



STATE OF VERMONT
JOINT FISCAL OFFICE

MEMORANDUM

To: James Reardon, Commissioner of Finance & Management
From: Nathan Lavery, Fiscal Analyst
Date: September 2, 2008
Subject: JFO #2332

No Joint Fiscal Committee member has requested that the following item be held for review:

JFO #2332 — \$10,500 grant from the United States Department of Agriculture to the Agency of Agriculture, Food and Markets. These grant funds will be used to conduct a survey of pesticide accumulation in the sediments of the Batten Kill.

[JFO received 08/01/08]

In accordance with 32 V.S.A. §5, the requisite 30 days having elapsed since this item was submitted to the Joint Fiscal Committee, the Governor's approval may now be considered final. We ask that you inform the Secretary of Administration and your staff of this action.

cc: Linda Morse, Administrative Assistant
Roger Allbee, Secretary



STATE OF VERMONT
JOINT FISCAL OFFICE

MEMORANDUM

To: Joint Fiscal Committee Members
From: Nathan Lavery, Fiscal Analyst
Date: August 1, 2008
Subject: Grant Request

Enclosed please find one (1) request which the Joint Fiscal Office recently received from the Administration:

JFO #2332 — \$10,500 grant from the United States Department of Agriculture to the Agency of Agriculture, Food and Markets. These grant funds will be used to conduct a survey of pesticide accumulation in the sediments of the Batten Kill.
[JFO received 08/01/08]

The Joint Fiscal Office has reviewed this submission and determined that all appropriate forms bearing the necessary approvals are in order.

In accordance with the procedures for processing such requests, we ask you to review the enclosed and notify the Joint Fiscal Office (Nathan Lavery at 802/828-1488; nlavery@leg.state.vt.us or Stephen Klein at 802/828-5769; sklein@leg.state.vt.us) if you have questions or would like this item held for legislative review. Unless we hear from you to the contrary by August 18 we will assume that you agree to consider as final the Governor's acceptance of this request.

cc: James Reardon, Commissioner
Linda Morse, Administrative Assistant
Roger Allbee, Secretary

JFO # 2332

STATE OF VERMONT
GRANT ACCEPTANCE FORM

GRANT SUMMARY: This Challenge Cost- Share Agreement with the USDA Forest Service funds a survey of pesticide accumulation in the sediments of the Batten Kill.

TITLE OF GRANT: Challenge-Cost Share Agreement No. 08-CS-11092000-020 to Perform Survey for Pesticide Accumulation in the Sediments of the Batten Kill

FEDERAL CATALOG No.:

GRANTOR / DONOR: United States Department of Agriculture
Forest Service
231 N. Main Street
Rutland, VT 05701

DATE: 7/15/08

DEPARTMENT: Agriculture, Food and Markets

GRANT / DONATION: Under this agreement, Agriculture will work with the Forest Service to conduct this survey.

AMOUNT / VALUE: \$10,500.00

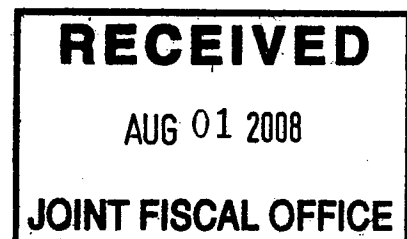
POSITIONS REQUESTED: None

GRANT PERIOD: 6/20/08 to 12/31/08

COMMENTS:

DEPARTMENT OF FINANCE AND MANAGEMENT:
SECRETARY OF ADMINISTRATION
SENT TO JOINT FISCAL OFFICE:

(INITIAL) ~~JK~~ 7/16/08
(INITIAL) ~~JSM~~ 7/17/08
DATE: 7/23/08



1947

1947

1947

STATE OF VERMONT
Department of Finance and Management
MEMO

TO: Mike Smith, Secretary of Administration and Jim Reardon, Commissioner of Finance and Management
FROM: Toni Hartrich, Budget and Management Analyst
DATE: 7/15/08
SUBJECT: Grant Acceptance Request from the Agency of Agriculture, Food and Markets

Enclosed is the Agency of Agriculture Food and Markets request for acceptance of a grant of \$10,500.00 from the USDA- Forest Service to conduct a survey of pesticide accumulation in the sediments of the Batten Kill. Agriculture, Food, and Markets will supply \$9,140.00 in an in-kind match for its part of this project. There are no new positions involved with this Challenge-Cost Share Agreement with the USDA.

I am recommending approval of this grant request.

STATE OF VERMONT
REQUEST FOR GRANT ACCEPTANCE
 (use additional sheets as needed)

FORM AA-1
 (Rev. 9-90)

1. Agency: **Vermont Agency of Agriculture, Food & Markets**
2. Department:
3. Program: **Survey for Pesticide Accumulation in the Sediments of the Batten Kill**
4. Legal Title of Grant: **Challenge-Cost Share Agreement No. 08-CS-11092000-020
 To Perform Survey for Pesticide Accumulation in the Sediments of the Batten Kill**
5. Federal Catalog No.:
6. Grantor and Office Address: **United States Department of Agriculture
 Forest Service
 231 N. Main Street
 Rutland, VT 05701**
7. Grant Period: From: **6/20/2008** To: **12/31/2008**
8. Purpose of Grant: **The purpose of this agreement is to perform a survey for pesticide accumulation in the sediments of the Batten Kill in the area around Manchester, VT.**
9. Impact on Existing Programs if Grant is not Accepted: **None**

10. Budget Information:	(1st State FY)	(2nd State FY)	(3rd State FY)
	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
EXPENDITURES:			
Personal Services	\$ 19,550.00	\$	\$
Operating Expenses	\$ 502.00	\$	\$
Grants	\$	\$	\$
TOTAL	\$ 20,052.00	\$	\$
REVENUES:			
State Funds:			
Cash	\$	\$	\$
In-Kind	\$ 9,140.00	\$	\$
Federal Funds:			
(Direct Costs)	\$ 10,500.00	\$	\$
(Statewide Indirect)	\$	\$	\$
(Department Indirect)	\$	\$	\$
Other Funds:			
(source) <u>Forest Service</u>			
<u>- In-kind</u>	\$ 412.00	\$	\$
TOTAL	\$ 20,052.00	\$	\$

Grants will be allocated to these appropriation expenditure accounts	<u>Appropriation Nos.</u> DEPTID 2200040000 FUND 22005 PROGRAM to be determined	<u>Amounts</u> \$10,500.00
--	--	-------------------------------

RECEIVED
 JUL 08 2008

BY:-----

11. Will grant monies be spent by one or more personal service contracts?

YES

NO

If YES, signature of appointing authority here indicates intent to follow current guidelines on bidding.

X _____ (Date)

12a. Please list any requested Limited Service Positions:

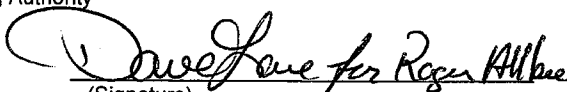
Titles	Number of Positions
TOTAL	

12b. Equipment and space for these positions:

- Is presently available.
- Can be obtained with available funds

13. Signature of Appointing Authority

I certify that no funds have been expended or committed in anticipation of Joint Fiscal Committee approval of this grant.



 (Signature)
 Secretary, Agriculture, Food & Markets
 (Title)

7/2/08
(Date)

14. Action by Governor:

- Approved
- Rejected



 (Signature)

7/22/08
(Date)

15. Secretary of Administration:

- Request to JFO
- Information to JFO



 (Signature)

7/17/08
(Date)

16. Action by Joint Fiscal Committee:

(Dates)

- Request to be placed on JFC agenda
- Approved (not placed on agenda in 30 days)
- Approved by JFC
- Rejected by JFC
- Approved by Legislature

(Signature)

(Date)

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

CHALLENGE-COST SHARE AGREEMENT

BETWEEN THE

**VERMONT AGENCY OF AGRICULTURE, FOOD AND MARKETS
103 SOUTH MAIN STREET
WATERBURY, VT 05671-0101**

AND

**UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
GREEN MOUNTAIN NATIONAL FOREST**

This Cooperative Agreement is entered into by and between the Vermont Agency of Agriculture, Food and Markets, hereinafter referred to as the VTAAF, or the Cooperator and the United States Department of Agriculture, Forest Service, or FS, Green Mountain/Finger Lakes National Forests, hereinafter referred to as the Forest Service, under the provisions of the Department of Interior and Related Agencies Appropriation Act of 1992, P.L. 102-154 including Section 323 of the Wyden Amendment of the above mentioned Act.

I. PURPOSE:

The purpose of this Cooperative Agreement is to work collaboratively with the VTAAF to perform a survey for pesticide accumulation in the sediments of the Batten Kill in the area around Manchester, VT.

II. STATEMENT OF MUTUAL INTERESTS AND BENEFITS:

The Forest Service has a mission to protect, restore and enhance natural resources including aquatic and riparian habitats. Additionally, there is clear national direction to accomplish this mission with partners having mutual intent for these resources.

In FY 01-07, the FS received Congressional funding directed at conducting biological assessments and investigation on the Batten Kill in Vermont. FS staff is part on an interagency team charged with the study and monitoring of the river to determine causes and suggest solutions to the dramatic declines in the wild trout fishery in this important river system. Once recognized as one of the top 100 best trout stream in the country, the FS and its partners seek to gain a better understanding of why the trout population has declined so significantly in recent years by undertaking investigations of the river's biota and habitat and water quality as well as eventually recommend management actions to restore the fishery and habitat (see attachment 1 for a complete description of the project).

This project directly contributes to the mission and goals of the VTAAF to ensure that pesticide use in Vermont occurs in a safe and effective manner without causing adverse effects on the environment.

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

Working together, the FS and VTAAFM can attain these mutual goals.

In consideration of the above premises, the parties agree as follows:

III. THE VTAAFM SHALL:

1. Collect sediment samples from the Batten Kill river bed in and around Manchester, VT to be analyzed for current use pesticides which may accumulate in particulate matter at environmentally significant levels, as described in the goals/objectives and sampling procedures described in Attachment #1.
2. Analyze the samples from #1 above for the pesticides described in Attachment #1.
2. Compile data, review data quality and consistency, and format a final data set.
3. Interpret the findings and provide a final report by June 30, 2009.
4. Assign a field coordinator to coordinate all sampling activities.
6. Implement all aspects of the sampling/monitoring protocols described in the Project Plan (Attachment #1).

IV. THE FOREST SERVICE SHALL:

1. Provide funding, in the not-to-exceed amount of \$10,500, on a cost reimbursement basis, to the VTAAFM to conduct sediment sampling and analysis on the Batten Kill as identified in Attachment #1.
2. Provide assistance to VTAAFM staff in selecting suitable sampling locations and conducting field sampling and other components of the project when necessary.

V. IT IS MUTUALLY UNDERSTOOD AND AGREED BY AND BETWEEN THE PARTIES THAT:

1. FOREST SERVICE ACKNOWLEDGED IN PUBLICATIONS AND AUDIOVISUALS. Forest Service support shall be acknowledged in any publications and audiovisuals developed as a result of this instrument.
2. FEDERAL COST PRINCIPLES. This agreement will be governed by OMB Circular No. A-122, Cost Principles for Nonprofit Organizations with exclusions listed in Attachment C of OMB Circular No. A-122 and audit requirements under OMB Circular A-133, Audits of States, Local Governments and Non-Profit Organizations.

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

3. COLLECTION OF AMOUNTS DUE THE FEDERAL GOVERNMENT. Pursuant to 31 U.S.C. 3716 and 7 CFR, Part 3, Subpart B, any funds paid to a cooperator in excess of the amount to which the cooperator is finally determined to be entitled under the terms and conditions of the award constitute a debt to the Federal Government. If not paid within a reasonable period after the demand for payment, the Federal awarding agency may reduce the debt by:

- (1) Making an administrative offset against other requests for reimbursements.
- (2) Withholding advance payments otherwise due to the cooperator
- (3) Taking other action permitted by statute.

Except as otherwise provided by law, the Federal awarding agency shall charge interest on an overdue debt in accordance with 4 CFR, Chapter II "Federal Claims Collection Standards" and 31 U.S.C., Chapter 37.

4. TAXPAYER IDENTIFICATION NUMBER. The cooperator shall furnish their tax identification number upon execution of this instrument.

5. RIGHT TO TRANSFER EQUIPMENT AND SUPPLIES. Equipment and supplies approved for purchase under this instrument are available only for use as authorized. The Forest Service reserves the right to transfer title to the Federal government of equipment and supplies, valued over \$5,000 per unit, purchased by the cooperator using any Federal funding. Upon expiration of this instrument the cooperator shall forward an equipment and supply inventory to the Forest Service, listing all equipment purchased throughout the life of the project and unused supplies. Disposition instructions will be issued by the Forest Service within 120 calendar days.

6. FREEDOM OF INFORMATION ACT (FOIA). Any information furnished to the Forest Service under this instrument is subject to the Freedom of Information Act (5 U.S.C. 552).

7. RETENTION AND ACCESS REQUIREMENTS FOR RECORDS. The Forest Service, Inspector General, or Comptroller General, through any authorized representative, shall have access to and the right to examine all records related to this instrument. As used in the provision, "records" includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form. All records pertinent to the award shall be retained for a period of 3 years.

8. MODIFICATION. Modifications within the scope of the instrument shall be made by mutual consent of the parties, by the issuance of a written modification, signed and dated by all parties, prior to any changes being performed. The Forest Service is not obligated to fund any changes not properly approved in advance.

9. NONDISCRIMINATION. The cooperator shall comply with all Federal statutes relating to nondiscrimination and all applicable requirements of all other Federal laws, Executive orders, regulations, and policies. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d, 2000e-16), which prohibits discrimination on the basis of race, color, disability, or national origin; (b) Title IX of the Education amendments of 1972, as amended (20 U.S.C. 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; and Section 504 of the Rehabilitation Act of 1973 as amended (29 U.S.C. 794) which prohibits discrimination on the basis of disabilities. The

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

nondiscrimination statement which follows shall be posted in primary and secondary cooperator offices, at the public service delivery contact point and included, in full, on all materials regarding such cooperators' programs that are produced by the cooperators for public information, public education, or public distribution:

"In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability. (Not all prohibited bases apply to all programs.)

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer."

If the material is too small to permit the full statement to be included, the material will at minimum include the statement, in print size no smaller than the text, that "This institution is an equal opportunity provider."

10. PROPERTY IMPROVEMENTS. Improvements placed on National Forest System land at the direction of either of the parties, shall thereupon become property of the United States, and shall be subject to the same regulations and administration of the Forest Service as other National Forest improvements of a similar nature. No part of this instrument shall entitle the cooperator to any share or interest in the project other than the right to use and enjoy the same under the existing regulations of the Forest Service.

11. LEGAL AUTHORITY. The cooperator has the legal authority to enter into this instrument, and the institutional, managerial and financial capability (including funds sufficient to pay nonfederal share of project costs) to ensure proper planning, management, and completion of the project.

12. PARTICIPATION IN SIMILAR ACTIVITIES. This instrument in no way restricts the Forest Service or the Cooperator(s) from participating in similar activities with other public or private agencies, organizations, and individuals.

13. COMMENCEMENT/EXPIRATION DATE. The instrument is executed as of the date of the last signature and is effective through June 30, 2009, at which time it will expire unless extended.

14. EXTENSION OF PERFORMANCE PERIOD. The Forest Service, by written modification may extend the performance period of this instrument for a total duration not to exceed 5 years from its original date of execution.

15. TERMINATION. Any of the parties, in writing, may terminate the instrument in whole, or in part, at any time before the date of expiration. No parties shall incur any new obligations for the terminated portion of the instrument after the effective date and shall cancel as many obligations as possible. Full credit shall be allowed for each Party's expenses and all noncancelable obligations properly incurred up to the effective date of termination. Excess funds shall be refunded within 60 days after the effective period.

16. PRINCIPAL CONTACTS. The principal contacts for this instrument are:

Contacts:

Nat Shambaugh
Agricultural Scientist
Vermont Agency of Agriculture
Laboratory Section
103 S. Main St.
Waterbury, VT 05671-0101
Tel.: (802) 244-4510, ext. 16
E-mail: nat.shambaugh@state.vt.us

Douglas Burnham
Environmental Scientist
Vermont Water Quality Division
Biomonitoring & Aquatic Studies Program
10 North, 103 South Main Street
Waterbury, VT 05671-0408
Tel.: (802) 241-3784
E-mail: doug.burnham@state.vt.us

Steve Roy
Fisheries Biologist
Green Mountain National Forest
231 North Main Street
Rutland, VT 05701
Tel. 802-747-6739
E-mail: sroy@fs.fed.us

Table 2. Characteristics of pesticides proposed for analysis as part of this study.

<u>Pesticide</u>	<u>Pounds Used</u>	<u>Toxicity</u>	<u>Koc</u>
	(Bennington County 2006)	(Rainbow Trout LC50, ppb)	(soil absorption coefficient)
Chlorothalonil	2807	35	1380
PCNB	1860	656	5000
Bifenthrin	1046	0.2	237,000
Permethrin	686	24	86,000
Pendimethalin	194	350	5000

Table 3: Schedule. Sampling dates indicate week during which samples will be collected, if compatible with objectives. Monday-Wednesday would be the preferred sampling days.

Task	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May
Planning												
Sampling												
Analysis												
Reporting												
Final Report												5/31

Estimated Budget:

Sampling

Mileage (220 miles x \$0.50/mile x 4 trips)

\$440.00

Personnel (4 x 8 hr. x \$25/hr x 4 trips)

\$3200.00

Laboratory Analysis (20 samples x \$650.00/sample)

\$13,000.00

Project management and report writing (100 hr. x \$30/hr)

\$3000.00

TOTAL

\$19,640.00

Budget Summary: This proposal is requesting a total of **\$10,500.00** in federal funding for chemical analyses. In-kind services provided by the Vermont Agency of Agriculture, Food and Markets and other cooperators are estimated at approximately **\$9,140.00** and includes travel associated with chemical sampling, personnel time associated with sample collection, sample preparation, data management and report writing.

TABLE 1. Summary of Battenkill area Water Sample results, 2001-2007

Pesticide

<u>Railroad</u>	<u># of samples analyzed</u>	<u># (%) detected</u>	<u>MAC (ppb)*</u>	<u>#(%) above MAC</u>
Diuron	69	2	160	0
Imazapyr	69	1	1500	0
Sulfometuron methyl	69	1	5000	0
Metsulfuron methyl	69	2	365	0

Golf

Chlorothalonil	60	15	0.47	5
Chlorpyrifos	60	1	0.083	1
Iprodione	60	5	6.5	0
PCNB	60	31	5.0	0
Triadimefon	60	6	24	0
2,4-D	33	3	120	0
Dacthal	33	0	??	0
Dicamba	33	1	420	0
MCPA	33	0	3	0
MCPP	33	0	1860	0
Triclopyr	33	0	1860	0

* MAC = Maximum Allowable Concentration (VTDEC).

FS Agreement No	<u>08-CS-11092000-020</u>
Cooperator Tax ID No.	<u></u>
Cooperator DUNS No.	<u>80-937-6718</u>
Cooperator Agreement No.	<u></u>

quality and consistency, and formatting a final data set. Data will be used to make initial characterizations regarding pesticide presence in the Batten Kill. The small size of the data set to be generated by this project will not allow for quantitative assessment of the availability or potential for toxicity of pesticides to the fisheries of the Batten Kill. The limited number of samples emphasizes the importance of gathering representative data from each site and data that represent targeted conditions. The role of the field coordinator will be critical in assuring that the best possible data are collected.

Sampling Procedures:

1. *Site Selection*: Sites will be selected by project staff on the main stem of the Batten Kill River during a low flow period in the early summer of 2008. Sites will be chosen by walking/driving/canoeing along the Batten Kill from above Manchester to below Arlington. Potential sampling locations will be selected by locating areas where the current is slow and sediment appears to settle out. Final site selection will include those potential sites closest to and downstream from golf course and/or areas of likely concentrated professional lawn care activities.

2. *Parameters* – all samples will be analyzed for all active ingredients listed in Table 2 during the fall/winter of 2008-2009. All analyses will be conducted at the VAAF M Laboratory in Waterbury.

3. *Sampling Procedures* - methods for the collection and preservation of sediment samples will follow standard operating procedures consistent with VAAF M and VTDEC protocols. These procedures will be summarized and provided to field personnel involved with sample collection. Sample bottles and transport containers will be supplied by the VAAF M laboratory. Samples will be collected and delivered to the laboratory in Waterbury in a manner consistent with standard operating procedures. All sediment samples will be preserved at -15°C until analysis.

4. *Schedule* - Project period will be from June 1, 2008 to May 31, 2009. Sampling schedules will be pre-determined to some extent based on annual pesticide use patterns. Precise sampling times will be determined based on a combination of pesticide application schedules and subsequent hydrologic events creating measurable runoff. Sampling dates will be pre-scheduled for planning purposes. Presence of target representative conditions will be made immediately prior to sampling, with schedule changes made in the event required conditions are not met. **If schedule is altered, the laboratory must be notified and advised of revised sampling schedule.**

5. *Field Coordinator* - an individual will be assigned to coordinate sample collections. This individual will assure that adequate personnel are assigned to collect samples in a timely manner for each sampling event and to deliver samples to the laboratory as needed. This field coordinator will be responsible for all decisions related to sampling, including schedule revisions as dictated by conditions at scheduled sampling times.

6. *Quality Assurance* - field personnel will maintain field notebooks for documenting field conditions and observations relevant to sample collection, preservation, and transport. A minimum of one replicate field sample for each sampling event will be collected. Standard laboratory quality assurance consistent with VAAF M laboratory standard operating procedures will be applied to all pesticide analyses.

Data Analysis, Data Usage, and Reporting: Data will be reported from the Laboratory to the project managers. Project managers will be responsible for compiling data, reviewing data

sediment/debris is also a challenge, so only a small number of samples will be able to be analyzed. It will not be possible within the constraints of this project to determine if any of these pesticides are causing toxicity, only if they are present at concentrations which might cause toxicity.

Project Description: This project will undertake a preliminary assessment of whether high toxicity pesticides are accumulating in the sediment and/or detritus of the Batten Kill River. The high toxicity, low solubility pesticides selected for this study are primarily used for lawn care and golf course turf management, areas downstream of these uses will be targeted for sampling. During June of 2008 the collaborators will meet to assess the stretch of the Batten Kill from above Manchester to below Arlington to locate suitable sampling sites. These areas will consist of pools, or other areas where sediment/debris/detritus appears to be accumulating. Sediment samples will be collected from these areas during the summer/fall/winter of 2008, after periods of potential pesticide runoff, and transported to the VTAAFV laboratory in Waterbury, VT where they will be stored for analysis. Sampling and analytical methods will be adapted from those developed by the State of California as part of their assessment of potential riverbed pesticide contamination. All pesticide analyses will be performed at the VTAAFV lab. The proposed analyte list is presented in Table 2, although the list won't be finalized until fall 2008, when method development is complete.

Goals and Objectives: The goal of this project is to collect sediment/debris from various depositional areas within the mainstem of the Batten Kill river. These sediment samples will be analyzed for high toxicity pesticides which, if present, would likely adhere to the organic matter in the sediment/debris from depositional areas. These pesticides, if present in significant quantities, may contribute to toxicity of either fish or their insect food supplies.

Objective 1: Survey the main stem of the Batten Kill River from above Manchester to below Arlington to locate 5 or more areas which are likely to be deposition areas for silt/sediment/debris and suitable for sampling.

Objective 2: Collect a total of at least 20 sediment/debris samples during low flow, after large storm events, from the sites located in Objective 1. This will preferably be allocated between two or more sampling events after rainstorms during the likely pesticide application season.

Objective 3: Analyze all samples for the pesticides specified in Table 2.

Objective 4: Implement sampling and analytical procedures that assure data quality will be adequate for making assessments of the potential for target pesticides to enter the Batten Kill under exposure scenarios likely to adversely affect aquatic biota in the Kill.

Objective 5: Prepare a report of results and findings.

Personnel: This project is a collaborative effort of the Vermont Agency of Agriculture, Foods and Markets (VAAFV), Vermont Agency of Natural Resources (VTANR), and the US Forest Service. Contacts are: Nat Shambaugh and Cary Giguere, VAAFV; Doug Burnham, VTANR; and Steve Roy, USFS. Field and laboratory work will be conducted by staff associated with the cooperating entities.

Attachment #1

Batten Kill Insecticide Survey Proposal and Project Plan - May 2008

Project: Assessment of possible insecticide accumulation in the detritus of the Batten Kill River.

Background: The Batten Kill is one of Vermont's premier trout fisheries, but has undergone a decline in trout in recent years. Various efforts by the U.S. Forest Service (USFS), Vermont Department of Environmental Conservation (VTDEC), and Vermont Agency of Agriculture, Food and Markets (VTAAF), and others have investigated this problem over the past several years. The VTAAF has undertaken surveys of pesticides in the waters of the Batten Kill and adjacent areas since 2001. This effort has concentrated on investigating the extent of pesticide runoff during rain events from railroad and golf course pesticide applications. The major pesticide uses on these sites are; herbicides on railroad beds, and herbicides and fungicides on golf courses. A summary of the results of this work is included in Table 1. It can be seen in Table 1 that the majority of detections of these pesticides are the golf course fungicides chlorothalonil and PCNB. Because of its relatively high toxicity (low MAC), chlorothalonil is the pesticide of greatest concern of those investigated to date. The only chlorothalonil detections above the MAC are samples collected from ponds or streams within golf courses, so the relevance to fisheries of the main stem of the Batten Kill are uncertain.

All pesticide investigations to date by the VTAAF in the Batten Kill area have involved looking in water for those highly water soluble pesticides which might wash into the river or tributaries during rain events. Another concern, which has not been addressed, is pesticides characterized by slight water solubility and high toxicity. Being only slightly water soluble, these pesticides are not likely to enter the stream in large quantities, but they may enter the stream carried by soil/sediment/debris during erosional events. Where these solids accumulate in the stream bed, they can be ingested by fish or the insects they feed on. Because some of these pesticides are quite toxic and may bioaccumulate, an effect on the biota is possible with only small amounts entering the aquatic system. The VTAAF has a database of commercial pesticide use by county, and this was used to find those pesticides used in Bennington County in significant amounts (>100 pounds in 2006). Those pesticides of that group which were also relatively toxic (Rainbow Trout LC50 < 1000 ppb) and likely to bind to soil (soil absorption coefficient, Koc > 100) were selected as the preliminary analyte list for this study (see Table 2). This list may be expanded before analysis begins if more information becomes available.

Testing for this group of pesticides entails some unique challenges which is why they have not been investigated in Vermont previously. Because they are not very water soluble, they will tend to adhere to any sediment or debris in the river rather than be present dissolved in the water. It will therefore be necessary to find areas within the Batten Kill river channel where sediment/debris deposition occurs and collect sediment from these areas after one or more major storms when deposition is likely to have occurred. Analysis of these pesticides in

FS Agreement No. 08-CS-11092000-020
 Cooperator Tax ID No. _____
 Cooperator DUNS No. 80-937-6718
 Cooperator Agreement No. _____

USFS Agreement No.:

Cumulative Financial Plan

Cost Elements	Forest Service			Cooperator #1 WRP			Cooperator #2			(j) Total
	(a) Non-Cash Contrib.	(b) Value of In-Kind Contrib.	(c) Reimb. Coop.#1 Expenses	(d) Non-Cash Contrib.	(e) Value of In-Kind Contrib.	(f) Cash Contrib. to F.S.	(g) Non-Cash Contrib.	(h) Value of In-Kind Contrib.	(i) Cash Contrib. to F.S.	
Direct Costs										
Salaries/Labor	350.00		\$10,500.00	\$8,700.00						\$19,550.00
Travel				\$440.00						\$440.00
Equipment Use										
Supplies										
Materials										
Printing										
Subtotal	\$350.00	\$0.00	\$10,500.00	\$9,140.00						\$19,990.00
Indirect Costs*	\$62.00									\$62.00
Total	\$412.00	\$0.00	\$10,500.00	\$9,140.00						\$20,052.00

(k) Estimated Program Income (subtract from total of column (j)):	0
(l) Net Total Project Value:	\$20,052.00

Matching Costs Determination

Total Forest Service Share = (m)
 $(a+b+c) \div (l) = (m)$ 54.4 %

Total Cooperator Share = (n)
 $[(d+e+f+g+h+i) - (k)] \div (l) = (n)$ 45.6 %

Total = (m+n) = (o)
 (should equal 100%) 100%

Reimbursement Calculation


Forest Service Reimbursement percent (p)
 $(c) \div [(c+d+f+g+i)-(k)] = (p)$ 53.5 %

Cooperator expenses NOT reimbursed by Forest Service (q)
 $[(d+f+g+i)-(k)] \div [(c+d+f+g+i) - (k)] = (q)$ 46.5 %

Reimbursable Amount = Total actual cost incurred to date
 (sum of cost elements from the Cooperators invoice as prescribed
 in provisions _____ and _____ multiplied by
53.5 % (p) minus any previous Forest Service payments,
 not to exceed the total amount listed in column (c), minus any
 estimated program income (k).

FS Agreement No. 08-CS-11092000-020
Cooperator Tax ID No. _____
Cooperator DUNS No. 80-937-6718
Cooperator Agreement No. _____


MARGARET MITCHELL Date 6/20/08
Green Mountain & Finger Lakes National Forests
Forest Supervisor


ROGER ALLBEE Date 6/20/08
Vermont Agency of Agriculture
Secretary

The authority and format of this instrument has been reviewed and approved for signature.

/s/ Janeal A. Hedman 06/06/2008
JANEAL A. HEDMAN DATE
Fs Grants and Agreements Specialist

Job Code – NFWF20 Override 0933 - \$10,500

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

23. PAYMENT /REIMBURSEMENT. Reimburse the cooperator for the Forest Service's proportionate share 53.5% percent of actual expenses incurred, not to exceed \$10,500, reduced by program income, and other Federal and nonfederal cash contributions, as shown in the incorporated Financial Plan. If program income generated from the project exceeds the cooperator's actual expenses, the Forest Service share is zero. The cooperator is approved to submit quarterly billings(s). The Forest will make payment for its proportionate share of project costs upon receipt of an invoice.

Each invoice shall display the cooperator's actual expenditures to date of the invoice (not just the Forest Service share of actual expenditures), display by separate cost elements as documented in the Financial Plan, less program income and other Federal and nonfederal cash contributions and previous Forest Service payments. The invoice should be forwarded as follows:

Send original to:

Albuquerque Service Center-
Payments G&A
USDA Forest Service
National Forest
101B Sun Ave.NE
Albuquerque, NM 87109

Send copy to:

Steve Roy

USDA Forest Service
Green Mountain National Forest
231 N. Main St.
Rutland, VT 05701

24. ALTERNATE DISPUTE RESOLUTION. In the event of any issue of controversy under this Agreement, the parties may pursue Alternate Dispute Resolution procedures to voluntarily resolve those issues. These procedures may include, but are not limited to, conciliation, facilitation, mediation, and fact finding.

25. AUTHORIZED REPRESENTATIVES. By signature below, the cooperator certifies that the individuals listed in this document as representatives of the cooperator are authorized to act in their respective areas for matters related to this agreement.

26. ENDORSEMENT. Any cooperator contributions made under this instrument do not by direct reference or implication convey Forest Service endorsement of the cooperator's products or activities.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the last written date below.

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

19. PUBLICATION SALE. The recipient may sell any publication resulting from the project. The publication may initially be sold at fair market value, which is defined in this instrument to cover costs of development, production, marketing, and distribution. After the costs of development and production have been recovered, fair market value is defined in this instrument to cover the costs of marketing, printing, and distribution only. Fair market value must exclude any in-kind or Federal government contributions to the total costs of the project.

20. DAVIS-BACON OR SERVICE CONTRACT ACT. Federal wage provisions (Davis-Bacon or Service Contract Act) are applicable to any contract developed and awarded under this instrument where all or part of the funding is provided with Federal funds. Davis-Bacon wage rates apply on all public works contracts in excess of \$2,000 and Service Contract Act wage provisions apply to service contracts in excess of \$2,500. The Forest Service will award contracts in all situations where their contribution exceeds 50 percent of the costs of the contract. If a cooperator is approved to issue a contract it shall be awarded on a competitive basis.

21. DUNS NUMBER (5/04): The cooperator shall furnish their DUNS number upon execution of this instrument. You may obtain a DUNS number by contacting Dun and Bradstreet at 800-234-3867 or 866-794-1580. A DUNS number will be provided immediately by telephone at no charge.

22. ELECTRONIC FUNDS TRANSFER. The cooperator shall designate a financial institution or an authorized payment agent through which a Federal payment may be made in accordance with U.S. Treasury Regulations, Money and Finance at 31 CFR 208, which requires that Federal payments are to be made by electronic funds transfer (EFT) to the maximum extent possible. A waiver may be requested and payment received by check by certifying in writing that one of the following situations apply:

1. The payment cooperator does not have an account at a financial institution.
2. EFT creates a financial hardship because direct deposit will cost the payment recipient more than receiving check.
3. The payment recipient/cooperator has a physical or mental disability, or a geographic, language, or literacy barrier.

To initiate receiving your payment(s) by electronic transfer, contact the National Finance Center (NFC) on the worldwide web at www.nfc.usda.gov, or call the NFC at 1-800-421-0323, or (504) 255-4647. Upon enrollment in the program you may begin to receive payment by electronic funds transfer directly into your account.

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

Forest Service Project Contact

Steve Roy
USDA- Forest Service
231 N. Main Street
Rutland, VT 05701
(802) 747-6739

VTAAFM Project Contact

Nathaniel Shambaugh
Vermont Agency of Agriculture Laboratory
103 South Main St.
Waterbury, VT 05671-0101
(802) 244-4510 ext. 16

Forest Service Administrative Contact

Janeal A Hedman
Allegheny National Forest

222 Liberty St.
Warren, PA 16365

Phone: 814-728-6245
FAX: 814-726-1465
E-Mail: jhedman@fs.fed.us

Cooperator Administrative Contact

Roger Allbee, Secretary
Vermont Agency of Agriculture, Food &
Markets
116 State St.
Montpelier, VT 05620-2901

Phone:
FAX:
E-Mail:

17. AVAILABILITY OF FUNDS. Funding in the amount of \$10,500 is currently available for performance of this instrument through June 30, 2009. The Forest Service's obligation for performance of this instrument beyond this date is contingent upon the availability of appropriated funds from which payment can be made. No legal liability on the part of the Forest Service for any payment may arise for performance under this instrument beyond June 30, 2009, until funds are made available to the Forest Service for performance and until the recipient receives notice of availability to be confirmed in a written modification by the Forest Service.

18. COPYRIGHTING. The cooperator is granted sole and exclusive right to copyright publications, including the right to publish and vend throughout the world in any language and in all media and forms, in whole or in part, for the full term of copyright and all renewals thereof in accordance with this instrument. However, the cooperator shall not sell, or grant copyrights to a third-party designee who intends to sell, the document as a profit-making venture. No original text or graphics produced and submitted by the Forest Service shall be copyrighted. The Forest Service reserves a royalty-free, nonexclusive, and irrevocable right to reproduce, publish, or otherwise use, and to authorize others to use, the work for Federal government purposes. This right shall be transferred to any subagreements or subcontracts. This provision includes:

- a. The copyright in any work developed by VTAAFM under this instrument.
- b. Any rights of copyright to which VTAAFM purchases ownership with any Federal contributions.



STATE OF VERMONT
JOINT FISCAL OFFICE

MEMORANDUM

To: Joint Fiscal Committee Members
From: Nathan Lavery, Fiscal Analyst
Date: August 1, 2008
Subject: Grant Request

Enclosed please find one (1) request which the Joint Fiscal Office recently received from the Administration:

JFO #2332 — \$10,500 grant from the United States Department of Agriculture to the Agency of Agriculture, Food and Markets. These grant funds will be used to conduct a survey of pesticide accumulation in the sediments of the Batten Kill.
[JFO received 08/01/08]

The Joint Fiscal Office has reviewed this submission and determined that all appropriate forms bearing the necessary approvals are in order.

In accordance with the procedures for processing such requests, we ask you to review the enclosed and notify the Joint Fiscal Office (Nathan Lavery at 802/828-1488; nlavery@leg.state.vt.us or Stephen Klein at 802/828-5769; sklein@leg.state.vt.us) if you have questions or would like this item held for legislative review. Unless we hear from you to the contrary by August 18 we will assume that you agree to consider as final the Governor's acceptance of this request.

cc: James Reardon, Commissioner
Linda Morse, Administrative Assistant
Roger Allbee, Secretary

STATE OF VERMONT
GRANT ACCEPTANCE FORM

GRANT SUMMARY: This Challenge Cost- Share Agreement with the USDA Forest Service funds a survey of pesticide accumulation in the sediments of the Batten Kill.

TITLE OF GRANT: Challenge-Cost Share Agreement No. 08-CS-11092000-020 to Perform Survey for Pesticide Accumulation in the Sediments of the Batten Kill

FEDERAL CATALOG No.:

GRANTOR / DONOR: United States Department of Agriculture
Forest Service
231 N. Main Street
Rutland, VT 05701

DATE: 7/15/08

DEPARTMENT: Agriculture, Food and Markets

GRANT / DONATION: Under this agreement, Agriculture will work with the Forest Service to conduct this survey.

AMOUNT / VALUE: \$10,500.00

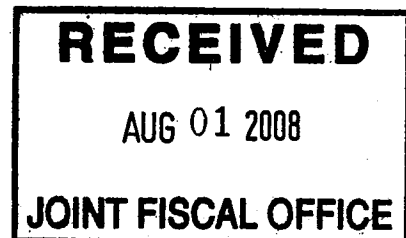
POSITIONS REQUESTED: None

GRANT PERIOD: 6/20/08 to 12/31/08

COMMENTS:

DEPARTMENT OF FINANCE AND MANAGEMENT:
SECRETARY OF ADMINISTRATION
SENT TO JOINT FISCAL OFFICE:

(INITIAL) ~~AKM~~ 7/16/08
(INITIAL) ~~AKM~~ 7/17/08
DATE: 7/23/08



1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

11. 12. 13. 14. 15. 16. 17. 18. 19. 20.

21. 22. 23. 24. 25. 26. 27. 28. 29. 30.

STATE OF VERMONT
Department of Finance and Management
MEMO

TO: Mike Smith, Secretary of Administration and Jim Reardon, Commissioner
of Finance and Management
FROM: Toni Hartrich, Budget and Management Analyst
DATE: 7/15/08
SUBJECT: Grant Acceptance Request from the Agency of Agriculture, Food and
Markets

Enclosed is the Agency of Agriculture Food and Markets request for acceptance of a grant of \$10,500.00 from the USDA- Forest Service to conduct a survey of pesticide accumulation in the sediments of the Batten Kill. Agriculture, Food, and Markets will supply \$9,140.00 in an in-kind match for its part of this project. There are no new positions involved with this Challenge-Cost Share Agreement with the USDA.

I am recommending approval of this grant request.

STATE OF VERMONT
REQUEST FOR GRANT ACCEPTANCE
 (use additional sheets as needed)

FORM AA-1
 (Rev: 9-90)

1. Agency: **Vermont Agency of Agriculture, Food & Markets**
 2. Department:
 3. Program: Survey for Pesticide Accumulation in the Sediments of the Batten Kill
 4. Legal Title of Grant: Challenge-Cost Share Agreement No. 08-CS-11092000-020
 To Perform Survey for Pesticide Accumulation in the Sediments of the Batten Kill
 5. Federal Catalog No.:
 6. Grantor and Office Address: United States Department of Agriculture
 Forest Service
 231 N. Main Street
 Rutland, VT 05701

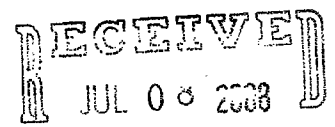
7. Grant Period: From: 6/20/2008 To: 12/31/2008

8. Purpose of Grant: The purpose of this agreement is to perform a survey for pesticide accumulation in the sediments of the Batten Kill in the area around Manchester, VT.

9. Impact on Existing Programs if Grant is not Accepted: None

10. Budget Information:	(1st State FY)	(2nd State FY)	(3rd State FY)
	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
EXPENDITURES:			
Personal Services	\$ 19,550.00	\$	\$
Operating Expenses	\$ 502.00	\$	\$
Grants	\$	\$	\$
TOTAL	\$ 20,052.00	\$	\$
REVENUES:			
State Funds:			
Cash	\$	\$	\$
In-Kind	\$ 9,140.00	\$	\$
Federal Funds:			
(Direct Costs)	\$ 10,500.00	\$	\$
(Statewide Indirect)	\$	\$	\$
(Department Indirect)	\$	\$	\$
Other Funds:			
(source) <u>Forest Service</u>			
<u>- In-kind</u>	\$ 412.00	\$	\$
TOTAL	\$ 20,052.00	\$	\$

Grants will be allocated to these appropriation expenditure accounts	<u>Appropriation Nos.</u> DEPTID 2200040000 FUND 22005 PROGRAM to be determined	<u>Amounts</u> \$10,500.00
--	--	-------------------------------



BY:-----

11. Will grant monies be spent by one or more personal service contracts?

YES

NO

If YES, signature of appointing authority here indicates intent to follow current guidelines on bidding.

X _____ (Date)

12a. Please list any requested Limited Service Positions:

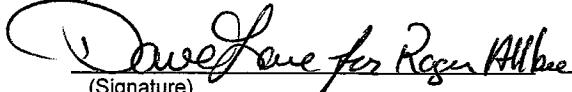
Titles	Number of Positions
TOTAL	

12b. Equipment and space for these positions:

- Is presently available.
- Can be obtained with available funds

13. Signature of Appointing Authority

I certify that no funds have been expended or committed in anticipation of Joint Fiscal Committee approval of this grant.



 (Signature)
 Secretary: Agriculture, Food & Markets

 (Title)

7/2/08
(Date)

14. Action by Governor:

- Approved
- Rejected

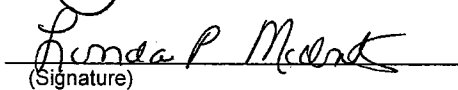


 (Signature)

7/22/08
(Date)

15. Secretary of Administration:

- Request to JFO
- Information to JFO



 (Signature)

7/17/08
(Date)

16. Action by Joint Fiscal Committee:

(Dates)

- Request to be placed on JFC agenda
- Approved (not placed on agenda in 30 days)
- Approved by JFC
- Rejected by JFC
- Approved by Legislature

(Signature)

(Date)

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

CHALLENGE-COST SHARE AGREEMENT

BETWEEN THE

**VERMONT AGENCY OF AGRICULTURE, FOOD AND MARKETS
103 SOUTH MAIN STREET
WATERBURY, VT 05671-0101**

AND

**UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
GREEN MOUNTAIN NATIONAL FOREST**

This Cooperative Agreement is entered into by and between the Vermont Agency of Agriculture, Food and Markets, hereinafter referred to as the VTAAF, or the Cooperator and the United States Department of Agriculture, Forest Service, or FS, Green Mountain/Finger Lakes National Forests, hereinafter referred to as the Forest Service, under the provisions of the Department of Interior and Related Agencies Appropriation Act of 1992, P.L. 102-154 including Section 323 of the Wyden Amendment of the above mentioned Act.

I. PURPOSE:

The purpose of this Cooperative Agreement is to work collaboratively with the VTAAF to perform a survey for pesticide accumulation in the sediments of the Batten Kill in the area around Manchester, VT.

II. STATEMENT OF MUTUAL INTERESTS AND BENEFITS:

The Forest Service has a mission to protect, restore and enhance natural resources including aquatic and riparian habitats. Additionally, there is clear national direction to accomplish this mission with partners having mutual intent for these resources.

In FY 01-07, the FS received Congressional funding directed at conducting biological assessments and investigation on the Batten Kill in Vermont. FS staff is part on an interagency team charged with the study and monitoring of the river to determine causes and suggest solutions to the dramatic declines in the wild trout fishery in this important river system. Once recognized as one of the top 100 best trout stream in the country, the FS and its partners seek to gain a better understanding of why the trout population has declined so significantly in recent years by undertaking investigations of the river's biota and habitat and water quality as well as eventually recommend management actions to restore the fishery and habitat (see attachment 1 for a complete description of the project).

This project directly contributes to the mission and goals of the VTAAF to ensure that pesticide use in Vermont occurs in a safe and effective manner without causing adverse effects on the environment.

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

Working together, the FS and VTAAFM can attain these mutual goals.

In consideration of the above premises, the parties agree as follows:

III. THE VTAAFM SHALL:

1. Collect sediment samples from the Batten Kill river bed in and around Manchester, VT to be analyzed for current use pesticides which may accumulate in particulate matter at environmentally significant levels, as described in the goals/objectives and sampling procedures described in Attachment #1.
2. Analyze the samples from #1 above for the pesticides described in Attachment #1.
2. Compile data, review data quality and consistency, and format a final data set.
3. Interpret the findings and provide a final report by June 30, 2009.
4. Assign a field coordinator to coordinate all sampling activities.
6. Implement all aspects of the sampling/monitoring protocols described in the Project Plan (Attachment #1).

IV. THE FOREST SERVICE SHALL:

1. Provide funding, in the not-to-exceed amount of \$10,500, on a cost reimbursement basis, to the VTAAFM to conduct sediment sampling and analysis on the Batten Kill as identified in Attachment #1.
2. Provide assistance to VTAAFM staff in selecting suitable sampling locations and conducting field sampling and other components of the project when necessary.

V. IT IS MUTUALLY UNDERSTOOD AND AGREED BY AND BETWEEN THE PARTIES THAT:

1. FOREST SERVICE ACKNOWLEDGED IN PUBLICATIONS AND AUDIOVISUALS. Forest Service support shall be acknowledged in any publications and audiovisuals developed as a result of this instrument.
2. FEDERAL COST PRINCIPLES. This agreement will be governed by OMB Circular No. A-122, Cost Principles for Nonprofit Organizations with exclusions listed in Attachment C of OMB Circular No. A-122 and audit requirements under OMB Circular A-133, Audits of States, Local Governments and Non-Profit Organizations.

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

3. COLLECTION OF AMOUNTS DUE THE FEDERAL GOVERNMENT. Pursuant to 31 U.S.C. 3716 and 7 CFR, Part 3, Subpart B, any funds paid to a cooperator in excess of the amount to which the cooperator is finally determined to be entitled under the terms and conditions of the award constitute a debt to the Federal Government. If not paid within a reasonable period after the demand for payment, the Federal awarding agency may reduce the debt by:

- (1) Making an administrative offset against other requests for reimbursements.
- (2) Withholding advance payments otherwise due to the cooperator
- (3) Taking other action permitted by statute.

Except as otherwise provided by law, the Federal awarding agency shall charge interest on an overdue debt in accordance with 4 CFR, Chapter II "Federal Claims Collection Standards" and 31 U.S.C., Chapter 37.

4. TAXPAYER IDENTIFICATION NUMBER. The cooperator shall furnish their tax identification number upon execution of this instrument.

5. RIGHT TO TRANSFER EQUIPMENT AND SUPPLIES. Equipment and supplies approved for purchase under this instrument are available only for use as authorized. The Forest Service reserves the right to transfer title to the Federal government of equipment and supplies, valued over \$5,000 per unit, purchased by the cooperator using any Federal funding. Upon expiration of this instrument the cooperator shall forward an equipment and supply inventory to the Forest Service, listing all equipment purchased throughout the life of the project and unused supplies. Disposition instructions will be issued by the Forest Service within 120 calendar days.

6. FREEDOM OF INFORMATION ACT (FOIA). Any information furnished to the Forest Service under this instrument is subject to the Freedom of Information Act (5 U.S.C. 552).

7. RETENTION AND ACCESS REQUIREMENTS FOR RECORDS. The Forest Service, Inspector General, or Comptroller General, through any authorized representative, shall have access to and the right to examine all records related to this instrument. As used in the provision, "records" includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form. All records pertinent to the award shall be retained for a period of 3 years.

8. MODIFICATION. Modifications within the scope of the instrument shall be made by mutual consent of the parties, by the issuance of a written modification, signed and dated by all parties, prior to any changes being performed. The Forest Service is not obligated to fund any changes not properly approved in advance.

9. NONDISCRIMINATION. The cooperator shall comply with all Federal statutes relating to nondiscrimination and all applicable requirements of all other Federal laws, Executive orders, regulations, and policies. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d, 2000e-16), which prohibits discrimination on the basis of race, color, disability, or national origin; (b) Title IX of the Education amendments of 1972, as amended (20 U.S.C. 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; and Section 504 of the Rehabilitation Act of 1973 as amended (29 U.S.C. 794) which prohibits discrimination on the basis of disabilities. The

nondiscrimination statement which follows shall be posted in primary and secondary cooperator offices, at the public service delivery contact point and included, in full, on all materials regarding such cooperators' programs that are produced by the cooperators for public information, public education, or public distribution:

“In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability. (Not all prohibited bases apply to all programs.)

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.”

If the material is too small to permit the full statement to be included, the material will at minimum include the statement, in print size no smaller than the text, that “This institution is an equal opportunity provider.”

10. PROPERTY IMPROVEMENTS. Improvements placed on National Forest System land at the direction of either of the parties, shall thereupon become property of the United States, and shall be subject to the same regulations and administration of the Forest Service as other National Forest improvements of a similar nature. No part of this instrument shall entitle the cooperator to any share or interest in the project other than the right to use and enjoy the same under the existing regulations of the Forest Service.

11. LEGAL AUTHORITY. The cooperator has the legal authority to enter into this instrument, and the institutional, managerial and financial capability (including funds sufficient to pay nonfederal share of project costs) to ensure proper planning, management, and completion of the project.

12. PARTICIPATION IN SIMILAR ACTIVITIES. This instrument in no way restricts the Forest Service or the Cooperator(s) from participating in similar activities with other public or private agencies, organizations, and individuals.

13. COMMENCEMENT/EXPIRATION DATE. The instrument is executed as of the date of the last signature and is effective through June 30, 2009, at which time it will expire unless extended.

14. EXTENSION OF PERFORMANCE PERIOD. The Forest Service, by written modification may extend the performance period of this instrument for a total duration not to exceed 5 years from its original date of execution.

15. TERMINATION. Any of the parties, in writing, may terminate the instrument in whole, or in part, at any time before the date of expiration. No parties shall incur any new obligations for the terminated portion of the instrument after the effective date and shall cancel as many obligations as possible. Full credit shall be allowed for each Party's expenses and all noncancelable obligations properly incurred up to the effective date of termination. Excess funds shall be refunded within 60 days after the effective period.

16. PRINCIPAL CONTACTS. The principal contacts for this instrument are:

Contacts:

Nat Shambaugh
Agricultural Scientist
Vermont Agency of Agriculture
Laboratory Section
103 S. Main St.
Waterbury, VT 05671-0101
Tel.: (802) 244-4510, ext. 16
E-mail: nat.shambaugh@state.vt.us

Douglas Burnham
Environmental Scientist
Vermont Water Quality Division
Biomonitoring & Aquatic Studies Program
10 North, 103 South Main Street
Waterbury, VT 05671-0408
Tel.: (802) 241-3784
E-mail: doug.burnham@state.vt.us

Steve Roy
Fisheries Biologist
Green Mountain National Forest
231 North Main Street
Rutland, VT 05701
Tel. 802-747-6739
E-mail: sroy@fs.fed.us

Table 2. Characteristics of pesticides proposed for analysis as part of this study.

<u>Pesticide</u> (Bennington County 2006)	<u>Pounds Used</u> (Rainbow Trout LC50, ppb)	<u>Toxicity</u>	<u>Koc</u> (soil absorption coefficient)
Chlorothalonil	2807	35	1380
PCNB	1860	656	5000
Bifenthrin	1046	0.2	237,000
Permethrin	686	24	86,000
Pendimethalin	194	350	5000

Table 3: Schedule. Sampling dates indicate week during which samples will be collected, if compatible with objectives. Monday-Wednesday would be the preferred sampling days.

Task	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May
Planning												
Sampling												
Analysis												
Reporting												
Final Report												5/31

Estimated Budget:

Sampling

Mileage (220 miles x \$0.50/mile x 4 trips)

\$440.00

Personnel (4 x 8 hr. x \$25/hr x 4 trips)

\$3200.00

Laboratory Analysis (20 samples x \$650.00/sample)

\$13,000.00

Project management and report writing (100 hr. x \$30/hr)

\$3000.00

TOTAL

\$19,640.00

Budget Summary: This proposal is requesting a total of \$10,500.00 in federal funding for chemical analyses. In-kind services provided by the Vermont Agency of Agriculture, Food and Markets and other cooperators are estimated at approximately \$9,140.00 and includes travel associated with chemical sampling, personnel time associated with sample collection, sample preparation, data management and report writing.

TABLE 1. Summary of Battenkill area Water Sample results, 2001-2007

Pesticide

<u>Railroad</u>	<u># of samples analyzed</u>	<u># (%) detected</u>	<u>MAC (ppb)*</u>	<u>#(%) above MAC</u>
Diuron	69	2	160	0
Imazapyr	69	1	1500	0
Sulfometuron methyl	69	1	5000	0
Metsulfuron methyl	69	2	365	0

Golf

Chlorothalonil	60	15	0.47	5
Chlorpyrifos	60	1	0.083	1
Iprodione	60	5	6.5	0
PCNB	60	31	5.0	0
Triadimefon	60	6	24	0
2,4-D	33	3	120	0
Dacthal	33	0	??	0
Dicamba	33	1	420	0
MCPA	33	0	3	0
MCPP	33	0	1860	0
Triclopyr	33	0	1860	0

* MAC = Maximum Allowable Concentration (VTDEC).

quality and consistency, and formatting a final data set. Data will be used to make initial characterizations regarding pesticide presence in the Batten Kill. The small size of the data set to be generated by this project will be not allow for quantitative assessment of the availability or potential for toxicity of pesticides to the fisheries of the Batten Kill. The limited number of samples emphasizes the importance of gathering representative data from each site and data that represent targeted conditions. The role of the field coordinator will be critical in assuring that the best possible data are collected.

Sampling Procedures:

- 1. Site Selection:* Sites will be selected by project staff on the main stem of the Batten Kill River during a low flow period in the early summer of 2008. Sites will be chosen by walking/driving/canoeing along the Batten Kill from above Manchester to below Arlington. Potential sampling locations will be selected by locating areas where the current is slow and sediment appears to settle out. Final site selection will include those potential sites closest to and downstream from golf course and/or areas of likely concentrated professional lawn care activities.
- 2. Parameters* – all samples will be analyzed for all active ingredients listed in Table 2 during the fall/winter of 2008-2009. All analyses will be conducted at the VAAF M Laboratory in Waterbury.
- 3. Sampling Procedures* - methods for the collection and preservation of sediment samples will follow standard operating procedures consistent with VAAF M and VTDEC protocols. These procedures will be summarized and provided to field personnel involved with sample collection. Sample bottles and transport containers will be supplied by the VAAF M laboratory. Samples will be collected and delivered to the laboratory in Waterbury in a manner consistent with standard operating procedures. All sediment samples will be preserved at -15°C until analysis.
- 4. Schedule* - Project period will be from June 1, 2008 to May 31, 2009. Sampling schedules will be pre-determined to some extent based on annual pesticide use patterns. Precise sampling times will be determined based on a combination of pesticide application schedules and subsequent hydrologic events creating measurable runoff. Sampling dates will be pre-scheduled for planning purposes. Presence of target representative conditions will be made immediately prior to sampling, with schedule changes made in the event required conditions are not met. **If schedule is altered, the laboratory must be notified and advised of revised sampling schedule.**
- 5. Field Coordinator* - an individual will be assigned to coordinate sample collections. This individual will assure that adequate personnel are assigned to collect samples in a timely manner for each sampling event and to deliver samples to the laboratory as needed. This field coordinator will be responsible for all decisions related to sampling, including schedule revisions as dictated by conditions at scheduled sampling times.
- 6. Quality Assurance* - field personnel will maintain field notebooks for documenting field conditions and observations relevant to sample collection, preservation, and transport. A minimum of one replicate field sample for each sampling event will be collected. Standard laboratory quality assurance consistent with VAAF M laboratory standard operating procedures will be applied to all pesticide analyses.

Data Analysis, Data Usage, and Reporting: Data will be reported from the Laboratory to the project managers. Project managers will be responsible for compiling data, reviewing data

sediment/debris is also a challenge, so only a small number of samples will be able to be analyzed. It will not be possible within the constraints of this project to determine if any of these pesticides are causing toxicity, only if they are present at concentrations which might cause toxicity.

Project Description: This project will undertake a preliminary assessment of whether high toxicity pesticides are accumulating in the sediment and/or detritus of the Batten Kill River. The high toxicity, low solubility pesticides selected for this study are primarily used for lawn care and golf course turf management, areas downstream of these uses will be targeted for sampling. During June of 2008 the collaborators will meet to assess the stretch of the Batten Kill from above Manchester to below Arlington to locate suitable sampling sites. These areas will consist of pools, or other areas where sediment/debris/detritus appears to be accumulating. Sediment samples will be collected from these areas during the summer/fall/winter of 2008, after periods of potential pesticide runoff, and transported to the VTAAFM laboratory in Waterbury, VT where they will be stored for analysis. Sampling and analytical methods will be adapted from those developed by the State of California as part of their assessment of potential riverbed pesticide contamination. All pesticide analyses will be performed at the VTAAFM lab. The proposed analyte list is presented in Table 2, although the list won't be finalized until fall 2008, when method development is complete.

Goals and Objectives: The goal of this project is to collect sediment/debris from various depositional areas within the mainstem of the Batten Kill river. These sediment samples will be analyzed for high toxicity pesticides which, if present, would likely adhere to the organic matter in the sediment/debris from depositional areas. These pesticides, if present in significant quantities, may contribute to toxicity of either fish or their insect food supplies.

Objective 1: Survey the main stem of the Batten Kill River from above Manchester to below Arlington to locate 5 or more areas which are likely to be deposition areas for silt/sediment/debris and suitable for sampling.

Objective 2: Collect a total of at least 20 sediment/debris samples during low flow, after large storm events, from the sites located in Objective 1. This will preferably be allocated between two or more sampling events after rainstorms during the likely pesticide application season.

Objective 3: Analyze all samples for the pesticides specified in Table 2.

Objective 4: Implement sampling and analytical procedures that assure data quality will be adequate for making assessments of the potential for target pesticides to enter the Batten Kill under exposure scenarios likely to adversely affect aquatic biota in the Kill.

Objective 5: Prepare a report of results and findings.

Personnel: This project is a collaborative effort of the Vermont Agency of Agriculture, Foods and Markets (VAAFAM), Vermont Agency of Natural Resources (VTANR), and the US Forest Service. Contacts are: Nat Shambaugh and Cary Giguere, VAAFAM; Doug Burnham, VTANR; and Steve Roy, USFS. Field and laboratory work will be conducted by staff associated with the cooperating entities.

Attachment #1

Batten Kill Insecticide Survey Proposal and Project Plan - May 2008

Project: Assessment of possible insecticide accumulation in the detritus of the Batten Kill River.

Background: The Batten Kill is one of Vermont's premier trout fisheries, but has undergone a decline in trout in recent years. Various efforts by the U.S. Forest Service (USFS), Vermont Department of Environmental Conservation (VTDEC), and Vermont Agency of Agriculture, Food and Markets (VTAAF), and others have investigated this problem over the past several years. The VTAAF has undertaken surveys of pesticides in the waters of the Batten Kill and adjacent areas since 2001. This effort has concentrated on investigating the extent of pesticide runoff during rain events from railroad and golf course pesticide applications. The major pesticide uses on these sites are; herbicides on railroad beds, and herbicides and fungicides on golf courses. A summary of the results of this work is included in Table 1. It can be seen in Table 1 that the majority of detections of these pesticides are the golf course fungicides chlorothalonil and PCNB. Because of its relatively high toxicity (low MAC), chlorothalonil is the pesticide of greatest concern of those investigated to date. The only chlorothalonil detections above the MAC are samples collected from ponds or streams within golf courses, so the relevance to fisheries of the main stem of the Batten Kill are uncertain.

All pesticide investigations to date by the VTAAF in the Batten Kill area have involved looking in water for those highly water soluble pesticides which might wash into the river or tributaries during rain events. Another concern, which has not been addressed, is pesticides characterized by slight water solubility and high toxicity. Being only slightly water soluble, these pesticides are not likely to enter the stream in large quantities, but they may enter the stream carried by soil/sediment/debris during erosional events. Where these solids accumulate in the stream bed, they can be ingested by fish or the insects they feed on. Because some of these pesticides are quite toxic and may bioaccumulate, an effect on the biota is possible with only small amounts entering the aquatic system. The VTAAF has a database of commercial pesticide use by county, and this was used to find those pesticides used in Bennington County in significant amounts (>100 pounds in 2006). Those pesticides of that group which were also relatively toxic (Rainbow Trout LC50 < 1000 ppb) and likely to bind to soil (soil absorption coefficient, Koc > 100) were selected as the preliminary analyte list for this study (see Table 2). This list may be expanded before analysis begins if more information becomes available.

Testing for this group of pesticides entails some unique challenges which is why they have not been investigated in Vermont previously. Because they are not very water soluble, they will tend to adhere to any sediment or debris in the river rather than be present dissolved in the water. It will therefore be necessary to find areas within the Batten Kill river channel where sediment/debris deposition occurs and collect sediment from these areas after one or more major storms when deposition is likely to have occurred. Analysis of these pesticides in

USFS Agreement No.:

Cumulative Financial Plan

Cost Elements	Forest Service			Cooperator #1 WRP			Cooperator #2			(j) Total
	(a) Non-Cash Contrib.	(b) Value of In-Kind Contrib.	(c) Reimb. Coop.#1 Expenses	(d) Non-Cash Contrib.	(e) Value of In-Kind Contrib.	(f) Cash Contrib. to F.S.	(g) Non-Cash Contrib.	(h) Value of In-Kind Contrib.	(i) Cash Contrib. to F.S.	
Direct Costs										
Salaries/Labor	350.00		\$10,500.00	\$8,700.00						\$19,550.00
Travel				\$440.00						\$440.00
Equipment Use										
Supplies										
Materials										
Printing										
Subtotal	\$350.00	\$0.00	\$10,500.00	\$9,140.00						\$19,990.00
Indirect Costs*	\$62.00									\$62.00
Total	\$412.00	\$0.00	\$10,500.00	\$9,140.00						\$20,052.00

(k) Estimated Program Income (subtract from total of column (j)):	0
(l) Net Total Project Value:	\$20,052.00

Matching Costs Determination

Total Forest Service Share = (m)
 $(a+b+c) \div (l) = (m)$ 54.4 %

Total Cooperator Share = (n)
 $[(d+e+f+g+h+i) - (k)] \div (l) = (n)$ 45.6 %

Total = (m+n) = (o)
 (should equal 100%) 100%

Reimbursement Calculation

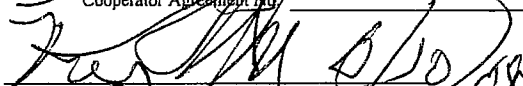
Forest Service Reimbursement percent (p)
 $(c) \div [(c+d+f+g+i)-(k)] = (p)$ 53.5 %

Cooperator expenses NOT reimbursed by Forest Service (q)
 $[(d+f+g+i)-(k)] \div [(c+d+f+g+i) - (k)] = (q)$ 46.5 %

Reimbursable Amount = Total actual cost incurred to date
 (sum of cost elements from the Cooperators invoice as prescribed
 in provisions _____ and _____ multiplied by
53.5 % (p) minus any previous Forest Service payments,
 not to exceed the total amount listed in column (c), minus any
 estimated program income (k).

FS Agreement No. 08-CS-11092000-020
Cooperator Tax ID No. _____
Cooperator DUNS No. 80-937-6718
Cooperator Agreement No. _____


MARGARET MITCHELL Date 6/20/08
Green Mountain & Finger Lakes National Forests
Forest Supervisor


ROGER ALDBEE Date 6/20/08
Vermont Agency of Agriculture
Secretary

The authority and format of this instrument has been reviewed and approved for signature.

/s/ Janeal A. Hedman 06/06/2008
JANEAL A. HEDMAN DATE
Fs Grants and Agreements Specialist

Job Code – NFWF20 Override 0933 - \$10,500

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

23. PAYMENT /REIMBURSEMENT. Reimburse the cooperator for the Forest Service's proportionate share 53.5% percent of actual expenses incurred, not to exceed \$10,500, reduced by program income, and other Federal and nonfederal cash contributions, as shown in the incorporated Financial Plan. If program income generated from the project exceeds the cooperator's actual expenses, the Forest Service share is zero. The cooperator is approved to submit quarterly billings(s). The Forest will make payment for its proportionate share of project costs upon receipt of an invoice.

Each invoice shall display the cooperator's actual expenditures to date of the invoice (not just the Forest Service share of actual expenditures), display by separate cost elements as documented in the Financial Plan, less program income and other Federal and nonfederal cash contributions and previous Forest Service payments. The invoice should be forwarded as follows:

Send original to:

Albuquerque Service Center-
Payments G&A
USDA Forest Service
National Forest
101B Sun Ave.NE
Albuquerque, NM 87109

Send copy to:

Steve Roy

USDA Forest Service
Green Mountain National Forest
231 N. Main St.
Rutland, VT 05701

24. ALTERNATE DISPUTE RESOLUTION. In the event of any issue of controversy under this Agreement, the parties may pursue Alternate Dispute Resolution procedures to voluntarily resolve those issues. These procedures may include, but are not limited to, conciliation, facilitation, mediation, and fact finding.

25. AUTHORIZED REPRESENTATIVES. By signature below, the cooperator certifies that the individuals listed in this document as representatives of the cooperator are authorized to act in their respective areas for matters related to this agreement.

26. ENDORSEMENT. Any cooperator contributions made under this instrument do not by direct reference or implication convey Forest Service endorsement of the cooperator's products or activities.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the last written date below.

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

19. PUBLICATION SALE. The recipient may sell any publication resulting from the project. The publication may initially be sold at fair market value, which is defined in this instrument to cover costs of development, production, marketing, and distribution. After the costs of development and production have been recovered, fair market value is defined in this instrument to cover the costs of marketing, printing, and distribution only. Fair market value must exclude any in-kind or Federal government contributions to the total costs of the project.

20. DAVIS-BACON OR SERVICE CONTRACT ACT. Federal wage provisions (Davis-Bacon or Service Contract Act) are applicable to any contract developed and awarded under this instrument where all or part of the funding is provided with Federal funds. Davis-Bacon wage rates apply on all public works contracts in excess of \$2,000 and Service Contract Act wage provisions apply to service contracts in excess of \$2,500. The Forest Service will award contracts in all situations where their contribution exceeds 50 percent of the costs of the contract. If a cooperator is approved to issue a contract it shall be awarded on a competitive basis.

21. DUNS NUMBER (5/04): The cooperator shall furnish their DUNS number upon execution of this instrument. You may obtain a DUNS number by contacting Dun and Bradstreet at 800-234-3867 or 866-794-1580. A DUNS number will be provided immediately by telephone at no charge.

22. ELECTRONIC FUNDS TRANSFER. The cooperator shall designate a financial institution or an authorized payment agent through which a Federal payment may be made in accordance with U.S. Treasury Regulations, Money and Finance at 31 CFR 208, which requires that Federal payments are to be made by electronic funds transfer (EFT) to the maximum extent possible. A waiver may be requested and payment received by check by certifying in writing that one of the following situations apply:

1. The payment cooperator does not have an account at a financial institution.
2. EFT creates a financial hardship because direct deposit will cost the payment recipient more than receiving check.
3. The payment recipient/cooperator has a physical or mental disability, or a geographic, language, or literacy barrier.

To initiate receiving your payment(s) by electronic transfer, contact the National Finance Center (NFC) on the worldwide web at www.nfc.usda.gov, or call the NFC at 1-800-421-0323, or (504) 255-4647. Upon enrollment in the program you may begin to receive payment by electronic funds transfer directly into your account.

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

Forest Service Project Contact

Steve Roy
USDA- Forest Service
231 N. Main Street
Rutland, VT 05701
(802) 747-6739

VTAAFM Project Contact

Nathaniel Shambaugh
Vermont Agency of Agriculture Laboratory
103 South Main St.
Waterbury, VT 05671-0101
(802) 244-4510 ext. 16

Forest Service Administrative Contact

Janeal A Hedman
Allegheny National Forest

222 Liberty St.
Warren, PA 16365

Phone: 814-728-6245
FAX: 814-726-1465
E-Mail: jhedman@fs.fed.us

Cooperator Administrative Contact

Roger Allbee, Secretary
Vermont Agency of Agriculture, Food &
Markets
116 State St.
Montpelier, VT 05620-2901

Phone:
FAX:
E-Mail:

17. AVAILABILITY OF FUNDS. Funding in the amount of \$10,500 is currently available for performance of this instrument through June 30, 2009. The Forest Service's obligation for performance of this instrument beyond this date is contingent upon the availability of appropriated funds from which payment can be made. No legal liability on the part of the Forest Service for any payment may arise for performance under this instrument beyond June 30, 2009, until funds are made available to the Forest Service for performance and until the recipient receives notice of availability to be confirmed in a written modification by the Forest Service.

18. COPYRIGHTING. The cooperator is granted sole and exclusive right to copyright publications, including the right to publish and vend throughout the world in any language and in all media and forms, in whole or in part, for the full term of copyright and all renewals thereof in accordance with this instrument. However, the cooperator shall not sell, or grant copyrights to a third-party designee who intends to sell, the document as a profit-making venture. No original text or graphics produced and submitted by the Forest Service shall be copyrighted. The Forest Service reserves a royalty-free, nonexclusive, and irrevocable right to reproduce, publish, or otherwise use, and to authorize others to use, the work for Federal government purposes. This right shall be transferred to any subagreements or subcontracts. This provision includes:

- a. The copyright in any work developed by VTAAFM under this instrument.
- b. Any rights of copyright to which VTAAFM purchases ownership with any Federal contributions.



STATE OF VERMONT
JOINT FISCAL OFFICE

MEMORANDUM

To: Joint Fiscal Committee Members
From: Nathan Lavery, Fiscal Analyst
Date: August 1, 2008
Subject: Grant Request

Enclosed please find one (1) request which the Joint Fiscal Office recently received from the Administration:

JFO #2332 — \$10,500 grant from the United States Department of Agriculture to the Agency of Agriculture, Food and Markets. These grant funds will be used to conduct a survey of pesticide accumulation in the sediments of the Batten Kill.
[JFO received 08/01/08]

The Joint Fiscal Office has reviewed this submission and determined that all appropriate forms bearing the necessary approvals are in order.

In accordance with the procedures for processing such requests, we ask you to review the enclosed and notify the Joint Fiscal Office (Nathan Lavery at 802/828-1488; nlavery@leg.state.vt.us or Stephen Klein at 802/828-5769; sklein@leg.state.vt.us) if you have questions or would like this item held for legislative review. Unless we hear from you to the contrary by August 18 we will assume that you agree to consider as final the Governor's acceptance of this request.

cc: James Reardon, Commissioner
Linda Morse, Administrative Assistant
Roger Allbee, Secretary



STATE OF VERMONT
JOINT FISCAL OFFICE

MEMORANDUM

To: Joint Fiscal Committee Members
From: Nathan Lavery, Fiscal Analyst
Date: August 1, 2008
Subject: Grant Request

Enclosed please find one (1) request which the Joint Fiscal Office recently received from the Administration:

JFO #2332 — \$10,500 grant from the United States Department of Agriculture to the Agency of Agriculture, Food and Markets. These grant funds will be used to conduct a survey of pesticide accumulation in the sediments of the Batten Kill.
[JFO received 08/01/08]

The Joint Fiscal Office has reviewed this submission and determined that all appropriate forms bearing the necessary approvals are in order.

In accordance with the procedures for processing such requests, we ask you to review the enclosed and notify the Joint Fiscal Office (Nathan Lavery at 802/828-1488; nlavery@leg.state.vt.us or Stephen Klein at 802/828-5769; sklein@leg.state.vt.us) if you have questions or would like this item held for legislative review. Unless we hear from you to the contrary by August 18 we will assume that you agree to consider as final the Governor's acceptance of this request.

cc: James Reardon, Commissioner
Linda Morse, Administrative Assistant
Roger Allbee, Secretary

STATE OF VERMONT
GRANT ACCEPTANCE FORM

GRANT SUMMARY: This Challenge Cost- Share Agreement with the USDA Forest Service funds a survey of pesticide accumulation in the sediments of the Batten Kill.

TITLE OF GRANT: Challenge-Cost Share Agreement No. 08-CS-11092000-020 to Perform Survey for Pesticide Accumulation in the Sediments of the Batten Kill

FEDERAL CATALOG No.:

GRANTOR / DONOR: United States Department of Agriculture
Forest Service
231 N. Main Street
Rutland, VT 05701

DATE: 7/15/08

DEPARTMENT: Agriculture, Food and Markets

GRANT / DONATION: Under this agreement, Agriculture will work with the Forest Service to conduct this survey.

AMOUNT / VALUE: \$10,500.00

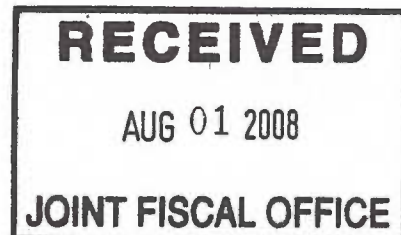
POSITIONS REQUESTED: None

GRANT PERIOD: 6/20/08 to 12/31/08

COMMENTS:

DEPARTMENT OF FINANCE AND MANAGEMENT:
SECRETARY OF ADMINISTRATION
SENT TO JOINT FISCAL OFFICE:

(INITIAL) ~~AM~~ 7/16/08
(INITIAL) ~~AM~~ 7/17/08
DATE: 7/23/08



STATE OF VERMONT
Department of Finance and Management
MEMO

TO: Mike Smith, Secretary of Administration and Jim Reardon, Commissioner
of Finance and Management
FROM: Toni Hartrich, Budget and Management Analyst
DATE: 7/15/08
SUBJECT: Grant Acceptance Request from the Agency of Agriculture, Food and
Markets

Enclosed is the Agency of Agriculture Food and Markets request for acceptance of a grant of \$10,500.00 from the USDA- Forest Service to conduct a survey of pesticide accumulation in the sediments of the Batten Kill. Agriculture, Food, and Markets will supply \$9,140.00 in an in-kind match for its part of this project. There are no new positions involved with this Challenge-Cost Share Agreement with the USDA.

I am recommending approval of this grant request.

STATE OF VERMONT
REQUEST FOR GRANT ACCEPTANCE
 (use additional sheets as needed)

FORM AA-1
 (Rev: 9-90)

1. Agency: **Vermont Agency of Agriculture, Food & Markets**
 2. Department:
 3. Program: **Survey for Pesticide Accumulation in the Sediments of the Batten Kill**
 4. Legal Title of Grant: **Challenge-Cost Share Agreement No. 08-CS-11092000-020**
To Perform Survey for Pesticide Accumulation in the Sediments of the Batten Kill
 5. Federal Catalog No.:
 6. Grantor and Office Address: **United States Department of Agriculture**
Forest Service
231 N. Main Street
Rutland, VT 05701

7. Grant Period: From: **6/20/2008** To: **12/31/2008**

8. Purpose of Grant: **The purpose of this agreement is to perform a survey for pesticide accumulation in the sediments of the Batten Kill in the area around Manchester, VT.**

9. Impact on Existing Programs if Grant is not Accepted: **None**

10. Budget Information:	(1st State FY)	(2nd State FY)	(3rd State FY)
	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
EXPENDITURES:			
Personal Services	\$ 19,550.00	\$	\$
Operating Expenses	\$ 502.00	\$	\$
Grants	\$	\$	\$
TOTAL	\$ 20,052.00	\$	\$
REVENUES:			
State Funds:			
Cash	\$	\$	\$
In-Kind	\$ 9,140.00	\$	\$
Federal Funds:			
(Direct Costs)	\$ 10,500.00	\$	\$
(Statewide Indirect)	\$	\$	\$
(Department Indirect)	\$	\$	\$
Other Funds:			
(source) <u>Forest Service</u>			
<u>- In-kind</u>	\$ 412.00	\$	\$
TOTAL	\$ 20,052.00	\$	\$

Grants will be allocated to these appropriation expenditure accounts

Appropriation Nos.
 DEPTID 2200040000
 FUND 22005
 PROGRAM to be determined

Amounts
 \$10,500.00

RECEIVED
 JUL 04 2008

BY: _____

11. Will grant monies be spent by one or more personal service contracts?

YES

NO

If YES, signature of appointing authority here indicates intent to follow current guidelines on bidding.

X _____ (Date)

12a. Please list any requested Limited Service Positions:

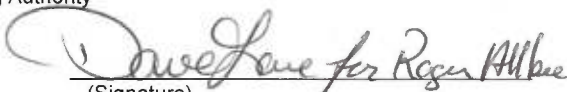
Titles	Number of Positions
TOTAL	

12b. Equipment and space for these positions:

- Is presently available.
- Can be obtained with available funds

13. Signature of Appointing Authority

I certify that no funds have been expended or committed in anticipation of Joint Fiscal Committee approval of this grant.



 (Signature)
 Secretary, Agriculture, Food & Markets
 (Title)

7/2/08
(Date)

14. Action by Governor:

- Approved
- Rejected



 (Signature)

7/22/08
(Date)

15. Secretary of Administration:

- Request to JFO
- Information to JFO



 (Signature)

7/17/08
(Date)

16. Action by Joint Fiscal Committee:

(Dates)

- Request to be placed on JFC agenda
- Approved (not placed on agenda in 30 days)
- Approved by JFC
- Rejected by JFC
- Approved by Legislature

(Signature)

(Date)

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

CHALLENGE-COST SHARE AGREEMENT

BETWEEN THE

**VERMONT AGENCY OF AGRICULTURE, FOOD AND MARKETS
103 SOUTH MAIN STREET
WATERBURY, VT 05671-0101**

AND

**UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
GREEN MOUNTAIN NATIONAL FOREST**

This Cooperative Agreement is entered into by and between the Vermont Agency of Agriculture, Food and Markets, hereinafter referred to as the VTAAFM, or the Cooperator and the United States Department of Agriculture, Forest Service, or FS, Green Mountain/Finger Lakes National Forests, hereinafter referred to as the Forest Service, under the provisions of the Department of Interior and Related Agencies Appropriation Act of 1992, P.L. 102-154 including Section 323 of the Wyden Amendment of the above mentioned Act.

I. PURPOSE:

The purpose of this Cooperative Agreement is to work collaboratively with the VTAAFM to perform a survey for pesticide accumulation in the sediments of the Batten Kill in the area around Manchester, VT.

II. STATEMENT OF MUTUAL INTERESTS AND BENEFITS:

The Forest Service has a mission to protect, restore and enhance natural resources including aquatic and riparian habitats. Additionally, there is clear national direction to accomplish this mission with partners having mutual intent for these resources.

In FY 01-07, the FS received Congressional funding directed at conducting biological assessments and investigation on the Batten Kill in Vermont. FS staff is part on an interagency team charged with the study and monitoring of the river to determine causes and suggest solutions to the dramatic declines in the wild trout fishery in this important river system. Once recognized as one of the top 100 best trout stream in the country, the FS and its partners seek to gain a better understanding of why the trout population has declined so significantly in recent years by undertaking investigations of the river's biota and habitat and water quality as well as eventually recommend management actions to restore the fishery and habitat (see attachment 1 for a complete description of the project).

This project directly contributes to the mission and goals of the VTAAFM to ensure that pesticide use in Vermont occurs in a safe and effective manner without causing adverse effects on the environment.

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

Working together, the FS and VTAAFM can attain these mutual goals.

In consideration of the above premises, the parties agree as follows:

III. THE VTAAFM SHALL:

1. Collect sediment samples from the Batten Kill river bed in and around Manchester, VT to be analyzed for current use pesticides which may accumulate in particulate matter at environmentally significant levels, as described in the goals/objectives and sampling procedures described in Attachment #1.
2. Analyze the samples from #1 above for the pesticides described in Attachment #1.
2. Compile data, review data quality and consistency, and format a final data set.
3. Interpret the findings and provide a final report by June 30, 2009.
4. Assign a field coordinator to coordinate all sampling activities.
6. Implement all aspects of the sampling/monitoring protocols described in the Project Plan (Attachment #1).

IV. THE FOREST SERVICE SHALL:

1. Provide funding, in the not-to-exceed amount of \$10,500, on a cost reimbursement basis, to the VTAAFM to conduct sediment sampling and analysis on the Batten Kill as identified in Attachment #1.
2. Provide assistance to VTAAFM staff in selecting suitable sampling locations and conducting field sampling and other components of the project when necessary.

V. IT IS MUTUALLY UNDERSTOOD AND AGREED BY AND BETWEEN THE PARTIES THAT:

1. FOREST SERVICE ACKNOWLEDGED IN PUBLICATIONS AND AUDIOVISUALS. Forest Service support shall be acknowledged in any publications and audiovisuals developed as a result of this instrument.
2. FEDERAL COST PRINCIPLES. This agreement will be governed by OMB Circular No. A-122, Cost Principles for Nonprofit Organizations with exclusions listed in Attachment C of OMB Circular No. A-122 and audit requirements under OMB Circular A-133, Audits of States, Local Governments and Non-Profit Organizations.

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

3. COLLECTION OF AMOUNTS DUE THE FEDERAL GOVERNMENT. Pursuant to 31 U.S.C. 3716 and 7 CFR, Part 3, Subpart B, any funds paid to a cooperator in excess of the amount to which the cooperator is finally determined to be entitled under the terms and conditions of the award constitute a debt to the Federal Government. If not paid within a reasonable period after the demand for payment, the Federal awarding agency may reduce the debt by:

- (1) Making an administrative offset against other requests for reimbursements.
- (2) Withholding advance payments otherwise due to the cooperator
- (3) Taking other action permitted by statute.

Except as otherwise provided by law, the Federal awarding agency shall charge interest on an overdue debt in accordance with 4 CFR, Chapter II "Federal Claims Collection Standards" and 31 U.S.C., Chapter 37.

4. TAXPAYER IDENTIFICATION NUMBER. The cooperator shall furnish their tax identification number upon execution of this instrument.

5. RIGHT TO TRANSFER EQUIPMENT AND SUPPLIES. Equipment and supplies approved for purchase under this instrument are available only for use as authorized. The Forest Service reserves the right to transfer title to the Federal government of equipment and supplies, valued over \$5,000 per unit, purchased by the cooperator using any Federal funding. Upon expiration of this instrument the cooperator shall forward an equipment and supply inventory to the Forest Service, listing all equipment purchased throughout the life of the project and unused supplies. Disposition instructions will be issued by the Forest Service within 120 calendar days.

6. FREEDOM OF INFORMATION ACT (FOIA). Any information furnished to the Forest Service under this instrument is subject to the Freedom of Information Act (5 U.S.C. 552).

7. RETENTION AND ACCESS REQUIREMENTS FOR RECORDS. The Forest Service, Inspector General, or Comptroller General, through any authorized representative, shall have access to and the right to examine all records related to this instrument. As used in the provision, "records" includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form. All records pertinent to the award shall be retained for a period of 3 years.

8. MODIFICATION. Modifications within the scope of the instrument shall be made by mutual consent of the parties, by the issuance of a written modification, signed and dated by all parties, prior to any changes being performed. The Forest Service is not obligated to fund any changes not properly approved in advance.

9. NONDISCRIMINATION. The cooperator shall comply with all Federal statutes relating to nondiscrimination and all applicable requirements of all other Federal laws, Executive orders, regulations, and policies. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d, 2000e-16), which prohibits discrimination on the basis of race, color, disability, or national origin; (b) Title IX of the Education amendments of 1972, as amended (20 U.S.C. 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; and Section 504 of the Rehabilitation Act of 1973 as amended (29 U.S.C. 794) which prohibits discrimination on the basis of disabilities. The

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

nondiscrimination statement which follows shall be posted in primary and secondary cooperator offices, at the public service delivery contact point and included, in full, on all materials regarding such cooperators' programs that are produced by the cooperators for public information, public education, or public distribution:

"In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability. (Not all prohibited bases apply to all programs.)

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer."

If the material is too small to permit the full statement to be included, the material will at minimum include the statement, in print size no smaller than the text, that "This institution is an equal opportunity provider."

10. PROPERTY IMPROVEMENTS. Improvements placed on National Forest System land at the direction of either of the parties, shall thereupon become property of the United States, and shall be subject to the same regulations and administration of the Forest Service as other National Forest improvements of a similar nature. No part of this instrument shall entitle the cooperator to any share or interest in the project other than the right to use and enjoy the same under the existing regulations of the Forest Service.

11. LEGAL AUTHORITY. The cooperator has the legal authority to enter into this instrument, and the institutional, managerial and financial capability (including funds sufficient to pay nonfederal share of project costs) to ensure proper planning, management, and completion of the project.

12. PARTICIPATION IN SIMILAR ACTIVITIES. This instrument in no way restricts the Forest Service or the Cooperator(s) from participating in similar activities with other public or private agencies, organizations, and individuals.

13. COMMENCEMENT/EXPIRATION DATE. The instrument is executed as of the date of the last signature and is effective through June 30, 2009, at which time it will expire unless extended.

14. EXTENSION OF PERFORMANCE PERIOD. The Forest Service, by written modification may extend the performance period of this instrument for a total duration not to exceed 5 years from its original date of execution.

15. TERMINATION. Any of the parties, in writing, may terminate the instrument in whole, or in part, at any time before the date of expiration. No parties shall incur any new obligations for the terminated portion of the instrument after the effective date and shall cancel as many obligations as possible. Full credit shall be allowed for each Party's expenses and all noncancelable obligations properly incurred up to the effective date of termination. Excess funds shall be refunded within 60 days after the effective period.

16. PRINCIPAL CONTACTS. The principal contacts for this instrument are:

Contacts:

Nat Shambaugh
Agricultural Scientist
Vermont Agency of Agriculture
Laboratory Section
103 S. Main St.
Waterbury, VT 05671-0101
Tel.: (802) 244-4510, ext. 16
E-mail: nat.shambaugh@state.vt.us

Douglas Burnham
Environmental Scientist
Vermont Water Quality Division
Biomonitoring & Aquatic Studies Program
10 North, 103 South Main Street
Waterbury, VT 05671-0408
Tel.: (802) 241-3784
E-mail: doug.burnham@state.vt.us

Steve Roy
Fisheries Biologist
Green Mountain National Forest
231 North Main Street
Rutland, VT 05701
Tel. 802-747-6739
E-mail: sroy@fs.fed.us

Table 2. Characteristics of pesticides proposed for analysis as part of this study.

<u>Pesticide</u>	<u>Pounds Used</u>	<u>Toxicity</u>	<u>Koc</u>
(Bennington County 2006)(Rainbow Trout LC50, ppb) (soil absorption coefficient)			
Chlorothalonil	2807	35	1380
PCNB	1860	656	5000
Bifenthrin	1046	0.2	237,000
Permethrin	686	24	86,000
Pendimethalin	194	350	5000

Table 3: Schedule. Sampling dates indicate week during which samples will be collected, if compatible with objectives. Monday-Wednesday would be the preferred sampling days.

Task	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May
Planning												
Sampling												
Analysis												
Reporting												
Final Report												5/31

Estimated Budget:

Sampling

Mileage (220 miles x \$0.50/mile x 4 trips)

\$440.00

Personnel (4 x 8 hr. x \$25/hr x 4 trips)

\$3200.00

Laboratory Analysis (20 samples x \$650.00/sample)

\$13,000.00

Project management and report writing (100 hr. x \$30/hr)

\$3000.00

TOTAL

\$19,640.00

Budget Summary: This proposal is requesting a total of **\$10,500.00** in federal funding for chemical analyses. In-kind services provided by the Vermont Agency of Agriculture, Food and Markets and other cooperators are estimated at approximately **\$9,140.00** and includes travel associated with chemical sampling, personnel time associated with sample collection, sample preparation, data management and report writing.

TABLE 1. Summary of Battenkill area Water Sample results, 2001-2007

Pesticide

<u>Railroad</u>	<u># of samples analyzed</u>	<u># (%) detected</u>	<u>MAC (ppb)*</u>	<u>#(%) above MAC</u>
Diuron	69	2	160	0
Imazapyr	69	1	1500	0
Sulfometuron methyl	69	1	5000	0
Metsulfuron methyl	69	2	365	0

Golf

Chlorothalonil	60	15	0.47	5
Chlorpyrifos	60	1	0.083	1
Iprodione	60	5	6.5	0
PCNB	60	31	5.0	0
Triadimefon	60	6	24	0
2,4-D	33	3	120	0
Dacthal	33	0	??	0
Dicamba	33	1	420	0
MCPA	33	0	3	0
MCPP	33	0	1860	0
Triclopyr	33	0	1860	0

* MAC = Maximum Allowable Concentration (VTDEC).

FS Agreement No	<u>08-CS-11092000-020</u>
Cooperator Tax ID No.	<u></u>
Cooperator DUNS No.	<u>80-937-6718</u>
Cooperator Agreement No.	<u></u>

quality and consistency, and formatting a final data set. Data will be used to make initial characterizations regarding pesticide presence in the Batten Kill. The small size of the data set to be generated by this project will be not allow for quantitative assessment of the availability or potential for toxicity of pesticides to the fisheries of the Batten Kill. The limited number of samples emphasizes the importance of gathering representative data from each site and data that represent targeted conditions. The role of the field coordinator will be critical in assuring that the best possible data are collected.

Sampling Procedures:

1. *Site Selection:* Sites will be selected by project staff on the main stem of the Batten Kill River during a low flow period in the early summer of 2008. Sites will be chosen by walking/driving/canoeing along the Batten Kill from above Manchester to below Arlington. Potential sampling locations will be selected by locating areas where the current is slow and sediment appears to settle out. Final site selection will include those potential sites closest to and downstream from golf course and/or areas of likely concentrated professional lawn care activities.

2. *Parameters* – all samples will be analyzed for all active ingredients listed in Table 2 during the fall/winter of 2008-2009. All analyses will be conducted at the VAAF M Laboratory in Waterbury.

3. *Sampling Procedures* - methods for the collection and preservation of sediment samples will follow standard operating procedures consistent with VAAF M and VTDEC protocols. These procedures will be summarized and provided to field personnel involved with sample collection. Sample bottles and transport containers will be supplied by the VAAF M laboratory. Samples will be collected and delivered to the laboratory in Waterbury in a manner consistent with standard operating procedures. All sediment samples will be preserved at -15°C until analysis.

4. *Schedule* - Project period will be from June 1, 2008 to May 31, 2009. Sampling schedules will be pre-determined to some extent based on annual pesticide use patterns. Precise sampling times will be determined based on a combination of pesticide application schedules and subsequent hydrologic events creating measurable runoff. Sampling dates will be pre-scheduled for planning purposes. Presence of target representative conditions will be made immediately prior to sampling, with schedule changes made in the event required conditions are not met. **If schedule is altered, the laboratory must be notified and advised of revised sampling schedule.**

5. *Field Coordinator* - an individual will be assigned to coordinate sample collections. This individual will assure that adequate personnel are assigned to collect samples in a timely manner for each sampling event and to deliver samples to the laboratory as needed. This field coordinator will be responsible for all decisions related to sampling, including schedule revisions as dictated by conditions at scheduled sampling times.

6. *Quality Assurance* - field personnel will maintain field notebooks for documenting field conditions and observations relevant to sample collection, preservation, and transport. A minimum of one replicate field sample for each sampling event will be collected. Standard laboratory quality assurance consistent with VAAF M laboratory standard operating procedures will be applied to all pesticide analyses.

Data Analysis, Data Usage, and Reporting: Data will be reported from the Laboratory to the project managers. Project managers will be responsible for compiling data, reviewing data

sediment/debris is also a challenge, so only a small number of samples will be able to be analyzed. It will not be possible within the constraints of this project to determine if any of these pesticides are causing toxicity, only if they are present at concentrations which might cause toxicity.

Project Description: This project will undertake a preliminary assessment of whether high toxicity pesticides are accumulating in the sediment and/or detritus of the Batten Kill River. The high toxicity, low solubility pesticides selected for this study are primarily used for lawn care and golf course turf management, areas downstream of these uses will be targeted for sampling. During June of 2008 the collaborators will meet to assess the stretch of the Batten Kill from above Manchester to below Arlington to locate suitable sampling sites. These areas will consist of pools, or other areas where sediment/debris/detritus appears to be accumulating. Sediment samples will be collected from these areas during the summer/fall/winter of 2008, after periods of potential pesticide runoff, and transported to the VTAAFM laboratory in Waterbury, VT where they will be stored for analysis. Sampling and analytical methods will be adapted from those developed by the State of California as part of their assessment of potential riverbed pesticide contamination. All pesticide analyses will be performed at the VTAAFM lab. The proposed analyte list is presented in Table 2, although the list won't be finalized until fall 2008, when method development is complete.

Goals and Objectives: The goal of this project is to collect sediment/debris from various depositional areas within the mainstem of the Batten Kill river. These sediment samples will be analyzed for high toxicity pesticides which, if present, would likely adhere to the organic matter in the sediment/debris from depositional areas. These pesticides, if present in significant quantities, may contribute to toxicity of either fish or their insect food supplies.

Objective 1: Survey the main stem of the Batten Kill River from above Manchester to below Arlington to locate 5 or more areas which are likely to be deposition areas for silt/sediment/debris and suitable for sampling.

Objective 2: Collect a total of at least 20 sediment/debris samples during low flow, after large storm events, from the sites located in Objective 1. This will preferably be allocated between two or more sampling events after rainstorms during the likely pesticide application season.

Objective 3: Analyze all samples for the pesticides specified in Table 2.

Objective 4: Implement sampling and analytical procedures that assure data quality will be adequate for making assessments of the potential for target pesticides to enter the Batten Kill under exposure scenarios likely to adversely affect aquatic biota in the Kill.

Objective 5: Prepare a report of results and findings.

Personnel: This project is a collaborative effort of the Vermont Agency of Agriculture, Foods and Markets (VAAFAM), Vermont Agency of Natural Resources (VTANR), and the US Forest Service. Contacts are: Nat Shambaugh and Cary Giguere, VAAFAM; Doug Burnham, VTANR; and Steve Roy, USFS. Field and laboratory work will be conducted by staff associated with the cooperating entities.

Attachment #1

Batten Kill Insecticide Survey Proposal and Project Plan - May 2008

Project: Assessment of possible insecticide accumulation in the detritus of the Batten Kill River.

Background: The Batten Kill is one of Vermont's premier trout fisheries, but has undergone a decline in trout in recent years. Various efforts by the U.S. Forest Service (USFS), Vermont Department of Environmental Conservation (VTDEC), and Vermont Agency of Agriculture, Food and Markets (VTAAFM), and others have investigated this problem over the past several years. The VTAAFM has undertaken surveys of pesticides in the waters of the Batten Kill and adjacent areas since 2001. This effort has concentrated on investigating the extent of pesticide runoff during rain events from railroad and golf course pesticide applications. The major pesticide uses on these sites are; herbicides on railroad beds, and herbicides and fungicides on golf courses. A summary of the results of this work is included in Table 1. It can be seen in Table 1 that the majority of detections of these pesticides are the golf course fungicides chlorothalonil and PCNB. Because of its relatively high toxicity (low MAC), chlorothalonil is the pesticide of greatest concern of those investigated to date. The only chlorothalonil detections above the MAC are samples collected from ponds or streams within golf courses, so the relevance to fisheries of the main stem of the Batten Kill are uncertain.

All pesticide investigations to date by the VTAAFM in the Batten Kill area have involved looking in water for those highly water soluble pesticides which might wash into the river or tributaries during rain events. Another concern, which has not been addressed, is pesticides characterized by slight water solubility and high toxicity. Being only slightly water soluble, these pesticides are not likely to enter the stream in large quantities, but they may enter the stream carried by soil/sediment/debris during erosional events. Where these solids accumulate in the stream bed, they can be ingested by fish or the insects they feed on. Because some of these pesticides are quite toxic and may bioaccumulate, an effect on the biota is possible with only small amounts entering the aquatic system. The VTAAFM has a database of commercial pesticide use by county, and this was used to find those pesticides used in Bennington County in significant amounts (>100 pounds in 2006). Those pesticides of that group which were also relatively toxic (Rainbow Trout LC50 < 1000 ppb) and likely to bind to soil (soil absorption coefficient, Koc >100) were selected as the preliminary analyte list for this study (see Table 2). This list may be expanded before analysis begins if more information becomes available.

Testing for this group of pesticides entails some unique challenges which is why they have not been investigated in Vermont previously. Because they are not very water soluble, they will tend to adhere to any sediment or debris in the river rather than be present dissolved in the water. It will therefore be necessary to find areas within the Batten Kill river channel where sediment/debris deposition occurs and collect sediment from these areas after one or more major storms when deposition is likely to have occurred. Analysis of these pesticides in

FS Agreement No. 08-CS-11092000-020
 Cooperator Tax ID No. _____
 Cooperator DUNS No. 80-937-6718
 Cooperator Agreement No. _____

USFS Agreement No.:

Cumulative Financial Plan

Cost Elements	Forest Service			Cooperator #1 WRP			Cooperator #2			(j) Total
	(a) Non-Cash Contrib.	(b) Value of In-Kind Contrib.	(c) Reimb. Coop.#1 Expenses	(d) Non-Cash Contrib.	(e) Value of In-Kind Contrib.	(f) Cash Contrib. to F.S.	(g) Non-Cash Contrib.	(h) Value of In-Kind Contrib.	(i) Cash Contrib. to F.S.	
Direct Costs										
Salaries/Labor	350.00		\$10,500.00	\$8,700.00						\$19,550.00
Travel				\$440.00						\$440.00
Equipment Use										
Supplies										
Materials										
Printing										
Subtotal	\$350.00	\$0.00	\$10,500.00	\$9,140.00						\$19,990.00
Indirect Costs*	\$62.00									\$62.00
Total	\$412.00	\$0.00	\$10,500.00	\$9,140.00						\$20,052.00

(k) Estimated Program Income (subtract from total of column (j)):	0
(l) Net Total Project Value:	\$20,052.00

Matching Costs Determination

Total Forest Service Share = (m)
 $(a+b+c) \div (l) = (m)$ 54.4 %

Total Cooperator Share = (n)
 $[(d+e+f+g+h+i) - (k)] \div (l) = (n)$ 45.6 %

Total = $(m+n) = (o)$ 100%
 (should equal 100%)

Reimbursement Calculation

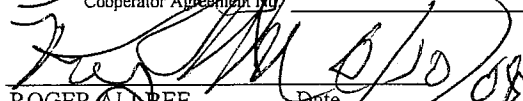
Forest Service Reimbursement percent (p)
 $(c) \div [(c+d+f+g+i)-(k)] = (p)$ 53.5 %

Cooperator expenses NOT reimbursed by Forest Service (q)
 $[(d+f+g+i)-(k)] \div [(c+d+f+g+i) - (k)] = (q)$ 46.5 %

Reimbursable Amount = Total actual cost incurred to date
 (sum of cost elements from the Cooperators invoice as prescribed
 in provisions _____ and _____ multiplied by
53.5 % (p) minus any previous Forest Service payments,
 not to exceed the total amount listed in column (c), minus any
 estimated program income (k).

FS Agreement No. 08-CS-11092000-020
Cooperator Tax ID No. _____
Cooperator DUNS No. 80-937-6718
Cooperator Agreement No. _____


MARGARET MITCHELL Date
Green Mountain & Finger Lakes National Forests
Forest Supervisor


ROGER ALLBEE Date
Vermont Agency of Agriculture
Secretary

The authority and format of this instrument has been reviewed and approved for signature.

/s/ Janeal A. Hedman 06/06/2008
JANEAL A. HEDMAN DATE
Fs Grants and Agreements Specialist

Job Code – NFWF20 Override 0933 - \$10,500

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

23. PAYMENT /REIMBURSEMENT. Reimburse the cooperator for the Forest Service's proportionate share 53.5% percent of actual expenses incurred, not to exceed \$10,500, reduced by program income, and other Federal and nonfederal cash contributions, as shown in the incorporated Financial Plan. If program income generated from the project exceeds the cooperator's actual expenses, the Forest Service share is zero. The cooperator is approved to submit quarterly billings(s). The Forest will make payment for its proportionate share of project costs upon receipt of an invoice.

Each invoice shall display the cooperator's actual expenditures to date of the invoice (not just the Forest Service share of actual expenditures), display by separate cost elements as documented in the Financial Plan, less program income and other Federal and nonfederal cash contributions and previous Forest Service payments. The invoice should be forwarded as follows:

Send original to:

Albuquerque Service Center-
Payments G&A
USDA Forest Service
National Forest
101B Sun Ave.NE
Albuquerque, NM 87109

Send copy to:

Steve Roy

USDA Forest Service
Green Mountain National Forest
231 N. Main St.
Rutland, VT 05701

24. ALTERNATE DISPUTE RESOLUTION. In the event of any issue of controversy under this Agreement, the parties may pursue Alternate Dispute Resolution procedures to voluntarily resolve those issues. These procedures may include, but are not limited to, conciliation, facilitation, mediation, and fact finding.

25. AUTHORIZED REPRESENTATIVES. By signature below, the cooperator certifies that the individuals listed in this document as representatives of the cooperator are authorized to act in their respective areas for matters related to this agreement.

26. ENDORSEMENT. Any cooperator contributions made under this instrument do not by direct reference or implication convey Forest Service endorsement of the cooperator's products or activities.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the last written date below.

FS Agreement No	08-CS-11092000-020
Cooperator Tax ID No.	
Cooperator DUNS No.	80-937-6718
Cooperator Agreement No.	

19. PUBLICATION SALE. The recipient may sell any publication resulting from the project. The publication may initially be sold at fair market value, which is defined in this instrument to cover costs of development, production, marketing, and distribution. After the costs of development and production have been recovered, fair market value is defined in this instrument to cover the costs of marketing, printing, and distribution only. Fair market value must exclude any in-kind or Federal government contributions to the total costs of the project.

20. DAVIS-BACON OR SERVICE CONTRACT ACT. Federal wage provisions (Davis-Bacon or Service Contract Act) are applicable to any contract developed and awarded under this instrument where all or part of the funding is provided with Federal funds. Davis-Bacon wage rates apply on all public works contracts in excess of \$2,000 and Service Contract Act wage provisions apply to service contracts in excess of \$2,500. The Forest Service will award contracts in all situations where their contribution exceeds 50 percent of the costs of the contract. If a cooperator is approved to issue a contract it shall be awarded on a competitive basis.

21. DUNS NUMBER (5/04): The cooperator shall furnish their DUNS number upon execution of this instrument. You may obtain a DUNS number by contacting Dun and Bradstreet at 800-234-3867 or 866-794-1580. A DUNS number will be provided immediately by telephone at no charge.

22. ELECTRONIC FUNDS TRANSFER. The cooperator shall designate a financial institution or an authorized payment agent through which a Federal payment may be made in accordance with U.S. Treasury Regulations, Money and Finance at 31 CFR 208, which requires that Federal payments are to be made by electronic funds transfer (EFT) to the maximum extent possible. A waiver may be requested and payment received by check by certifying in writing that one of the following situations apply:

1. The payment cooperator does not have an account at a financial institution.
2. EFT creates a financial hardship because direct deposit will cost the payment recipient more than receiving check.
3. The payment recipient/cooperator has a physical or mental disability, or a geographic, language, or literacy barrier.

To initiate receiving your payment(s) by electronic transfer, contact the National Finance Center (NFC) on the worldwide web at www.nfc.usda.gov, or call the NFC at 1-800-421-0323, or (504) 255-4647. Upon enrollment in the program you may begin to receive payment by electronic funds transfer directly into your account.

FS Agreement No. 08-CS-11092000-020
Cooperator Tax ID No. _____
Cooperator DUNS No. 80-937-6718
Cooperator Agreement No. _____

Forest Service Project Contact

Steve Roy
USDA- Forest Service
231 N. Main Street
Rutland, VT 05701
(802) 747-6739

VTAAFM Project Contact

Nathaniel Shambaugh
Vermont Agency of Agriculture Laboratory
103 South Main St.
Waterbury, VT 05671-0101
(802) 244-4510 ext. 16

Forest Service Administrative Contact

Janeal A Hedman
Allegheny National Forest

222 Liberty St.
Warren, PA 16365

Phone: 814-728-6245
FAX: 814-726-1465
E-Mail: jhedman@fs.fed.us

Cooperator Administrative Contact

Roger Allbee, Secretary
Vermont Agency of Agriculture, Food &
Markets
116 State St.
Montpelier, VT 05620-2901

Phone:
FAX:
E-Mail:

17. AVAILABILITY OF FUNDS. Funding in the amount of \$10,500 is currently available for performance of this instrument through June 30, 2009. The Forest Service's obligation for performance of this instrument beyond this date is contingent upon the availability of appropriated funds from which payment can be made. No legal liability on the part of the Forest Service for any payment may arise for performance under this instrument beyond June 30, 2009, until funds are made available to the Forest Service for performance and until the recipient receives notice of availability to be confirmed in a written modification by the Forest Service.

18. COPYRIGHTING. The cooperator is granted sole and exclusive right to copyright publications, including the right to publish and vend throughout the world in any language and in all media and forms, in whole or in part, for the full term of copyright and all renewals thereof in accordance with this instrument. However, the cooperator shall not sell, or grant copyrights to a third-party designee who intends to sell, the document as a profit-making venture. No original text or graphics produced and submitted by the Forest Service shall be copyrighted. The Forest Service reserves a royalty-free, nonexclusive, and irrevocable right to reproduce, publish, or otherwise use, and to authorize others to use, the work for Federal government purposes. This right shall be transferred to any subagreements or subcontracts. This provision includes:

- a. The copyright in any work developed by VTAAFM under this instrument.
- b. Any rights of copyright to which VTAAFM purchases ownership with any Federal contributions.



STATE OF VERMONT
JOINT FISCAL OFFICE

MEMORANDUM

To: Representative David Zuckerman

From: Nathan Lavery

Date: August 1, 2008

Subject: JFO #2332 (Survey of pesticide accumulation in Batten Kill sediments)

Representatives Michael Obuchowski and Shap Smith asked that I forward to you a copy of the enclosed request and cover memo. They are requesting you provide them with your observations regarding the enclosed item.

cc: Rep. Michael Obuchowski
Rep. Shap Smith
Stephen Klein