

Final Performance Report

Date Generated: December 13, 2013

BMP_Fish Hatchery Operations

SAP/PO Number# SAMPLE1007

Mod Number- 0-BASE

Table of Contents

Grant Performance Snapshot

- [Grant # SAMPLE1007 - BMP_Fish Hatchery Operations](#)
 - [Project Statement # 60001974 - BMP_Fish Hatchery Operations CY 2012](#)

Appendix A: Grant Details

- [Grant # SAMPLE1007 - BMP_Fish Hatchery Operations](#)

Appendix B: Project Statement Details

- [Project # 60001972 - BMP_Fish Hatchery Operations](#)
 - [Project Statement # 60001974 - BMP_Fish Hatchery Operations CY 2012](#)

Appendix C: Project Details

- [Project # 60001972 - BMP_Fish Hatchery Operations](#)

Appendix D: Action Details

- [Action # 60002115 - Fish Culture and Stocking](#)
- [Action # 60002196 - Hatchery Facility Repair and Maintenance](#)

Grant Performance Snapshot

Grant Snapshot #SAMPLE1007 - BMP_Fish Hatchery Operations

[\[View Grant Details\]](#) [\[top\]](#)

Grant SAP/PO Number SAMPLE1007
Grant Mod Number 0-BASE
Start Date February 1, 2012
End Date January 31, 2013

Grant Funds Allocated to Actions

Action	Action Category	Est. WSFR Fed Cost	Est. WSFR Non-Fed Match	Est. Total Amount
Hatchery Facility Repair and Maintenance	Facilities and Areas (Operations and Maintenance)	\$250,000	\$83,333	\$333,333
Fish Culture and Stocking	Species Reintroduction and Stocking	\$500,000	\$166,666	\$666,666
Totals		\$750,000	\$249,999	\$999,999

Project Statement Performance #60001974 - BMP_Fish Hatchery Operations CY 2012

[\[View Statement Details\]](#) [\[top\]](#)

Project Name BMP_Fish Hatchery Operations
[\[View Project Details\]](#)

SMART Objectives - Needs/Threats

1 - Infrastructure Needs

Need/Threat Level 2

Level 1 Need/Threat

Administrative Needs

Description

There is a need to continue to improve infrastructure in the replacement, repair and maintenance of four hatchery facilities and grounds for efficient culture operations, safety of personnel, and to make selected areas conducive to public participation.

Objectives

Objective ID - 1

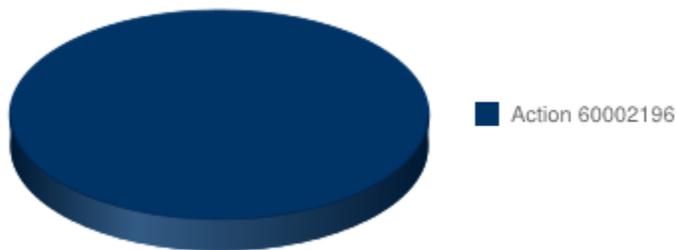
Objective Name Hatchery Maintenance

Objective Statement To maintain four hatcheries in Rhode Island to produce fish to satisfy sportfishing demand.

Standard Indicators

Desired Future Value	Base Value	Output	Deadline
4	0	Sites	January 30, 2013

% of Desired Output Reported by Action

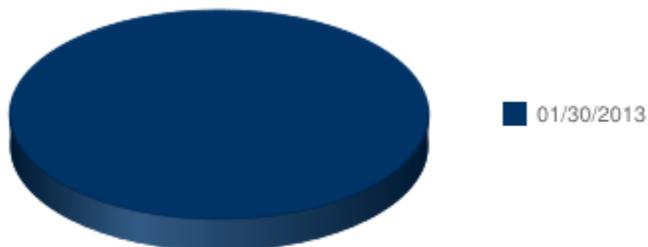


Addressing Actions

Action # 60002196 - Hatchery Facility Repair and Maintenance

[\[View Action Details\]](#)

% of Desired Output by Date



Date Reported	Reported Value	Output	% of Desired Output
January 30, 2013	4	Sites	100%
	Lafayette Trout Hatchery Routine maintenance: Lawns (5 acres) were mowed and trimmed on a weekly basis seasonally. All lawn mowers, vehicles, fish transport tanks, pumps, and power equipment were cleaned and maintained. All hatchery		

Results

buildings were repaired and maintained as needed. Raceway screens were cleaned on a daily basis, and all raceways were swept and cleaned daily or as needed. All snow and ice was plowed, shoveled and removed as needed. Recommendations: ¿ The removal of fish waste (solids removal) is still an issue that will be addressed sometime in 2013. ¿ The installation of an extra gravel packed well should also be evaluated in the event that one of our 3 production wells needs servicing. ¿ An evaluation of our well water supply needs to be performed since our water flows has decreased by about 20 % ¿ To replace Well House number 2 building that is beyond repair due to a moisture issue. ¿ Start to contract out annual fish health inspections in order to manage any disease related issues that may arise. Perryville Trout Hatchery Routine maintenance: Lawns (1+ acres) were mowed and trimmed on a weekly basis seasonally. All brush around culture pond and raceways were cleared as needed, and all vegetation was removed from the culture pond. Raceways were cleaned of algae and debris as needed. Raceway screens were cleaned twice per day or more frequently during leaf-fall in autumn. All lawn mowers, vehicles, fish transport tanks, pumps and power equipment were cleaned and maintained. All snow and ice was plowed, shoveled and removed as needed. All hatchery buildings were repaired and maintained as needed. Screens for raceways and troughs were made as needed depending on the various sizes of fish. Fish holding crates were made and repaired to hold fish for stocking season. Recommendations: ¿ Total production of fish needs to be increased by 25- 30%. ¿ A method of removal of fish wastes (solids) needs to be addressed. ¿ The office building needs to be resided and refurbished and a restroom with running water needs to be constructed for the staff. Carolina Trout Hatchery Routine maintenance: Approximately 8 acres of lawn was mowed and trimmed on a weekly basis seasonally. All brush and vegetation was removed from sides of raceway enclosures. Two miles of roadway was maintained, snow plowed during the winter, and pot holes in the road were filled or patched as needed. All aquatic vegetation growing in the river feeding the lower hatchery was manually removed. All lawn mowers, vehicles, fish transport tanks, pumps, and power equipment were cleaned and maintained as needed. Approximately 4 miles of fire trails were brush cut, cleared, and removed for safety of travel throughout the facility. All brush was cut and removed from exterior of raceways to 20 feet back. Raceway maintenance: Replaced approximately 1200 linear feet of wooden raceways using 2"x 4", 2" x 8", 2"x 10", 2" x 12" and 4" x 4" boards. Repaired or replaced screens and splash boards as needed. Replaced four one horse power centrifugal water pumps for hatchery water supply system. The vendor replaced all piping, fittings with new PVC parts. The electrical service for the upper hatchery needed to be replaced with code approved poles, underground wiring and water resistant connectors, boxes. The lower hatchery needed a new electrical pole and a new service line to replace old, fallen power lines and poles. The water supply well for the caretaker's residence needed a filtration system to aid in the removal of iron and sand particles Hatchery buildings: The office buildings foundation and exterior wall were rebuilt. A leaking 48 inch water line that caused the leak was replaced to eliminate any issues associated with the foundation. All hatchery buildings and Aquatic Resource Education buildings were maintained as much as possible.

Totals	4	Sites	100%
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SMART Objectives - Purpose/Targets

Purpose/Target ID - 3

Purpose/Target Description	Atlantic salmon restoration
Viability Status	Increase

Indirectly Benefited Habitats

Habitat Name	Habitat Level	Parent Habitat
River	2	RIVERINE

Indirectly Benefited Species

Scientific Name	Common Name	Status
Salmo salar	Atlantic salmon	

Objectives

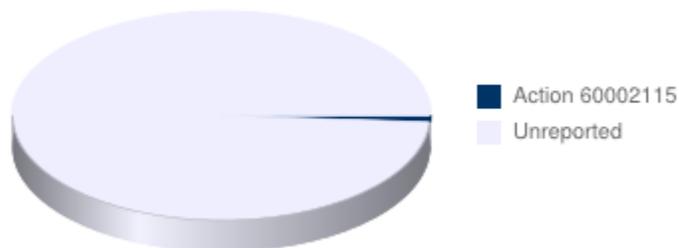
Objective ID - 3

Objective Name	Atlantic Salmon Restoration
Objective Statement	To maintain a brood stock of sea-run Atlantic salmon and to annually stock approximately 150,000 fry into the Pawcatuck River.

Standard Indicators

Desired Future Value	Base Value	Output	Deadline
150000	0	Animals	January 30, 2013

% of Desired Output Reported by Action

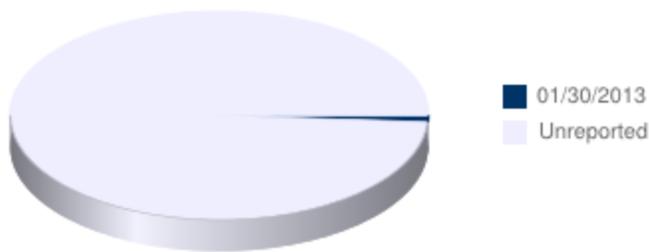


Addressing Actions

Action # 60002115 - Fish Culture and Stocking

[\[View Action Details\]](#)

% of Desired Output by Date



Date Reported	Reported Value	Output	% of Desired Output
January 30, 2013	1136	Animals	1%
Results	A total 800 Atlantic salmon yearlings averaging 2.0 fish per pound (175 lbs. fish) and 336c salmon fry averaging 50 fish per pound were reared and cultured for future brood stock. A total of 10,000 Atlantic salmon eggs were spawned from hatchery reared brood stock		
Significant Deviations	The 150,000 Atlantic salmon targetted by 1/31/2013 represented an estimated number of fry to be released in the Pawcatuck River watershed. That was the average number released in previous years. It is based on obtaining 100-200 Atlantic salmon broodstock annually from U.S. Fish and Wildlife Service hatcheries in the northeast. Changes in the Service salmon program resulted in discontinuing this supply. So Rhode Island state efforts have shifted from fry stocking to culture of fry and yearlings for future brood stock.		
Totals	1136	Animals	1%

Purpose/Target ID - 2b

Purpose/Target Description: To culture and stock catchable size brown trout.
 Viability Status: Increase

Indirectly Benefited Species

Scientific Name	Common Name	Status
Salmo trutta	brown trout	

Objectives

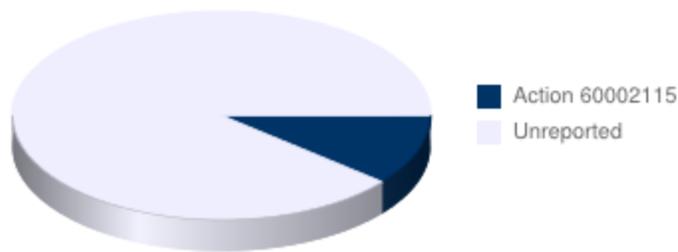
Objective ID - 2b

Objective Name: Brown Trout Production and Stocking
 Objective Statement: To culture and stock catchable size brown trout.

Standard Indicators

Desired Future Value	Base Value	Output	Deadline
90000	0	Animals	January 30, 2013

% of Desired Output Reported by Action



Addressing Actions

Action # 60002115 - Fish Culture and Stocking

[\[View Action Details\]](#)

% of Desired Output by Date



Date Reported	Reported Value	Output	% of Desired Output
January 30, 2013	10300	Animals	11%
Results	<p>A total of 50,000 Brown trout fry averaging 160 fish per pound (312.5 lbs) was donated as surplus from the state of Connecticut’s Department of Environmental Protection Agency. A total of 15,000 Brown trout averaging 110 fish per lb. (136 lbs.) were donated as surplus from the Connecticut Department of Environmental Protection Agency. A total of 10,300 Brown trout (mean weight = 1.42 lbs.; total weight 14,626 lbs.) were reared and stocked in Rhode Island waters. Fish of all life stages were fed on a daily basis. All fry were fed with automatic fish feeders, and larger fish were fed manually several times a day. All fish were manually counted and graded several times during the two year growing cycle. A private laboratory (ESS- Thielsch Engineering, Inc.) performed a complete water analysis of effluent hatchery water. Monitoring was performed on a monthly and quarterly basis for Discharge Monitoring Reports. This sampling included total suspended solids, BOD, temperature, dissolved oxygen, PH, total nitrogen, ammonia nitrogen, total phosphorus, total chlorine and formaldehyde if used. Sample weights were taken on a monthly basis on all lots of fish in the hatchery. This was performed to determine the increase in the body weight of the fish and what percentage increase in fish food should be fed to meet production goals.</p>		
Totals	10300	Animals	11%

Purpose/Target ID - 2c

Purpose/Target

Description To culture and stock catchable size brook trout.

Viability Status Increase

Indirectly Benefited Species

Scientific Name	Common Name	Status
Salvelinus fontinalis	sea trout, salter, charr, brook trout	

Objectives

Objective ID - 2c

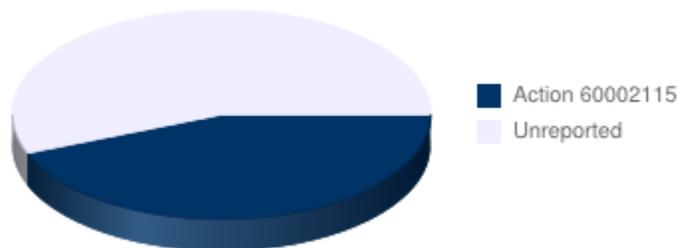
Objective Name Brook Trout Production and Stocking

Objective Statement To culture and stock catchable size brook trout.

Standard Indicators

Desired Future Value	Base Value	Output	Deadline
90000	0	Animals	January 30, 2013

% of Desired Output Reported by Action

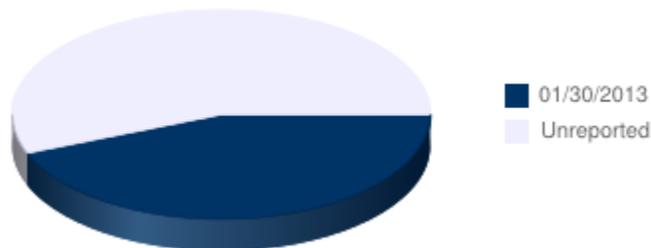


Addressing Actions

Action # 60002115 - Fish Culture and Stocking

[\[View Action Details\]](#)

% of Desired Output by Date



Date Reported	Reported Value	Output	% of Desired Output
January 30, 2013	39600	Animals	44%
	A total of 40,000 Brook trout fry averaging 240 fish per pound (166 lbs.) were donated as surplus from the state of Connecticut's Department of Environmental Protection Agency. A total of 39,600 Brook trout (mean weight = 1.2 lbs.; total		

Results	weight = 47,520 lbs.) were reared and stocked in Rhode Island waters. Fish of all life stages were fed on a daily basis. All fry were fed with automatic fish feeders, and larger fish were fed manually several times a day. All fish were manually counted and graded several times during the two year growing cycle. A private laboratory (ESS- Thielsch Engineering, Inc.) performed a complete water analysis of effluent hatchery water. Monitoring was performed on a monthly and quarterly basis for Discharge Monitoring Reports. This sampling included total suspended solids, BOD, temperature, dissolved oxygen, PH, total nitrogen, ammonia nitrogen, total phosphorus, total chlorine and formaldehyde if used. Sample weights were taken on a monthly basis on all lots of fish in the hatchery. This was performed to determine the increase in the body weight of the fish and what percentage increase in fish food should be fed to meet production goals.		
Totals	39600	Animals	44%

Appendix A: Grant Details

Grant Details #SAMPLE1007 - BMP_Fish Hatchery Operations

[\[top\]](#)

Grant SAP/PO Number SAMPLE1007
Grant Mod Number 0-BASE
Recipient State Rhode Island
Start Date February 1, 2012
End Date January 31, 2013

Grant Programs

Program	Est. WSFR Fed Cost	Est. WSFR Non-Fed Match
Sport Fish Restoration (Freshwater)	\$750,000	\$250,000
Totals	\$750,000	\$250,000

Grantors U.S. Fish and Wildlife Service
Agency Grantees Rhode Island Division of Fish and Wildlife

Appendix B: Project Statement Details

Project Snapshot #60001972 - BMP_Fish Hatchery Operations

[\[View Project Details\]](#) [\[top\]](#)

Primary Agency Rhode Island Division of Fish and Wildlife
Start Date January 30, 2012
End Date January 29, 2017
Project Categories Conservation/Management,
 Recreation

Project Statement Details #60001974 - BMP_Fish Hatchery Operations CY 2012

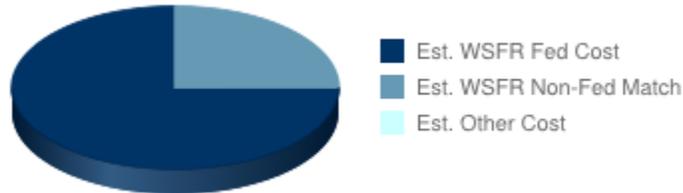
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Properties

Is Revision? No
Grant Programs Sport Fish Restoration (Freshwater)

Project Statement	Estimated WSFR Federal Cost:	\$750,000
Cost Breakdown	Estimated WSFR Non-Federal Match:	\$250,000
	Estimated Other Cost:	\$0
	Total Estimated Cost:	\$1,000,000

Cost Breakdown Graph



Need Statement

There is a need to provide stocked trout species for the states' resident and nonresident freshwater anglers. As was noted in the early 1870's by the states' Fisheries Commissioners, there simply is not enough of a natural or wild trout stock to satisfy the quantity and quality of trout necessary for recreational angling. This is also true today due to changing habitats and the characteristics of wild trout. Although colorful, and wily, they are small, not readily accessible, and few in numbers. The majority of anglers prefer to keep and consume their catch and want to have the opportunity to partake in a plentiful and robust trout population. Hatchery raised trout are typically much larger and provide a quality fishing experience for adults and youngsters alike. There has been impressive advances in water quality in streams and river systems such as the Blackstone, Pawtuxet and Woonasquatucket River that increases the need for stocked fish for anglers. More and more communities are sponsoring children's fishing derbies and require stocking. Approximately 21,000 resident and 2500 non-resident freshwater fishing licenses are sold each year. Along with the approximately 16,000 Trout Stamp sales, these funds provide restricted receipt monies to match the Federal portion of the grant. This user-pay, user-benefit funding targets our constituency needs for hatchery production.

There is a need to provide hatchery trout for outreach activities such as the Aquatic Resource Education Program's (ARE) fishing training and school husbandry programs. The hatchery system also sponsors Free Fishing Days, annually highlighting a different freshwater fishing location. A pilot program has focused on stocking Golden Trout, a hybrid color race of the Rainbow Trout, for these events. Golden Trout pins are given to anyone who catches one during Free Fishing Weekend. These programs serve to encourage participation in freshwater angling, support outreach through the ARE Program, and help to drive production needs.

There is a need to continue to improve infrastructure in the replacement, repair and maintenance of facilities and grounds for efficient culture operations, safety of personnel, and to make selected areas conducive to public participation.

Approach

1. Culture Operations:

This encompasses all activities in regards to the culture of trout from egg to adult and the stocking of four cold-water species of trout; brown, brook and rainbow as well as Atlantic salmon. Activities include:

- the taking of eggs from trout and salmon brood stock,
- incubation of trout and salmon eggs,
- the care of varying life stages of trout and salmon fry, fingerling, yearling, 1 8-24 month adults, and brood stock,
- the development and oversight of a special, low phosphate trout diet,
- calculating conversion ratios for efficient use of feed,
- purchasing feed, determining changing feeding and maintenance schedules,
- the purchase and application of pH and hardness altering substances,
- the prevention, detection and treatment of disease,
- developing stocking lists and the distribution of fish statewide several times annually (stocking locations attached); three times in the spring,
- selected times in the summer, once in the fall and once in the winter,
- the stocking of fish into municipal areas, fishing clubs, ARE program or public, free of charge events,
- the addition of stocking locations, promulgated into regulation,
- waste and solids removal from flow through hatchery systems.

The three trout hatcheries Lafayette, Perryville, Carolina, are producing annually, approximately 280,000 trout. Approximately 180,000 are distributed to over 100 public locations statewide; three times in the spring, selected times during the summer, once in the fall and in the winter for ice fishing. In addition, fish are provided for other free, public venues such as municipal pond events, fishing clubs for children's fishing derbies, training events and through our ARE program. In the past, it took 2 years to produce stockable trout. With improved culture methods, it now takes up to 18 months to produce a fish for stocking of approximately one pound.

Arcadia Warm Water Research Hatchery has 15 ponds that have been used in the past for largemouth and small mouth bass production, golden shiner production and along with the Perryville Hatchery are utilized for Atlantic salmon smolt production. Smolt and adult salmon holding tanks are also located there. About 5,000 salmon smolts, and 150,000 fry are released into the Pawcatuck River watershed each year. In the last year, between 100-200 Atlantic salmon brood stock had been obtained annually from the Northeast Federal Hatcheries and stocked into five land-locked ponds statewide for anglers. This supply is likely to be discontinued and alternative plans will have to be made as regards salmon restoration and domestic stocking regimes.

In the spring of 2010, catastrophic statewide flood caused major damage in the Carolina Trout Hatchery. Over 70,000 yearling-age trout were washed out and lost to the watershed.

2. Infrastructure Maintenance and Repairs

This includes routine repair and maintenance on buildings, grounds keeping, and culture facilities.

Examples include:

the maintenance and repair of incubation equipment, indoor culture tanks and outdoor raceway systems,

the maintenance, repair, development and upgrading of hatchery water sources and supplies inclusive of well systems, pumps, water transfer

pipng, packed columns for CO2 removal, and aerators,

the repair and maintenance of auxiliary power sources such as diesel, and propane generator systems as well as their associated contractual alarm systems monitoring,

the repair and maintenance of monitored contractual fire alarm and fire suppression systems,

the repair, maintenance and upgrading of electrical systems,

the maintenance and improvement of grounds, including the vegetation for predator control, roads, walkways, parking lots,

maintenance of public areas, and

the repair and maintenance of caretakers house, hatchery buildings, equipment, and vehicles.

Major Repairs and Improvements 2007-2012

Lafayette Trout Hatchery

Generator replacement

Hatch house improvements in heating system and chemical metering system

Road repair

Feed garage roof repair

Woodworking workshop (barn) repair

Caretakers house repair, (various)

Perryville Trout Hatchery

Culture pond refurbishment with replacement substrate, concrete retaining blocks, fence and predator control.

Caretakers house repair (various)

Protective pump housing installed

Secondary water pumping system

Artesian well pump replacement

Carolina Trout Hatchery

Life lease holders house repairs (various) and well replacement

Caretakers house repairs (various)

Hatchery pumps replacement

Office furnace replacement

Building added to ARE training pond for fly fishing training.

Arcadia Warm Water Research Facility

Well pump replacement

Ponds refurbishment

Caretakers house repair (various)

Generator repair

Electrical repairs
Well pump repairs

Future Repairs and Improvements Planned for 2012-2017:

Lafayette Trout Hatchery

Exploration and additional well put on line
Well houses repair
Solar energy panels being installed through the American Recovery and Reinvestment Act of 2009
Improved solids removal system
Hatch house mold abatement
Improvement of public viewing lobby.

Perryville Trout Hatchery

Increased production in hatch house
Increased production overall
Office repair
Tree removal
Improved solids removal system
The culture of Atlantic salmon smolts for restoration and brood stock for stocking into landlocked ponds statewide for anglers.
Hatchery personnel transporting returning Atlantic salmon at Potter Hill ladder

Carolina Trout Hatchery

Contract for test wells to determine additional water sources
Develop plan for hatchery raceway improvement from gravel to concrete
Rebuild and improve building and storage capacity
Demolition of derelict buildings
Repair electrical systems
Septic system plan and development
Restroom
New office
Caretakers house repairs (major)
Investigation into the refurbishment and shoring up of a historic retaining dam
Improved solids removal system

Arcadia Warm Water Research Facility

Septic system plan and development
Ponds, drain, culvert, and kettle repairs
Storage garage roof
Office bathroom repair
Caretakers house repair (various)
Improved salmon culture systems
Culture of American shad for restoration
Vehicle Replacement, Additions:
Stocking truck (25,500 GWT)
Two F-Two F-250 Pickups

One SUV

Expected Results

Efficient operation and continuous improvement of the hatchery system will aid the Division in meeting its designated responsibilities in providing quality trout stock for anglers, encouraging participation in recreational fishing, and supporting outreach efforts that are dependant upon hatchery production. It also improves the cost effectiveness of operations, and ensures that Federal and State standards are met with respect to culture facilities. This translates into increased angler opportunity and harvest. Efficient operation and continuous improvement of the hatchery system will aid the Division in meeting its designated responsibilities in providing quality trout stock for anglers, encouraging participation in recreational fishing, and supporting outreach efforts that are dependant upon hatchery production. It also improves the cost effectiveness of operations, and ensures that Federal and State standards are met with respect to culture facilities. This translates into increased angler opportunity and harvest.

Useful Life

Not applicable. Project involves maintenance work on hatchery facilities that doesn't trigger useful life determinations.

Program Income

Not applicable. No program income is expected to be generated from this project.

Multipurpose Projects

Not applicable. This project does not involve other grant programs.

Relationship with Other Grants

Not applicable. There are no other grants funding this project.

Timeline

Annual production and stocking of fish. Approximate schedule for hatchery infrastructure maintenance is...

SMART Objectives - Needs/Threats

1 - Infrastructure Needs

Need/Threat Level	2
Level 1 Need/Threat	Administrative Needs
Description	There is a need to continue to improve infrastructure in the replacement, repair and maintenance of four hatchery facilities and grounds for efficient culture operations, safety of personnel, and to make selected areas conducive to public participation.

Objectives

Objective ID - 1

Objective Name Hatchery Maintenance
 Objective Statement To maintain four hatcheries in Rhode Island to produce fish to satisfy sportfishing demand.

Standard Indicators

Desired Future Value	Base Value	Output	Deadline
4	0	Sites	January 30, 2013

SMART Objectives - Purpose/Targets

Purpose/Target ID - 2a

Purpose/Target Description To culture and stock catchable size rainbow trout.
 Viability Status Increase

Indirectly Benefited Species

Scientific Name	Common Name	Status
Oncorhynchus mykiss	steelhead, redband trout, rainbow trout	

Objectives

Objective ID - 2a

Objective Name Rainbow trout production and stocking
 Objective Statement To culture and stock catchable size rainbow trout.

Standard Indicators

Desired Future Value	Base Value	Output	Deadline
100000	0	Animals	January 30, 2013

Purpose/Target ID - 2b

Purpose/Target Description To culture and stock catchable size brown trout.
 Viability Status Increase

Indirectly Benefited Species

Scientific Name	Common Name	Status
Salmo trutta	brown trout	

Objectives

Objective ID - 2b

Objective Name Brown Trout Production and Stocking
 Objective Statement To culture and stock catchable size brown trout.

Standard Indicators

Desired Future Value	Base Value	Output	Deadline

90000	0	Animals	January 30, 2013
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Purpose/Target ID - 2c

Purpose/Target Description To culture and stock catchable size brook trout.
 Viability Status Increase

Indirectly Benefited Species

Scientific Name	Common Name	Status
Salvelinus fontinalis	sea trout, salter, charr, brook trout	

Objectives

Objective ID - 2c

Objective Name Brook Trout Production and Stocking
 Objective Statement To culture and stock catchable size brook trout.

Standard Indicators

Desired Future Value	Base Value	Output	Deadline
90000	0	Animals	January 30, 2013

Purpose/Target ID - 3

Purpose/Target Description Atlantic salmon restoration
 Viability Status Increase

Indirectly Benefited Habitats

Habitat Name	Habitat Level	Parent Habitat
River	2	RIVERINE

Indirectly Benefited Species

Scientific Name	Common Name	Status
Salmo salar	Atlantic salmon	

Objectives

Objective ID - 3

Objective Name Atlantic Salmon Restoration
 Objective Statement To maintain a brood stock of sea-run Atlantic salmon and to annually stock approximately 150,000 fry into the Pawcatuck River.

Standard Indicators

Desired Future Value	Base Value	Output	Deadline
150000	0	Animals	January 30, 2013

Appendix C: Project Details

Project Details #60001972 - BMP_Fish Hatchery Operations

[\[top\]](#)



Properties

Status	Active
Primary Agency	Rhode Island Division of Fish and Wildlife
Primary Contact	Peter Angelone
Start Date	January 30, 2012
End Date	January 29, 2017
Is Project Sensitive?	No
Project Categories	Conservation/Management, Recreation
Action Categories	Facilities and Areas (Operations and Maintenance), Species Reintroduction and Stocking

Project Description

This project is to operate and maintain four hatcheries in Rhode Island to produce fish for recreational angling via put-and-take stocking and for restoration purposes via fingerling stocking. Put-and-take stocking involves the annual production of approximately 300,000 rainbow trout, brown trout and brook trout; whereas restoration efforts involve maintaining a broodstock of Atlantic salmon and fry stocking. Maintenance work on hatchery facilities is conducted through this project.

Location Details

Is Statewide Project? Yes

Action Summaries

Action # 60002115 - Fish Culture and Stocking

[\[View Action Details\]](#)

Start Date January 31, 2012

End Date January 30, 2013
Action Category Species Reintroduction and Stocking
Action Strategy Production and stocking for recreational purposes

Action # 60002196 - Hatchery Facility Repair and Maintenance

[\[View Action Details\]](#)

Start Date January 31, 2012
End Date January 30, 2013
Action Category Facilities and Areas (Operations and Maintenance)
Action Strategy Hatcheries - recreational purposes

Appendix D: Action Details

Action Details #60002115 - Fish Culture and Stocking

[\[top\]](#)



Properties

Project Name BMP_Fish Hatchery Operations
[\[View Project Details\]](#)
Status Completed
Primary Contact Peter Angelone
Start Date January 31, 2012
End Date January 30, 2013
Action Category Species Reintroduction and Stocking

Action Strategy

Strategy	Measured Output	Output Unit
Production and stocking for recreational purposes	380000	Animals

Activities Put-and-take

Indirectly Benefited Species

Scientific Name	Common Name	Status
Oncorhynchus mykiss	steelhead, redband trout, rainbow trout	
Salmo salar	Atlantic salmon	
Salmo trutta	brown trout	
Salvelinus fontinalis	sea trout, salter, charr, brook trout	

Document Attachments

Rhode Island Public Waters Trout Stocking Locations

[\[Download\]](#)

File Name	RI Stocking Locations.xlsx
Author	Peter Angelone
Uploaded Date	December 10, 2013

Summary of Rhode Island Trout Hatchery Production

[\[Download\]](#)

File Name	RI Hatchery Production.xlsx
Author	Peter Angelone
Uploaded Date	December 10, 2013

Images

Trout in end of raceway

[\[Download\]](#)

Caption	Trout in end of raceway
File Name	Picture 017.jpg
Author	Jen Stone
Uploaded Date	December 13, 2013

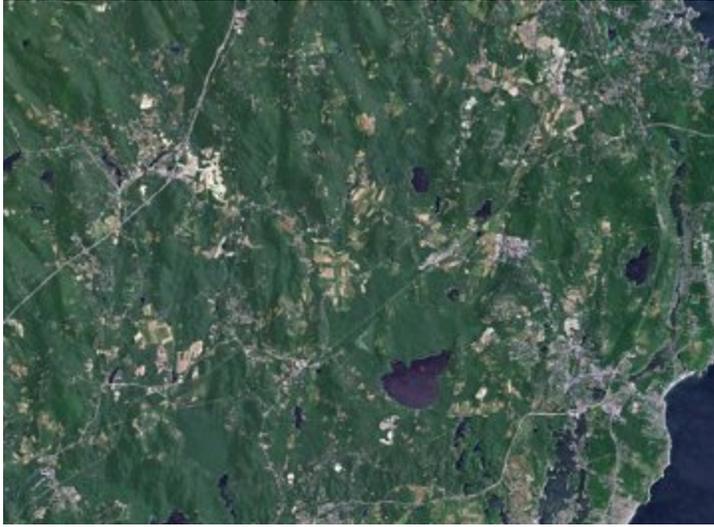
Raceways

[\[Download\]](#)

Caption	Raceways for trout production
File Name	Picture 015.jpg
Author	Jen Stone
Uploaded Date	December 13, 2013

Action Details #60002196 - Hatchery Facility Repair and Maintenance

[\[top\]](#)



Properties

Project Name	BMP_Fish Hatchery Operations [View Project Details]
Status	Completed
Primary Contact	Peter Angelone
Start Date	January 31, 2012
End Date	January 30, 2013
Action Category	Facilities and Areas (Operations and Maintenance)

Action Strategy

Strategy	Measured Output	Output Unit
Hatcheries - recreational purposes	4	Sites

Images

Stocking truck

[\[Download\]](#)

Caption	Stocking truck
File Name	Picture 002.jpg
Author	Jen Stone
Uploaded Date	December 13, 2013

Culture tanks inside hatchery

[\[Download\]](#)

Caption	Culture tanks inside hatchery
File Name	Picture 013.jpg
Author	Jen Stone
Uploaded Date	December 13, 2013