

A. Client Name:

B. Conservation Plan ID # (as applicable):
Program Authority (optional):

D. Client's Objective(s) (purpose):
 The client wishes reduce energy used during production of maple syrup by improving the efficiency of the existing method of boiling maple sap to syrup, and by reducing use of electricity at their sugar house

C. Identification # (farm, tract, field #, etc. as required):

E. Need for Action:
 The existing oil-fired evaporator and lighting system is inefficient and uses an excess amount of oil and electricity during syrup production. Use of electricity and carbon-based fuels releases gases that contribute to climate change, ozone precursors, and acid rain.

H. Alternatives		
No Action	√ if RMS <input type="checkbox"/>	Alternative 1
Use the existing lighting and evaporator systems without modification	<input type="checkbox"/>	A steam enhanced pre-heater is proposed. The pre-heater will reduce sap boiling time and amount of oil needed to generate a gallon of maple syrup More efficient industrial and dimmable compact florescent bulbs are proposed to replace incandescent bulbs to cut electric power usage

Resource Concerns

In Section "F" below, analyze, record, and address concerns identified through the Resources Inventory process. (See FOTG Section III - Resource Planning Criteria for guidance).

F. Resource Concerns and Existing/ Benchmark Conditions (Analyze and record the existing/benchmark conditions for each identified concern)	I. Effects of Alternatives					
	No Action		Alternative 1		Alternative 2	
	Amount, Status, Description <i>(Document both short and long term impacts)</i>	√ if does NOT meet PC	Amount, Status, Description <i>(Document both short and long term impacts)</i>	√ if does NOT meet PC	Amount, Status, Description <i>(Document both short and long term impacts)</i>	√ if does NOT meet PC
SOIL: EROSION						
No resource concern identified		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		NOT meet PC		NOT meet PC		NOT meet PC
		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		NOT meet PC		NOT meet PC		NOT meet PC
SOIL: SOIL QUALITY DEGRADATION						
No resource concern identified		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		NOT meet PC		NOT meet PC		NOT meet PC
		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		NOT meet PC		NOT meet PC		NOT meet PC
WATER: EXCESS / INSUFFICIENT WATER						
No resource concern identified		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		NOT meet PC		NOT meet PC		NOT meet PC
WATER: WATER QUALITY DEGRADATION						
No resource concern identified		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		NOT meet PC		NOT meet PC		NOT meet PC
		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		NOT meet PC		NOT meet PC		NOT meet PC

F. Resource Concerns and Existing/ Benchmark Conditions (Analyze and record the existing/benchmark conditions for each identified concern)	I. (continued)					
	No Action		Alternative 1		Alternative 2	
	Amount, Status, Description <i>(Document both short and long term impacts)</i>	✓ if does NOT meet PC	Amount, Status, Description <i>(Document both short and long term impacts)</i>	✓ if does NOT meet PC	Amount, Status, Description <i>(Document both short and long term impacts)</i>	✓ if does NOT meet PC
AIR: AIR QUALITY IMPACTS						
Emissions of Greenhouse Gases (GHGs) Production of CO ² , N ₂ O, and CH ⁴ are unnecessarily high as carbon based fuel use is up to 222% more than if more efficient systems are used	Continued production of greenhouse gases at unnecessarily high levels	<input checked="" type="checkbox"/> NOT meet PC	Alternative 1 is expected to reduce CO ² , N ₂ O, and CH ⁴ by 9,671, <0.22 and 1.20 pounds, respectively	<input type="checkbox"/> NOT meet PC	Alternative 2 is expected to reduce CO ² , N ₂ O, and CH ₄ by 10,267, <0.23 and 1.27 pounds, respectively	<input type="checkbox"/> NOT meet PC
Emissions of Ozone Precursors and Acid Rain Production of NO _x and SO ₄ are unnecessarily high as carbon based fuel use is up to 222% more than if more efficient systems are used	Continued production of ozone precursors and gases that contribute to acid rain at unnecessarily high levels	<input checked="" type="checkbox"/> NOT meet PC	Alternative 1 is expected to reduce NO _x and SO ₄ by 0.82 and 7.8 pounds, respectively	<input type="checkbox"/> NOT meet PC	Alternative 1 is expected to reduce NO _x and SO ₄ by 0.82 and 8.27 pounds, respectively	<input type="checkbox"/> NOT meet PC
PLANTS: DEGRADED PLANT CONDITION						
No resource concern identified		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC
		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC
ANIMALS: INADEQUATE HABITAT FOR FISH AND WILDLIFE						
No resource concern identified		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC
		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC
ANIMALS: LIVESTOCK PRODUCTION LIMITATION						
No resource concern identified		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC
		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC
ENERGY: INEFFICIENT ENERGY USE						
Equipment and facilities Current annual electrical use is 3890 kWh and #2 oil use is 557 gallons		<input checked="" type="checkbox"/> NOT meet PC	Proposed annual electrical savings is projected to be 175 kWh (46% savings) , and annual oil savings 427 gallons (76% savings)	<input type="checkbox"/> NOT meet PC	Proposed annual electrical savings is projected to be 175 kWh (46%), and annual oil savings 457 gallons (82% savings)	<input type="checkbox"/> NOT meet PC
		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC		<input type="checkbox"/> NOT meet PC
HUMAN: ECONOMIC AND SOCIAL CONSIDERATIONS						
Capital	Continued higher energy costs		Annual energy savings of \$1,616. It will take ~5 years to recapture capital expenditures required to install Alt 1		Annual energy savings of \$1,714. It will take ~ 9 years to recapture capital expenditures required to install Alt 2	
Profitability	Increased energy use cuts into profit margin		Once capital expenditures are paid back by the energy savings, costs will be reduced by ~\$1,616 and hours/gallon of		Once capital expenditures are paid back by the energy savings, costs will be reduced by ~\$1,714 and hours/gallon of	
Labor	More hours of labor are required to produce a gallon of maple syrup		Fewer hours per gallon of maple syrup produced		Fewest hours per gallon of maple syrup produced	

Special Environmental Concerns: Environmental Laws, Executive Orders, policies, etc.

In Section "G" complete and attach Environmental Procedures Guide Sheets for documentation as applicable. Items with a "●" may require a federal permit or consultation/coordination between the lead agency and another government agency. In these cases, effects may need to be determined in consultation with another agency. Planning and practice implementation may proceed for practices not involved in consultation.

G. Special Environmental Concerns (Document existing/ benchmark conditions)	J. Impacts to Special Environmental Concerns					
	No Action		Alternative 1		Alternative 2	
	Document all impacts (Attach Guide Sheets as applicable)	√ if needs further action	Document all impacts (Attach Guide Sheets as applicable)	√ if needs further action	Document all impacts (Attach Guide Sheets as applicable)	√ if needs further action
●Clean Air Act <i>Guide Sheet FS1 FS-2</i> The proposed actions are not in a regulated non-attainment area	May Effect Although the action area is not regulated, the existing system produces more pollutants than necessary as there are	<input type="checkbox"/>	May Effect Production of ozone precursors is reduced (see air quality resource concerns above)	<input type="checkbox"/>	May Effect Production of ozone precursors is reduced (see air quality resource concerns above)	<input type="checkbox"/>
●Clean Water Act / Waters of the U.S. <i>Guide Sheet Fact Sheet</i> The proposed actions will not affect water quality or waters of the US	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>
●Coastal Zone Management <i>Guide Sheet Fact Sheet</i> Proposed actions will occur inside the operations	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>
Coral Reefs <i>Guide Sheet Fact Sheet</i> There are no coral reefs at this latitude	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>
●Cultural Resources / Historic Properties <i>Guide Sheet Fact Sheet</i> Proposed actions will occur inside the operations	No Effect	<input type="checkbox"/>	No Effect <i>See ME-CR-1 and associated maps for additional documentation</i>	<input type="checkbox"/>	No Effect <i>See ME-CR-1 and associated maps for additional documentation</i>	<input type="checkbox"/>
●Endangered and Threatened Species <i>Guide Sheet Fact Sheet</i> Actions will occur inside the operations sugarhouse	No Effect There are no direct effects to listed species, but cumulative effects to protected species/habitats may occur in the future from excessive continued use of carbon-based fuels that contribute to global climate (GCC)	<input type="checkbox"/>	No Effect Although there are no direct effects anticipated from these actions, if similar gains in efficiency are widespread enough, the decrease in fossil fuel use could cumulatively reduce effects of GCC and acid rain. <i>See ME-ECS-</i>	<input type="checkbox"/>	No Effect Although there are no direct effects anticipated from these actions, if similar gains in efficiency are widespread enough, the decrease in fossil fuel use could cumulatively reduce effects of GCC and acid rain. <i>See ME-ECS-</i>	<input type="checkbox"/>
Environmental Justice <i>Guide Sheet Fact Sheet</i> Minorities/disadvantaged will not be affected by these actions	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>
●Essential Fish Habitat <i>Guide Sheet Fact Sheet</i> None mapped in the action area	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>
Floodplain Management <i>Guide Sheet Fact Sheet</i> Proposed actions will occur inside the operations	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>
Invasive Species <i>Guide Sheet Fact Sheet</i> Proposed actions will occur inside the operations	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>
●Migratory Birds/Bald and Golden Eagle Protection Act <i>Guide Sheet Fact Sheet</i> Proposed actions will occur inside the operations	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>
Natural Areas <i>Guide Sheet Fact Sheet</i> Proposed actions will occur inside the operations	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>
Prime and Unique Farmlands <i>Guide Sheet Fact Sheet</i> Proposed actions will occur inside the operations	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>
Riparian Area <i>Guide Sheet Fact Sheet</i> Proposed actions will occur inside the operations	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>
Scenic Beauty <i>Guide Sheet Fact Sheet</i> Proposed actions will occur inside the operations	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>

•Wetlands <i>Guide Sheet Fact Sheet</i> Proposed actions will occur inside the operations		Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>																											
•Wild and Scenic Rivers <i>Guide Sheet Fact Sheet</i> Proposed actions will occur inside the operations		Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>	Not Applicable	<input type="checkbox"/>																											
K. Other Agencies and Broad Public Concerns		No Action		Alternative 1		Alternative 2																												
Easements, Permissions, Public Review, or Permits Required and Agencies Consulted.		None needed		None needed		None needed																												
Cumulative Effects Narrative (Describe the cumulative impacts considered, including past, present and known future actions regardless of who performed the actions)		The no action alternative will continue to contribute to local and global deleterious cumulative effects from inefficient and excessive use of fossil fuels		This alternative will allow for reduced use of fossil fuels. If there is enough similar reductions in use of of such fuels, cumulatively there may be a future reduction in deleterious effects		This alternative will allow for reduced use of fossil fuels. If there is enough similar reductions in use of of such fuels, cumulatively there may be a future reduction in deleterious effects																												
L. Mitigation (Record actions to avoid, minimize, and compensate)		N/A		N/A		N/A																												
M. Preferred Alternative	Preferred alternative	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>																												
	Supporting reason			This alternative provides the greatest economic and environmental return on the investment																														
N. Context (Record context of alternatives analysis)		Local/regional/global		Local/regional/global		Local/regional/global																												
The significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality.																																		
O. Determination of Significance or Extraordinary Circumstances																																		
Intensity: Refers to the severity of impact. Impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts. If you answer ANY of the below questions "yes" then contact the State Environmental Liaison as there may be extraordinary circumstances and significance issues to consider and a site specific NEPA analysis may be required.																																		
<table border="0"> <tr> <td>Yes</td> <td>No</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>• Is the preferred alternative expected to cause significant effects on public health or safety?</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>• Is the preferred alternative expected to significantly affect unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>• Are the effects of the preferred alternative on the quality of the human environment likely to be highly controversial?</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>• Does the preferred alternative have highly uncertain effects or involve unique or unknown risks on the human environment?</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>• Does the preferred alternative establish a precedent for future actions with significant impacts or represent a decision in principle about a future consideration?</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>• Is the preferred alternative known or reasonably expected to have potentially significant environment impacts to the quality of the human environment either individually or cumulatively over time?</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>• Will the preferred alternative likely have a significant adverse effect on ANY of the special environmental concerns? Use the Evaluation Procedure Guide Sheets to assist in this determination. This includes, but is not limited to, concerns such as cultural or historical resources, endangered and threatened species, environmental justice, wetlands, floodplains, coastal zones, coral reefs, essential fish habitat, wild and scenic rivers, clean air, riparian areas, natural areas, and invasive species.</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>• Will the preferred alternative threaten a violation of Federal, State, or local law or requirements for the protection of the environment?</td> </tr> </table>								Yes	No		<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Is the preferred alternative expected to cause significant effects on public health or safety?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Is the preferred alternative expected to significantly affect unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Are the effects of the preferred alternative on the quality of the human environment likely to be highly controversial?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Does the preferred alternative have highly uncertain effects or involve unique or unknown risks on the human environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Does the preferred alternative establish a precedent for future actions with significant impacts or represent a decision in principle about a future consideration?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Is the preferred alternative known or reasonably expected to have potentially significant environment impacts to the quality of the human environment either individually or cumulatively over time?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Will the preferred alternative likely have a significant adverse effect on ANY of the special environmental concerns? Use the Evaluation Procedure Guide Sheets to assist in this determination. This includes, but is not limited to, concerns such as cultural or historical resources, endangered and threatened species, environmental justice, wetlands, floodplains, coastal zones, coral reefs, essential fish habitat, wild and scenic rivers, clean air, riparian areas, natural areas, and invasive species.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Will the preferred alternative threaten a violation of Federal, State, or local law or requirements for the protection of the environment?
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P. To the best of my knowledge, the data shown on this form is accurate and complete:																																		
In the case where a non-NRCS person (e.g. a TSP) assists with planning they are to sign the first signature block and then NRCS is to sign the second block to verify the information's accuracy.																																		
<input type="text"/> Signature (TSP if applicable)		<input type="text"/> Title		<input type="text"/> Date																														
<input type="text"/> Signature (NRCS)		<input type="text"/> Title		<input type="text"/> Date																														
If preferred alternative is not a federal action where NRCS has control or responsibility and this NRCS-CPA-52 is shared with someone other than the client then indicate to whom this is being provided.																																		

The following sections are to be completed by the Responsible Federal Official (RFO)

NRCS is the RFO if the action is subject to NRCS control and responsibility (e.g., actions financed, funded, assisted, conducted, regulated, or approved by NRCS). These actions do not include situations in which NRCS is only providing technical assistance because NRCS cannot control what the client ultimately does with that assistance and situations where NRCS is making a technical determination (such as Farm Bill HFI or wetland determinations) not associated with the planning process.

Q. NEPA Compliance Finding (check one)

The preferred alternative:		Action required
<input type="checkbox"/>	1) is not a federal action where the agency has control or responsibility.	Document in "R.1" below. No additional analysis is required
<input type="checkbox"/>	2) is a federal action ALL of which is categorically excluded from further environmental analysis AND there are no extraordinary circumstances as identified in Section "O" .	Document in "R.2" below. No additional analysis is required
<input checked="" type="checkbox"/>	3) is a federal action that has been sufficiently analyzed in an existing Agency state, regional, or national NEPA document and there are no predicted <u>significant adverse environmental effects or extraordinary circumstances</u> .	Document in "R.1" below. No additional analysis is required.
<input type="checkbox"/>	4) is a federal action that has been sufficiently analyzed in another Federal agency's NEPA document (EA or EIS) that addresses the proposed NRCS action and its' effects and has been formally adopted by NRCS . NRCS is required to prepare and publish its own Finding of No Significant Impact for an EA or Record of Decision for an EIS when adopting another agency's EA or EIS document. (Note: This box is not applicable to FSA)	Contact the State Environmental Liaison for list of NEPA documents formally adopted and available for tiering. Document in "R.1" below. No additional analysis is required
<input type="checkbox"/>	5) is a federal action that has NOT been sufficiently analyzed or may involve predicted significant adverse environmental effects or extraordinary circumstances and may require an EA or EIS.	Contact the State Environmental Liaison. Further NEPA analysis required.

R. Rationale Supporting the Finding

R.1.a. NE/NY Environmental Assessment	<i>Finding of No Significant Impact: Use of NRCS Conservation Practices to Address Natural Resource Concerns on Non-federal Lands in the New England States and New York, 2007 and/or Conservation Security/Stewardship Program, NRCS, EA, 2009.</i>
R.1.b. Program Environmental Assessment	<i>Environmental Quality Incentives Program, Natural Resources Conservation Service, Environmental Assessment, January 2009</i>
R.2 Applicable Categorical Exclusion(s) (more than one may apply)	
7 CFR Part 650 <i>Compliance With NEPA</i> , subpart 650.6 <i>Categorical Exclusions</i> states prior to determining that a proposed action is categorically excluded under paragraph (d) of this section, the proposed action must meet six sideboard criteria. See NECH 610.116.	

I have considered the effects of the alternatives on the Resource Concerns, Economic and Social Considerations, Special Environmental Concerns, and Extraordinary Circumstances as defined by Agency regulation and policy and based on that made the finding indicated above.

S. Signature of Responsible Federal Official:

Signature

Title

Date

Additional notes