

**APPENDIX A**  
**Alternative Routing Studies Report**

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## **1.0 INITIAL ROUTE IDENTIFICATION AND EVALUATION**

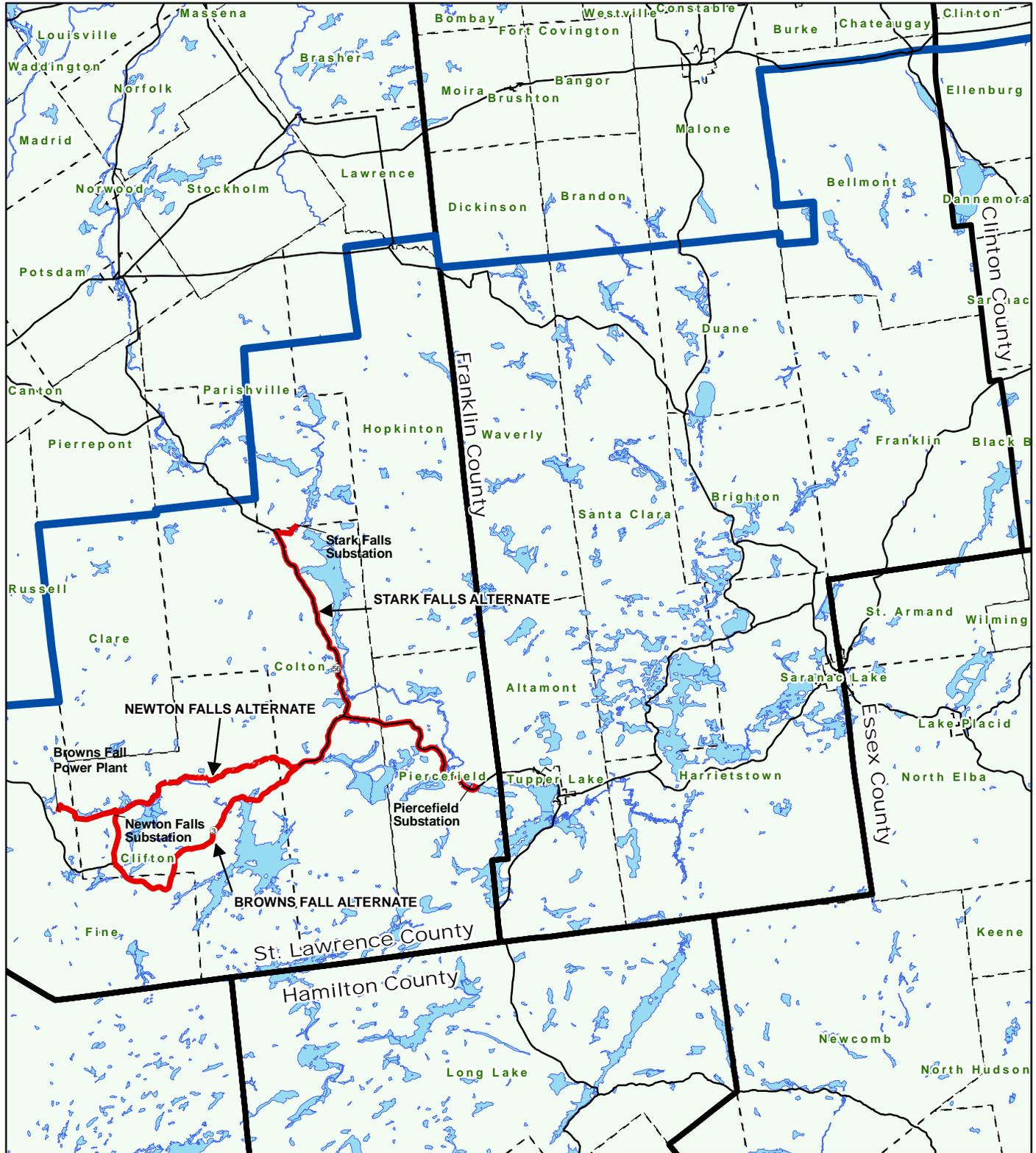
As part of the long term plan to increase the reliability of the existing electrical transmission system within the Tri-Lakes Region, a new 46 kV line was initially identified by Niagara Mohawk and the New York Power Authority from a substation to be built near Newton Falls, NY to the existing Piercefield Substation in Piercefield, N.Y. Two alternates to the Newton Falls route were also identified. One originated at a proposed Stark Falls Substation in the Town of Colton, proceeded south through Sevey Corners and terminated at the existing Piercefield Substation. A second alternate proceeded from Browns Falls Hydroelectric Station, in the town of Fine to Sevey Corners to Piercefield Substation. These three routes were considered pre-feasibility alternates and used a combination of existing paved and unpaved roadways, logging or snowmobile trails and utilized existing utility corridors for most of their lengths (Figure A-1). Opportunities to follow existing Niagara Mohawk local distribution corridors in the Project Area became a logical extension of following existing highways since, in many instances, these existing facilities are located within or immediately adjacent to highway rights of way (ROW). Combining proposed utilities with existing facilities on existing utility corridors within or adjacent to existing highway ROWs is consistent with the “corridor concept” promoted within the Adirondack Park. The Adirondack Park Agency’s “Policy on Agency Review of Proposal for New Telecommunication Towers and Other Tall Structures in the Adirondack Park” (February 15, 2002) recognizes the benefits of consolidation of facilities that potentially incur visual intrusion. The three alignments described above were considered the starting point for the Tri-lakes Reliability Project alternative routing studies.

On February 15 and 16, 2005, a windshield tour of the Project Area and of the three pre-feasibility routes was conducted with the purpose of gaining a general understanding of potential environmental issues and engineering requirements of each route. The following is a description of the three routes.

### **1.1 Newton Falls Alternate**

The Newton Falls Alternate would begin at a new substation located in the vicinity of the existing Newton Falls Paper Mill and dam in the Town of Clifton (see Figure A-2, Map 6 of 11). The route generally follows an existing low voltage distribution line east out of the Newton Falls area for approximately 1 mile and then continues following River Road east for approximately 6 miles to Cook Corners (see Figure A-2, Maps 6 and 7 of 11). At the pre-feasibility level, several alignments were considered through Cook Corners to connect with an existing snowmobile trail that intersects with Tooley Pond Road. The Newton Falls Alternate would then generally follow the alignment of an existing snowmobile trail east for approximately 6.5 miles before reaching State Route 3 (see Figure A-2, Map 7 of 11). (Due to existing snow cover at the time, a portion of this trail was not reviewed in the field but was reviewed at a later date both on the ground by snowshoeing and by aerial reconnaissance.) After intersecting State Route 3 the alignment generally follows the highway north and east for approximately 5 miles through Sevey Corners (see Figure A-2, Map 8 of 11) to join an existing distribution line and proceeds along State Route 3 for approximately 10 miles into the hamlet of Piercefield (see Figure A-2, Maps 4 and 5 of 11). Just prior to where State Route 3 crosses the Piercefield Flow, the alignment turns sharply to the north and west along Pumphouse Road and enters the existing Piercefield Substation, the eastern terminus for all three pre-feasibility alignments.

Initial findings resulting from the February tour indicated that the Newton Falls alignment had potential environmental issues associated with the Oswegatchie River crossing and the paralleling of River Road in close proximity to the Oswegatchie for several miles. The Oswegatchie is an APA designated recreational river. Findings also indicated that this alignment would cross the South Branch Grass River, an APA designated Scenic River. (APA later indicated that resolution of potential visual impacts to this resource would require alternative engineering solutions that would minimize visibility of the crossing from within the viewshed of the river.) Other initial concerns included routing through Cook Corners and related potential impacts to properties in the area and an approximate 4-mile route segment passing in close proximity to State Route 3 south and west of Sevey Corners that had the potential for visual impacts along this length of highway.



**Legend**

- Prefeasibility Routes
  - Lake
  - Road
  - - - Town Line
  - County Line
  - Adirondack Park Boundary
- N  
  
 0 2.5 5 10 Miles

**Tri-Lakes Reliability Project**

**Prefeasibility Alternates**



**Figure A-1**

## **1.2 Browns Falls Alternate**

The Browns Falls Alternate begins at the Browns Falls Hydroelectric Station in the town of Fine and follows an existing 115 kV ROW for approximately 3 miles east to the site of the new Newton Falls Substation. This alternate would then follow River Road east into Newton Falls and turn south at Benson Mines Road, continuing approximately 3.2 miles to the Star Lake Substation located at the intersection of State Route 3 and Benson Mines Road. The Browns Falls Alternate then generally follows the alignment of State Route 3 from the Star Lake Substation south, east and then north through Cranberry Lake to Sevey Corners. Beyond Sevey Corners this alternate would then follow the same alignment as the Newton Falls Alternate to the existing Piercefield Substation.

The Browns Falls Alternate, an east-west option to the Newton Falls Alternate, follows State Route 3 for approximately 20 miles between the Star Lake Substation and Sevey Corners, the majority of which have no existing overhead utilities (see Figure A-2, Maps 9 through 11 of 11). Initial findings determined that this portion of State Route 3 was part of a New York State Department of Transportation (NYSDOT) roadway improvement project and was designed to parkway standards. These standards generally do not allow visual intrusions such as utility poles and wires within the highway corridor. An overhead route that generally follows State Route 3 may introduce unacceptable visual impacts along the highway corridor. This alignment would also pass through approximately 1.5 miles of State Forest Preserve and pass immediately adjacent to approximately three additional miles of State Forest Preserve. No reasonable alternates were identified that would provide routing options to avoid the 1.5 miles of alignment traversing the State Forest Preserve. Finally, overall length of this alternate would be approximately 10 miles longer than the Newton Falls Alternate and 12 miles longer than the Stark Falls Alternate.

Ten to 12 miles of additional environmental impacts, added cost, no reasonable alternate routes to traversing the State Forest Preserve and the potential visual impacts to the State Route 3 parkway corridor lead to the elimination of this pre-feasibility alternate.

## **1.3 Stark Falls Alternate**

The Stark Falls Alternate begins at a new substation location in the town of Parishville and follows an existing distribution corridor along Raquette River Road south for approximately one-half mile to its intersection with Joe Indian Road (Figure A-2, Map 1 of 11). The alignment turns to the west following an existing distribution corridor along Joe Indian Road for approximately 1 mile to the intersection with State Route 56 (Figure A-2, Map 1 of 11). The alignment would then turn to the south and follow State Route 56 for approximately 13 miles to the intersection with State Route 3 at Sevey Corners (Figure A-2, Maps 1 through 4 of 11). Approximately 10.5 miles of this alignment along State Route 56 would follow an existing distribution corridor. From Sevey Corners this alternate would then follow the same alignment as the Newton Falls and Brown's Falls Alternates to the existing Piercefield Substation.

The Stark Falls Alternate was considered a north-south alternate to the two east-west alternates, providing an alternate means to tie into the existing 115 kV transmission system. Initial findings determined that following the State Route 56 corridor took advantage of the existing distribution corridor that parallels the road for approximately 10 miles. It was also determined that although this route passed through a State Forest Preserve as it followed State Route 56, there were viable options for routing to the west if it was determined that routing through the Forest Preserve along State Route 56 was not feasible.

## **1.4 Conclusion**

Preliminary field investigation of the three pre-feasibility routes resulted in the elimination of the Browns Falls Alternate. In comparison to the other two pre-feasibility routes considered, it resulted in greater length by 10 to 12 miles and presumed commensurate increases in environmental impacts and cost. Of particular concern was the length of route that could potentially be within the viewshed of State

Route 3 and that portion of the route that passed through State Forest Preserve lands with no readily identifiable, reasonable alternate route that could be used to avoid them.

On March 3 and 4, 2005 a pre-application meeting with the Adirondack Park Agency and the New York State Department of Environmental Conservation was held. Its purpose was to present the proposed project to the regulators and to gather input from agency staff on the two remaining pre-feasibility routes. A windshield tour of the project study area was conducted as part of this meeting with the purpose of reviewing each alternate route. Two key objectives were associated with this field effort. The project team needed to understand what the primary concerns of the regulatory agencies were in terms of environmental resources within the study area. Secondly, it was important to determine if there were environmental and/or engineering factors along either of the two routes that would render them not feasible.

Environmental concerns of the alternate routes raised by agency staff focused primarily on visual and wetland/water resources. Specific to the Newton Falls Alternate were concerns related to the crossing of and close proximity to the Oswegatchie River, an APA designated study river in this area the APA designated scenic river status of the South Branch Grass River and the statutory requirement that the project be “substantially invisible,” and the visibility issues associated with close proximity to State Route 3. The concept of “off-set” corridors from highways was introduced as a means of mitigating potential visual impacts in non-development locations where there are no existing utility corridors. In areas currently without local distribution lines within the existing NYSDOT ROW, it would be preferable to protect the scenic qualities of that highway ROW. Adoption of a 150-200 foot offset from the edge of the proposed ROW was determined to be an acceptable setback to protect the visual quality viewed from this roadway. Also, the concept of overbuild as a means of consolidating existing and proposed utilities on the same structure within existing ROWs was supported as a routing option for much of the Newton Falls Route east of Sevey Corners, common also to the Stark Falls Alternate.

Environmental concerns specific to the Stark Falls Alternate related primarily to that portion of the route that would pass over the State Forest Preserve on State Route 56. Specifically, any overhead alignment along State Route 56 would require \_ acres of clearing within the Forest Preserve. There would also be the introduction of utility structures within that portion of the DOT ROW that is currently void of any overhead utilities, resulting in visual impact within the Forest Preserve. An underground alternate was also investigated that mitigated much of the potential for clearing and visual impacts but would have unacceptable costs. Applicable to both an underground or overhead alternate over State Forest Preserve is the overriding question of the need for a NYS constitutional amendment that would result in significant project delays. It was determined that further study was required and that opportunity for an alternate alignment west of the Preserve along an existing logging road should be investigated. In addition, the concept of overbuild was again brought forward as a means of consolidating existing and proposed facilities along State Route 56, as well as along State Route 3 east into Piercefield.

As a result of this meeting, a routing option was considered for the Stark Falls Alternate that included an alternate route to the west of the Raquette Boreal State Forest Preserve that avoided State Route 56 through the State Forest Preserve.

## **2.0 SUB-ALTERNATE ROUTE IDENTIFICATION**

### **2.1 On-going Agency Involvement**

As described above, after the Agency Pre-Application Meeting on March 3 and 4, several “sub-alternate routes” were identified that addressed agency staff comments on the Newton Falls and Stark Falls Alternate Routes. These “sub-alternates” were essentially variations to portions of either the Newton Falls or Stark Falls routes developed in response to agency concerns related to visual, wetland, land use or other issues that became relevant during agency consultations. On March 24, 2005, a follow-up agency pre-application meeting was held with the APA, NYSDEC and the NYSDOT to review these sub-alternates and to gather further input from the agencies. Sub-alternate routes are shown on Figure A-2, Maps 1 through 11.

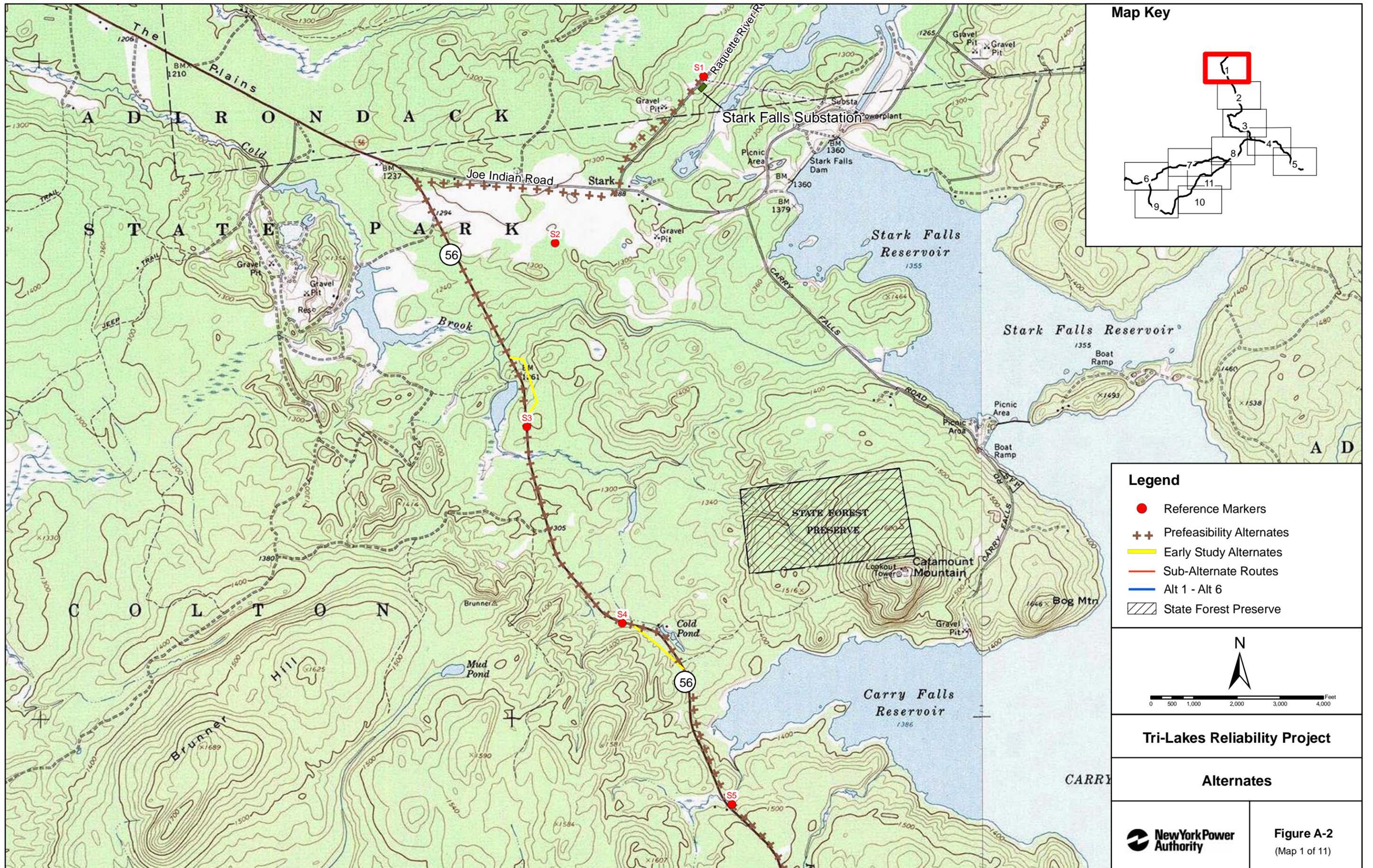
Agency comments related to the sub-alternates in the vicinity of the Oswegatchie River crossing referred primarily to potential visual impact from River Road and from the Oswegatchie River. Further study was recommended to select a sub-alternate route that best minimized potential visual impacts (see Figure A-2, Map 6 of 11).

Agency comments related to the sub-alternates in Cook Corners focused primarily on the number of properties that could be affected and potential visibility concerns to the residents. Further study was recommended to refine these sub-alternates (see Figure A-2, Map 7 of 11).

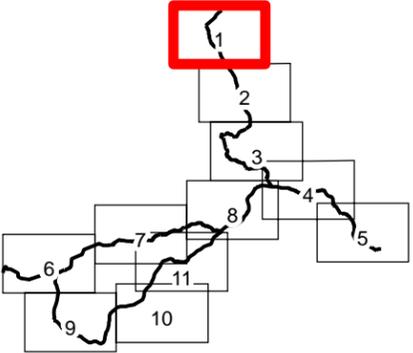
From Sevey Corners east to Piercefield, comments on sub-alternate routes common to both the Newton Falls and Stark Falls Alternates included: possible benefit to be gained from local resident input regarding the Childwold North By-Pass, Childwold South By-Pass and Childwold overbuild along State Route 3 (see Figure A-2, Map 4 of 11); the Gale By-Pass may minimize potential visibility from Catamount Pond and Massawepie Lake and shorten the overall distance of the route (see Figure A-2, Map 5 of 11); the Raquette River By-Pass should be considered as a means of minimizing visual intrusion to the pending APA Primitive Land Use Classification in the vicinity of Sols Island (see Figure A-2, Map 5 of 11).

Comments related to sub-alternates along the Stark Falls Alternate included: a preference for a cross-country sub-alternate starting at the intersection of Joe Indian Road and Raquette River Road (see Figure A-2, Map 1 of 11); a recommendation to drop proposed sub-alternates in the vicinity of two ponds along State Route 56 including one unnamed pond at reference marker S3 and the second at Cold Pond, and to remain on the existing distribution line alignment (see Figure A-2, Map 1 of 11); a recommendation that the alternate overhead alignment passing to the west of the State Forest Preserve should re-study sub-alternate routing options in the vicinity of Sevey Bog (see Figure A-2, Map 3 of 11). (Note that although this was the initial direction given by the agencies, it was later confirmed that there was little advantage to a route that deviated from the existing logging road in this location and the Sevey-Bog sub-alternate route was dropped from further consideration). There was also agreement that consideration of an underground alternate for that portion of the Stark Falls Alternate that passes through the State Forest Preserve along State Route 56 should continue to be investigated (see Figure A-2, Map 3 of 11).

A follow-up meeting was held with the APA, NYSDEC and the NYSDOT on April 27, 2005. The purpose of this meeting, in terms of alternate routes, was to engage the NYSDOT in a review of the alternate routes and to identify issues NYSDOT might have that would influence alternate route selection. Initial concerns related to the location of proposed facilities within existing NYSDOT ROW and possible safety related concerns in locations of overbuild configuration.

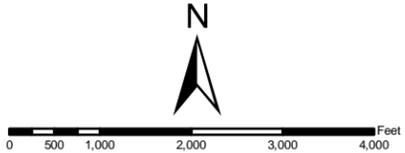


**Map Key**



**Legend**

- Reference Markers
- ++ Prefeasibility Alternates
- Early Study Alternates
- Sub-Alternate Routes
- Alt 1 - Alt 6
- ▨ State Forest Preserve

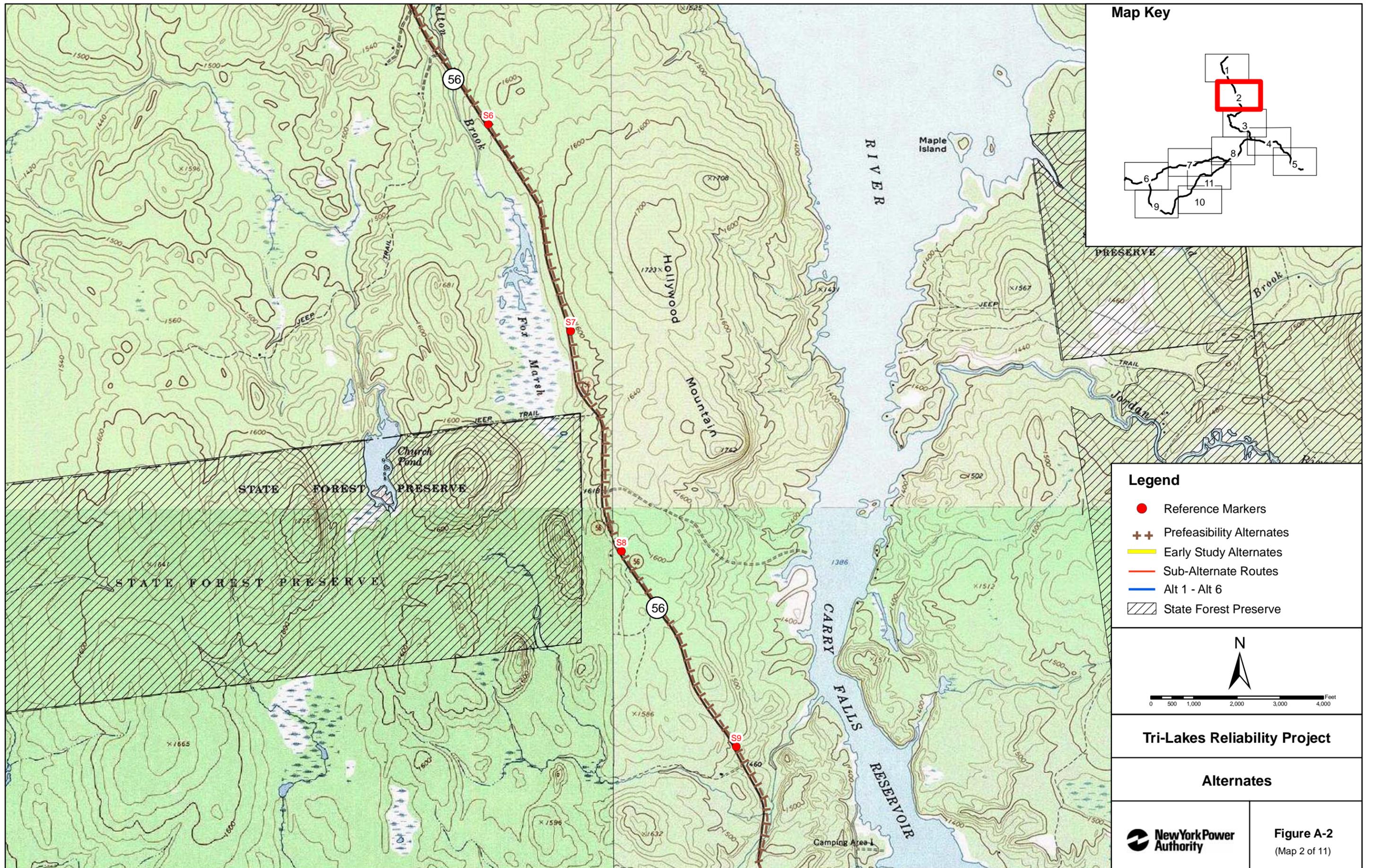


**Tri-Lakes Reliability Project**

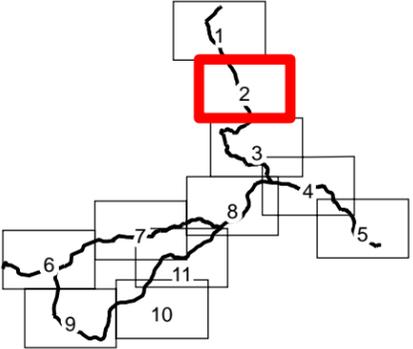
**Alternates**



**Figure A-2**  
(Map 1 of 11)

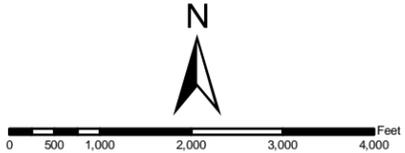


**Map Key**



**Legend**

- Reference Markers
- ++ Prefeasibility Alternates
- Early Study Alternates
- Sub-Alternate Routes
- Alt 1 - Alt 6
- State Forest Preserve

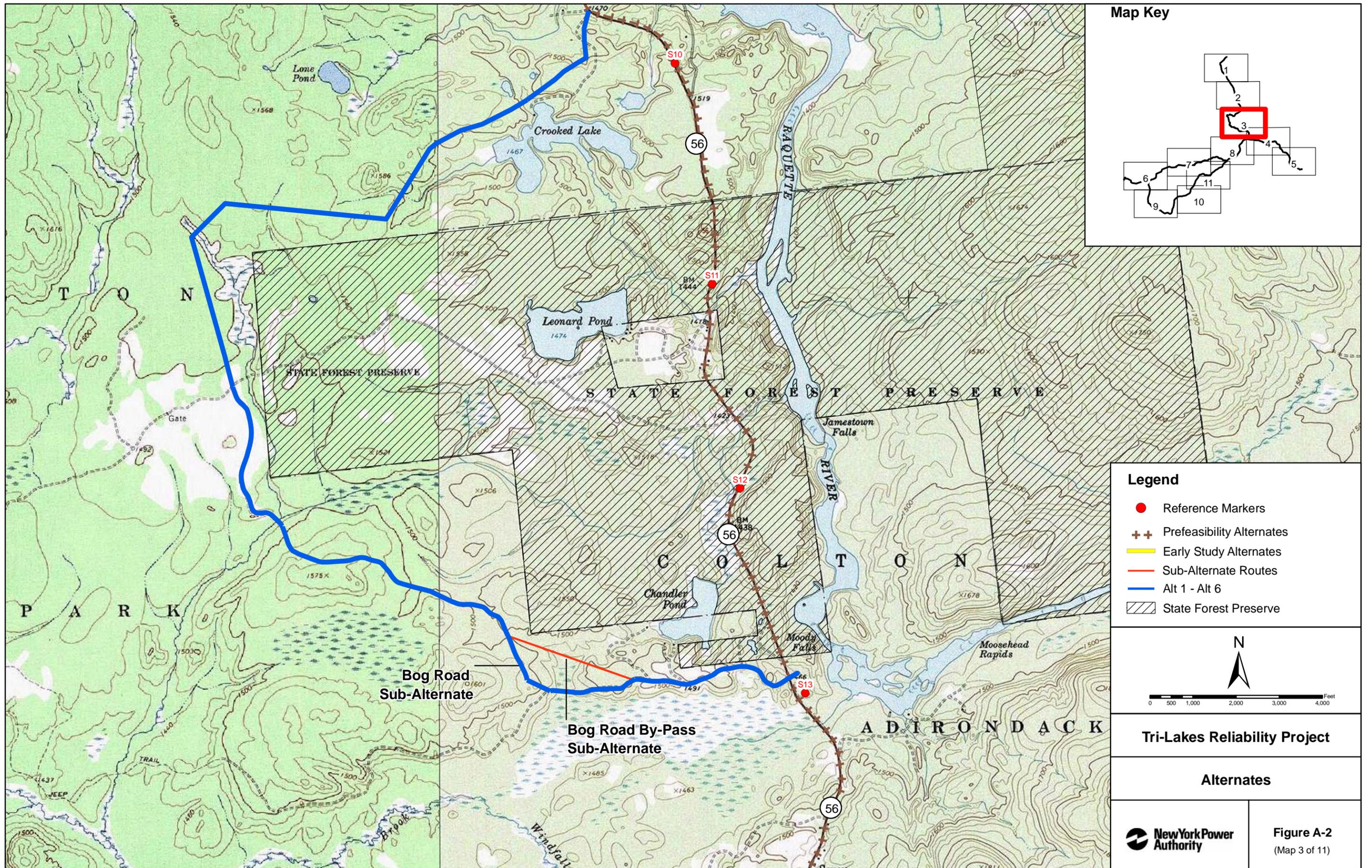


**Tri-Lakes Reliability Project**

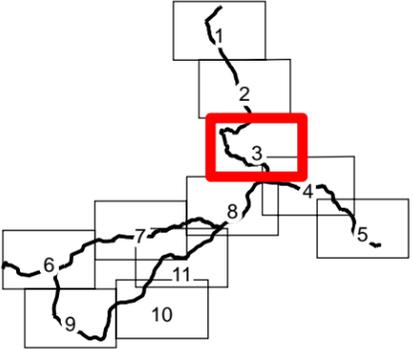
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**Figure A-2**  
(Map 2 of 11)

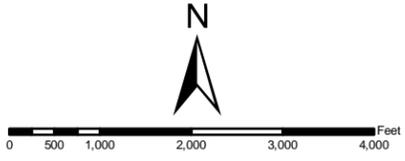


**Map Key**



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- Reference Markers
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- Early Study Alternates
- Sub-Alternate Routes
- Alt 1 - Alt 6
- State Forest Preserve

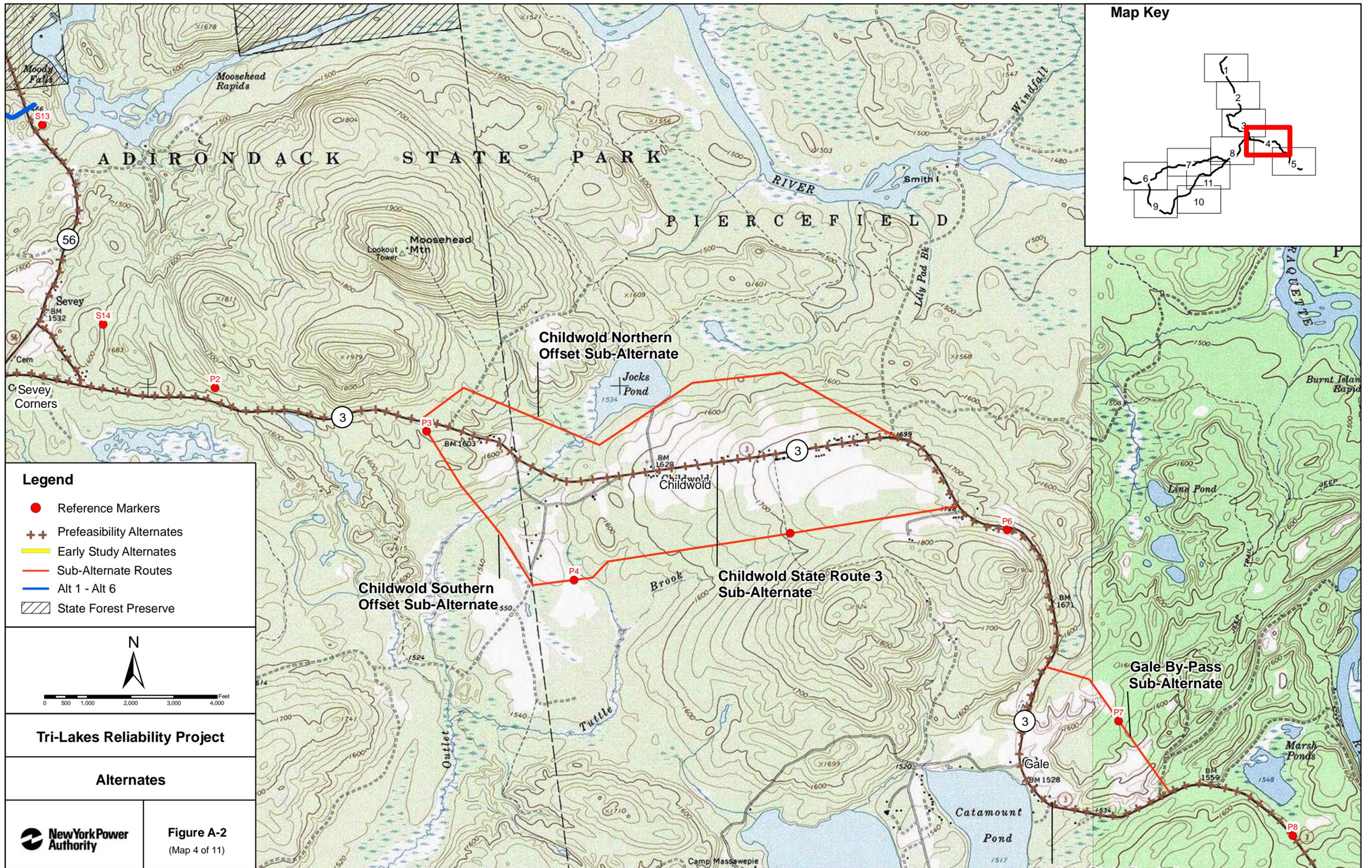


**Tri-Lakes Reliability Project**

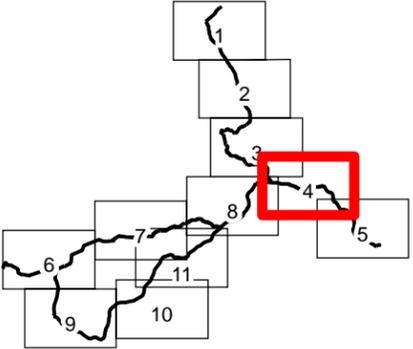
**Alternates**



**Figure A-2**  
(Map 3 of 11)



**Map Key**



**Legend**

- Reference Markers
- ++ Prefeasibility Alternates
- Early Study Alternates
- Sub-Alternate Routes
- Alt 1 - Alt 6
- State Forest Preserve



0 500 1,000 2,000 3,000 4,000 Feet

**Tri-Lakes Reliability Project**

**Alternates**



**Figure A-2**  
(Map 4 of 11)

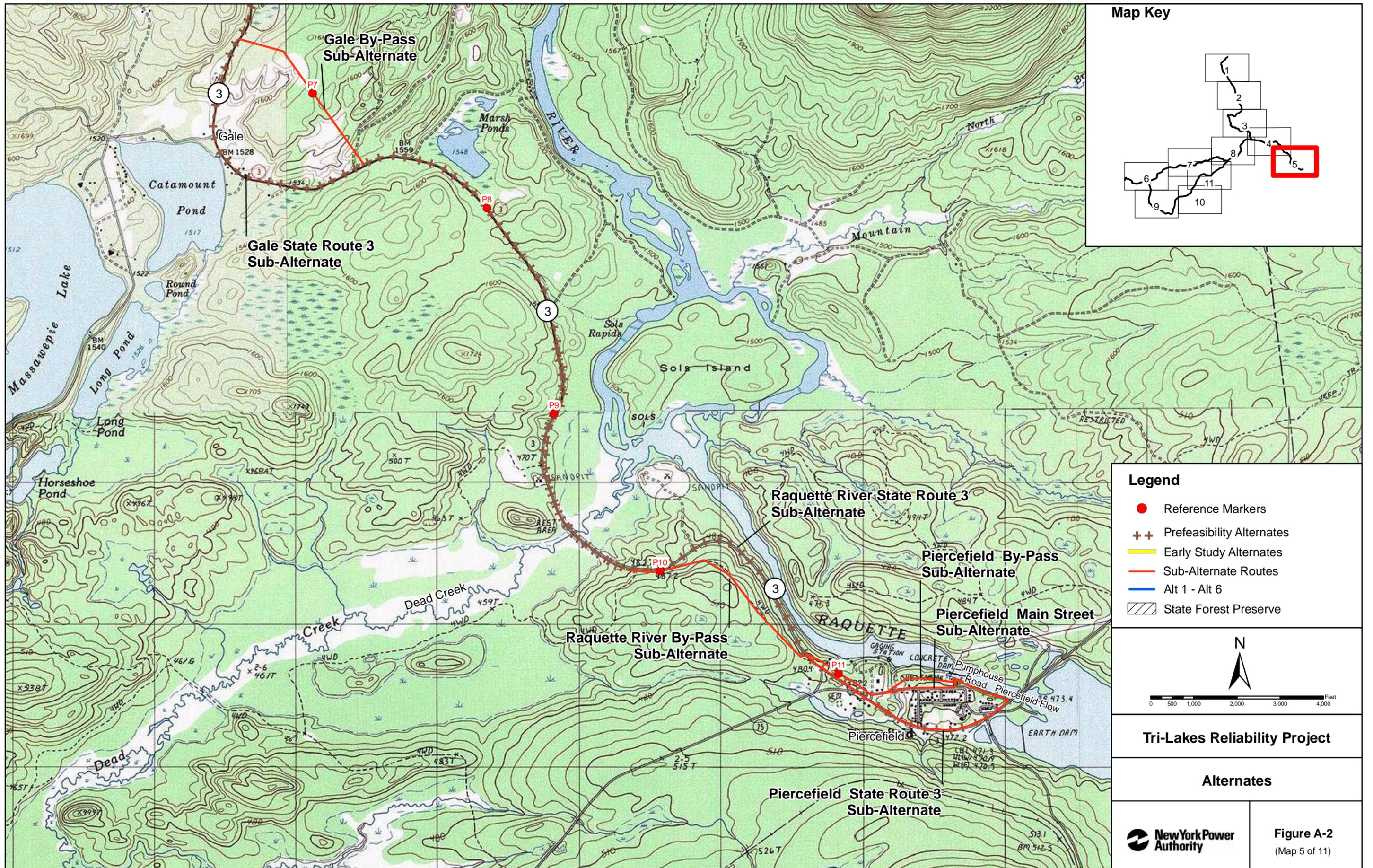
**Childwold Northern Offset Sub-Alternate**

**Childwold Southern Offset Sub-Alternate**

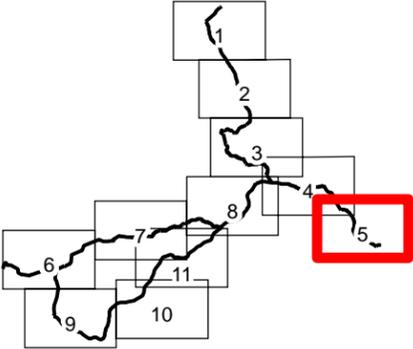
**Childwold State Route 3 Sub-Alternate**

**Gale By-Pass Sub-Alternate**



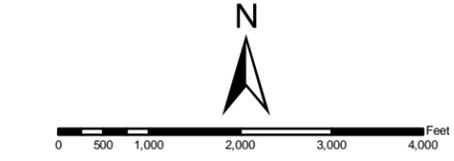


**Map Key**



**Legend**

- Reference Markers
- ++ Prefeasibility Alternates
- Early Study Alternates
- Sub-Alternate Routes
- Alt 1 - Alt 6
- State Forest Preserve



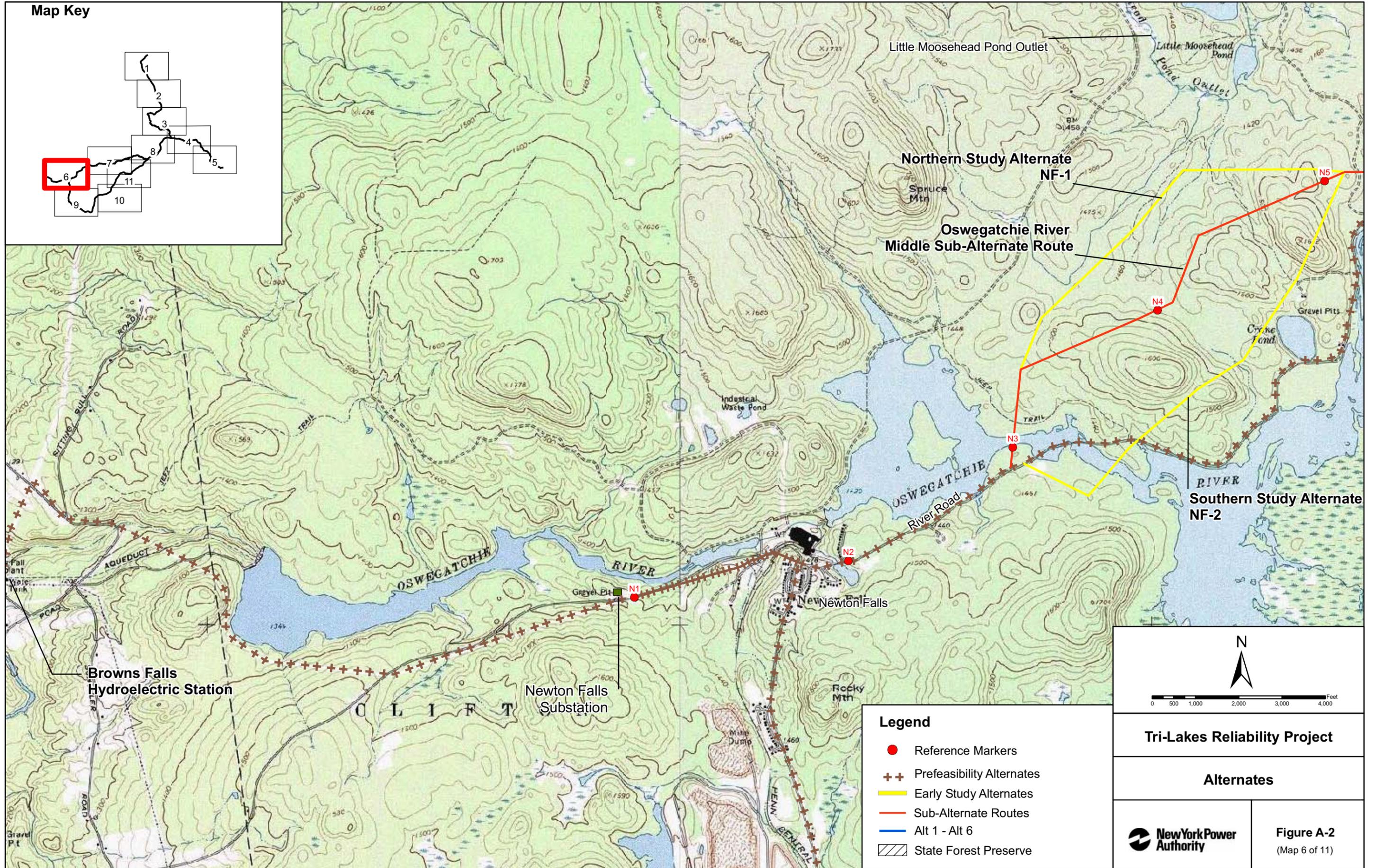
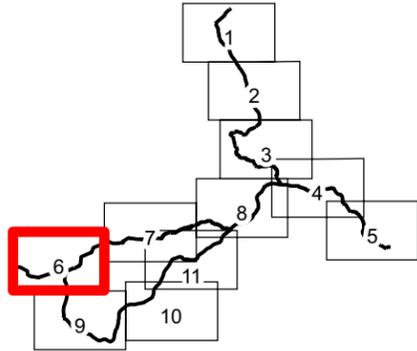
**Tri-Lakes Reliability Project**

**Alternates**



**Figure A-2**  
(Map 5 of 11)

**Map Key**



Little Moosehead Pond Outlet

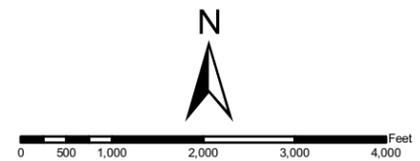
Northern Study Alternate  
NF-1

Oswegatchie River  
Middle Sub-Alternate Route

Southern Study Alternate  
NF-2

Browns Falls  
Hydroelectric Station

Newton Falls  
Substation



**Legend**

- Reference Markers
- ++ Prefeasibility Alternates
- Early Study Alternates
- Sub-Alternate Routes
- Alt 1 - Alt 6
- ▨ State Forest Preserve

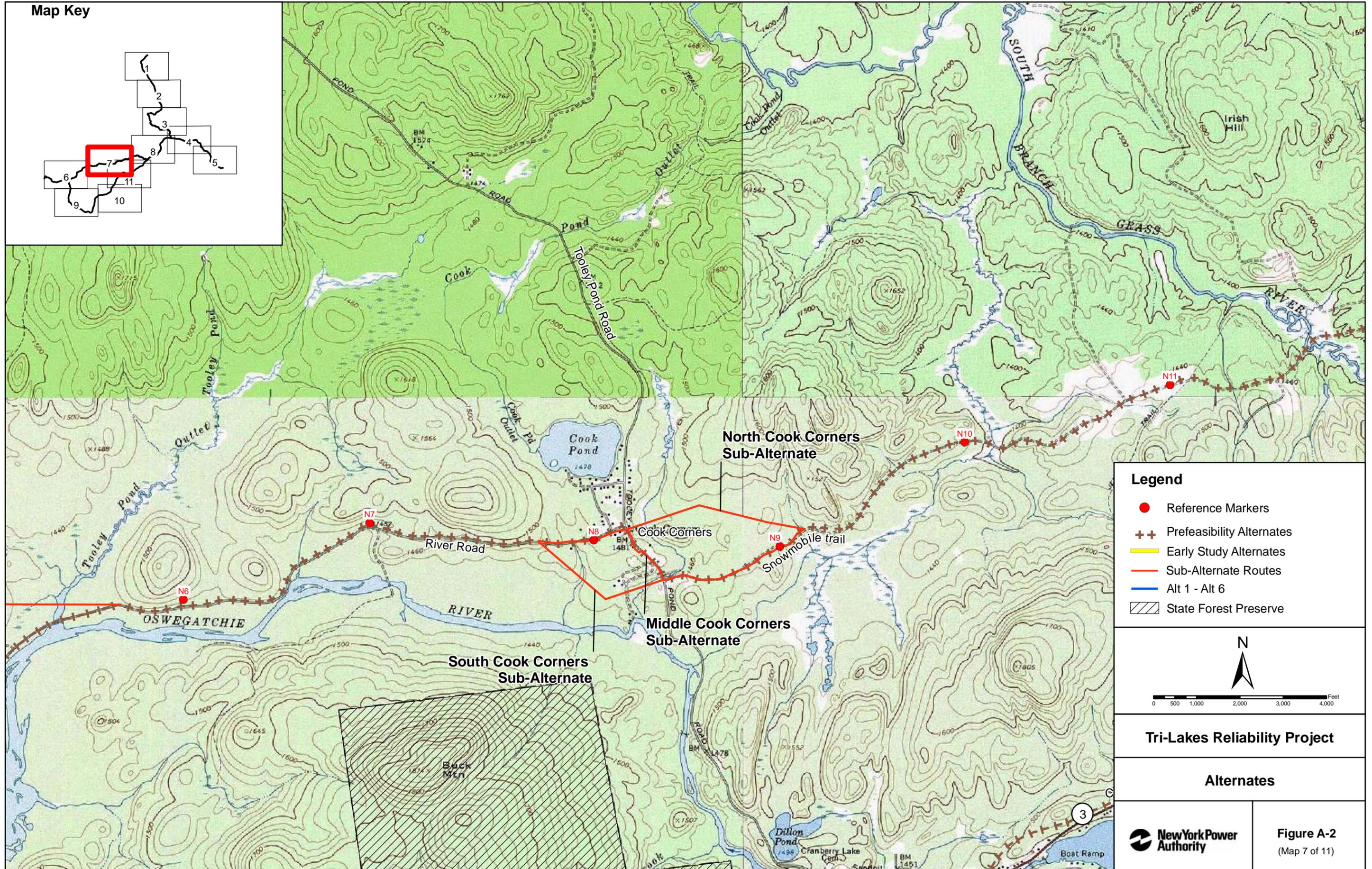
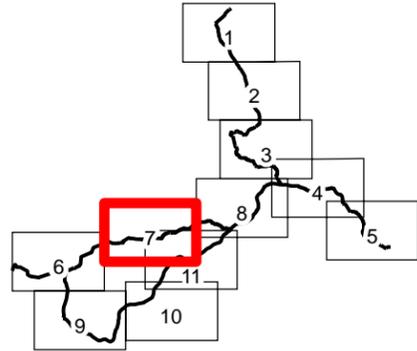
**Tri-Lakes Reliability Project**

**Alternates**



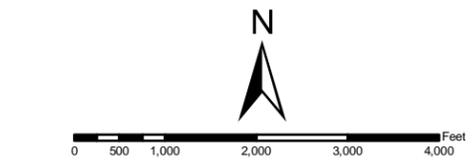
**Figure A-2**  
(Map 6 of 11)

**Map Key**



**Legend**

- Reference Markers
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- Early Study Alternates
- Sub-Alternate Routes
- Alt 1 - Alt 6
- ▨ State Forest Preserve



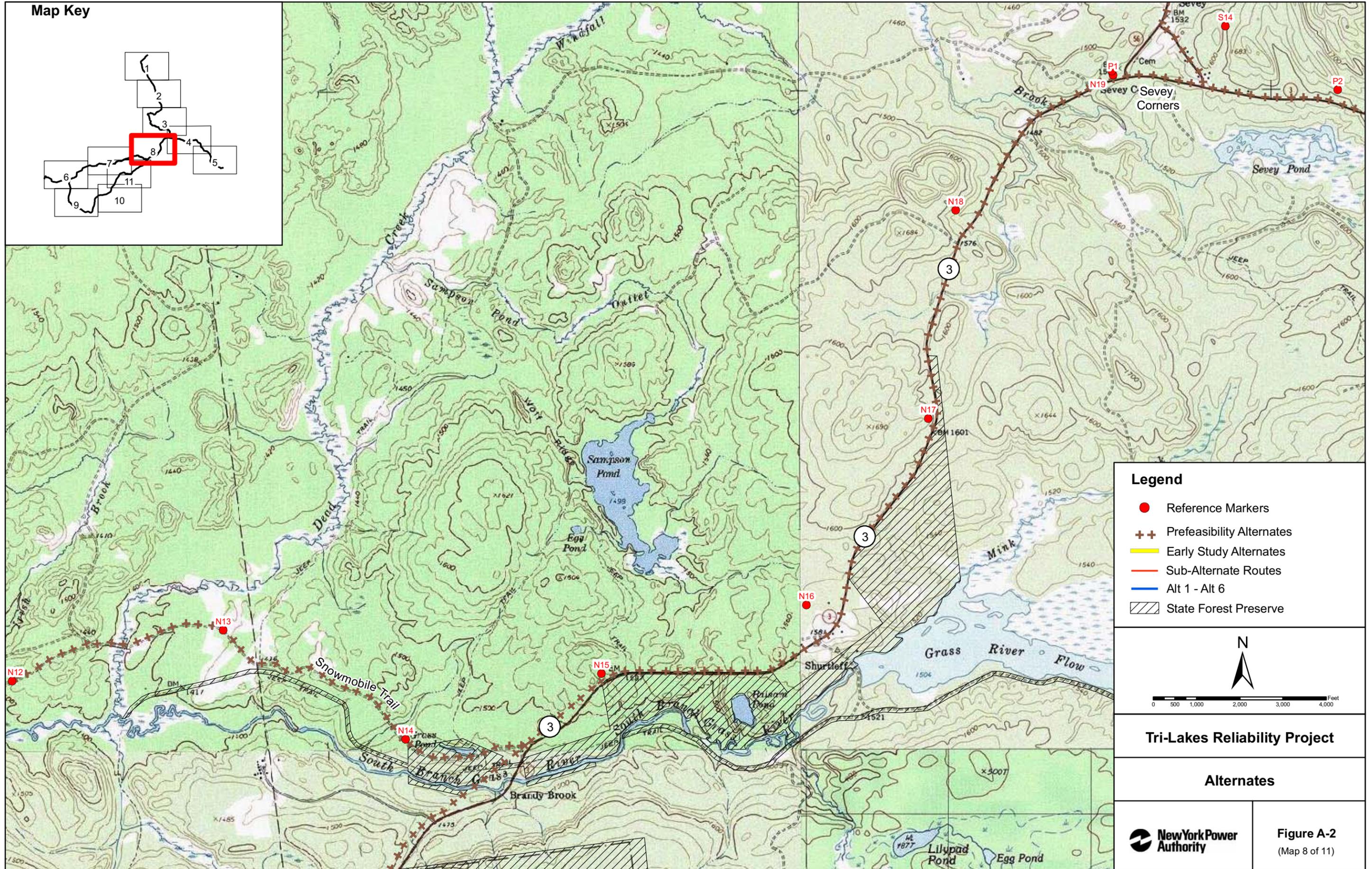
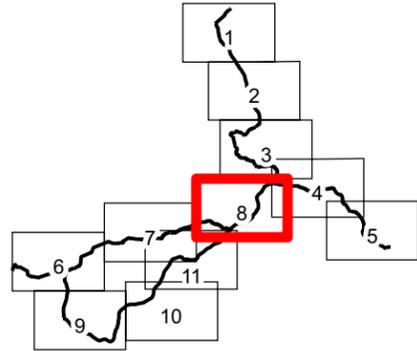
**Tri-Lakes Reliability Project**

**Alternates**



**Figure A-2**  
(Map 7 of 11)

**Map Key**



**Legend**

- Reference Markers
- + Prefeasibility Alternates
- Early Study Alternates
- Sub-Alternate Routes
- Alt 1 - Alt 6
- State Forest Preserve



0 500 1,000 2,000 3,000 4,000 Feet

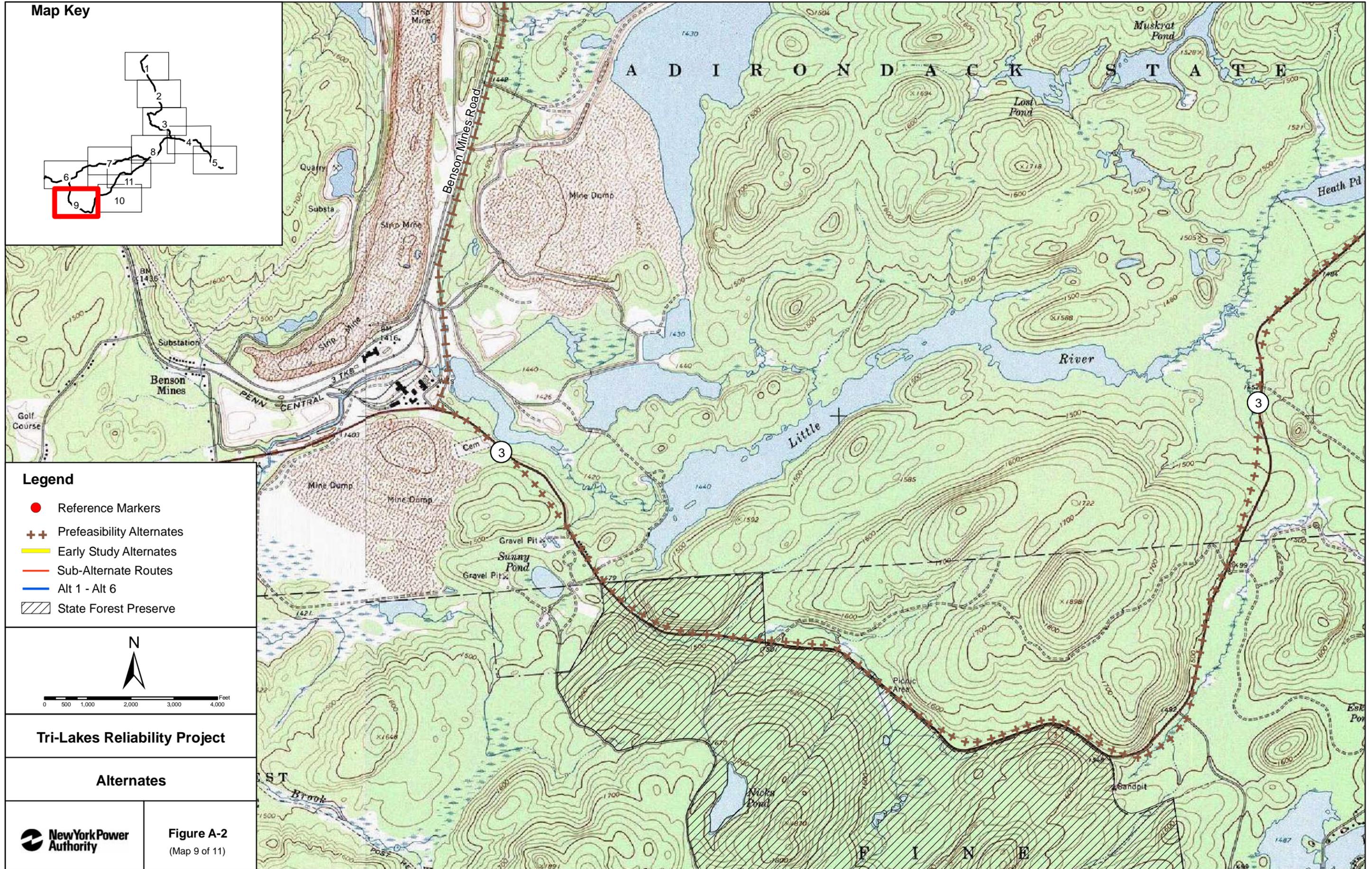
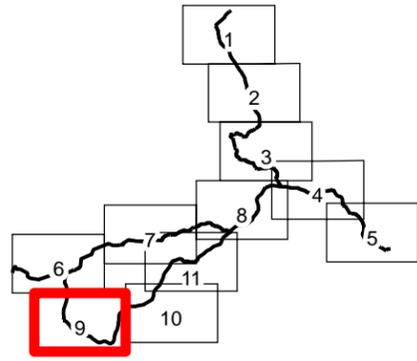
**Tri-Lakes Reliability Project**

**Alternates**



**Figure A-2**  
(Map 8 of 11)

Map Key



Legend

- Reference Markers
- ++ Prefeasibility Alternates
- Early Study Alternates
- Sub-Alternate Routes
- Alt 1 - Alt 6
- ▨ State Forest Preserve



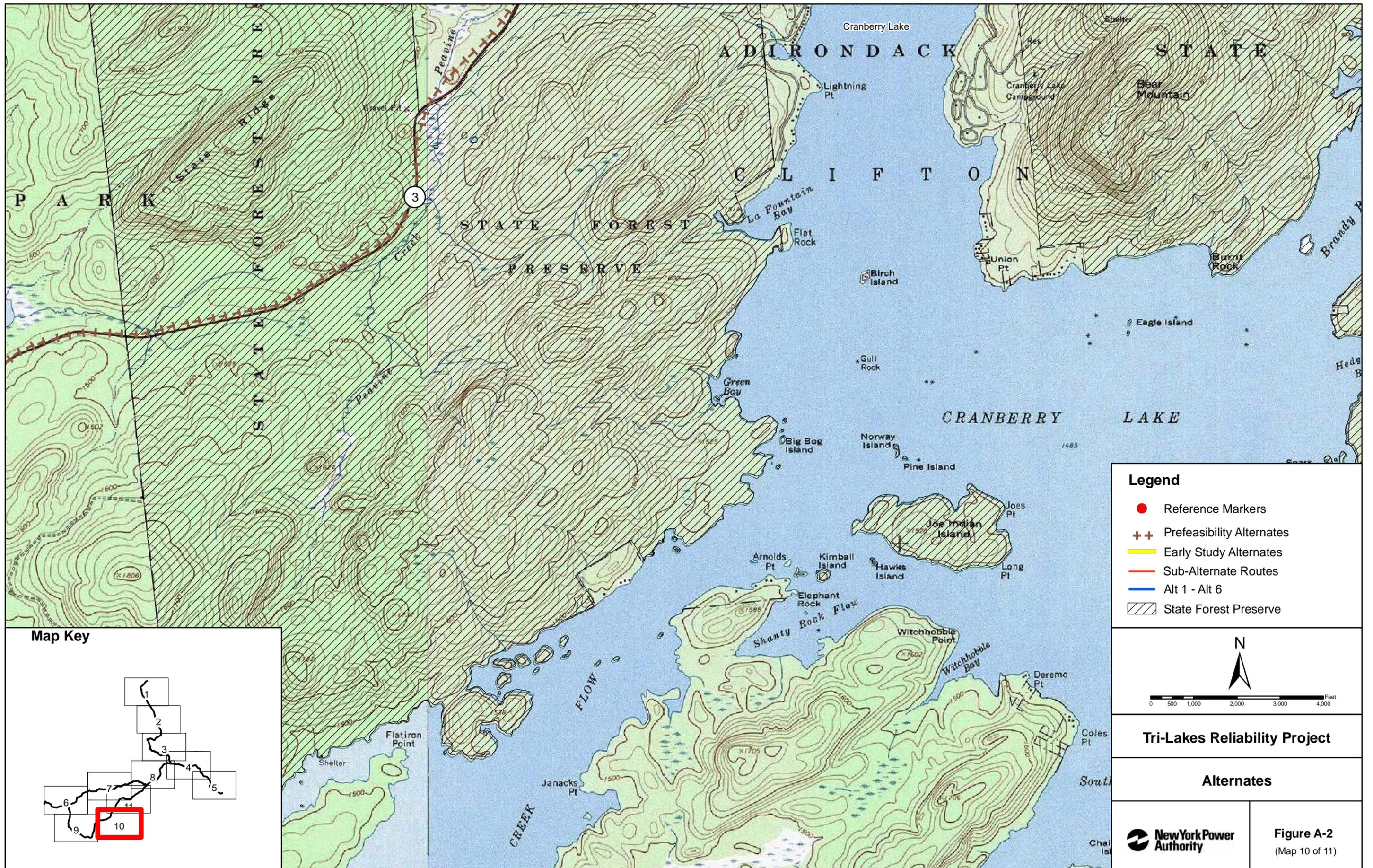
0 500 1,000 2,000 3,000 4,000 Feet

Tri-Lakes Reliability Project

Alternates



Figure A-2  
(Map 9 of 11)



**Legend**

- Reference Markers
- ++ Prefeasibility Alternates
- Early Study Alternates
- Sub-Alternate Routes
- Alt 1 - Alt 6
- ▨ State Forest Preserve

N

0 500 1,000 2,000 3,000 4,000 Feet

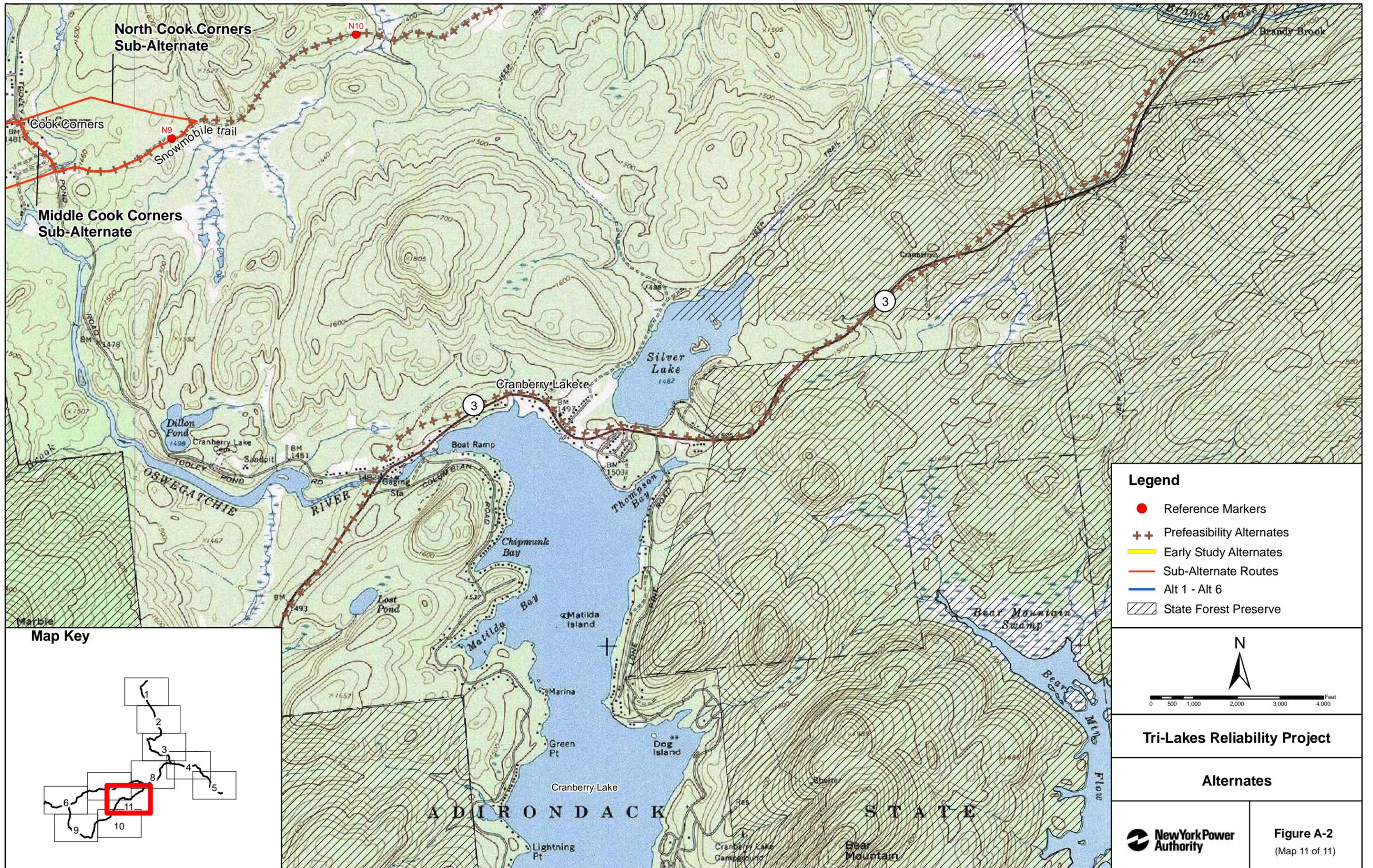
**Tri-Lakes Reliability Project**

**Alternates**

**New York Power Authority**

**Figure A-2**  
(Map 10 of 11)

**Map Key**



**Legend**

- Reference Markers
- ++ Prefeasibility Alternates
- ▬ Early Study Alternates
- ▬ Sub-Alternate Routes
- ▬ Alt 1 - Alt 6
- ▨ State Forest Preserve

N

0 500 1,000 2,000 3,000 4,000 Feet

**Tri-Lakes Reliability Project**

**Alternates**

<p><b>New York Power Authority</b></p>	<p><b>Figure A-2</b> (Map 11 of 11)</p>
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**Map Key**

On May 10, 2005, the New York State Department of Transportation (NYSDOT) participated in a joint field review of alternate routes together with Niagara Mohawk and NYPA environmental and engineering consultants. This review provided NYSDOT the opportunity to review alternate routes, identify issues and otherwise provide input to the route selection. Two areas of concern were identified: proximity of existing pole locations adjacent to state highways where safety may be of concern, and; the consideration of future DOT plans for road reconstruction.

NYSDOT will be advised accordingly as to the status of engineering design such that safety concerns can be addressed. In terms of road reconstruction, NYSDOT recommended that the Raquette River By-Pass (see Figure A-2, Map 5 of 11) be used instead of following State Route 3 just west of Piercefield to minimize construction related impacts that will accompany planned road reconstruction scheduled to begin sometime after 2010.

## **2.2 Aerial Reconnaissance**

On April 4, 2005, a helicopter reconnaissance of the Newton Falls and Stark Falls Alternates, and sub-alternates along each of these two routes, was conducted. The purpose of the flyover was primarily to investigate land use and wetland/water related resources along those areas of the routes that were not readily accessible from the ground and that could have bearing on route selection. Routes were tracked in the air via real time GPS monitoring and visual observation and video taped for later review. Observations of note included: significant areas of ground and vegetation disturbance resulting from past and ongoing logging operations; confirmation of crossing points for significant water resources including the Oswegatchie River (see Figure A-2, Map 6 of 11), Tooley Pond Outlet, and the South Branch Grass River along the Newton Falls Alternate (see Figure A-2, Map 7 of 11); existing land use and natural resource conditions that influence the location and selection of various sub-alternate routes including: sub-route alignment passing west of the State Forest Preserve in the vicinity of Crooked Lake along the Stark Falls Route (see Figure A-2, Map 3 of 11); land uses along the Childwold North and Childwold South By-Passes (see Figure A-2, Map 4 of 11), the Gale By-Pass and the Raquette River By-Pass (see Figure A-2, Map 5 of 11), all common to both the Stark Falls and Newton Falls Alternates.

## **2.3 Public Comment – Municipality and NGO Meetings and June 10, 2005 Public Open House**

A series of public outreach meetings were held with municipalities and non-governmental agencies in the Project Area between May and June 2005. The purpose of these meetings was to present the Project to the relevant parties and to solicit input, including comment on selection of alternate routes. In addition, on June 10, 2005, a Public Open House was held in Tupper Lake that provided an opportunity for the public to review the Project and to provide input on the alternate routes being studied. Information was gathered in the form of written comments and was incorporated into the analysis and selection of alternate routes. A summary of comments relevant to the selection of sub-alternate routes are made part of Table 3-1.

## **2.4 Forest Preserve**

### **2.4.1 Introduction**

The Route 56 Alternate (“Route 56 Alternate”), which would have sited the 46kV line entirely along State Route 56, was not selected as a part of the preferred route because of potential delays that might result from that option’s selection. Specifically, there are concerns about a potential need for an amendment to the New York State Constitution if the 46kV line was sited entirely along State Highway Route 56 ROW, which siting passes over 1.8 miles of Forest Preserve (See 2.4.5). The Authority engaged in research concerning the viability of this option, which appeared to entail less environmental impacts and be in keeping with constitutional and regulatory requirements (See 2.4.2 – 2.4.4). Ultimately, the time which would be required to resolve this issue made the option less attractive than the preferred alternate (See

2.4.8). A subsequent routing analysis revealed other considerations which made the Alternate less viable. A bibliography of reference materials is attached (See 2.4.7).

## 2.4.2 Background

The Adirondack Forest Preserve, a patchwork of state lands in the Adirondack Mountain region, was created by statute in 1885 (Laws of 1885, ch' 283). The statute declared that state-owned lands in several Adirondack counties should be "forever kept as wild forest lands." In 1892, the Legislature created the Adirondack Park (Laws of 1892, ch' 707). It consists of both State-owned lands within forest preserve counties in the Adirondack Park (called forest preserve lands) and private lands. Attempts to weaken the 1885 "forever wild" legislation led to a constitutional amendment recreating the forest preserve. Article VII was adopted and became part of the constitutional amendment defining the forest preserve. Subsequently, in 1938, that article was re-designated as Article XIV. Article XIV, Section 1 of the New York State Constitution states that, "The lands of the state, now owned or hereafter acquired, constituting the forest preserve as now fixed by law, shall be forever kept as wild forest lands. They shall not be leased, sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold, removed or destroyed."

The New York State Court of Appeals has interpreted the constitutional language of Article XIV to allow for necessary activities in the forest preserve such as fire prevention, maintenance of roads,<sup>1</sup> and erection of facilities for public use to maintain the Park and its resources so long as these activities did not call for the removal of timber to a material degree. (2.4.8, MacDonald). These activities are subject to the reasonable regulation by the Legislature within strict constitutional bounds. (2.4.8, Flacke citing MacDonald). In accordance with legislative mandates, the Adirondack Park Agency (APA), and the NYS Department of Conservation (DEC) are charged with oversight and regulatory responsibility for the Park and forest preserve. The NYS Department of Transportation (DOT) is charged with routine regulatory responsibilities of State Highways in the Park with oversight from DEC and APA. A 1956 constitutional amendment provided the NYSDOT with a land bank of 400 acres. This land bank allows NYSDOT to utilize land in the Forest Preserve for work along the NYSDOT travel corridor but does not allow for lands to be added to the land bank.

## 2.4.3 Route 56 History

Acquired by the State in 1882, prior to the establishment of the Forest Preserve, Route 56 is a state highway consisting of 15 miles from the Northern Park Boundary to Sevey Corner. Route 56 is also an APA designated Travel Corridor. The APA defines Travel Corridors as roadbed and right of way (ROW) for state highways in the Adirondack Park and those state lands immediately adjacent to and visible from these facilities. The APA places Travel Corridors under the jurisdiction of the DOT (with oversight by APA and DEC) for purposes related to highway construction, design, maintenance, and accessory facilities. (APA Master Plan (2001) "Master Plan," p. 98, 49, 46).

For approximately 1.8 miles, Route 56 ROW passes over Forest Preserve classified currently by the APA as Wild Forest areas. The northerly portion of the siting is .5 miles in length leading south to a .4 mile

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<sup>1</sup> Roadways are public necessities according to the 1885 Act of the State legislature (L1885, Ch 283(7), (8), (9), which established the Forest Commission (precursor of the Conservation Department and Department of Environmental Conservation) and the Forest preserve. The Act specified that rules and regulations for the Forest Preserve's use, care, and administration specified that there should be no impediment to "prevent or operate to prevent the free use of any road...as the same may have been heretofore used or as may be reasonably required in the prosecution of any lawful business."

long in-holding of non-Forest Preserve land commonly referred to as Hamm's Inn ("Hamm's Inn"). South of Hamm's Inn, the southerly portion of the siting continues for 1.3 miles.

The Route 56 ROW sited over Forest Preserve contains two existing utility lines, 1) a distribution line owned by Niagara Mohawk that provides electricity to Hamm's Inn, a former business located mid-way within the Forest Preserve and, 2) Verizon underground fiber optic and copper cable installed pursuant to DOT permit 7-97-0042 traversing Route 56<sup>2</sup> and DEC permit 6-4099-00017 effective June 20, 1977. Additionally, Niagara Mohawk and Verizon jointly own a utility anchor pole permitted by DOT and located at the north end of the .5 mile Forest Preserve section for these lines.

Through the years, the State has made substantial changes to Route 56. In the 1920's, DOT's predecessor, the Department of Public Works, doubled the ROW to 100ft and performed rehabilitative work. In 1986, DOT conducted additional work to reduce unsafe horizontal and vertical curves including work in the wetlands under APA amended permit No. 86-1036a.

#### **2.4.4 The Route 56 Alternate**

The Route 56 Alternate was initially reviewed because it appeared to provide less environmental impact and seemed consistent with state legislative and regulatory requirements (discussed below).

The Route 56 Alternate appeared consistent with the spirit of Article XIV and constitutional requirements. It provided for a generally recognized public necessity, the 46 kV line, and was consistent with guidance and past practices by regulatory agencies statutorily authorized to conserve the interests of the Park within strict constitutional bounds. Acquired by the state for public purposes prior to the formation of the Forest Preserve, Route 56, if utilized to underground the 46kV line, provided for less disturbance of the environment because it followed existing state utility ROW.

The Route 56 Alternate also appeared consistent with APA Master Plan ("Master Plan"), the promulgated regulatory plan concerning the Adirondack Park. The constitutionality of the APA's Master Plan, which was promulgated by APA for the classification and management of Park lands, has been upheld. (2.4.8, Helms). The Master Plan provides for the regulation of necessary activities such as roads, and electrical, telephone and transmission lines. In affirming the delegation of authority to the APA, the Helms Court noted, "very practical problems can arise if it is deemed necessary to pass a constitutional amendment to authorize each and every particular public use within the forest preserve."

The entirety of state Route 56 is an APA listed Travel Corridor, consisting of roadbed and right of way (ROW) for state highways (Master Plan). ROW, by definition, is a right to pass over, not through, the land of another (Black's Law Dictionary, 6<sup>th</sup> Edition, 1990). This principle was applied to county roads passing over Forest Preserve within St. Lawrence County, NY, the location of the proposed 46kV line (2.4.8, Flacke; Laws of 1937, ch' 488). The Route 56 option would pass over a Travel Corridor. Further, the Route 56 option appeared consistent with prior permitting along Route 56 adjacent to forest preserve. In 1998, Verizon received a DOT permit and was not required to obtain an easement for installation of fiber optic cable traversing Route 56.

Finally, the Route 56 Alternate, which contains existing ROW utilities, also seemed consistent with the "corridor concept" of planning within the Adirondack Park as well as state highway regulation because both call for consolidation of utilities in ROW. (Master Plan, APA "Policy on Agency Review of Proposal for New Telecommunication Towers and other Tall Structures in the Adirondack Park (February

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<sup>2</sup> Maps associated with DOT permit No. 7-97-0042 depict and reference "existing buried cable" at marker 56-7501-1128 and 56-7501-1146.

15, 2002)). Utilities use and occupy state ROW in furtherance of their legal obligations to provide service to the public and because it is in the public interest for them to be located within highway ROW. (See “Accommodation of Utilities in State Highway Rights of Way,” 17 NYCRR 131.2).

#### **2.4.5 Question of Need for Constitutional Amendment for Power Line on Route 56**

During the public outreach process, there were concerns expressed that the Route 56 Alternate would go through Forest Preserve lands and abrogate the “Forever Wild” clause of Article XIV, Section 1 of the NYS Constitution. On March 30, 2005, the Authority met with representatives of DOT, including the DOT Regional Utility Engineer, in Watertown, NY. The DOT provided information concerning the history of Route 56 and DOT’s 1998 permitting of the Verizon fiber optic cable (See 2.4.3) along that portion of Route 56 ROW sited over Forest Preserve. The Authority then met with representatives of the DEC Legal Department in Albany, NY on May 12<sup>th</sup> to discuss Route 56 and the Forest Preserve. DEC expressed concern that siting along this route might require a constitutional amendment.

#### **2.4.6 Conclusion**

Because of the pressing need to license and construct the 46 kV line to improve the reliability of the electrical delivery system in the Tri-Lakes Region, the Route 56 Alternate, which may be susceptible to the potential for delays as a result of the Forest Preserve issues, was not selected as the preferred alternate.

#### **2.4.7 Bibliography**

##### **NYS Constitution**

NY Const., Art XIV section 1

##### **NYS Chapter Laws**

Laws of 1937, ch’ 488

Laws of 1892, ch’ 707

Laws of 1885, ch’ 283

##### **Court Cases**

Association for the Protection of the Adirondacks v. MacDonald 253 NY 234 (Ct. App.1930)

Balsam Lake Anglers Club v. Department of Environmental Conservation, 605 N.Y.S.2d 795 (A.D. 3<sup>rd</sup>. Dept. 1993)

Flacke v. Town of Fine, N.Y. Sup, 448 NYS2d 359 (St. Lawrence County Supreme Court 1982)

Helms v. Reid 90 Misc.2d 583 (Hamilton County Supreme Court 1977)

##### **Attorney General Opinions**

1996 OP No. 96-F2

1978 OP No. 78-50

1976 OP Atty Gen 49

1950 Op Atty Gen 147

1933 OP 33-395

##### **State Regulations**

“Accommodation of Utilities in State Highway Right of Way”, 17 NYCRR 131.2 (April, 2005)

## **State Agency Plans, Policies**

APA Master Plan (APA, 2001)

NYS DOT Guidelines for the Adirondack Park (2<sup>nd</sup> Edition, June, 1996)

APA Policy on Agency Review of Proposal for New Telecommunication Towers and other Tall Structures in the Adirondack Park (February 15, 2002)

DEC Draft Forest Preserve Roads Policy (April 2005)

## **Misc.**

Black's Law Dictionary, 6<sup>th</sup> Edition, 1990.

## **2.4.8 Route 56 Bypass and Route 56 Alternate Routing Analysis**

### **2.4.8.1 Introduction**

A routing analysis evaluating the impacts of construction along the Route 56 Bypass and a Route 56 Alternate (placing the 46 kV line underground within existing ROW sited over Forest Preserve) was also conducted.<sup>3</sup> For routing analysis purposes, Route 56 is a north/south rural connector with a 12 – foot travel lane in each direction, a minimum 2-foot paved shoulder, a one foot dirt shoulder and anywhere from a 5 to 25 foot grassed shoulder. Route 56 has good pavement condition and relatively good line of sight and is posted at 55 miles per hour (see also Section 2.4.3, Background of Route 56).

The routing analysis was conducted with existing desk top information corroborated with field inspections. Wetlands along the Route 56 Bypass and Alternate were delineated during the summer of 2005. To determine impacts of construction from reference marker S9.6 to S12.9, field inspections were conducted on October 12 and 13, 2005. The purpose of the inspection was to confirm the location of wetlands, and to determine alternative methods of construction along the route based on right of way layout and physical constraints such as steep slopes, erodible soils, vegetation, and wetlands. No exposed bedrock or boulders were observed during the inspection. Based on NYS DOT provided information and absent other applicable legal considerations, the 46 kV line may be placed underground in existing ROW as long as the construction does not undermine the roadway pavement or the paved shoulder.

### **2.4.8.2 Route 56 Bypass**

#### Route

The Route 56 Bypass, selected for the Preferred Route, utilizes overhead construction and entirely avoids the section of Route 56 ROW sited over Forest Preserve. The Bypass diverges from Route 56 at reference marker S9.6 and proceeds north of the Forest Preserve in a generally southwest alignment. Most of this

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<sup>3</sup> A third alternate, an overhead line along Route 56 ROW sited over Forest Preserve, was dropped from consideration due to the insufficiency of existing ROW to site a 46kV line. For electrical safety requirements, a 46kV line requires 75 feet of cleared ROW. Since Route 56 ROW sited over Forest preserve is 100 feet wide, maintaining a cleared 75-foot ROW would require clearing an additional 20 feet within the Forest Preserve. The need to clear a total of 6.0 acres of Forest Preserve land outside existing Route 56 ROW precluded this alternate from further consideration because it appeared to raise questions concerning the use of the land bank as well as the other issues discussed in Section 2.41 to 2.4.7. Consolidation of distribution and the 46 kV lines would have no effect on 46 kV ROW requirements.

portion of the Bypass is located on logged over (previously disturbed) forest. At the northwest edge of the Forest Preserve, the Bypass proceeds due south at reference marker Alt 3. At reference marker Alt 3.7, the Bypass is located adjacent to an existing jeep trail. The Bypass then proceeds south and then due east along the southern boundary of the Forest Preserve just north of Sevey Bog and merges with State Route 56 at reference marker S12.9.

### Environmental Considerations

The Bypass traverses 22 wetlands and is over 6 miles in length. These wetlands are generally forested wetlands. One of the larger wetlands crossings (355 feet) of Sevey Bog wetlands has been identified as a potentially environmentally sensitive wetland crossing by the NYSDEC and APA. The Bypass will site no poles in wetlands. Permanent wetlands impacts will only be relative to clearing of tree canopy. Sevey Bog contains preferred spruce grouse breeding habitat. There is no access proposed into this wetland and pole locations will be east and west of the wetland boundary.

Due to overhead siting requirements for the 46 kV line, 55 acres of land must be cleared to accommodate a 75 foot cleared ROW. Much of the ROW has been previously disturbed due to logging operations and contains red pine and mixed forest with conifers and hardwoods codominant.

### Costs

Direct costs of the Bypass are anticipated to be approximately \$ 3.0 million.

### **2.4.8.3 Route 56 Alternate**

The Route 56 Alternate would have placed the 46 kV line underground within existing ROW for 2.2 miles along 1.8 miles of Route 56 ROW over Forest Preserve and .4 miles along the Hamm's Inn in-holding. The balance of this alternate is 1.0 miles of overbuild and 0.1 miles of new overhead.

### Route

The Route 56 Alternate would have begun at reference marker S9.6 as overbuild to reference marker 10.6, the beginning of the northern section of the Route 56 ROW siting over Forest Preserve. Starting at this boundary, the line would have been placed underground to reference marker S12.8, the southern boundary of the Route 56 ROW siting over Forest Preserve. The 46 kV line would then be located on new overhead to reference marker S12.9 and would have stayed on the east side of Route 56 to avoid Fox Marsh and the underground Verizon fiber optic cable (see Section 2.4.3).

### Environmental Considerations

There would be no permanent or temporary wetlands impacts or clearing outside of Route 56 ROW sited over Forest Preserve for the Alternate. The construction techniques described below would result in the temporary clearing of 0.7 acres of upland forest in Route 56 ROW outside of siting over Forest Preserve. The permanent clearing required for the overbuild outside of Forest Preserve from reference marker S9.6 to S10.6 would have resulted in 1.9 acres of clearing of successional northern hardwood exhibiting evidence of recent or historic logging and mixed forest with conifers and hardwoods codominant.

### Engineering Considerations

Construction of the underground section (2.2 miles) would have used three trenching construction configurations ("trenching") and horizontal directional drilling ("HDD" or "boring"). There are six

wetlands located along the eastern edge of Route 56. In one location the wetland is located far enough from the grassy shoulder such that the installation of a trench as described below would result in no temporary clearing. In five other locations horizontal directional drilling (HDD) would have been required. In order to avoid potentially having the bore stray under roadway pavement, the alignment would have been located approximately 15 feet off edge of pavement. HDD would have been constructed as described in DEIS Appendix E (Environmental Work Plan). The entry pit would have been approximately 20 feet long x 10 feet wide and 6 feet deep with the exit pit about half this size. There would have been a total of five bores at a distance of 2780 feet.

Construction of the underground section (2.2 miles) would have used three trenching construction configurations and horizontal directional drilling. In locations where there is a relatively flat 20 to 25 foot wide grassed shoulder adjacent to Route 56 pavement, the trench would have been located 10 feet off edge of pavement. A backhoe would have been required to dig the trench and the trench would have been approximately 3.5 feet wide by 7 feet deep. The 46 kV line would have been laid in the trench and comprised of six polyvinyl chloride (PVC) conduits encased in cement, three for the cables, and three spare ducts for cable replacement. In these grassy shoulder areas there would be no tree clearing required during or after construction and the shoring of the trench walls would be done using standard trench boxes. This construction technique occurs along 5200 linear feet of roadway alignment.

There are other locations where there are relatively steep sandy slopes adjacent to the paved shoulder. In these instances a cut configuration would have been used. The trench is located 6 feet from the edge of pavement. This would have required the temporary clearing of approximately 9 feet of trees and shrubs. Additionally, a portion of the slope would be removed and a trench opened and stabilized with sheet piling. The sheet piling is required to prohibit any possible failure to the roadway paved lanes. Once the trench and conduit have been installed, the sheet piles would have been removed and the slope would be rebuilt with suitable materials. This configuration occurs along 2800 linear feet of roadway alignment.

In addition, there are some locations where the ROW is located on a steep side slope. There is approximately 4 to 5 feet of a flat dirt shoulder next to the edge of pavement and then the slope drops at almost 2:1. These slopes are approximately 20 to 50 feet deep. In these instances a trench would have been dug from the edge of pavement and sheet piling driven at the edges to maintain the paved roadway. A portion of the slope would need to have been filled. These slopes are primarily vegetated with grasses and therefore there are no clearing requirements. This construction technique occurs along 1400 linear feet of roadway alignment.

#### Costs

The cost of construction for the Route 56 Alternate is estimated to be approximately \$11.8 million or \$3.6 million per mile. This cost is \$8.8 million more than the cost of the Route 56 Bypass, which is \$0.5 million per mile.

#### **2.4.8.4 Routing Analysis Conclusion**

The Route 56 Bypass offers an absence of potential delays (see Section 2.4.2 -.6), environmental impacts limited to those described in Section 2.4.8 and substantially lower costs than the Route 56 Alternate. For these reasons, the Route 56 Bypass was selected for inclusion in the Preferred Route.

### **3.0 SUB-ALTERNATE ROUTE ANALYSIS**

Seven locations were studied in detail to determine which of several sub-alternate routes were more acceptable based on an analysis of factors including length, engineering design, wetlands and cultural resources, visual, vegetation, land use and public comment. The sub-alternate routes subject to this analysis are described in Sections 3.1 through 3.7 and shown in Figure A-2, Maps 1 through 11. Section 3.7 is a summary of the comparative analysis of the sub-alternate routes.

#### **3.1 Oswegatchie Sub-Alternate Routes**

The Oswegatchie Sub-Alternate Route (Figure A-2, Maps 6 and 7 of 11) along the Newton Falls Alternate Route was identified to address a preference for a cross-country alignment that would pass to the north of River Road to minimize potential visibility from River Road and the Oswegatchie River. A Northern Study Alternate (NF-1) and a Southern Study Alternate (NF-2) were also studied generally between reference marker N3 and the east side of Tooley Pond Outlet.

##### **3.1.1 Northern Study Alternate NF-1**

The Northern Study Alternate NF-1 crosses the Oswegatchie River at the narrowest point of crossing at reference marker N3. The alignment is located on new cross-country ROW which proceeds approximately 2.7 miles north, northeast, and east. Approximately 2,000 feet of this study alternate passes through logged over forest with the remaining length of 2.3 miles within undisturbed forest. The alignment intersects with River Road at reference marker N5.75. This study alternate represents the furthest distance from the Oswegatchie River and River Road and therefore avoids visual intrusion on the river or along River Road. This study alternate traverses 3,886 feet of wetlands and requires 16.8 acres of ROW clearing.

##### **3.1.2 Oswegatchie River Middle Sub-Alternate**

The Oswegatchie River Middle Sub-Alternate Route follows the same route as the NF-1 for 2,000 feet north of the river. At this point, the sub-alternate turns to the northeast and follows along the northern slope of three hills at approximately 2,000 feet from the northern bank of the river. The alignment proceeds east, crosses Tooley Pond Outlet and intersects with River Road in the same location as NF-1. Similar to NF-1, this sub-alternate is located far enough from the river and River Road so as to be substantially invisible. The majority of this alignment traverses logged over upland already previously disturbed, representing approximately 13.1 acres of clearing. This sub-alternate crosses 1,785 feet of wetland and crosses three streams.

##### **3.1.3 Southern Study Alternate NF-2**

The Southern Study Alternate NF-2 starts 200 feet east of reference marker N3 and proceeds south crossing River Road. The alignment parallels the river about 2,000 feet, turns northeast and crosses a 350-foot wide section of the river and proceeds northeast, joining the Middle Sub-Alternate near reference marker N5. This study alternate is generally located less than 2,000 feet from the Oswegatchie River, traversing primarily logged over forest and a gravel pit just to the east of Crane Pond. Although this study alternate traverses a significant amount of previously disturbed upland forest from past logging operations, it would be visible from River Road and the river.

**Table 3-1: Sub-Alternate Route Analysis**

	Total Length lf	Overbuild lf	New Overhead lf	Wetlands lf	Visual	Cultural # Points	Streams Crossings	Clearing Acres	Public Comment
<b>Oswegatchie River</b>									
North	9,734	0	9,734	3,886 <sup>a</sup>		0	0	16.8	
Middle	11,437	0	11,437	1,785 <sup>b</sup>	preferred	0	3	13.1	
South	11,402	0	11,402	663 <sup>a</sup>		0	3	13.1	
<b>Cooks Corners</b>									
North	6,371	5,011	1,360	1,543 <sup>b</sup>	preferred	0	4	9.4	
Middle	7,317	4,403	2,914	874 <sup>b</sup>	preferred	0	3	9.3	
South	7,130	0	7,130	811 <sup>b</sup>		0	1	12.3	
<b>Bog Road</b>									
By-Pass	3,087	0	3,087	870	NA	0	1	5.3	
Bog Road	3,742	0	3,742	406	NA	0	1	2.2	<i>Note 1</i>
<b>Childwold</b>									
Northern Offset	12,364	0	12,364	2,656 <sup>a</sup>		0	1	21.3	
State Route 3	11,369	11,369	0	1,061	preferred	0	1	6.5	<i>Note 2</i>
Southern Offset	14,727	0	14,727	1,678 <sup>b</sup>		0	2	25.4	
<b>Gale</b>									
State Route 3	7,269	7,269	0	322		8	1	4.2	
By-Pass	4,280		4,280	0	preferred	1	0	7.8	<i>Note 3</i>
<b>Raquette River</b>									
State Route 3	5,721	5,721	0	100		0	0	3.3	
By-Pass	5,129	0	5,129	33	preferred	0	1	8.8	<i>Note 4</i>
<b>Piercefield</b>									
State Route 3	6,869	2,684	4,185	3,335 <sup>a</sup>		0	1	8.8	
Main Street	3,959	100	3,859	272 <sup>a</sup>		0	1	2.8	
By-Pass	3,796	1,743	2,053	108	preferred	0	1	4.0	

<sup>a</sup> Based on APA wetlands database.

<sup>b</sup> Wetland analysis based on field delineation and APA wetlands database.

*Note 1* - The Bog Road option was preferred by the APA because it limited the amount of new access into the area and maintained the greatest distance from the State Forest Preserve boundary

*Note 2* - Preference for the State Route 3 Overbuild option was indicated by four residents of Childwold. One resident of Childwold expressed opposition to the State Route 3 alignment or any overhead facility. One resident pointed out the need to consider the possible widening of State Route 3 in the future but did not express a preference for one route versus another.

*Note 3* - Two residents expressed a preference for the Gale By-Pass as a means of mitigating potential visual impacts to Catamount Pond and Massawepie Lake.

*Note 4* - The NYSDOT expressed a preference for the Raquette River By-Pass.

### 3.1.4 Summary

A comparison of the Oswegatchie River Sub-Alternate Route and the two Study Alternates NF-1 and NF-2 is presented in Table 3-1. Although the northern study alternate (NF-1) meets the objective of eliminating views from River Road and the Oswegatchie River, it results in clearing more undisturbed forest and would traverse 3,886 feet of wetland areas. The southern study alternate (NF-2) traverses a significant amount of previously disturbed upland forest, however, this alignment was considered too close to the river to avoid potential visual impacts. Additionally, the crossing of the river is considerably wider than on the other two sub-alternates. The middle sub-alternate route was selected over NF-1 and NF-2 because it met the objective of minimizing views from River Road and the Oswegatchie River and was located primarily in previously disturbed upland forest.

## 3.2 Cook Corners Sub-Alternate Routes

Cook Corners is located at the intersection of River Road and Tooley Pond Road where there are numerous homes, outbuildings and camps. Existing distribution lines follow River Road and Tooley Pond Road through this area. Three options for routing through Cook Corners were investigated (Figure A-2, Map 7 of 11).

### 3.2.1 North Cook Corners Sub-Alternate

The North Cook Corners Sub-Alternate begins approximately 2,000 feet west of Cook Corners on a new ROW on the north side of River Road and continues for approximately 700 feet before crossing to the south side of River Road. It continues as an overbuild for another 1,360 feet to the intersection of River Road and Tooley Pond Road. The sub-alternate crosses the intersection of River Road and Tooley Pond Road and proceeds east approximately 4,100 feet on new cross country ROW to its intersection with the snowmobile trail approximately 500 feet west of reference marker N9. Through this area, this sub-alternate requires 9.4 acres of clearing and crosses approximately 1,543 feet of wetland. This sub-alternate potentially affects 12 residential properties.

### 3.2.2 Middle Cook Corners Sub-Alternate

The middle sub-alternate route follows the north sub-alternate route to the intersection of River Road and Tooley Pond Road. At this intersection the sub-alternate follows Tooley Pond Road south as an overbuild for approximately 1,500 feet, then turns due east as new overhead along the existing snowmobile trail. This alignment potentially affects 19 residential properties through Cook Corners including potential visual impacts. This sub-alternate requires 9.3 acres of clearing and crosses 87.1 linear feet of wetlands.

### 3.2.3 South Cook Corners Sub-Alternate

The south sub-alternate route crosses River Road to the south at approximately reference marker N 7.8. It proceeds southeast as new overhead for 2,000 feet through relatively undisturbed forest then turns east and continues 1,500 feet to Tooley Pond Road. This area of the ROW is located adjacent to an enclave of cabins in the southwest corner of Cook Corners. The sub-alternate crosses Tooley Pond Road and continues east 3,500 feet along the snowmobile trail in the same location as the middle sub-alternate route. This subalternate requires 12.3 acres of clearing and potentially affects 10 residential properties including camps.

### 3.2.4 Summary

The South and Middle Cook Corners Sub-Alternate Route had the longest lengths of the three sub-alternates and would be more visually intrusive to the enclave of camps in the southwest corner of the village and to the residences along Tooley Pond Road. For these reasons, these sub-alternates were eliminated from further consideration. The north sub-alternate was selected primarily because it minimizes visual impacts to camp properties and residential properties along Tooley Pond Road and is the shortest in length.

### **3.3 Bog Road Sub-Alternate Route**

The Bog Road Sub-Alternate (Figure A-2, Map 3 of 8) occurs on the Stark Falls Alternate where it bypasses the State Preserve to the west of State Route 56. The 200-acre Sevey Bog is located south of the State Forest Preserve and south of the Stark Falls Alternate Route. Two alternates in the vicinity of the bog were evaluated.

#### **3.3.1 Bog Road Sub-Alternate**

The crossing of Sevey Bog occurs along an existing logging road approximately 1,000 to 1,500 feet south of the State Preserve. This alignment traverses approximately 406 linear feet of wetland and is 3,742 feet in length.

#### **3.3.2 Bog Road By-Pass Sub-Alternate**

The Bog Road By-Pass Sub-Alternate was considered a means of moving the alignment further to the north of Sevey Bog to minimize any potential impacts to Sevey Bog that might occur following an alignment along the Bog Road Sub-Alternate. The alignment is approximately 3,087 feet in length and traverses approximately 870 linear feet of wetland.

#### **3.3.3 Summary**

Early in the investigation of this alternate, and in discussions with APA staff, it was determined that if the Bog Road alignment stayed on the north side of the existing logging road, there was little advantage to the By-Pass particularly because it would of necessity come much closer to the southern boundary of the State Forest Preserve, was only 200 feet shorter in length and resulted in crossing more linear feet of wetland. The Bog Road Sub-Alternate was therefore selected as the preferred alignment.

### **3.4 Childwold Sub-Alternate Routes**

Childwold is located 3 miles east of Sevey Corners along State Route 3. Sub-alternate routes were primarily developed to minimize visual impacts. Three sub-alternate routes were investigated in Childwold, including the Childwold Northern Offset Sub-Alternate, the Childwold State Route 3 Sub-Alternate and the Childwold Southern Offset Sub-Alternate (Figure A-2, Map 4 of 8).

#### **3.4.1 Childwold Northern Offset Sub-Alternate**

The Childwold Northern Offset Sub-Alternate starts at reference marker P3 and proceeds northeast approximately 1,000 feet, then turns due east for approximately 2 miles and rejoins State Route 3. This sub-alternate is generally located 1,000-2,000 feet north of the Village of Childwold on new overhead ROW. Most of the alignment is characterized by mature forest and wetland associated with Jocks Pond. This alignment is 12,364 feet of new ROW that traverses 2,656 linear feet of wetland and requires approximately 21.3 acres of clearing. Potential visual impact would be minimized in this location since most residences are located close to or adjacent to State Route 3.

#### **3.4.2 Childwold State Route 3 Sub-Alternate**

The Childwold State Route 3 Sub-Alternate follows the alignment of the existing distribution facilities currently located along State Route 3 in Childwold as an overbuild facility. The sub-alternate proceeds east for approximately 11,400 feet, passing approximately 25 residential properties along the alignment. The Childwold Presbyterian Church is approximately 400 feet south of the State Route 3 Sub-Alternate on a local road. The alignment traverses approximately 1,061 linear feet of wetland and would require approximately 6.5 acres of clearing. Potential visual impacts of an overbuild configuration in this area would be incremental and minor because existing poles would be replaced with taller poles to accommodate the existing distribution line and the new 46 kV line and conforms with the concept of consolidation of utilities within corridors as advocated by the APA.

### 3.4.3 Childwold Southern Offset Sub-Alternate

The Childwold Southern Offset starts at reference marker P3 and proceeds southeast of State Route 3 in relatively undisturbed forest for approximately three-quarters of a mile. The alignment then crosses a local roadway and proceeds east for about 2 miles, rejoining State Route 3. The alignment is 14,727 feet in length, traverses 1,678 feet of wetland and results in approximately 25 acres of clearing. Potential visual impact from this alignment that would result from the introduction of ROW in a previously undisturbed area. This would be minimized because most residences and potential viewers are located approximately 2,000 feet north of this alternate along State Route 3.

### 3.4.4 Summary

As a result of the aerial reconnaissance conducted on April 4, 2005, it was determined that the Childwold Northern Offset Sub-Alternate had wetland resources associated with Jocks Pond that represented a constraint to routing at the western end of the offset and eliminated it from further consideration.

The Southern Offset Sub-Alternate was then assessed in comparison to the State Route 3 Sub-Alternate alignment. The Southern Offset Sub-Alternate alignment is approximately 3,000 feet longer than the State Route 3 alignment. Because the Southern Offset is new overhead construction, it would require many more acres of clearing (approximately 25 acres vs. 6 acres). In terms of visual resources, the overbuild construction along State Route 3 represents an incremental change in visibility from the distribution facilities that currently exist. Although not visible from State Route 3, the Southern Offset would introduce a new visual element into an area where there are currently no previously existing utilities, would create a new utility corridor and would leave residential properties in essentially an island between two utility corridors.

Public comments from local residents generally favored following the State Route 3 alignment. The State Route 3 Sub-Alternate represents significantly less clearing and less wetlands traversed. It is approximately 0.6 mile shorter and had support from the majority of Childwold residents commenting at the public open house. Based on the physical analysis and public input, the Childwold State Route 3 sub-alternate alignment was selected and made part of the Sevey Corners to Piercefield segment of the Newton Falls and Stark Falls Alternates.

## 3.5 Gale Sub-Alternate Routes

Sub-alternate alignments were considered in the vicinity of Gale to address potential visual impacts to Catamount Pond and Lake Massawepie located to the southwest of State Route 3 at Gale. This pond and lake are significant water resources in the area as reported by both the APA and local residents. To minimize visual impact to these resources, an alternate route to the northeast of State Route 3 was considered. The two sub-alternate routes are shown on Figure A-2, Map 5 of 11.

### 3.5.1 Gale State Route 3 Sub-Alternate

The Gale State Route 3 Sub-Alternate is proposed as an overbuild along State Route 3 located in approximately the same location as the current distribution lines. The sub-alternate is about 7,300 feet long and traverses 322 linear feet of wetland. Eight cultural resources were identified along this sub-alternate that may warrant further investigation. The proposed overbuild would be visible primarily from Catamount Pond and possibly from Massawepie Lake.

### 3.5.2 Gale By-Pass Sub-Alternate

The Gale By-Pass Sub-Alternate leaves State Route 3 at approximately reference marker P6.5 and passes cross-country 2,500 feet northeast of Gale. The alignment traverses some mature forest but the majority of the alignment is located in logged upland and adjacent to the Town of Altamont sand and gravel pit. The route is 4,280 feet in length (over 3,000 feet shorter than the Route 3 Sub-Alternate), does not traverse wetlands, and would be substantially invisible to Massawepie Lake and Catamount Pond.

### 3.5.3 Summary

Although the Gale By-Pass Sub-Alternate is all new overhead construction, it is almost 3,000 feet shorter than the State Route 3 Sub-Alternate and does not traverse wetlands. The By-Pass will also avoid placement of overbuild structures in close proximity to Catamount Pond, thus avoiding potential visual impacts to that water resource and to Massawepie Lake. Additionally, public comment generally indicated a preference for the Gale By-Pass Sub-Alternate. One comment favored this alignment because it took advantage of the Town of Altamont sand and gravel pit as a routing opportunity and another because it had less potential for impact visual resources related to Catamount Pond and Massawepie Lake. Based on this analysis, the Gale By-Pass Sub-Alternate Route was selected and made part of the Sevey Corners to Piercefield segment of the Newton Falls and Stark Falls Alternates.

## 3.6 Raquette River Sub-Alternate Routes

State Route 3 follows the Raquette River about 1 mile northeast of Piercefield. In this location the roadway is approximately 250 feet from the river and the slopes are quite steep resulting in erosion in some locations. NYSDOT has indicated that they are planning a roadway project in this area by 2010 to improve the slope stability. Additionally, the Raquette River is pending classification as a primitive area by the APA. A bypass was suggested as a means of minimizing visual intrusion to the Raquette River and to avoid the slope stability issues along State Route 3. The Raquette River State Route 3 Sub-Alternate Route and the Raquette River By-Pass Sub-Alternate Route are shown on Figure A-2, Map 5 of 8.

### 3.6.1 Raquette River State Route 3 Sub-Alternate

The Raquette River State Route 3 Sub-Alternate Route alignment borders approximately 3,400 feet of an APA land use area pending classification by the APA as Primitive along the Raquette River. The existing distribution line is on the eastern side of Route 3 closest to the river. The alignment is 5,720 feet in length and results in crossings of 100 feet of wetland. The line is overbuild configuration in this area and would be visible from the river.

### 3.6.2 Raquette River By-Pass Sub-Alternate

The Raquette River By-Pass Sub-Alternate Route is located between P10 and P11, north and west of State Route 3. It is upslope and approximately 200 to 1,000 feet to the south and west of the State Route 3 alignment. The alignment is 5,129 feet in length, would require approximately 8.8 acres of clearing and would traverse a minimal amount of wetland (33 linear feet). The alignment follows an existing jeep trail and comes in close proximity to one residence. The alignment would be substantially invisible from the Raquette River.

### 3.6.3 Summary

The By-Pass was considered a way of avoiding severe slope conditions on the east side of State Route 3 in this area. The NYSDOT encouraged use of the By-Pass in this area, anticipating a planned reconstruction of this portion of State Route 3 in 2010. Although the Raquette River By-Pass sub-alternate is overhead construction on new ROW, has approximately three additional acres of clearing and comes in close proximity to one residence, it was selected to be made part of the Sevey Corners to Piercefield segment of the Newton Falls and Stark Falls Alternates to mitigate a difficult slope condition along State Route 3 and to remove it from close proximity to the pending primitive land use classification area along the Raquette River and the potential for visual impact to this area.

### **3.7 Piercefield Sub-Alternate Routes**

Three sub-alternate routes to the existing Piercefield Substation were considered to minimize potential visual impact in the hamlet of Piercefield (Figure A-2, Map 5 of 11).

#### **3.7.1 Piercefield State Route 3 Sub-Alternate**

The initial pre-feasibility alignment followed State Route 3 east and south along the southern perimeter of Piercefield and then north and west along Pumphouse Road into the existing Piercefield Substation. This alignment is 6,869 feet in length, crosses 3,335 linear feet of wetland, and would require approximately 8.8 acres of clearing.

#### **3.7.2 Piercefield Main Street Sub-Alternate**

The Piercefield Main Street Sub-Alternate starts at reference marker P11 and diverges onto Main Street, an east-west local road as overbuild. This alignment is 3,959 feet in length and crosses 272 linear feet of wetland and would require 2.8 acres of clearing.

#### **3.7.3 Piercefield By-Pass Sub-Alternate**

The Piercefield By-Pass Sub-Alternate generally follows the same alignment as the Main Street Sub-Alternate for the first 1,000 feet. After the alignment crosses a tributary to the Raquette River, it veers slightly north and passes through a materials storage yard and refuse disposal area, downslope of the playground located on Main Street and past a cultural resource site of abandoned mill/industrial foundations before entering the Piercefield Substation from the west. This alignment is approximately 3,800 feet in length, crosses approximately 108 linear feet of wetland and would require 4.0 acres of clearing. This alignment is located the furthest from residential properties within Piercefield.

#### **3.7.4 Summary**

The State Route 3 Sub-Alternate was replaced early in the planning process by the Main Street alignment because the latter shortened the route by approximately one-half mile by passing directly along Main Street in Piercefield and entering the Piercefield Substation area from the south. Further field investigation revealed a third potential alignment that partially follows the Main Street alignment and then continues on new ROW north of and downslope from Main Street,

The Main Street alignment represented a viable alternate to the State Route 3 alignment for several reasons. It was considerably shorter (approximately 2,900 feet), avoided close proximity to the Raquette River along Pumphouse Road and avoided the need to clear vegetation in equally close proximity to the river. The Piercefield State Route 3 alignment was dropped from further consideration at this point. The overriding advantage of the By-Pass, however, was the engineering advantages of entering the Piercefield Substation site from the west, providing a better entrance into the proposed Regulator Station. The By-Pass was selected to be made part of the Sevey Corners to Piercefield segment of the Newton Falls and Stark Falls Alternates primarily because of the engineering advantage and also because it does not introduce any incremental visual impacts to the playground or residents on Main Street.

## **4.0 IDENTIFICATION OF PREFERRED AND ALTERNATE ROUTES**

### **4.1 Introduction**

Selection of sub-alternates as described in Section 3.0 resulted in two alternate routes, the Stark Falls Alternate Route and the Newton Falls Alternate Route. A comparative analysis of these two alternate routes was then conducted to determine advantages and disadvantages of one versus the other taking into consideration environmental, engineering and cost related factors. The purpose of this analysis was to determine which of the two alternates is the Preferred Route and which will be the Alternate Route. The Preferred Route represents the alignment that is considered to be most advantageous when collectively considering all analysis factors. The Alternate Route represents a feasible, although not preferred, option that the applicant would be prepared to build if selected. This comparative information is presented in Table 4-1 and described in detail in this section. The location of the Preferred and Alternate Routes is found on Figure A-3, Maps 1-8.

### **4.2 Configuration and Cost**

The Stark Falls Alternate total length of 26.8 miles is 1.4 miles shorter than the 28.2-mile total length of the Newton Falls Alternate. The Stark Falls Alternate includes 15.6 miles of overbuild construction versus 9.5 miles on the Newton Falls Alternate, representing almost 60 percent of the Stark Falls Route as being in line with APA's policy regarding consolidation of visual intrusion factors such as multiple utility structures. The Stark Falls Alternate has 11.2 miles of new ROW construction versus 18.4 miles for Newton Falls. This equates to 7.7 fewer miles of new ROW construction along the Stark Falls Alternate and 54 fewer acres cleared including 6.4 fewer acres of wetland clearing. The Stark Falls Alternate has approximately 15.6 miles of proposed ROW that is adjacent to existing paved roadway versus 9.5 miles for Newton Falls. There is also approximately half as much cross country ROW being proposed along the Stark Falls Alternate as there is along the Newton Falls Alternate. The Stark Falls Alternate will not involve any underground portion whereas the Newton Falls Alternate, because it involves a crossing of the South Branch Grass River, an APA designated scenic river, will require an approximate 1,900-foot bore and open trench construction to pass under the river adding an approximate \$1.9 million cost to the Newton Falls Alternate Route. Overall cost of construction (not including ROW acquisition, licensing and other associated costs) of the Newton Falls Alternate Route is approximately \$11.5 million versus \$8.9 million for the Stark Alternate.

The advantages of the Stark Falls Alternate in terms of configuration and cost are clear. The Stark Falls Alternate overall length is shorter and has more than 6 more miles of overbuild where consolidation of multiple utility structures reduces visual impact and where close proximity to existing roads minimizes construction related impacts. The Stark Falls Alternate shorter length and predominance of overbuild ROW configuration results in significantly fewer acres of clearing and contributes significantly to more than six fewer acres of effected wetlands. The Stark Falls Alternate also has the advantage of being \$2.6 million less costly than the Newton Falls Alternate.

### **4.3 Ecological Resources**

Several ecological factors were considered in determining the advantages and disadvantages of one alternate route over another. Ecological resources assessed included acreage of wetlands effected, amount of forested wetland and non-forested wetland cover type, amount of clearing, including forested uplands, rare, threatened and endangered species habitat, exploitably vulnerable species, rare/special concern species and streams and rivers crossed.

**Table 4-1: Newton Falls – Stark Falls Alternative Analysis**

Description	Route			
		Stark Falls Piercefield		Newton Falls Piercefield
<b>Total Length</b>	+	<b>26.8 mi.</b>	-	<b>28.2 mi.</b>
<b>Configuration</b>				
Overbuild	+	15.6 mi.	-	9.5 mi.
New ROW miles <sup>1</sup>	+	11.2 mi.	-	18.4 mi.
Underground	+	0.0 mi.	-	0.4 mi.
Adjacent to Existing Roads	+	16.2 mi.	-	9.5 mi.
<b>Land Use</b>				
Hamlet	-	0.7 mi.	+	1.3 mi.
Moderate Intensity	-	2.3 mi.	+	2.9 mi.
Low Intensity	+	0.5 mi.	+	0.5 mi.
Rural	-	12.0 mi.	+	3.9 mi.
Resource Management	+	9.9 mi.	-	19.4 mi.
New Utility Corridor	+	10.7 mi.	-	18.4 mi.
Consolidation of Utility Corridors	+	15.6 mi.	-	9.5 mi.
<b>Ecological</b>				
Wetland – Temporary Impact	+	3.0 mi.	-	3.1 mi.
Clearing	+	13.7 acres	-	20.2 acres
Cover Type Forested <sup>2</sup>	+	10.7 acres, 2.1 mi.	-	12.8 acres, 1.8 mi.
Cover Type Non-forested <sup>3</sup>	+	2.9 acres, 0.9 mi.	-	7.5 acres, 1.3 mi.
Wetland – Permanent Fill	+	7,930 square feet	-	13,995 square feet
Total Acres Cleared/Upland and Wetland		119.4 acres		173.5 acres
Stream Crossings < 5 feet	+	22	-	31
Stream Crossings > 5 feet	+	9	-	10
High Quality Stream Crossings <sup>4</sup>	+	13	-	30
T&E Species	+	2	-	3
Rare/Special Concern Species	-	2	+	1
Exploitably Vulnerable Species <sup>5</sup>	-	15	+	10
<b>Visual</b>				
Overbuild	+	15.0 mi.	-	9.5 mi.
New ROW <sup>6</sup>	+	11.2 mi.	-	17.7 mi.
Cross Country only	+	5.6 mi.	-	12.2 mi.
Sensitive Crossings	+	0.0 mi.	-	3 mi. <sup>7</sup>
<b>Cultural</b>				
Surface Sites	+	21	-	26
No Recommended Testing	+	16.0 mi.	-	13.2 mi.
Phase IB Testing or Avoid	+	5.2 mi.	-	6.7 mi.
<b>Direct Cost<sup>8</sup></b>	+	<b>\$8,900,000</b>	-	<b>\$11,500,000</b>

Notes:

- <sup>1</sup> Includes new overhead, cross country, and offset.
- <sup>2</sup> Includes any wetland that contains a PFO component.
- <sup>3</sup> Includes any wetland that contains no PFO component.
- <sup>4</sup> Based on stream classifications according to best usage under 6 NYCRR Part 701 as follows:  
     Class A: waters are suitable for drinking, primary and secondary contact recreation and fishing,  
     Class B: waters are suitable for primary and secondary contact recreation and fishing, and for the survival and propagation of fish  
     Class C: waters are suitable for fishing and the survival and propagation of fish.  
     \* Does not include Class D streams.
- <sup>5</sup> Total number of exploitably vulnerable species observed during field efforts, not the number of occurrences of each species. Exploitably Vulnerable listed species are native plants that are not necessarily rare or uncommon, but may be desirable for commercial use and could become rare, threatened, or endangered if subjected to unchecked commercial exploitation.
- <sup>6</sup> Includes offset, new overhead and cross-country.
- <sup>7</sup> Grass River crossing underground and substantially invisible.
- <sup>8</sup> Does not include costs for Licensing/Permitting support, right-of-way-acquisitions or easements, or Detailed Engineering and Design.
- (+) Favors selection of route.
- (-) Does not favor selection of route.

The Stark Falls Alternate has several ecological advantages. The Stark Falls Alternate would temporarily affect a total of 13.7 acres of wetlands versus 20.2 acres along the Newton Falls Alternate. This 7.5-acre difference in total acres of wetlands impacted represents a 32 percent reduction and is a significant advantage of the Stark Falls Alternate. Additionally, the Stark Alternate would permanently fill 7,930 square feet of wetlands versus 13,995 square feet of wetlands for the Newton Falls Alternate. In terms of wetlands cover type, the Stark Falls Alternate impacts 2 less acres of forested wetlands and 4.6 less acres of non-forested wetlands.

The Stark Falls Alternate has 9 fewer stream crossings including 6 fewer high quality streams, two fewer stream crossings greater than 5 feet in width, and 9 fewer stream crossings less than 5 feet in width.

Also, there is one less occurrence of threatened and endangered species habitat found to occur along the Stark Falls Alternate than on the Newton Falls Alternate. Finally, the Stark Falls Alternate does not cross any designated “wild, scenic or recreational rivers,” greatly reducing the potential for impacting these important resources.

There are some ecological advantages to the Newton Falls Alternate including five fewer observations of exploitably vulnerable and rare/special concern species. These factors, although present, are not considered key discriminating factors to this analysis.

The Stark Falls Alternate was found to have advantages in 8 of the ten ecological categories considered. It was found to have significant ecological advantages over the Newton Falls Alternate, particularly related to the 6.5 fewer acres of wetlands affected, crosses half the number of high quality streams than does Newton Falls and overall, crosses a significantly lower number of streams in total than does the Newton Falls Alternate, thereby minimizing the potential for impact. The Stark Falls Alternate does not cross any major designated rivers thus minimizing the potential for diminishing scenic or recreational values with the Park. This alternate takes maximum advantage of existing utility corridors thus reducing clearing and access requirements, reducing the potential for impacting wetlands and water resources and minimizing intrusion into previously undisturbed areas.

#### **4.4 Visual Resources**

Visual impact is assessed in terms of the anticipated change in visual resources, including whether there would be a change in character or quality of the view with respect to significant scenic and aesthetic resources. The Project has been routed and designed to minimize visual effects and impacts.

Of the 26.8-mile overall length of the Stark Falls Alternate (including the 9.8-mile segment from Sevey Corners to Piercefield), 6.4 miles will be cross-country with little opportunity for the general public to view the proposed facilities. Segments of the cross-country route may be visible to recreational users, such as hikers, hunters, and snowmobilers, depending on their locations and direction of travel. A 1.0-mile segment of this line will be offset from the road 200 feet, with minimal visual impact. There are five locations where the new line route will diverge from the State Routes 56 and 3 and create open views down the ROW. Retaining or preserving existing vegetation where possible can reduce this effect. There are two locations where a new overhead road crossing will be necessary. The remainder of the line is 15.6 miles of roadside overbuild. The visual affect of replacing existing structures with overbuild structures and increasing the corridors widths will result in minimal overall visual impact.

Of the 28.2-mile overall length of the Newton Falls Alternate (including the 10.5-mile segment from Sevey Corners to Piercefield), approximately 18.7 miles, including cross-country and offset segments, will not be visible to the general public. Segments of the cross-country route may be visible to recreational users, such as hiker, hunters, and snowmobilers, as discussed above.

The Newton Falls Alternate would, overall, be less visible than the Stark Falls Preferred. However, when considering visual impact, it is important to consider the conditions and characteristics of both routes in

order to assess overall visual impact. The Stark Falls Preferred contains more of the overbuild segments, which constitutes a consolidation of visual intrusions. The Newton Falls Alternate requires much more new ROW than the Stark Falls Alternate, and includes several visually sensitive water crossings including the Oswegatchie River and South Branch Grass River. Overall, the Newton Falls Alternate increases the potential for visual impact to those enjoying the natural resources of the Adirondack Park. Therefore, even though the Stark Falls Alternate Route would be more visible to the general public, the Newton Falls Alternate Route creates a greater overall loss of recreational and visual character, by constructing new lines and crossings where there previously were none.

Any comparison between the Stark Falls and Newton Falls Alternates must consider type of viewers and landscape quality, as well as pure visibility. While more viewers will see the replacement poles along 15.6 miles of the Stark Falls Alternate, this will be overbuild structures in an area where structures already exist. As a consolidation of elements, with no appreciable change in landscape character or quality, this can be classified as “substantially invisible,” as defined by the APA’s Towers & Tall Structures Policy.

Conversely, the Newton Falls Alternate Route introduces new and man-made elements into the existing landscape character. While efforts have been made to offset and minimize the effects of the new line, certain road and river crossings are unavoidable.

Considering the potential impacts to existing landscape quality created by the power line being introduced into areas currently devoid of utility structures, the Stark Falls Alternate Route is the Preferred Route and will have less visual impact potential than the Newton Fall Alternate.

#### **4.5 Cultural Resources**

The Newton Falls Alternate may have greater potential cultural resource sensitivity based on the greater number of observed surface sites, that being 26 sites on the Newton Falls Alternate versus 21 sites on the Stark Falls Alternate. The Newton Falls Alternate has a larger area recommended for avoidance or Phase 1B testing (approximately 6.7 miles) than does the Stark Falls Alternate (5.2 miles). The Newton Falls Alternate also includes the Windfall Road area in the Town of Colton that may have historical significance as cited in the Phase IA Cultural Resource Investigation, Appendix C.

Overall the Stark Falls Alternate Route is considered less sensitive from a cultural resource standpoint than is the Newton Falls Alternate because of a greater amount of upland area and less riverfront area. It also has the advantage of approximately 3 more miles of ROW that is not being recommended for Phase 1B testing and approximately 1.5 fewer miles of ROW that is recommended for avoidance or Phase 1B testing.

#### **4.6 Land Use**

Both the Stark Falls and Newton Falls Alternates traverse Hamlet Areas land use classification where APA considers public utilities as a primary compatible land use. Both Alternates also contain moderate intensity, low intensity, rural use and resource management land use classifications where public utilities are considered a secondary compatible use.

The Newton Falls Alternate has a modest advantage in having 0.6 miles more Hamlet Area land use classification where the proposed line is considered compatible with these growth centers within the Park. This alternate also has an advantage in having 0.6 miles more Moderate Intensity Use Area where public utilities are considered a secondary compatible land use.

The advantage of the Stark Falls Alternate is found in the two land use classifications of Rural Use and Resource Management. Here, the combined total of these two classifications for the Stark Falls Alternate is approximately 4 miles less than the Newton Falls Alternate. Because these land use classifications are

intended to preserve open space and protect sensitive physical and biological resources within the Park, the Stark Falls Alternate has the advantage of minimizing potential effects on these resources.

Because the APA considers public utilities as either a primary or secondary compatible land use within the park, the advantage of how each alternate takes best advantage of existing utility ROW's in the Park was also considered. The Stark Falls Alternate is more compatible with land uses in the Adirondack Park due to the greater use of existing utility corridors along State Route 56 and State Route 3. Approximately 60 percent of the Stark Falls Alternate is located along existing utility corridors versus approximately 30 percent for the Newton Falls Alternate. The Stark Falls Alternate has greater opportunity to consolidate the proposed line with existing distribution lines, is more in conformance with APA planning guidance and is therefore preferred in terms of land uses within the project area and within the Park.

#### **4.7 Selection of the Preferred Route**

The Stark Falls Alternate was selected as the Preferred Route because it is advantageous for most of the factors considered in the comparative analysis, including overall length, configuration and cost, land use, ecological resources, visual and cultural resources. The configuration of the proposed facilities on the Stark Falls Route takes maximum advantage of consolidating public utilities within existing public utility corridors following the planning guidance put forth by the APA. The Stark Falls Route follows 15.6 miles of existing ROWs or 60 percent of the total length of the line. Because these existing ROWs are primarily along paved state roadways, the Stark Falls Route can take maximum advantage of proximity to existing roadways during construction, maintenance and operation of the line and minimizes the need to maintain access into less accessible areas.

From an ecological perspective, the Stark Falls Alternate has a significant advantage in terms of 6.4 fewer acres of wetlands affected. When compared, the Stark Falls Alternate disturbs approximately 30 percent fewer acres of wetlands than does the Newton Falls Alternate (i.e. 13.5 acres versus 19.9 acres) and crosses significantly fewer streams (30 versus 41), including 12 fewer high quality streams. The Stark Falls Alternate is shorter in length by approximately 2 miles, makes maximum use of existing distribution ROWs and minimizes the overall amount of clearing.

The Stark Falls Alternate maximizes consolidation of visual intrusions within the Park by using overbuild configurations along existing ROWs. This is a significant advantage of the Stark Falls Alternate. By APA definition, as a consolidation of visual elements, with no appreciable change in landscape character or quality, the proposed overbuild facilities could be found to comply with the substantially invisible criterion as defined in the APA Towers & Tall Structures Policy. The Stark Falls Alternate minimizes the introduction of new visual elements into previously undisturbed areas, avoids several visually sensitive areas such as the Oswegatchie and South Branch Grass River and maintains the recreational experience and visual character expected in the Adirondack Park.

The Stark Falls Alternate minimizes the amount of potential impact to cultural resources within the project area. There are fewer surface sites identified along the Stark Falls Alternate resulting from the Phase 1A Cultural Resource Investigation and has fewer areas recommended for further testing during the Phase 1B survey that will be conducted in conformance with the SHPO guidance.

Overall, the Stark Falls Alternate is preferred in most all categories considered and offers clear advantages as the Preferred Route. It is the least impacting from the standpoint of ecological resources, offers considerable advantage in terms of using existing utility corridors, is the least costly by more than \$2.6 million, has the least visual impact and the lowest potential for impacting cultural resources and is most in conformance with APA guidance.

#### 4.8 Stark Falls Preferred Route

The Stark Falls Preferred Route (Preferred Route) is approximately 26.0 miles long. The description for the Preferred Route below is presented in two segments, Stark Falls – Sevey Corners and Sevey Corners - Piercefield.

**Stark Falls – Sevey Corners** – The Preferred Route begins at a new substation to be located approximately 3,100 feet north of Stark on the east side of Raquette River Road. The proposed line exits the substation to the south and west, crossing to west side of Raquette River Road at which point it turns southwest and proceeds about 3300 to the intersection with Joe Indian Road. In this segment (Figure A-3, Map 1 of 8), overbuild wood pole structures will be installed to carry the existing distribution line and the proposed 46 kV line.

From the intersection of Joe Indian Road, the Preferred Route proceeds in a southwesterly direction on new ROW about 3,800 feet to the west side of State Route 56. This is a cross-country section with a 75 feet wide ROW and single circuit 46 kV wood pole structures.

Once on the west side of State Route 56, the Preferred Route continues for about 7.1 miles south adjacent to State Route 56. In this segment, the existing distribution line and the proposed 46 kV line will be carried in an overbuild configuration on wood pole structures.

After 7.1 miles, the Preferred Route leaves State Route 56 and proceeds westerly on a new ROW around the existing Raquette Boreal State Forest Preserve parcel and back to State Route 56 about 1.2 miles north of Sevey Corners as shown on Figure A-3, Map 3 of 8. Along this segment of the alignment, the route passes south and then southwest on new ROW passing north of Crooked Lake for just over 2 miles to the western boundary of the State Forest Preserve as shown on Figure A-3, Map 3 of 8. At the western end of the State Forest Preserve, the route turns southwest, southeast and then east on new ROW for approximately 4.2 miles crossing to the east side of State Route 56 about 1.2 miles north of Sevey Corners. Approximately 3.3 miles of this 6.2-mile segment are situated along an existing logging road. The entire 6.2 miles of this portion of the alignment will be carried on single circuit 46 kV structures.

Once on the east side of State Route 56, the proposed line, using overbuild wood pole structures turns south and continues about 0.8 miles parallel and offset 200 feet from the highway. Just north of Sevey, the Preferred Route turns southeast and proceeds cross country on single circuit, 46 kV wood pole structures on 75 feet of new ROW to join State Route 3 about 0.6 miles east of its interconnection with State Route 56 Figure A-3 Map 4 of 8.

**Sevey Corners – Piercefield** – This segment, which is common to both the Preferred and Alternate Route, is approximately 9.5 miles long. From its beginning on the north side of State Route 3, approximately 0.7 miles east of its intersection with State Route 56, the Preferred Route continues for 4.5 miles in an overbuild configuration to a point about 2,800 feet north of Gale (Figure A-3, Map 4 of 8). At this point, the proposed 46 kV line passes southeast on new ROW (Figure A-3, Map 5 of 8) for approximately 4,300 feet to rejoin State Route 3 south and east of Gale. From this intersection, the Preferred Route parallels State Route 3 for about 2.7 miles to a location 2,800 feet southeast of Dead Creek. At this point, the route leaves State Route 3 to avoid extremely steep slopes and traverses 3,800 feet on new 75 foot ROW. The Preferred Route rejoins State Route 3 proceeding into Piercefield and the Piercefield Substation first in an overbuild arrangement (2,200 feet) and then on new ROW (1,500 feet).

#### **4.9 Newton Falls Alternate Route**

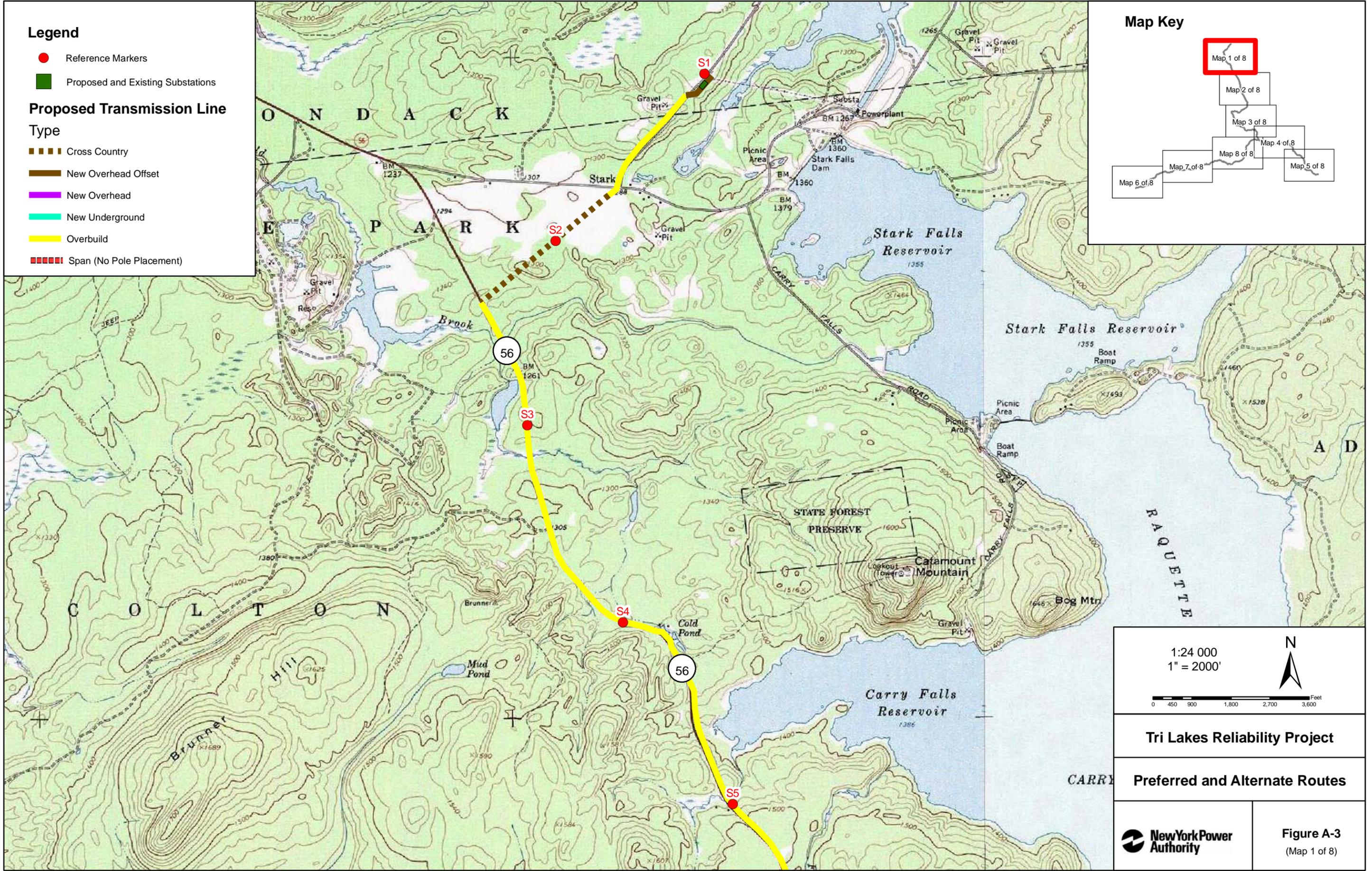
The Newton Falls Alternate Route (Alternate Route) is comprised of two segments including Newton Falls-Sevey Corners and Sevey Corners-Piercefield, together totaling 28.1 miles.

**Newton Falls – Sevey Corners** – The Alternate Route begins at the new Newton Falls Substation west of Newton Falls and proceeds east for about 1.2 miles in an overbuild configuration (Figure A-3, Map 6 of 8) through Newton Falls and on to River Road. The route continues northeast for about 0.6 mile offset 200-300 feet on the south side of River Road to a location where the route angles northward and crosses River Road and the Oswegatchie River. The river in this location is less than 200 feet wide. From River Road, this alternate route proceeds cross-country north and east for approximately 2.6 miles before crossing Tooley Pond Outlet. This segment passes through woodlands to the west of Crane Pond, 1,000 to 3,500 feet from River Road. After crossing Tooley Pond Outlet, the Alternate Route joins the north side of River Road about 1500 east of its crossing of the Outlet. The route parallels the north side of River Road for about 2.0 miles to the west side of Cooks Corners. The Alternate then proceeds for about 1,700 feet to Tooley Pond Road in an overbuild configuration.

East of Tooley Pond Road (Figure A-3, Map 7 of 8), the Alternate Route traverses cross-country for 0.8 miles east to an existing snowmobile trail. This route continues east generally following the snowmobile path for 5.4 miles where it then turns north along State Route 3. In this segment, the Alternate Route would cross the South Branch Grass River underground via a directional bore and trenching outside of the sensitive river shoreline area with the remainder of new ROW utilizing single circuit wood pole structures.

The Alternate Route begins to parallel the west side of State Route 3 approximately 700 feet northeast of the State Route 3 crossing of the South Branch Grass River and remains on new ROW (Figure A-3, Map 8 of 8) parallel and offset 100-900 feet from State Route 3 for 4.6 miles (Figure A-3, Map 7 of 8) to a location 3,400 feet beyond Sevey Corners where the Alternate goes to an overbuild for approximately 1,500 feet (Figure A-3, Map 8 of 8). Here it intersects the Sevey Corners – Piercefield segment.

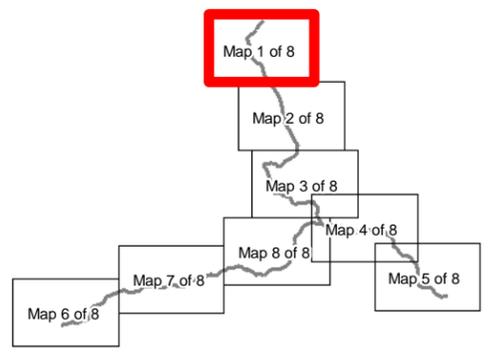
The remainder of this Alternate Route follows the same alignment as described for the Sevey Corners – Piercefield segment of the Preferred Route.



**Legend**

- Reference Markers
  - Proposed and Existing Substations
- Proposed Transmission Line Type**
- Cross Country
  - New Overhead Offset
  - New Overhead
  - New Underground
  - Overbuild
  - Span (No Pole Placement)

**Map Key**



1:24 000  
1" = 2000'



**Tri Lakes Reliability Project**

**Preferred and Alternate Routes**



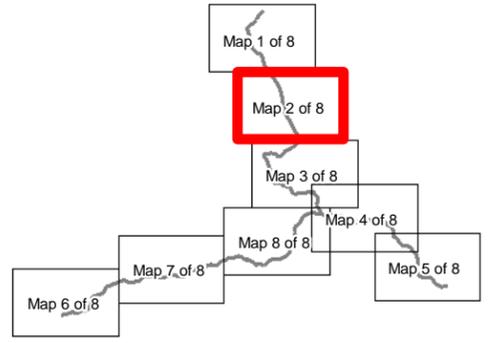
**Figure A-3**  
(Map 1 of 8)



**Legend**

- Reference Markers
  - Proposed and Existing Substations
- Proposed Transmission Line Type**
- Cross Country
  - New Overhead Offset
  - New Overhead
  - New Underground
  - Overbuild
  - Span (No Pole Placement)

**Map Key**



1:24 000  
1" = 2000'

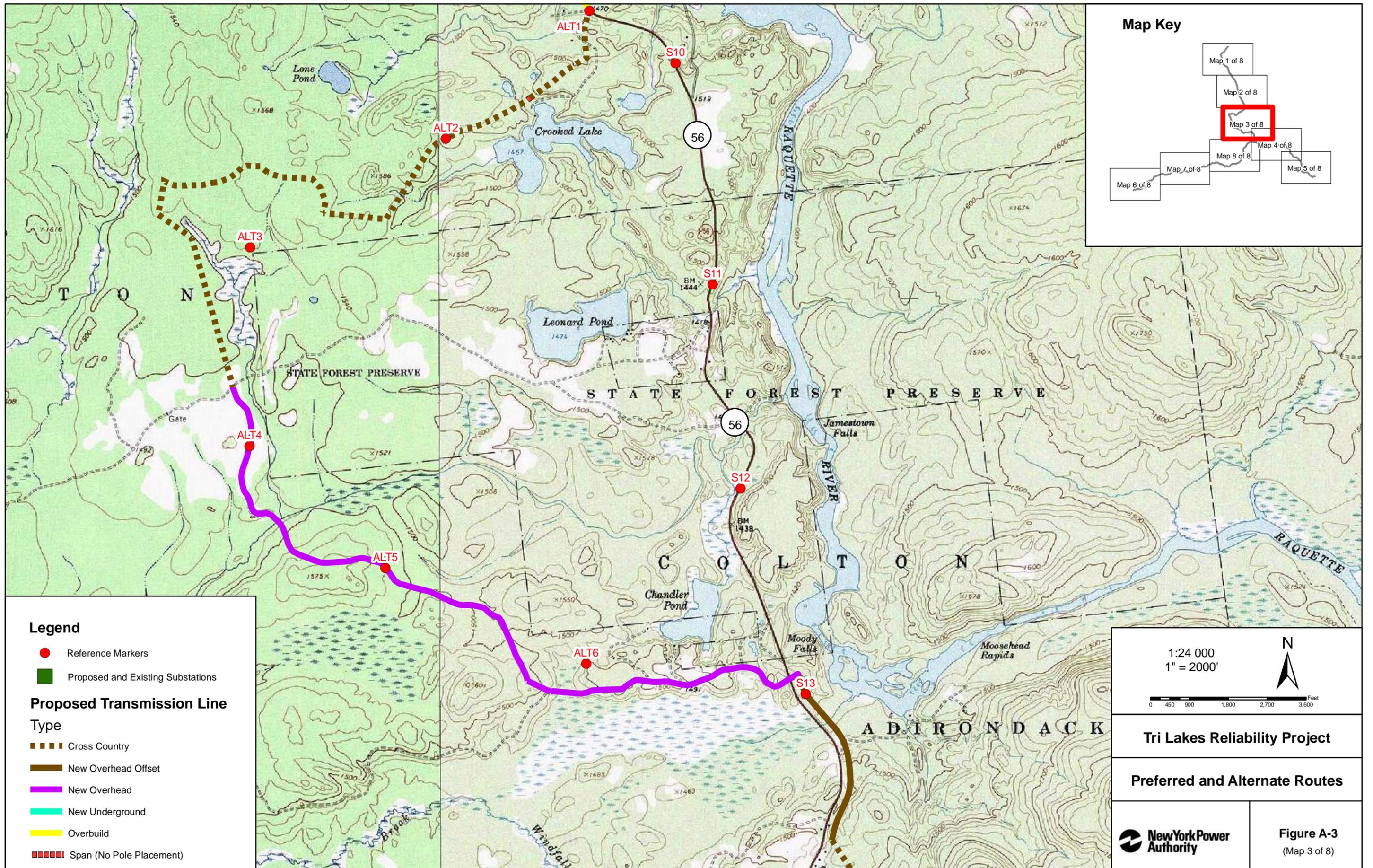


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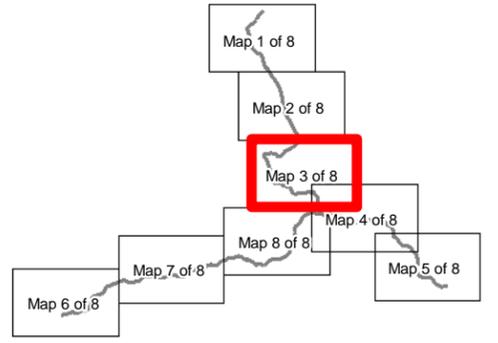
**Preferred and Alternate Routes**



**Figure A-3**  
(Map 2 of 8)



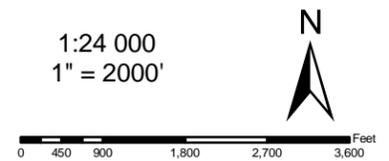
**Map Key**



**Legend**

- Reference Markers
  - Proposed and Existing Substations
- Proposed Transmission Line Type**
- Cross Country
  - New Overhead Offset
  - New Overhead
  - New Underground
  - Overbuild
  - Span (No Pole Placement)

1:24 000  
1" = 2000'



**Tri Lakes Reliability Project**

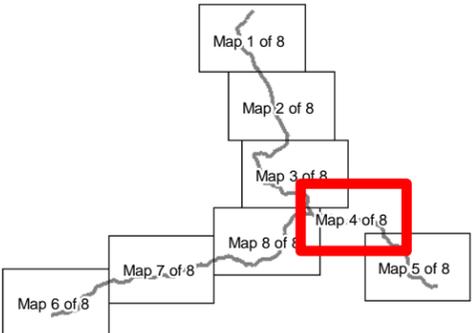
**Preferred and Alternate Routes**



**Figure A-3**  
(Map 3 of 8)



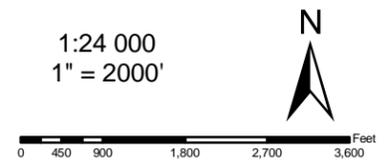
**Map Key**



**Legend**

- Reference Markers
  - Proposed and Existing Substations
- Proposed Transmission Line Type**
- Cross Country
  - New Overhead Offset
  - New Overhead
  - New Underground
  - Overbuild
  - Span (No Pole Placement)

1:24 000  
1" = 2000'

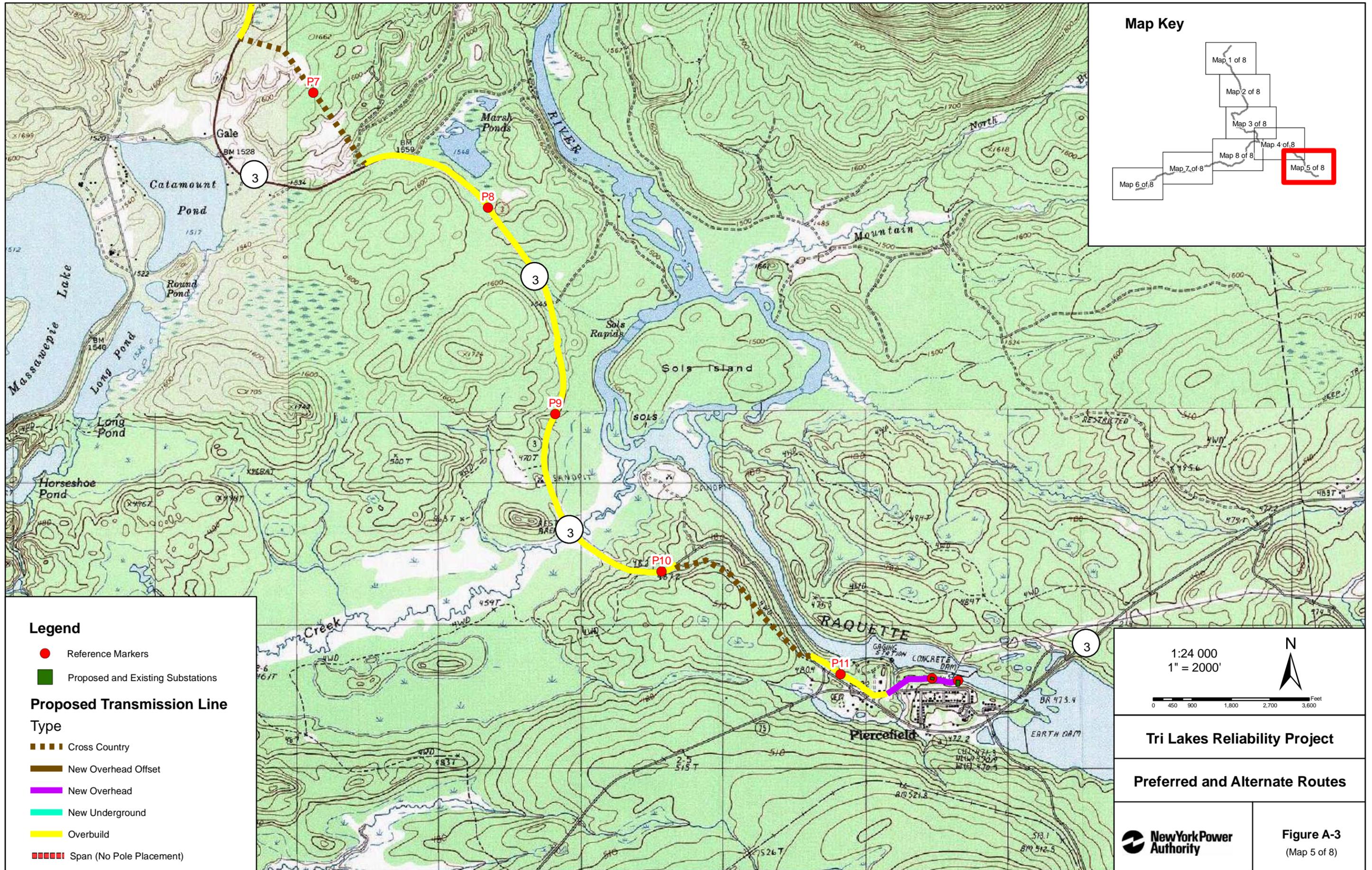


**Tri Lakes Reliability Project**

**Preferred and Alternate Routes**



**Figure A-3**  
(Map 4 of 8)



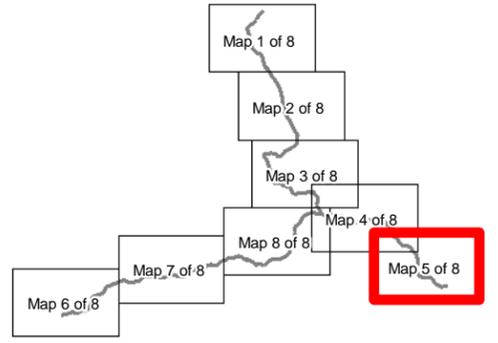
**Legend**

- Reference Markers
- Proposed and Existing Substations

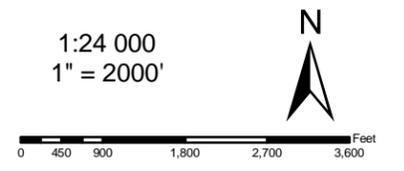
**Proposed Transmission Line Type**

- Cross Country
- New Overhead Offset
- New Overhead
- New Underground
- Overbuild
- Span (No Pole Placement)

**Map Key**



1:24 000  
1" = 2000'

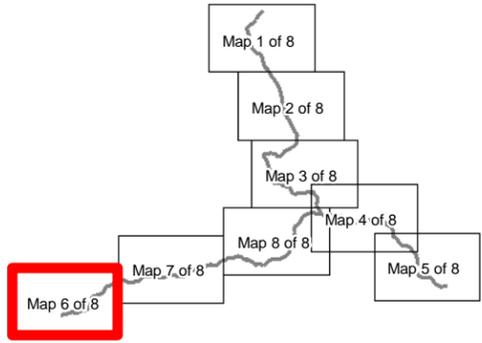
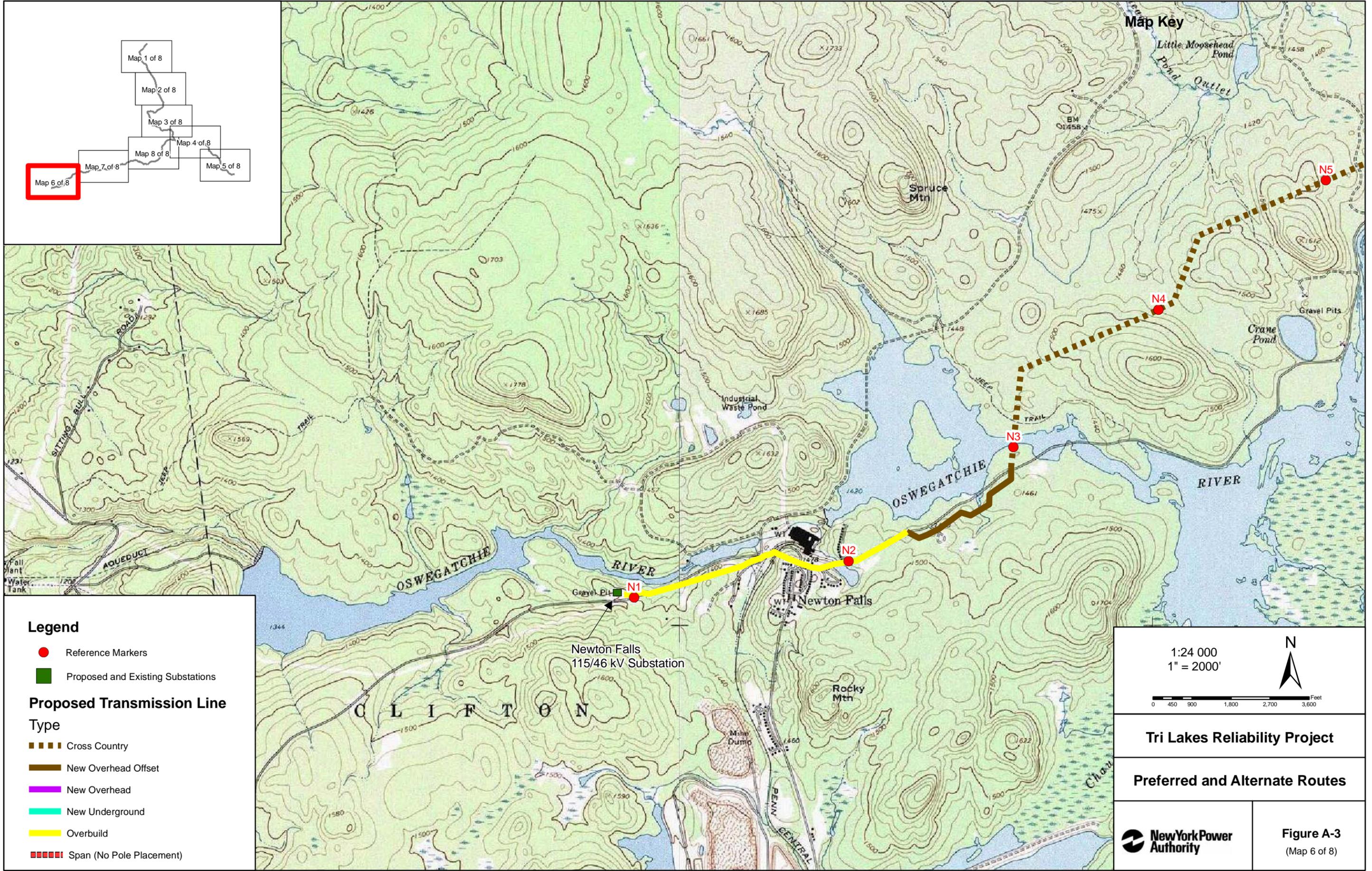


**Tri Lakes Reliability Project**

**Preferred and Alternate Routes**



**Figure A-3**  
(Map 5 of 8)



**Map Key**

**Legend**

- Reference Markers
  - Proposed and Existing Substations
- Proposed Transmission Line Type**
- Cross Country
  - New Overhead Offset
  - New Overhead
  - New Underground
  - Overbuild
  - Span (No Pole Placement)

1:24 000  
1" = 2000'



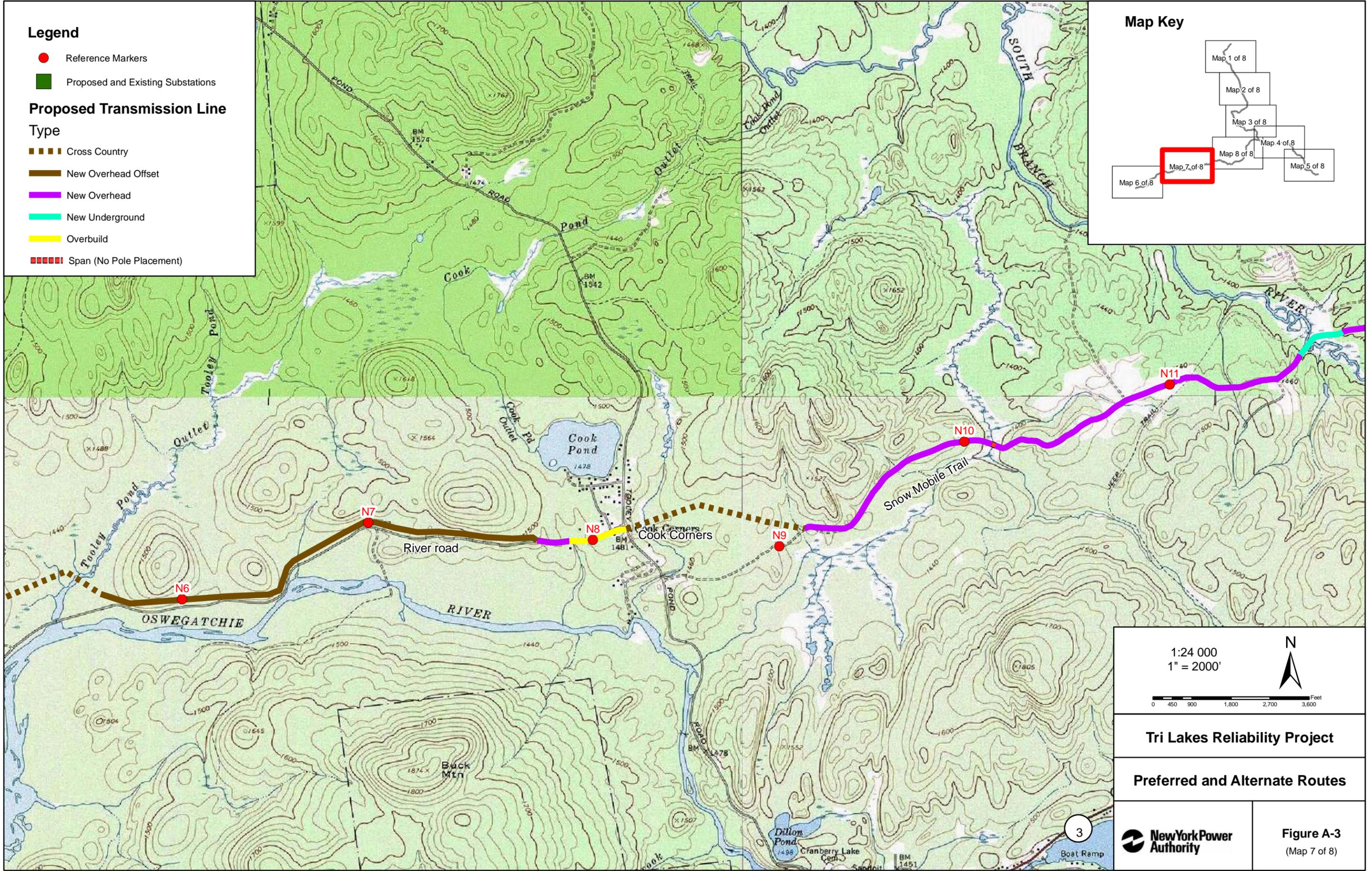
0 450 900 1,800 2,700 3,600 Feet

**Tri Lakes Reliability Project**

**Preferred and Alternate Routes**



**Figure A-3**  
(Map 6 of 8)



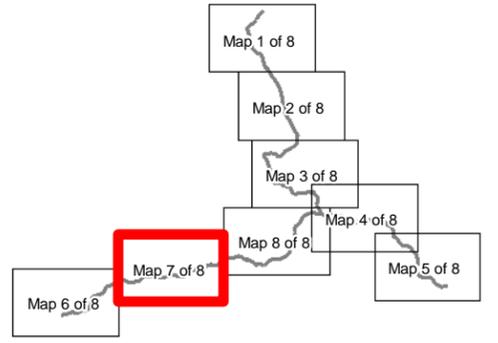
**Legend**

- Reference Markers
- Proposed and Existing Substations

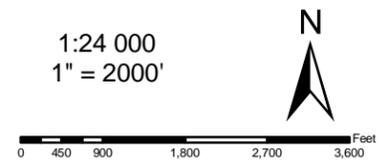
**Proposed Transmission Line Type**

- Type
- Cross Country
  - New Overhead Offset
  - New Overhead
  - New Underground
  - Overbuild
  - Span (No Pole Placement)

**Map Key**



1:24 000  
1" = 2000'

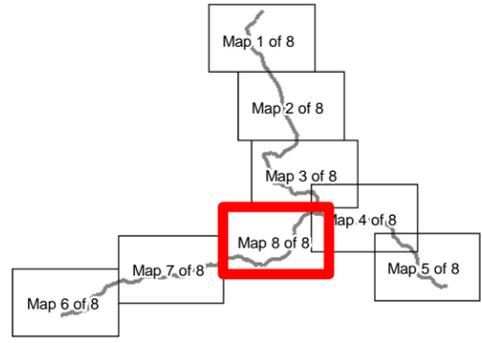
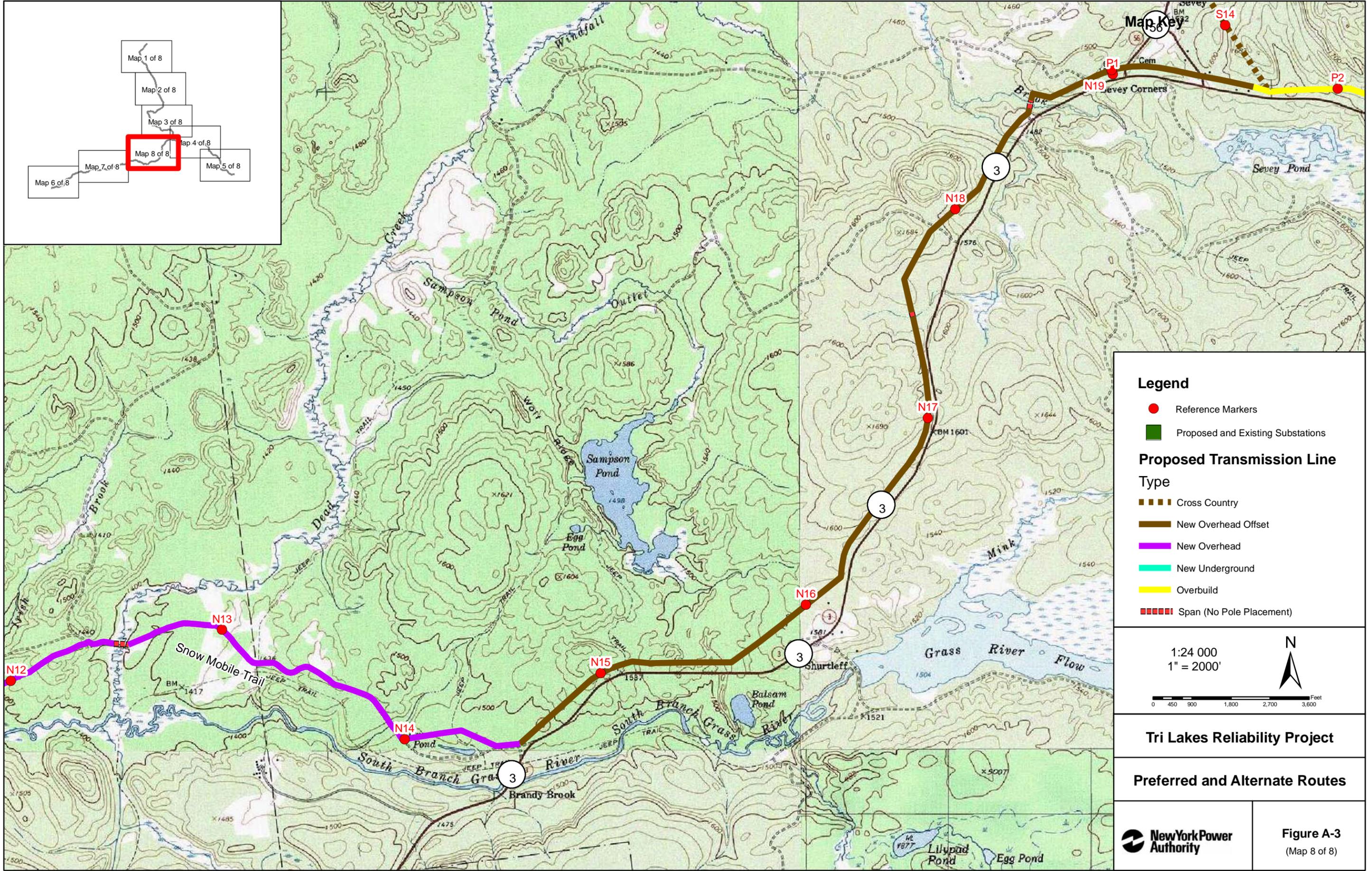


**Tri Lakes Reliability Project**

**Preferred and Alternate Routes**



**Figure A-3**  
(Map 7 of 8)



**Legend**

- Reference Markers
- Proposed and Existing Substations

**Proposed Transmission Line Type**

- Cross Country
- New Overhead Offset
- New Overhead
- New Underground
- Overbuild
- Span (No Pole Placement)

1:24 000  
1" = 2000'

0 450 900 1,800 2,700 3,600 Feet

N

**Tri Lakes Reliability Project**

**Preferred and Alternate Routes**



**Figure A-3**  
(Map 8 of 8)