

4720.5400 DATA ELEMENTS.

Subpart 1. **Selection.** The department shall select data elements to be used in a wellhead protection plan in accordance with parts 4720.5310 and 4720.5340 based on the hydrogeological setting and vulnerability of the well and the drinking water supply management area known at both the time the scoping meeting is held and the scoping decision notice is mailed.

Subp. 2. **Physical environment.** The department shall select data elements about the physical environment from the areas described in items A to D.

A. Information about precipitation must include:

- (1) an existing map or list of local precipitation gaging stations; and
- (2) an existing table showing the average monthly and annual precipitation in inches for the preceding five years.

B. Information about the geology of the area must include:

- (1) an existing geologic map and a description of the geology, including aquifers, confining layers, recharge areas, discharge areas, sensitive areas as defined in Minnesota Statutes, section 103H.005, subdivision 13, and groundwater flow characteristics;
- (2) existing records of the geologic materials penetrated by wells, borings, exploration test holes, or excavations, including those submitted to the department;
- (3) existing borehole geophysical records from wells, borings, and exploration test holes; and
- (4) existing surface geophysical studies.

C. Information about the soil conditions must include:

- (1) existing maps of the soils and a description of soil infiltration characteristics; and
- (2) a description or an existing map of known eroding lands that are causing sedimentation problems.

D. Information about water resources must include:

- (1) an existing map of the boundaries and flow directions of major watershed units and minor watershed units;
- (2) an existing map and a list of public waters as defined in Minnesota Statutes, section 103G.005, subdivision 15, and public drainage ditches;
- (3) the shoreland classifications of the public waters listed under subitem (2), pursuant to part 6120.3000 and Minnesota Statutes, sections 103F.201 to 103F.221;

(4) an existing map of wetlands regulated under chapter 8420 and Minnesota Statutes, sections 103G.221 to 103G.2373; and

(5) an existing map showing those areas delineated as floodplain by existing local ordinances.

Subp. 3. **Land use.** The department shall select data elements about land use from the areas described in items A and B.

A. Information about land use must include:

(1) an existing map of parcel boundaries;

(2) an existing map of political boundaries;

(3) an existing map of public land surveys including township, range, and section;

(4) a map and an inventory of the current and historical agricultural, residential, commercial, industrial, recreational, and institutional land uses and potential contaminant sources;

(5) an existing comprehensive land-use map; and

(6) an existing zoning map.

B. Information about public utility services must include an existing:

(1) map of transportation routes or corridors;

(2) map of storm sewers, sanitary sewers, and public water supply systems;

(3) map of the gas and oil pipelines used by gas and oil suppliers;

(4) map or list of public drainage systems; and

(5) record of the construction, maintenance, and use of the public water supply well and other wells within the drinking water supply management area.

Subp. 4. **Water quantity.** The department shall select data elements about water quantity from the areas described in items A and B.

A. Information about surface water quantity must include an existing:

(1) description of high, mean, and low flows on streams;

(2) list of lakes where the state has established ordinary high water marks;

(3) list of permitted withdrawals from lakes and streams, including source, use, and amounts withdrawn;

(4) list of lakes and streams for which state protected levels or flows have been established; and

(5) description of known water-use conflicts, including those caused by groundwater pumping.

B. Information about groundwater quantity must include an existing:

(1) list of wells covered by state appropriation permits, including amounts of water appropriated, type of use, and aquifer source;

(2) description of known well interference problems and water use conflicts;
and

(3) list of state environmental bore holes, including unique well number, aquifer measured, years of record, and average monthly levels.

Subp. 5. **Water quality.** The department shall select data elements about water quality from the areas described in items A and B.

A. Information about surface water quality must include an existing:

(1) map or list of the state water quality management classification for each stream and lake; and

(2) summary of lake and stream water quality monitoring data, including:

(a) bacteriological contamination indicators;

(b) inorganic chemicals;

(c) organic chemicals;

(d) sedimentation;

(e) dissolved oxygen; and

(f) excessive growth or deficiency of aquatic plants.

B. Information about groundwater quality must include an existing:

(1) summary of water quality data, including:

(a) bacteriological contamination indicators;

(b) inorganic chemicals; and

(c) organic chemicals;

(2) list of water chemistry and isotopic data from wells, springs, or other groundwater sampling points;

(3) report of groundwater tracer studies;

(4) site study and well water analysis of known areas of groundwater contamination;

- (5) property audit identifying contamination; and
- (6) report to the Minnesota Department of Agriculture and the Minnesota Pollution Control Agency of contaminant spills and releases.

Statutory Authority: *MS s 103I.101*

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