Please include the following in your report:

1. Full name of your Program Work Team (PWT):

Aquaculture Development in NY

2. Names, affiliations and e-mail addresses of the PWT Co-Chairs: (With an asterisk [*], please indicate the co-chair responsible for finalizing this report.)

Michael B. Timmons*, Biological and Environmental Engineering - mbt3@cornell.edu
Gregg J. Rivara, Cornell Cooperative Extension of Suffolk County – gjr3@cornell.edu

3. As a separate attachment, please provide a list of names, affiliations and email addresses only of active members of the PWT. We realize the organizational structure of the PWTs varies widely. We are interested in obtaining contact information about individuals in the core decision-making or planning group of the PWT, not in an exhaustive list of all participants in general meetings or activities.

4. Please identify your PWT’s activities, accomplishments, and, most importantly, outcomes and impacts over the past year.

In your successful PWT petition, your team committed to:
- Fully engage your member stakeholders, especially externals.
- Address specific statewide program needs.
- Conduct or plan to conduct programs/activities to address those needs.
- Seek and document productive outcomes through evaluation efforts.
- Integrate applied research and extension activities.
- Foster multidisciplinary approaches.
- Explore external sources of support for PWT efforts and programs.

PWT co-chairs should do their best to convey their team’s progress and accomplishments. Co-chairs are encouraged to choose and include any information that they believe best reflects the productive results of their team’s activities and that they wish to share with other PWTs, the Program Council, administration, and the public in general. It is particularly important to include specific programming outcomes and impacts in your report. Please consider and report any changes in audience behavior, skills, or conditions, and what differences occurred in individuals, groups, families, businesses, or communities due to your team’s work.

You can find your PWT’s previously submitted annual reports to use as reference via the PWT website http://cce.cornell.edu/learnAbout/pcs-pwts/Pages/ActiveProgramWorkTeams.aspx.

Please e-mail the completed report and membership list as MS Word attachments to: Mike Duttweiler (mwd1@cornell.edu) by February 15, 2011. Please give the WORD attachments a filename that includes the surname of the lead PWT co-chair (example: Smith-PWTReportFY10.doc and Smith-Membership ListFY10.doc).

Questions? Contact Mike Duttweiler at mwd1@cornell.edu
Marine District (Rivara): Two grower’s workshops were held in 2011; both in Riverhead, Suffolk County. On 3 February a meeting attracted 35 shellfish farmers who learned about boring sponges and how this pest affects survival and marketability of oysters as well as control methods. The Suffolk County Department of Planning went over the Shellfish Aquaculture Leasing Program and how to obtain a lease. After the presentations, the New York State Aquaculture Association president Ted Universal called in to the meeting and spoke with members of the East End Marine Farmers Association, going over current topics on Long Island and strategies for the trip to Albany to interact with elected officials.

Related to the above is the willingness of the NYSDEC to grant exemptions to bay scallop farmers. Currently, shellfish farmers growing bay scallops are held to the same standards in terms of minimum size and season as wild harvest fishers. A loophole in the law allows for the importation into NYS, of undersize and out-of-season bay scallops as long as they were legally harvested where grown, be that Connecticut or China. The state saw the inequity of this and should have a regulation in place by the summer of 2012. It is estimated (in a Northeast Regional Aquaculture Center study from 1995) that this industry would be worth well over 1.5 million dollars per year in NYS alone. A number of years ago CCE- Suffolk did a demonstration study integrating bay scallop culture into an existing oyster farm with NY Farm Viability Institute funding. The results of this work will be used to guide those oyster farmers wishing to get into scallop farming in order to diversify the crops they grow.

The SPAT oyster gardening program finished its eleventh year with 230 participants. SPAT volunteers assisted Cornell Cooperative Extension of Suffolk with oyster and bay scallop resource enhancement projects.

Aquatic Animal Health (Bowser): The Aquatic Animal Health Program (AAHP) located at the College of Veterinary Medicine, Cornell University continues to provide fish disease diagnostic assistance to the aquaculture community, primarily in Upstate New York. During 2011, 88 disease diagnostic investigations were processed in that portion of the diagnostic work. The AAHP continues to have representation at the two annual Aquaculture Intersector meetings held each year. The Aquaculture Intersector meetings are ad hoc meetings of the commercial aquaculture community, NYS government agency representatives and university faculty and staff where contemporary issues of concern to the aquaculture community are discussed. A representative of the AAHP (P. R. Bowser) served as an advisor for the USDA-NIFA Northeast Regional Aquaculture Center-funded Extension/Outreach project on Fish Health Management and attended one of the working meetings of that project held at the University of Massachusetts on 19 October 2011.

General (Timmons): The PWT continues to maintain its website, www.bee.cornell.edu/aqua. This site is our main avenue for information transfer and access to information about various aquaculture topics and is the avenue to sign up for the 2012 Cornell Aquaculture summer short course which will be held July 16-19 (2012) on the Cornell main campus. The PWT's previous output of a 72-page white paper “New York Aquaculture Industry: Status, Constraints, and Opportunities” continues to be an important document in documenting the current status of our industry. This document continues to be requested and has been mentioned by many individuals as being extremely useful in describing the current industry and the potential for future development. The white paper is also available at the Aquaculture PWT site: www.bee.cornell.edu/aqua. We conducted a 1-week short course on the principles of indoor aquaculture for the 17th consecutive year. This past year's course was held on the Cornell main campus. We had 18 students from all over the world in attendance. The course covered the basics of
water recirculation, health and biosecurity. The short course was also offered as a distance learning course. In cooperation with Florida Atlantic University, we conducted a 3-day short course in conjunction with The Harbor Branch Oceanic Institute, Ft. Pierce, FL in October. This has become an annual event (5 years in a row).

NYS Aquaculture Association (Universal)
**Working for Positive Growth in Aquaculture**

During 2011 the Association continued to lay the groundwork for diversification while maintaining and improving current hatchery operations. New York's upstate aquaculture program is built mainly around bait and stocking programs. There is significant demand for these products and many growers are making a good living marketing fish to tourism and sport fishing clientele. Aquaculture however, has many varied centers of attention, all of which have potential for commercial development.

One major area of the industry that's gotten little attention upstate is the raising of fish for food. Few growers have configured their businesses for food production, yet New York's market for seafood is arguably the largest in the world. The development of efficient, cost effective recirculation systems has made the raising of fish in tanks and on a massive scale, a potentially profitable business venture. Moving the industry in the direction of food production however, will not take place overnight, nor will it be an easy or inexpensive venture.

Aquaculture and fish production is generally foreign to most people. They may have an interest in raising fish, but may not be able to enroll in college or university aquaculture programs to learn how it is actually done. In 2011, one of the steps the NYS Aquaculture Association has taken to introduce prospective growers fish culture, is develop a one day course entitled "Introduction to Recirculation Aquaculture: a Non-technical Guide to Raising Fish in Tanks". Designed to introduce the average person to the art of raising fish in tanks, the course, features a power point presentation, equipment displays and a working model of a low tech recirculation system participants can see in operation. A booklet based on the course has been developed that reviews course content and covers all information mentioned during the power point presentation. By the time participants complete the program, they should understand the workings of a typical fish culture system and be able to build their own small system and begin raising fish.

New York's highly restrictive regulations governing the distribution and sale of fish and shellfish continue to be a major impediment to the growth of the industry. In July of 2011 a delegation of fish and shellfish growers met with DEC Commissioner Joseph Martens to discuss regulation and the need for review and revision. The Commissioner was very interested in our concerns and asked department heads to work with us to improve regulation and job opportunities in aquaculture. Since food production and marketing will be our major areas of development over the next decade, having the support and expertise of N.Y.S. DEC and N.Y.S. Department of Ag. & Markets will be key ingredients to our success. We hope to see regulatory improvements early in 2012.