

Dry Hydrants – An Overview of a New Vector

1) A brief description of the issue.

Dry hydrants are flushed by the Oneida County towns and the City of Rhinelander fire departments twice per year (spring and fall). They usually do this by traveling from one lake to another, reaching as many as possible in one day. They start with their tanker filled with well water from the fire-house. The dry hydrant at lake A is flushed with the well water (this is ok); however, the next lake (we will call lake “B” and so on) is flushed with lake A water up to five thousand gallons per flush per lake. Oneida County and the WDNR are concerned with these hydrants because this is a major vector to spread AIS. A great analogy for this, a tanker truck more or less is an onland ballast water container.

2) The event or events that elevated this issue in your mind.

Oneida County Dry Hydrant-History of Dialogue

Once I presented at the Oneida County Spring Fire Chief meeting on May 14, 2008 regarding the spread of AIS I realized during the meeting that the flushing of the dry hydrant screens twice a year (spring and fall) was a major concern. This led me to the following contacts: presented this information to Kevin Gauthier, WDNR; Jeff Bode, WDNR; Brian Gehrig, President of Oneida County Fire Departments; Congressman Steve Kagen’s staff; Jim Hansen, WDNR; Susan Watson, WDNR; Secretary Mathew Frank, WDNR; Mike Hoff, Region 3 US Fish and Wildlife Service (USFWS) Aquatic Nuisance Species (ANS) Program Coordinator and ANS Task Force, Vice Chairman; Steve Shults, Illinois DNR Region V Administrator and Aquaculture/ANS Program Manager and Mississippi River Basin Panel (MRBP), Chairman; Darren Benjamin, Deputy Chief, USFWS Wildlife Management and Habitat Restoration; Dr. Jake Vander Zaden, Professor, University of Wisconsin (UW)-Madison Center for Limnology; Jeff Maxted, Research Staff, UW-Madison Center for Limnology, Darrel Brown, EPA, and Gretchen Hansen, Graduate Student, UW-Madison Center for Limnology.

Following my discussion with Mr. Gauthier, I contacted Susan Watson regarding potential solutions to discharge. Ms. Watson’s staff contacted Mr. Hansen and Mr. Hansen and I began dialogue the week of June 23, 2008. The dialogue between Mr. Hansen and me incited a conference call on June 25, 2008 between Mr. Fugle, Mr. Hansen, Ms. Watson, Mr. Gerhig and I.

After I spoke with Mr. Hoff, Mr. Benjamin, and Mr. Shults they felt the dry hydrant issue as a vector to spread AIS was not only important for Oneida County to address, but would need to be addressed nationally. Mr. Hoff invited me to present the dry hydrant issue and protocols at the fall ANS Task Force Meeting in Arlington VA, at the USFWS headquarters office on October 28 and 29, 2008 (this has since been rescheduled). Mr. Shults invited me to present at the next MRBP meeting some time later this year as well as represent all municipalities in the State of Wisconsin on the MRBP.

I began dialogue with Gretchen Hansen, on July 1, 2008. Dr. Vander Zaden and staff are extremely interested in bringing research funding to Oneida County to determine if the

dry hydrant locations had higher incidences of AIS relative to locations with no dry hydrants.

Furthermore, I had a conference call on August 7, 2008 after realizing during discussions with all aforementioned parties no protocols at a local, state, or federal level were developed regulating the use of dry hydrants. These conference calls included Mr. Frank, Mr. Jerow, Mr. Bode, Ms. Watson, Mr. Fugle, and Mr. Gehrig discussing the development of the protocols as well as creating an ordinance.

3) Your efforts to address it.

I created protocols (which are included in the attached revised ordinance) and I created an Oneida County Dry Hydrant Ordinance. The revised Ordinance has changed language in the Enforcement section (highlighted). I've decided to remove the possible citation from the local firemen and Department and revised it to cite the town(s) and City of Rhineland. I presently am working on another protocol which would include a pneumatic system.

I also presented to our local fire chiefs and have worked with the state during the creation process of the protocols. I will also host a public meeting on October 14, 2008 regarding the updated Dry Hydrant Ordinance. Although the Ordinance did not go through the Oneida County Board last month I know it will pass this month on October 21. Out of the 21 Board members 18 of them have spoken to me since the last meeting supporting the ordinance. Its a good thing I have the medias support!

Below is the draft pneumatic system protocol:

A compressor (that is towable behind a pick up truck) that produces 125 PSI or more pressure and at least 350 CFM output. To make it a fast flush the departments could install a full flow ball valve in the fitting stack converting compressor hose couplings to fire hose cam lock couplings. The ball valve with just a 1/4 turn will provide instant pressure and flow to remove any harmful debris. One blast will probably do it but to be safe the fire departments should let the compressor recharge and then repeat the process. Humorously stated; they would see one BIG bubble rise at the pipe's end in the lake.

The towable compressors are available from such manufactures as: Ingersol Rand, Caterpillar and Grimmer Schmidt. To blunt some possible concern as to cost these normally may be rented from construction equipment rental businesses. Or as fire departments have mutual assistance agreements why not a mutual purchase and swap it around?

4) Your guesstimate about the prevalence of dry hydrants around the country.

After briefly researching the extent of dry hydrants across the county as well as Canada, every state has dry hydrants and they are dispersed throughout Canada. For example,

New Mexico, a xeric state has 168 dry hydrants throughout Rio Arriba County, Taos, and Santa Fe County. An interesting fact, the eastern states have Fire Prevention Task Forces which set aside funding for installation of dry hydrants. All of which, flush their dry hydrants using lake water in rural areas.

I am currently working on a map with the locations of dry hydrants here in Oneida County (approximately 90) as well as a data base which will track the locations across the country (this database I am working on during my personal time and computer). Therefore, I do not have the information on hand.

5) Recommend protocols -- See Oneida County Ordinance