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DRINKING WATER PROTECTION MANAGEMENT PLAN FACT SHEETS

Drinking Water Protection Management Plan Fact Sheet Part 1: Plan Requirements

The following expectations will be required in order for the Drinking Water Protection Management Plan to be approved by NDEE:

- ✓ Meet EPA's alternative to a 9-element watershed management plan elements
 - Identification of the causes or sources of water quality problem;
 - Wellhead Protection area goal(s) and explanation of how the proposed project(s) will achieve or make advancements towards achieving water quality goals;
 - Schedule and milestones to guide project implementation;
 - Proposed management measures such as activities which can reduce water contamination (including how the activities will be maintained) and explanation of how these measures will effectively address the water quality problems identified above. This would include strategically selected types and locations of implementable "on-the-ground" Best Management Practices; and
 - Monitoring component that will evaluate the effectiveness of the management practices. (e.g., soil sampling, vadose sampling, water sampling)

For a detailed scope of these criteria, refer to the *Handbook for Developing Watershed Plans to Restore and Protect Our Waters*:

https://www.epa.gov/sites/production/files/2015-09/documents/2008_04_18_nps_watershed_handbook_handbook-2.pdf

- ✓ Area to include the 50 year time-of-travel based on a three-dimensional groundwater model approved by NDEE-WHP program.
 - Complete a scoping meeting with stakeholders, project sponsors, and NDEE to ensure all the most accurate and current data is used in the modeling process.
- ✓ Community based planning process for the development of the plan is required. Please refer to *Community-Based Watershed Management Planning Guidebook*:
<http://dee.ne.gov/publica.nsf/pages/WAT120>.

- ✓ Strong implementable Information and Education program.
- ✓ Must contain all required elements of WHP Plan to submit for state approved WHP Plan. <http://dee.ne.gov/NDEQProg.nsf/OnWeb/WHPA> for more information.
- ✓ Must meet NDEE approval criteria before final reimbursement
 - Complete draft plan submitted to NDEE for review at least two months prior to project completion and allow for one round of plan edits.

Drinking Water Protection Management Plan Fact Sheet Part 2: Plan Development

Using two Source Water Protection Grants to develop a Drinking Water Protection Management Plan

Because these plans include robust data collection, on-the-ground implementation goals, and community involvement, the scope of a Drinking Water Protection Management Plan (DWPMP) is more encompassing than most Source Water Grant projects. Developing a DWPMP plan is an intensive undertaking and is not appropriate for the needs of every community. NDEE will consider communities with a motivated stakeholder group and a thoroughly composed project implementation plan as the highest priority for Source Water Grant funding when considering DWPMPs. Listed below are the minimum criteria required for a DWPMP. Please note, each community's needs greatly vary and the project scope for each plan must reflect this. It is at the discretion of the stakeholder committee to decide which is most appropriate for that specific community.

Phase I

Timeframe - First Source Water Grant term [grant duration is 18 months to 2 years]

- Form a stakeholder committee, facilitate 2-3 stakeholder meetings
- Focus on data collection that would be needed for DWPMP (vadose sampling, installing monitoring wells, retrofitting wells for monitoring, etc.)
- Gauge and generate public interest for Source Water Protection
- Include a vulnerability assessment
- Final Product is an approvable Wellhead Protection Plan
- Stakeholders discuss interest on moving forward to develop a DWPMP

Phase II

Timeframe – Second Source Water Grant term [grant duration is 18 months to 2 years]

- Groundwater modeling for a 50-year Wellhead Protection area map
- Conduct a Best Management Practices Workshop for local producers
- Continued public outreach with stakeholder committee formed during Phase I (at least 2 open house meetings throughout the duration of the Phase II project period)
- Draft and submit a DWPMP
 - *Plan must include all elements of a Nine Element Watershed Plan.* Details of each element are listed here: https://www.epa.gov/sites/production/files/2015-09/documents/2008_04_18_nps_watershed_handbook_handbook-2.pdf

NDEE GUIDANCE FOR DRINKING WATER PROTECTION MANAGEMENT PLANS – EPA’S NINE ELEMENTS

Since its inception in the 1990’s, the NDEE Nonpoint Source Pollution (NPS) Program has prioritized the protection of groundwater but historically was not able to fund large groundwater projects with EPA funds without an approved Nonpoint Source Pollution Water Quality Plan. Nationally, the NPS/Section 319 program had always focused on surface water quality and funded large projects which qualified under an approved 9-element watershed plan. Starting in 2018, NDEE and EPA agreed to the development of Drinking Water Protection Management Plan (DWPMP)s as an alternative to a 9-element watershed plan. Since groundwater is almost exclusively the source of drinking water in the Nebraska, DWPMPs are primarily groundwater plans rather than surface water/watershed plans. Similar to 9-element plans, DWPMPs are reviewed by both NDEE and EPA R7 and if accepted, qualify for large project funding through the Section 319 program. Because the plan is an alternative to a 9-element watershed plan and this is a unique, new opportunity for Nebraska and EPA R7, federal guidance documents do not yet include language that pertains to groundwater. However, all of the nine elements required for a Section 319 Watershed Plan must also be applied for groundwater projects (including calculation of load reductions required to meet water quality standards, load reductions expected from specific types and quantities of best management practices to reach those standards, and the expected timeline to reach goals, etc). The following guidance outline was taken from EPA’s Handbook for Developing Watershed Plans to Restore and Protect Our Waters.

The entire document can be found here: https://www.epa.gov/sites/production/files/2015-09/documents/2008_04_18_nps_watershed_handbook_handbook-2.pdf.

The handbook should be referred to during development of a DWPMP.

Nine Minimum Elements to be Included in a Watershed Plan Using Section 319 Funds

- a. Identification of causes of impairment and pollutant sources or groups of similar sources that need to be controlled to achieve needed load reductions, and any other goals identified in the watershed plan. Sources that need to be controlled should be identified at the significant subcategory level along with estimates of the extent to which they are present in the watershed (e.g., X number of dairy cattle feedlots needing upgrading, including a rough estimate of the number of cattle per facility; Y acres of row crops needing improved nutrient management or sediment control; or Z linear miles of eroded streambank needing remediation).**

What does this mean?

Your DWPMP plan should include a map of the source water area that locates the major causes and sources of impairment. To address these impairments, you will set goals that will include (at a minimum) meeting the appropriate drinking water standards for pollutants that threaten or impair the public water system. This element will usually include an accounting of the significant point and nonpoint sources in addition to the natural background levels that make up the pollutant loads causing problems in the source water. The analytical methods may include mapping, modeling, monitoring, and field assessments to make the link between the sources of pollution and the extent to which they cause the water to exceed relevant drinking water standards.

b. An estimate of the load reductions expected from management measures.

What does this mean?

On the basis of the existing source loads estimated for element a, you will similarly determine the reductions needed to meet drinking water standards. You will then identify various management measures (see element c below) that will help to reduce the pollutant loads and estimate the load reductions expected as a result of these management measures to be implemented, recognizing the difficulty in precisely predicting the performance of management measures over time. Estimates should be provided at the same level as that required in the scale and scope component in paragraph a (e.g., the total load reduction expected for dairy cattle feedlots, row crops, or eroded streambanks). The estimate should account for reductions in pollutant loads from point and nonpoint sources as necessary to attain the applicable drinking water standards. (Chapters 8 and 9.)

c. A description of the nonpoint source management measures that will need to be implemented to achieve load reductions in paragraph 2, and a description of the critical areas in which those measures will be needed to implement this plan.

What does this mean?

The plan should describe the management measures that need to be implemented to achieve the load reductions estimated under element b, as well as to achieve any additional pollution prevention goals called out in the watershed plan (e.g., habitat conservation and protection). Pollutant loads will vary even within land use types, so the plan should also identify the critical areas in which those measures will be needed to implement the plan. This description should be detailed enough to guide implementation activities and can be greatly enhanced by identifying on a map priority areas and practices.

d. Estimate of the amounts of technical and financial assistance needed, associated costs, and/or the sources and authorities that will be relied upon to implement this plan.

What does this mean?

You should estimate the financial and technical assistance needed to implement the entire plan. This includes implementation and long-term operation and maintenance of management measures, I/E activities, monitoring, and evaluation activities. You should also document which relevant authorities might play a role in implementing the plan. Plan sponsors should consider the use of federal, state, local, and private funds or resources that might be available to assist in implementing the plan. Shortfalls between needs and available resources should be identified and addressed in the plan.

- e. **An information and education (I/E) component used to enhance public understanding of the project and encourage their early and continued participation in selecting, designing, and implementing the nonpoint source management measures that will be implemented.**

What does this mean?

The plan should include an I/E component that identifies the education and outreach activities or actions that will be used to implement the plan. These I/E activities may support the adoption and long-term operation and maintenance of management practices and support stakeholder involvement efforts.

- f. **Schedule for implementing the nonpoint source management measures identified in this plan that is reasonably expeditious.**

What does this mean?

You should include a schedule for implementing the management measures outlined in your plan. The schedule should reflect the milestones you are developing.

- g. **A description of interim measurable milestones for determining whether nonpoint source management measures or other control actions are being implemented. (Chapter 12.)**

What does this mean?

You'll develop interim, measurable milestones to measure progress in implementing the management measures for your plan. These milestones will measure the implementation of the management measures, such as whether they are being implemented on schedule, whereas element h (see below) will measure the effectiveness of the management measures, for example, by documenting improvements in water quality.

- h. **A set of criteria that can be used to determine whether loading reductions are being achieved over time and substantial progress is being made toward attaining drinking water standards.**

What does this mean?

As projects are implemented in the watershed, you will need water quality benchmarks to track progress. The criteria in element h (not to be confused with water quality criteria in state regulations) are the benchmarks or waypoints to measure against through monitoring. These interim targets can be direct measurements (e.g., nitrate concentrations in groundwater) or indirect indicators of load reduction (e.g. decreased violations, fewer incidences of a system being put on Administrative Order, etc.). You should also indicate how you'll determine whether your plan needs to be revised if interim targets are not met. These revisions could involve changing management practices, updating the loading analyses, and reassessing the time it takes for pollution concentrations to respond to treatment.

- i. **A monitoring component to evaluate the effectiveness of the implementation efforts over time, measured against the criteria established under item h immediately above.**

What does this mean?

The watershed plan should include a monitoring component to determine whether progress is being made toward attaining or maintaining the applicable drinking water standards. The monitoring program should be fully integrated with the established schedule and interim milestone criteria identified above. The monitoring component should be designed to determine whether loading reductions are being achieved over time and substantial progress in meeting drinking water standards is being made. Watershed-scale (or wellhead protection area) monitoring can be used to measure the effects of multiple programs, projects, and trends over time.