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French Mountain Roadway – Environmental Assessment

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Introduction

This environmental assessment is intended to provide a review of past environmental impacts and current environmental conditions related to the construction and current existence of an access/logging road system on French Mountain. This road system was constructed from 2004 to 2006, reportedly to facilitate logging operations on the mountain and to provide access to property on the mountain. Resulting from these activities were impacts upon the environment including water quality violations, stream disturbances, and fisheries impacts. Also of public concern were aesthetic impacts from the cutting of a forest roadway which was highly visible from travel corridors. Multiple lawsuits are pending

from these activities undertaken on French Mountain, portions of which seek to identify specific environmental impacts from road construction and logging activities noted above.

The term "environmental impact" is subjective and often based upon individual and societal perception of what constitutes environmental damage. This perception can be broad based and vary greatly from person to person. Any land clearing activity or vegetation modification practice in an undisturbed forest can be seen as having an environmental impact, although standards and laws exist which permit these activities on a daily basis as a part of our society. For the purposes of this report the term "environmental impact" will relate directly to degradations of natural resource conditions including streams, water quality, fisheries, wetlands, and wildlife.

This project was identified by the landowners as a silvicultural (logging) activity with associated roadway construction. When conducted properly, these activities are acceptable practices in the Adirondack Park and across New York State. As such, this report will attempt to gauge how activities on this property were (or were not) conducted as per accepted practices, and what natural resource negative impacts have arisen as a result.

This report does not explicitly evaluate actual or perceived violations of state and local laws regarding development and/or logging activities, nor does it delve into legal approvals of this project. Those analyses are also best left to the regulatory agencies and municipalities involved. Also, the general aesthetic impact of this project (while perhaps significant) is also not dealt with in this report, as aesthetics do not affect natural resource conditions.

Information utilized to come to evaluations and conclusions in this report are as follows:

1. The site tour on April 29, 2008 with the involved parties mentioned above, walking the French Mountain access road from Bay Road (Queensbury) to NYS Route 9 (Lake George).

2. Review of available reports from involved parties including the NYS DEC, Warren County SWCD, Jarrett-Martin Engineers, Towns of Lake George and Queensbury, and the Lake George Waterkeeper.
3. Follow-up discussions with NYS DEC, APA, and municipal codes and planning staff.

Although the Warren County SWCD has had only limited involvement in this issue over time, it is felt that the data gathered through the above means provides enough information to outline both past and current environmental issues related to this project.

Past Environmental Damage

The history and land ownership of this project is complex, and will therefore be left to the appropriate parties to assign responsibility. The focus here will be to identify the resulting outcomes of land clearing and grading activities on the mountain.

Construction of this road began in 2004 on the east side of French Mountain, for the purported dual purposes of access to Mr. Macchio's property, and also to facilitate a logging operation. With the initial construction of this roadway, there was no appropriate plan developed or implemented to address drainage or runoff. There were considerable excavations (cuts) of roadside slopes to generate enough volume of soils to create a roadway (fills). These cuts and fills amount in the thousands of tons, which are not traditionally associated with tree harvesting operations of the size and scale (relatively minor) evidenced on the mountain. As logging had been conducted historically on this mountain with much narrower roadways, there remains the question of the reason for the significant road construction. This report does not seek to answer that question, but only notes the impacts from its construction.

The soils on these areas, per the *Soil Survey of Warren County, NY*, are shown as Bice-Woodstock series, which are shallow to bedrock, steep, and bouldery. This soil classification is supported by the existing conditions post construction, which evidence low-productivity soils and rocky conditions. This becomes a significant factor regarding

stabilization and restoration with vegetation upon completion of roadway and logging operations.

NYS DEC Summary of Involvement

As there was a lack of erosion and sediment control planning and structures implemented when the roadway was constructed, there were significant offsite impacts to adjacent streams. These impacts brought the attention of the NYS Department of Environmental Conservation, who conducted site visits to assess potential contraventions of Environmental Conservation Law (ECL). A “substantial contrast in visible water quality conditions” (i.e. turbidity) was observed by NYS DEC Division of Water staff in Bear Pond Brook, which is a violation of the ECL. The NYS DEC determined that the roadway construction required a NYS DEC State Pollution Discharge Elimination System (SPDES) permit, which requires the development of a Stormwater Pollution Prevention Plan (SWPPP). Jarrett-Martin Engineering, LLC (JME) was commissioned by Mr. Macchio to develop the SWPPP, and to oversee implementation of this plan.

A brief history of NYS DEC involvement on the French Mountain Roadway issue, provided by Bill Lupo, P.E., NYS DEC Region 5 Division of Water, is as follows:

Early June 2004 - *I first became aware of logging road construction on French Mountain when received a telephone call from an attorney's office. The callers were on speaker phone: an attorney (Tom Ulasewicz? or Mike O'Connor?); logger John Barber, Jr.; David Stranahan of Stranahan Industries; and one other person (Macchio?). They called because Queensbury officials had told them that they needed a SPDES permit for their construction activity. Based on their explanation - logging timber and improving an existing logging road - I told them that they did not need coverage under SPDES GP-02-01. The mental picture that they had created for me had a minor environmental impact.*

June 17, 2004 - *At the request of Queensbury officials, I conducted a joint inspection with Dave Hatin and Craig Brown. I was amazed at what we saw. A new road was being constructed in the general vicinity of an existing trail. In the process there were massive cuts and fills which had caused a major environmental impact. I asked them to cease the activity until they obtained SPDES coverage.*

June 29, 2004 - *I made a follow-up site visit with Brian Huyck and Kevin Wood. Road construction had ceased as requested.*

July 1, 2004 - *Believing at the time that logging road construction was not an exempt silvicultural activity, I sent an NOV to Barber, Stranahan and Macchio alleging that they were in violation by not having SPDES permit coverage. The letter asked them to obtain SPDES coverage and warned them that any water quality violations would be strictly enforced.*

August 12, 2004 - I received a complaint that the Bear Pond outlet stream was being impacted by the logging road. I investigated during a heavy rain and confirmed turbidity in the stream. I then walked up the road and witnessed erosion at the road site along with sediment laden runoff flowing into the Bear Pond outlet stream.

August 13, 2004 - I followed up on the previous days investigation to compare Bear Pond outlet's condition to the condition of other streams which flowed off French Mountain but were unaffected by the logging road construction. The Bear Pond outlet was still very turbid but two other streams that I checked were crystal clear.

August 19, 2004 - An NOV was sent to David Stranahan alleging water quality standards violations on August 12 and 13, 2004.

October 13, 2004 - DEC received an NOI from David Stranahan and granted permit coverage under SPDES GP-02-01 for the logging road construction.

January 20, 2005 - DEC executed a Consent Order with Stranahan Industries, Inc. which effectively resolved the water quality violations of August 2004.

2005 - present - DEC periodically received complaints of environmental harm being caused by the logging road construction in the towns of Queensbury and Lake George. We conducted site inspections during this time which did not reveal any major problems. The NOI is still in effect today but it has been transferred from David Stranahan to Bear Pond Trail, LLC c/o Ralph Macchio.

The consent order from the NYS DEC outlined a penalty of \$2,000 for environmental damage. A check in that amount was sent to DEC in satisfaction of that order. There were no other environmental penalties levied by NYS DEC for any issue related to the French Mountain road construction or logging activities. As of the writing of this report, it appears that all NYS DEC environmental concerns related to this project have been addressed and satisfied. However, Mr. Macchio still needs to comply with the provisions in the Stormwater Pollution Prevention Plan as per his permit coverage, which includes maintenance of stormwater and drainage systems associated with the construction activities.

Impacts From Road Construction Activities

The environmental impacts from this project are divided into separate categories for ease of differentiation. These categories include water quality, fisheries, wetlands, and wildlife. Each issue is described separately herein.

Water Quality Impacts

There are three NYS DEC classified streams affected by the road construction efforts on French Mountain. Two of these streams drain east towards Bay Road, and one drains west towards Route 9. Pictured below is Bear Pond Brook (Waterbody Index No. C-143-4-19-19-3), which drains to Dream Lake in the Town of Queensbury. These streams are classified by 6 NYCRR830.4 (Table I) (Item No. 499) as Class AA waterbodies with the standards of AA(T). The "T" denotes trout waters, which will be discussed in the "Fisheries" section.

The classification of AA denotes that the best usages of the stream are: drinking water, primary or secondary contact recreation, and fishing. The waters shall be suitable for fish propagation and survival. The water quality standards for this classification (6 NYCRR 703.2) are that there shall be "no substantial visible contrast to natural conditions" and "wastes shall not cause impairment of the best usages of the receiving water at the location of discharge", among other things.

In the picture noted to the right, Bear Pond Brook had a substantial water quality standards contravention in 2004 resulting from road construction activities on French Mountain. These same conditions were noted on the two other smaller regulated streams on the mountain. High levels of turbidity (sediment suspended in the water)



Turbidity (sediment suspended in the water) is shown in Bear Pond Brook (classified trout stream) in 2004, resulting from road construction activities on French Mountain. Photo: NYS DEC - 2004

are evidenced, and lasted over the period of days or weeks. Similar streams adjacent to this property were reviewed by NYS DEC staff to contrast conditions, and those streams were flowing clear at the time.

Turbidity is traditionally a short-term event resulting from sediment-laden runoff entering waterways. This was the case on French Mountain as well. There is no definitive means to determine the length of the water quality violations, or the impact on the downstream receiving waterbody (i.e. Dream Lake). In addition, there is no easily identifiable means to calculate the volume of sediment which entered these streams, nor is there a direct

means to quantify the environmental impact of turbid conditions. However, the negative impact upon the stream's water quality is obvious, and shows a clear degradation of water quality.

Fisheries Impacts

As noted above, there are three classified trout streams on French Mountain which were affected by road construction activities. With the deposition of sediments (sand, silt, clay) into the streams through the lack of runoff management practices, there is a resulting impact on the ecosystem of these streams. As sediment fills the voids in the gravel substrate of trout streams, there is an impact upon both the fisheries in the stream and the macroinvertebrates (insect larvae) which act to sustain the fish populations as food.

Trout lay their eggs in clean gravels of high quality streams. The eggs receive oxygen from the water which flows past it. If sand and silt is deposited in a trout stream during spawning season, these eggs get smothered and die, resulting in a decline in the year's hatch and subsequent populations. In addition, the insect larvae which live in the gravels and provide food for the trout get buried and smothered as well, leading to a decline in food source and ultimately the populations which can survive in the stream.

Bear Pond Brook is a spawning trout stream, which was heavily impacted by sedimentation from road construction activities on the mountain. From the pictures gathered by the NYS DEC during multiple visits, there was significant sedimentation of Bear Pond Brook and at least one smaller tributary, both classified as "AA(T)" which is the highest water quality classification for a stream. The "T" denotes that the stream is a trout stream by DEC standards.



*Sand and silt washed into streams from road erosion on French Mountain. These streams are NYS DEC classified trout streams. Sediment is shown here embedded in the cobble rock and gravel in the streams.
Photos: NYS DEC - 2004*



Although the significant sedimentation of these streams was very clearly identified, there were no specific studies conducted by any agency to determine the impact on the fishery in Bear Pond Brook or the other tributaries. As such, there is no specific report on trout population decline in this brook. However, there have been personal observations over the past three years by an adjacent landowner (Larry Eichler, Research Scientist, Darrin Freshwater Institute) noting these declines. Mr. Eichler notes the significant filling in of pools and spawning gravels, beginning in 2004. He notes that they have largely washed themselves clean over the past four years, although sediment does remain in pockets of Bear Pond Brook on his property.

Given the lack of a direct fisheries analysis prior to the events and following them, there is no report available on the sedimentation's effect on trout populations. However, it is this office's conclusion, supported by NYS DEC fisheries staff, that the trout populations in Bear Pond Brook and the two other regulated affected streams did suffer negative consequences from sedimentation resulting from road construction activities on French Mountain.

Wetlands and Wildlife Impacts

State wetland regulations and protections in the Adirondack Park are the purview of the Adirondack Park Agency (APA), although there are municipal regulations regarding wetlands as well in the Town of Queensbury. A Jurisdictional Inquiry Form was submitted to the APA by Jarrett-Martin Engineers on behalf of Mr. Macchio in 2007. This resulted in a site visit by Wetlands Biologist Mark Rooks, and Project Review Officer Joe Brilling to determine any protected wetlands violations.

There are numerous pocket wetlands on French Mountain, and one large wetland complex adjacent to Bear Mountain Pond. The road on



French Mountain runs adjacent to a few locations where wetland conditions occur, and some road material sediment was observed having entered into wetland areas. These

sedimentation impacts were seen as minimal, and not having a large impact on any wetland ecosystem or complex.

The larger concern among many involved municipal and environmental parties was the cutting of standing dead timber in the Bear Pond wetland. There is a wetland complex approximately 4-5 acres in size attached to the northeast portion of Bear Pond. This wetland results largely from a beaver dam at the outlet of the wetland/pond system. Within this wetland, there were dozens of standing dead trees. These dead trees were clearcut by a logger associated with Mr. Macchio's logging activities. As of our site walk on April 29th, 2008, I questioned Mr. Macchio as to the purpose of the removal of the trees. He stated that he did not commission these trees to be removed, and was not even aware which logging company had done so.

There was concern from environmental groups (Audubon Society, Lake George Waterkeeper) that this cutting had reduced wildlife habitat (primarily birds), and that it was a violation of wetlands regulations in the Adirondack Park Agency Act. Standing dead timber provides bird habitat (i.e. Great Blue Heron, Osprey, Belted Kingfisher). This action was reviewed by Adirondack Park Agency staff who conducted the site visit.

The APA concluded that the cutting did not violate the provisions of their wetland regulations, which state that up to three acres can be cut in a regulated wetland. They determined that the cutting did not exceed this threshold, and was not a regulatory violation. As such, no remedial action was required to be undertaken by the Adirondack Park Agency from either road construction activities or clearing of standing dead timber in the regulated wetland. This report does not address issues regarding local municipal wetlands and shoreline regulations, or potential violations of those regulations. These issues are the purview of the involved municipalities.

Regarding wildlife impacts other than noted above, this office has seen no documentation of degradation of wildlife as a result of road construction and logging activities on French Mountain. Logging activities when conducted properly can be advantageous to many forms of wildlife, in that new growth occurs which provides food and forage for numerous species. The associated "permanent" access road should not

have a significant impact upon wildlife travel corridors, as it is not a highly traveled roadway. Overall, wildlife impacts on French Mountain from road construction and logging activities is seen as minimal.

Remedial and Restoration Activities Completed to Date

As a result of activities which have led to inappropriate environmental conditions or violated regulations, the landowners have conducted some remedial activities to address these issues. The Warren County SWCD is aware of the following actions undertaken to date:

1. NYS DEC Consent Order: As described above, the NYS DEC executed a Consent Order against a landowner in January, 2005 in response to water quality violations that occurred in August, 2004. The order included a \$2,000 fine that was paid by the landowner. In the interim period between when the violations occurred and when they were resolved by the DEC, the landowner developed a Stormwater Pollution Prevention Plan (SWPPP) which addressed the primary erosion control and stormwater issues from all new roadway construction activities on the mountain. The SWPPP was prepared by Jarrett-Martin Engineers, LLC who also oversaw its implementation on the mountain. To date these activities have been conducted to the satisfaction of the DEC.
2. Town of Lake George Violation: A condition of approval for logging activities in the Town of Lake George was for the landowner to maintain a 20 foot wide no-construction buffer around the streams. This was violated on an approximately 300 foot long section of DEC regulated stream in the Town of Lake George. As such, the Town required the development and implementation of a restoration plan for that section. The landowner commissioned Jarrett-Martin Engineers to work with the Warren County Soil and Water Conservation District, and a plan was put in place. The landowner sloped, topsoiled, and vegetated this bank with multiple seedlings, to the satisfaction of all parties involved.
3. De-commissioning of Roadway up Western Face of Mountain: One of the largest public concerns of this whole issue was the visibility of a new roadway which was constructed up the western face of French Mountain. This road was not only highly visible, it was also highly unstable due to improper drainage and poor soils

conditions. This road was taken out of service and vegetated with many transplanted mid-size trees (1"-4" caliper) and over one hundred tree seedlings. Currently, a stream runs down the road in a relatively stable condition, and the vegetative plantings are doing well. The visibility of that roadway has been reduced and will continue to improve over time as the trees and shrubs grow.

Current Environmental Condition

This section provides a current evaluation of site conditions as they exist as of the writing of this report. The review is primarily focused upon the primary access road over French Mountain and its associated drainage system. Site characteristics and parameters reviewed during the site visit included the following items:

1. Stability and condition of the road surface and shoulder area
2. Effectiveness and status of the road drainage system

Stability and condition of road (East Face)

Site conditions observed on the east face of the roadway were noted as follows:

1. This section of road is in very stable condition, with an average surface width of ten to twelve feet. There are some short sections of this road where the gravel has washed and rutted (average depth of 2-10 inches). This is a routine maintenance issue and should be addressed in the near term to avoid larger washouts.
2. The surface of the road is covered in crushed stone, which has been graded and compacted. This helps to minimize erosion of the roadway and is recommended for erosion control purposes.
3. The shoulders of the roadway are generally well vegetated, and there is little evidence of current or ongoing erosion.



4. The average forest canopy opening for the roadway ranges from 30' up to over 100'. These widths are largely based upon the amount of area required to obtain fill to construct the road.
5. From a natural resources perspective, this roadway is seen to be in good working condition for a long-term use access road.

Stability and condition of road (West Face)

1. Much of the roadway on the west face of French Mountain is not as well stabilized as the east face. The primary differences are the road surface material, vegetation, and width.



West side of French Mountain, at intersection of two roadways. Much of this road is sand with little vegetation on the shoulders.

2. The road surface on much of this side of the mountain remains in a compacted sand condition, which is more erosive than the compacted stone on the east side. There is more evidence of rutting of this surface as well, which will lead to additional future erosion issues.
3. There is little differentiation between the road surface and any shoulder areas, as there is a lack of vegetation on many of the shoulders on the west side. The side slopes of the sand shoulders are unconsolidated and unstable, which leads to sedimentation of the roadside drainage system. This can be a problem in some areas where the ditches drain to streams and wetlands.
4. The width of the road on the west side in many areas is significantly larger than would be justified for an access road, and should be narrowed to ten feet with vegetated shoulders as seen on the east side. Mr. Macchio verbally agreed during the site tour that a ten foot road surface would suit his needs.

Effectiveness and status of the road drainage system

The SWPPP that was developed and implemented consists of a large array of drainage improvements including stabilized ditches, check dams, retention basins, waterbars, and

turnouts. These systems along the main roadway were given an overall qualitative evaluation on the site tour, looking primarily for effectiveness and stability.

The roadside drainage systems implemented as a result of the SWPPP have been well laid out and have functioned effectively to convey water off of the road surface and into stabilized drainage structures. However, as there has been little if any maintenance conducted on these systems, many are in need of repair and cleanout. There are numerous retention basins installed adjacent to the roadway. All of these basins are in need of cleanout, and many of them need soil stabilization practices (rock or vegetation) on the inlets, side slopes, or outlets. A few of these basins are completely full and have no ability to act to store sediment prior to release into their outlets (woods or stream).



Inlet to a retention basin which needs to be re-shaped and stabilized. This basin is full and is in need of cleanout for it to function as designed.

It is our recommendation that work be conducted immediately to maintain the integrity of these installed drainage systems. This work includes the following:



Retention pond in need of reshaping and stabilization.

1. Excavation of sediments out of the retention basins.
2. Stabilizing all inlets, outlets, and side slopes of these basins with vegetation or rock.
3. Seeding of all vegetated ditches where there is less than a 75% cover of vegetation, or rock lining of ditches where appropriate.
4. Re-shape basins which have

excessive side slopes (i.e. steeper than 1.5 horizontal to 1.0 vertical) and stabilize as appropriate.

5. Reshape waterbars in road surface and their associated turnouts to ensure long-term stability of road surface.

6. There are many large cut slopes which were created to get soil for road construction. The soil quality on these slopes is low, as the soils are poor and the cuts are into the lower soils horizons. There is no easy way to stabilize these cut slopes, but every attempt should be made to re-vegetate or otherwise protect them from erosion and sedimentation of the ditches and retention ponds.

Summary and Conclusions

From 2004 until 2006, road construction activities took place on French Mountain in the Towns of Queensbury and Lake George. These construction activities were reported to facilitate both logging activities on the mountain and to provide access to the landowner to his property. These activities had negative environmental consequences, and this report attempted to summarize these consequences and to provide an environmental review of this road system today. This report does not go into detail about responsible parties or all possible regulatory violations from these activities.

When completed, over three miles of road network were constructed on French Mountain. Construction activities included widening existing logging roads, and significant cuts and fills of on-site soil material to facilitate this construction. As construction continued without a comprehensive drainage plan in place, there resulted significant erosion, sedimentation and water quality degradation of NYS DEC regulated streams. NYS DEC addressed this issue by mandating that a Stormwater Pollution Prevention Plan be professionally developed and implemented. Jarrett-Martin Engineers, LLC, developed this plan and oversaw its implementation, and it was completed to the satisfaction of the NYS DEC. The landowner and DEC came to agreement on a consent order for environmental damages, and a fine of \$2,000 was paid.

The Adirondack Park Agency conducted a site visit in 2006 to assess violations to their wetland regulations. Wetlands and Project Review staff toured the site, and determined that there were no APA wetlands violations from roadway construction or logging activities on French Mountain.

During this time, both the Towns of Queensbury and Lake George maintained environmental and regulatory concerns as well. With some remedial work on a stream on the Lake George side, the Town of Lake George currently has no official pending issues in their jurisdiction. This is not the case with the Town of Queensbury, which has litigation ongoing from roadway construction and land clearing activities on French Mountain.

Currently, the roadway and drainage system on French Mountain are generally considered to be in good condition, although the east side is significantly better than the west side. Work needs to be done to maintain existing drainage systems, including cleaning retention basins, vegetating ditches and cut slopes, and reshaping and stabilizing of eroded areas. On the road surface itself, it is recommended that the landowner narrow all roadway surfaces to the agreed upon 10-12 feet, vegetate the shoulders outside of the drive lane, and reshape of in-road waterbars. For long-term erosion control of the road surface, it is recommended that a crushed stone surface be installed over the existing more erodible compacted sand/silt base. This is not absolutely necessary, but will provide long-term erosion control and reduced maintenance for the road if it remains as it is today.

Questions about this project will likely remain for some time, and certainly relate to environmental impact. Why is the road and its associated clearing so wide for a logging activity? Given the high cost of the road and the relatively low value of the timber harvest, what was the real intent of the road? Should the road stay in place, as is, since it wasn't locally approved by all appropriate parties as a permanent road? These questions are very valid, but cannot be answered here.

It is hoped that this document provides insight into environmental issues on French Mountain related to landowner activities within recent years. The intent of this report is to give an impression of past environmental damages from these activities, and provide a review of the current status of the road network. The Warren County Soil and Water Conservation District will continue to play an impartial conservation-oriented role on this issue at the request of involved parties. Questions on this report should be directed to Warren County SWCD Manager Dave Wick at the Warren County SWCD office, or via email at district@nycap.rr.com.