National Fish and Wildlife Foundation Final Programmatic Report

Project Name and Number: Tankerhoosen Watershed Management Plan (CT)

2007-0087-011

Recipient Organization/Agency: Friends of the Hockanum River Linear Park, Inc.

Recipient Organization Web Address: NA

Date Submitted: June 29, 2009

1) Summary of Accomplishments

Consultants Fuss and O'Neill, Inc, under the direction of Erik Mas, Project Manager, created a comprehensive plan, "Tankerhoosen River Watershed Management Plan". The 139-page document also includes five appendixes containing additional reports and analyses that support the Plan. The Tankerhoosen River Watershed (TRWS) Management Plan has recently received this commendation from an expert in the field: ".....the Tankerhoosen has become my model for Watershed Reports- it's the best one I have seen in the state". Significant elements of the Plan are baseline watershed assessments; subwatershed analysis of existing conditions; watershed field inventories; a review of land use regulations in the four watershed towns; watershed goals and objectives; and watershed management recommendations. The TRWS Management Plan incorporates the nine elements of EPA guidelines for watershed management plans, positioning future projects in the Tankerhoosen watershed for Clean Water Act 319 funding.

2) Project Activities & Results

The Evaluation Logic Framework for the Tankerhoosen River Watershed Management Plan follows:

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EVALUATION LOGIC FRAMEWORK – TANKERHOOSEN WATERSHED MANAGEMENT PLAN

Activities	Short-term	I nar town	I _ 2!			
	Project	Project Outputs	indicator	Baseline Value	Predicted Post-	Predicted Post-
	Outputs				andan Cast	r tolect Outcome
watershed information:	n of findings	• Continuing	Water quality	2006	No decrease in	No decrease in water
 Gather and review 	of the	watershed	nonulations	assessment	water quality,	quality, wildlife
published studies and	watershed	conditions -	Stromandord	resuits	wildlife	populations, etc.
reports, monitoring data,	inventories	measured			populations, other	- to - increased water
mapping, and natural	and	against 2006			indicators	quality and habitat
resources, etc.	assessments	baseline data				populations, etc.
 Synthesize the findings 	 Increased 	proactive action	# of actions	>	•	
of the ongoing water	understanding	to reverse	taken to reverse	<	u	10
quality assessments	of watershed	negative trends	negative trends		******	
 Document results in a 	values		Barre a cues			
draft report to be	 Increased 	 Increased public 	# of participants	3	•	
reviewed by the	stakeholder	awareness of	in citizen	20	40	100
Technical Advisory	commitment to	watershed value	volunteer		44.4	
Committee (TAC).	protection of		programs (RRV			
	watershed		monitoring, etc)			
Evaluate watershed						
conditions:		• Stream and	# Of stream and			
 Conduct field inventories 	 Documentatio 	habitat	habitat	>	.	
& streamwalks to assess	n of findings	restoration	restoration	<	K	
baseline watershed	and	 Riparian buffer 	projects	-		
sources of pollution	assessments of	preservation	completed		-	
	pollution	 Local land use 	# so P of			
regulations, including	* Results of ISC	regulation	riparian buffer	0	50	2000
impervious surface	analysis;	address ISC.	preserved			
analysis, potential	subwatershed	nonpoint	# of regulations	0	.	
indulications to local	delineation;	sources (LID,	changes	,	ŀ	15
regulations for improved	recommended	sustainable	implemented	, , , , , , , , , , , , , , , , , , , 		
nonpoint source controls;	regulation	design)	•			
	cnanges;					

	Activities		Short-term		Long-term	Indicator	Danie		
			Project	י	Project Outputs	A TOTAL OF	Value	Project Output	Predicted Post-
		Γ	Outputs		1			indine safer	rroject Outcome
	 Watershed evaluation (cont.) 	-	Understanding	•	Reduction in	# of actions	0	2	0.0
	pollutant loading model		specific type		sources of	nonnoint courses			
	as a tool to guide		of pollutant		pollutants, incl.	pollutants			
	watershed management;		sources		sediments and	7			
	identify, rank, and	•	Ranking of		nutrient		>		
#	evaluate pollution		subwatersheds		loadings			-	10
	sources; develop		for pollutant		,			***********	
•	subwatershed pollution	5	loading		Improved	# of practices	0	·)	5
	Commot strategies,	•	Control		municipal	implemented	- 0.		0.1
	 Document watershed 		strategies and		practices for				
	evaluation results in a		action plans		roads and				
	draft report to be		for pollution		stormdrains				
	icriewed by the TAC		type and location						
	Draft a watershed			l					
	management plan (consistent	•	Specific	•	Implementation	Total # of	-	<u>.</u>	
	with EPA's recommended		strategies and		of strategies and	actions			70
	watershed planning process)		actions for		actions by	implemented		***************************************	
	- integrate previous		watershed		stakeholders,	,	*****		• • • • • • • • • • • • • • • • • • •
	outputs of the watershed		stakeholders		local	~~~			· ·
	planning process; outline		and the public		organizations,	•			
	implementation schadula		to protect the		and the public				
	and monitoring plan;		water street	•	Suctainable	9 A	}		
	Review the draft plan in	-	Increased		rce	funds annually	90	\$50,000	\$200,000
	a workshop with the		public		1 0	idida aminally			
			understanding		term water			************	
	Hold a public meeting to		of the		quality vigilance		••••	***************************************	
	present draft findings and		importance of						
	management plan		long term		***************************************				
_	recommendations.		vigilance of		P PP 174 4 2 4-	***************************************		~~~	
,			the watershed						

2.1 Activities

2.1.1 Logic Framework Activity: "Perform an inventory of watershed information"

Activities Accomplished

A detailed compilation of baseline watershed data was assembled and documented in a separate report entitled "Baseline Watershed Assessment, Tankerhoosen River Watershed", dated May 28, 2008. This 60-page report (plus two supporting appendixes) is provided on a CD-ROM, included in the sleeve Appendix A of the TRWS Management Plan. Data was compiled and evaluated. The report includes the development of a baseline assessment, natural resources (hydrology, water quality, wetlands, fish and wildlife resources), geologic and historical perspective, watershed modifications (dams, impoundments, water supply, wastewater discharge), land use and land cover. The assessment also includes impervious surface analysis for each subwatershed. The report was reviewed by the Technical Advisory Committee (TAC), and inputs were provided to Fuss and O'Neill. The information is also summarized in Section 2 of the TRWS Management Plan.

2.1.2 Logic Framework Activity: "Evaluate watershed conditions"

Activities Accomplished

Watershed field inventories, both stream corridor assessments and upland assessments, were conducted. Approximately 8.7 miles of watershed streams were walked / assessed by a team from Fuss and O'Neill, Inc., a wildlife biologist from the Belding Wildlife Trust, and local volunteers. Detailed data was collected, using EPA watershed inventory protocol and data collecting procedures. Upland assessments included hotspot investigations, neighborhood source assessments, and street and storm drain assessments.

A review of land use regulations in the four towns in the watershed was conducted. A 60-page technical memorandum was created by Fuss and O'Neill that summarized their review of Vernon's existing land use regulations and related planning documents that pertain to stormwater management and natural resource protection issues. Potential approaches for developing regulatory mechanisms for improved stormwater management, including LID concepts and opportunities to reduce impervious cover, were evaluated. The potential to incorporate these approaches into the Town of Vernon's land use regulations was discussed. The technical memorandum was used to facilitate a discussion of these issues during the July 10, 2008 regulatory workshop meeting with the Technical Advisory Committee and land use commissioners in the four watershed towns. The workshop was attended by 20 commissioners and project partners.

Results from the watershed evaluation were provided to the Technical Advisory Committee (TAC) for review and comment at a workshop held October 2, 2008. A 67-page technical memorandum was prepared by Fuss and O'Neill. The memorandum, "Watershed Field Inventories and Land Use Regulatory Review - Tankerhoosen River Watershed", is provided on a CD-ROM in the sleeve of Appendix A of the TRWS Management Plan.

A pollutant loading model was developed using the land use/land cover data described in Section 2.5 of the TRWS Management Plan. The model was developed using US EPA by Tetra Tech in EPA Region 5. The model allows for simulation of best management practices and Low Impact Development practices to reduce pollutant loads. A comparative subwatershed analysis was performed on the seven subwatersheds in the TRWS to identify subwatersheds with the greatest vulnerability and restoration potential. A four-step approach was used that involved a screening level evaluation of selected subwatershed metrics. The metrics were derived by analyzing available GIS layers and other subwatershed data sources. Priority subwatersheds were identified for conservation. This information was discussed in detail at the October 2, 2008 workshop of the Technical Advisory Committee. The results are presented in sections 2.9 (Pages 51 to 59) of the TRWS Management Plan.

2.1.3 Logic Framework Activity: "Draft a watershed management plan (consistent with EPA's recommended watershed planning process)"

Activities Accomplished

Four key watershed management goals were established by Fuss and O'Neill, in consultation with the Technical Advisory Committee. Two goals are related to the overall management of the Tankerhoosen River, and two goals reflect protection/preservation and restoration tenets.

Ten watershed management objectives were defined, in consultation with the Technical Advisory Committee. Each objective was accompanied by a set of two to 10 management strategies. Of special note is Objective 9 – to mitigate the negative impacts of stormwater runoff on hydrology and water quality through the use of Low Impact Development (LID), sustainable design and other state-of-the-art stormwater management practices. Ten strategies were defined to carry out this objective, including specific recommendations for Vernon to include LID design practices in their land use regulations. The watershed goals and objectives are discussed in Section 5 (pages 84 to 90) of the TRWS Management Plan.

Specific recommendations were defined to meet the watershed management goals and objectives outlined in Section 5 of the TRWS Management Plan. The recommendations were also classified **by implementation priority**. The recommendations were categorized as:

(1) Watershed-wide recommendations that can be implemented throughout the

watershed. Seven watershed-wide recommendations are discussed in detail on pages 94 to 105 of the TRWS Management Plan.

- (2) <u>Targeted recommendations</u> that are tailored to issues within specific subwatersheds. These recommendations are discussed in detail on pages 106 to 119 of the TRWS Management Plan. In addition, 7 maps are provided in Appendix C showing the subwatershed detail, and site-specific areas for recommended future actions. A table listing 47 key actions was created. The lead / assist organization(s) that would logically carry out each action is cited.
- (3) <u>Site-specific recommendation tailored to address issues at selected sites that were identified during the field inventories.</u> They are discussed in pages 114 to 125 of the TRWS Management Plan. Priority stream restoration and stream cleanup sites were also identified.

Estimated costs and load reductions for the recommended actions were also provided on pages 125 to 130 of the TRWS Management Plan. **Plan Implementation** is discussed in detail on pages 131 to 136 of the TRWS Management Plan. An implementation schedule with specific milestones is provided, as well as evaluation criteria for each action.

The **draft** of the TRWS Management Plan was reviewed by the Technical Advisory Committee, and inputs were provided to Fuss and O'Neill. A **public meeting** was held Feb. 26, 2009 to present the findings and recommendations. The meeting was well received by approximately 50 local commissioners, project partners, and members of the public. Additionally, a presentation of the findings and recommendations was made to the **Vernon Town Council**, which was very supportive of the TRWS Management Plan. This presentation was also shown on local access TV. (See news article, Project Documents, below.)

2.1.4 Planning Discrepancies

All of the activities identified in the grant agreement and presented in the Logic Framework were **fully carried out**. The Friends of the Hockanum River Linear Park and the Technical Advisory Committee were exceptionally pleased by the quality of the work produced by Erik Mas of Fuss and O'Neill.

We were able to incorporate **three additional activities** into the project through matching funds and volunteer labor. This additional matching support totaled \$ 7,605. (See Final Financial Report). These activities were:

- Two Rapid Bioassessment by Volunteers (RBVs) held October 2007 and 2008.
- Land Use Regulatory Workshop for local commissioners (July 10, 2008). The funding was provided through a grant from Rivers Alliance, Inc.
- Public Presentation of the project results to the Vernon Town Council by Vernon Town Planner Len Tundermann and Project Co-ordinator, Ann Letendre. The presentation was also shown on local access cable TV.

2.2 Results

Short Term Project Outputs defined in the Logic Framework have all been realized. The "Activities" section above describes documentation of quantified findings and assessments, as well as results of various analyses, and recommended actions.

- 1. The Technical Advisory Committee (discussed below) has an **increased** understanding of the watershed values as a result of this work. They also have a vested interest in following through on implementation of the TRWS Management Plan.
- 2. The newspaper articles and the public presentations (discussed below under "Dissemination" and "Project Documents" have **increased public awareness** of the watershed and the importance of implementing specific recommendations. Feedback from the presentations had six requests for a copy of the TRWS Management Plan; two requests to take part in any follow-up activities, including interest in one of the target recommendations for the Historical Society site; and two requests to join one of the lead organizations.
- 3. Volunteers that took part (and will continue to take part) in the annual Rapid Bioassessments by Volunteers (RBV) have an increased understanding of the impacts of non-point souce pollutants on water quality in the watershed. Approximately half of the volunteers that take the annual data return the following year. 2008 attendance by volunteers at the annual RBV increased to 27, from 20 in 2007.

Long-Term Project Outputs: Since the plan has just been completed, it is premature to assess indicators. However, an application for a 319 grant to address two recommendations in the TRWS Management Plan is currently under discussion between the Town of Vernon, Fuss and O'Neill, and DEP. The proposal would be to fund a local stormwater design manual for the Town of Vernon (which would include LID regulations), and to construct the recommended Lake Street School stormwater retrofit project, incorporating an educational component to the project.

3) Lessons Learned

A notable and very effective technique that we proposed and utilized during preparation of the TRWS Management Plan was the **establishment of a Technical Advisory Committee** (TAC) to provide feedback, recommendations, and critical evaluation throughout the entire preparation of the Plan. The TAC was comprised of vested experts in the area and members of the organizations that were associated with the project: They are:

Len Tundermann, Vernon Town Planner
David Askew, Manager, North Central Conservation District
Jane Seymour, Wildlife Biologist, Belding Wildlife Trust
George Arthur, Hockanum River Watershed Association; GIS expert
Margaret Miner, Rivers Alliance of CT
Ann Letendre, Project Co-ordinator, Friends of Hockanum River Linear Park

These members and their respective organizations now have a newly-learned appreciation for the values of the Tankerhoosen watershed, a vested interest in implementation of the Plan, and have learned to work together as a team.

Another action we have been pursuing is to obtain a "Stakeholder Agreement" from the governing bodies of each of the four towns within the watershed. The Stakeholder Agreement pledged support of the TRWS Management Plan. This action has been a slow and frustrating effort. The town organizations wanted to have the document reviewed by their land use agencies before signing the Agreement, which is certainly reasonable. We then ran into budget planning time for the Towns – and attention to the Agreement was delayed. We had expected to include the Agreement in the printed copies of the Plan, but we were not able to obtain them in time. We will insert the signed agreements in copies of the Plan at a later date. We suggest that others pursuing this action for a watershed management plan should begin co-ordination with the governing bodies early in the project, including establishment and concurrence of all with the language for the Agreement.

4) Dissemination

Project results were disseminated through a land use workshop and two public presentations, discussed below. Newspaper coverage of the public presentation drew members of the general public, particularly those that lived near waterbodies within the watershed. These residents were concerned about the visible accumulations of sediments in the ponds, creating shallow pond waters and growth of invasive plants. The presentation also drew residents that lived near Exit 67, the Tankerhoosen headwaters region that is threatenen by development pressures. Follow-up communication with these residents was established, and a copy of the TRWS Management plan was either emailed or made available at the Vernon Town Planner's Office.

As a result of this work by Fuss and O'Neill, Erik Mas was requested to provide a lead article on watershed management plans for *The Habitat*, the quarterly publication of the Connecticut Association of Conservation and Inland Wetlands Agencies (CACIWC). By state statute, Conservation Commissions in Connecticut are enabled to create watershed management plans. Mr. Mas and associates drafted a two-part article. The first part was published in CACIWC's spring 2009 issue. A copy is included in the attachments as **Attachment 8**.

5) Project Documents

- 5.1 Photographs, maps, and technical memoranda, data tables are included in the final report which was submitted to NFWF. These include:
 - 37 photographs taken in the watershed field inventories, shown on pages 58-74 of the report.
 - Baseline watershed data tables and maps, Pages 5 57 of the report
 - Baseline Watershed Assessment CD in pocket of final report Appendix A
 - Regulatory Review Technical Memorandum Appendix B
 - 7 subwatershed maps showing "Targeted Stream Corridor Recommendations" –
 Appendix C

8 site-specific stormwater retrofits designs, and 8 designs for type of site –
 Appendix D

5.2 Public Presentations

Three public presentations were held. (These presentations are also cited in "Activities", above.)

Land Use Regulatory Workshop

A land use regulatory workshop focused on Low Impact Development (LID) for local land use commissioners within the Tankerhoosen watershed was held July 10, 2008. Erik Mas of Fuss and O'Neill made the presentation. The workshop was attended by 20 commissioners and project partners. These items are attached:

- Attachment 1a Workshop notice for email distribution
- Attachment 1b Workshop agenda
- Attachment 1c PPT Presentation Cover page and outline of 30 page ppt document. (Since the same information is in Appendix B, we have attached only these two pages.)
- Attachment 1d Handout Technical Memorandum: Stormwater and Low Impact Development (LID) Regulations in the Tankerhoosen River Watershed Vernon Regulatory Review. (Since the same document is provided in Appendix B of the TRW Management Plan, we have attached only the first page of this 60-page document.)
- Public Presentation: Tankerhoosen Watershed Management Plan Findings & Recommendations

A public meeting was held February 26, 2009 to present the findings and recommendations of the Tankerhoosen River Watershed Management Plan. Erik Mas of Fuss and O'Neill, Inc. made the presentation. Over 50 land use commissioners and interested members of the public attended this very well received presentation. These items are attached:

- Attachment 2a Meeting Notice for email distribution
- Attachment 2b Local Newspaper article
- Attachment 2c PPT Presentation Cover page and 1st page only, since the information is included in the TRW Management Plan document

Presentation to Vernon Town Council

A presentation was made to the Vernon Town Council giving an overview of the findings and recommendations of the Tankerhoosen River Watershed Management Plan. About 25 people were in attendance. The presentation was also shown on local access TV. Vernon Town Planner, Len Tundermann, and Ann Letendre of the Friends of Hockanum River Linear Park gave the presentation. An account in the local Journal Inquirer describing the positive support from the 12-member Town Council is attached.

- Attachment 3 - Journal Inquirer article

5.3 Volunteer Data Collection Activities

- Rapid Bioassessment by Volunteers (RBV)
 Since 2002, volunteers have annually conducted a macroinvertebrate assessment in the Tankerhoosen River. This project is led by the Friends of the Hockanum River Linear Park. The collection of data is guided by the Connecticut Coastal Conservation District, who also prepares the report. DEP provides gear, and analyzes the data. Data from the October 2007 and October 2008 assessments were incorporated in this project. These annual assessments usually draw between 20 and 30 volunteers, including students from the University of Connecticut. Attachments below are:
 - Attachment 4 Press Release for newspaper and email distribution
 - Attachment 5 Copy of "Hockanum River Rapid Bioassessment Summary Report – 2007"
- Streamwalk assessments

Notices to landowners were sent prior to the streamwalks, as well as notices to the newspaper. Approximately 8.7 miles of streams were assessed, using EPA protocol. (Described under "Activities", above).

- Attachment 6 Journal Inquirer notice of streamwalk
- Attachment 7 Public Notice

POSTING OF FINAL REPORT: This report and attached project documents may be shared by the Foundation and any Funding Source for the Project via their respective websites. In the event that the Recipient intends to claim that its final report or project documents contains material that does not have to be posted on such websites because it is protected from disclosure by statutory or regulatory provisions, the Recipient shall clearly mark all such potentially protected materials as "PROTECTED" and provide an explanation and complete citation to the statutory or regulatory source for such protection

List of Attachments

1.	Land	Use	Regulatory	Works	hop
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Attachment 1a Workshop notice for email distribution

Attachment 1b Workshop agenda

Attachment 1c PPT Presentation - Cover page and outline of 30 page ppt

document.

Attachment 1d Cover Page - Technical Memorandum: Stormwater and

Low Impact Development (LID) Regulations in the Tankerhoosen River Watershed – Vernon Regulatory

Review

2. Public Presentation: Tankerhoosen Watershed Management Plan – Findings & Recommendations :

Attachment 2a Meeting Notice for email distribution

Attachment 2b Local Newspaper article

Attachment 2c PPT Presentation - Cover page and 1st page only, since the

information is included in the TRW Management Plan

document

3. Presentation to Vernon Town Council

Attachment 3 Journal Inquirer newspaper article

4. Rapid Bioassessment by Volunteers (RBV)

Attachment 4 Press Release for newspaper and email distribution

Attachment 5 Copy of "Hockanum River Rapid Bioassessment Summary Report – 2007"

5. Streamwalk assessments

Attachment 6 Journal Inquirer notice of streamwalk assessments
Attachment 7 Public Notice

6. Dissemination

Attachment 8 Spring issue, The Habitat

Certification of Matching Contributions

Project Name and Number: <u>Tankerhoosen Watershed Management Plan (CT) (2007-0087-011)</u>

Period of Performance (from grant agreement): <u>07/01/2007 to 09/30/2008</u>. Contract Extension to 3/30/09.

- I, Ann Letendre, hereby certify on behalf of the undersigned NFWF Recipient that:
- 1) the NFWF Recipient has allocated the amount of \$1,007 from its general operating funds to the Project;
- 2) the NFWF Recipient has received a total of \$7,500 in cash Matching Contributions, from the donors whose names, addresses and amounts of contributions are listed on the attached Exhibit A, each of whom donated an amount equal to or greater than \$500; in addition, the NFWF Recipient has received a total of \$0_ in cash Matching Contributions, from donors who have given an amount less than \$500;
- 3) the NFWF Recipient has received in-kind donations of Contributed Services and volunteer hours at a total of \$32,098 (none of which were generated in connection with the preparation of the Pre-Proposal or Full Proposal submitted to the Foundation or fundraising for the Project), from the donors whose names, addresses, number and value of hours are listed on the attached Exhibit B, each of whom contributed an amount of time equal to or greater than \$500 in value; in addition, the NFWF Recipient has received in-kind donations of Contributed Services and volunteer hours valued at a total of \$0\$, from donors who contributed an amount of time less than \$500 in value.
- 5) all such Matching Contributions, which total \$40,605, are summarized on the Final Financial Report and were spent or expended within the Period of Performance as required by the Grant Agreement and relevant policies set forth by the Foundation on its website;
- 6) the NFWF Recipient may have to produce detailed proof of such Matching Contributions and that OMB Circular A-110 requires the NFWF Recipient to maintain such records for a period of three years after submission to the Foundation of the Final Programmatic and Financial Report regarding the Project; and

7) the undersigned is authorized to deliver this Certification on behalf of the NFWF Recipient.

[Signature page to Certification of Matching Contributions for NFWF Project No. 2007-0087-011]

Friends of the Hockanum River Linear Park of Vernon, Inc.

Approved:

ete 10 Date: 6-29-09

Signature

Ann Letendre, Secretary/Treasurer,

Friends of Hockanum River Linear Park, Inc

Exhibit A - Cash Matching Contributions

Friends of Hockanum River Linear Park, Inc. 21 Timber Lane Vernon, CT 06066	\$ 1,007
Town of Vernon Planning Department	
(Len Tundermann, Town Planner)	
14 Park Place	\$ 5,000
Vernon, CT	\$ 5,000
Rivers Alliance of Connecticut, Inc.	
(Margaret Miner, Ex. Director)	
7 West Street, POB 1797	e 2 500
Litchfield, CT 06759	<u>\$ 2,500</u>
Tota	\$ 8,507
Exhibit B – Contributed Services and Volunte	er Hours
Contributed Services:	
Belding Wildlife Trust	
Jane Seymour, Wildlife Biologist	
11 New Road	610 (70
Tolland, CT 06084	\$18,678
Town Planner, Town of Vernon	\$ 900
Len Tundermann	
14 Park Place	
Vernon, CT 06066	
Contributed Volunteer Hours:	\$11,640
Friends of Hockanum River Linear Park	311,040
21 Timber Lane	
Vernon, CT 06066	
Hockanum River Watershed Association	\$ 880
George Arthur	
79 Baker Road	
Vernon, CT 06066	
·	
Total	\$32,098
Total – Cash + Services	<u>\$40,605</u>

National Fish and Wildlife Foundation Final Financial Reporting Form

Project Name and Number: Tankerhoosen Watershed Management Plan (CT) #2007-

0087-011

Period of Performance (from Grant Agreement): 07/01/2007 to 09/30/2008

(Contract Extension to 3/30/09)

Note: All project expenditures, including match, must take place between the project start and end dates designated in the Grant Agreement.

Budget for Phase #1:

Category	Approved Budget NFWF Funds (from Grant Agreement)	Actual Expenses NFWF Funds
Salaries & Benefits	\$0	
Equipment**	02	
Other	\$11,500	\$11,500
Total	\$11,500	\$11,500

Matching Contributions Required for Phase #1:

\$ 10,000_(from Grant Agreement)

Matching Contributions Expended for Phase #1: \$ 15,548

Budget for Phase #2:

Category	Approved Budget NFWF Funds (from Grant Agreement)	Actual Expenses NFWF Funds
Salaries & Benefits	so	00 - 00 - 00 - 00 - 00 - 00 - 00 - 00
Equipment**	\$0	the state of the s
Other	\$14,500	\$14,500
Total	\$14,500	\$14,500

Matching Contributions Required for Phase #2:

\$ 12,000 (from Grant Agreement)

Matching Contributions Expended for Phase #2: \$ 12,620

Budget for Phase #3:

Category	Approved Budget NFWF Funds (from Grant Agreement)	Actual Expenses NFWF Funds
Salaries & Benefits	SO	and discuss around a control of the public and a control and the real and another control and the control and
Equipment**	SO	
Other	\$16,300	516,300
Total	\$16,300	\$16,300

Matching Contributions Required for Phase #3:

\$11,000 (from Grant Agreement)

Matching Contributions Expended for Phase #3: \$11,397

Budget for Phase #4:

Category	Approved Budget NFWF Funds (from Grant Agreement)	Actual Expenses NFWF Funds
Salaries & Benefits	SO	
Equipment**	SO SO	
Other	\$4,700	\$4.700
Total	\$4,700	\$4.700

Matching Contributions Required for Phase #4:

\$_0 (from Grant

Agreement)

Matching Contributions Expended for Phase #4: \$ 1,040

Total Project Budget:

Category	Approved Budget NFWF Funds (from Grant Agreement)	Actual Expenses NFWF Funds
Salaries & Benefits	So	
Equipment**	\$0	
Other	\$47,000	\$47,000
l'otal	\$47,000	\$47,000

^{**}Equipment only includes tangible nonexpendable personal property having a useful life of more than one year and an acquisition cost of \$5,000 or more per unit.

Total Matching Contributions Required for Project: \$33,000 (from Grant Agreement)
Total Matching Contributions Expended for Project: \$40,605 **

**This total must match the total contributions described on the Certification of Matching Contributions form.

Describe All Expenses: (Use additional space if necessary.)

<u>\$47,500</u> was expended by Fuss and O'Neill Inc, principal consultants, for preparation of the final output, "Tankerhoosen Watershed Management Plan". Major components of this expenditure are:

- Preparation of report "Baseline Watershed Assessment Tankerhoosen River Watershed". (\$11,500)
- Steamwalk assessments, evaluation of land use regulations, surface runoff pollutant loading model development and technical memorandum on watershed evaluation. (\$14,500)
- Development of watershed management strategies, implementation schedule and monitoring plan; preparation of the draft watershed management plan; workshop preparation and materials creation for the Technical Advisory Committee. (\$16,300)
- Completion of the final text of the Tankerhoosen Watershed Management Plan.
 Preparation of a powerpoint presentation and handout materials for a public meeting to present the findings. (\$4,700)

<u>\$40.605</u> was spent as matching funding for the project. (Note – this expenditure exceeds the matching requirement of \$33,000). Major components of this expenditure are:

- Rapid bioassessments of macroinvertebrates, documentation and analysis;
 report preparation and publication; other natural resource surveys (\$15,548)
- Field inventories, stream surveys, insect surveys; land use regulation review, analysis and technical memorandum publication; Low-Impact Development workshop for land use commissioners, powerpoint presentation (\$12,620)
- Forest inventory, hiological assessments, report evaluations (\$11,397)
- Presentation to the Vernon Town Council (\$1,040).

I hereby certify that all expenditures described above are complete and that the above information is accurate and complete.

Friends of the Hockanum River Linear Park of Vernon, Inc.

Approved:

an Detentie Date: 7-7-09

Ann Letendre, Secretary/Treasurer

Print name and title

E-mail: annletendr@aol.com

Telephone: 860 875-4623