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GOVERNOR

STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY  
LAND USE PLANNING COMMISSION  
106 HOGAN ROAD, SUITE 8  
BANGOR, MAINE 04401

WALTER E. WHITCOMB  
COMMISSIONER

NICHOLAS D. LIVESAY  
EXECUTIVE DIRECTOR

# PERMIT

**HYDROPOWER PERMIT HP 27  
by SPECIAL EXCEPTION and  
WATER QUALITY CERTIFICATION**

The Maine Land Use Planning Commission (“LUPC” or “Commission”), through its staff, after reviewing the application and supporting documents submitted by Nicatous Lake Lodge & Cabins, LLC (“Applicant,” or “Permittee,”) for Hydropower Permit HP 27 by Special Exception with a Water Quality Certification, finds the following facts:

1. *Applicant.* Nicatous Lake Lodge & Cabins, LLC  
Attn: David Dane, President  
PO Box 100  
Burlington, Maine 04417
2. *Date of Completed Application.* August 08, 2016
3. *Location of Proposal.* T3 ND BPP, Hancock County, Maine  
Maine Revenue Service Map HA001, Plan 02, Lots 2 and 3  
Hancock County Registry of Deeds: Book 5963, Pages 133-136
4. *Zoning.* Wetland Protection Subdistrict (P-WL1)  
Shoreland Protection Subdistrict (P-SL2)  
Residential Development Subdistrict (D-RS)
5. *Affected Waterbodies.* Nicatous Lake and Nicatous Stream

**Proposal Summary**

6. *Nature of Activity.* The Applicant proposes to install a new micro-hydropower project that would include a water intake structure and intake trash rack/screen within Nicatous Lake, an overland diversion penstock, and a micro-generator turbine within and discharging to Nicatous Stream. The project would supply power to Nicatous Lake Lodge & Cabins, LLC (“Nicatous Lodge”) which utilizes approximately 18,000 kWh annually.



## Review Criteria

7. The *Maine Waterway Development and Conservation Act* (“MWDCA”), 38 M.R.S. §§ 630-638, and Maine Department of Environmental Protection (“MDEP”), Maine Land Use Planning Commission joint regulation, *Administrative Regulations for Hydropower Projects*, 06-096 C.M.R. 450 and 04-061 C.M.R. 11 (effective January 13, 2000), and U.S. Public Law 92-500, Section 401, as amended, of the *Federal Water Pollution Control Act*, 33 U.S.C. §§ 1251-1376 (“Clean Water Act”).

## Project Information

8. *Existing Environment.*

- A. Nicasious Lake. The Commission has identified Nicasious Lake as a management class 4, resource class 1A, accessible, developed lake with the following resource ratings: significant fisheries resources, outstanding wildlife resources, outstanding scenic resources, outstanding shore character, significant cultural resources. Nicasious Lake has a lakes and ponds classification of Class GPA under Title 38, § 465-A. Adjacent to the water intake structure the lake shoreline is abrupt and is banked with large boulders and the lakebed contains smaller boulders and stones with sediment and aquatic vegetation dispersed throughout.
- B. Nicasious Stream. Nicasious Stream, an outlet stream of Nicasious Lake, has a water quality classification of Class A under Title 38, § 467. Adjacent to the generator and outflow pipe, the streambed contains a mixture of large and small boulders, stones, and gravel.
- C. Upland Area. The upland area is developed with Nicasious Lodge which is owned by the Applicant. Due to the longevity of the development at the lodge site, most portions of the upland area adjacent to the lake have been previously altered and include lawns, sitting areas, driveways, and a road otherwise known as the Nicasious Tote Road or the Nicasious Lake Road. The upland area adjacent to the stream is less developed and disturbed and contains boulders, stones, trees, saplings, shrubs and natural herbaceous plants.

9. *Project Details, Construction Activities and Project Operation.* Installation timetable for the project is estimated to be 3 weeks. The project would include the construction or installation of:

- A. Intake Structure. The intake structure would be located in Nicasious Lake approximately 25 feet westerly of Nicasious Lodge’s existing docking system and would extend lake-ward approximately 10-12 feet from the shoreline of Nicasious Lake. The Applicant states that the normal high water mark of Nicasious Lake is 93.09 feet in elevation as compared to an onsite benchmark. The centerline of the penstock pipe where it connects to the intake structure would be 94.50 feet in elevation and the bottom of the intake pipe would be 91.67 feet or lower in elevation. The intake pipe would be up to 11 inches off the bottom of the trash rack/screen.
- A. Trash Rack/Screen. The trash rack/screen would consist of a 6 foot diameter by 2.5 foot high by ¼ inch steel plate strainer basket surrounding the intake pipe. The trash rack/screen would be perforated with 1.5 inch holes spaced 3 inches apart to slow water inflow velocity to meet minimum fish escape velocities. The Applicant states that the intake pipe, trash

rack/screen, including the support legs, and other appurtenances would be located in 3 feet of water or less. In the winter, a circulator or aerator would be used to keep the area around the intake structure and trash rack/screen from freezing; the circulator or aerator would be removed in April. The powerline for this aerator would be placed in the same ditch as the penstock. Two inches of the trash rack/screen would be above the normal high water mark of the lake.

- B. Penstock. The penstock would consist of a 258-foot by 16-inch diameter PVC pipe diversion canal assembled onsite. A portion of the penstock would be buried 3 to 4 feet below the grade of Nicaous Tote Road; the remainder of the penstock would be above ground and would be painted brown or green to blend into the environment. The aboveground portion would require channel suspension supports.
- C. Micro-hydropower Generator. The Applicant proposes to install a PowerPal™ Low Head, Micro-hydroelectric Generator MHG-1000 LH. The product is stated to produce 1000 watts per hour with 2,138 gallons per minute flow and 4.9 feet of head.

The support structure for the generator would be constructed out of dock approved lumber. The generator would be connected to Nicaous Lodge's current electrical system with a buried conduit line to the generator building; excess energy would be stored in the generator room's existing bank of batteries. Flow to the generator could be choked, if necessary, to not exceed the required flow, with an orifice plate installed at the channel entrance.

- D. Outflow Pipe. The Applicant states that the normal high water mark of Nicaous Stream at the turbine site is 86.79 feet in elevation as compared to an onsite benchmark. The outflow pipe would be centered over a large flat rock at the bottom of Nicaous Stream, 10-12 feet into Nicaous Stream, and would be 6-inches to 24-inches above the streambed of Nicaous Stream, approximately 100 yards downstream of the bridge crossing the stream. The volumetric outflow rate at the outflow pipe would be 4.76 cubic feet/second.
- E. Erosion and Sedimentation Control. The Applicant would install silt fencing as appropriate and seed and grass disturbed areas to prevent sedimentation into the lake and the stream. All exposed soil areas, except within the road bed, would be reseeded.

#### 10. *Title, right or interest.*

- A. Upland Area and Nicaous Tote Road. The Applicant provided the property deed which shows that the Applicant owns the lands above the normal high water mark of the lake and the stream which would be subject to the proposal, including the lands under the Nicaous Tote Road. The Applicant affirms that it has sufficient title, right and interest in the land and the Nicaous Tote Road to complete this project and that the proposal would not infringe on the rights of others to pass over the Nicaous Tote Road.
- B. Submerged Lands. The Department of Agriculture, Conservation & Forestry's Submerged Lands Program ("Submerged Lands") reviewed the proposal and commented that if the intake structure, trash rack/screen or any appurtenances, including all support structures, extends more than 3 feet below the normal high water mark of Nicaous Lake, a submerged lands lease would be required. The Applicant stated that no portion of the structure would

extend more than 3 feet below the normal high water mark. On September 14, 2016, Submerged Lands completed a site visit and subsequently requested that any permit issued by the LUPC be conditions such that if during construction onsite conditions indicate that any portion of the project would extend greater than 3 feet below the normal high water mark of Nicasious Lake, the Applicant would be required to stop all construction and apply for a submerged lands lease.

11. *Financial capability (38 M.R.S. § 636(1))*. The total cost of the project is estimated to be \$25,000. David Dane, president of Nicasious Lake Lodge & Cabins, LLC provided evidence of sufficient resources available to directly finance the design, construction and maintenance of the proposal. Nicasious Lake Lodge & Cabins, LLC is a domestic limited liability company in good standing.
12. *Technical ability (38 M.R.S. § 636(1))*. The Applicant retained Foresight Engineering to design the proposed project, a State of Maine licensed electrician with 30 years of experience to install the off-grid system, and a general contractor certified by the Maine Department of Environmental Protection to complete the excavation work. All companies have adequate ability in their fields.
13. *Safety (38 M.R.S. § 636(2))*. The Applicant states that it does not anticipate that construction activities would interfere with seasonal activities on the stream or lake.
14. *Public benefits (38 M.R.S. § 636(3))*. The Applicant states that the project would substantially reduce the carbon footprint, generator noise frequency/duration and operating costs of the Nicasious Lodge, and would increase the future profitability of this remote historic business which has been vulnerable to high energy and generator maintenance costs.
15. *Traffic movement (38 M.R.S. § 636(4))*. To complete the proposal, the Applicant would need to excavate a trench across the Nicasious Tote Road for the placement of the penstock. The Nicasious Tote Road is used by local small lot landowners, large lot landowners, and the general public to reach recreation locations. The Hancock County Unorganized Township Supervisor indicated to the Applicant that a permit was not required from the County to dig under Nicasious Stream Road. The Applicant states that to minimize the possibility of traffic and access issues, the road-cut and installation of the penstock would be performed in two sections. Half of the road would be cut and the traffic would be diverted around the site utilizing the existing driveway and lawn in the construction area. The Applicant would coordinate with the large landowners utilizing the road to haul timber so that no truck traffic would be impacted by the work.
16. *Maine Land Use Planning Commission (38 M.R.S. § 636(5))*. The proposed project would be located within a D-RS subdistrict, a P-SL2 subdistrict, and a P-WL1 subdistrict.

According to Section 10.21,K,3,c,(21) of the Commission's Chapter 10 *Land Use Districts and Standards* (hereinafter "Standards" or "*Ch. 10*"), a utility facility compatible with residential uses is a use requiring a permit within a D-RS subdistrict; according to Section 10.23,L,3,c,(21) of the Commission's Standards a utility facility is a use requiring a permit within a P-SL subdistrict; and according to Section 10.23,N,3,d,(9) of the Commission's Standards, a utility facility is a use requiring a permit by special exception within a P-WL subdistrict.

According to Sections 10.21,K,3,c,(6) and 10.23,L,3,c,(5) of the Commission's Standards, draining and alteration of the water level is a use requiring a permit within both a D-RS subdistrict and a P-SL subdistrict, respectively. According to Section 10.23,N,3,d,(2) of the Commission's Standards, draining or altering of the water level is a use requiring a permit by special exception within a P-WL subdistrict.

17. *Environmental mitigation (38 M.R.S. § 636(6)).* The Applicant anticipates that there would be no adverse impacts to the environment caused by the project.

18. *Environmental and energy considerations (38 M.R.S. § 636(7)).*

- A. Soil Stability. The Applicant states that the volume of the outflow would not impact the streambed in a significant manner and would not be any greater than the natural flow of the stream.
- B. Inland Wetlands. Other than the minimal areas below the normal high water mark of the lake and stream disturbed by the water intake structure, intake trash rack/screen, micro-generator turbine and outflow pipe, the Applicant states there would be no wetland impacts. No dredging, filling or grading would be required below the normal high water mark of either the lake or the stream.

The U.S. Army Corps of Engineers ("Corps") reviewed the proposal and stated that the Corps regulatory jurisdiction in this area is over the discharge of dredge or fill material into all water of the United States including adjacent and isolated wetlands under Section 404 of the Clean Water Act. Since no fill would be placed in waters or wetlands, no further action is required for this proposal with the Corps.

- C. Natural Environment. The Maine Natural Areas Program reviewed the proposal and searched the Natural Areas Program's Biological and Conservation Data System files for rare or unique botanical features in the vicinity of the proposed site and indicated that according to their current information there are no rare botanical features that would be disturbed within the project site.
- D. Fish and Wildlife Resources.
  - 1) The Maine Department of Inland Fisheries and Wildlife ("MDIFW") reviewed the proposal and in consideration of the proposal's probable effect on the environment and on the agencies programs and responsibilities, provided concerns and recommendations. *The comments, concerns and recommendations are below:*
    - a) Wildlife Considerations. Minimal impacts to wildlife are anticipated.
    - b) Fisheries Considerations. Based on the application, it appears there will be no net loss of water volume to the outlet stream; one concern, however, is the flow rate through the "turbine" reentering the stream. Since it is difficult to determine how flow from the turbine might affect the outlet stream as far as increased turbidity or siltation, MDIFW recommend that any water reentering the stream through the

diversion pipe be sited to minimize potential siltation or turbidity within the stream from the outlet flows. We also recommend that effective Best Management Practices be employed during construction and be designed to prevent concentrated flow impacts to the stream and minimize changes to the water temperature of the stream as a result of the project. We recommend instream work associated with the project be performed between July 15-October 1.

MDIFW reviewed the aerator proposed to keep ice clear of the intake structure in the winter and stated that this proposal causes no fisheries concerns and stated that because of the intake structures location it could be easily cordoned off from the public for safety purposes.

- 2) The Maine Department of Environmental Protection reviewed the proposal and commented that it does not appear that there is a screen at the discharge point and it's unclear if the discharge rate will equal or exceed the natural flow of the stream. If the discharge is below the water surface and is greater than the river flow it could create an attraction flow, causing resident fish to congregate there and potentially entering the discharge pipe. Screening may be useful to eliminate this potential hazard to the fish.
- E. Historic/Archaeological Resources. The Maine Historic Preservation Commission ("MHPC") reviewed the proposal and indicated that there are no concerns regarding archaeological or architectural resources for this project (reference MHPC#1141-16).
- F. Public Access and Uses. No impacts to the public right to access and use surface waters have been identified for this project. Guests of the lodge have access to the upland shorelines adjacent to both waterbodies; however, because of the proposals generally non-accessible location, the Applicant does not anticipate any use problems or hazards to the guests. The project will not result in significant harm to members of the public recreating, fishing, or navigating on the lake and stream. The view of the intake mechanism from the lake would not be out of place in this setting as it is situated on a developed portion of the lake shore near a dock and road. Likewise, the turbine and penstock outflow mechanism will be situated in an area from which other development, including a bridge and residential development is also visible. The penstock will be painted in order to blend in with the natural environment.
- G. Flood Control. No flood benefits or hazards have been identified for this project.
- H. Energy Benefits. Nicaious Lodge is remote and not connected to the interstate electric grid. The proposed micro-generator's output would replace a portion of the energy created by the existing diesel fuel generator system. Currently, the lodge uses two diesel generators which operate for, on average, a combined 4.5 hours per day. It is anticipated that the new system would reduce that generator usage to one hour per day and replace approximately 2,000 gallons of diesel fuel annually. Because the lodge is not and would not be connected to the interstate electric power transmission grid, no direct public energy benefits would result from the project.
19. *Water quality (38 M.R.S. § 636(8)).* The Applicant states that there would be no anticipated adverse impacts to the water quality of either the lake or stream.

20. The Federal Energy Regulatory Commission (“FERC”) issued an *Order Ruling on Declaration of Intension and Finding Licensing Not Required*, Docket No. DI16-2-000, to Nicaous Lake Lodge and Cabins, LLC on June 21, 2016. The FERC indicated that licensing of the project would not be required unless the property is connected to the interstate grid in the future or if other evidence sufficient to require licensing is found.
21. The facts are otherwise as represented in Hydropower Permit application HP 27 and supporting documents.

**Based upon the above FINDINGS, the Commission, through its staff, CONCLUDES that AS LONG AS the Applicant implements the proposal with the CONDITIONS outlined below:**

1. The proposal will meet the Approval Criteria for Permits for Hydropower Projects under the *Maine Waterway Development and Conservation Act*, 38 M.R.S. §§ 636, in that:
  - A. The Applicant has demonstrated the financial capability and technical ability to undertake the project;
  - B. No effects on public safety have been identified for the project; no provisions for public safety would be required;
  - C. The proposal would not be connected to the interstate transmission grid, so there will not be direct energy benefits to the public. However, indirect benefits to the public would be realized as a result of the improvement of the natural environment at Nicaous Lake and Nicaous Stream due to noise and fuel consumption reduction;
  - D. The installation of the penstock under Nicaous Tote Road would only have a temporary effect on traffic movement and the Applicant has made adequate provisions for traffic movement during installation;
  - E. The project is consistent with the Commission’s zoning;
  - F. Based on the Applicant’s proposed erosion and sedimentation control plan to be implemented during construction, the measures to be taken to limit impingement or entrainment of small fish and other aquatic organisms at the intake structure, and the ability and permit condition to choked flow to only that which is needed to operate the turbine, the Applicant has made reasonable provisions to realize the environmental benefits and to mitigate any adverse environmental impacts of the project;
  - G. Provided that the Applicant implements all proposed and conditioned measures to protect water quality, soil stability and fisheries resources during project construction and operation, on balance, the advantages of the project are greater than the direct and cumulative adverse impacts to the project; and
  - H. Provided that the Applicant implements the proposal, as modified by the CONDITIONS below, the project is not expected to adversely affect the water quality of either Nicaous Lake or Nicaous Stream to the point of requiring reclassification; provided that the

Applicant adjusts or “chokes” the flow through the intake structure (pipe) at the downstream termination of the pipe when the flow rate is greater than necessary for the operation of the turbine.

2. The staff grants certification that there is a reasonable assurance that the construction and operation of the micro-hydropower project at Nicaous Lodge will not violate applicable Water Quality Standards, subject to the below CONDITIONS.

**Therefore, the staff APPROVES the application of Nicaous Lake Lodge & Cabins, LLC with the following CONDITIONS:**

1. The enclosed permit certificate must be posted in a visible location on your property immediately after receipt and during development of the site and construction of the structures and activities approved by this permit.
2. **Construction activities authorized in this permit must be substantially completed within 2 years of the effective date of this permit.** If such construction activities are not started and completed within this time limitation, this permit shall lapse and no activities shall then occur unless and until a new permit has been granted by the Commission.
3. Prior to construction, the Permittee shall secure and comply with all applicable licenses, permits, authorizations, and requirements of all federal, state, and local agencies including, but not limited to, the Maine Department of Transportation, Hancock County, the U.S. Army Corps of Engineers, and the Maine Department of Environmental Protection.
4. **Construction and installation of this micro-hydropower project shall be performed between July 15<sup>th</sup> and October 1st of the effective years of this permit,** or during an alternative timeframe within the effective years of this permit **IF, AND ONLY IF,** the Permittee secures written permission from the Maine Inland Fisheries and Wildlife that states that construction is acceptable during that alternative timeframe. Prior to beginning construction during the alternative timeframe, the Permittee shall submit the written permission from Maine Inland Fisheries and Wildlife to construct during the alternative timeframe to the Maine Land Use Planning Commission.
5. The Permittees shall notify the Commission staff one week prior to beginning work. Notice may be provided in writing, in person, by email, or by calling. If you leave or send a message, please include your full name, telephone number, permit number, and the date the work will start. Prior to commencing the permitted activities, the Permittee, must provide a copy of this permit, including its attached conditions, to all contractors that will be performing work or will be responsible for work at the site.
6. Construction activities, except those necessary to establish erosion and sedimentation control devices, shall not begin until all erosion and sedimentation control devices have been installed and stabilized. Once in place, such devices shall be maintained to ensure proper functioning. All temporary sedimentation and erosion control devices shall be removed after construction activity has ceased and healthy vegetation has established



itself or other appropriate permanent control measures have been effectively implemented. Permanent soil stabilization and plantings shall be completed within one week of inactivity or completion of construction.

7. For work within 25 feet of the normal high water mark of Nicatous Lake and Nicatous Stream, the Permittee shall hire a contractor certified by the Maine Department of Environmental Protection in Erosion and Sedimentation Control Practices to install the erosion control devices and complete any excavation, filling, grading, in-stream, and/or in-lake work.
8. The Permittee shall implement the proposed traffic management plan while installing the penstock under Nicatous Tote Road and shall not infringe upon the rights of others to pass over the Nicatous Tote Road.
9. **No portion of the proposal including, but not limited to, the intake structure, trash rack/screen or any appurtenances, including all support structures, shall extend into more than 3 feet of water, as compared with the normal high water mark of Nicatous Lake.** For this permit, the normal high water mark is defined as: "That line on the shores and banks of non-tidal water bodies that is apparent from visible markings, changes in the character of soils due to prolonged action of the water or from changes in vegetation and that distinguishes between predominantly aquatic and predominantly terrestrial land. In places where the shore or bank is of such character that the normal high water mark cannot be easily determined (as in the case of rock slides, ledges, rapidly eroding or slumping banks) the normal high water mark shall be estimated from places where it can be determined by the above method" (*Ch. 10.02, 141*). **If onsite construction conditions are such that a portion of any structure will extend more than 3 feet below the normal high water mark of Nicatous Lake, the Permittee shall halt construction and apply to the Maine Department of Agriculture, Conservation & Forestry's Submerged Lands Program for a submerged lands lease.**
10. To avoid impingement or entrainment of small fish and other aquatic organisms, the trash rack/screen shall provide an appropriate surface area for water entering into the inflow pipe so that the velocities around the trash rack/screen are no higher than 0.5 feet per second.
11. **Flow through the intake structure (pipe) shall be choked at the downstream termination of the pipe when the flow rate is greater than necessary for the operation of the turbine. One indication that the flow rate is too high is if the water overflows the canal before it enters the turbine.**
12. The Permittee shall post cautionary signage at the intake structure and outflow pipe areas notifying the public as to the potential hazard(s) and the potential for thin ice in the winter.
13. The use of untreated lumber in both waterbodies is preferred. Pressure-treated wood approved by the U.S. Environmental Protection Agency for dock construction may be used. **Chromated copper arsenate (CCA) treated wood must not be used in**

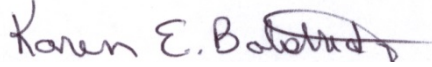
**freshwater environments. Creosote or pentachlorophenol (“PCP”) treated wood must not be used.**

14. If the outflow pipe discharge into Nicaious Stream creates an attraction flow, causing resident fish to congregate and/or entering the pipe, the Permittee shall screen the outflow discharge pipe to eliminate this potential hazard to the fish. The Permittee shall promptly notify the Land Use Planning Commission in writing that a discharge screen has been installed.
15. If the trash rack/screen is regularly overtopped, the Permittee shall install a wire mesh or screen covering the top to prevent debris, fishes and aquatics from being swept into the system. The Permittee shall promptly notify the Land Use Planning Commission in writing that a wire mesh or screen has been installed over the trash rack/screen.
16. All activities approved in this permit must be conducted in compliance with all state water quality laws, including, but not limited to, those governing the classification of the State’s waters and the provisions of MDEP’s Chapter 587 rules.
17. Except as outlined in this permit, all activities must be conducted in accordance with the Standards for *Erosion and Sedimentation Control*, Section 10.25,M of the Commission’s *Land Use Districts and Standards*, revised August 09, 2016, a copy of which is attached.
18. During construction and any other time within the lifespan of the project, should any project attributable erosion or sedimentation occur within 25 feet of Nicaious Lake or Nicaious Stream, the Permittees shall contact the Land Use Planning Commission immediately, notifying it of the problem and describing all proposed corrective measures.
19. This permit is dependent upon and limited to the micro-hydropower project being operated and maintained as set forth in the application, supporting documents, and as conditioned in this permit. Should the micro-hydropower project cease to function properly, become damaged, or not be maintained, the Permittees shall remove the micro-hydropower project and dispose of the debris in a proper manner, in compliance with applicable state and federal solid waste laws and rules, and restore the site to its pre-project condition.
20. Should the micro-hydropower project result in significant harm to the existing natural environment of Nicaious Lake or Nicaious Steam, the Permittee shall either correct the significant harm and the cause of the significant harm or correct the significant harm, remove the micro-hydropower project from the site, and restore the site to its pre-project condition.
21. In the event the Permittee sells or leases the property, the buyer or lessee shall be provided a copy of this approved permit and conditions of approval. The new owner or lessee should then contact the Land Use Planning Commission to have the permit transferred into his/her name. If there are no additional changes the transfer can be accomplished on a Minor Change Form.

22. Once construction is complete, the Permittee shall submit a self-certification form, notifying the Commission that all conditions of approval of this permit have been met. The permittee shall submit all information requested by the Commission demonstrating compliance with the terms of this permit.

This permit is approved only upon the above stated CONDITIONS and remains valid only if the Permittees complies with all of these CONDITIONS. In addition, any person aggrieved by this decision of the staff may, within 30 days, request that the Commission review the decision.

DONE AND DATED AT BANGOR, MAINE, THIS 31<sup>st</sup> DAY OF OCTOBER, 2016.



By: \_\_\_\_\_  
for Nicholas D. Livesay, Executive Director

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**M. EROSION AND SEDIMENTATION CONTROL**

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The standards set forth below must be met for all development that involves filling, grading, excavation or other similar activities which result in unstabilized soil conditions.

**1. General Standards.**

- a. Soil disturbance shall be kept to a practicable minimum. Development shall be accomplished in such a manner that the smallest area of soil is exposed for the shortest amount of time possible. Operations that result in soil disturbance shall be avoided or minimized in sensitive areas such as slopes exceeding 15% and areas that drain directly into water bodies, drainage systems, water crossings, or wetlands. If soil disturbance is unavoidable, it shall occur only if best management practices or other soil stabilization practices equally effective in overcoming the limitations of the site are implemented.
- b. Whenever sedimentation is caused by stripping of vegetation, regrading, or other construction-related activities, sediment shall be removed from runoff water before it leaves the site so that sediment does not enter water bodies, drainage systems, water crossings, wetlands, or adjacent properties.
- c. Soil disturbance shall be avoided or minimized when the ground is frozen or saturated. If soil disturbance during such times is unavoidable, additional measures shall be implemented to effectively stabilize disturbed areas, in accordance with an approved erosion and sedimentation control plan.

**2. Design Standards.**

- a. Permanent and temporary erosion and sedimentation control measures shall meet the standards and specifications of the “Maine Erosion and Sediment Control BMPs” (Maine Department of Environmental Protection, March 2003) or other equally effective practices. Areas of disturbed soil shall be stabilized according to the “Guidelines for Vegetative Stabilization” (Appendix B of this chapter) or by alternative measures that are equally effective in stabilizing disturbed areas.
- b. Clearing and construction activities, except those necessary to establish sedimentation control devices, shall not begin until all sedimentation control devices have been installed and stabilized.
- c. Existing catch basins and culverts on or adjacent to the site shall be protected from sediment by the use of hay bale check dams, silt fences or other effective sedimentation control measures.
- d. If streams will be crossed, special measures shall be undertaken to protect the stream, as set forth in Section 10.27,D.
- e. Topsoil shall not be removed from the site except for that necessary for the construction of roads, parking areas, building excavations and other construction-related activities. Topsoil shall be stockpiled at least 100 feet from any water body.
- f. Effective, temporary stabilization of all disturbed and stockpiled soil shall be completed at the end of each workday.

- g.** Permanent soil stabilization shall be completed within one week of inactivity or completion of construction.
- h.** All temporary sedimentation and erosion control measures shall be removed after construction activity has ceased and a cover of healthy vegetation has established itself or other appropriate permanent control measures have been implemented.

**3. Erosion and Sedimentation Control Plan.**

- a.** For development that occurs when the ground is frozen or saturated or that creates a disturbed area of one acre or more, the applicant must submit an erosion and sedimentation control plan for Commission approval in accordance with the requirements of Section 10.25,M,3,b,(2).
- b.** A Commission approved erosion and sedimentation control plan in conformance with these standards shall be implemented throughout the course of the project, including site preparation, construction, cleanup, and final site stabilization. The erosion and sedimentation control plan shall include the following:
  - (1) For activities that create a disturbed area of less than one acre:
    - (a) A drawing illustrating general land cover, general slope and other important natural features such as drainage ditches and water bodies.
    - (b) A sequence of construction of the development site, including clearing, grading, construction, and landscaping.
    - (c) A general description of all temporary and permanent control measures.
    - (d) Provisions for the continued maintenance of all control devices or measures.
  - (2) For activities that create a disturbed area of one acre or more:
    - (a) A site plan identifying vegetation type and location, slopes, and other natural features such as streams, gullies, berms, and drainage ditches. Depending on the type of disturbance and the size and location of the disturbed area, the Commission may require a high intensity soil survey covering all or portions of the disturbed area.
    - (b) A sequence of construction of the development site, including stripping and clearing; rough grading; construction of utilities, infrastructure, and buildings; and final grading and landscaping. Sequencing shall identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures, and establishment of permanent vegetation.
    - (c) A detailed description of all temporary and permanent erosion and sedimentation control measures, including, without limitation, seeding mixtures and rates, types of sod, method of seedbed preparation, expected seeding dates, type and rate of lime and fertilizer application, and kind and quantity of mulching for both temporary and permanent vegetative control measures.
    - (d) Provisions for the continued maintenance and inspection of erosion and sedimentation control devices or measures, including estimates of the cost of maintenance and plans for meeting those expenses, and inspection schedules.

**4. Inspection.**

- a.** For subdivisions and commercial, industrial or other non-residential development that occurs when the ground is frozen or saturated or that creates a disturbed area of one acre or more, provision shall be made for the inspection of project facilities, in accordance with Section 10.25,M,4,a,(1) or (2) below:
  - (1) The applicant shall hire a contractor certified in erosion control practices by the Maine Department of Environmental Protection to install all control measures and conduct follow-up inspections; or
  - (2) The applicant shall hire a Maine Registered Professional Engineer to conduct follow-up inspections.
- b.** The purpose of such inspections shall be to determine the effectiveness of the erosion and sedimentation control plan and the need for additional control measures.
- c.** Inspections shall be conducted in accordance with a Commission approved erosion and sedimentation control plan and the following requirements.
  - (1) Inspections shall be conducted at least once a week and after each rainfall event accumulating more than ½ inch of precipitation, until all permanent control measures have been effectively implemented. Inspections shall also be conducted (a) at the start of construction or land-disturbing activity, (b) during the installation of sedimentation and erosion control measures, and (c) at the completion of final grading or close of the construction season.
  - (2) All inspections shall be documented in writing and made available to the Commission upon request. Such documentation shall be retained by the applicant for at least six months after all permanent control measures have been effectively implemented.
- d.** Notwithstanding Section 10.25,M,4,a, development may be exempt from inspection if the Commission finds that an alternative, equally effective method will be used to determine the overall effectiveness of the erosion and sedimentation control measures.

STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY

**MAINE LAND USE PLANNING COMMISSION**

22 STATE HOUSE STATION

AUGUSTA, ME 04333-0022

TEL. (207) 287-2631 FAX (207) 287-7439 TTY (888) 577-6690

**THIS CERTIFICATE MUST BE POSTED IN A VISIBLE LOCATION AT THE DEVELOPMENT SITE**

A Land Use Planning Commission permit has been issued for certain development or construction activities at this location. Copies of the actual permit have been provided to the permittee and are available for inspection at the Commission's offices. Please refer to [www.maine.gov/doc/lupc](http://www.maine.gov/doc/lupc)

**Permit Number:** HP-27

**Issued To:** Nicaitous Lake Lodge And Cabins Llc

<b>Location:</b> Town	Plan Lot
T 3 ND BPP	02 3
T 3 ND BPP	02 2

**Authorized Activity:** Micro-Hydropower Project and Water Quality Certification.

**Permit Approval Date:** 10/31/2016

**Required Completion Date:** 10/31/2018

Nicholas Livesay, Executive Director  
Maine Land Use Planning Commission

**THIS CERTIFICATE IS NOT A PERMIT**