

# Hudson River Watershed Alliance Position Paper: Discussion Paper: Strengthening and Supporting Watershed Groups in the Hudson River Watershed

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#### **Policy Statement:**

The Hudson River Watershed Alliance, a nonprofit and nongovernmental organization established in the period from 2001 to 2005 and incorporated in 2010, is an 'alliance of alliances,' a network of over 20 established community watershed groups of varying organizational and membership structures, many of whom identify themselves as broad, and at times, loose alliances of local volunteers and citizens, community leaders, municipal officials and employees, and other stakeholders who volunteer their time to attend meetings and participate in group activities. Despite the diversity of these community-based watershed groups in the Hudson River Watershed, they have several attributes in common: they serve a critical role as the primary watershed educator, water protector and/or knowledge base for waterbodies, water quality and watershed planning in their villages, towns, counties and local watersheds. Their activities range greatly in scope from education and stream cleanups to local advocacy, water quality monitoring, stormwater management, stream buffer protection, and watershed planning and management.

Watershed groups take a unique approach by focusing on an **integrated water resources management** or **watershed perspective**, using watershed boundaries at differing scales,<sup>3</sup> often working across governmental (village, town, county and even state) boundaries to follow the flow of water through the landscape. This approach has

<sup>&</sup>lt;sup>1</sup> Revkin, Andy. Hudson River Watershed Alliance - 2016 Toast to the Tribs Awards Benefit. Locust Grove, Poughkeepsie, NY. 3 Dec. 2016. Speech.

<sup>&</sup>lt;sup>2</sup> "Hudson River Watershed Alliance - Local Watershed Groups." *Hudson River Watershed Alliance - Local Watershed Groups*. Hudson River Watershed Alliance, n.d. Web. Nov.-Dec. 2016.

<sup>&</sup>lt;sup>3</sup> Genskow, Kenneth D., and Stephen M. Born. "Organizational Dynamics of Watershed Partnerships: A Key to Integrated Water Resources Management." *Journal of Contemporary Water Research & Education* 135 (2006): 56-64. Web.

the potential to unite those same municipalities in a common mission to protect local water supplies, and some watershed groups are highly successful in doing so.

Increasingly, community-based groups are being looked to as a resource for municipalities, for nongovernmental organizations and for state agencies to support their clean water missions in the Hudson River Watershed. In times of water crises, these groups have also played a unique role in laying the foundation for critical water education, awareness and advocacy. The need to provide these community-based and grassroots groups with administrative, organizational and financial support is increasing, especially as the number and the scope of these organizations grow.

The objective of this paper is to explore ways that community-based and grassroots watershed groups in the Hudson Valley can continue to be supported, strengthened and recognized for their important role in protecting regional water supplies, and ways that the Hudson River Watershed Alliance, the NYS DEC Hudson River Estuary Program and other organizations can continue to collaborate to build the capacity and effectiveness of these groups.

#### Background:

The scientific basis for using a watershed approach is well-documented by research on the important connection between land use, watershed health and water quality. The US EPA has long promoted using a watershed approach to manage our land and water resources<sup>4</sup> and to implement the 1972 Clean Water Act. The New York State Department of Environmental Conservation (DEC), through the Division of Water, also uses principles of watershed management to guide its programs.<sup>5</sup> The NYS DEC Hudson River Estuary Program has not only advocated a watershed approach but has directly supported the formation of many watershed groups in the Hudson Valley, including the Hudson River Watershed Alliance, offers various grant and other capacity building programs to support these groups, and specifically mentions building capacity with watershed groups to supports its clean water goals in its Action Agenda 2015-2020.<sup>6</sup> The NYS Department of State, too, has a focus on watersheds and watershed planning as a means "to protect and restore water resources and local economies" and has an Environmental Protection Fund Local Waterfront Revitalization

<sup>&</sup>lt;sup>4</sup> "The Watershed Approach." *US EPA*. US Environmental Protection Agency, 28 Jan. 2016. Web. Nov.-Dec. 2016.

<sup>&</sup>lt;sup>5</sup> "Department of Environmental Conservation." *Watershed Management*. NYS Department of Environmental Conservation, n.d. Web. Nov.-Dec. 2016. <a href="http://www.dec.ny.gov/lands/25563.html">http://www.dec.ny.gov/lands/25563.html</a>. <sup>6</sup> *Hudson River Estuary Action Agenda 2015-2020*. Rep. N.p.: NYS Department of Environmental Conservation, 2015. Print.

Plans grants program to support the development of watershed plans.<sup>7</sup> Despite this, in New York State, our cities, towns and villages - often smaller in scale than our watershed boundaries - are charged with managing much of our water supplies and water sources with supervision and regulations from our state and federal authorities. Community-based and intermunicipal watershed groups created to focus on watershed boundaries as a defining scale therefore serve an important role as a liaison between municipalities and state-based agencies in watershed management.

While larger regional nonprofit and nongovernmental organizations in the Hudson Valley such as Scenic Hudson, Riverkeeper and Hudson River Sloop Clearwater were formed in this region several decades ago with varying missions to focus on the main stem of the Hudson River and to respond to large-scale environmental challenges, the Hudson River Watershed Alliance was formed in the period from 2001 to 2005 by these and other grassroots groups and nonprofit organizations as well as by representatives from the NYS DEC Hudson River Estuary Program to focus on **tributary and watershed protection** and the **support of smaller watershed groups and alliances** as a means to protect, conserve and restore water resources in the region. A handful of smaller watershed groups in the Hudson Valley were formed prior to this period; for example, one of the earliest examples of a watershed group in this region that still exists today, the Friends of the Great Swamp, was formed in 1991 to preserve, protect and promote the functions and integrity of the Great Swamp wetland and its upland watersheds in Putnam and Dutchess Counties.<sup>8</sup>

With increased national, state-level and regional attention in 2015-2016 on water quality through highly publicized water contamination events in Flint, Michigan, Hoosick Falls, NY and the City of Newburgh, NY and on water usage through a water bottling plant proposal in Ulster County and a desalination plant proposal Rockland County and other high profile water supply and availability issues in California and other regions of the world due to drought and exacerbated by climate change, there is increasingly greater attention on the protection, conservation and management of our freshwater resources and our drinking water supplies. In all of the previously mentioned cases in New York State, citizens and/or watershed groups played a unique role in calling attention to the problem (e.g. a resident in Hoosick Falls<sup>9</sup>), pushing local authorities to question the proposed usage by water companies (e.g.

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<sup>&</sup>lt;sup>7</sup> "NYS Department of State Office of Planning and Development." *Office of Planning and Development*. NYS Department of State, n.d. Web. Nov.-Dec. 2016.

<sup>&</sup>lt;a href="https://www.dos.ny.gov/opd/programs/waterResourcesMgmt/watershedplansNY.html">https://www.dos.ny.gov/opd/programs/waterResourcesMgmt/watershedplansNY.html</a>

<sup>&</sup>lt;sup>8</sup> "About FrOGS." About FrOGS. Friends of the Great Swamp, n.d. Web. Dec. 2016.

<sup>&</sup>lt;sup>9</sup> McKinley, Jesse. After Months of Anger in Hoosick Falls, Hearings on Tainted Water Begin. New York Times: August 30, 2016.

KingstonCitizens.org vs. Niagara Bottling Company in Ulster County, <sup>10</sup> Rockland Water Coalition vs. United Water in Rockland County <sup>11</sup>) and **laying an educational framework around watershed protection** over the course of years before the water contamination came to light (e.g. Quassaick Creek Watershed Alliance in Newburgh, NY). These high profile cases, both nationally and regionally, have highlighted the **need for educated water consumers** in ensuring that our public drinking supply system works effectively, the **role of ordinary citizens** in demanding greater protection of our water supplies and sources, and the **need to build and maintain the public trust** in complex freshwater, groundwater, delivery and conveyance systems. They also demonstrate the **need for responsiveness, collaboration and leadership** among communities, water suppliers and municipal, state and federal officials. All of this points to a growing need for groups like Hudson River watershed groups and alliances to play a greater role in water protection and water education in New York State and to serve as a critical information liaison between local and state government and the public.

#### **Goals and Recommendations:**

In the Alliance's February 2015 Watershed Roundtable focused on strategic planning, over fifteen participating watershed groups and several institutional stakeholders agreed on five key areas where watershed groups face big challenges and where watershed groups wanted to build their capacity. These areas were: building organizational capacity, influencing policy making, improving community engagement, sharing information and better governance. The Hudson River Watershed Alliance, in its position as both an alliance of groups and a watershed group itself, incorporated many of those initial findings into its own strategic plan and five-year workplan in 2015. Additional recommendations have resulted from subsequent Watershed Roundtable meetings in 2015 and 2016, with these gatherings of watershed groups twice a year being an essential way that the Alliance hears from and responds to the diverse watershed groups it represents. Many of these recommendations and meeting notes from the last two years have been incorporated into this document.

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<sup>&</sup>lt;sup>10</sup>Kirby, Paul. Niagara Bottling drops plan to build water plant in town of Ulster. Daily Freeman News: February 13, 2015.

<sup>&</sup>lt;sup>11</sup> Berger, Joseph. "Plan for a Desalination Plant Is Halted by New York State Officials." *New York Times*. N.p., 13 Nov. 2014. Web.

Based on the above considerations and discussion, the Hudson River Watershed Alliance recommends the following to further establish the role of watershed groups as critical stakeholders in the protection, conservation and restoration of our water resources and therefore part of the **watershed investment** we need to continue to make in the Hudson Valley and throughout New York State:

- Strengthen and support watershed groups' critical role in water education and awareness raising (and preparedness to respond to water crises) In the Hudson River Watershed Alliance's 2014-2015 strategic planning process, watershed groups were described internally as "sleeping giants": in other words, playing a relatively quiet role in laying the groundwork for watershed education and awareness but ready to awaken when a crisis occurs. In the past two years, we have seen various crises occur in the Hudson River Watershed, mostly recently with toxic algae bloom in the Wallkill River in the summer of 2016<sup>12</sup> where the Wallkill River Watershed Alliance, supported by Riverkeeper, sounded the alarm about toxic algae blooms spotted in the river by its members. Regional water crises and events in Hoosick Falls, the City of Newburgh, Ulster County and Rockland County have also shown the importance of citizen and community groups in raising awareness about critical issues and helping mobilize a community response. With this in mind, the important role that watershed groups can and do play in raising awareness, building community support and creating a more educated water constituency is critical. More training in how to raise awareness with different audiences, how to build community support and how to implement watershed advocacy and communications more effectively will only strengthen these groups and better prepare them to be better regional watershed educators. This may also include specific training related to dealing with different state and regulatory agencies and responding to water contamination and other crises.
- Engage watershed groups in citizen science programs strategically as a central organizing activity for these volunteer-based groups
  Increasingly, watershed groups and their ability to serve as citizen scientists are becoming institutionalized within nongovernmental organizations and state agencies. For example, since 2010, Riverkeeper has been coordinating citizen sampling for enterococcus, an indicator of fecal contamination, in Hudson River tributaries. In its *How's the Water?* 2015 report, Riverkeeper mentions as part of its goal of investing in clean water the need to "organize and support watershed

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<sup>&</sup>lt;sup>12</sup> Kemble, William J. "Algae Blooms in Wallkill River Prompt Warning." *The Daily Freeman News.* N.p., 26 Aug. 2016. Web. Nov.-Dec. 2016.

groups to effectively advocate for water quality protection and restoration."13 Riverkeeper's water quality program using citizen samplers has become a fixture in some Hudson River tributaries, and has resulted in the establishment of watershed groups such as the Sparkill Creek Watershed Alliance in Rockland County and has also raised awareness on the need to protect water supplies in our streams. Similarly, the NYS DEC's Water Assessments by Volunteer Evaluators (WAVE) is a citizen-based water quality assessment program designed to train volunteers and community-based groups to collect biological data (e.g. macroinvertebrates) for assessment of water quality in streams, 14 and several watershed groups have taken this sampling on as one of their primary activities. The Greater Stockport Creek Watershed Alliance, for example, participates in the WAVE program each year, through a volunteer-based program it has renamed 'Stream Spotters.' The NYS DEC's Eel Monitoring Project, the only state program on the East Coast of the United States using citizen volunteers to monitor the arrival of glass eels in multiple streams throughout the Hudson River Watershed, is another example of a program that has become institutionalized within some watershed groups, and has served as a central activity around which groups can organize. In short, these hands-on citizen science programs have become a central organizing force for watershed groups and a way to actively engage volunteers. Citizen science sponsor agencies like Riverkeeper and the NYS DEC should continue to actively support these activities not only for the important data collection, but also as a strategic organizing mechanism for volunteer and community-based groups. Sponsor agencies should also consider expanding these programs in target areas where these programs and watershed groups are most needed, in conjunction with other organizational support mechanisms offered by the Hudson River Watershed Alliance. A joint program, for example, by Riverkeeper to start enterococcus in a tributary could be followed by an organizing workshop by the Hudson River Watershed Alliance to launch a new watershed group.

<sup>&</sup>lt;sup>13</sup> How's the Water: Fecal Contamination in the Hudson River and Its Tributaries. Rep. N.p.: Riverkeeper, 2015. Print.

<sup>&</sup>lt;sup>14</sup> "Department of Environmental Conservation." *Water Assessments by Volunteer Evaluators (WAVE)*. NYS Department of Environmental Conservation, n.d. Web. Nov.-Dec. 2016. <a href="http://www.dec.ny.gov/chemical/92229.html">http://www.dec.ny.gov/chemical/92229.html</a>.

<sup>&</sup>lt;sup>15</sup> More information can be found on the Greater Stockport Creek Watershed Alliance website at http://www.stockportwatershed.org/.

## • Encourage greater coordination and an annual 'watershed roundtable' of regional organizations and state agencies

Although watershed groups themselves attend roundtable events organized by the Hudson River Watershed Alliance, work with individual watershed groups by regional nongovernmental organizations and state agencies is highly compartmentalized and opportunistic, rather than a coordinated strategy. Several groups - from the Hudson River Watershed Alliance to Riverkeeper to the Hudson Valley Regional Council - may all have projects with one watershed group in a given year, but with no mechanism to necessarily coordinate or streamline their efforts. This results in a compartmentalization of our efforts. As a way to increase coordination and collaboration and to better streamline existing resources, the Hudson River Watershed Alliance and the NYS DEC Hudson River Estuary Program should convene watershed roundtables of regional organizations, state agencies and other sponsors and donors to ensure greater coordination of programs and annual calendars focused on individual watershed groups and of existing financial and organizational resources. The NYS DEC Hudson River Estuary Program currently hosts an ad hoc periodic meeting of its grantees, which could be expanded to take on a greater, more formalized role as a roundtable meeting with others organizations who either fund or otherwise support individual watershed groups throughout the region.

### • Learn from successful watershed management models

Often cited as an example of effective watershed management in protecting source waters, the New York City water supply - part of which is located in the Hudson River Watershed - is the largest unfiltered system in the US, providing one billion gallons a day to nine million people. This example has demonstrated that the cost of watershed protection exceeds costs of filtration plant construction/maintenance and health threats linked to disinfection by-products and other contaminants, and yet few of our watershed groups have been able to take any lessons from this example. Learning from this and other examples of successful programming and partnerships and adapting some of these lessons to our watershed might be an effective way to learn more about effective watershed management and best practices. As we have seen in recent water crises in Hoosick Falls and the City of Newburgh, community-based groups can play not only a watchdog role but can also a longer term role in becoming more involved in protecting source waters in our region. The Hudson River Watershed Alliance, with support from the NYS DEC Hudson River Estuary Program, should plan a tour with watershed groups of the New York City water supply and meet with key planners and managers in that watershed to learn more about that model, and to

determine how best to share best practices with our watershed groups. Another recommendation is to expand watershed roundtables to include watershed groups from throughout the state and even from other states to be able to share success stories and lessons learned. Groups like the River Network may be able to facilitate communication and interaction with other watershed groups from throughout the country.

### Expand watershed groups' role in protecting source waters and drinking water supplies

Nearly 95% of New Yorkers rely on public water supply systems, and many of these systems are in need of major infrastructure upgrades and repairs. There are many other issues related to the quality and safety of our regional water supplies that watershed groups will need to understand in more depth such as how limited funds for infrastructure upgrades should be allocated; how water safety issues are communicated to the public; how watershed groups, municipalities and other stakeholders can work together to protect water at the source; how water is kept clean and safe as it is delivered to consumers; and finally, how consumers themselves can become more educated about their drinking water choices and their community water systems. Including some of these topics in capacity building events with watershed groups would encourage the watershed groups to become more engaged in protecting drinking water sources in the region.

Following the water contamination in the City of Newburgh, Riverkeeper has taken the first step in urging the NYS Department of Health (DOH) to update its source water assessments, including its maps of source water areas like those that were left out in the City of Newburgh. Riverkeeper has also encouraged NYS DOH to develop these assessments in collaboration with "'credible groups" in each source water area, including watershed groups such as the Quassaick Creek Watershed Alliance which Riverkeeper specifically mentions in its report. In short, DOH - and other state agencies - should be encouraged to involve all watershed groups as an important local resource if and when its source water assessments are updated.

• Greater coordination of mapping, spatial analysis and data for watersheds While there is plenty of data on streams, tributaries and water supplies, much of it is housed in different state, county and municipal governments and

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<sup>&</sup>lt;sup>16</sup> Contamination of the Drinking Water Reservoir and Watershed of the City of Newburgh: A Case Study and a Call for Comprehensive Source Water Projection. N.p.: Riverkeeper, 2016. Print.

nongovernmental organizations and not easily accessible or interpreted by community-based watershed groups. The Hudson River Watershed Alliance, which was designed to be a clearinghouse of such information, should seek funding to build its own website to serve this purpose for its umbrella groups. Other groups, such as the NYS DEC Hudson River Estuary Program, should facilitate training - perhaps through one of the Alliance's Watershed Roundtables - on its natural resource mapper (<a href="http://hudson.dnr.cals.cornell.edu/mapper/">http://hudson.dnr.cals.cornell.edu/mapper/</a>) and other tools that might be useful for watershed groups. A large scale project involving the mapping of all subwatersheds of the Hudson River Watershed is another important task that would help watershed groups in their planning and coordination, and requires additional funding.

 Coordinate available funding for watershed groups and identify administrative and operational funding sources for watershed groups Born and Genskow (1990) demonstrate that for real watershed partnerships to occur, "there needs to be some parity in capacity and power between state and local, 'grassroots" partners.' " The authors go on to say that while funding is available for specific watershed projects and activities, "in contrast, funding for organizational startup and development, capacity building, and general operating support is difficult to secure, and where secured, vulnerable to being cut. A consensus exists... that such funding is crucial to make the local side of a watershed partnership work."<sup>17</sup> While those authors made those conclusions decades ago, the fact remains that local watershed groups involved in many partnerships and projects in the Hudson River Watershed continue to state funding as one of their top challenges. 18 These groups are often volunteer and citizen-based with no legal mechanism such as 501c3 status to facilitate raising funds. While many projects are aimed at supporting these groups, the partnership is often uneven, with staff time for the watershed group being volunteered while the lead agency includes paid staff. In addition, funding is often earmarked for specific project deliverables, such as the previously mentioned citizen science programs, rather than on building the long-term sustainability, operations and management of the organizations. For this reason, many of the watershed groups in the Hudson River Watershed have not been in existence continuously since they were established, but instead dissolve either when the funding dries up and/or when the primary coordinator, usually a volunteer, moves on. When possible, projects should include funding to

<sup>&</sup>lt;sup>17</sup> Born, Stephen M., and Kenneth D. Genskow. "Exploring the Watershed Approach: Critical Dimensions of State-Local Partnerships." (n.d.): n. pag. River Network, 1999. Web.

<sup>&</sup>lt;sup>18</sup> Hudson River Watershed Alliance, Watershed Roundtable, February 2015.

subcontract with watershed groups so that volunteer time is minimized. In addition, administrative and operational funding sources should be highlighted for watershed groups. In the long-term, the Hudson River Watershed Alliance could subcontract with watershed groups, but until the Alliance has a steady source of staff and resources, this is difficult. An annual meeting on funding possibilities and partnerships might be a better way to coordinate the limited funds that exist. The Hudson River Watershed Alliance, through events like its roundtables and workshops, can also facilitate a greater focus on fundraising.

#### Watersheds as water infrastructure

Watersheds, with their vegetation and wetlands serving as natural filters for water quality, are an important aspect of our water infrastructure in the Hudson River Watershed. In September 2016, Governor Jerry Brown of California signed legislation that recognized that state's watersheds as part of its infrastructure, which opened the door for using infrastructure financing, including infrastructure bonds, to protect, conserve and restore watersheds in much the same way that that financing previously protected pipes, levees and other traditional forms of infrastructure. The bill states, "It is hereby declared...that source watersheds are recognized and defined as integral components of California's water infrastructure." Just as many rightly argue for more resources to upgrade our water infrastructure in New York, identifying watersheds as critical infrastructure in New York could pave the way for more resources to be allocated to their protection. In addition, as Riverkeeper states, identifying all of the state's source waters in New York's Draft 2014 Open Space Plan should also be a priority.<sup>20</sup>

#### Increased role in MS4 permitting process

The MS4 permitting process is an area where there could be greater coordination between municipal MS4 and stormwater managers with community-based watershed groups, something which could be institutionalized as part of the permitting process by NYS DEC. In particular, the MS4 permit requires the development of a Stormwater Management Program that includes the six minimum control measures, including public education and outreach and public participation and involvement.<sup>21</sup> Both of these areas could include a provision for

<sup>&</sup>lt;sup>19</sup> "California Law Recognizes Meadows and Forests as Water Infrastructure." *American Rivers*. American Rivers, 10 Nov. 2016. Web. Nov.-Dec. 2016.

<sup>&</sup>lt;a href="https://www.americanrivers.org/2016/10/california-law-recognizes-meadows-forests-water-infrastructur">https://www.americanrivers.org/2016/10/california-law-recognizes-meadows-forests-water-infrastructur</a>.

Riverkeeper, 2016, p.38.

<sup>&</sup>lt;sup>21</sup> "Department of Environmental Conservation." *MS4 Toolbox*. NYS Department of Environmental Conservation, n.d. Web. Nov.-Dec. 2016. <a href="http://www.dec.ny.gov/chemical/8695.html#mcm">http://www.dec.ny.gov/chemical/8695.html#mcm</a>.

- a stormwater manager to work with community-based watershed groups as a required part of those measures in the permit.
- Increased focus on land use training and coordination with land trusts
  According to the Center for Watershed Protection and other sources, streams
  can show signs of impairment when impervious coverage in the watershed
  exceeds 10 percent. Though watershed management is inherently an approach
  that includes land usage and land use decisions, and addresses aspects such as
  impervious cover, there has been little training to date within Hudson River
  watershed groups on this topic and little interaction (as a whole group) with land
  trusts that do focus on these issues. The Hudson River Watershed Alliance
  should include land use training as a future capacity building opportunity and
  incorporate more land use tools and resources on its website. Greater
  coordination and partnerships with land trusts is also recommended, as well as
  with other groups not focused on water protection per se, such as sports, fishing,
  hunting and recreational groups, Native American groups and water utilities,
  among others.
- Greater capacity building in advocacy and communications and connections with the state/federal legislative and policy environment Two of the Alliance's past Watershed Roundtables, in 2015 and 2016 respectively, have included a focus on communications, advocacy and lobbying. These are topics that the Alliance aims to build greater capacity within the Alliance and within the individual watershed groups. A potential focus moving forward should be on adopting common language among watershed groups to use with different audiences; identifying funding opportunities focused on building a region-wide brand, marketing tools and website design; and continuing to solidify the role of watershed groups in the Hudson Valley in advocacy. Partnering with larger groups that conduct state-wide lobbying, such as Environmental Advocates of New York, Scenic Hudson, Riverkeeper and Hudson River Sloop Clearwater, should be a priority for the Alliance and smaller watershed groups moving forward. With greater coordination, the larger groups could use the Hudson River Watershed Alliance to send legislative alerts and calls to sign on to letters to the smaller watershed partners. These larger groups should also continue the training and capacity building of the Alliance and smaller watershed groups and alliances in advocacy.

#### • Increase visibility of watershed groups and interests

In the Hudson River Watershed Alliance's 2015 Strategic Plan, low visibility of the Alliance was seen as a serious constraint for the organization's growth and financial sustainability. To raise awareness for the Alliance and its watershed partners and watershed interests as a whole, the Alliance should work to publish more press releases, perhaps timed with our Watershed Roundtables, to raise awareness of key watershed issues and priorities for the year. In addition, the Alliance, with greater capacity and resources, could in the future help spearhead watershed-wide events, activities and communications. Through its Watershed WaveMakers and other existing mechanisms, the Alliance can continue to raise visibility for watershed groups and watershed success stories, but this role should be expanded over the long-term and can even include joint fundraising opportunities.

#### Connect watershed groups and municipalities

At the forefront of drinking water protection and water supply management in New York State are two local entities: grassroots watershed groups like those in the Hudson River Watershed Alliance and municipalities. These groups could should continue to look for ways to collaborate together on watershed planning and management efforts. The Alliance, the NYS DEC Hudson River Estuary Program and other larger organizations can help facilitate this coordination by educating municipalities on the role grassroots watershed groups play and by helping identify diverse project partners in new projects. The Alliance could also provide greater education for municipalities and watershed groups on the benefits of forming an intermunicipal council or county-wide coalition to protect local water supplies.

Watershed management can be viewed "as an effort to build, manage, and maintain inter-organizational networks; in other words, to develop an institutional ecosystem." In the Hudson River Watershed, community-based watershed groups and alliances are an integral part of our **institutional ecosystem**. Like other kinds of ecosystems that are interconnected and co-dependent, so too does our institutional ecosystem in the Hudson River Watershed depend on the stability and sustainability of community-based watershed groups to work effectively.

In polling data by Gallup in 2015, and in previous years, Americans consistently rate the **pollution of drinking water** and the **pollution of rivers, lakes and reservoirs** among

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<sup>&</sup>lt;sup>22</sup> Genskow and Born, 2006.

our highest environmental concerns.<sup>23</sup> Whereas environmental groups tend to dismiss the public as not caring, this polling data indicates that in fact a majority of people do care about protecting the water we drink and ensuring our waterbodies are clean. The recent high profile water contamination cases in the Hudson Valley and around the country has been a wake up call for many people. As a result, people may be paying attention to their water supplies and sources now more than ever before. All of this suggests that in fact this may be a 'watershed moment' for watersheds, and an opportunity where we can take the time to really move forward in a new direction - with greater purpose and strategy focused on strengthening and supporting the incredible network of watershed groups and alliances we have in the Hudson River Watershed.

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<sup>&</sup>lt;sup>23</sup> Gallup, Inc. "Americans' Concerns About Water Pollution Edge Up." *Gallup.com*. Gallup.com, 17 Mar. 2016. Web. Nov.-Dec. 2016.

#### Attachment A:

#### **Hudson River Watershed Groups (December 2016)**

# Known, active groups (e.g. have periodic meetings, established leadership and/or periodic group activities)

- Battenkill Conservancy
- Bronx River Alliance
- Catskill Creek Watershed Alliance
- Coevmans Creek/Hannacroix Creek
- Friends of the Great Swamp
- Friends of the Kayaderosseras
- Greater Stockport Creek Watershed Alliance
- Hoosic River Watershed Association
- Kromma Kill Watershed Alliance
- Mohawk River Watershed Coalition
- Moodna Creek Watershed Intermunicipal Council
- Quassaick Creek Watershed Alliance
- Pocantico River Watershed Alliance
- Roe Jan Watershed Association
- Rondout Creek Watershed Alliance
- Saw Kill Watershed Community
- Saw Mill River Coalition
- Sparkill Watershed Alliance
- Upper Hudson River Watershed Coalition
- Wappinger Creek Watershed Intermunicipal Council
- Wallkill River Watershed Alliance

#### Other groups, currently inactive

- Casperkill Watershed Alliance
- Fall Kill Creek Watershed Alliance
- Fishkill Creek Watershed Association
- Lower Esopus Watershed Partnership
- Sawkill Watershed Alliance