

WAVE Water Assessments by Volunteer Evaluators

Annual Report for the 2015 Season

Data from the 2015 WAVE season are now online

The 2015 WAVE samples have been processed, tallied, summarized, and posted. Everyone who submitted a WAVE sample should have received a personalized email with their sample results. All the data are compiled in a google map for general consumption on the WAVE "Forms and Data" web page:

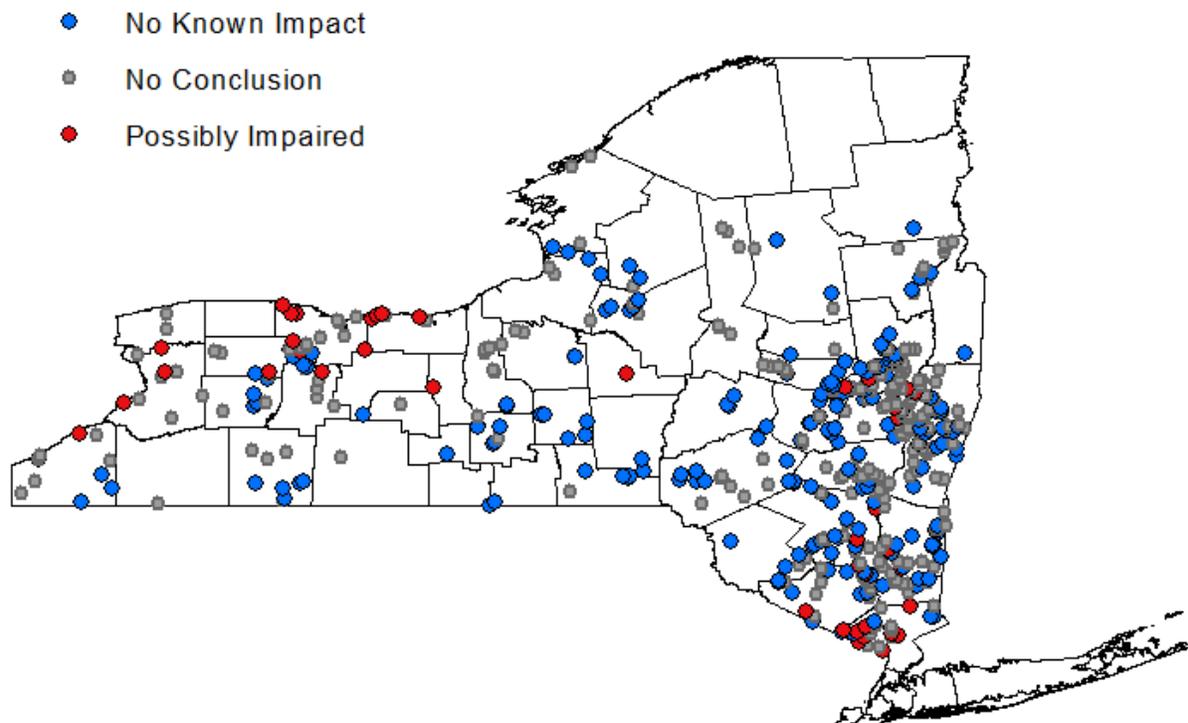
<http://www.dec.ny.gov/chemical/92237.html>.

Thank you one and all for your dedication and effort! We received more samples than ever before and documented the largest number of "No Known Impact"/"Possibly Impaired" conditions to date.

74% of our samples were collected by local coordinators and their crews. This is a significant jump from last year (56%). I'm excited by this because I feel that more communities are working together to take ownership of their streams.

Several groups have contacted me to ask about next steps: "We've collected data from our streams. How can we use it? What more can we do?" This is an excellent question.

Every community and every stream will have a unique story but there are general lessons we can learn from each other. In this annual report, I have highlighted state level and local level projects that are using the WAVE data. My purpose is to encourage cross communication and inspiration.



The NYSDEC Response to the WAVE Data

At the NYSDEC, the WAVE data are used to document high quality stream conditions and to red flag possibly impaired locations for professional assessments. This process takes several years and I am happy to report that we are starting to see outputs from the state level applications of the WAVE data.

NYSDEC professional staff have completed assessments at 23 WAVE sampling locations: WAVE sampling locations that produce 4 or more “Least Wanted” indicators are flagged as “Possibly Impaired.” Furthermore, I examine the User Perception Surveys and the Habitat Surveys from all the sites to find additional sites that might be impaired. I discuss these locations with the professional sampling staff each winter to identify which locations should be investigated at the professional level.

So far, NYSDEC professional sampling staff have completed assessments at 24 WAVE sampling locations. The sampling staff collected samples in 2013 and 2014 at 12 locations that were brought to their attention by the WAVE program. By chance, staff also sampled 11 locations that were *later* sampled by WAVE volunteers.

These professional assessments were completed in the fall of 2015. I have listed the results in Appendix 1 by the name of the WAVEr who sampled at each site. Feel free to contact me if you have any questions about data from a particular site.

NYSDEC staff are drafting the first water quality reports to include WAVE data: WAVE sampling locations that produce 6 or more “Most Wanted” indicators are considered to have water quality that fully supports aquatic life. We submit these locations directly to the NYSDEC Waterbody Inventory team for consideration for

the “No Known Impact” waterbody category. The Waterbody Inventory is NYSDEC’s comprehensive inventory of water quality assessments across the state:

<http://www.dec.ny.gov/chemical/36730.html>. The Waterbody Inventory is updated on a five year cycle, cycling through two or three major NY watersheds each year.

This year, NYSDEC staff are drafting the first Waterbody Inventory Report to include WAVE data. The Waterbody Inventories for Genesee River and Delaware River Watersheds will include WAVE “No Known Impact” locations and the professional assessments conducted at “possibly impaired” WAVE locations described above. These reports are expected to be published later this year.

What is the value of this response?

At the NYSDEC, WAVE data target professional assessments and are used for water quality reports. Some folks may be wondering, “How will this process improve or protect these streams?”

The Waterbody Inventory is used to focus the efforts of the NYSDEC Division of Water including compliance, restoration and protection activities, and grant funding. I will be tracking the response to WAVE data and will notify you when one of these programs responds to a stream highlighted by the WAVE data.

Also, all NYSDEC assessments, including WAVE data are used to help prioritize waterbodies for Clean Water Planning (for example, TMDLs, watershed plans, permit modifications). Community involvement is critical to the development and the successful implementation of watershed-based strategies.

With all of these NYSDEC programs, efforts are more successful when the local community is engaged and involved in the process. The WAVE data are inherently valuable but equally valuable is the connection to you and the community you represent.

WAVE Data Are Being Used Locally to Preserve Healthy Waters

In the previous post, I described the different efforts at the NYSDEC that are using WAVE data. At the same time, many groups are using WAVE data directly with their local communities to highlight and preserve valuable local resources.

High quality streams are valuable resources to your community. They provide drinking water, recreational fun for anglers and swimmers, habitat for aquatic and terrestrial wildlife, and they offer an aesthetic beauty (a list of all the NYSDEC designated uses for flowing surface waters is provided here: <http://on.ny.gov/1TgOr4l>)

Documenting healthy streams in your community is valuable for preservation efforts as detailed in two wonderful examples below:

The Housatonic Valley Association, for example, is concerned about the potential impacts of planned development projects in their watershed. They joined WAVE in 2014 and have spent the past two years targeting their sampling effort to document current conditions in these streams, before construction begins. They have shared these data directly with community leaders and are engaging in decision making to work cooperatively for the best outcome.

The Rockland County Soil and Water Conservation District is using WAVE to advise community planning decisions right from the start. They utilize both professional level monitoring and WAVE monitoring to track the health of Rockland County streams. The combined dataset help Rockland County Soil and Water Conservation District work directly with community leaders to make informed decisions regarding development, tracking of illicit discharges, and natural resource preservation.

It is also valuable to highlight our healthy streams as a source of local pride. WAVE participant Paul

Miller owns a family homestead on the banks of Fish Creek in Oneida County, NY. In the summer of 2014, he collected three samples from different reaches of Fish Creek. Two of these samples contained 6 or more “Most Wanted” macroinvertebrates and were recorded as “No Known Impact”, the highest water quality category in the NYSDEC’s waterbody inventory. After receiving his results, Paul Miller wrote, “My family has lived on the banks of Fish Creek since 1866. Helping to assess its health is very rewarding for me.”

What can you do to protect the healthiest streams in your community? The best way to start is to find other people in your watershed who share your interest and concerns. Reach out to other members of the WAVE project within your same watershed; here is a map of the WAVE local coordinators: <http://on.ny.gov/1TdFEz5>

For established groups, a new grant source is available to communities that would like to protect large, high quality watersheds. It is funded by the USEPA and is called the Healthy Watersheds Consortium Grant Program. They are currently accepting proposals for watershed action projects, projects that build watershed protection capacity, or projects that pilot new or experimental technologies, methods, or approaches to incentivize watershed protection. This request for proposals is posted on their home page: <http://www.usendowment.org/partnerships/hwcgrantprogram.html>.



A WAVEr picks through a sample from Stump Pond Str

WAVE Data Are Being Used to Improve Impaired Waters

These winter months offer a great opportunity to examine the WAVE data: what it means and how it is being used. Within a month, we'll open training registration and equipment loans for the 2016 WAVE sampling season. Before that begins, however, I want to highlight one more way WAVE data are being utilized.

In my previous posts this winter, I have highlighted NYSDEC programs that are using WAVE data and I highlighted groups who are using the data directly with their local communities to recognize and preserve healthy streams. In this entry, I want to highlight WAVErs who have made great efforts to improve impaired streams.

WAVE is a valuable tool for identifying healthy streams and flagging possibly impaired streams. For the latter, however, professional sampling is necessary to confirm impaired conditions and to understand the source of the impact.

The Oatka Creek Watershed Committee has sampled with WAVE since 2012. Members of the Oatka Creek Watershed Committee have collected over a dozen samples, most of which indicated "no known impact." A few samples, however, indicated a possible impairment. In 2014, they attended a public meeting with the NYSDEC professional sampling staff and provided a list of stream locations that they were concerned about and felt deserved further investigation at the professional level. Some of these sites were WAVE "possibly impaired" locations and others were sites that raised their concerns for other reasons. Several locations were sampled by the professional staff in 2014. The chair of the committee, Peter Lent, in fact went to some of the sites with the professional staff to observe the sampling.

That being said, the Oatka Creek Watershed Committee has been engaged in water quality improvement efforts long before WAVE began. In 2006, the Committee joined with the Black Creek

Watershed Coalition, the Town of Wheatland in Monroe County and the Genesee/ Finger Lakes Regional Planning Council to apply for and subsequently receive a NYS Department of State (NYS DOS) grant to develop watershed management plans for both the Oatka Creek and Black Creek Watersheds. Finalized planning documents were submitted to NYS DOS in 2014.

For this effort, they have utilized multiple data sources and not only those from NYSDEC. In particular, this watershed planning effort has benefitted from SUNY Brockport studies that provided phosphorus, nitrogen, and sediment sampling data from locations throughout both watersheds. The SUNY Brockport studies helped to identify the sub-watersheds in both Oatka and Black Creek which were experiencing the highest nutrient and sediment loadings and these areas have been given a high priority in the watershed management plans.

Next steps in this project will be to work closely with community members to make needed improvements. As Peter Lent says, "The effort that's going to be occupying our time from here on out is getting out of the stream and sitting in meetings with municipalities."

This is one example of how a team of dedicated volunteers can work with multiple programs to make watershed improvements. Other similar efforts are taking place across the state. Some of these are driven entirely by volunteers while others are coordinated by professional staff at local, county, or state government programs.

In conclusion, I really want to highlight that there are many levels of engagement in stream preservation and/or improvement. At the basic level, we are grateful to those participants who sample with WAVE simply to support NYSDEC programs. There are opportunities, however, to do more.

One simple step is to participate in the annual public meeting with NYSDEC professional sampling staff. This is your opportunity to highlight segments that you feel deserve further investigation. These meetings take place in May

or June. I will announce the 2016 meetings to this list serve as soon as the dates are set.

For established groups, consider recording your accomplishments to inspire other WAVErs. I have been collecting these summaries and linking them to individual sites on the WAVE data map (<http://on.ny.gov/1o9QScq>).

With that, I will close my examination of the 2015 WAVE sampling season. Keep a look out for posts about 2016 WAVE training registration, equipment loan opportunities, and the annual public meetings with the NYSDEC professional staff.

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WAVErs sampling in Fall Creek, Ithaca, NY

Appendix 1:

Professional Assessment Results at WAVE Locations

WAVE Coordinates: 43.0473,-77.8148
WAVErs: Al Borrelli,
WAVE Assessment: No Conclusion
WAVE Sampling Date: 09/17/2013
Professional Sampling Date: 07/01/2014
BAP Score (0-10; low-high): 3.12
Assessment corresponding to this BAP score:
Moderately Impacted
Waterbody Inventory ID: 0402-0049
Comments: This waterbody segment is already listed as impaired in the Waterbody Inventory.

WAVE Coordinates: 43.0292,-77.8221
WAVErs: Al Borrelli,
WAVE Assessment: Possibly Impaired
WAVE Sampling Date: 09/15/2013
Professional Sampling Date: 07/01/2014
BAP Score (0-10; low-high): 4.34
Assessment corresponding to this BAP score:
Moderately Impacted
Waterbody Inventory ID: 0402-0049
Comments: This waterbody segment is already listed as impaired in the Waterbody Inventory.

WAVE Coordinates: 42.9108,-77.787
WAVErs: Allan Baker, Janet Baker, Peter Lent
WAVE Assessment: No Conclusion
WAVE Sampling Date: 09/15/2013
Professional Sampling Date: 09/25/2014
BAP Score (0-10; low-high): 3.99
Assessment corresponding to this BAP score:
Moderately Impacted
Waterbody Inventory ID: 0402-0060
Comments: This waterbody segment is already listed as impaired in the Waterbody Inventory.

WAVE Coordinates: 42.6345,-73.8
WAVErs: Angela (Angie) Martin, Nancy O'Donnell
WAVE Assessment: No Conclusion
WAVE Sampling Date: 09/23/2013
Professional Sampling Date: 07/15/2013
BAP Score (0-10; low-high): 4.93
Assessment corresponding to this BAP score:
Moderately Impacted

Waterbody Inventory ID: 1311-0010
Comments: Further verification is needed to improve the certainty of this assessment before this waterbody segment will be recommended for the impaired listing in the Waterbody Inventory

WAVE Coordinates: 42.4779,-73.794
WAVErs: Angela (Angie) Martin, Nancy O'Donnell
WAVE Assessment: No Conclusion
WAVE Sampling Date: 09/25/2013
Professional Sampling Date: 07/18/2013
BAP Score (0-10; low-high): 5.88
Assessment corresponding to this BAP score:
Slightly Impacted
Waterbody Inventory ID: 1301-0095

WAVE Coordinates: 42.8838,-75.6383
WAVErs: Brendan Kelly
WAVE Assessment: Possibly Impaired
WAVE Sampling Date: 09/17/2015
Professional Sampling Date: 07/25/2013
BAP Score (0-10; low-high): 5.77
Assessment corresponding to this BAP score:
Slightly Impacted
Waterbody Inventory ID: 0602-0165

WAVE Coordinates: 42.1553,-74.533
WAVErs: David Kingsland
WAVE Assessment: No Conclusion
WAVE Sampling Date: 07/08/2014
Professional Sampling Date: 08/05/2014
BAP Score (0-10; low-high): 8.57
Assessment corresponding to this BAP score: Non Impacted
Waterbody Inventory ID: 1403-0040

WAVE Coordinates: 42.1591,-74.5563
WAVErs: David Kingsland
WAVE Assessment: No Known Impact
WAVE Sampling Date: 07/08/2014
Professional Sampling Date: 08/05/2014
BAP Score (0-10; low-high): 8.72
Assessment corresponding to this BAP score: Non Impacted

Waterbody Inventory ID: 1403-0040

WAVE Coordinates: 42.176,-75.2792

WAVErs: Ed Engelman,

WAVE Assessment: No Known Impact

WAVE Sampling Date: 09/23/2013

Professional Sampling Date: 08/05/2014

BAP Score (0-10; low-high): 8.5

Assessment corresponding to this BAP score: Non Impacted

Waterbody Inventory ID: 1404-0050

WAVE Coordinates: 42.1236,-73.7214

WAVErs: Fran Martino

WAVE Assessment: No Known Impact

WAVE Sampling Date: 08/01/2015

Professional Sampling Date: 07/17/2013

BAP Score (0-10; low-high): 6.9

Assessment corresponding to this BAP score: Slightly Impacted

Waterbody Inventory ID: 1310-0015

WAVE Coordinates: 42.1236,-73.7214

WAVErs: Fran Martino, Tony

WAVE Assessment: No Known Impact

WAVE Sampling Date: 07/28/2014

Professional Sampling Date: 07/17/2013

BAP Score (0-10; low-high): 6.9

Assessment corresponding to this BAP score: Slightly Impacted

Waterbody Inventory ID: 1310-0015

WAVE Coordinates: 42.369,-78.14

WAVErs: Ginger Ursitti,

WAVE Assessment: No Conclusion

WAVE Sampling Date: 09/15/2013

Professional Sampling Date: 07/02/2014

BAP Score (0-10; low-high): 6.88

Assessment corresponding to this BAP score: Slightly Impacted

Waterbody Inventory ID: 0403-0062

WAVE Coordinates: 43.3335,-77.9345

WAVErs: Jacob Canale, Stephanie Canale

WAVE Assessment: Possibly Impaired

WAVE Sampling Date: 09/06/2013

Professional Sampling Date: 07/01/2014

BAP Score (0-10; low-high): 8.57

Assessment corresponding to this BAP score: Non Impacted

Waterbody Inventory ID: 0301-0006

WAVE Coordinates: 42.9604,-74.1743

WAVErs: John Naple, Alison Becker, Jill Becker, Devon Becker, Alison Becker, Jocelyn Fabbui, Adria Fabbui

WAVE Assessment: No Known Impact

WAVE Sampling Date: 09/13/2014

Professional Sampling Date: 07/20/2014

BAP Score (0-10; low-high): 6.88

Assessment corresponding to this BAP score: Slightly Impacted

Waterbody Inventory ID: 1201-0031

WAVE Coordinates: 43.2841,-77.8852

WAVErs: Katherine Bailey,

WAVE Assessment: Possibly Impaired

WAVE Sampling Date: 08/15/2013

Professional Sampling Date: 07/01/2014

BAP Score (0-10; low-high): 3.38

Assessment corresponding to this BAP score: Moderately Impacted

Waterbody Inventory ID: 0301-0027

Comments: Further verification is needed to improve the certainty of this assessment before this waterbody segment will be recommended for the impaired listing in the Waterbody Inventory

WAVE Coordinates: 41.8428,-74.0858

WAVErs: Laura Heady, Naja Kraus, Danyelle Davis

WAVE Assessment: No Known Impact

WAVE Sampling Date: 09/20/2015

Professional Sampling Date: 07/18/2013

BAP Score (0-10; low-high): 7.07

Assessment corresponding to this BAP score: Slightly Impacted

Waterbody Inventory ID: 1306-0088

WAVE Coordinates: 41.7646,-74.9414

WAVErs: Logan Grishaber,

WAVE Assessment: No Known Impact

WAVE Sampling Date: 08/20/2013

Professional Sampling Date: 09/30/2014

BAP Score (0-10; low-high): 7.69

Assessment corresponding to this BAP score: Non

Impacted

Waterbody Inventory ID: 1401-0117

WAVE Coordinates: 42.6627,-74.9486

WAVErs: McKeeby, Ruben, Ayla, Sam, Ben, Kayleigh, Scott, Zack

WAVE Assessment: No Known Impact

WAVE Sampling Date: 08/06/2014

Professional Sampling Date: 09/27/2013

BAP Score (0-10; low-high): 6.07

Assessment corresponding to this BAP score:

Slightly Impacted

Waterbody Inventory ID: 0601-0041

WAVE Coordinates: 43.093,-77.8648

WAVErs: Mollie Putzig

WAVE Assessment: Possibly Impaired

WAVE Sampling Date: 08/13/2013

Professional Sampling Date: 07/01/2014

BAP Score (0-10; low-high): 4.28

Assessment corresponding to this BAP score:

Moderately Impacted

Waterbody Inventory ID: 0402-0033

Comments: This waterbody segment is already listed as impaired in the Waterbody Inventory.

WAVE Coordinates: 41.5931,-73.9259

WAVErs: Murphy Wilson, Benjamin Wilson Jr.

WAVE Assessment: No Conclusion

WAVE Sampling Date: 07/02/2015

Professional Sampling Date: 07/17/2013

BAP Score (0-10; low-high): 4.9

Assessment corresponding to this BAP score:

Moderately Impacted

Waterbody Inventory ID: 1305-0012

Comments: This waterbody will be recommended for the impaired listing in the waterbody inventory.

WAVE Coordinates: 42.8878,-78.0261

WAVErs: Peter Lent,

WAVE Assessment: Possibly Impaired

WAVE Sampling Date: 09/27/2013

Professional Sampling Date: 07/02/2014

BAP Score (0-10; low-high): 3.82

Assessment corresponding to this BAP score:

Moderately Impacted

Waterbody Inventory ID: 0402-0031

Comments: Further verification is needed to

improve the certainty of this assessment before this waterbody segment will be recommended for the impaired listing in the Waterbody Inventory

WAVE Coordinates: 43.0192,-77.7477

WAVErs: Peter Lent,

WAVE Assessment: No Known Impact

WAVE Sampling Date: 09/23/2013

Professional Sampling Date: 07/01/2014

BAP Score (0-10; low-high): 6.51

Assessment corresponding to this BAP score:

Slightly Impacted

Waterbody Inventory ID: 0402-0027

WAVE Coordinates: 42.7136,-74.0465

WAVErs: Simon Litten

WAVE Assessment: No Conclusion

WAVE Sampling Date: 08/25/2012

Professional Sampling Date: 08/29/2013

BAP Score (0-10; low-high): 2.69

Assessment corresponding to this BAP score:

Moderately Impacted

Waterbody Inventory ID: 1311-0017

Comments: Further verification is needed to improve the certainty of this assessment before this waterbody segment will be recommended for the impaired listing in the Waterbody Inventory