligible
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	Environmental & Ag Lab		1989	No	No
Deinstitution/Reuse	Department of Public Safety Forensics Lab		2011	No	No
Deinstitution/Reuse	Old Green House	Equipment Storage		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

APPENDIX D

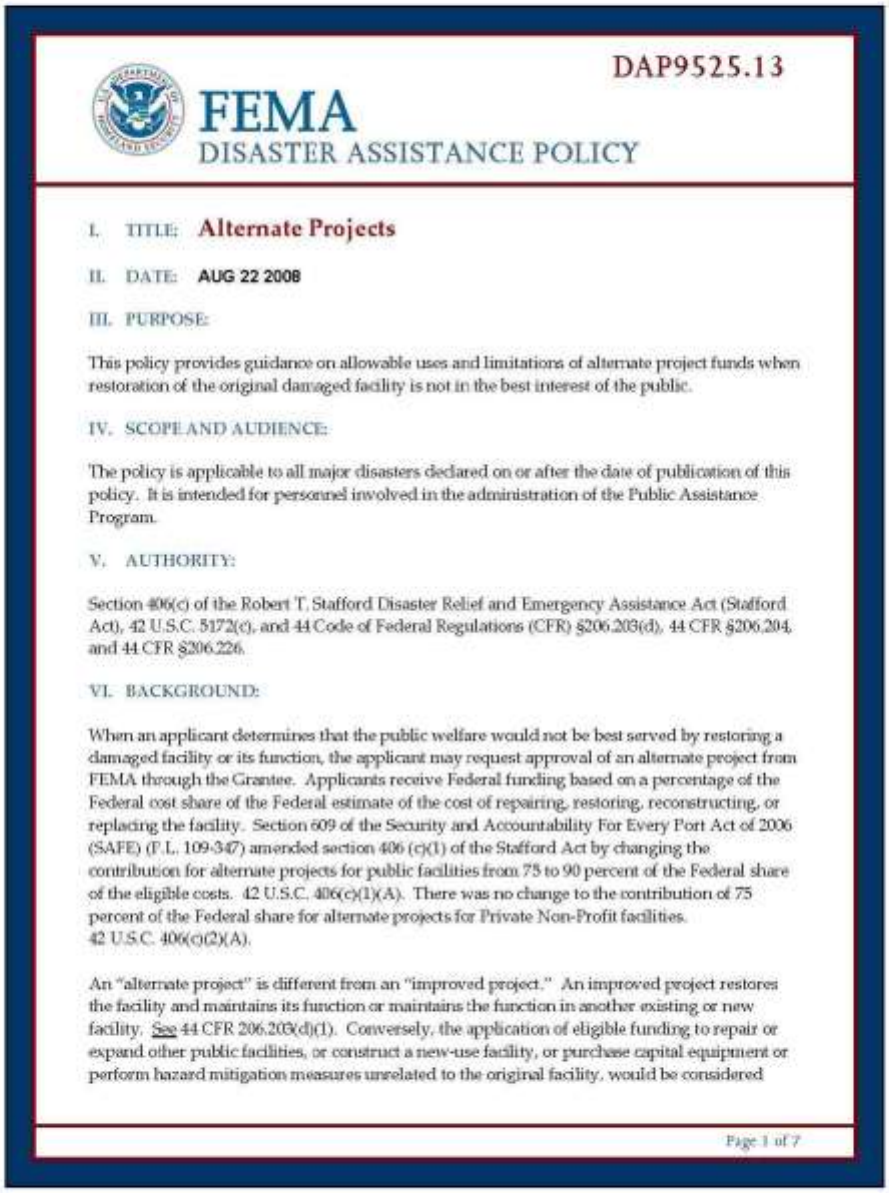
***Waterbury Office Complex Feasibility Study* (March 9, 2012)**

Go to website http://bgs.vermont.gov/FutureUseWaterbury to download both volumes (113 pages total).

- **Volume 1: http://bgs.vermont.gov/sites/bgs/files/pdfs/WTYB-Executive-Summary-and-Options.pdf**
- **Volume 2: http://bgs.vermont.gov/sites/bgs/files/pdfs/WTBY-Consultants-Reports.pdf**

APPENDIX E

***Disaster Assistance Policy 9525.13* (August 22, 2008)**



DAP9525.13

FEMA
DISASTER ASSISTANCE POLICY

I. TITLE: **Alternate Projects**

II. DATE: **AUG 22 2008**

III. PURPOSE:

This policy provides guidance on allowable uses and limitations of alternate project funds when restoration of the original damaged facility is not in the best interest of the public.

IV. SCOPE AND AUDIENCE:

The policy is applicable to all major disasters declared on or after the date of publication of this policy. It is intended for personnel involved in the administration of the Public Assistance Program.

V. AUTHORITY:

Section 406(c) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), 42 U.S.C. 5172(c), and 44 Code of Federal Regulations (CFR) §206.203(d), 44 CFR §206.204, and 44 CFR §206.226.

VI. BACKGROUND:

When an applicant determines that the public welfare would not be best served by restoring a damaged facility or its function, the applicant may request approval of an alternate project from FEMA through the Grantee. Applicants receive Federal funding based on a percentage of the Federal cost share of the Federal estimate of the cost of repairing, restoring, reconstructing, or replacing the facility. Section 609 of the Security and Accountability For Every Port Act of 2006 (SAFE) (P.L. 109-347) amended section 406 (c)(1) of the Stafford Act by changing the contribution for alternate projects for public facilities from 75 to 90 percent of the Federal share of the eligible costs. 42 U.S.C. 406(c)(1)(A). There was no change to the contribution of 75 percent of the Federal share for alternate projects for Private Non-Profit facilities. 42 U.S.C. 406(c)(2)(A).

An "alternate project" is different from an "improved project." An improved project restores the facility and maintains its function or maintains the function in another existing or new facility. See 44 CFR 206.203(d)(1). Conversely, the application of eligible funding to repair or expand other public facilities, or construct a new-use facility, or purchase capital equipment or perform hazard mitigation measures unrelated to the original facility, would be considered

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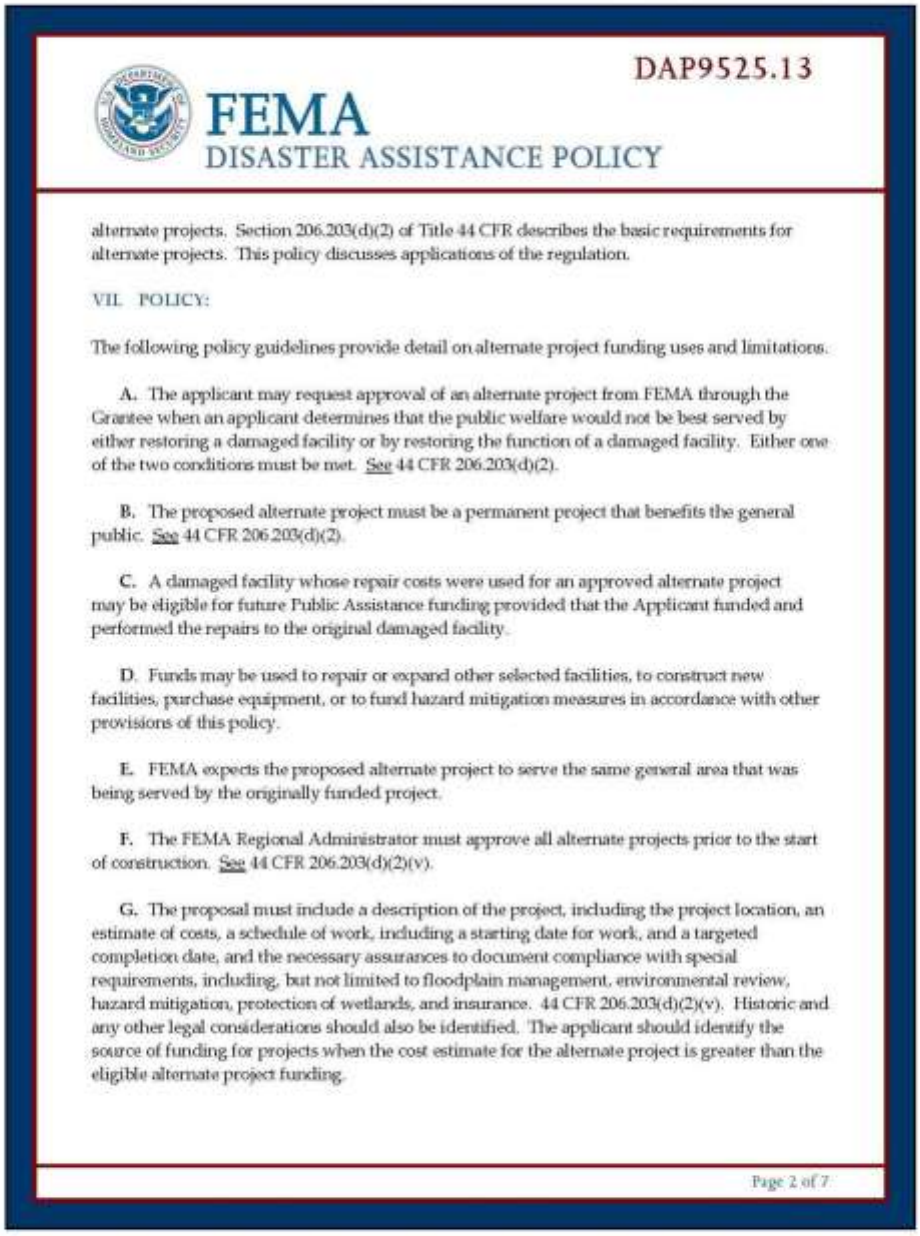

DAP9525.13

FEMA
DISASTER ASSISTANCE POLICY

alternate projects. Section 206.203(d)(2) of Title 44 CFR describes the basic requirements for alternate projects. This policy discusses applications of the regulation.

VII. POLICY:

The following policy guidelines provide detail on alternate project funding uses and limitations.

A. The applicant may request approval of an alternate project from FEMA through the Grantee when an applicant determines that the public welfare would not be best served by either restoring a damaged facility or by restoring the function of a damaged facility. Either one of the two conditions must be met. See 44 CFR 206.203(d)(2).

B. The proposed alternate project must be a permanent project that benefits the general public. See 44 CFR 206.203(d)(2).

C. A damaged facility whose repair costs were used for an approved alternate project may be eligible for future Public Assistance funding provided that the Applicant funded and performed the repairs to the original damaged facility.

D. Funds may be used to repair or expand other selected facilities, to construct new facilities, purchase equipment, or to fund hazard mitigation measures in accordance with other provisions of this policy.

E. FEMA expects the proposed alternate project to serve the same general area that was being served by the originally funded project.

F. The FEMA Regional Administrator must approve all alternate projects prior to the start of construction. See 44 CFR 206.203(d)(2)(v).

G. The proposal must include a description of the project, including the project location, an estimate of costs, a schedule of work, including a starting date for work, and a targeted completion date, and the necessary assurances to document compliance with special requirements, including, but not limited to floodplain management, environmental review, hazard mitigation, protection of wetlands, and insurance. 44 CFR 206.203(d)(2)(v). Historic and any other legal considerations should also be identified. The applicant should identify the source of funding for projects when the cost estimate for the alternate project is greater than the eligible alternate project funding.

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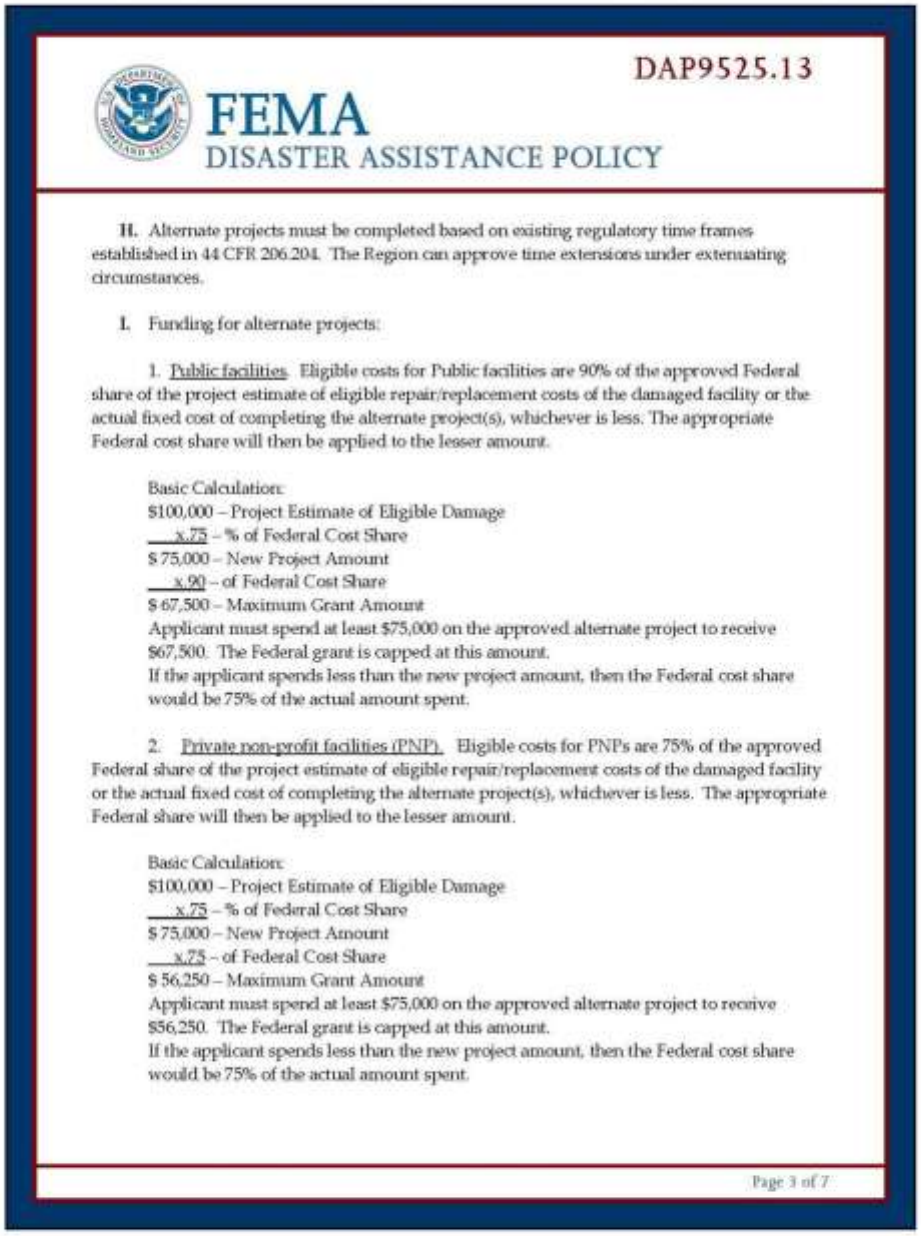

DAP9525.13

FEMA
DISASTER ASSISTANCE POLICY

H. Alternate projects must be completed based on existing regulatory time frames established in 44 CFR 206.204. The Region can approve time extensions under extenuating circumstances.

I. Funding for alternate projects:

1. Public facilities. Eligible costs for Public facilities are 90% of the approved Federal share of the project estimate of eligible repair/replacement costs of the damaged facility or the actual fixed cost of completing the alternate project(s), whichever is less. The appropriate Federal cost share will then be applied to the lesser amount.

Basic Calculation:
$100,000 – Project Estimate of Eligible Damage
x.75 – % of Federal Cost Share
$ 75,000 – New Project Amount
x.90 – of Federal Cost Share
$ 67,500 – Maximum Grant Amount
Applicant must spend at least $75,000 on the approved alternate project to receive $67,500. The Federal grant is capped at this amount.
If the applicant spends less than the new project amount, then the Federal cost share would be 75% of the actual amount spent.

2. Private non-profit facilities (PNP). Eligible costs for PNPs are 75% of the approved Federal share of the project estimate of eligible repair/replacement costs of the damaged facility or the actual fixed cost of completing the alternate project(s), whichever is less. The appropriate Federal share will then be applied to the lesser amount.

Basic Calculation:
$100,000 – Project Estimate of Eligible Damage
x.75 – % of Federal Cost Share
$ 75,000 – New Project Amount
x.75 – of Federal Cost Share
$ 56,250 – Maximum Grant Amount
Applicant must spend at least $75,000 on the approved alternate project to receive $56,250. The Federal grant is capped at this amount.
If the applicant spends less than the new project amount, then the Federal cost share would be 75% of the actual amount spent.

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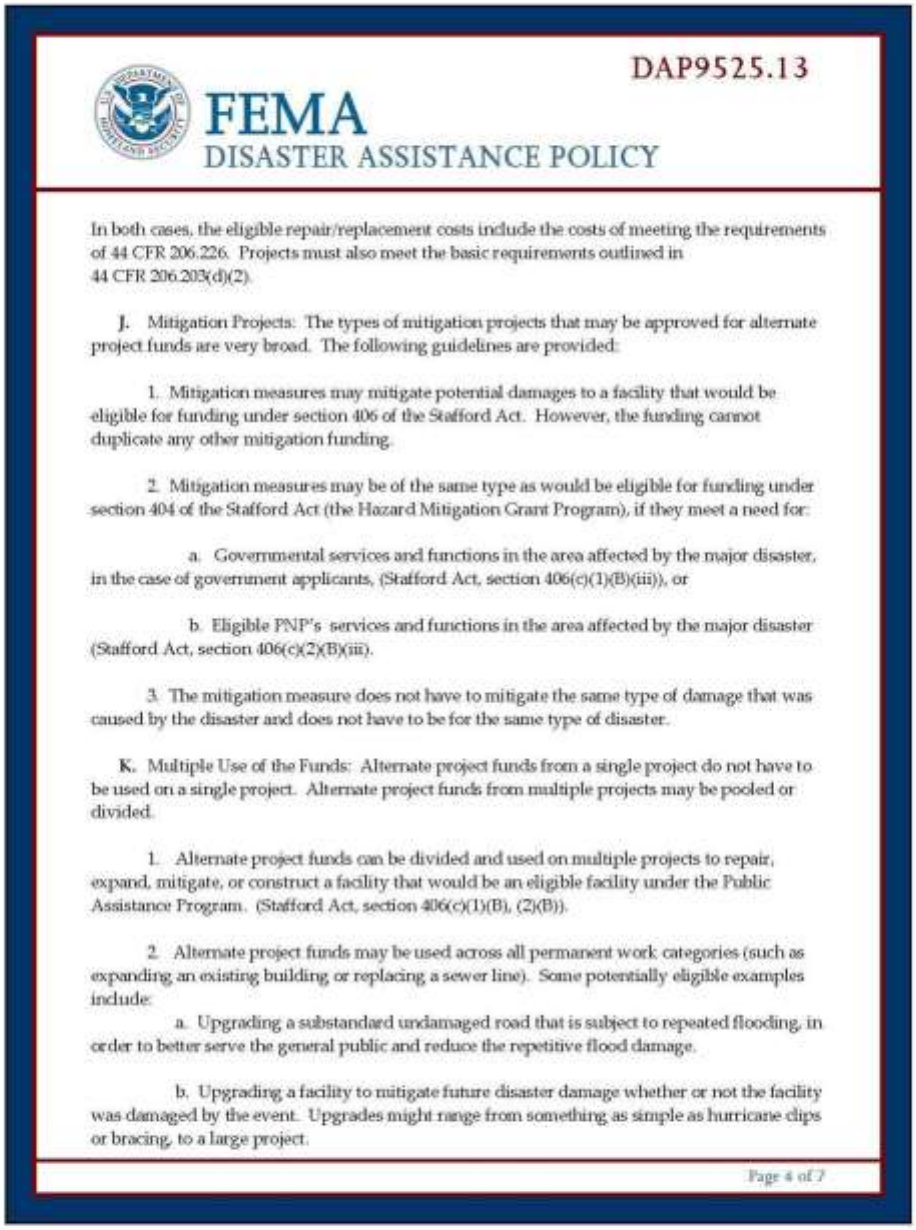

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In both cases, the eligible repair/replacement costs include the costs of meeting the requirements of 44 CFR 206.226. Projects must also meet the basic requirements outlined in 44 CFR 206.203(d)(2).

J. Mitigation Projects: The types of mitigation projects that may be approved for alternate project funds are very broad. The following guidelines are provided:

1. Mitigation measures may mitigate potential damages to a facility that would be eligible for funding under section 406 of the Stafford Act. However, the funding cannot duplicate any other mitigation funding.

2. Mitigation measures may be of the same type as would be eligible for funding under section 404 of the Stafford Act (the Hazard Mitigation Grant Program), if they meet a need for:

a. Governmental services and functions in the area affected by the major disaster, in the case of government applicants, (Stafford Act, section 406(c)(1)(B)(iii)), or

b. Eligible PNP's services and functions in the area affected by the major disaster (Stafford Act, section 406(c)(2)(B)(iii).

3. The mitigation measure does not have to mitigate the same type of damage that was caused by the disaster and does not have to be for the same type of disaster.

K. Multiple Use of the Funds: Alternate project funds from a single project do not have to be used on a single project. Alternate project funds from multiple projects may be pooled or divided.

1. Alternate project funds can be divided and used on multiple projects to repair, expand, mitigate, or construct a facility that would be an eligible facility under the Public Assistance Program. (Stafford Act, section 406(c)(1)(B), (2)(B)).

2. Alternate project funds may be used across all permanent work categories (such as expanding an existing building or replacing a sewer line). Some potentially eligible examples include:

a. Upgrading a substandard undamaged road that is subject to repeated flooding, in order to better serve the general public and reduce the repetitive flood damage.

b. Upgrading a facility to mitigate future disaster damage whether or not the facility was damaged by the event. Upgrades might range from something as simple as hurricane clips or bracing, to a large project.

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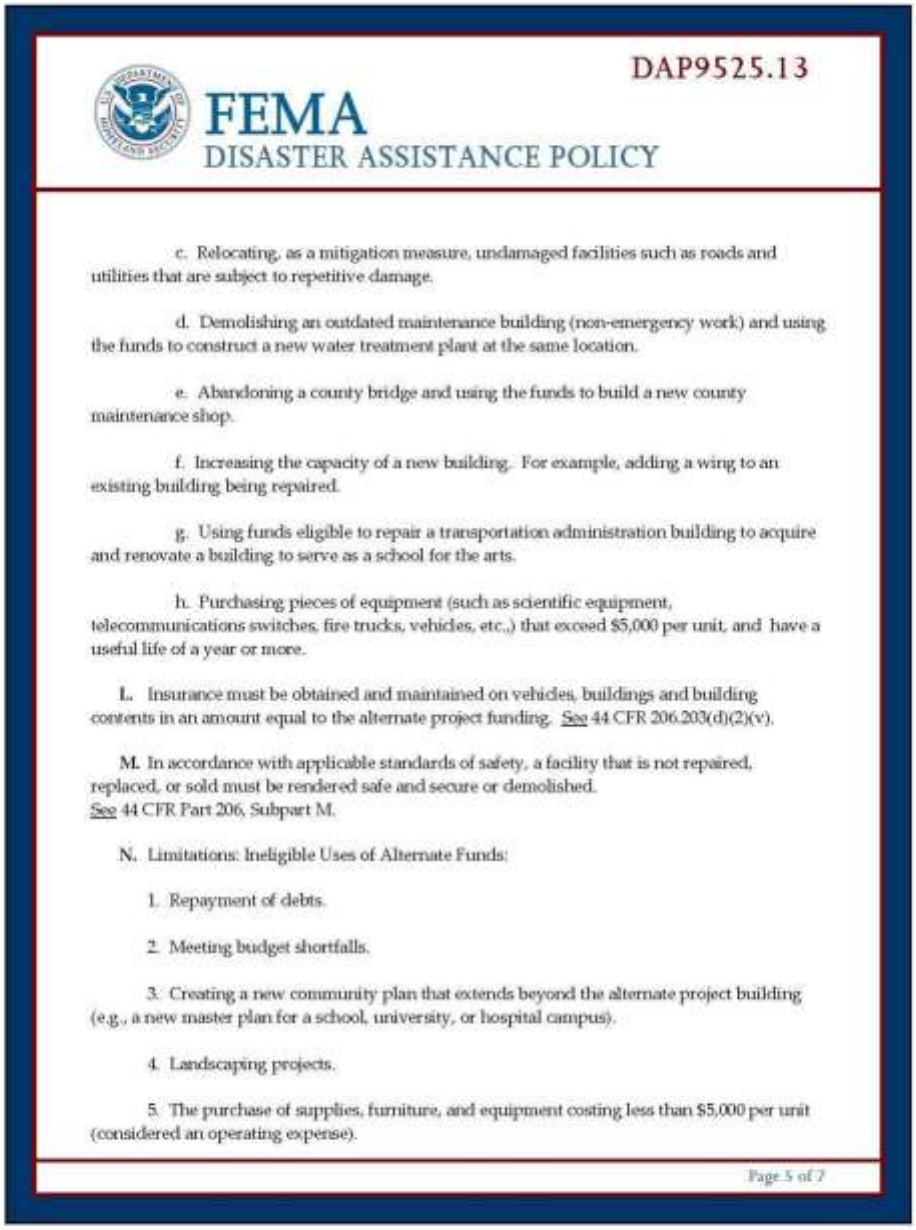

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c. Relocating, as a mitigation measure, undamaged facilities such as roads and utilities that are subject to repetitive damage.

d. Demolishing an outdated maintenance building (non-emergency work) and using the funds to construct a new water treatment plant at the same location.

e. Abandoning a county bridge and using the funds to build a new county maintenance shop.

f. Increasing the capacity of a new building. For example, adding a wing to an existing building being repaired.

g. Using funds eligible to repair a transportation administration building to acquire and renovate a building to serve as a school for the arts.

h. Purchasing pieces of equipment (such as scientific equipment, telecommunications switches, fire trucks, vehicles, etc.,) that exceed $5,000 per unit, and have a useful life of a year or more.

L. Insurance must be obtained and maintained on vehicles, buildings and building contents in an amount equal to the alternate project funding. See 44 CFR 206.203(d)(2)(v).

M. In accordance with applicable standards of safety, a facility that is not repaired, replaced, or sold must be rendered safe and secure or demolished.
See 44 CFR Part 206, Subpart M.

N. Limitations: Ineligible Uses of Alternate Funds:

1. Repayment of debts.

2. Meeting budget shortfalls.

3. Creating a new community plan that extends beyond the alternate project building (e.g., a new master plan for a school, university, or hospital campus).

4. Landscaping projects.

5. The purchase of supplies, furniture, and equipment costing less than $5,000 per unit (considered an operating expense).

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6. The funds may not be used to pay the non-federal share of any project, nor any operating expenses. See 44 CFR 206.203(d)(2)(v).

7. Construction of a facility that would not be eligible for Public Assistance Program funding in a subsequent disaster.

8. Buy-outs (i.e., acquisition of property for open space as a mitigation measure).

O. The value, or anticipated fair market value, of salvaged materials from the original facility (less the estimated costs necessary to demolish the facility, grade the site, or make the facility safe and secure) should be an adjustment on the Project Worksheet (PW) that has been written for the repair of the original project. Regardless of what the applicant decides to do with the original project after accepting the alternate funding option, the salvage issue should be resolved in the original PW.

P. Alternate Projects must satisfy compliance review requirements as established by 44 CFR Parts 9 and 10 and all other applicable Federal environmental and historic preservation requirements. In accordance with Section VII of this policy, an applicant must ensure that the original damaged facility does not create an imminent and substantial endangerment to human health or the environment like causing the release of hazardous pollutants or becoming a hazard to human health, safety and welfare in a future flooding event. The decision of the applicant regarding the future status of the original facility, including abandonment or applicant-funded demolition, is not a major Federal action under the National Environmental Policy Act (NEPA), an undertaking under Section 106 of National Historic Preservation Act (NHPA), or a Federal action under the Section 7 Interagency Coordination requirements of the Endangered Species Act (ESA) and does not require independent environmental and historic preservation compliance review by FEMA. However, the applicant is legally and financially responsible for compliance with any other applicable Federal, State, Tribal, or local requirements, including responding to and mitigating for releases of hazardous pollutants.

Q. The proposed alternate project is subject to FEMA environmental and historic preservation review. FEMA will be responsible for the administrative costs for conducting the environmental and historic preservation review and assessments. The applicant will be responsible for the costs of implementing any mitigation/treatment measures or costs associated with the alternate project at the new site.

R. The applicant must provide FEMA any information concerning the planned action(s) for the original site as soon as such plans are available. In the event that plans for the original site are available and reasonably likely to be implemented FEMA may require the applicant to

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consult with agencies including the State Historic Preservation Officer or Tribal Historic Preservation Officer (SHPO/THPO), Fish and Wildlife Service, National Marine Fisheries, or U.S. Army Corps of Engineers as condition for the approval of the alternate project to identify if the planned action will adversely affect a protected historic or environmental resource. The applicant must consider the agency's recommended measures to avoid, minimize, treat, or otherwise address any adverse impacts to the identified resource. The applicant will be responsible for all costs associated with implementing these measures.

S. Any action of the applicant using FEMA funds at the original site, such as demolition, is an undertaking under Section 106 of NHPA, a major Federal action under NEPA, and a Federal action under the Section 7 Interagency Coordination requirements of ESA and requires FEMA's environmental and historic preservation review before it can begin. FEMA may evaluate the alternate project and the action at the original site separately if they have independent utility, the approval of one action does not foreclose alternatives for the other, and the approval of one action does not justify or commit FEMA to the other action.

VIII. RESPONSIBLE OFFICE: Disaster Assistance Directorate (Public Assistance Division).

IX. SUPERSESSION: This policy supersedes Recovery Policy 9525.13, Alternate Projects, published July 31, 2001 and any other previous guidance on this subject.

X. REVIEW DATE: Three years from date of publication.

/signed/
Carlos J. Castillo
Assistant Administrator
Disaster Assistance Directorate

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APPENDIX F

PROGRAMMATIC ALLOWANCES FOR THE WATERBURY STATE OFFICE COMPLEX

These Programmatic Allowances (Allowances) apply to Undertakings at the Waterbury State Office Complex that will have limited or no effect on historic properties, either because the Undertakings do not "have the potential to cause effects on historic properties, assuming such historic properties were present", pursuant to 36 C.F.R. § 800.3(a) (1), the work will be conducted in previously disturbed areas, or the repairs will meet specific standards. As set forth at Stipulation II.D., projects falling under one or more of these Allowances will not require review by the SHPO.

When referenced in an Allowance, "in-kind" shall mean that the repair is done with the same material, or a close match when original materials are no longer produced, and will match all physical and visual aspects of existing historic materials, including form, color, and workmanship. "In-kind" mortar will also match the strength, content, color and joint tooling of historic mortar.

When referenced in the Allowances, previously disturbed soils refers to soils that are not likely to possess intact and distinct soil horizons and which have the reduced likelihood of possessing archaeological artifacts, features, and phenomena within their original depositional contexts.

I. **ROADS AND TRANSIT RELATED ELEMENTS**, provided that excavation or site work will not disturb previously undisturbed soil. *The intent is to avoid any archaeologically sensitive areas that may be present beyond the existing footprint.*

A. Installation and removal of temporary traffic control devices, including pre-formed concrete barriers and fencings.

B. Repair of **traffic control devices** such as traffic signs and signals, delineators, pavement markings, and traffic surveillance systems.

C. In-kind repair of roadway **safety elements** such as barriers, guardrails, and impact-attenuation devices. In the case of guardrails, the addition of safety end treatments is allowed.

D. In-kind repair of **road appurtenances** such as curbs, berms, fences, and sidewalks that are not brick or stone.

E. In-kind repair of road **lighting systems**, including period lighting fixture styles.

F. Repair of **driveways, parking lots, paths, trails and walkways**. Repairs may include minor upgrades to prevent future erosion, such as the addition of pavement or the installation of water bars or other similar devices.

G. Re-establishment, armoring and/or upgrading of existing **ditches** to meet codes and standards

H. **Repair of roads to pre-disaster** geometric design **standards and conditions, including** number and width of lanes, shoulders, medians, curvature, grades, clearances, and side slopes, provided that all work is conducted from within the existing road right-of-way.

I. **Repair of road composition** with in-kind or similar surface materials to maintain pre-disaster size, traffic capacity, and load classifications of motor vehicles, including the reshaping and compacting of road bed soil and the repair of asphalt or concrete pavements. *This Allowance does not apply to the repair of pre-1950 brick or stone paving.*

II. BUILDINGS AND EQUIPMENT. These Allowances apply to buildings that qualify as historic properties because they are **more than 50 years old** (or less than 50 years old if of exceptional architectural and/or engineering significance) and are **listed on or eligible for listing on the National Register of Historic Places**, when all work is consistent with the Secretary's Standards. Repairs to buildings younger than 50 years (unless of exceptional architectural and/or engineering significance) are not historic, do not require SHPO review, nor do they need to meet these standards.

A. **Interior Floors, Walls, Stairs and Ceilings**

1. In-kind repair, replacement, restoration, preservation, protection, maintaining of materials, or features on interior floors, door surrounds, transoms, interior window surrounds, walls, stairs, and ceilings (including ceiling tiles), or partial replacement of trim. The Allowance applies to repair of interior finishes, including plaster and wallboard, provided the repair is restricted to damaged areas and does not affect adjacent materials. The Allowance does not apply to historic architectural finishes such as decorative plaster trim, or plaster substrates for decorative materials such as murals, gold leaf, etc.

2. Repair or replacement of suspended or glued ceiling tiles.

3. In-kind replacement of sheetrock or prefabricated panel walls to their pre-disaster appearance.

4. Interior cleaning of non-porous surfaces using a weak solution of household bleach and water, mold remediation, or mold removal. The Allowance applies to interior finishes, including plaster and wallboard, provided the repair is restricted to damaged areas, does not affect adjacent materials, and character defining features are retained. Bleach solutions should be ¼ to ½ cup of bleach per gallon of water.

5. Installation of grab bars and other such minor interior modifications for handicapped accessibility, when significant interior features (such as trim or architectural details) are not altered.

6. Non-destructive or concealed testing for hazardous materials (lead paint, asbestos, etc.) or damage assessment.

7. Replacement of wood gymnasium floors with contemporary gym flooring materials.

8. Replacement of damaged vinyl or asbestos floor tile with contemporary floor tile of the same dimensions, thickness and similar texture or pattern.

B. **Building Utilities, Mechanical and Electrical Systems and Features**

1. Heating, ventilation and air conditioning (HVAC), electrical, or plumbing work, which is limited to upgrading, elevation, or in-kind replacement. Historic fixtures, where exposed to view, must be repaired in-kind for this Allowance to apply. This Allowance does not apply to exposed new ductwork.

2. Replacement or installation of interior fire detection, fire suppression, or security alarm systems. This Allowance does not apply to surface mounted wiring, conduits, and piping unless previously existing.

3. Elevation of HVAC and mechanical equipment as long as it is placed or located where it is not highly visible from the street, or if its installation does not result in significant loss of historic fabric, or character-defining details.

4. **Actions conducted within enclosed facilities** where all airborne emissions, waterborne effluent, external radiation levels, outdoor noise, and solid and bulk waste disposal practices comply with existing federal, state, and local laws and regulations.

C. **Windows, Doors and Shutters**

1. In-kind repair or replacement of windows, doors and shutters where profiles, elevations, details and materials match those of the original windows, doors, and shutters.

2. Replacement of window panes provided the result does not alter the existing window material, form, mutton profiles or number of divided lights. This Allowance does not apply to the replacement of existing archaic or decorative glass. Historic windows or glazing may be treated with clear window films.

3. In-kind repair of historic door and window hardware or replacement where repair is not possible.

D. **Exterior Walls, Cornices, Porches and Foundations**

1. Cleaning, repairing or repainting of surfaces, provided that destructive surface preparation treatments are not used, such as water blasting, sandblasting, power sanding, and chemical cleaning. Surface treatments must comply with the treatment approaches outlined in Preservation Brief #6: Dangers of Abrasive Cleaning to Historic Buildings (National Park Service, 1979).

2. In-kind repair or partial replacement of porches, cornices, exterior siding, doors, balustrades, stairs, or trim, as long as the replacement pieces match the original element in detail and material.

3. Substantial in-kind repair or in-kind replacement of signs or awnings.

4. Installation of temporary stabilization bracing or shoring, provided such work does not result in additional damage, significant loss of historic fabric, or irreversible alterations.

5. Anchoring of walls to floor systems, provided the anchors are embedded and concealed from exterior view and disturbed historic fabric is restored in-kind.

6. In-kind repair or reconstruction of concrete/masonry walls, columns, parapets, chimneys, or cornices, including comparable brick, and mortar that matches the color, strength, content, rake, and joint width, where occurring.

7. Bracing and reinforcing of chimneys and fireplaces, provided the bracing and reinforcing are either concealed from exterior view or removable in the future.

8. Strengthening of foundations and the addition of foundation bolts, provided that visible new work is in-kind, including mortar that matches the color, content, strength, rake and joint width, where occurring.

9. Installation of perimeter drainage.

10. In-kind repair or replacement of fencing and other freestanding exterior walls.

11. Repairs to and replacement of elements of curtain wall assemblies when materials, color, size, reflectivity and visual patterns are unaltered.

E. **Roofing**

1. In-kind repair, replacement, or strengthening of roofing, rafters, fascia, soffits, gutters, verge boards, leader boxes or downspouts. Also, cement asbestos shingles may be replaced with asphalt based shingles, and untreated wood shingles may be replaced with fire resistant wood shingles.

2. Replacement of three-tab asphalt shingles with dimensioned architectural shingles; replacement of cement asbestos shingles with asphalt-based shingles or other roofing of similar appearance to the original such as slate; replacement of corrugated asbestos panels with corrugated metal panels or other roofing of similar appearance to the original; replacement of untreated wood shingles or shakes with similar items of fire resistant wood; and in kind replacement of corrugated metal panels.

3. Repairs to a flat roof, including changes in roofing materials, where the repairs are not highly visible from the ground level.

4. Replacement of metal roofs with in-kind materials. If the roofing material to be replaced is character defining, the replacement must be in-kind, not just a form of metal roofing.

F. **Weatherproofing and Insulation**

1. Caulking and weather-stripping to complement the color of adjacent surfaces.

2. Replacement or installation of insulation provided that interior plaster, woodwork, or exterior siding or exterior architectural detail is not altered. This Allowance does not apply to urea formaldehyde foam insulation or any other thermal insulation containing water, when installed within wall cavities. Also, the Allowance does not apply to exterior insulation finishing systems (EIFS) that do not include an adequate vapor and moisture drainage system, or to work in enclosed spaces that are not vented.

G. **Seismic, Tornado, Hurricane, and Floodproofing Upgrades**

1. The installation of the following seismic upgrades, provided that such upgrades are not visible on the exterior or within character defining historic interiors: attic bracing, cross bracing on pier and post foundations; metal fasteners; collar ties; gussets; tie downs; strapping and anchoring of mechanical, electrical and plumbing equipment; concealed anchoring of furniture; installation of plywood diaphragms beneath first floor joists, above top floor ceiling rafters, and on roofs; and automatic gas shut off valves.

2. Replacement, repair or installation of lightning rods, provided no historic fabric will be substantially damaged due to installation.

3. **Retrofitting** of existing structures that are less than 50 years old for purposes of general damage prevention, flood proofing, wind proofing, or to provide safe rooms; or retrofitting of a historic structure for similar purposes when none of the character-defining elements or spaces of a structure are affected.

H. **Building contents**, repair or replacement, including furniture, movable partitions, computers, cabinetry, supplies, equipment, publications and any other **moveable item** that is not a character-defining element of a historic property.

I. Installation of scaffolding, temporary barriers (*e.g.*, chain link fences, Jersey barriers), polyethylene sheeting, or tarps on **historic buildings**, provided such work does not result in additional damage, significant loss of historic fabric, or irreversible alterations.

III. UTILITIES, provided the excavation will not disturb previously undisturbed soil.

A. Ground disturbing Actions related to the repair, replacement, or hardening of any **utilities** (including sewer, water, storm drains, electrical, gas, communication, leach lines, and septic tanks).

B. Emergency repairs to existing electric distribution systems, including the repair or replacement of electric transformers, downed distribution lines, guy-wires and anchor bolts, as well as the replacement or installation of utility poles either within the same holes or in close proximity in order to restore power.

C. Substantially in-kind repair or replacement of **metal utilitarian structures** and related elements (e.g. pump houses, storage buildings, generators, and major exposed pipelines). Modern materials may be used, provided their finish is compatible with the context of the site. *Structures such as bridges, water towers, and antenna towers are not considered metal utilitarian structures for the purposes of this Allowance.*

D. Acquisition, installation, or operation of **utility and communication systems that use existing distribution systems or facilities**, or currently used infrastructure rights-of-way.

E. Repair or replacement of **wells, pumps or surrounding protective structures**.

F. Elevation of existing utility equipment.

G. Repair or replacement of damaged equipment, such as generators, switch boards, pumping equipment, etc.

H. Installation of emergency power **generators**, as long as the exterior fabric of a historic structure is not altered in a permanent fashion.

I. Installation of **tie-downs** on oil tanks or other equipment to prevent their movement by wind or water.

IV. LANDSCAPING ELEMENTS AND RECREATIONAL FEATURES

A. Repair or replacement of **recreational and landscaping elements** and their related support features in public use areas, such as paving, planters, trellises, irrigation, lighting, signage, retaining walls, ramps and steps. This also includes flag poles, above ground swimming pools, decks, and athletic field recreational structures and equipment (*i.e.*, benches, bleachers, permanent seating, batting cages, score boards, basketball hoops, picnic tables, fire pits, utility hook-ups, playground equipment, such slides and swing sets, or other movable objects), provided that the repairs will not disturb more soil than was previously disturbed. This Allowance also permits associated minor mitigation measures, such as increases in equipment diameters and addition of safety anchors.

B. In-kind repair or replacement of **fencing** and other freestanding exterior walls.

V. MISCELLANEOUS

A. Establishment of non-hazardous **debris staging or temporary storage areas** at licensed transfer stations, or at other locations if such areas are capped with hard-top or gravel surfaces (*e.g.*, parking lots, paved areas at such facilities as conference centers, shopping malls, airports or roads).

B. **Studies** that involve no commitment of resources other than manpower and associated funding such as hazard mitigation planning, development of Codes and Standards and education/public awareness programs.

C. Fees for builders, architects, engineers and design services provided the services will not result in an adverse effect on a property listed in or eligible for the National Register.

D. Reimbursement of a Subgrantee's insurance deductible provided that the project meets one or more other Allowances.

E. Repair, replacement, hardening or installation of any **footings, foundations, retaining walls**, or **slope stabilization systems** (*e.g.* riprap, gabion basket walls, crib walls, pile and lag walls) in which ground disturbance will not exceed the limits of previously disturbed soils.

APPENDIX G

Treatment Measures Framework for the Resolution of Adverse Effects at the WSOC

This Appendix is intended to provide guidance with respect to considering adverse effects to historic properties within the Waterbury State Office and Vermont State Hospital Complex and specific guidance regarding the types and levels of treatment measures that may be appropriate to address adverse effects. It is expected that the potential adverse effects at the WSOC will occur at decidedly different orders of magnitude. The adverse effects to the historic properties are expected to be potentially extensive and treatment measure plan proposals shall be commensurate with the extent and severity of the adverse effects.

Some adverse effects may occur at an elemental level, such as blocking one or more basement windows during the process of flood proofing a building. In such cases, consultation may identify approaches to avoid or minimize the adverse effect by implementing specific treatment measures, such as in-filling the window openings with an appropriate material and recessing the in-filled opening so that the window's presence can still be identified.

In some instances, adverse effects to character-defining features may not be avoidable. Treatment measures, such as photographic documentation, may be required to document building and/or structural elements before they are removed or modified. In more extreme instances, adverse effects may occur beyond one or more building and/or structural elements and involve the loss or partial loss of entire buildings or significant landscape features. Treatment measures to address such significant adverse effects may begin with photographic documentation as an initial step. As the extent of loss/adverse effects at this level increase, concomitant levels of treatment become appropriate.

If FEMA determines that an adverse effect will occur as part of a FEMA Undertaking, FEMA will initiate consultation to resolve the adverse effects. Depending on the circumstances, FEMA may elect to exercise either of the options in Stipulation II.H.1.a or Stipulation II.H.1.b.

This treatment measures framework is dependent upon the execution of "*Option B: Partial Use and Reconstruction*" as described in the *Waterbury Office Complex Feasibility Study*, prepared by Freeman French Freeman and Goody Clancy architects and dated March 9, 2012. If "*Option B*" is modified to include additional projects or is not selected by BGS, the signatories to this 2PA shall consult further and evaluate any new Undertakings in accordance with Stipulations I-V. If any new Undertakings not specified in "*Option B*" should result in FEMA's determination of an adverse effect, the signatories of this 2PA shall consult to determine what additional measures may be appropriate to mitigate the adverse effect, if any.

I. Renovation

A. Anticipated Undertakings:

1. Interior renovations to the Center Building and the North and South Connector Dining Rooms (also known as Chapel and Skylight Conference Rooms).

2. Dry floodproofing of buildings in the 1890s historic core, including the use of flowable fill concrete on ground floors, in-filling existing grade-level door and window openings with masonry units, and repointing of the foundation.

3. Removal of asbestos-containing materials from the 1890s historic core.

4. In-fill or removal of existing pedestrian, steam, and utility tunnels.

5. Patching wall surfaces where connected walkways are removed.

B. Anticipated Adverse Effects: Loss of interior and exterior character defining features within WSOC historic buildings, including but not limited to, the 1890s historic core. Character-defining features at the WSOC include but are not limited to the features listed on page 8-42 of the *Waterbury Office Complex Feasibility Study*.

C. Commensurate Treatment Measures:

1. SHPO will review and offer comments regarding each proposed project to ensure compliance with the Secretary's Standards for Rehabilitation.

2. Recordation of interior and exterior character-defining features within the 1890s historic core, pursuant to Appendix H.

II. New Construction

A. Anticipated Undertakings: New construction of a large multi-story office building behind the 1890s historic core and a new boiler plant in the vicinity of the current Agricultural/Environmental Laboratory.

B. Anticipated Adverse Effects: New construction of an office building and boiler plant within the Waterbury Village Historic District may diminish the integrity of the district and may result in potential adverse effects to historic buildings during the construction process.

C. Commensurate Treatment Measures:

1. SHPO will review and offer comments regarding any new construction to ensure projects are compatible with the 1890s historic core and the surrounding historic district and complies with the Secretary's Standards for Rehabilitation.

2. New construction will be minimally visible from Waterbury's Main Street.

3. Archaeological studies consistent with provisions of the *2011 Statewide PA*.

III. Deconstruction

A. Anticipated Undertakings: Deconstruction of up to thirteen (13) historic buildings and other historic features at the WSOC. These buildings and features may include, but

are not limited to the following: Sewing Building, 10 South Building, 10 North Building, Old Storehouse Building, Old Laundry Building, Recycling Building, Old Boiler Plant, A Building, B Building, Maintenance Shop, Osgood Building, Dale Building, Male Criminal Ward wall, and connecting tunnels for the Hanks & Weeks Buildings.

B. Anticipated Adverse Effects: Permanent destruction of up to thirteen (13) historic buildings that are either listed on or eligible for listing on the National Register and potential impacts to buildings within the 1890s historic core during deconstruction.

C. Commensurate Treatment Measures: The level of FEMA involvement in BGS requested deconstructions at the WSOC will be determined at a future date and may be subject to change. FEMA may group proposed deconstruction Undertakings to establish a single treatment measure plan proposal. Such a proposal shall include one or more of the following treatment measures:

1. Recordation of historic buildings to be deconstructed within the WSOC before the initiation of deconstruction, pursuant to Appendix H.

2. SHPO review and comment on the restoration of the exterior of the 1890s historic core buildings to their original design and in conformance with the Secretary's Standards for Restoration and their related Guidelines for Restoring Historic Buildings. Potential restoration and preservation efforts may include one or more of the following items

   a) Restoration of the porte cochere.

   b) Restoration of the chimneys (it is not required that they be functional).

   c) Restoration of the cupolas.

   d) Removal of the non-historic stair tower on the north elevation of the Center Building.

   e) In-kind repair or replacement of slate roofs, as needed.

   f) Cleaning and repointing of the masonry on elevations.

   g) Restoration of the historic porches and removal of non-historic porches (as feasible).

   h) Retention of the current boiler plant chimney during the deconstruction process.

3. Securing the services of a qualified architectural historian(s) to write a National Register nomination for the new WSOC layout.

4. Archaeological studies consistent with the provisions of the *2011 Statewide PA*.

IV. Additional Treatment Measures for Consideration for Other Undertakings Yet to be Determined

A. Completion of a WSOC Archival Documentation Report, as described on page 8-52 of the *Waterbury Office Complex Feasibility Study*.

B. Storage options for Town & Village historical materials.

C. Public education outreach on historic preservation matters related to the WSOC and/or community of Waterbury

APPENDIX H

Requirements and Guidelines for WSOC Documentation Packages

The following guidelines identify the process and means by which historic buildings at the WSOC shall be documented by BGS before deconstruction or removal. Documentation Packages for WSOC Undertakings shall fully convey the significant features, context, and history of the building or site. These Documentation Package requirements and guidelines are based on Historic American Building Survey (HABS) and Historic American Engineering Record (HAER) standards, but have been modified to offer more cost effective treatment measures for Undertakings with adverse effects at the WSOC.

Documentation Packages submitted to the SHPO by BGS must meet the requirements and guidelines described in this Appendix. Incomplete Documentation Packages will be returned to BGS for revision and re-submittal. The SHPO shall be given up to thirty (30) days to review and accept the Documentation Packages. Deconstruction or removal of individual historic buildings at the WSOC shall not begin until the SHPO has notified FEMA, BGS, and VAOT in writing that it has formally accepted the applicable Documentation Package.

FEMA and SHPO require that the completion of Documentation Packages be undertaken by a professional architectural historian with substantial experience in photographing and researching historic buildings and sites. The history and significance of WSOC historic buildings shall be studied before the photography phase of the documentation is initiated.

Additional guidance on photographic documentation standards can be found in the following sources:

- National Register Bulletin #23: *How to Improve the Quality of Photographs for National Register Nominations* [http://www.nps.gov/history/NR/publications/bulletins/photobul/]
- HABS/HAER photographic guidelines [http://www.nps.gov/history/hdp/standards/habsguidelines.htm]
- National Register Photographic Policy Expansion [http://www.nps.gov/history/nr/policyexpansion.htm]

The Documentation Package Contents

BGS shall provide one copy of each completed Documentation Package to the SHPO. If BGS is asked to revise a Documentation Package, BGS shall ensure that the SHPO receives a copy of the revised Documentation Package for formal approved. BGS may group historic buildings together into large Documentation Packages, as logistically feasible, or may create individual Documentation Packages for each historic building. BGS shall distribute copies of approved final Documentation Packages to the Vermont State Archives, Vermont Historical Society, University of Vermont Special Collections, and Waterbury Public Library for permanent retention. A complete Documentation Package shall contain the following material:

1. Cover Page: stating the project name, location, date, project sponsor and historian;
2. Project summary: one to three paragraphs describing the history of the project and the process by which deconstruction of the building was determined to be appropriate;
3. Architectural description: one to three paragraphs describing the architectural features, design and construction of the resource;
4. Statement of significance: one to three paragraphs describing the historic significance of the resource within a local, state and/or national context;
5. Location map: a copy of the appropriate Town Highway map or USGS topographic map, with the location of the property clearly indicated;
6. Sketch map: a site plan of the property, showing all structures and significant landscape features (keyed by number to photographs of the buildings and the Photograph Index);
7. Photograph Index: a numbered index to the sketch map and photographs;
8. Documentary photographs: see below for details on types of images, processing and labeling; and
9. Information on the location of original historic photographs or documents and resources for further information about the building (if applicable).

Photographic Coverage Standards

Types of Images to Include

- Present day views of the structure or site.
- Photographic copies or scanned digital images of historic photographs, drawings, and paintings (if available).
- Photographic copies or scanned digital images of original drawings and architectural or engineering plans used to construct the building or structure (if available).

General Concepts

Photographs should be taken of the overall property and the exterior and interior (if historically important) of each building on the property, including old and new outbuildings. The number of interior and detail views will depend on the significance of those aspects of the building(s). The following photographs should be taken to document historic properties:

Setting

- Views of the overall setting of the historic building(s), e.g. fields surrounding the WSOC , a streetscape of buildings in a village, etc.;

- Views of the building in its immediate surroundings, showing the relationship of the building to neighboring buildings;
- Aerial views when easily obtainable (an adjacent hill or tall building may provide an aerial vantage point); and
- Views of significant landscape features, e.g. tree-lined approaches, stone walls, formal gardens, etc.

Exterior views

- Full views of each side of the building; and
- Views of important details, e.g. cupolas, porches, doors, decorative brickwork etc.

Interior views

- Overall views of important interior rooms, e.g. formal parlors, historic kitchens, etc.; and
- Views of important interior features, e.g. staircases, fireplaces, ceiling medallions, exposed structural framing, etc.
- Views of significant interior details, e.g. door hardware, light fixtures, industrial machinery, hand grained trim, etc.; and
- Views of the building in use, i.e. views that show people using the building.

Photographic Longevity Criteria

A 75-year-permanence standard is intended to ensure the longevity of photographic documentation and applies to all forms of photographic documentation, including those types of photographs currently available and any introduced in the future. This standard can be met using either digital or film photography, as described below.

Digital Cameras, Images and Prints

- 35 mm equivalent digital camera with a non-distorting lens, such as digital single-lens reflex (SLR) camera
- Filters that reduce glare and sharpen contrast are encouraged
- Digital Images
  - Save as .tiff files in RGB color format
  - Minimum pixel depth or dimension of 3000 x 2000

  - Minimum 300 dpi

- Digital Prints

  - Please refer to the *National Register of Historic Places and National Historic Landmarks Survey Photo Policy Expansion* (updated March 2008) for a list of products that meet the 75-year-permanence standard. The policy is posted online at: http://www.nps.gov/history/nr/publications/bulletins/photopolicy/index.htm

- Prints should measure at least 4 x 6 inches, preferably 5 x 7 or 8 x 10, depending on the anticipated use of the prints and the available budget.
- Prints can be black and white or color.
- A CD-R disc of .tiff image files must accompany digital prints.

Film Cameras and Prints

- 35 mm camera with a non-distorting lens
- Filters that reduce glare and sharpen contrast are encouraged
- Prints should measure at least 4 x 6 inches, preferably 5 x 7 or 8 x 10, depending on the anticipated use of the prints and the available budget
- Prints must be black and white
- Print film images on silver-emulsion resin-coated (RC) papers or silver-emulsion fiber-based papers.
  - Images must be properly processed and thoroughly washed
  - Use double or medium weight paper having a glossy or satin finish

Labeling Photographs

Each photograph should be labeled on the reverse, either handwritten in pencil or printed on an adhesive label, with the following information:

1. Photograph number (corresponding to the Photograph Index);
2. Name of property;
3. Street address, Town and State;
4. Description of view;
5. Direction of view (the compass direction the photographer was facing);

6. Date of photograph (month and year); and
7. Name of photographer

APPENDIX I

PUBLIC COMMENTS RECEIVED ON HISTORIC PRESERVATION CONCERNS AND POTENTIAL TREATMENT MEASURES AT THE MAY 30, 2012 NEPA SCOPING MEETING

Rebecca Ellis, Waterbury Town Select Board Chair
Option B makes sense and preserves architectural beauty. It would be good if one of the treatment measures included funding a location to act as a repository for historical photographs of the town and the WSOC. The Town of Waterbury would like to be invited to become a consulting party when FEMA, SHPO, and BGS know more about specific activities that effect historic properties – right now it seems that there are many questions about what work will actually be done. We all look forward to be involved when more is known.

Skip Flanders, Waterbury Village Trustee
It would be ideal if the State could create and set aside some archival space specifically, to house town archives about the State Hospital. The state should consider funding the preservation of historical documents in safe locations so that they can be accessed by the public. He concurred with Rebecca Ellis; the Village of Waterbury would also like to be invited to become a consulting party once actual project proposals are up for consideration. It seems that there is much up for consideration in the future and the Village would like to be party to later discussions but before plans have been finalized.

JUNE 14, 2012 - LETTER TO FEMA ON FIRST DRAFT ENVIRONMENTAL ASSESSMENT

Waterbury Municipal Office - Waterbury Select Board and Waterbury Trustees
"We would request that the State of Vermont work with the Town and Village by contributing either space or money to the Waterbury Historical Society to preserve artifacts and records that document Waterbury's unique past as the home of the state hospital. The permanent location of these preserve artifacts would not necessarily need to be contained in State buildings. As Waterbury considers how to recovery from the loss of its municipal building and how to consolidate Town functions under one roof, we are attempting to plan for an appropriate size, modern home for the Historical Society. To the extent that the State can facilitate inclusion of the Historical Society in a municipal complex, by direct or indirect mean, we can achieve the desired collocation of municipal functions and can strengthen the preservation and presentation of Waterbury's history. The State has made similar accommodations in the construction for other state office buildings, including room in the Newport state office building for the Memphremagog Historical Society.

The Waterbury Historical Society currently utilizes space above the library. The ceiling leaks and archives are stacked on top of each other. A contribution from the state, either in space or money, or through other indirect means, to help memorialize and remember the architectural footprint would allow the Waterbury Historical Society to preserve the community's historical records for future generations."

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