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 ?????. 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): One grower’s workshop was held in 2012 in Riverhead, Suffolk County. On 24 March a meeting attracted 40 shellfish farmers who learned about how to minimize foodborne illness by cooling shellfish upon harvest. A representative from the NYS DEC spoke about new draft regulations on an aquaculture exemption for farm-raised bay scallops, something the industry has been requesting for years. These regulations were approved in late July of 2012 - four oyster farmers took advantage of the change by growing bay scallops for the in-shell trade (see next item and NYSAA section). With a grant from the Empire State Development Corporation to Cornell Cooperative Extension of Suffolk County four oyster farmers were introduced to bay scallops as a second crop. They were already permitted for bay scallop culture and were given seed, gear and technical assistance as well as marketing help. A product launch for “Empire State In-Shell Bay Scallops” was held at the Grand Central Oyster Bar on 20 November and the product was covered in the NY Times Food Section as well as Edible East End.

The SPAT oyster gardening program finished its 12th year with 220 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 2012, 84 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.

**General** (Timmons): The PWT continues to maintain its website, [www.bee.cornell.edu/aqua](http://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 2013 Cornell Aquaculture summer short course which will be held July 15-19 (2013) on the Mt. Saint Mary College (Newburg, NY). 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](http://www.bee.cornell.edu/aqua).

We conducted a 1-week short course on the principles of indoor aquaculture for the 18th consecutive year. This past year's course was held on the Mt. Saint Mary College campus in Newburg, NY. This course also included two tours to Continental Organics LLC in nearby New Windsor, NY. We had 22 students from all over the world in attendance. The course covered the basics of water recirculation, health and biosecurity. The course was changed in 2012 from a 4 day to a 5 day course to allow our content to cover hydroponics and aquaponics. The short course was also offered as a distance learning course. In cooperation with Florida Atlantic University, we conducted a 4-day short course in conjunction with The Harbor Branch Oceanic Institute, Ft. Pierce, FL in October. This has become an annual event (6 years in a row).

**NYS Aquaculture Association (NYSAA)** (Ted Universal, President, nysaquaculture@rochester.rr.com)

**Working for Positive Growth in Aquaculture**
During 2012 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 over night, 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. Starting in 2011 and continuing since then, one of the steps the NYSAA 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 has long been 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 continues to be one of 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.

Throughout 2012, the Association worked closely with NYS DEC officials in the revision of regulations governing the sale of black bass as a food commodity. Our task was completed in December and the new regulation went into effect on January 2, 2013. In concise terms, fish farmers can now market largemouth bass as a food commodity anywhere in New York State. Restaurants, fish markets and grocery stores may now sell largemouth bass as a food item, whereas prior to these changes, they could not. The lifting of the restrictions on largemouth bass sales, opens up a new avenue for growers to sell this new fish product and will create many new job opportunities in aquaculture. This new circumstance will also encourage growers to look toward food production as a viable means to expand their businesses in the future.

Association shellfish growers in the Long Island area also worked closely with NYS DEC Officials in 2012 and made strides in regulation reform regarding the harvesting of bay scallops. In past years scallops could only be harvested during wild scallop harvesting season. This was not economical for a farm raised crop, since it would require holding mature scallops over the winter.
during which time most would die from the cold. With the change in regulations, farm raised bay scallops can now be harvested when they are marketable at the end of the 1st crop year (prior to winter). This change makes farm raised bay scallops profitable and adds a new product line to grower's list of aquaculture products. We have 4 growers currently producing scallops and will have a least that many more again this coming fall. This new product certainly benefits grower's bottom line, but also helps the state economy by creating revenue and jobs during hard economic times. The public at large, of course, benefits by having New York State Grown Bay Scallops available in local stores and restaurants.

The improvements in regulatory reform made this year show that both government and aquaculture can benefit when both work hard to resolve important issues. As we look toward the future, this spirit of cooperation and mutual benefit will make everyone winners in their own way.