



Roaring Brook News

ENGINEERING A BETTER FUTURE

Spring 2008

❖ *Vernal Pools in the State of Maine*

On September 1, 2007 significant vernal pools were officially included in the list of significant wildlife habitats regulated under Maine Chapter 335. A vernal pool, sometimes known as a seasonal forest pool, is defined as “a natural, temporary to semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet and no viable populations of predatory fish.” Please note that the State of Maine regulation applies to “natural” vernal pools and that fish cannot be present.



Vernal pool in Spring



Vernal pool in Summer

Vernal pools provide breeding locations for the following:

- fairy shrimp
- blue spotted salamanders
- spotted salamanders
- wood frogs

A vernal pool is considered significant based on the abundance of egg masses for the different species. The following chart identifies the significant quantities. If any one indicator is met, then the pool will be considered significant.

Species	Abundance Criteria
Fairy shrimp	Presence in any life stage
Blue spotted salamander	Presence of 10 or more egg masses
Spotted salamander	Presence of 20 or more egg masses
Wood frogs	Presence of 40 or more egg masses

A trained person can usually identify a vernal pool during almost any season when the ground is visible. He cannot, however, determine if it is significant until the egg counts are performed in the spring. There is only a two week window in the spring for counting wood frog eggs and the four week window for counting salamander eggs starts after the wood frog egg count. If you miss the egg counting season, you have two choices. Either you can wait until the next Spring to do the counts or you can assume the vernal pool is significant and plan your work accordingly.

Despite the egg counts, if in a normal rainfall year the pool does not stay inundated for at least 3 ½ months, it may not be considered significant. The Maine DEP would have the final say.

Why is it important to know if a vernal pool is significant in the State of Maine? There is a 250-foot wide buffer around a significant vernal pool, and a vernal pool can be of any size from 100 square feet to two or more acres. A landowner may disturb 25% of the forested buffer using a Permit-By-Rule. This permit sets forth the guidelines which must be followed for working around the pool. If more than 25% is disturbed or work is planned in the vernal pool, then a Natural Resources Protection Act permit will be needed. This permit requires significantly more effort, hence cost, to secure. If the vernal pool is not significant, then work would be controlled by the pertinent wetland regulations.

The key to a smooth project is to plan ahead. Have an expert walk the property and identify the vernal pools so you can plan accordingly.

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News and Events

❖ *Roaring Brook Consultants: PLRB Boston 2008*

Keith Kallberg and Scott Kumph attended the National PLRB Claims Conference held in April in Boston, Massachusetts. The **Property Loss Research Bureau (PLRB)** is a not-for-profit, national association at the leading edge of claims information. Formed in 1947, PLRB has a history of membership growth and an expanding national reputation. Over 800 insurance companies, accounting for more than 60% of the property insurance direct written premiums in the United States, are members. Keith and Scott enjoyed seeing some of our client members at the conference. Roaring Brook Consultants continues its commitment to being a valuable resource for insurance companies, adjusting agencies and attorneys that require engineering services for claims, mediation and litigation.



Scott and Keith at the 2008 PLBR Show

❖ *Terra Solutions: Futurallia Québec 2008*

Terra Solutions, LLC will attend **Futurallia Québec 2008**. Futurallia, an international small business forum, is being held in Quebec City in May 2008. Representatives from more than one thousand companies from twenty-five different countries will be present. Terra Solutions is one of ten U.S. companies in the Northeast that have signed up with the Vermont Global Trade Partnership for this year's forum. This is a unique networking opportunity for us. Our goal is to build upon our international business efforts by meeting prospective business partners from around the world.

Terra Solutions will be following up the May visit with a visit to the U.S. Consulate in Montreal in June. We will participate in their "Gold Key" program that matches U.S. Businesses with potential foreign partners.



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❖ *Crane News*

In April 2008, construction began at the Tufts University School of Dental Medicine. The building consisted of eleven above ground floors. The project is to add five additional floors to its height. While construction in downtown Boston is nothing new, this expansion project is extremely unusual because of the erection of a tower crane on an existing building. Due to the restricted area allotted for the construction site and the location of the MBTA Silver Line directly beneath the site, the general contractor, Shawmut Design and Construction, has had a 110-foot freestanding Linden Comansa LC 5211 City Class tower crane placed onto the roof of the Dental School by Julian Crane & Equipment Corporation.

To accomplish this feat, a frame of steel beams had been designed. This frame was tied to the existing building columns. The crane base was then placed onto the frame and the leveling plates were welded in place. After the crane base was leveled, four steel plates were placed on top of the base over each of the leveling plates, bolted through to the frame with steel rods, and tightened. As a result, the building itself provides the necessary ballast required for the safe operation of the crane. Roaring Brook Consultants was there to check the design, to ensure the frame was built and installed as designed, to oversee the erection of the tower crane and to inspect the crane in accordance with applicable OSHA, ANSI and ASME standards.

*** * ***
If you have an existing project you need help with, or one that is still in the planning stages, let Roaring Brook Consultants help you out. Our engineers can help you from start to finish.



**Comansa Tower Crane
Located on the Roof of
Tufts University School
of Dental Medicine,
Boston, Massachusetts**

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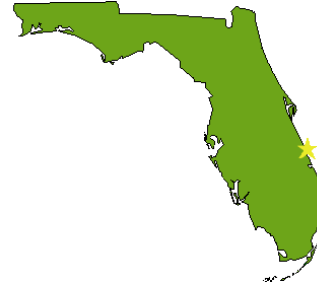
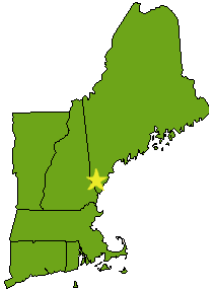
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15 Sewall Road, South Berwick, ME 03908

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Roaring Brook Consultants, Inc.
15 Sewall Road, South Berwick, ME 03908
325 Clematis Street, Suite 175, West Palm Beach, FL 33401

TEL 207-384-2643

TOLL FREE 877-RBC-2643

FAX 207-384-5383

www.roaringbrook.com - www.roaringbrookcrane.com - www.italamericon.com - www.terrasolutions.net

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