

DATE: 07/09/2021

TO: **Wisconsin Licensed Well Drillers**

FROM: Marty Nessman- Section Chief- Private Water Section- Bureau of Drinking Water and Groundwater

SUBJECT: **MODIFICATION TO SPECIAL WELL CASING PIPE DEPTH Area (SWCDA) #32 (Junker Landfill/Nor-Lake) and 32b (Town of Warren), St. Croix County**

Special Well Casing Pipe Depth Areas #32 and #32b are hereby modified as described in detail below. This modification changes the area boundary, clarifies new well construction requirements, and combines area 32 and 32b into one area- Area #32.

EFFECTIVE DATE: This modification to Special Well Casing Pipe Depth Areas #32 and #32b is effective July 9, 2021.

BACKGROUND

In the 1980's, trichlorethylene (TCE) contamination was discovered in St. Croix County around the town of Hudson. The contamination was found to be from three comingled contamination plumes coming from sites identified as Town of Warren TCE, Junker Landfill, and Nor Lake. The SWCDA was originally established in July 1991 and the boundaries have not been updated since July 24, 1992.

MODIFICATION

This purpose of this modification is to update the boundaries of the areas and provide clear well construction requirements based on approximately 30 years of well sampling data since creation of the SWCDA. DNR is removing the variance language from the previous SWCDA requirement as variances are always considered on a case-by-case basis. DNR is also clarifying the well construction standards for this area as described below.

LOCATION

- See attached map for revised area boundaries. An interactive map can be found on the department's Well Driller Viewer here:
https://dnrmaps.wi.gov/H5/?viewer=Well_Driller_Viewwer

JUSTIFICATION FOR MODIFICATION

The original establishment of this "Special Well Casing Depth Area" was based on the potential that new wells constructed in this area to minimum standards in NR 812, Wis. Adm. Code would be at risk of TCE (Trichloroethylene) contamination. 30+ years of well sampling has shown that the area boundaries and well construction requirements can be revised to better reflect the current extent of contamination.

NEW WELL CONSTRUCTION, GROUTING AND DISINFECTION SPECIFICATIONS

- An upper enlarged drillhole must be drilled with mud rotary and extend 20 feet into firm Cambrian Sandstone (expected at approximately 350 to 400 feet below grade). The upper enlarged drillhole shall not be left open for more than 24 hours.

The department understands that mud rotary may be a challenge in certain locations within this area. If fluid circulation cannot be maintained, the driller may contact the regional Private Water Supply Specialist and request a change in drilling method. Any change must be noted on the well construction report.

- After drilling of the upper enlarged drillhole, A minimum of 6-inch steel casing must be installed and grouted in place with neat cement using an approved grouting method. The grout must be allowed to set for a minimum of 24 hours before beginning construction of the lower drillhole.
- Within 30 days of pump installation, a VOCs (Volatile Organic Compounds) sample shall be taken using an approved method listed in s. NR809.311 Table F, 809.111 Table A, 809.203 Table CM, or 809.243 Table E, appropriate for the contaminant and its primary drinking water standard. The sample shall then be submitted to the regional Water Supply Specialist.
- A sample must be taken annually for VOCs using an approved method listed in s. NR809.311 Table F, 809.111 Table A, 809.203 Table CM, or 809.243 Table E, appropriate for the contaminant and its primary drinking water standard until the department determines sampling is no longer needed. The samples must be submitted to the regional Private Water Supply Specialist within 30 days of receiving the results.