**Process Step Table for a Conservation Plan which includes a Comprehensive Nutrient Management Plan Component**

**and involving a CAP 104 Nutrient Management Plan**

**Purpose:** Provide technical assistance so clients can manage their manure resources, soil fertility, water quality, and air quality.

**Scope:** Where animal feeding operation manure storage facilities are planned.

<table>
<thead>
<tr>
<th>Step</th>
<th>Responsibility</th>
<th>Inputs</th>
<th>Control</th>
<th>Output/Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Possible responsible position(s)</td>
<td>Items needed to complete the step (forms, tools, people, etc)</td>
<td>Practice Standard, Policy, Regulations</td>
<td>Completed object, form, reviewable product, or demonstrated policy</td>
</tr>
</tbody>
</table>
| Initial contact leading to conservation planning, gathering of personal information, and determination of others to include on the Planning Team. | • Client  
• Field Office Certified Conservation Planner (CCP) | • Address, phone, e-mail, fax, cell phone, and contact times  
• SCIMS database | • General Manual (GM) 180 and the Iowa Amendments  
• National Planning Procedures Handbook (NPPH) 600.13  
• GM 130, IA Amend. 4 | • Appointment made to begin conservation planning process  
• Client identity and record in database in Toolkit |
| Review of complexity of resources in the planning area and expected enterprise type. Assemble resource data pertaining to planning area. | • CCP | • Files, Toolkit, GIS, Soil Data Mart, Field Office Technical Guide (FOTG)  
• <surface water bodies input source>  
• <impaired water body source>  
• <ground water susceptibility> | • GM 180 and the Iowa Amendments  
• NPPH 600.6  
• Nutrient Management (590)Conservation Planning Standard (CPS) | • Aerial site photographs and/or planning map  
• Property/field boundaries  
• FSA track & field numbers  
• Soil map with features and legend  
• Nearby surface water bodies, impaired water bodies, public wells, private wells, etc.  
• Initiated or updated Conservation Assistance Notes IA-CPA-15 |

**PHASE 1. Collection and Analysis**

1. Identify Problems and Opportunities – Identify existing resource problems and concerns and potential opportunities in the planning area during an in-field visit and client interview. | • Client  
• CCP | • IA-CPA-15  
• Planning map  
• Soil map with legend, data, and information layers  
• Vehicle  
• Biosecurity Kit | • GM 180  
• NPPH 600.21; 600.6  
• GM 190 Parts 310 and 420  
• Field Office Technical Guide (FOTG) Sections I-V  
• Discipline manuals and handbooks  
• IDNR <find citation>  
• EPA 404(B)(1) 230.3  
• Utility companies  
• Client information | • Initial identification of resource problems and concerns |
### Process Step Table for a Conservation Plan which includes a Comprehensive Nutrient Management Plan Component

and involving a CAP 104 Nutrient Management Plan

<table>
<thead>
<tr>
<th>Step</th>
<th>Process</th>
<th>Participants</th>
<th>Resources</th>
<th>Outputs</th>
</tr>
</thead>
</table>
| 2. | Determine client objectives at livestock site and field with client. | • Client  
• CCP  
• Technical Specialist | • List of identified resource concerns from Step 1 | • GM 180  
• NPPH 600.22 | • Client's objectives clearly stated for inclusion in plan.  
• Copy objectives to Toolkit and IA-CPA-15 |
| 3. | Inventory resources at farmstead and cropland and pasture where manure is applied. | • Client  
• CCP  
• Technical Specialists (Agronomist; nutrient management specialist; engineer; archeologist; forester; other specialists, and tools/models as needed) | • FOTG Section III, Screening and Assessment Tools  
• IA-ENG-48 Data Inventory for Planning Livestock Waste Management Systems  
• Crop Management Inventory Worksheets  
• Data Collection Worksheet for RUSLE2 and Iowa Phosphorous Index (ISU Extension, 11/2006)  
• Measurements and model runs  
• Planning Team | • GM 180  
• NPPH 600.23  
• <additional nutrient specific?> | • Benchmarks determined for each resource concern.  
• Notes on IA-CPA-15  
• Completed Crop Management Inventory, IA-ENG-48 Data Inventory, RUSLE2 and P-Index Inventory and additional screening and assessment tool inventories as required. |
| 4. | Analyze resource data. | • CCP  
• Technical Specialists | • Client’s objectives  
• identified problems  
• opportunities and concerns  
• Completed Crop Management Inventory, IA-ENG-48 Data Inventory, RUSLE2 and P-Index Inventory and additional screening and assessment tool inventories as required  
• RUSLE2 outputs  
• Wind Erosion Prediction System (WEPS) outputs (if required)  
• WinPST outputs (optional)  
• Iowa Phosphorus Index outputs (optional?)  
• Local and/or state regulations and policies | • GM 180  
• NPPH 600.24  
• FOTG Section III, Planning Criteria | • Completed analysis of all resources inventoried  
• RUSLE2 and/or WEPS report.  
• Iowa Phosphorus Index Report  
• Leaching Index (under consideration)  
• A clear statement of the benchmark condition  
• Environmental evaluation data  
• Cultural resources evaluation data  
• Notes on IA-CPA-52 and any additional worksheets/forms |

**PHASE 2. Decision Support**
### Process Step Table for a Conservation Plan which includes a Comprehensive Nutrient Management Plan Component and involving a CAP 104 Nutrient Management Plan

| 5. Formulate conservation practice alternatives. | Client  
• CCP  
• Technical Specialist | • Client's objectives; physical, cultural, social, economic and ecological resource information  
• List of resource problems, opportunities and concerns; FOTG III Conservation System Guide(s) (CSGs) and Conservation System(s)  
• FOTG IV  
• Conservation Practice Physical Effects (CPPE)  
• Economic tools | • GM 180  
• NPPH 600.25  
• Resource Management System planning tool  
• Statements of Work (SOWs)  
• 590 Nutrient Management (CPS)  
• Other CPS | • Alternatives available to client. At least one alternative must meet Resource Management System criteria  
• CPPE and analysis to determine impacts on resource concerns and potential unintended impacts |
|---|---|---|---|---|
• CCP  
• Technical Specialist | • Alternatives available to client:  
• CPPE data, environmental and cultural resource evaluation;  
• Program information and requirements;  
• Benchmark data;  
• Phosphorus Index alternatives  
• Field and farm production data  
• Technical Notes, and  
• Program Manuals  
• NRCS-CPA-52 | • GM 180; NPPH 600.26  
• FOTG Section IV SOWs  
• FOTG I, II, III, CSGs, and Conservation Systems  
• Conservation Practice Physical Effects, System Effects Diagrams | • Discussion with client alternatives compatible with client and NRCS objectives  
• Effects and impact evaluation for client of alternatives; notes to document discussion and decision and/or lack of decision – documented on IA-CPA-15  
• Completed NRCS-CPA-52 and any additional worksheets/forms |
| 7. Client makes decisions. | Client  
• CCP  
• Technical Specialist | • Resource Inventory data; Evaluated alternatives; CSG(s); Conservation System(s); conservation effects and impacts information; SOWs  
• RMS alternatives compatible with client and NRCS objectives; effects and impact evaluation for client of alternatives; notes to document discussion and decision and/or lack of decision - follow-up data | • GM 180  
• NPPH 600.27  
• GM 190 Toolkit  
• Performance Results System (PRS) | • IA-CPA-15 - documents client's decision  
• Decision to build an animal feeding operation  
• Decision to develop Comprehensive Nutrient Management Plan  
• Signed NRCS-CPA-52  
• Signed Record of Decisions  
• Toolkit documentation  
• PRS populated |
### Process Step Table for a Conservation Plan which includes a Comprehensive Nutrient Management Plan Component

and involving a **CAP 104** Nutrient Management Plan

| CNMP Pre-Planning Meeting | Client | Client objectives including size of AFO agreed upon  
|                          | NRCS Certified CNMP Planner (CCNMP) | Plan period of CNMP  
|                          | TSP (this is the first point the TSP becomes involved) | Completed Crop Management Inventory, IA-ENG-48 Data Inventory, RUSLE2 and P-Index Inventory and additional screening and assessment tool inventories as required  
|                          | Technical Specialist | Resource concerns identified  
|                          |                          | Farmstead conservation plan  
|                          |                          | Cropland conservation plan  
|                          |                          | Practice O&M requirements (as required)  
|                          |                          | RUSLE2 and Iowa P-Index reports (if completed)  
|                          |                          | Critical elements of CNMP  
|                          |                          | CNMP references  
|                          |                          | CNMP Roles and Responsibilities  
|                          |                          | CNMP quality expectations  
|                          |                          | GM 180  
|                          |                          | NPPH 600.25  
|                          |                          | CNMP policy  
|                          |                          | Nutrient Management (590) standard  
|                          |                          | Waste Storage Facility (313) or other appropriate standard  
|                          |                          | Other appropriate conservation practice standards  
|                          |                          | Clear understanding of the CNMP planning process and expectations of each participant  

| CNMP 1-4. Phase I Collection and Analysis review | Client  
|                                               | CCNMP  
|                                               | TSP  
|                                               | All of the above  
|                                               | FOTG Section III, Screening and Assessment Tools  
|                                               | <need to add more>  
|                                               | All of the above  
|                                               | Manure nutrient inventory and analysis  
|                                               | Farmstead water quality inventory and analysis  
|                                               | Farmstead air quality inventory and analysis  
|                                               | Water quality sensitive areas inventory  

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Iowa NRCS  
Page 4 of 6  
Exhibit C: September 2016
## Process Step Table for a Conservation Plan which includes a Comprehensive Nutrient Management Plan Component and involving a CAP 104 Nutrient Management Plan

| CNMP 5. Formulate Alternatives to address water, soil, and air resource concerns | • Client  
• CCNMP  
• Technical Specialist  
• TSP | • All of the above  
• Inventories | • All of the above  
• Farmstead conservation plan alternatives  
• Cropland conservation plan alternatives  
• Cropland nutrient management plan |
|---|---|---|---|
| CNMP 6. Evaluate Alternatives Comprehensive Nutrient Management Plan Mid-Planning Meeting | • Client  
• CCNMP  
• CCP  
• Technical Specialist  
• TSP | • Alternatives available to client  
• CPPE data, environmental and cultural resource evaluation;  
• Program information and requirements;  
• Benchmark data;  
• Phosphorus Index alternatives  
• Field and farm production data  
• Technical Notes, and  
• Program Manuals  
• NRCS-CPA-52 | • All of the above  
• Completed CNMP Mid-planning Meeting Agenda  
• Completed environmental evaluation of the conservation alternatives documented on the NRCS-CPA-52 |
| CNMP 7. Make decision on CNMP | • Client  
• CCNMP  
• CCP  
• Technical Specialist  
• TSP (last step TSP is likely involved) | • All of the above | • All of the above  
• Signed NRCS-CPA-52 (if revision is required)  
• Comprehensive Nutrient Management Plan signed by CCNMP/SWCD/Operator  
• Signed Record of Decisions (if revision is required)  
• Signed Nutrient Management Plan by TSP/Operator  
• Toolkit documentation  
• PRS populated |

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**PHASE 3. Application and Evaluation**

| 8. Plan Implementation. | • Client  
• Contractor  
• TSP (rarely)  
• CCP  
• Technical Specialist | • Conservation Plan; Toolkit, Agronomic and Engineering Practice Process Step Tables; Landowner decisions; Technical Notes; CPS Criteria, Plans and  
• GM 180  
• GM 190  
• NPPH 600.28  
• FOTG IV - Standard, SOWs | • Plan implemented and documentation completed as required by the Agronomic and Engineering Practice Process Step Tables |

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Can end here or owner may decide to install the animal feeding operation and move to implementation.
### Process Step Table for a Conservation Plan which includes a Comprehensive Nutrient Management Plan Component and involving a CAP 104 Nutrient Management Plan

| 9. Plan Evaluation. | Specifications, and Operation and Maintenance; SOW's; Job Sheets; and Standard Drawings and Specifications. | • Conservation practices installed to NRCS standards and specifications. Operations and maintenance including records are current.  
• PRS populated |  
|:------------------|:-------------------------------------------------------------------------------------------------|:--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • Client  
• TSP  
• CCP  
• Technical Specialist  
• District Conservationist  
• Area Resource Conservationist | • Conservation Plan, PRS, Case File, Agronomic and Engineering Practice Process Step Tables, and in-field  
• Check out notes and other background/design information  
• FOTG Section IV | • GM 180  
• GM 190  
• NPPH 600.29  
• NEH  
• NEM | • Documentation on IA-CPA-15 that the plan met the objectives of NRCS and the client  
• If plan revision needed return to appropriate conservation planning step  
• Spot check form(s) filled out |

Unfinished:

- This was derived from the existing 9 steps to conservation planning. I’m not sure how dated the controls are, so they will need to be checked. They also need to be more specific in some cases (chapters cited, not entire manuals)
- Check if the proper NMP controls are in and priorities set and provide links
- I may be able to pull from or cite some of the process step tables others in the section are working on, especially for NEPA, cultural resources.
- Need to look at the checklists far more in depth to make sure haven’t missed something. Review Michigan’s checklist for ideas.
- Look into using this or a derivation of this as the Statement of Work and the checklist in place of the SOW Deliverables
- Think about how to use the CPPE (it was not specifically cited in the original and is often underutilized)
- Re-think process, think how a person will be doing this step-wise in the field. Make it useful as a roadmap to do this work.
- Create a subset of this for a nutrient management plan.