

Subject:	Renovate
From:	Miller, Sarah (sarahm@sepro.com)
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Date:	Thursday, April 12, 2012 9:45 PM

Hi Rolf,

I am truly sorry for my slow response. With all this early warm weather (and plant & algae growth) coupled with the launch of 4 new and very innovative products I have been bombarded with requests for technical support and as I'm a traveling gal, I'm finding myself in 16 hour days and still not catching up...I know, pity party, right? Anyway, I value all the hard work you are putting in to support the potential use of Renovate OTF in the APA at Eagle Lake and hope my slowness is no reflection of that!

I went back and found several references I provided to one of the large NY lakes when they were looking for large-scale Renovate treatments outside of the Northeast and thought it may be helpful for you to have those as well, see below, since I know you are in the loop on the other major treatments in NY, VT, PA, etc. There have also been many, many lakes but I don't want to put those in a list without written permission to use them as a "reference." I can say that thousands of acres have been treated with Renovate since aquatic registration and the only efficacy issues I've been able to come across are those in which dilution was greater than predicted or plant growth was excessive (topped-out milfoil) prior to treatment. Prior to my current position I served as SePRO's Research Biologist so I was exposed to the early treatments all over the country. Even in sites where full control may not have been achieved, we saw great control in the 70+% range and the only ones I can think of were very small plots early in our experience with the herbicide for milfoil control where we were still learning the boundaries of what we could do a bit.

Once you have a fair understanding of a lake's hydrology and choose the best rates and application timing based upon that lake & region, Renovate performs quite predictively. Understanding of the Concentration / Exposure model for Eurasian watermilfoil has been tremendously helpful in treatment design, and luckily thanks to Dr. Netherland's work we gained that knowledge very early on and have been able to utilize it in treatment design. Also, prior to the aquatic registration, triclopyr was, and continues to be widely used in forestry and vegetation management as well so the product's mode-of-action on susceptible plants was well understood prior to use in aquatics.

In terms of natives, check out the attached documents that tracked treatments in VT and NY documenting excellent control and native stability and improved fishery. Although triclopyr will affect dicot species whether native or invasive, we have a great deal of comfort in the design and implementation of prescriptions for each lake with selective rates and application techniques to minimize effects on non-targets. For example, in treatments we've designed to remove Eurasian watermilfoil where we wanted to preserve lilies we have

typically seen a little bit of lily thinning at the bed edges during the treatment if the two species are in a mixed community and quick recovery of lilies post-treatment after the milfoil has been removed.

In other instances where the desire has been to remove water lilies, we have successfully designed programs utilizing higher rates and direct pellet application to beds to control those. So should you run into an issue with the political figures you plan to meet with where there is mention of Renovate being used to control water lilies, watershield, primrose, parrotsfeather, etc, know that those programs utilize different rates and techniques. Another example, there was also concern early on that *megalondonta beckii* would not survive Renovate treatments and we conducted much internal and field research on the species. We have since treated lakes with mixed beds of EWM and *m. beckii* and provided selective control of the milfoil which has been documented.

The selective control of EWM is well documented, but I'm not sure if all of those reports are public information. I have meetings with several of the companies that have generated reports next week and can ask if they would be willing to share those (or if they, in fact, are already public). Unfortunately (I think?) other than California, no other states compare to the regulatory requirements of the NE states like NY & VT so other treatments in the US have not been tracked at the highly analytical level of those in our region. However, all the tracked treatments in the NE continue to show very impressive milfoil control and native protection. I personally cover NC to ME and as far West as PA. I have had no report of "failed treatments" in my region in the 4 years I've been working on Renovate OTF treatments.

I do have a half day in the office Monday before heading up to MA next week so if you think of anything I missed that I can provide let me know and I'll do my best to get it to you right away. Keep me posted on your progress and I would love to get out on the lake with you this year, treatment or not, and take a look. I've also cc'd the head of our Aquatics Department in case he is aware of any new case studies or papers in other regions showing selective control of EWM and protection of natives using Renovate.

Renovate Large-Lake references:

Flint Lake and Long Lake

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Webster Lake (multi-year Renovate program)

Tom Plew

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Lake Lemon (1400 acres)

Bob Madden

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Thanks!

Sarah

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