

# Acworth

16301

X-A001(226)



**Categorical Exclusion/  
*De minimis* 4(f) Determination**  
February 2015

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<b>Exhibit R</b>	<b>Photographs</b> <ol style="list-style-type: none"><li>1. View northeast (upstream) of existing bridge and Bowers Brook</li><li>2. View southwest (downstream) under existing bridge and Bowers Brook</li><li>3. View southwest of Bowers Brook on downstream side of NH Route 123A</li><li>4. View northwest of NH Route 123A and existing bridge</li><li>5. View southeast of NH Route 123A and existing bridge, with Village Store in background</li><li>6. View west toward proposed location of temporary pedestrian path, photo taken near Village Store</li><li>7. Bowers Brook near the proposed bridge crossing of the temporary pedestrian path</li><li>8. View northwest toward Beryl Mountain Road and the proposed location of the temporary pedestrian path.</li><li>9. View east of emergent wetland (“Wetland C”) adjacent to the temporary pedestrian path</li></ol>

## **Introduction**

The subject project involves the replacement of the existing NH Route 123A bridge over Bowers Brook in South Acworth, New Hampshire (refer to *Exhibit A*) and associated highway improvements beginning approximately 250 feet west of the bridge and ending approximately 300 feet east of the bridge. Project construction will involve an estimated three week bridge closure. Traffic will be diverted on existing State roads. A temporary pedestrian path will be constructed to the south of NH Route 123A to allow residents to access the Village Store, which houses the Post Office, during the bridge closure. Parking will be provided at each end of the bridge. The project site does not easily lend itself to phased construction to maintain traffic. The detour along State routes is 22 miles.

In accordance with the National Environmental Policy Act of 1969 (42 USC 4332(2) (c)) as implemented in 23 CFR 771.117(d)(1), this Categorical Exclusion addresses the construction of the aforementioned project and has been prepared using a systematic, interdisciplinary approach to assess engineering considerations and environmental effects of the subject project.

## **Existing Conditions**

The project is located in the southern part of the Town of Acworth where NH Route 123A crosses Bowers Brook. The project is located within the South Acworth Historic District. There is the Village Store, a church, and residential homes in proximity to the roadway within the project area. NH Route 123A intersects with Hill Road and Beryl Mountain Road to the west of the bridge.

The existing bridge was built in 1915. It is currently listed on the New Hampshire Department of Transportation's ("Department's") "Red List". The deck is in serious condition, the superstructure is in poor condition and the substructure is in fair condition. The superstructure consists of a concrete jack arch deck cast in place between steel I-beams. The clear span is 13 feet (measured along the center of roadway) and the rail to rail width is 24 feet. The hydraulic opening is approximately 11 feet wide through the existing bridge. The bridge suffered significant damage from a 2005 flood event and was repaired, and subsequently added to the Department's 10 Year Transportation Improvement Plan. Alternatives for rehabilitation and replacement of the bridge were studied. The existing bridge does not have adequate capacity to convey a 100-year storm event.

## **Purpose and Need**

The purpose of the project is to address the deteriorated condition of the bridge as demonstrated by its presence on the Department's current bridge Red List, and to increase the hydraulic capacity of the bridge span to adequately convey a 100-year storm event. The project will also improve highway safety within this short segment of NH Route 123A.

## **Proposed Action**

The Proposed Action (refer to *Exhibit B*) will involve replacing the existing bridge that carries NH Route 123A over Bowers Brook. The proposed bridge will have a hydraulic opening of 27.5 feet in order to span the bankfull width. This is an improvement over the 11-foot hydraulic opening of the existing

bridge and will allow the bridge to convey a 100-year storm event. The proposed bridge superstructure will consist of precast concrete slabs with a concrete overlay. The bridge substructure will consist of concrete abutments. Stone fill is proposed for scour protection of the new bridge foundations.

During construction, the bridge will be closed for approximately three weeks. Traffic will be diverted onto existing State roads, resulting in a 22 mile detour (*Exhibit C*). Prior to closing the bridge, the regional detour will be set up with appropriate signage. The new bridge will then be built using precast elements to accelerate construction. Once the new bridge is constructed, it will be opened to traffic. Final paving and ancillary items will be completed while the new bridge is open and in service. Allowing the bridge to remain open during construction through phasing is not reasonable as it would require additional widening of NH Route 123A and would cause additional impacts to adjacent properties, natural resources, and the South Acworth Historic District.

A pedestrian path with a temporary bridge over Bowers Brook will be constructed to accommodate foot traffic during the three-week closure. The temporary bridge will be a simple single-span bridge with abutments located beyond the stream banks. Parking will be provided at the western end of the pedestrian path and will be located in grass areas on Town property. No work to improve the temporary parking areas is proposed.

Three new drainage structures are proposed as part of the project. One structure will be located along the south side of the road, west of and uphill from the bridge to catch any water before it reaches the bridge. Two structures will be located east of the bridge to aid with drainage in winter conditions, and will outlet to adjacent stone slopes.

The NH Route 123A roadway alignment will remain within the existing Right-of-Way. Permanent drainage easements will be acquired to accommodate the required bridge replacement work and to provide for future maintenance. Temporary construction easements are required for the proposed NH Route 123A slope work and for the proposed temporary pedestrian path. An existing easement for fire truck access is located on the southeast side of the bridge. This easement will remain.

The estimated cost of the Proposed Action is approximately \$1,200,000.

## **Alternatives to the Proposal**

### **Alternative 1 – No Build**

The “No-Build” alternative would involve no improvements to the existing bridge, which would result in the bridge remaining on the Department’s Red-List. In addition, the bridge would continue to lack sufficient capacity to convey a 100-year storm event. This alternative was not selected due to its failure to address the safety issues associated with the existing bridge. The impacts associated with the proposed action are not of a magnitude to warrant the selection of this alternative.

### **Alternative 2 – Bridge Rehabilitation**

This alternative would involve rehabilitation of the existing bridge. The existing bridge superstructure is in an advanced state of deterioration and the substructure has settlement cracks and vertical cracks visible. This alternative is not a feasible option due to the extensive repairs required and the bridge’s inability to convey a 100-year storm event.

### Alternative 3 – Bridge Replacement Utilizing Phased Construction

This alternative would replace the existing bridge, as described in the Proposed Action; however, the existing bridge would remain open during construction and traffic would not be detoured. This would be accomplished by widening the bridge to accommodate traffic during construction. Alternative 3 was not selected since the existing bridge does not have sufficient width to accommodate safe phased construction without additional impacts to adjacent properties within the South Acworth Historic District. The temporary widening associated with this alternative would impact an additional 6 to 8 feet along the southern side of the project area, compared to the Proposed Action. In addition, the terrain of the site would also not accommodate an economical diversion at the existing bridge location.

### Alternative 4 – Replacement with Temporary On-Site Diversion Bridge

Alternative 4 would replace the existing bridge as described in the Proposed Action. The bridge would be closed during construction and traffic would be diverted using a temporary on-site diversion instead of detouring traffic on existing State roads. The temporary on-site diversion would utilize a portion of private property southeast of the bridge and would cross Bowers Brook onto Town-owned land and tie into Beryl Mountain Road approximately 100 feet south of the intersection with NH Route 123A. A temporary bridge would be constructed south of NH Route 123A so that vehicles could cross Bowers Brook.

Alternative 4 and the Proposed Action were both presented to the Town of Acworth at a Public Information Meeting on April 24, 2014. Alternative 4 was not chosen at the request of the Town's Select Board based on public opinion, cost savings, and consideration of activities that may surround the Town's 2017 Sesquicentennial Celebration.

## Evaluation of Environmental Effects

The effects of the project relative to the following social, economic, natural, and cultural resources and issues have been reviewed. Resources and issues that are not discussed in the body of the report were investigated; however, no impacts were evident. As such, these resources and issues are omitted from discussion in this environmental document. The resources and issues deemed applicable for this project are indicated in **bold** type in the table below.

<u>Social/ Economic</u>		<u>Natural</u>	<u>Cultural</u>
<b>Safety</b>	<b>Farmlands</b>	<b>Water Quality</b>	<b>Historical</b>
<b>Transportation Patterns</b>	<b>Community Services</b>	<b>Wetlands</b>	<b>Archaeological</b>
<b>Air Quality</b>	Energy Needs	<b>Surface Waters</b>	Stonewalls
<b>Noise</b>	<b>Utilities</b>	<b>Groundwater</b>	Aesthetics
Displacements	<b>Environmental Justice</b>	<b>Floodplains/Floodways</b>	
<b>Hazardous Materials</b>		<b>Wildlife/Fisheries</b>	
<b>Neighborhoods</b>		<b>Endangered Species</b>	
<b>Business Impacts</b>		<b>Natural Communities</b>	
<b>Land Acquisition</b>		<b>Shoreland Protection</b>	
<b>Land Use</b>		Wild & Scenic Rivers	
Tax Base		<b>NH Designated Rivers</b>	
Recreation		Forest Lands	
<b>Conservation Lands</b>		Coastal Zone	
<b>Construction Impacts</b>		<b>Invasive Plants</b>	

### Safety/Transportation Patterns/Community Services

NH Route 123A (Main Street) passes through the project area from east to west and spans Bowers Brook. The functional classification of NH Route 123A, within the project corridor, is Rural Minor Collector and the posted speed limit is 30 miles per hour. The 2011 average annual daily traffic (AADT) was 350 vehicles per day (vpd), as reported on the Department's Bureau of Planning and Community Services website. NH Route 123A crosses through the southern portion of the Town of Acworth and provides a connection between NH Route 10 and NH Route 123, as well as access to various local roads.

The Proposed Action does not easily lend itself to phased construction due to the proximity of adjacent properties. Widening the bridge to maintain traffic during construction would have a substantial impact on adjacent properties. As a result, the project will involve a three-week closure to construct the bridge. Traffic will be diverted on existing State roads. This could cause some impact to emergency vehicles and other community services. The project was presented at a Public Information Meeting on April 24, 2014 and traffic control options and plans were discussed. Subsequent to the Public Information Meeting, the Town's Select Board unanimously approved the closure of the bridge for a three week duration based on public opinion, cost savings, and consideration of activities that may surround the Town's 2017 Sesquicentennial Celebration. The bridge closure will be implemented to avoid the proposed celebration activities.

A pedestrian path with a temporary bridge over Bowers Brook will be constructed to accommodate foot traffic during the three-week bridge closure. The primary purpose of the path is to provide residents with access to the Post Office, which is located in the Village Store, during the bridge closure. The path will be approximately 8 feet wide and will have a grass surface. No paving along the path is proposed, although gravel areas may be constructed if necessary. The path will extend from the Village Store to Beryl Mountain Road. A temporary, single-span bridge will be constructed south of NH Route 123A to carry the path over Bowers Brook. Parking will be provided at the western end of the pedestrian path and will be located in existing grass parking areas on the Town property off Beryl Mt. Road. No work to improve the temporary parking area is proposed.

Continued coordination with the appropriate emergency services will occur as needed. An existing easement for fire truck access is located on the southeast side of the bridge. This easement will remain.

## Air Quality

Pursuant to the Clean Air Act Amendments (CAAA) of 1990, this project was examined for potential impacts to local and regional air quality. The proposed project is located within an area of the State that is in attainment with respect to the National Ambient Air Quality Standards (NAAQS) for ozone and all other transportation related criteria pollutants (CO, NO<sub>x</sub>, VOCs, PM<sub>10</sub> and PM<sub>2.5</sub>). The project has been included in the *Statewide Transportation Improvement Program (STIP) 2013-2016* approved January 25, 2013 and amended December 30, 2013. The proposed effort is not considered a “Regionally Significant Project” as defined in the final Transportation Conformity rules (40 CFR 93.101) or in those rules adopted by the New Hampshire Department of Environmental Services (NHDES) in accordance with the interagency consultation provisions required by 40 CFR 93.105.

When completed, the project is not expected to result in any meaningful changes in traffic volumes, vehicle mix, or any other factor that would cause an increase in emissions impacts relative to the no-build alternative or contribute to violations of the NAAQS. Consequently, this project is exempt from the conformity requirements of the CAAA.

For the above noted reasons, the Federal Highway Administration (FHWA) has determined that this project will generate minimal air quality impacts for CAAA criteria pollutants and has not been linked with any special mobile source air toxics (MSAT) concerns. Consequently, this effort is exempt from analysis for MSAT. Moreover, Environmental Protection Agency (EPA) regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends, conducted by the FHWA using EPA's MOBILE6.2 model, forecasts a combined reduction of 72 percent in the total annual emission rate for the priority MSAT from 1999 to 2050, while vehicle-miles of travel are projected to increase by 145 percent. This will both reduce the MSAT background level as well as the possibility of even minor MSAT emissions from this project.

Though exempt from the conformity requirements of the CAAA, the National Environmental Policy Act (NEPA) requires consideration of the project's impact on air quality. Of the NAAQS pollutants of concern in New Hampshire, only CO can generally be addressed at the project level. The proposed project does not involve any substantial changes to the existing traffic patterns and vehicle movements for vehicles traveling along NH Route 123A. As a result, it can be concluded that this project will not have an adverse impact on air quality. No further air quality review is warranted.

## Noise

The NHDOT's *Policy and Procedural Guidelines for the Assessment and Abatement of Highway Traffic Noise for Type I Highway Projects* (Noise Policy) provides guidelines for assessing noise impacts and determining the need, feasibility, and reasonableness of noise abatement measures for proposed Type I highway construction and improvement projects. As this project does not involve the construction of a new highway, the addition of through traffic lanes, or substantial alterations to the vertical or horizontal alignment of the existing roadway, the subject project is not a Type I highway project. Since this project is not a Type I highway project a noise impact assessment is not necessary.

The proposed project is not expected to result in any meaningful changes in traffic volumes, vehicle mix, or any other factor that would cause an increase in noise impacts. As a result, this project is not expected to cause a noticeable change in noise levels once construction is completed.

Construction activities will temporarily increase noise due to the use of heavy equipment; however, these noise levels are expected to return to normal after the project has been completed.

## Neighborhoods/Business Impacts/Land Acquisition/Land Use

The project area is zoned as residential and several residences are located adjacent to the project. In addition, the South Acworth Village Store is located east of the bridge and the proposed temporary pedestrian path. None of these properties will be permanently impacted by the project since the roadway alignment will remain within the existing right-of-way. The project will not result in any changes in land use. The project may impact business at the Village Store during the three week bridge closure since traffic will be diverted around the South Acworth Village center. As described previously, a pedestrian path will be constructed to provide residents with access to the Post Office, which is located in the Village Store, during the bridge closure.

Areas temporarily impacted by the pedestrian path and bridge will be restored once construction is complete. Gravel and bridge material that is used for the path will be placed on a geotextile fabric to help with the removal process. Once the material is removed, areas that have been disturbed will be loamed and seeded.

Temporary easements during construction and permanent drainage easements are required for the bridge replacement (shown in table below) and to provide for the temporary pedestrian access and crossing over Bowers Brook. Access to the adjacent residential properties and the Village Store will be maintained during construction.

### Proposed Easements

Parcel No.	Owner	Property Type	Temporary Easement Impacts (SF)	Drainage Easement Impacts (SF)
1	Town of Acworth	Recreation/Open Space	6,254	-
2	Ballantine, Tim J. and Mary B.	Residential	-	-
3	Archer, Christine M. and Mitchell Wasserman	Residential	704	829
4	Symonds, Sharon and Nathaniel W.	Residential	-	691
5	Lord, Bret G. and Mary L.	Residential	9,731	1,860
6	United Church of Acworth	Church	-	910
7	Acworth Historical Society, Inc.	Commercial (Village Store)	1,893	-
8	Turner, Michele B. and William F	Residential	120	-

## Conservation Lands

The proposed project has been reviewed by the Office of Energy & Planning, Conservation Land Stewardship (CLS) Program Coordinator, and it was determined that there are no CLS resources within the project area (*Exhibit D*).

The Land and Water Conservation Fund (LWCF) is a program established by Congress in 1964 to: create parks and open spaces; protect wilderness, wetlands and refuges; preserve wildlife habitat; and enhance recreational opportunities. Any alteration or conversion of LWCF properties necessitates a 6(f) conversion of property. Based upon a review of their LWCF files, the Department of Resources and Economic Development (DRED) indicated that there are no LWCF projects or 6(f) properties within the Town of Acworth and, as such, there are no anticipated impacts (*Exhibit E*).

The New Hampshire Land and Community Heritage Investment Program (LCHIP) was also contacted to determine if any LCHIP conserved properties are located near the project area. LCHIP is an independent state authority that works in partnership with New Hampshire municipalities and non-profits for the conservation and preservation of natural, cultural, and historic resources. According to the response received from LCHIP, there are no LCHIP properties within the project area (*Exhibit F*).

## Farmlands

The Farmland Protection Policy Act (FPPA) regulates Federal actions that have the potential to convert farmland to non-agricultural uses. Under the FPPA, farmland includes soil types that are designated as prime farmland, unique farmland, or farmland of statewide or local importance.

The entire project is underlain by soils that are classified as Prime Farmland or Farmland of Statewide Importance. Although these areas are designated as farmland of local importance, there are no active farmlands within the corridor. Furthermore, the improvements to NH Route 123A and the Bowers Brook bridge will be implemented within the existing right of way.

A Farmland Conversion Impact Rating form was completed for the project (*Exhibit G*). Under the FPPA, sites that have a total rating score of 160 or less do not require action. Sites that have a score of greater

than 160 require the evaluation of alternative designs or locations. Since the combined score for the project site was 146, no additional evaluation relative to farmland is required.

## Hazardous Materials

A preliminary review of information available on the NHDES OneStop database and available federal databases was completed for sites within the project area. Key findings of the file review are included below.

**NHDES OneStop Database** - The review of the OneStop database found the following:

- One registered underground storage tank (UST) facility (NHDES #0114241) was formerly located at the South Acworth Village Store, within the project study area and adjacent to Bowers Brook. Two 1,000-gallon gasoline USTs were permanently closed in 1997 and the NHDES file was closed in 2001 (NHDES Site #199708011). A Phase II Environmental Site Assessment was conducted at the site by Nobis Engineering, Inc. in 2001 in response to a release of gasoline that was detected in soil and groundwater during the UST closure activities in 1997. Soil and groundwater sampling conducted as part of the study detected no contaminants above the applicable NHDES Ambient Groundwater Quality Standards (AGQS). Six monitoring wells were installed within and adjacent to the Village Store property in 2001. The monitoring wells located near the project area should be avoided during construction.
- The Acworth Garage, located on McLaughlin Road southwest of the project area, is listed as an Auto Salvage Facility (NHDES Facility #0002340). This facility is located approximately 800 feet beyond the limits of the project area.
- There are no active hazardous waste generators, asbestos disposal sites, registered aboveground storage tank (AST) facilities, or registered stationary air sources within ½ mile of the project site.

**Federal Databases** - The following federal databases were accessed regarding the presence of potential hazardous waste issues in proximity to the site:

- National Priority List (NPL);
- Comprehensive Environmental Response, Compensation, and Liability Information List (CERCLIS);
- Resource Conservation and Recovery Act (RCRA) Corrective Actions list;
- RCRA Transporter, Storage, and Disposal (TSD) facilities list;
- RCRA generators list;
- Emergency Response Notification System (ERNS) list; and
- Formerly Used Defense Sites (FUDS) list.

No records of any federally-listed sites were found.

Based upon the review of available local, state, and federal data regarding existing hazardous material/waste sites in proximity to the project area, it is unlikely that any such materials will be encountered during the project. The project was reviewed with the Department's Contamination Program in December 2014. Based on the information available to date, there are no concerns related to hazardous materials or contaminated properties within the project limits. Prior to the start of construction, the

project will again be reviewed with the Department's Contamination Program to ensure that site conditions and the proposed limits of work have not changed.

During construction, the use and/or storage of potentially hazardous materials such as fuels, lubricants, antifreeze, paints, sealants, solvents, etc. should be conducted following general Best Management Practices and in compliance with applicable local, state, and federal regulations.

## Utilities

Overhead utility wires are located along the southern side of NH Route 123A. The poles are marked with New England Telephone and Granite State Electric labels, but are owned by FairPoint Communications. FairPoint Communications has aerial copper and fiber wires on these poles throughout the corridor. Three of the poles will be impacted by and relocated for the project.

Liberty Utilities provides power to the area and has aerial power lines in the project corridor.

There is an underground waterline that runs from the Community Aid building on the United Church of Acworth property to the Village Store, crossing NH Route 123A.

There are no municipal sewer or water services in the Town of Acworth. Water is primarily supplied by individual wells and sewerage is discharged to on-site septic systems.

Continued coordination with the appropriate utilities will occur as needed.

## Environmental Justice

Executive Order 12898, enacted in 1994, requires that an environmental justice evaluation be conducted for all transportation projects that are undertaken, funded, or approved by the FHWA to avoid, minimize, or mitigate disproportionately high and adverse human health, environmental, social, and economic effects on minority populations and low income populations. The environmental justice review for the impacted area did not indicate the presence of any minority or low income populations (*Exhibit H*). The review did show a high percentage of elderly population; however the actual population is very limited and therefore does not require any additional outreach efforts.

## Water Quality/Groundwater

### Water Quality

NH Route 123A crosses Bowers Brook and the project will involve both permanent and temporary impacts to the bed/banks of the brook. Bowers Brook is a tributary to the Cold River, which is located approximately 500 feet southwest and downstream of the NH Route 123A bridge.

According to the 2012 Section 303(d) List of Impaired Waters, the segments of Bowers Brook and the Cold River that are located within the project area are listed as impaired for pH and are also identified as having flow regime alterations from stream bank modifications/destabilization. The segments of Bowers Brook and the Cold River within the project area also have a Total Maximum Daily Load (TMDL) for *Escherichia coli*.

The Clean Water Act of 1972 (33 USC 1251) regulates the discharge of pollutants into the waters of the United States and sets quality standards for surface waters. In accordance with the Clean Water Act, the surface waters of New Hampshire have been classified by the State Legislature (NH RSA 485-A:8) as either Class A or Class B. Class A waters are considered to be of the highest quality and considered optimal for use as water supplies after adequate treatment. Class B waters are considered acceptable for fishing, swimming, and other recreational purposes and, after adequate treatment, for use as water supplies. Bowers Brook and the Cold River are both designated as Class B waters.

The project is located within a Drinking Water Source Protection Area. There are no Outstanding Resource Water Watersheds in proximity to the project site.

Three new drainage structures are proposed as part of the project. One structure will be located along the south side of the road, west of and uphill from the bridge to catch any water before it reaches the bridge. Two structures will be located east of the bridge to aid with drainage in winter conditions, and will outlet to stone slopes. No additional stormwater treatment is proposed since the proposed increase in impervious surface will be minimal (approximately 4,300 square feet).

Phase I of the National Pollutant Discharge Elimination System (NPDES Phase I) was designed to regulate stormwater runoff discharges from construction sites that disturb five (5) or more acres of property. In 1999 EPA expanded the NPDES Program by designating additional sources of stormwater for regulation to protect water quality. This new, expanded program is called NPDES Phase II. The newer Phase II regulations further regulate sources of nonpoint source pollution, the leading cause of water quality degradation in the United States. Phase II affects “small construction sites,” or those that disturb greater than one (1) acre. The Phase II Construction General Permit requires that a Stormwater Pollution Prevention Plan (SWPPP) be prepared for each construction project disturbing more than one acre. Since the project will involve less than one acre of disturbance, a SWPPP will not be required; however, erosion and sedimentation controls will be used during construction to minimize impacts to receiving waterbodies.

The project will not significantly increase runoff in the project area. During construction, erosion and sedimentation controls will be used to minimize water quality impacts. For these reasons, the project is not expected to result in short-term or long-term degradation of water quality, and satisfies requirements of Env-Wq 1708 (Antidegradation).

### **Groundwater**

The NHDES OneStop Geographic Information System mapping shows the study area as being underlain by aquifer material having a transmissivity of 0 to 3,000 square feet per day. Residential and commercial properties in proximity to the study area are serviced by private water wells.

Based upon data on file at the NHDES OneStop site there are no active public water supplies, wellhead protection areas, or GA1 or GAA Groundwater Classification Areas in proximity to the project study area.

The project will result in a minimal permanent increase in impervious surface. This includes an increase of approximately 2,530 square feet associated with the slight widening of NH Route 123A and an increase of approximately 1,776 square feet for the addition of paved aprons in adjacent driveways. Since this increase is small, no adverse impacts to groundwater quality or quantity are anticipated. No significant changes in local traffic patterns or volume and no significant land use or development changes that might introduce additional contaminant sources to the project area are anticipated.

## New Hampshire Designated Rivers

The Cold River is a NH Designated River per NH RSA 483, the Rivers Management and Protection Act. The Rivers Management and Protection Act classifies the entire length of designated rivers using four categories: Natural, Rural, Rural-Community, and Community. State-regulated protection measures apply to each of these categories. The segment of the Cold River adjacent to the project area is classified as “Rural”. No protection measures associated with this classification restrict the construction of the proposed action. The Cold River Local Advisory Committee (LAC), the organization that oversees the management of this designated river, was contacted in December 2014 regarding the proposed action. In their response, the Cold River LAC indicated that they did not have any comments on the project at that time (*Exhibit I*)

## Wetlands/Surface Waters/Shoreland Protection

Wetland resources within the limits of the project were delineated using the methodology outlined in the U.S. Army Corps of Engineers’ (ACOE) 1987 *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* and the 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*. Wetlands were classified utilizing the *Classification of Wetlands and Deepwater Habitats of the United States*, Lewis M. Cowardin, U.S. Department of the Interior, Fish and Wildlife Service. Wetlands within the project area consist of the Bowers Brook and its associated banks, as well as one small emergent wetland located west of Bowers Brook. The riverine wetland is classified as upper perennial with a cobble-gravel unconsolidated bottom (R3UB1). The emergent wetland is classified as a seasonally flooded/saturated, palustrine emergent wetland with persistent vegetation (PEM1E).

The proposed project will involve work within areas under the jurisdiction of the NHDES Wetlands Bureau and the Army Corps of Engineers (ACOE). Wetland impacts total approximately 4,019 square feet (1,247 square feet of permanent impact and 2,772 square feet of temporary impact) and include approximately 130 linear feet of impact to stream channel. The project is expected to qualify as a Minor impact NHDES wetlands permit; however, detailed impacts will not be quantified until final design of the project. All appropriate permits will be secured from the NHDES and the ACOE prior to construction. The project is expected to qualify for coverage under the ACOE NH Programmatic General Permit. As the total area of wetland impacts is not expected to exceed the NHDES mitigation threshold of 10,000 square feet, mitigation for wetland impact will not be required. Although the linear footage of stream impact exceeds the NHDES mitigation threshold, the project was discussed with NHDES at a Natural Resource Agency Coordination Meeting and it was determined that mitigation will not be required since the project will improve the conditions at the NH Route 123A bridge crossing by lengthening the bridge span and creating a wider stream channel (*Exhibit J*).

The segment of the Cold River located adjacent to the project area is subject to the Shoreland Water Quality Protection Act (SWQPA) (NH RSA 483-B), which applies to any river that is classified as 4<sup>th</sup> order or larger, as well as to any lake, pond, or Designated River. The SWQPA establishes minimum standards for activities within the Protected Shoreland that are designed to protect the water quality of the state’s larger water bodies. The Protected Shoreland is defined as all land located within 250 feet of the reference line (natural mean high water level or limit of flowage rights) of public waters. Although the work associated with the bridge replacement is located more than 250 feet from the Cold River, the proposed temporary pedestrian path will be located within the Protected Shoreland. This path will result in approximately 3,500 square feet of temporary impact within the Protected Shoreland. Once

construction is complete, the pedestrian path will be removed and the area will be restored to pre-existing conditions. A permit from the NHDES Shoreland Program will be obtained prior to construction.

A Restoration Master Plan for the Cold River, Bowers Brook, and Warren Brook was prepared in 2007 by Sean Sweeney (Horizons Engineering). The project has been developed in accordance with the Bowers Brook section of the Restoration Master Plan. This plan recommended replacing the existing NH Route 123A bridge, which only spanned 40% of the bankfull channel, with a bridge that, at a minimum, spans the entire bankfull width. The restoration plan identified the bankfull width near the bridge crossing to be 25 feet. The proposed bridge will exceed this width by providing an opening of 27.5 feet.

The project was reviewed by the ACOE, Environmental Protection Agency (EPA), NHDES Wetlands Bureau, NH Fish and Game Department (NHFG), NH Floodplain Management Program, and NH Natural Heritage Bureau (NHNHB) at the monthly NHDOT Natural Resource Agency Coordination Meetings on March 19, 2014 and November 19, 2014. No one in attendance at this meeting voiced any concerns with the project as proposed (*Exhibit J*).

## Floodplains/Floodways

The majority of the project area is located in a Zone A floodplain, which is an area that is subject to flooding by the 100-year flood. Base flood elevations are not available for Zone A flood zones; however, information provided by the New Hampshire Office of Energy and Planning indicated that the Federal Emergency Management Agency (FEMA) had established a base flood elevation of 836.1 feet (NAVD88) for a structure located adjacent to the project (*Exhibit K*).

The project is not expected to adversely impact flood flows. The proposed bridge will have a wider hydraulic opening, resulting in lower water surface elevations during the 50- and 100-year storms which will reduce flooding impacts to adjacent properties. The temporary pedestrian path and bridge will require the temporary placement of approximately 50 cubic yards of fill within the 100-year floodplain. This fill will be removed once construction is complete.

## Wildlife/Fisheries/Endangered Species/Natural Communities

The New Hampshire Natural Heritage Bureau has no records of State or Federally listed species or exemplary natural communities within the project area (*Exhibit L*).

The US Fish & Wildlife Service has one record of a federally-listed species that has been noted in the Town of Acworth (*Exhibit M*). This species is the federally-endangered northeastern bulrush (*Scirpus ancistrochaetus*), which is typically found in wetlands that are inundated or saturated and at the edges of ponds, rivers, and lakes. Northeastern bulrush was not noted within the project area during field reviews conducted in July and August 2013.

The US Fish and Wildlife Service has no records of critical habitats in the vicinity of the project (*Exhibit M*).

The Cold River, which is located approximately 500 feet downstream of the project, is designated as Essential Fish Habitat for Atlantic salmon. The National Marine Fisheries Service (NMFS) was contacted in November 2013 to obtain input on the project and coordination with the New Hampshire Fish and Game Department occurred in November 2014 (*Exhibit N*). Since the proposed bridge replacement will involve in-stream work, measures should be taken to minimize potential downstream

impacts such as turbidity. During construction, best management practices (BMPs) such as turbidity curtains and/or coffer dams will be used to control suspended sediments and minimize downstream impacts. Areas of Bowers Brook that are temporarily disturbed during construction will be restored and riparian vegetation will be re-established once construction is complete. NMFS also recommended that an assessment be conducted on the capacity of the bridge to convey waters based on projected storm events using models of current and anticipated precipitation and stream flow. A hydraulic analysis was completed and it was determined that the proposed bridge will convey the 100-year storm.

As part of the New Hampshire Wildlife Action Plan (WAP), the New Hampshire Fish & Game Department and other conservation partners analyzed the condition of wildlife habitats by ranking the biological, landscape, and human impact factors most affecting each habitat type. The habitats were then ranked to show the habitats that were Highest Ranking in the State. Based on information available from the WAP, habitats that were Highest Ranking in the Region are located along the Cold River upstream and downstream of the project area. No areas of highest ranking habitat are mapped within the limits of the project.

## Invasive Plants

An invasive plant is a non-native plant that is able to persist and proliferate outside of cultivation, resulting in ecological and/or economic harm. Under the statutory authority of NH RSA 430:55 and NH RSA 487:16-a, the New Hampshire Department of Agriculture, Markets & Food and NHDES prohibit the spread of invasive plants listed on the New Hampshire Prohibited Species List. Several invasive plant species were identified throughout the project area, including Japanese knotweed (*Polygonum cuspidatum*), honeysuckle (*Lonicera tatarica*), and multiflora rose (*Rosa multiflora*).

The Contractor will be required to prepare an Invasive Species Control and Management Plan prior to the start of any earth disturbing or clearing activities. The plan will outline best management practices that will be followed to prevent the spread and introduction of invasive plants during construction.

## Cultural Resources

### Historic Resources

The Department has coordinated with the New Hampshire State Historic Preservation Officer (SHPO) and FHWA to locate and identify National Register of Historic Places listed or eligible properties within the project area. An Individual Inventory Form for the existing NH Route 123A bridge was completed in January 2014. The Inventory Form concluded that the existing concrete jack arch bridge, which was constructed in 1915, is not eligible for the National Register of Historic Places as an individual resource due to its lack of important historic associations or significant architectural or engineering characteristics. The survey also found that the bridge failed to qualify as a contributing property within the potentially eligible South Acworth Village historic district since the construction of the bridge occurred well after the historical development of the village.

As the SHPO disagreed with the findings of the January 2014 survey, the FHWA requested additional survey and evaluations of the potentially eligible South Acworth Village historic district and the potential effects that the bridge replacement may have on the historic district. A technical memorandum was provided to NH Division of Historical Resources in October 2014 detailing the additional study that was conducted. The technical memorandum confirmed that the existing bridge does not qualify as a contributing property to the historic district and that there does not appear to be a potential for adverse

effect on the district by the bridge replacement since the construction will not physically impact any of the buildings, structures, or other landscape features of the individual properties constituting the historic district. The small scale and low profile of the proposed bridge will not cause any potential visual effect on the historic setting of the district. The project was reviewed at a monthly Cultural Resource Agency Coordination Meeting on December 11, 2014 (*Exhibit O*). FHWA determined that no adverse effect on historic resources will occur as a result of the project and the SHPO concurred.

The Acworth Historical Society was contacted to obtain input on the project. A response received on December 22, 2014 indicated that they had no specific comments or questions at that time (*Exhibit P*).

## Archaeological Resources

A Phase IA archaeological survey was completed within the project area. The Phase IA survey found that the project area is sensitive for Native American and Euroamerican archaeological resources and a Phase IB study was completed. During the Phase IB study, 100 Euroamerican artifacts were found primarily within flood deposits. No Pre-Contact Native artifacts or features were found. The Euroamerican artifacts that were found had a wide date range and low density, which is most likely the result of routine flooding and therefore cannot be linked to any particular household and has little informational value relating to Euroamerican use of the area. As a result, no further archaeological surveys are recommended.

Just north of the temporary pedestrian path, near Beryl Mountain Road, a dry-laid fieldstone foundation was documented. This foundation corresponds to the nineteenth-century Grange Hall. The foundation was registered with the NH Division of Historical Resources as Site 27 SU-052. Since the foundation is located beyond the project limits, no impacts are anticipated.

During construction, the border of the Grange Hall foundation will be fenced with construction fencing to delineate the resource and limit access. In addition, the foundation will be noted in the Prosecution of Work as a resource not to be disturbed by construction activities.

## Effect on Cultural Resources

Effects on historic properties were determined by the FHWA, in consultation with the SHPO, and NHDOT based on the Section 106 review process established by the National Historic Preservation Act of 1966 (NHPA) and outlined at 36 CFR 800.9. It was determined in December 2014 that the project would result in No Adverse Effect (*Exhibit Q*).

In addition to the protection afforded them by Section 106 of the NHPA, historic resources are protected under Section 4(f) of the US Department of Transportation Act. As it was determined that the impacts by this Federal action would result in No Adverse Effect, FHWA made a finding of *de minimis* impact for the project.

## Coordination and Public Participation

Meetings were held throughout the development of the project with various Federal, State, and local agencies and organizations. A Public Hearing is scheduled for March 26, 2015. Project review meetings were held on the following dates:

<b>Date</b>	<b>Meeting</b>
March 19, 2014	Natural Resource Agency Coordination Meeting
April 24, 2014	Public Information Meeting
November 19, 2014	Natural Resource Agency Coordination Meeting
December 11, 2014	Cultural Resource Agency Coordination Meeting

Minutes for the Natural Resource Agency Coordination Meeting are provided in Exhibit J. Minutes for the Cultural Resource Agency Coordination Meeting are provided in Exhibit O.

Letters were sent to various Federal, State and local agencies and organizations, as well as the general public, requesting input on this project on the following dates:

<b>Agency / Organization</b>	<b>Contact</b>	<b>Date Sent</b>	<b>Reply Received</b>
Town of Acworth			
Select Board	Rob DeValk	11/4/2013	--
Conservation Committee	Susan Paton	11/4/2013	--
Planning Board	Doug Robinson	11/4/2013	--
Historical Society	Kathi Bradt	12/17/2014	12/22/2014
Upper Valley Lake Sunapee Regional Planning Commission		11/4/2013	--
Conservation Land Stewardship Program	Steve Walker	11/4/2013	11/4/2013
NH Division of Parks & Recreation	Bill Gegas	10/1/2014	10/2/2014
NH Floodplain Management Program	Jennifer Gilbert	11/4/2013	11/26/2013
NH Natural Heritage Bureau	Melissa Coppola	12/22/2014	12/22/2014
Land and Community Heritage Investment Program	Jess Charpentier	11/4/2013	12/4/2013
National Marine Fisheries Service, Essential Fish Habitat	Mike Johnson	11/4/2013	11/5/2013
NH Fish and Game Department, Inland Fisheries Division	John Magee	11/18/2014	11/26/2014
Cold River Local Advisory Committee	Frederick Ernst	12/4/2014	12/6/2014
Natural Resources Conservation Service	Steve Pytlik	1/13/2015	1/13/2015

No one has objected to the project as proposed.

## Construction Impacts

The construction of this project is anticipated to cause temporary increases in noise and dust levels within the project area. Appropriate standard measures will be employed to ensure such increases are minimized to the extent practicable and are limited to the construction period.

Standard pollution prevention measures will be employed to assure all negative impacts are avoided and/or minimized to the maximum extent practicable.

Best Management Practices and NHDOT Standard Specifications will be implemented to prevent spreading invasive plants to new sites during construction of the project.

## Summary of Environmental Commitments

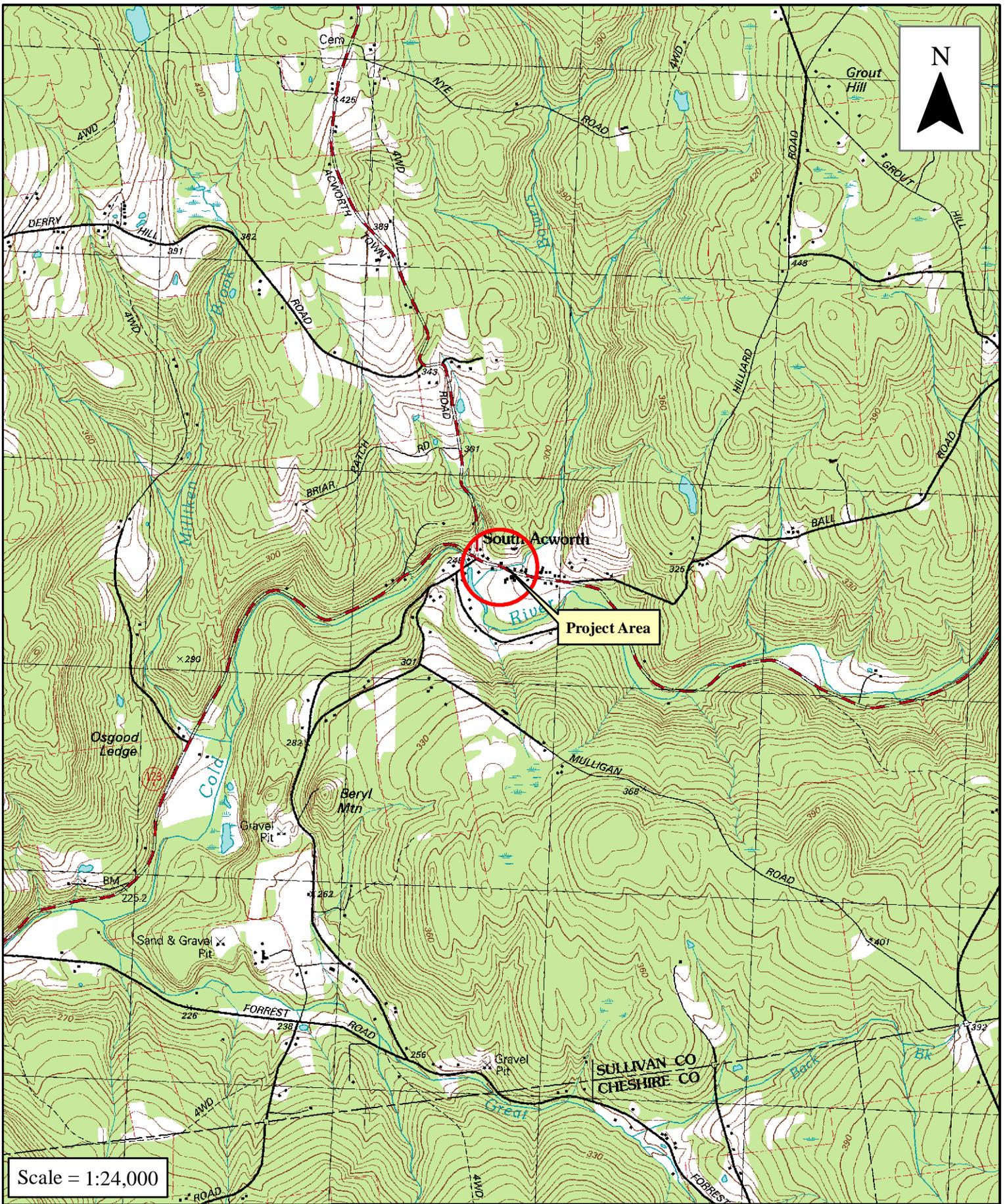
The following environmental commitments have been made for this project.

1. Six monitoring wells were installed in 2001 as part of a Phase II Environmental Site Assessment completed by Nobis Engineering for the Village Store property (NHDES Site #199708011). These wells, if present within the project area, will be avoided during construction. **(Construction)**
2. Prior to the start of construction, the project will be reviewed with the Department's Contamination Program to ensure that site conditions have not changed. **(Design/Environment)**
3. During construction, the use and/or storage of potentially hazardous materials such as fuels, lubricants, antifreeze, paints, sealants, solvents, etc. should be conducted following general Best Management Practices and in compliance with applicable local, state, and federal regulations. **(Construction)**
4. Continued coordination with the appropriate utilities will occur as needed. **(Design/Construction)**
5. Proper erosion and sedimentation controls will be implemented during construction. **(Construction/Environment)**
6. A Standard Dredge and Fill Permit will be obtained from the NHDES prior to the start of construction in any areas under the jurisdiction of the NHDES Wetlands Bureau. **(Design/Environment)**
7. A permit from the NHDES Shoreland Program will be obtained prior to construction. **(Design/Environment)**
8. Once construction is complete, the temporary pedestrian path will be removed and the area will be loamed and restored to pre-existing conditions. **(Construction/Environment)**
9. During construction, Best Management Practices (BMPs) such as turbidity curtains and/or coffer dams will be used to control suspended sediments and minimize downstream impacts. Areas of Bowers Brook that are temporarily disturbed during construction will be restored and riparian vegetation will be re-established once construction is complete. **(Construction)**
10. The project area contains several invasive plant species listed on the NH List of Prohibited Invasive Species. All appropriate measures shall be taken to avoid spreading invasive plants during construction; these measures shall be outlined in an Invasive Species Control and Management Plan prior to construction. **(Construction/Environment)**
11. During construction, the border of the Grange Hall foundation will be fenced with construction fencing to delineate the resource and limit access. In addition, the foundation will be noted in the

Prosecution of Work as a resource not to be disturbed by construction activities.  
**(Design/Construction)**

12. All work shall be located within the State right-of-way or easements as shown on the plans. If the scope of work changes and necessitates work outside these areas, work cannot be completed without additional coordination with the Bureau of Environment. **(Construction/Environment)**

## Exhibits



Scale = 1:24,000

NH Route 123A over Bowers Brook  
 NHDOT Project No. 16301  
 Acworth, New Hampshire

Exhibit A  
 USGS Topographic Map

**The Smart Associates**  
 Environmental Consultants, Inc.



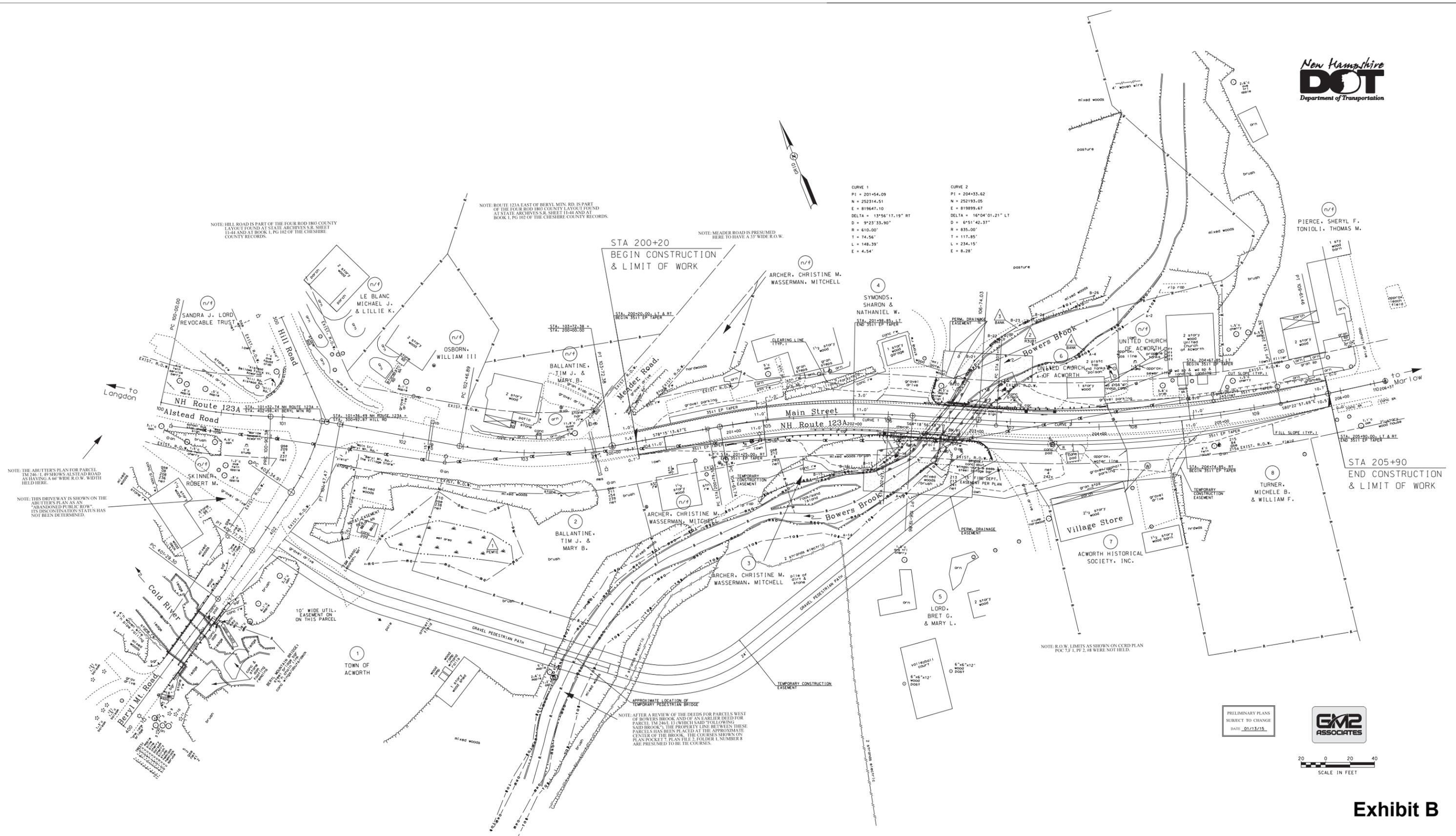
Project Area

Scale = 1:6,000

NH Route 123A over Bowers Brook  
NHDOT Project No. 16301  
Acworth, New Hampshire

Exhibit A  
Aerial Map

**The Smart Associates**  
*Environmental Consultants, Inc.*



NOTE: HILL ROAD IS PART OF THE FOUR ROD 1803 COUNTY LAYOUT FOUND AT STATE ARCHIVES S.S. SHEET 11-44 AND AT BOOK 1, PG 102 OF THE CHESHIRE COUNTY RECORDS.

NOTE: ROUTE 123A EAST OF BERYL MIN. RD. IS PART OF THE FOUR ROD 1803 COUNTY LAYOUT FOUND AT STATE ARCHIVES S.S. SHEET 11-44 AND AT BOOK 1, PG 102 OF THE CHESHIRE COUNTY RECORDS.

NOTE: MEADER ROAD IS PRESUMED HERE TO HAVE A 33' WIDE R.O.W.

CURVE 1  
PI = 201+54.09  
N = 252314.51  
E = 819647.10  
DELTA = 13°56'17.19" RT  
D = 9°23'35.90"  
R = 610.00'  
T = 74.56'  
L = 148.39'  
E = 4.54'

CURVE 2  
PI = 204+33.62  
N = 252193.05  
E = 819899.67  
DELTA = 16°04'01.21" LT  
D = 6°51'42.37"  
R = 835.00'  
T = 117.85'  
L = 234.15'  
E = 8.28'

NOTE: THE ABUTTER'S PLAN FOR PARCEL TM 246.1.49 SHOWS ALSTEAD ROAD AS HAVING A 66' WIDE R.O.W. WIDTH HELD HERE.

NOTE: THIS DRIVEWAY IS SHOWN ON THE ABUTTER'S PLAN AS AN "ABANDONED PUBLIC ROW". ITS DISCONTINUATION STATUS HAS NOT BEEN DETERMINED.

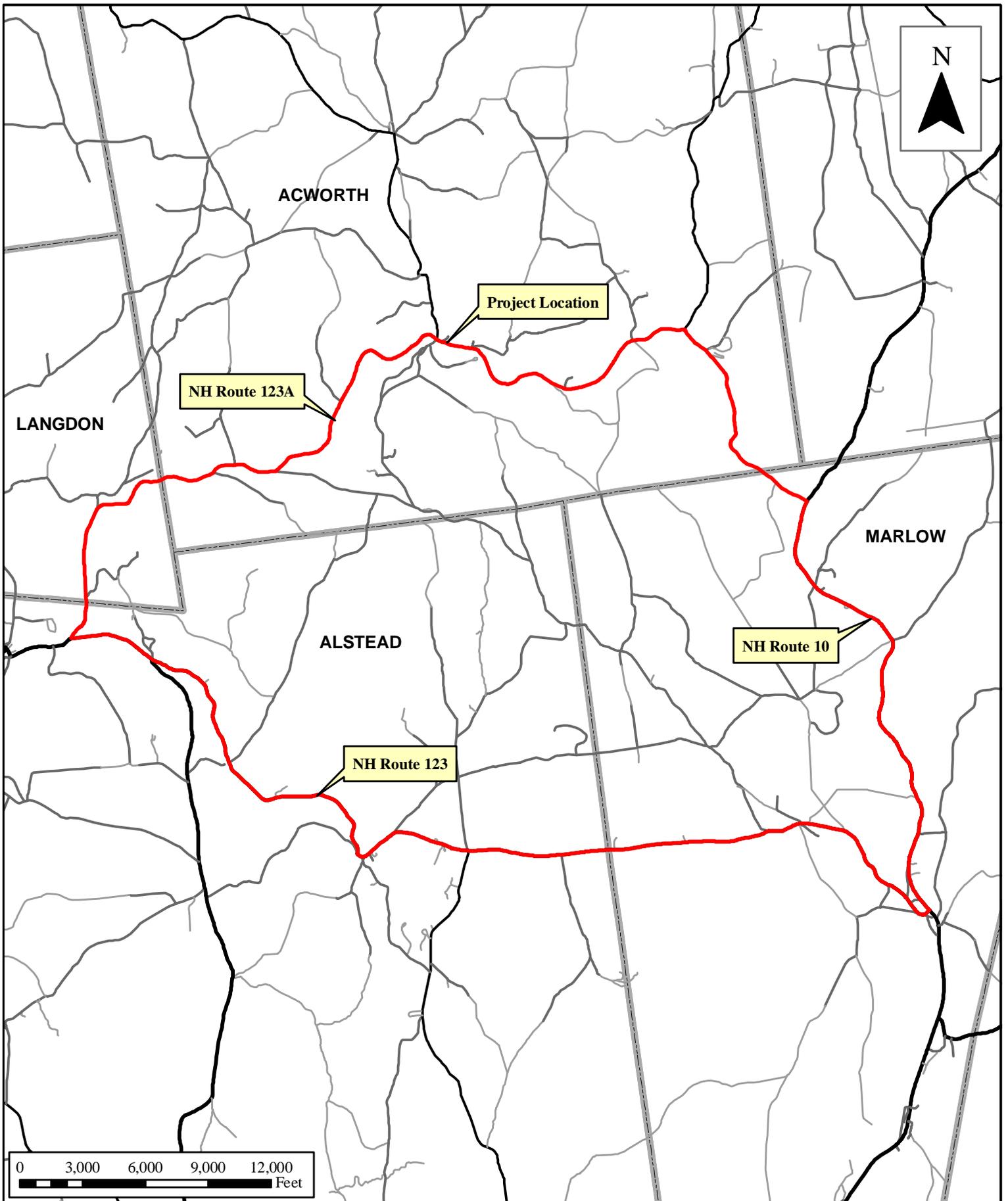
10' WIDE UTIL. EASEMENT ON THIS PARCEL

NOTE: AFTER A REVIEW OF THE DEEDS FOR PARCELS WEST OF BOWERS BROOK AND OF AN EARLIER DEED FOR PARCEL TM 246.1.3 WHICH SAID "FOLLOWING SAID BROOK", THE PROPERTY LINE BETWEEN THESE PARCELS HAS BEEN PLACED AT THE APPROXIMATE CENTER OF THE BROOK. THE COURSES SHOWN ON PLAN POCKET 7, PLAN FILE 2, FOLDER 1, NUMBER 8 ARE PRESUMED TO BE THE COURSES.

NOTE: R.O.W. LIMITS AS SHOWN ON CRED PLAN POC 7.F.1, PF 2, 48 WERE NOT HELD.

PRELIMINARY PLANS  
SUBJECT TO CHANGE  
DATE 01/23/25





NH Route 123A over Bowers Brook  
 NHDOT Project No. 16301  
 Acworth, New Hampshire

Exhibit C  
 Proposed Detour Route  
 During Bridge Closure

**The Smart Associates**  
*Environmental Consultants, Inc.*

**Jennifer Riordan**

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**From:** "Walker, Steve" <Steve.Walker@nh.gov>  
**Date:** Monday, November 04, 2013 1:49 PM  
**To:** "Jennifer Riordan" <jriordan@smartenvironmental.com>  
**Subject:** RE: NHDOT Project – Acworth 16301

Hi Jennifer, There are no LCIP properties in the project area. Have a nice week. Steve

---

**From:** Jennifer Riordan [mailto:jriordan@smartenvironmental.com]  
**Sent:** Monday, November 04, 2013 12:24 PM  
**To:** Walker, Steve  
**Cc:** Marc Laurin; Darren Blood  
**Subject:** NHDOT Project – Acworth 16301

Hi Steve,

The NH Department of Transportation is proposing to rehabilitate or replace the existing bridge that carries NH Route 123A over Bowers Brook in the Town of Acworth (refer to attached location map). The existing bridge was built in 1915 and is currently listed on NHDOT's Red List. Alternatives for rehabilitation and replacement of the bridge are being studied. The existing bridge does not have adequate capacity to convey a 100-year storm event.

The project will begin approximately 300 feet west of the bridge and end approximately 200 feet east of the bridge. The proposed method to maintain traffic is to construct a temporary detour to the south using a combination of private land and Town-owned land and a portion of Beryl Mountain Road. The detour would utilize a portion of private property at the southeast quadrant and cross Bowers Brook onto Town-owned land and tie into Beryl Mountain Road approximately 100 feet south of the intersection with NH Route 123A.

The Smart Associates, Environmental Consultants, Inc. (TSA) is currently teamed with GM2 Associates, Inc. (GM2) to provide professional environmental and engineering services, respectively, for the preliminary planning phase of the subject project. TSA is responsible for the preparation of the environmental documentation. Any comments you may have concerning resources or issues within the study area will assist in the preparation of the environmental documents.

Thanks,

Jenn

Jennifer Riordan, CWS, CPESC  
The Smart Associates  
Environmental Consultants, Inc.  
72 N. Main Street  
Concord, NH 03301-4983  
(603) 224-7550 Phone  
(603) 224-7890 Fax

## Jennifer Riordan

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**From:** "Gegas, Vasilios (Bill)" <Vasilios.Gegas@dred.nh.gov>  
**Date:** Thursday, October 02, 2014 12:14 PM  
**To:** "Jennifer Riordan" <jriordan@smartenvironmental.com>  
**Subject:** RE: NHDOT Project – Acworth 16301

Hi Jenn,

Our records show no LWCF projects or 6(f) properties within the town of Acworth. As such there are no anticipated impacts.

Let me know if you have any other questions.

Thanks

Bill

Bill Gegas  
Program Specialist  
NH Division of Parks and Recreation  
172 Pembroke Road, P.O. Box 1856  
Concord, NH 03302-1856  
Tel: 603-271-3556  
Fax: 603-271-3553  
[bill.gegas@dred.nh.gov](mailto:bill.gegas@dred.nh.gov)  
[www.nhstateparks.org](http://www.nhstateparks.org)

---

**From:** Jennifer Riordan [mailto:jriordan@smartenvironmental.com]  
**Sent:** Wednesday, October 01, 2014 11:33 AM  
**To:** Gegas, Vasilios (Bill)  
**Subject:** Fw: NHDOT Project – Acworth 16301

Hi Bill,

The NH Department of Transportation is proposing to replace the existing bridge that carries NH Route 123A over Bowers Brook in the Town of Acworth (refer to attached location map). The existing bridge was built in 1915 and is currently listed on NHDOT's Red List. Alternatives for rehabilitation and replacement of the bridge are being studied. The existing bridge does not have adequate capacity to convey a 100-year storm event.

The project will begin approximately 300 feet west of the bridge and end approximately 200 feet east of the bridge. The proposed method to maintain traffic is to construct a temporary detour to the south using a combination of private land and Town-owned land and a portion of Beryl Mountain Road. The detour would utilize a portion of private property at the southeast quadrant and cross Bowers Brook onto Town-owned land and tie into Beryl Mountain Road approximately 100 feet south of the intersection with NH Route 123A.

The Smart Associates, Environmental Consultants, Inc. (TSA) is currently teamed with GM2 Associates, Inc. (GM2) to provide professional environmental and engineering services, respectively, for the preliminary planning phase of the subject project. TSA is responsible for the preparation of the environmental documentation. Any comments you may have concerning resources or issues within the study area will assist in the preparation of the environmental documents.

Thanks,

Jenn

Jennifer Riordan, CWS, CPESC

**Exhibit E**

10/2/2014

The Smart Associates  
Environmental Consultants, Inc.  
72 N. Main Street  
Concord, NH 03301-4983  
(603) 224-7550 Phone  
(603) 224-7890 Fax

## Jennifer Riordan

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**From:** "Jess Charpentier" <jcharpentier@lchip.org>  
**Date:** Wednesday, December 04, 2013 3:05 PM  
**To:** "Jennifer Riordan" <jriordan@smartenvironmental.com>  
**Cc:** "Marc Laurin" <MLaurin@dot.state.nh.us>; "Darren Blood" <dblood@gm2inc.com>  
**Subject:** RE: NHDOT Project – Acworth 16301

There are no LCHIP properties that fall within this project site.

Jess Charpentier, Natural Resource Specialist  
Land and Community Heritage Investment Program  
13 West Street, Suite 3, Concord, NH 03301  
Tel (603) 224-4113 / Fax (603) 224-5112  
[www.lchip.org](http://www.lchip.org)

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**From:** Jennifer Riordan [<mailto:jriordan@smartenvironmental.com>]  
**Sent:** Monday, November 04, 2013 1:12 PM  
**To:** Jess Charpentier  
**Cc:** Marc Laurin; Darren Blood  
**Subject:** NHDOT Project – Acworth 16301

Hi Jess,

The NH Department of Transportation is proposing to rehabilitate or replace the existing bridge that carries NH Route 123A over Bowers Brook in the Town of Acworth (refer to attached location map). The existing bridge was built in 1915 and is currently listed on NHDOT's Red List. Alternatives for rehabilitation and replacement of the bridge are being studied. The existing bridge does not have adequate capacity to convey a 100-year storm event.

The project will begin approximately 300 feet west of the bridge and end approximately 200 feet east of the bridge. The proposed method to maintain traffic is to construct a temporary detour to the south using a combination of private land and Town-owned land and a portion of Beryl Mountain Road. The detour would utilize a portion of private property at the southeast quadrant and cross Bowers Brook onto Town-owned land and tie into Beryl Mountain Road approximately 100 feet south of the intersection with NH Route 123A.

The Smart Associates, Environmental Consultants, Inc. (TSA) is currently teamed with GM2 Associates, Inc. (GM2) to provide professional environmental and engineering services, respectively, for the preliminary planning phase of the subject project. TSA is responsible for the preparation of the environmental documentation. Any comments you may have concerning resources or issues within the study area will assist in the preparation of the environmental documents.

Thanks,

Jenn

Jennifer Riordan, CWS, CPESC  
The Smart Associates  
Environmental Consultants, Inc.  
72 N. Main Street  
Concord, NH 03301-4983  
(603) 224-7550 Phone  
(603) 224-7890 Fax

**Exhibit F**

5/1/2014

# FARMLAND CONVERSION IMPACT RATING

<b>PART I</b> (To be completed by Federal Agency)	Date Of Land Evaluation Request 2/4/15
Name Of Project Acworth 16301	Federal Agency Involved FHWA
Proposed Land Use drainage easement for bridge	County And State Sullivan County, NH

<b>PART II</b> (To be completed by NRCS)		Date Request Received By NRCS	
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply -- do not complete additional parts of this form).		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
		Acres Irrigated 0	Average Farm Size 150
Major Crop(s) corn silage, grass legume hay	Farmable Land In Govt. Jurisdiction Acres: 201,582 % 57	Amount Of Farmland As Defined in FPPA Acres: 90,064 % 26	
Name Of Land Evaluation System Used Sullivan County	Name Of Local Site Assessment System N/A	Date Land Evaluation Returned By NRCS 2/14/15	

<b>PART III</b> (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0.0				
B. Total Acres To Be Converted Indirectly	0.1				
C. Total Acres In Site	0.1	0.0	0.0	0.0	0.0

<b>PART IV</b> (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland	0.1				
B. Total Acres Statewide And Local Important Farmland	0.0				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.0				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	2.0				

<b>PART V</b> (To be completed by NRCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)	96	0	0	0
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<b>PART VI</b> (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points				
1. Area In Nonurban Use	15				
2. Perimeter In Nonurban Use	7				
3. Percent Of Site Being Farmed	0				
4. Protection Provided By State And Local Government	0				
5. Distance From Urban Builtup Area	15				
6. Distance To Urban Support Services	10				
7. Size Of Present Farm Unit Compared To Average	0				
8. Creation Of Nonfarmable Farmland	0				
9. Availability Of Farm Support Services	3				
10. On-Farm Investments	0				
11. Effects Of Conversion On Farm Support Services	0				
12. Compatibility With Existing Agricultural Use	0				
<b>TOTAL SITE ASSESSMENT POINTS</b>	160	50	0	0	0

<b>PART VII</b> (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	96	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)	160	50	0	0	0
<b>TOTAL POINTS (Total of above 2 lines)</b>	260	146	0	0	0

Site Selected: Site A	Date Of Selection 2/13/15	Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
-----------------------	---------------------------	--

Reason For Selection: Site A is located at the existing NH Route 123A bridge over Bowers Brook and includes proposed drainage easements. The easements are located within Bowers Brook, adjacent to several rural residential properties. The area is not currently farmed.

**STATE OF NEW HAMPSHIRE  
DEPARTMENT OF TRANSPORTATION  
INTER-OFFICE COMMUNICATION**

**DATE:** October 7, 2014

**FROM:** *ja* Jay Ankenbrock, Chief of Labor Compliance, Executive Office

**TO:** Marc Laurin, Sr. Environmental Manager, Bureau of Environment

**RE:** Environmental Justice Population Analysis, Project: **Acworth 16301**

The attached analysis and recommendations are provided pursuant to Title VI of the Civil Rights Act of 1964 and Executive Orders 12898 & 13166. The intent of these statutes is to ensure fair and full participation and the equal receipt of benefits under Federally-assisted programs. Efforts to accommodate and encourage participation by traditionally underserved groups, where significant, will ensure program access and minimize the potential for disproportionate project impacts on protected groups.

The table entitled "EJ Population Analysis" shows the presence of protected groups that might be impacted by the project. Personnel responsible for project planning/design and the coordination of public meetings/hearings should use this analysis to guide their outreach efforts under Title VI and in support of developing a context sensitive solution. Based on the availability of information, and where appropriate, we have included specific outreach recommendations to facilitate public comment from underrepresented groups.

Please note that US Census American FactFinder data is used to provide to an EJ Population analysis for the project. If you have questions regarding this analysis, please contact me @ 271-2467.

Encls: EJ Population Analysis

Cc: Peter Crouch, Traffic Systems Engineer, Bureau of Traffic  
Kevin Nyhan, Administrator, Bureau of Environment  
Laura Rebolledo, Bureau of Right-of-Way

RECEIVED  
BUREAU OF ENVIRONMENT

OCT 10 2014

NEW HAMPSHIRE  
DEPARTMENT OF  
TRANSPORTATION

**Exhibit H**

## EJ Population Analysis for Project:

STUDY AREA	AVG% Elderly Population	AVG % Minority Population	AVG % Low-income Population	AVG% LEP
Impacted Area – Sullivan County US Census Tract # 9756 Block 2.	18.18	4.26	5.68	0.0
Surrounding Area County, Census Tract # Block.	NA See Special Attention note below			
<b>REMARKS:</b> * The population percentage identified is meaningfully greater than the surrounding area and constitutes an EJ population. Characteristics of this particular study area indicate that targeted outreach efforts to solicit public participation should be taken.  LEP Definition: Where there is a population of people who speak English as a second language less than well (as indicated by the U.S. Census data). When a particular LEP language group constitutes 5% of the impacted population, the Department is required to translate public information meeting notices and take appropriate measures to ensure language access. If this requirement exists, the Project Manager should contact the Title VI Coordinator for further assistance.				

**Impacted Area:** The impacted area was defined by the project limits and the area in the immediate vicinity that most closely corresponds to the boundaries of Census Tracts and Block Groups

**Surrounding Area:** All Census Tracts and Block Groups outside of, and immediately adjacent to, the impacted area

**SPECIAL ATTENTION:** Surrounding area is not relevant to this project. No data was acquired for the surrounding areas due to the fact that the census tract for the impact area is so vast that any additional data would not be within reasonable distance to the project.

**Special Considerations:** Special consideration should be given to any project features that affect pedestrian accessibility. This project constitutes an alteration in accordance with Title II of the Americans with Disabilities Act. As such, minimum ADAAG accessibility requirements apply, unless deemed technically infeasible. For more information, I have provided a link to the Draft Public Rights-of-Way Guidelines (PROWAG). Although these guidelines will not be enforceable until they have been adopted by the US DOJ and US DOT, the FHWA considers them to be the most current recommended best practices in pedestrian facility design: <http://www.access-board.gov/rowdraft.htm#Text>.

**Outreach Recommendations:** The impact area shows a high percentage of elderly population however, the actual population is very limited and therefore does not require any additional outreach efforts to inform them.

<u>Resident/Agency Address</u>	<u>Org/Housing Type</u>	<u>Contact Name/Number</u>
Town of Acworth PO Box 13 Acworth, NH 03601		Kathi Bradt 603-835-6879 <a href="mailto:townoff@sover.net">townoff@sover.net</a>

Please note by sending notice through the town it will be also posted the Post Office and the Village Store.

Acworth Silby Library 5 Lynn Hill Road Acworth, NH 03601	603-835-2150
--	--------------

## Jennifer Riordan

---

**From:** <fernst20@comcast.net>  
**Date:** Saturday, December 06, 2014 6:28 PM  
**To:** <jriordan@smartenvironmental.com>; <debbyhinman@gmail.com>  
**Subject:** Re: NHDOT Project – Acworth 16301

Jennifer, we don't have any comments at this time and are very pleased that you are taking up this project now. We are aware of Sean Sweeney engineering work already done, and trust you have this work. Sincerely, Fred Ernst

Sent from XFINITY Connect Mobile App

-----Original Message-----

From: jriordan@smartenvironmental.com  
 To: fernst20@comcast.net  
 Cc: JReczek@dot.state.nh.us, MLaurin@dot.state.nh.us, TLevins@GM2INC.COM, dblood@gm2inc.com  
 Sent: 2014-12-04 10:45:14 GMT  
 Subject: NHDOT Project – Acworth 16301

Mr. Ernst:

The NH Department of Transportation is proposing to replace the existing bridge that carries NH Route 123A over Bowers Brook in the Town of Acworth (refer to attached location map). The existing bridge was built in 1915 and is currently listed on NHDOT's Red List. Since the bridge is located approximately 500 feet upstream of the Cold River, we are seeking input from the Cold River Local Advisory Committee.

The project will begin approximately 300 feet west of the bridge and end approximately 200 feet east of the bridge. Project construction will involve a three week bridge closure. Traffic will be diverted on existing state roads. A pedestrian path with a temporary bridge over Bowers Brook will be constructed to allow residents to access the Village Store, which houses the Post Office, during the bridge closure.

The existing bridge does not have adequate capacity to convey a 100-year storm event and suffered significant damage from a 2005 flood event. The proposed bridge will have a wider opening (27.5-foot span vs. the existing 11-foot span) to accommodate the 100-year storm. The *Restoration Master Plan for the Cold River, Warren Brook, and Bowers Brook* was used in determining the bridge span. The report provided recommended hydraulic spans for crossings within the study area. For this location, a 25-foot hydraulic span was recommended (bankfull width). A 27.5-foot span is proposed.

The Smart Associates, Environmental Consultants, Inc. (TSA) is currently teamed with GM2 Associates, Inc. (GM2) to provide professional environmental and engineering services, respectively, for the project. Any comments you may have concerning resources or issues within the study area will assist in the preparation of the environmental documents. Please let me know if you have questions or need any additional information on the project.

Thanks,

Jenn

Jennifer Riordan, CWS, CPESC  
The Smart Associates

**Exhibit I**

Environmental Consultants, Inc.  
72 N. Main Street  
Concord, NH 03301-4983  
(603) 224-7550 Phone  
(603) 224-7890 Fax

# BUREAU OF ENVIRONMENT CONFERENCE REPORT

**SUBJECT:** NHDOT Monthly Natural Resource Agency Coordination Meeting

**DATE OF CONFERENCE:** March 19, 2014

**LOCATION OF CONFERENCE:** John O. Morton Building

**ATTENDED BY:**

**NHDOT**

Christine Perron  
Ron Crickard  
Mark Hemmerlein  
Kevin Nyhan  
Cathy Goodmen  
Marc Laurin  
Matt Urban  
Randy Talon  
Bob Landry\*  
Robert Hudson  
Bill Saffian  
Don Lyford  
Wendy Johnson  
Jim Kirouac  
John Butler  
Victoria Chase  
Bob Juliano  
Kathy Corliss  
Nancy Spaulding  
Tony Weatherbee

**Army Corps of Engineers**

Rich Roach  
Michael Hicks  
Norm Farris

**EPA**

Mark Kern

**NHDES**

Gino Infascelli  
Lori Sommer  
Gregg Comstock

**NH Natural Heritage  
Bureau**

Melissa Coppola

**NH Coastal Program**

Chris Williams

**Normandeau Associates**

Erik Lema

**FST Engineers**

Kevin Gagne

**The Smart Associates**

Jennifer Riordan

**GM2 Associates**

Jen Mercer  
Tom Levins

**Tendercrop Farm**

Tyler Matteson

**City of Dover**

Steve Bird

**Dover Open Lands  
Committee**

Anna Boudreau

**City of Portsmouth**

Peter Britz

**McFarland Johnson**

Vicki Chase

**Stantec**

Jerry Fortin  
Mike Leach

**Maine DOT**

Jeff Folsom\*

**Cianbro**

Kaven Philbrook\*

**Figg Engineers**

Jay Rohleder\*

\*via conference call

*(When viewing these minutes online, click on an attendee to send an e-mail)*

**PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH:**

*(minutes on subsequent pages)*

Finalization of January Meeting Minutes ..... 3  
Bennington, X-A001(96), 16030 ..... 3  
Acworth, X-A001(226), 16301 ..... 3  
Stewartstown, NH-Canaan, VT, A000(984), 15838 ..... 5  
Newington-Dover, NHS-027-1)37), 11238 ..... 5  
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Portsmouth, NH-Kittery, ME, A000(909), 15731 ..... 7  
Barnstead, X-A001(174), 14121E ..... 9  
Farmington, X-A001(092), 16212 ..... 10  
Lyme, NH-Thetford, VT, A000(394), 14460 ..... 11  
Brookfield, non-federal, 29038 ..... 12  
Lempster, non-federal, 29030 ..... 12  
Belmont, non-federal, 14285 ..... 13

*(When viewing these minutes online, click on a project to zoom to the minutes for that project)*

## **NOTES ON CONFERENCE:**

### **Finalization of January Meeting Minutes**

The January 15, 2014 meeting minutes were finalized.

### **Bennington, X-A001(096), 16030**

Kevin Gagne of FST began by providing a brief background of the two project segments as extensions of a previously successful Phase I. Large-scale, color project plans were presented illustrating proposed roadway, crosswalk, and sidewalk changes. The plans included a located reference line for the nearby Contoocook River. A handout was provided that included a USGS topographic map with the project locus, and photographs of the project area which were keyed to the plan. The project includes extending cement sidewalks, granite curbing, and pavement from Phase I, north along Main Street and Antrim Road, and along Frankestown Road. Other work includes installing a raised crosswalk south of the Bible Hill Road intersection to improve pedestrian safety, and reconfiguring the Bible Hill Road/Eaton Avenue/Antrim Road interchange to improve pedestrian safety and safety of turning vehicles.

Erik Lema of Normandeau provided an overview of potential natural resource impacts and correspondence with state, local and federal agencies. No wetland impacts are associated with the proposed project; therefore no DES Dredge and Fill permit is anticipated. A portion of the work along Main Street and Antrim Road is within the Protected Shoreland, and it is anticipated that the project will be eligible for a Shoreland Permit by Notification. The project will not impact the floodway or floodplain of the Contoocook River. Based on consultation with the NH Natural Heritage Bureau and US Fish & Wildlife Services, there are no anticipated species impacts. No conservation lands are in the vicinity of the project.

No concerns were raised with the project as proposed.

*This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.*

### **Acworth, X-A001(226), 16301**

Tom Levins provided an overview of the project, which involves the replacement of the existing NH Route 123A bridge over Bowers Brook in the Town of Acworth. The existing bridge was constructed in 1915 and is on the NHDOT Red List. The bridge suffered significant damage from a 2005 flood event. The current opening is insufficient to convey Q100 storm events; therefore, bridge rehabilitation is not a prudent option.

The project is currently at the 30% design stage. The proposed bridge opening would be increased from 11 feet to 27.5 feet. Bankfull width for Bowers Brook was determined to be 25 feet by Sean Sweeney, formerly of Horizons Engineering, as part of the Bowers Brook section of the Cold River Restoration Master Plan; the proposed bridge layout is in conformance with this plan. Stone fill is proposed for scour protection at the new bridge foundations.

The Town requested that traffic be maintained through the project area during construction. The detour is 22 miles and emergency services would be delayed by an unacceptable amount of time. The project site does not easily lend itself to phased construction since additional widening would be required, causing unnecessary impacts to adjacent properties. A temporary detour constructed to the south would instead be used to maintain traffic during construction. The detour would be completely removed once traffic is shifted to the new bridge, and the impacted properties would be restored to their existing condition.

Jenn Riordan provided an overview of the natural resources present and the proposed impacts. Existing wetland resources include Bowers Brook (bed and bank) and a small emergent wetland at the edge of a field near the temporary detour. The Cold River is located south and west of the project. Proposed wetland impacts would occur from the replacement of the existing bridge (construction of new abutments and placement of stone). No permanent wetland impacts associated with the temporary detour are proposed. Approximately 480 square feet of permanent bank impact and approximately 760 square feet of permanent bed impact are proposed. Temporary impacts include approximately 350 square feet of bank impact and 2,400 square feet of bed impact. The temporary impacts are assumed for the entire area within the proposed drainage easement. All permanent impacts are to the existing bed and banks near the bridge widening. The bridge would be widened to bankfull width which would create additional streambed. It is assumed that no additional wetland mitigation is required. The area of bed and bank that would be created by the bridge replacement/widening is approximately 970 square feet.

Most of the project is within the 100-year floodplain. No impacts to flood flows are anticipated. The bridge will be widened to convey the 100-year storm. Temporary fill in the floodplain will occur from the temporary detour during construction.

The segments of Bowers Brook and the Cold River that are located within the project area are listed as impaired for pH and are also identified as having flow regime alterations from stream bank modifications/destabilization. They also have a TMDL for *Escherichia coli*. There will only be a minor increase in impervious surface (approximately 4,300 SF) as a result of the proposed project.

The Cold River is a NH Designated River and is also subject to the Shoreland Water Quality Protection Act. Invasive species are present, particularly Japanese knotweed and honeysuckle on the banks of Bowers Brook.

There are no Natural Heritage Bureau records of listed species within the project vicinity. The Cold River is designated as Essential Fish Habitat for Atlantic salmon.

Rich Roach asked what type of temporary bridge would be constructed for the detour. T. Levins replied that the bridge construction details would be determined by the contractor, but the bridge would pass the 10-year storm and would be placed outside of jurisdictional wetland areas.

R. Roach asked how the temporary fill for the detour would be removed after construction. T. Levins replied that geotextile matting would be placed under the fill to help with removal. The area would be restored back to original elevations and conditions after construction is complete.

R. Roach asked about the project schedule. T. Levins replied that the project would likely be constructed in 2017 or 2018, depending on the timeframe required to acquire the necessary property rights.

There was a discussion about the requirements for threatened and endangered species review. It was determined that the US Fish and Wildlife Service's IPaC website should be used in addition to coordinating with the NH Natural Heritage Bureau.

*This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.*

# BUREAU OF ENVIRONMENT CONFERENCE REPORT

**SUBJECT:** NHDOT Monthly Natural Resource Agency Coordination Meeting

**DATE OF CONFERENCE:** November 19, 2014

**LOCATION OF CONFERENCE:** John O. Morton Building

**ATTENDED BY:**

**NHDOT**

Christine Perron  
Ron Crickard  
Mark Richardson  
Kevin Nyhan  
Kathleen Corliss  
Cheryl Rasmussen  
Jonathan Hebert  
Trent Zanes  
Marc Laurin  
Mike Dugas  
David Scott  
Tony Weatherbee  
Jennifer Reczek  
Peter Salo  
Joe Adams

**Army Corps of Engineers**

Michael Hicks

**EPA**

Mark Kern

**NHDES**

Lori Sommer

**NH Fish & Game**

Carol Henderson

**NH Natural Heritage**

**Bureau**

Melissa Coppola

**Federal Highway  
Administration**

Leigh Levine

**The Smart Associates**

Jennifer Riordan

**GM2 Associates**

Tom Levins

**McFarland Johnson**

Jed Merrow

Brian Colburn

**CLD Engineers**

Shannon Beaumont

John Byatt

*(When viewing these minutes online, click on an attendee to send an e-mail)*

**PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH:**

*(minutes on subsequent pages)*

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Danbury, X-A001(230), 16303 .....	3
Andover, X-A002(084), 20650 .....	4
Acworth, X-A001(226), 16301 .....	5
Lebanon, NH-Hartford, VT, A001(154), 16148 .....	6
Deerfield, non-federal, 29759.....	7
Concord, non-federal, 29760.....	8
Salem-Manchester, IM-IR-93-1(174)0, 10418C (late addition to agenda) .....	8

*(When viewing these minutes online, click on a project to zoom to the minutes for that project)*

provide 20' vertical of clearance for pedestrians and trail groomers on the rail trail. An at-grade crossing was considered but would not work with existing topography.

The total area of impervious surface within the project area would actually decrease from 48,570 sq. ft. to 47,425 sq. ft. because there are currently some areas that have a slightly wider pavement width than what is proposed.

The proposed slopes would be 2:1 with guardrail in order to minimize disturbance. The preliminary estimate of wetland impact is approximately 13,450 sq. ft (0.31 ac). Sucker Brook is located to the east of the bridge. The alignment shift would necessitate extending the box culvert that carries Sucker Brook.

Christine Perron noted that there is a floodplain associated with Sucker Brook and potential impacts still need to be assessed. She also noted that the railroad bridge is eligible for listing on the National Register of Historic Places and that Section 106 consultation will occur prior to the formal selection of a preferred alternative.

Lori Sommer noted that mitigation would be required for wetland impacts as proposed.

*This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.*

### **Acworth, X-A001(226), 16301**

Tom Levins (GM2 Associates) provided an overview of the project, which involves the replacement of the existing bridge on NH Route 123A over Bowers Brook in the Town of Acworth. The existing bridge was constructed in 1915 and is on the Red List. The bridge suffered significant damage from a 2005 flood event. The current opening is insufficient to convey Q100 storm events. The proposed bridge opening will be increased from 11 feet to 27.5 feet. Stone fill is proposed for scour protection of the new bridge foundations.

The original design for the project involved a temporary detour to maintain traffic during construction. This is no longer proposed and the project will involve a 3-week road closure to replace the bridge. A temporary pedestrian path will be constructed to the south of NH Route 123A to allow residents to access the Village Store, which houses the Post Office, during the bridge closure.

Jenn Riordan (The Smart Associates) provided an overview of the natural resources present and the proposed impacts. Existing wetland resources include Bowers Brook and a small emergent wetland at the edge of a field near the temporary pedestrian path. The Cold River is located south and west of the project. Proposed wetland impacts will occur from the replacement of the existing bridge (construction of new abutments and placement of stone). No wetland impacts associated with the temporary pedestrian path are proposed. Approximately 1,200 square feet of permanent wetland impact (bed & bank) are proposed and approximately 2,800 square feet of temporary wetland impact (bed & bank) are proposed. The temporary impacts are assumed for the entire area within the proposed drainage easement. The proposed linear footage of stream channel impact is approximately 350 feet (includes both banks and the channel).

The bridge will be widened to bankfull width, which will create additional streambed. The area of stream bed that will be created by the bridge replacement/widening is approximately 900 square feet.

Most of the project is within the 100-year floodplain. No permanent impacts are anticipated. Temporary fill in the floodplain will occur from the pedestrian path during construction, but this will be removed.

Bowers Brook is a tributary to the Cold River, which is a NH Designated River and is also subject to the Shoreland Water Quality Protection Act. During construction, temporary impacts to small areas within the Protected Shoreland of the Cold River will occur from the pedestrian path. The Cold River is designated as Essential Fish Habitat for Atlantic salmon. There are no Natural Heritage records of listed species within the project vicinity.

Lori Sommer asked if the linear footage impact calculation included the existing bridge abutments and other areas of the stream banks/channel that have been altered. It was discussed that the 350 feet of linear stream impact is the sum of the impacts to both banks and the channel. As a result, the length of stream impact from the upstream project limit to the downstream project limit is only about 100 feet. This includes the portion of the channel within the existing bridge structure and the existing bridge abutments and previously altered banks. Jennifer Reczek said that the bridge abutments and scouring of the banks had been repaired after the 2005 flood event, so the majority of the project area had been previously impacted.

Carol Henderson wanted to confirm that the temporary detour is no longer proposed, since it was mentioned at the previous Natural Resource Agency Coordination meeting that this had been requested by the Town of Acworth. Tom Levins replied that the Town decided that the 3-week closure would be preferred over the impacts associated with the temporary detour and the anticipated 3 to 6 month construction duration.

Michael Hicks asked if Bowers Brook is a NH Designated River. Jenn Riordan clarified that the Cold River, located approximately 200 feet downstream of the pedestrian path, is a Designated River, not Bowers Brook.

Mitigation for the linear footage of stream impact was discussed. Lori Sommer stated that mitigation is not required since the project will improve the conditions at the NH Route 123A bridge crossing by lengthening the bridge span and creating a wider stream channel. Mark Kern concurred.

*This project was previously reviewed on the following date: 3/19/2014*

### **Lebanon, NH-Hartford, VT, A001(154), 16148**

This project will address the two bridges that carry Interstate 89 over the Connecticut River and will involve replacing the existing bridges' superstructures and widening both bridges to add additional lanes. The bridges would be widened to the inside, with a new pier between each pair of existing piers. Jed Merrow from McFarland Johnson briefly reviewed what was presented at the previous meeting: the overall setting, location of existing piers in the river, floodplain and floodway mapping, and rare species information. Recently delineated wetlands were also shown, including swales on the NH side and a stream on the VT side. No impacts are expected to the wetland and stream.

Brian Colburn of McFarland Johnson showed the proposed configuration of the new piers and described stormwater management. He noted there would be approximately one acre of new impervious surface in NH, and the strategy has been to treat stormwater where possible and to try to improve on existing conditions. He then described existing and proposed stormwater management. Proposed on the Vermont side is a wet detention basin that would collect and treat runoff from existing and proposed pavement. This detention basin will be constructed per VT Agency of Natural Resources requirements. On the bridge, scuppers are proposed to discharge runoff untreated to the river. On the New Hampshire side, a swale would be constructed along the north side of the highway to treat existing and proposed I-89 northbound pavement between the Plaza Connector Road and the bridge over the Connecticut River. Space within the right of way on the southbound side is not sufficient for formal stormwater treatment, but the design team will continue to investigate if some treatment can be provided for I-89 southbound pavement. For the



MARGARET WOOD HASSAN  
GOVERNOR

**STATE OF NEW HAMPSHIRE**  
**OFFICE OF ENERGY AND PLANNING**  
107 Pleasant Street, Johnson Hall  
Concord, NH 03301-3834  
Telephone: (603) 271-2155  
Fax: (603) 271-2615



[www.nh.gov/oep](http://www.nh.gov/oep)

**MEMORANDUM**

**TO:** Jennifer Riordan  
The Smart Associates

**FROM:** Jennifer Gilbert  
NH Floodplain Management Coordinator  
State NFIP Coordinator

**DATE:** November 26, 2013

**SUBJECT:** Acworth  
DOT Project #16301

---

I am writing in reference to your email dated November 4, 2013 regarding the above-referenced project. I have reviewed and attached the current Flood Insurance Rate Map for the proposed area. A Zone A area (without base flood elevations and a regulatory floodway) is located in the proposed project area.

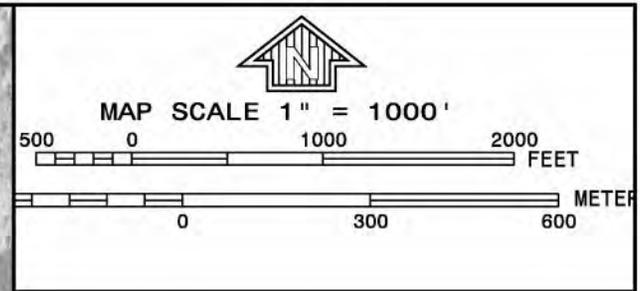
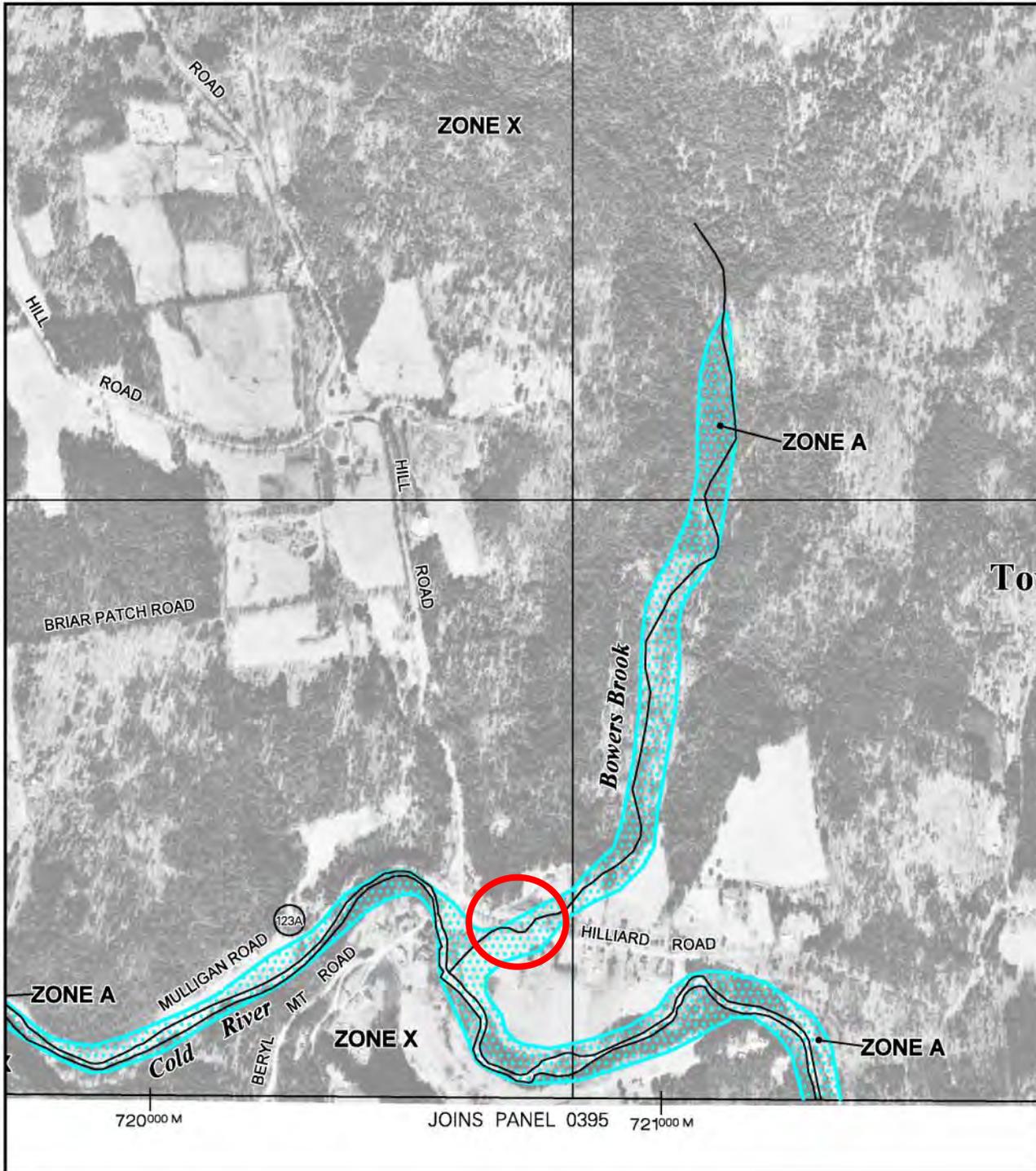
I have also attached a FEMA Letter of Map Amendment for an adjacent structure, in which FEMA established the base flood elevation for this structure. Although the base flood elevation was established specifically for this structure, it may be useful for this proposed project.

Since Acworth is a participating community of the NFIP, any development in a special flood hazard area should meet the community's floodplain management regulations. Development is defined under the NFIP as "any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials."

Best judgment should be used in determining if further study is necessary. If the proposed project will not present a new obstruction to flood flows or alter drainage then additional coordination is likely not necessary.

If you need further assistance, please contact me at 271-2155 or [jennifer.gilbert@nh.gov](mailto:jennifer.gilbert@nh.gov).

**Exhibit K**



NATIONAL FLOOD INSURANCE PROGRAM

**NFIP** PANEL 0385E

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
 SULLIVAN COUNTY,  
 NEW HAMPSHIRE  
 (ALL JURISDICTIONS)

**PANEL 385 OF 445**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ACWORTH, TOWN OF	330152	0385	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
**33019C0385E**  
**EFFECTIVE DATE**  
**MAY 23, 2006**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

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<https://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=cbe088e7c8704464aa0fc34eb99e7f30>



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP AMENDMENT DETERMINATION DOCUMENT (REMOVAL)

COMMUNITY AND MAP PANEL INFORMATION		LEGAL PROPERTY DESCRIPTION
COMMUNITY	TOWN OF ACWORTH, SULLIVAN COUNTY, NEW HAMPSHIRE	A parcel of land, as described in the Warranty Deed recorded in Volume 790, Page 534, in the Office of the Register of Deeds, Sullivan County, New Hampshire (TM:246, TL:8)
	COMMUNITY NO.: 330152	
AFFECTED MAP PANEL	NUMBER: 33019C0385E DATE: 5/23/2006	

FLOODING SOURCE: BOWERS BROOK

APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 43.191, -72.283

SOURCE OF LAT & LONG: PRECISION MAPPING STREETS 7.0

DATUM: NAD 83

### DETERMINATION

LOT	BLOCK/ SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
--	--	--	1053 Route 123A	Structure (Residence)	X (unshaded)	836.1 feet	838.1 feet	--

**Special Flood Hazard Area (SFHA)** - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).

**ADDITIONAL CONSIDERATIONS** (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)

PORTIONS REMAIN IN THE SFHA  
ZONE A

This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Amendment for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the structure(s) on the property(ies) is/are not located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This document amends the effective NFIP map to remove the subject property from the SFHA located on the effective NFIP map; therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, 3601 Eisenhower Avenue, Suite 130, Alexandria, VA 22304-6439.

*William R. Blanton Jr.*

William R. Blanton Jr., CFM, Chief  
Engineering Management Branch  
Mitigation Directorate



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP AMENDMENT DETERMINATION DOCUMENT (REMOVAL)

### ATTACHMENT 1 (ADDITIONAL CONSIDERATIONS)

#### **PORTIONS OF THE PROPERTY REMAIN IN THE SFHA (This Additional Consideration applies to the preceding 1 Property.)**

Portions of this property, but not the subject of the Determination/Comment document, may remain in the Special Flood Hazard Area. Therefore, any future construction or substantial improvement on the property remains subject to Federal, State/Commonwealth, and local regulations for floodplain management.

#### **ZONE A (This Additional Consideration applies to the preceding 1 Property.)**

The National Flood Insurance Program map affecting this property depicts a Special Flood Hazard Area that was determined using the best flood hazard data available to FEMA, but without performing a detailed engineering analysis. The flood elevation used to make this determination is based on approximate methods and has not been formalized through the standard process for establishing base flood elevations published in the Flood Insurance Study. This flood elevation is subject to change.

This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, 3601 Eisenhower Avenue, Suite 130, Alexandria, VA 22304-6439.

A handwritten signature in black ink that reads "William R. Blanton Jr." followed by a stylized flourish.

William R. Blanton Jr., CFM, Chief  
Engineering Management Branch  
Mitigation Directorate



**To:** Jennifer Riordan  
72 North Main Street  
Concord, NH 03301

**Date:** 12/22/2014

**From:** NH Natural Heritage Bureau

**Re:** Review by NH Natural Heritage Bureau of request dated 12/22/2014  
NHB File ID: NHB14-4962

Applicant: NH Department of  
Transportation

**Location:** Tax Map(s)/Lot(s):  
Acworth

**Project Description:** The project involves the replacement of the existing bridge that carries NH Route 123A over Bowers Brook in the Town of Acworth. The existing bridge was built in 1915 and is currently listed on NHDOT's Red List. The project will begin approximately 300 feet west of the bridge and end approximately 200 feet east of the bridge. Project construction will involve an estimated three week bridge closure. Traffic will be diverted on existing state roads. A temporary pedestrian path will be constructed to the south of NH Route 123A to allow residents to access the Village Store, which houses the Post Office, during the bridge closure.

The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

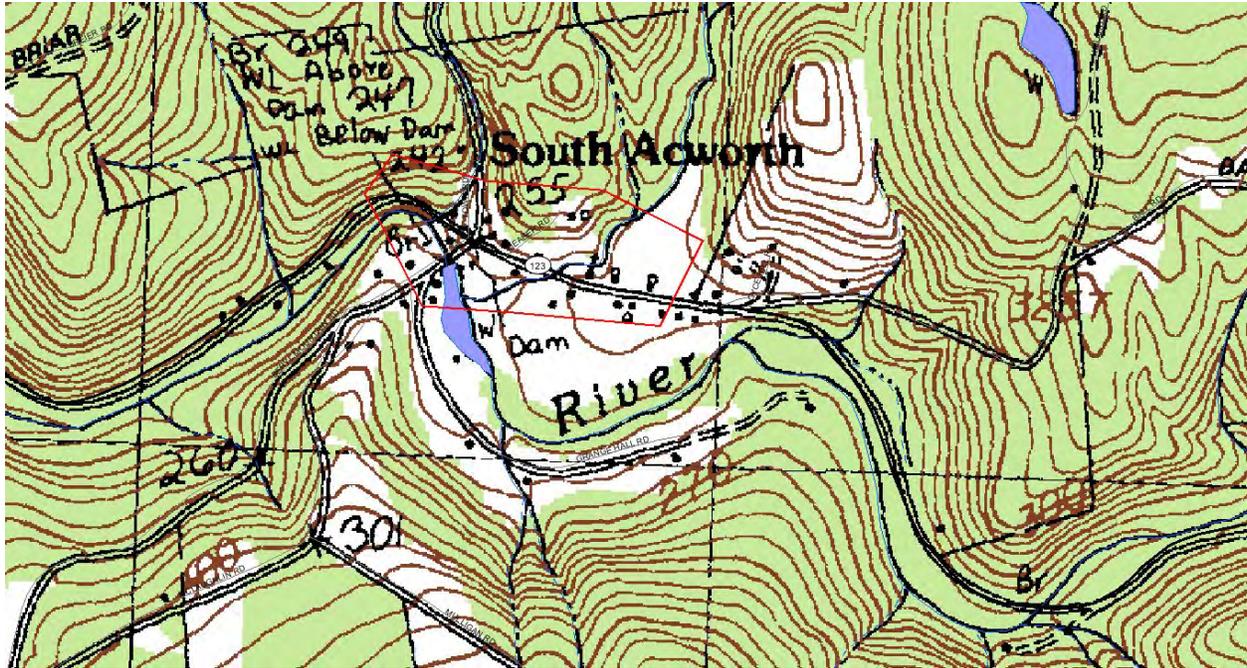
A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

This report is valid through 12/21/2015.

**Exhibit L**



MAP OF PROJECT BOUNDARIES FOR NHB FILE ID: NHB14-4962





## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New England Ecological Services Field Office  
70 COMMERCIAL STREET, SUITE 300  
CONCORD, NH 3301  
PHONE: (603)223-2541 FAX: (603)223-0104  
URL: [www.fws.gov/newengland](http://www.fws.gov/newengland)

Consultation Tracking Number: 05E1NE00-2014-SLI-0224

May 02, 2014

Project Name: Acworth 16301

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project.

### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having

**Exhibit M**

similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior  
Fish and Wildlife Service

Project name: Acworth 16301

## Official Species List

### Provided by:

New England Ecological Services Field Office  
70 COMMERCIAL STREET, SUITE 300  
CONCORD, NH 3301  
(603) 223-2541  
<http://www.fws.gov/newengland>

**Consultation Tracking Number:** 05E1NE00-2014-SLI-0224

**Project Type:** Bridge Construction / Maintenance

**Project Description:** The project involves the replacement of the existing bridge that carries NH Route 123A over Bowers Brook in the Town of Acworth. The proposed method to maintain traffic during construction is to construct a temporary detour to the south.



United States Department of Interior  
Fish and Wildlife Service

Project name: Acworth 16301

### Project Location Map:



**Project Coordinates:** MULTIPOLYGON (((-72.2832498 43.1906462, -72.2822912 43.1903329, -72.2823357 43.1901436, -72.2830644 43.1902555, -72.2841199 43.1899921, -72.2846148 43.1901067, -72.285185 43.1903531, -72.2854613 43.1904362, -72.2857879 43.1907553, -72.2856297 43.1908427, -72.285369 43.1911644, -72.2851555 43.1911854, -72.2850056 43.1910012, -72.2842765 43.1907907, -72.2832498 43.1906462)))

**Project Counties:** Sullivan, NH



United States Department of Interior  
Fish and Wildlife Service

Project name: Acworth 16301

## Endangered Species Act Species List

There are a total of 1 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed on the **Has Critical Habitat** lines may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Northeastern bulrush (*Scirpus ancistrochaetus*)

Listing Status: Endangered



United States Department of Interior  
Fish and Wildlife Service

Project name: Acworth 16301

## **Critical habitats that lie within your project area**

There are no critical habitats within your project area.

**Jennifer Riordan**

---

**From:** "Mike R Johnson - NOAA Federal" <mike.r.johnson@noaa.gov>  
**Date:** Tuesday, November 05, 2013 8:27 AM  
**To:** <jriordan@smartenvironmental.com>  
**Subject:** Fwd: NHDOT Project – Acworth 16301

Jennifer,

Lou Chiarella forwarded a copy of your email to him regarding the NH Route 123A bridge in Acworth. I will be the biologist handling the consultation for this project.

As you noted in your email, Cold River has been identified as EFH for Atlantic salmon. And although Bowers Brook is not an EFH stream, construction activities that could result in impacts in Cold River should be avoided. In particular, suspended sediments released during construction should be contained and restricted to the bridge site. General best management practices, such as turbidity curtains and/or coffer dams to control suspended sediments, are usually effective at preventing downstream and nearby impacts. In addition, the stream bottom and adjacent riparian vegetation and banks should be restored after construction. Lastly, we recommend that an assessment be conducted on the capacity of the bridge to convey waters based on projected storm events using models of current and anticipated precipitation and stream flow.

A consultation with NMFS will be necessary only if NH DOT determines there will be adverse affects on EFH for Atlantic salmon. Let me know if you have any questions.

Thanks,

Mike

----- Forwarded message -----

From: **Jennifer Riordan** <[jriordan@smartenvironmental.com](mailto:jriordan@smartenvironmental.com)>  
Date: Mon, Nov 4, 2013 at 1:21 PM  
Subject: NHDOT Project – Acworth 16301  
To: Lou Chiarella <[Lou.Chiarella@noaa.gov](mailto:Lou.Chiarella@noaa.gov)>  
Cc: Marc Laurin <[MLaurin@dot.state.nh.us](mailto:MLaurin@dot.state.nh.us)>, Darren Blood <[dblood@gm2inc.com](mailto:dblood@gm2inc.com)>

Hi Lou,

The NH Department of Transportation is proposing to rehabilitate or replace the existing bridge that carries NH Route 123A over Bowers Brook in the Town of Acworth (refer to attached

**Exhibit N**

10/2/2014

location map). The existing bridge was built in 1915 and is currently listed on NHDOT's Red List. The bridge suffered significant damage from a 2005 flood event and was repaired, and subsequently added to the Department's 10 Year Plan. Alternatives for rehabilitation and replacement of the bridge are being studied. The existing bridge does not have adequate capacity to convey a 100-year storm event.

The project will begin approximately 300 feet west of the bridge and end approximately 200 feet east of the bridge. The proposed method to maintain traffic is to construct a temporary detour to the south using a combination of private land and Town-owned land and a portion of Beryl Mountain Road. The detour would utilize a portion of private property at the southeast quadrant and cross Bowers Brook onto Town-owned land and tie into Beryl Mountain Road approximately 100 feet south of the intersection with NH Route 123A. The detour would involve a temporary crossing of Bowers Brook. Bowers Brook flows into the Cold River just downstream of the project area. The Cold River is designated as Essential Fish Habitat for Atlantic salmon.

The Smart Associates, Environmental Consultants, Inc. (TSA) is currently teamed with GM2 Associates, Inc. (GM2) to provide professional environmental and engineering services, respectively, for the preliminary planning phase of the subject project. TSA is responsible for the preparation of the environmental documentation. Any comments you may have concerning resources or issues within the study area will assist in the preparation of the environmental documents.

Thanks,

Jenn

Jennifer Riordan, CWS, CPESC  
The Smart Associates  
Environmental Consultants, Inc.  
72 N. Main Street  
Concord, NH 03301-4983  
[\(603\) 224-7550](tel:6032247550) Phone  
[\(603\) 224-7890](tel:6032247890) Fax

--

Michael R. Johnson  
Habitat Conservation Division  
NOAA Fisheries  
U.S. Department of Commerce  
Northeast Regional Office  
55 Great Republic Drive  
Gloucester, MA 01930  
978-281-9130

[mike.r.johnson@noaa.gov](mailto:mike.r.johnson@noaa.gov)



Web	<a href="http://www.nmfs.noaa.gov">www.nmfs.noaa.gov</a>
Facebook	<a href="http://www.facebook.com/usnoaafisheriesgov">www.facebook.com/usnoaafisheriesgov</a>
Twitter	<a href="http://www.twitter.com/noaafisheries">www.twitter.com/noaafisheries</a>
YouTube	<a href="http://www.youtube.com/usnoaafisheriesgov">www.youtube.com/usnoaafisheriesgov</a>

## Jennifer Riordan

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**From:** "Marc Laurin" <MLaurin@dot.state.nh.us>  
**Date:** Wednesday, November 26, 2014 8:16 AM  
**To:** "Jennifer Riordan" <jriordan@smartenvironmental.com>  
**Cc:** "Jennifer Reczek" <JReczek@dot.state.nh.us>; "Tom Levins" <TLevins@GM2INC.COM>  
**Subject:** FW: Acworth 16301

Response from John Magee for your information.

Maybe it would be good to send another note to the CRLAC? I am not sure that I saw your correspondence to them and what it said. Your thoughts.

Marc

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**From:** John A Magee [mailto:john.magee@wildlife.nh.gov]  
**Sent:** Friday, November 21, 2014 1:51 PM  
**To:** Marc Laurin  
**Subject:** RE: Acworth 16301

Thanks Marc. I am happy to hear they used that master plan. I recommend that DOT let the CRLAC know that.

Re: the streambed, it would be wise to touch as little of the streambed as possible, and to reconstruct it with material and grading similar to that adjacent to it (i.e., immediately upstream and downstream of the bridge).

Thank you again.

John

John Magee  
Fish Habitat Biologist  
New Hampshire Fish and Game Department  
11 Hazen Drive  
Concord, NH 03301  
P 603-271-2744  
F 603-271-1438

---

**From:** Marc Laurin [<mailto:MLaurin@dot.state.nh.us>]  
**Sent:** Friday, November 21, 2014 9:17 AM  
**To:** John A Magee  
**Subject:** RE: Acworth 16301

John;

I have asked our bridge design to comment on your inquiries. Here is their response.

“The “Restoration Master Plan for the Cold River, Warren Brook and Bowers Brook” was used in determining the bridge span. The report provided recommended hydraulic spans for crossings within the study area. For this location a 25’ hydraulic span was recommended and we are providing 27.5’ based on hydraulics.

As for the streambed, as little will be disturbed as possible. The area under and immediately adjacent to the existing bridge will be disturbed by excavation to install the footings and remove the existing abutments. We had not planned on a formal reconstruction of the bed, but we have had projects where the existing streambed material is stockpiled during the bridge construction and then replaced into the channel. The re-use of the existing streambed material could be incorporated into this project.”

Marc

---

**From:** John A Magee [<mailto:john.magee@wildlife.nh.gov>]  
**Sent:** Thursday, November 20, 2014 10:30 AM  
**To:** Marc Laurin  
**Subject:** RE: Acworth 16301

I forgot to ask: did DOT use the document entitled, “RESTORATION MASTER PLAN FOR THE COLD RIVER, WARREN BROOK, AND BOWERS BROOK” dated march 2007? DOT, DES and Fish and Game paid for this work. I would email it to you but it is 37MB. Folks at DOT must have it in their files, but I am not sure who. It could help ensure that the new bridge does not get impacted by the changes in the brook, especially those immediately upstream. I suspect the that Cold River LAC would also be interested in this proposal.

Thank you,

John

John Magee  
Fish Habitat Biologist  
New Hampshire Fish and Game Department  
11 Hazen Drive  
Concord, NH 03301  
P 603-271-2744  
F 603-271-1438

---

**From:** Marc Laurin [<mailto:MLaurin@dot.state.nh.us>]  
**Sent:** Tuesday, November 18, 2014 2:38 PM  
**To:** John A Magee  
**Subject:** FW: Acworth 16301

As requested, here are the preliminary wetland plans for your use.

Marc

---

**From:** Tom Levins [<mailto:TLevins@GM2INC.COM>]  
**Sent:** Tuesday, November 18, 2014 12:48 PM  
**To:** Marc Laurin  
**Cc:** Darren Blood; Jennifer Mercer; Jennifer Reczek  
**Subject:** Acworth 16301

Hi Marc,

Attached are the plans we have available for you to forward to John Magee.

**Thomas P. Levins, PE**  
*Lead Structural Engineer*



***GM2 Associates, Inc.***

197 Loudon Road, Suite 310  
Concord, NH 03301  
(603) 856-7854  
(603) 496-1411 (cell)  
[tlevins@gm2inc.com](mailto:tlevins@gm2inc.com)

## **NHDOT Cultural Resources Coordination Meeting December 11, 2014**

Acworth 16301  
NH Route 123A over Bowers Brook - Bridge Replacement  
Federal No. X-A001(226)

### **Minutes**

Tom Levins (GM2 Associates) provided an overview of the project, which involves the replacement of the existing bridge on NH Route 123A over Bowers Brook in the Town of Acworth. The existing bridge was constructed in 1915 and is on the Red List. The bridge suffered significant damage from a 2005 flood event. The current opening is insufficient to convey 100-year storm events. The proposed bridge opening will be increased from 11 feet to 27.5 feet. The proposed bridge layout is in conformance with the Bowers Brook Plan shown in the Cold River Restoration Master Plan developed by Sean Sweeney (Horizons Engineering). Stone fill is proposed for scour protection of the new bridge foundations.

The original design for the project involved a temporary detour to maintain traffic during construction. This is no longer proposed and the project will involve an estimated 3-week road closure to replace the bridge. A temporary pedestrian path will be constructed to the south of NH Route 123A to allow residents to access the Village Store, which houses the Post Office, during the bridge closure. This path will include a temporary bridge over Bowers Brook.

A Phase IA and IB archaeological study was completed in 2013-2014. The only archaeological resource identified within the project area is the Grange Hall foundation, which is located west of the bridge and south of NH Route 123A. The foundation is located beyond the proposed limits of disturbance for the pedestrian path and will not be impacted by construction. DHR recommended that the contract documents specify that this area cannot be used as a staging area during construction. Since the foundation is not an obvious feature at the site, it was suggested that orange construction fence be used to delineate the resource and prevent access during construction.

The Determination of Eligibility (DOE) for the existing bridge was discussed. The project will be reviewed at the January 14, 2015 DOE Committee meeting. FHWA and DHR have previously determined that the bridge is not individually eligible. . The period of significance for the South Acworth Historic District has been identified as circa 1772-1964. Since the bridge was constructed in 1915, it would normally qualify as a contributing structure; however the many modifications made to the bridge after 1915 have caused it to no longer qualify as a contributing structure to the South Acworth Historic District.

Laura Black asked to confirm if there will be impacts to other properties within the South Acworth Historic District. Tom Levins replied that there will be permanent slope impacts from grading near the bridge. The proposed slopes will be flatter than the existing slopes in order to increase stability near the bridge. The work will not involve the removal of any large trees. The slope impacts will occur on private property, but the use of these properties won't change.

Although the slope impacts will be within the historic district, they will benefit the district by providing increased stabilization at the Bowers Brook/NH Route 123A bridge crossing. As such, the Department requested that FHWA make a No Adverse Effect finding with *de minimis* Section 4(f) impacts for the project.

Laura Black agreed that there will likely be a No Adverse Effect to the District, and requested that DHR be provided with photos of the proposed impact areas, the dates of public input opportunities, and any comments received from the consulting party. Marc Laurin will provide this information.

## Jennifer Riordan

---

**From:** "Kathi" <townoff@sover.net>  
**Date:** Monday, December 22, 2014 12:10 PM  
**To:** "Jennifer Riordan" <jriordan@smartenvironmental.com>  
**Cc:** "Peter Wotowiec" <ticonel@hotmail.com>; "Helen Frink" <hfrink@keene.edu>; "Debby Hinman" <debbyhinman@gmail.com>; "Claude Bassinne" <claudebassinne@gmail.com>; "Jim Neidert" <JJNeidert@mac.com>; "Rob Vogel" <robmvogel@gmail.com>; "Chris Noonan" <noonans@myfairpoint.net>  
**Subject:** Re: NHDOT Project – Acworth 16301

Ms. Riordan:

Thank you for your email.

As you know all of the structures abutting the project and beyond in the Village date in the nineteenth century and the Village Store is under Stewardship Agreement with the State pursuant to State funding of its restoration.

Although neither AHS Chair Marianne Nevelson or I are aware of questions at this time we appreciate being kept informed as the project progresses.

Kathi Bradt

----- Original Message -----

**From:** [Jennifer Riordan](#)  
**To:** [townoff@sover.net](mailto:townoff@sover.net)  
**Cc:** [Marc Laurin](#) ; [Tom Levins](#) ; [Jennifer Reczek](#)  
**Sent:** Wednesday, December 17, 2014 12:15 PM  
**Subject:** NHDOT Project – Acworth 16301

Ms. Bradt:

As you are aware, the NH Department of Transportation is proposing to replace the existing bridge that carries NH Route 123A over Bowers Brook in the Town of Acworth (refer to attached location map). The existing bridge was built in 1915 and is currently listed on NHDOT's Red List.

The project will begin approximately 300 feet west of the bridge and end approximately 200 feet east of the bridge. Project construction will involve a three week bridge closure. Traffic will be diverted on existing state roads. A pedestrian path with a temporary bridge over Bowers Brook will be constructed to allow residents to access the Village Store during the bridge closure.

The existing bridge does not have adequate capacity to convey a 100-year storm event and suffered significant damage from a 2005 flood event. The proposed bridge will have a wider opening (27.5-foot span vs. the existing 11-foot span) to accommodate the 100-year storm.

The Smart Associates, Environmental Consultants, Inc. is currently teamed with GM2 Associates, Inc. to provide professional environmental and engineering services, respectively, for the project. We received information from NHDOT that the Acworth Historical Society has requested to be a consulting party to the Section 106 process. As such, we are seeking any input you may have concerning historic resources within the study area. Please let me know if you have questions or need any additional information on the project.

**Exhibit P**

12/22/2014

Thanks,

Jenn

Jennifer Riordan, CWS, CPESC  
The Smart Associates  
Environmental Consultants, Inc.  
72 N. Main Street  
Concord, NH 03301-4983  
(603) 224-7550 Phone  
(603) 224-7890 Fax



THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION



CHRISTOPHER D. CLEMENT, SR. COMMISSIONER

JEFF BRILLHART, P.E. ASSISTANT COMMISSIONER

Acworth X-A001(226) 16301 RPR 5525

No Adverse Effect Memo With De Minimis Impacts

Pursuant to meetings and discussions on December 9 and 11, 2014, and for the purpose of compliance with regulations of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Procedures for the Protection of Historic Properties (36 CFR 800), the NH Division of Historical Resources (NHDHR) and the NH Division of the Federal Highway Administration (FHWA) have coordinated the identification and evaluation of cultural resources with plans to replace the Bowers Brook Bridge (113/064) on NH Route 123A over Bowers Brook in the Town of Acworth.

Based on a review pursuant to 36 CFR 800.4, we determined that the Bowers Brook Bridge, a 1915 jack arch bridge comprised of a single-span I-beam stringer with concrete arch floor, is not individually eligible for the National Register of Historic Places or a contributing resource within the National Register-eligible South Acworth Village Historic District, due to modifications in 1940, 1970, and 2005 that widened the bridge and replaced the guard rails and abutments. Applying the criteria of effect at 36 CFR 800.5, we mutually agree that the project will not have an adverse effect. We agree that no further survey work is needed.

In addition, with NHDHR concurrence of no adverse effect for the above undertaking, FHWA intends to, and by signature below, does make a finding of de minimis impact. NHDHR's signature below represents concurrence with the de minimis finding. Parties to the Section 106 process have been consulted and their concerns have been taken into account. Opportunities for public input took place on June 23, 2014 at the Town Board of Selectmen meeting, on April 24, 2014 at a Public Informational meeting, and following the distribution of Initial Contact Letters on November 4, 2014. Therefore, the requirements of Section 4(f) have been satisfied.

In accordance with the Advisory Council's regulations, we will continue to consult, as appropriate, as this project proceeds.

Patrick Bauer, Administrator Date 12/19/14 Federal Highway Administration

Jill Edelman, Cultural Resources Manager Date 12/17/2014

Concurred with by the NH State Historic Preservation Officer

Elizabeth H. Muzzey Date 1/5/15 State Historic Preservation Officer

c.c. Marc Laurin, NHDOT Chris St. Louis, NHDHR Robert Landry, NHDOT

S:\Environment\PROJECTS\DESIGN\16301\Cultural\Acworth 16301 NoHistoricPropAffected FHWA.docx

Exhibit Q



1. View northeast (upstream)  
of existing bridge and Bowers  
Brook



2. View southwest  
(downstream) under existing  
bridge and Bowers Brook



3. View southwest of Bowers Brook on downstream side of NH Route 123A



4. View northwest of NH Route 123A and existing bridge



5. View southeast of NH  
Route 123A and existing  
bridge, with Village Store in  
background



6. View west toward  
proposed location of  
temporary pedestrian path,  
photo taken near Village Store



7. Bowers Brook near the proposed bridge crossing of the temporary pedestrian path



8. View northwest toward Beryl Mountain Road and the proposed location of the temporary pedestrian path



9. View east of emergent wetland ("Wetland C") adjacent to the temporary pedestrian path