

U.S. Department of Agriculture Natural Resources Conservation Service		NRCS-CPA-52 4/2013		A. Client Name: Ima Farmer			
ENVIRONMENTAL EVALUATION WORKSHEET		B. Conservation Plan ID # (as applicable): Plan # 1, 2013 Program Authority (optional): EQIP					
D. Client's Objective(s) (purpose): Reduce field maintenance, improve yield and profitability		C. Identification # (farm, tract, field #, etc as required): Rock Creek Farm, Tract # 1486, Fields 1-4, (520 acres)					
E. Need for Action: Control excessive erosion, reduce soil compaction, balance nutrient application to production		H. Alternatives					
		No Action ✓ if RMS ☐		Alternative 1 ✓ if RMS ☒			
		Continue- curren corn/soybean/wheat rotation, conventional tillage (chisel/disc), and nutrient application		328 (CCR), 329 (no till), 342 (CAT), 386 (field border), 410 (GSS), 590 (nut mgt)			
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							
Sheet, Rill & Wind Erosion			☒		☐		☐
Sheet & Rill erosion- fields 1-3 @ 9 t/ac/yr- (RUSLE2)		S&R erosion will remain @ 9 t/ac/yr	NOT meet PC	S&R erosion reduced to 4 t/ac/yr .	NOT meet PC		NOT meet PC
Concentrated flow			☒		☐		☐
Ephemeral gullies- field 1-2 @ 43 t/ac/yr (calculated volume)		EG erosion will remain @ 43 t/yr	NOT meet PC	EG erosion reduced to 0 t/ac/yr	NOT meet PC		NOT meet PC
Concentrated flow			☒		☐		☐
Classic gully- field 3 @ 68 t/ac/yr (calculated volume)		CG erosion wil increase 30 t/yr, continue advance @ 5 ft/yr	NOT meet PC	CG erosion reduced to 0 t/yr, head-cut eliminated, slopes stabilized	NOT meet PC		NOT meet PC
SOIL: SOIL QUALITY DEGRADATION							
Compaction			☒		☐		☐
Rooting depth restricted- field 3 @ 4 in (soil probe)		Rooting depth restriction manitained @ 4 in.	NOT meet PC	Rooting depth unrestricted- 0 in. after 3 years	NOT meet PC		NOT meet PC
WATER: EXCESS / INSUFFICIENT WATER							
No resource concern identified			☐		☐		☐
			NOT meet PC		NOT meet PC		NOT meet PC

WATER: WATER QUALITY DEGRADATION							
Excess nutrients in surface and ground waters	Continued 20#/ac/yr over application of P	☒	P over application 0#/ac/yr in balance w/ soil capacity	☐		☐	
P applied 20#/ac/yr in excess of soil capacity (soil test/ application records)		NOT meet PC		NOT meet PC		NOT meet PC	
Excessive sediment in surface waters	Increase of 3 ac/yr affected by soil deposition	☒	0 ac/yr affected by deposition	☐		☐	
42 ac/yr affected by deposition >3 in (aerial photo delineation)		NOT meet PC		NOT meet PC		NOT meet PC	
		☐		☐		☐	
		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 (Document both short and long term impacts)	✓ if does NOT meet PC	Amount, Status, Description (Document both short and long term impacts)	✓ if does NOT meet PC	Amount, Status, Description (Document both short and long term impacts)	✓ if does NOT meet PC
AIR: AIR QUALITY IMPACTS							
No resource concern identified		☐		☐		☐	
		NOT meet PC		NOT meet PC		NOT meet PC	
PLANTS: DEGRADED PLANT CONDITION							
Undesirable plant productivity and health	Crop yields avg. 70% of County average	☒	Crop yields ≥85% of County average	☐		☐	
Crop yields- fields 1-3, avg. 70% of County average (client interview/ NAS data)		NOT meet PC		NOT meet PC		NOT meet PC	
		☐		☐		☐	
		NOT meet PC		NOT meet PC		NOT meet PC	
ANIMALS: INADEQUATE HABITAT FOR FISH AND WILDLIFE							
Habitat degradation	No change, WHEG= 0.4	☒	Cover not limiting, WHEG = 0.7	☐		☐	
Cover identified as limiting factor for pheasant, WHEG= 0.4		NOT meet PC		NOT meet PC		NOT meet PC	
ANIMALS: LIVESTOCK PRODUCTION LIMITATION							
No resource concern identified		☐		☐		☐	
		NOT meet PC		NOT meet PC		NOT meet PC	
ENERGY: INEFFICIENT ENERGY USE							
Farming/ranching practices and field operations	No change, 620 gal/yr	☐	Reduced tillage and field maintenance result in 20% reduction in fuel consumption to 500 gal/yr	☐		☐	
Diesel fuel consumption= 620gal/yr		NOT meet PC		NOT meet PC		NOT meet PC	
HUMAN: ECONOMIC AND SOCIAL CONSIDERATIONS							
Management Level	High- avg 86 hrs field maintenance/yr	Low- field maintenance reduced to 16 hrs/yr					
High- avg 86 hrs field maintenance/yr							
Profitability	Avg net profit declining \$2/ac/yr	ST- Net profit reduced to \$164/ac for first year----LT-Avg net profit increase to \$246/ac					
Avg net profit \$173/ac							

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 Guide Sheet FS1 FS-2 No nonattainment areas present in the planning area (FOTG 2)	N/A	☐	N/A	☐		☐
•Clean Water Act / Waters of the U.S. Guide Sheet Fact Sheet 0.2 mi. Rock Ck. WOUS adjacent to field 4 (USGS Quad) / 303d listed for bacteria and 0 ²	No Effect No actions planned that result in discharge of dredge or fill materials	☐	No Effect No actions planned that result in discharge of dredge or fill materials/ planned actions reduce nutrients, pathogens & sediments entering stream	☐		☐
•Coastal Zone Management Guide Sheet Fact Sheet Not present in planning area (FOTG 2)	N/A	☐	N/A	☐		☐
Coral Reefs Guide Sheet Fact Sheet Not present in planning area (FOTG 2)	N/A	☐	N/A	☐		☐
•Cultural Resources / Historic Properties Guide Sheet Fact Sheet Not present in planning area (NRHP/ field recon. according to SLA)	N/A	☐	N/A	☐		☐
•Endangered and Threatened Species Guide Sheet Fact Sheet 23 ac I-bat habitat present along riparian area in field 4 (NHDB)	No Effect No actions proposed in or affecting I-bat habitat	☐	May Effect Improvement in wetland and riparian condition will result in increased riparian forerst canopy and improved I-bat habitat	☒		☐
Environmental Justice Guide Sheet Fact Sheet None identified (FOTG 2/ census bureau data)	N/A	☐	N/A	☐		☐
•Essential Fish Habitat Guide Sheet Fact Sheet None identified (FOTG 2)	N/A	☐	N/A	☐		☐
Floodplain Management Guide Sheet Fact Sheet 64 ac in 100 yr floodplain (field 3) (FEMA FI maps)	No Effect No actions proposed in 100 yr floodplain	☐	May Effect See attached guide sheet	☐		☐
Invasive Species Guide Sheet Fact Sheet None identified (FOTG 2)	N/A	☐	N/A	☐		☐
•Migratory Birds/Bald and Golden Eagle Protection Act Guide Sheet Fact Sheet None identified (FOTG 2)	N/A	☐	N/A	☐		☐
Natural Areas Guide Sheet Fact Sheet None identified (FOTG 2/ client)	N/A	☐	N/A	☐		☐
Prime and Unique Farmlands Guide Sheet Fact Sheet 480 ac prime farmland present in fields 2 and 3 (FOTG 2)	No Effect No conversion proposed	☐	No Effect No conversion proposed	☐		☐
Riparian Area Guide Sheet Fact Sheet 64 ac (Field 4) Non-Functional (PFC Standard Checklist)	No change- Non-Functional	☐	Functioning at risk. See attached PFC analysis	☐		☐
Scenic Beauty Guide Sheet Fact Sheet Not present in planning area (visual observation)	N/A	☐	N/A	☐		☐

Wetlands Guide Sheet Fact Sheet 2.8 ac slope wetlands (field 3), degraded condition - FCI= 0.3	Continued degradation to FCI= 0.27	☐	Improved wetland function FCI= 0.6	☐		☐																											
Wild and Scenic Rivers Guide Sheet Fact Sheet Not present in planning area (FOTG 2)	N/A	☐	N/A	☐		☐																											
K. Other Agencies and Broad Public Concerns	No Action		Alternative 1		Alternative 2																												
Easements, Permissions, Public Review, or Permits Required and Agencies Consulted.			Informal consultation w/ USFWS- for I-Bat. Concurrence for NLAA attached.																														
Cumulative Effects Narrative (Describe the cumulative impacts considered, including past, present and known future actions regardless of who performed the actions)	Continued contribution to water quality degradation (nutrients and sediment, and turbidity) rock creek, downstream of planning area		Combined with other conservation actions in the watershed, water quality is expected to improve																														
L. Mitigation (Record actions to avoid, minimize, and compensate)			See attached floodplain guide sheet																														
M. Preferred Alternative	☒ preferred alternative ☐ Supporting reason	☐	☒ This alternative meets the majority of resource concerns identified and is economically feasible for the client	☐																													
N. Context (Record context of alternatives analysis)		Site (fields 1-4)		Rock Creek watershed	Deere County																												
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.																																	
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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 informations accuracy.																																	
 Signature (TSP if applicable) <i>Soy L Saver</i>		 Title Soil Conservationist		 Date 28-May-13																													
 Signature (NRCS)		 Title		 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 HEL or wetland determinations) not associated with the planning process.

Q. NEPA Compliance Finding (check one)

The preferred alternative:

Action required

☐	1) is not a federal action where the agency has control or responsibility.	Document in "R.1" below. No additional analysis is required
☒	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
☐	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.
☐	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
☐	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 Findings Documentation	
R.2 Applicable Categorical Exclusion(s) (more than one may apply)	(19) Undertaking minor agricultural practices to maintain and restore ecological conditions in floodplains after a natural disaster or on lands impacted by human alteration. Examples of these practices include: mowing, haying, grazing, fencing, offstream watering facilities, and invasive species control which are undertaken when fish and wildlife are not breeding, nesting, rearing young, or during other sensitive timeframes;
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.	(20) Implementing soil control measures on existing agricultural lands, such as grade stabilization structures (pipe drops), sediment basins, terraces, grassed waterways, filter strips, riparian forest buffer, and critical area planting;

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:

Fin L. Signer

Signature

District Conservationist

Title

28-May-13

Date

Additional notes

FCI= functional condition index, NASS= National Agricultural Statistics Service, NHDB= Natural Heritage database, SLA= state level agreement, WHEG= wildlife habitat evaluation guide, WOUS= waters of the U.S., NLAA= not likely to adversely affect.

FLOODPLAIN MANAGEMENT		Client/Plan Information:	
NECH 610.29		Ima Farmer	
Evaluation Procedure Guide Sheet		Plan # 1, 2013	
Check all that apply to this	☐ Alternative 1	EQIP	
Guide Sheet review:	☒ Alternative 2	☐ Other	
		Rock Creek Farm, Tract # 1486, Fields 1-4, (520 acres)	

NOTE: This Guide Sheet is intended for evaluation of "non-project" technical and financial assistance only (individual projects). For "project" assistance criteria (those assisting local sponsoring organizations), consult Title 190, General Manual, Part 410, Subpart B, Section 410.25.

STEP 1.

Is the project area in or near a 100-year floodplain?

- ☐ No **If "No," document on the NRCS-CPA-52, or notes section below, the finding, rationale, and information sources used and go to Step 4.**
- ☒ Yes **If "Yes," go to Step 2.**
- ☐ Unknown **If "Unknown," review the HUD/FEMA flood insurance maps and other available data such as soils information relating to flood frequency. If still "Unknown", contact the appropriate field or hydraulic engineer. Repeat Step 1.**

STEP 2.

Is the planning area in the floodplain an agricultural area that has been used to produce food, fiber, feed, forage or oilseed for at least 3 of the last 5 years before the request for assistance?

- ☐ No **If "No," go to Step 4.**
- ☒ Yes **If "Yes," document the agricultural use history and go to Step 3.**

STEP 3.

Is the floodplain's agricultural production in accordance with official state or designated area water quality plans?

- ☐ No **If "No," advise the client of conservation practices or other measures that will bring the land into accordance with water quality plans and incorporate these into the conservation plan. Go to Step 4.**
- ☒ Yes **If "Yes," document on the NRCS-CPA-52, or notes section below, the finding, rationale, and information sources used and go to Step 4.**

STEP 4.

Over the short or long term, will the proposed action or alternative likely result in an increased flood hazard, incompatible development, or other adverse effect to the existing natural and beneficial values of the floodplain or lands adjacent or downstream?

- ☒ No **If "No," document on the NRCS-CPA-52, or notes section below, the finding, rationale, and information sources used and proceed with planning.**
- ☐ Yes **If "Yes," modify the action if possible to avoid adverse effects. Inform landuser of the hazards of locating actions in the floodplain and discuss alternative methods of achieving the objective and/or alternative locations outside the 100-year floodplain. If the action can be modified, describe the modification on the NRCS-CPA-52 and repeat 4. If the action cannot be modified to eliminate adverse effects, go to Step 5.**

FLOODPLAIN MANAGEMENT (continued)

STEP 5.

Is one or more of the alternative methods or locations practical?

- ☐ No **If "No,"** the District Conservationist will carefully evaluate and document the potential extent of the adverse effects and any increased flood risk before making a determination of whether to continue providing assistance. **Document on the NRCS-CPA-52, or notes section below, the finding, rationale, and information sources used and go to Step 6.**
- ☐ Yes **If "Yes," and the client agrees** to implement the alternative methods or locations outside the floodplain, **document on the NRCS-CPA-52, or notes section below, the finding, rationale, and information sources used and proceed with planning.**
- ☐ Yes **If "Yes," and the client DOES NOT AGREE** to implement the alternative methods or locations, advise the client that NRCS may not continue to provide technical and/or financial assistance where there are practicable alternatives. **Document on the NRCS-CPA-52, or notes section below, the finding, rationale, and information sources used and go to Step 6.**

STEP 6.

Will assistance continue to be provided?

- ☐ No **If "No,"** provide written notification of the decision to terminate assistance to the client and the local conservation district, if one exists. **Document on the NRCS-CPA-52, or notes section below, the finding, rationale, and information sources used and proceed with planning.**
- ☐ Yes **If "Yes,"** the district conservationist should **design or modify the proposed action or alternative to minimize the adverse effects to the extent possible. Circulate a written public notice** locally explaining why the action is proposed to be located in the 100-year floodplain. **Document on the NRCS-CPA-52, or notes section below, the finding, rationale, and information sources used and proceed with planning.**

Notes:

2) FSA records indicate the tract has been in crop production since 1981. 3) Current and proposed action is consistent with Rock Creek watershed water quality plan. 4) The original embankment pond was redesigned to a small check structure which will raise the groundwater level back to original conditions, maintain aquatic organism passage, maintain the original 100-yr. flood level, and restore original hydrologic and plant community functions.