

**BUREAU OF DRINKING WATER AND GROUNDWATER  
SPECIAL WELL CASING DEPTH AREAS**

[authorized by s. NR 812.12(3)]

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Brown 02/25/1988 Area 1	Town of Ledgerview (Scrays Hill) T23N, R21E - Section 32 - SW¼ - N½ of the SE¼ - S½ of the NE¼	VOCs	Contact DNR Northeast Region Office for required approval
Brown 08/12/2008 Area 81	Town of Morrison (Community of Wayside) (Also a Special Area of Well Compensation Eligibility established on 03/17/06)  T21N, R21E  - Section 28  - S½ of the S½ except for the SW¼ of the SW¼ - Section 33 - That portion of the NE¼ of the NW¼ lying north of Wayside Creek - That portion of the NE¼ lying north of Wayside Creek - That portion of the SE¼ of the NW¼ lying north of Wayside Creek - Section 34 - That portion of the NW¼ lying west of Wayside Creek	Livestock waste	Cement-grouted casing to a depth of at least 250 feet; and: -- Use of rotary mud-circulation or cable-tool drilling methods only – no rotary-air methods; -- Upper-enlarged drillhole must be at least 8 ¾ -inch diameter for 6-inch wells or 2 inches larger than nominal casing diameter for larger wells; -- Cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal & be verified with a mud balance; -- Only Bradenhead or grout shoe method may be used; -- Grout must be allowed to set at least 24 hours.
Calumet 02/11/1988 Area 2	Town of Charlestown (Gravesville) (near Chilton) T18N, R20E - Section 8 - SW¼ - Section 7 - Government Lots 3 and 4 - Section 18 - Government Lots 1 and 2 - Section 17 - NW¼	Bacteria/Nitrate	Contact DNR Northeast Region Office for required approval
Calumet 08/12/2008 Area 82	Town of Brothertown (West Part) ( Also a Special Area of Well Compensation Eligibility established on 10/10/06)  T17N, R19E  - Government Lot 103  - Northern half of the W½ - Northern third of the E½ - Government Lot 104 - Southern half of the E½	Livestock waste	Cement-grouted casing to a depth of at least 140 feet; and: -- Use of rotary mud-circulation or cable-tool drilling methods only – no rotary-air methods; -- Upper-enlarged drillhole must be at least 8 ¾ -inch diameter for 6-inch wells or 2 inches larger than nominal casing diameter for larger wells; -- Cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal & be verified with a mud balance; -- Only Bradenhead or grout shoe method may be used; -- Grout must be allowed to set for at least 24 hours.

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Calumet	Town of Stockbridge	Livestock Waste	Option 1: Existing wells with 100 feet or more of cement grouted casing may be reconstructed by backfilling the portion of the well within the Maquoketa Shale with neat cement up to 10 feet above the top of the Maquoketa. New wells should be cased and cement grouted a minimum of 100 feet and extend a maximum of 10 feet above the Maquoketa. Bradenhead or grout shoe method for grouting.
05/13/2014 Area 104	(Also a Special Area of Well Compensation Eligibility established on 05/13/2014) T18N, R19E  - Government Lot 213 - Government Lot 245 - Government Lot 246 - Government Lot 258		Option 2: Wells shall be cased and cement grouted to a depth that extends at least through the entire Maquoketa Shale and 20 feet into the underlying bedrock formation. Bradenhead or grout shoe method for grouting.
Chippewa  Dec-90 Area 3	Town of Hallie (North Eau Claire and Village of Hallie Area)  T28N, R9W - Section 26 - Portions of the SW¼ - Section 27 - Portions of the E½ of the SE¼ - Section 34 - Portions of the SE¼ east of US Hwy 53 - Portions of the E½ of the NE¼ - Section 35 - SW¼ - W¼ of the NW¼ of the SE¼ - Portions of the NW¼	VOCs	Contact DNR West Central Region Office for required casing depth and better definition of affected area.

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Dane 02/23/2001 Area 71	Town of Cottage Grove (Hydrite Chemical Co. Area) T7N, R11E - Sections 10, 11, 14, 15 and 16 – including the following areas: ZONE 1 Section 16 NE¼ ZONE 2 Section 15 SE¼ of the SW¼ Section 15 SW¼ of the SE¼ ZONE 3 All of the following areas not listed above in ZONE 2, including: Section 10 S½ Section 11 SW¼ of the SW¼ SE¼ of the SW¼ (that portion south of County BB) SW¼ of the SE¼ (that portion south of County BB) Section 14 W½ W¼ of the E½ Section 15 Entire section Section 16 SE¼	VOCs	Contact the DNR South Central Region Office for required approval.
Dane 09/18/2000 Area 4	Town of Middleton (Refuse Hideaway Landfill Area) T7N, R8E - Section 7 NE¼ of the SW¼ SE¼ of the SW¼ SE¼ S½ of the NE¼ of the NE¼ SE¼ of the NE¼ - Section 8 S½ of the NW¼ of the NW¼ SW¼ of the NW¼ That portion of the NW¼ of the SW¼ lying north & west of Twin Valley Road and north of US Highway 14 That portion of the SW¼ of the SW¼ north & west of Twin Valley Road S½ of the NE¼ of the NW¼ SE¼ of the NW¼ That portion of the NE¼ of the SW¼ lying north of Highway 14	VOCs	Contact the DNR South Central Region Office for the required casing depth.
Dane 01/01/1994 Area 68	Town of Middleton (Cherrywood Subdivision Area) T7N, R8E - Section 30	Bacteria	Recommended 275 feet of casing to terminate into the St. Peter Sandstone

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Dodge 04/23/1997 Area 5	Town of Beaver Dam (Rolling Meadows Subdivision) T12N, R14E - Section 20 - N½ and east of the railroad tracks - Section 21 - NW¼	Bacteria	Recommended Cement-grouted casing at least 15 feet into the St. Peter sandstone
Dodge 10/06/1972 Area 6a	Town of Leroy (Area of Shallow Niagara Dolomite) T13N, R16E - Section 22 - SE¼ - Section 23 S½ - Section 26 - N½ - Section 27 - NE¼	Bacteria	Casing to base of Maquoketa Shale required.
Dodge 10/06/1972 Area 6b	Town of Leroy (Area of Shallow Niagara Dolomite) T13N, R16E - Sections 22, 23, 26 and 27 – Those portions that are not in Area 6a (above). - Section 24 - W½ - Section 25 - W½	Bacteria	Contact DNR South Central Region Office for required casing depth amount.
Dodge 04/02/1997 Area 7	Town of Lomira (Knowles Area) (Area of Shallow Niagara Dolomite) T13N, R17E - Section 19 - S½ of the SE¼ - Section 30 - N½ of the NE¼	Bacteria	Wells completed below Maquoketa Shale must be cased and grouted through entire Maquoketa Shale unit
Dodge 04/03/2009 Area 88	Town of Lomira  (Also a Special Area of Well Compensation Eligibility) T13N, R17E  - Section 9  - NW¼ (Entire quarter section)	Livestock Waste	Cement-grouted casing required to a depth of approximately 380 feet, but in any case to a depth at least through the Maquoketa Shale Confining Formation; and:  -- Use of rotary mud-circulation or rotary-air drilling methods; -- Upper-enlarged drillhole must be at least 8 ¼ -inch diameter for 6-inch wells or 2 inches larger than nominal casing diameter for larger wells; -- Cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal & be verified with a mud balance; -- Only Bradenhead or Grout Shoe method may be used; -- Grout must be allowed to set for at least 24 hours.

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Dodge 04/08/2014 Area 102	Town of Lomira  (Also a Special Area of Well Compensation Eligibility) T13N, R17E  - Section 6  - W ½ of the SE ¼ (Excluding properties within the Village of Brownsville)	Livestock Waste	Cement-grouted casing that extends at least through the entire Maquoketa Shale and about 20 feet into the underlying bedrock formation. -- Use of rotary mud-circulation or rotary-air drilling methods; -- Upper-enlarged drillhole must be at least 8 ¼ -inch diameter for 6-inch wells or 2 inches larger than nominal casing diameter for larger wells; -- Cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal & be verified with a mud balance; -- Only Bradenhead or Grout Shoe method may be used; -- Grout must be allowed to set for at least 24 hours.
Dodge 08/12/2008  Area 83	Town of Lowell (Also a Special Area of Well Compensation Eligibility established on 07/01/07)  T10N, R14E  - Section 30  - NE ¼ (A 23-acre parcel southwest of the intersection of Fischer and Maiden Lane Roads)	Livestock Waste	Cement-grouted casing to a depth of at least 110 feet; and: -- Use of rotary mud-circulation or cable-tool drilling methods only – no rotary-air methods; -- Upper-enlarged drillhole must be at least 8 ¼ -inch diameter for 6-inch wells or 2 inches larger than nominal casing diameter for larger wells; -- Cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal & be verified with a mud balance; -- Only Bradenhead or grout shoe method may be used;  -- Grout must be allowed to set for at least 24 hours.
Door 11/05/1957 10/25/1971  08/06/1974 01/01/2006 Area 8a	Entire County (Area of high bedrock)	Bacteria	100 to 140' to 170' casing required; And a transition zone where Dept. approval required. See DNR maps Contact DNR Northeast Region Office for required casing depth in transition-zoned areas
Door 08/13/1990 Area 9	Entire County (Pesticide Mixing Sites) - Within 1,200 feet of pesticide mixing sites. - (Contact DNR Northeast Region Office for a map of the mixing sites.)	Lead/Arsenic	Contact DNR Northeast Regional Office for required casing depth.
Door 03/19/2009  Area 86	Town of Sevastopol (Runaway Lodge Motel Property) T28N, R27E  - Sections 18  - NE ¼, NW ¼ [One property only, described as: Door Co. Parcel I.D. No. 0220318282721D1]	Livestock waste	Cement-grouted casing to a depth of at least 350 feet; and: -- Use of rotary mud-circulation drilling methods only – Rotary-air methods may not be used; -- Upper-enlarged drillhole must be at least 8 ¼ -inch diameter for 6-inch wells or 2 inches larger than nominal casing diameter for larger wells; -- Cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal & be verified with a mud balance; -- Only Bradenhead or grout shoe method may be used; -- Grout must be allowed to set at least 24 hours.
Door 11/07/2014  Area 106	Town of Baileys Harbor (Area of Special Well Casing Eligibility)  T30, R27E - Sections 32, 33 and 34 (Portions of these sections)  Town of Jacksonport - All of Section 4 and portions of Sections 3, 5, 9 and 10	Livestock Waste	Minimum of 260 feet or 50 feet below total depth of existing well, whichever is deeper.  - Cement grouted casing using either Bradenhead or grout shoe method. - Notify Northeast Distric Staff at least 48 hours prior to drilling.

<b>COUNTY</b>	<b>LOCATION</b>	<b>CONTAMINANT</b>	<b>CASING REQUIREMENTS</b>
Dunn	Town of Red Cedar (Village of Rusk)(Ag Coop)	Herbicides	Contact DNR West Central Region Office for required approval and better definition of affected area
Dec-90 Area 10	T28N, R12W - Sections 8, 15, 16, 17 and 18 (portions of these sections)		

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Eau Claire  06/04/1992 Area 11	Town of Washington (Closed Landfill – Papermill Sludge)  T27N, R8W - Sections 20 and 29 (West portion) - The area bounded on the east by Six-Mile Creek, on the west by the eastern boundary of sections 19 & 30, on the north by the Eau Claire River, and on the south by the southern boundary of the Pope and Talbot property with that southern boundary line running east to intersect Six-Mile Creek	VOCs	Any new water supply well constructed shall be sampled upon completion and tested for volatile organic compounds (VOC's) using EPA Method 502.2 or 524.2 and the results sent to the West Central Region Office to determine required casing depth.
Florence  11/04/1997  01/22/2007 02/20/2007 03/21/2007 05/01/2012 Area 12	Florence County (The Entire area of Florence County is included in this special area)  [Note: Previously, in the time period between 11/04/97 & 01/22/2007, this area included only a small portion of the Town of Aurora (of Florence County) near Hillcrest School in the Menomonee River Area]	Naturally occurring Arsenic	No special well construction required. Any new or reconstructed well installed on or after January 22, 2007 must be sampled for arsenic at a lab certified to do that analysis. These sample results must be submitted to the well owner and DNR. (This requirement applies to both unconsolidated formation & bedrock wells.)
Fond du Lac  08/12/2007 03/25/2009 Area 84	Town of Byron  [Also a Special Area of Well Compensation Eligibility (SAWCE) established on 08/15/07 & 03/25/2009] T14N, R17E  - Sections 32 and 33 (entire sections) Note: The Special Area of Well Compensation Eligibility includes the NW ¼ of Section 32 and all of Section 33 but does not include the NE ¼, the SE ¼ or the SW ¼ of Section 32. Area 84 was initially established on 08/12/07 to include all of Section 33. The area was expanded on 03/25/09 to also include all of Section 32 as a SWCDA with the NW¼ thereof established as part of the SAWCE)	Livestock Waste	Cement-grouted casing required to a depth of approximately 500 feet, but in any case to a depth at least through the Maquoketa Shale Formation; and: -- Use of rotary mud-circulation or cable-tool drilling methods only – no rotary-air methods; -- Upper-enlarged drillhole must be at least 8 ¼ -inch diameter for 6-inch wells or 2 inches larger than nominal casing diameter for larger wells; -- Cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal & be verified with a mud balance;  -- Only Bradenhead or grout shoe method may be used; -- Grout must be allowed to set for at least 24 hours.

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Fond du Lac 08/15/2004 Area 78a (Inner Area)	Town of Ripon (Ripon FF/NN CO. Highways Landfill Site) T16, R14E  - Section 7 - S½ of the SE¼ - Section 18 - N½ of the NE¼ - S½ of the NE¼ (That portion lying north of both Silver Creek and S. Koro Road) - N½ of the SE¼ (That portion lying north of Silver Creek)	VOCs, primarily vinyl chloride and cis-1,2-Dichloroethylene (DCE)	Inner Area  Either unconsolidated aquifer wells or Precambrian bedrock wells. Precambrian bedrock wells must be cased and cement-grouted to at least the top of the Precambrian. (Hydrofracturing of Precambrian bedrock wells is not allowed.)
Fond du Lac 08/15/2004 Area 78b (Outer Area)	Town of Ripon (Ripon FF/NN CO. Highways Landfill Site) T16, R14E  - Section 7 - S½ except for the S½ of the SE¼ thereof  - Section 8 - W½ of the SW¼ - Section 17 - W½ of the NW¼ (That portion lying north of Silver Creek and west of Silver Creek's northern tributary) - Section 18 - NW¼ (That portion lying north of both Silver Creek and S. Koro Road and north of Highway 23/49) - None of the area described above within the "Inner Area" of Area 78a.	VOCs, primarily vinyl chloride and cis-1,2-Dichloroethylene (DCE)	Outer Area  An attempt shall first be made to construct an unconsolidated formation well.  When an unconsolidated formation well is not successful then, only with prior Department approval, a Cambrian Sandstone well may be constructed. When approved, such a well must be cased and cement-grouted at least to the top of the Cambrian Sandstone.
Green 02/12/2010 Area 92	Town of Monroe (Also a Special Area of Well Compensation Eligibility established on 02/12/10) T2N, R7E  - Section 18 - SE ¼ of the NW ¼	Livestock Waste (Bovine Bacteriodes)	-- Cement-grouted casing to a Min. depth of 160 ft. -- Upper-enlarged drillhole must be at least 8 ¾ -inch dia. for 6-inch wells or 2 inches larger than nominal casing diameter for larger dia. wells; -- Cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal & be verified with a mud balance; -- Only use of Bradenhead or Grout Shoe method; -- Grout must be allowed to set for at least 24 hrs.

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Green Lake 05/13/2014  Area 105	Town of Green Lake (Also a Special Area of Well Compensation Eligibility established on 05/12/2014)  T15N, R13E  - Section 13 - SW ¼ - S ½ of NW ¼ - Section 14 - SE ¼ - S ½ of NE ¼ - Section 23 - NE ¼ - N ½ of SE ¼ - Section 24 - NW ¼ T15N, R13E Section 24 - N ½ of SW ¼	Livestock Waste	-- Cement-grouted casing to a Min. depth of 200 ft. -- Upper-enlarged drillhole must be at least 8 ¾ -inch dia. for 6-inch wells or 2 inches larger than nominal casing diameter for larger dia. wells; -- Cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal & be verified with a mud balance; -- Only use of Bradenhead or Grout Shoe method; -- Grout must be allowed to set for at least 24 hrs.
Jackson 01/12/1994 Area 13	Town of Brockway/City of Black River Falls (City Landfill Area) T21N, R4W - Section 11 - Portions of the SE¼ - Portions of the SW¼ - Section 14 - That portion of the NE¼ located northeast of Interstate Highway 94, north of Old State Highway 54, west of Levis Creek Road, south of Levis Creek and east of the Black River. - (Contact DNR West Central Region Office for detailed map of area.)	VOCs	Contact DNR West Central Region Office for required special casing depth.
Jackson 10/23/1996  Area 14	Town of Northfield (Village of Northfield Lust Sites)  T23N, R6W  - Section 22 -Starting at the southwest corner of the SE¼ of the NW¼ of; then east along the south line of the SE¼ of the NW¼ to the numbered tributary of Pigeon Creek 22-BBC; then northwesterly along tributary 22-BBC to Pigeon Creek; then westerly along Mill Road to CTH FF; then southerly along CTH FF and along the west line of the SE¼ of the NW¼ of Section 22 to the point of beginning.	VOCs	Cement-grouted casing 10' into sandstone bedrock required. (About 100' to sandstone) Upper-enlarged drillhole must be at least 10-inch diameter. A VOC sample is required. The Well Driller must notify DNR West Central Region at least 48 hours prior to the construction of the well.
Jefferson 06/08/1999 Area 15a	Town of Koshkonong (Superior Valley Meadows Landfill Area) (Zone 1) T5N, R14E - Sections 25, 26, 35 and 36 - Within the area bounded by the western boundary Section 35 and 26, south of Creamery Road, west of Highway 12, south of Cheesbrough Road, west of Buckingham Road, south of Meske Road, and west of Galloway Creek. And north of the ½ section line of Sections 35 and 36, from Galloway Creek to the western boundary of Section 35.	VOCs	240' of casing with cement grout required.

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Jefferson 06/08/1999 Area 15b	Town of Koshkonong (Superior Valley Meadows Landfill Area) (Zone 2) T5N, R14E Sections 25, 26, 35 and 36 (The remainder of these sections not included in Area 15a above.)	VOCs	Contact DNR South Central Region Office for required approval
Jefferson 06/08/1999 Area 15c	Town of Koshkonong (Superior Valley Meadows Landfill Area) (Zone 3) T5N, R14E - Section 27 - SE ¼ east of Allen Creek - Section 34 - N ½ east of Allen Creek	VOCs	Recommended Contact DNR South Central Region Office for approval
Kewaunee 11/05/1957 10/25/1971 08/06/1974 06/04/2013 Area 8b	Town of Red River (Extension of Door Co Special Casing Depth Area) T25N, R23E -Sections 1 through 6 -	Bacteria	100 feet of casing required
Kewaunee 11/05/1957 10/25/1971 08/06/1974 06/04/2013 Area 8b	Town of Lincoln (Extension of Door Co Special Casing Depth Area) T25N, R24E -Sections 1 through 6	Bacteria	140 feet of casing required
Kewaunee 05/29/2013 Area 99	Town of Lincoln (Also a Special Area of Well Compensation Eligibility) T25N, R24E -SW ¼ of NE ¼ of Section 19	Livestock Waste (Bovine Bacteroides)	200 feet of cement grouted casing Bradenhead Grouting Method
Kewaunee 11/05/1957 10/25/1971 08/06/1974 06/04/2013 Area 8b	Town of Ahnapee (Extension of Door Co Special Casing Depth Area) T25N, R25E - Sections 3 through 6 T25N, R25E and R26 - Sections 1 and 2 Section 6	Bacteria	140 feet of casing required in Sections 3 through 6 of R25E.  100 feet of casing required in Sections 1 and 2 of R25E and Section 6 of R26E.
Kewaunee 01/22/2015 Area 107	Town of Red River (Also a Special Area of Well Compensation Eligibility) 25N, R23E N1/2 of SE1/4 section 19	Bacteria, Livestock Waste	160 feet of cement grouted casing by Bradenhead or grout shoe, Maximum depth not to go into the Maquoketa shale or alternately case and grout into Maquoketa shale and finish in lower aquifer.
Kewaunee 3/17/2015 Area 108	Town of Red River (Also a Special Area of Well Compensation Eligibility) T25N R23E N1/2 NE 14 Section 17	Bacteria, Livestock Waste	160 feet of cement grouted casing by Bradenhead or grout shoe, Maximum depth of 195 feet or alternately case and grout into Maquoketa shale and finish in lower aquifer.
Lincoln 09/27/1995 12/02/1996 Rev. 02/22/01 Area 17	Town of Merrill (Merrill Landfill Area) T32N, R7E - Section 29 - SW¼ - Section 30 - SE¼ - Section 31 - NE¼ - Section 32 - - NW¼, only that portion north & west of the Prairie River	VOCs	Contact the DNR Northern Region Office in Rhinelander for required approval
Manitowoc	Town of Cato (Also a Special Area of Well Compensation Eligibility)	Livestock waste	Cement-grouted casing to a depth of at least 250 feet; and:

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04/01/2009 Area 87	T19N, R22E - Section 8  - SE¼ of the SE¼  - Section 17 - NE¼ of the NE¼		-- Use of rotary mud-circulation or rotary-air drilling methods -- Upper-enlarged drillhole must be at least 8 ¾-inch diameter for 6-inch wells or 2 inches larger than nominal casing diameter for larger wells; -- Cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal & be verified with a mud balance; -- Only Bradenhead or Grout Shoe method may be used; -- Grout must be allowed to set at least 24 hours before further drilling commences.
Manitowoc 08/12/2008  Area 85	Town of Cooperstown (Also a Special Area of Well Compensation Eligibility)  T21N, R22E  - Section 1 (entire section)  - Section 2 - E½ - Section 12 - N½ of the N½ - Section 13 - N½ of the NE¼	Livestock Waste	Cement-grouted casing to a depth of at least 170 feet, required, and: -- Use of rotary mud-circulation or cable-tool drilling methods only – no rotary-air methods; -- Upper-enlarged drillhole must be at least 8 ¾ -inch diameter for 6-inch wells or 2 inches larger than nominal casing diameter for larger wells; -- Cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal & be verified with a mud balance; -- Only Bradenhead or grout shoe method may be used; -- Grout must be allowed to set for at least 24 hours.
Manitowoc 09/14/1988  09/01/2010  Area 19/18	Town of Franklin (Lemberger Landfills Site) T20N, R22E  - Section 22 (Entire Section)  - Section 23 (Entire Section)  - Section 24 - W ½ of the W ½  - Section 25 - W ½ of the W ½ - Section 26 (Entire Section) - Section 27 (Entire Section) - Section 34 (Entire Section) - Section 35 (Entire Section) - Section 36 W ½ of the W ½	VOCs	Cement-grouted casing to a depth of at least 250 feet, required; and: -- Upper-enlarged drillhole (UED) must be at least 4 inches larger in diameter than nominal casing diameter; -- If rotary-mud methods used. the UED may be reduced to 8-¾ inch diameter (for 6-inch wells). -- Cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal & be density must be verified with a mud balance;  -- Only Bradenhead Grouting method may be used; -- Grout must be allowed to set for at least 24 hours before lower open bedrock drillhole is constructed.
Manitowoc  04/11/2013 Area 98	Town of Gibson (Special Area of Well Compensation Eligibility)  T21N, R23E - SW ¼ of SW ¼ of Section 30	Livestock Waste	Cement-grouted casing to a depth of at least 180 feet required. Braden-head or grout-shoe, 24 hour set time.
Manitowoc	Town of Kossuth (Francis Creek Area: Sinkholes & Farm Drainage Wells)	Bacteria	Contact DNR Northeast Region Office for required casing depth.



COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Area 21	- Section 6 - That portion of the NE¼ of Section 6 bounded on the west and north by Carroll Circle, on the south by an imaginary line extending eastward from the intersection of West Sommerset Drive to intersect North Cape Road and Forest Home Avenue, including all lots abutting the eastern side of Forest Home Avenue in the affected area.		
Milwaukee  01/22/1997 Area 22	Village of River Hills (Greenbrook Subdivision – Silurian Reef Deposit)  T8N, R22E - Section 6 SE¼	Naturally-occurring tar and asphaltum found at top of bedrock.	Cement-grouted casing required to the 200-foot depth if this contaminated layer is encountered. Contaminated layer is usually found at the top of bedrock at about the 130-foot depth.
Oconto	Town of Lakewood (Lakewood DX Gas Station LUST Site) (near intersection of STH 32 & Rugg Rd)	VOCs	Contact DNR Northeast Region Office for required approval. (Water treatment may be necessary.)

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Oct-88 Area 23a	T33N, R16E - Section 30 - SE¼ of SW¼ -- That portion south of McCaslin Creek - W½ of SW¼ of SE¼ - SW¼ of NW¼ of SE¼ -- That portion south of McCaslin Creek - Section 31 - NE¼ of NW¼ -- That portion north of Chain Lake Road - W½ of the NW¼ of NE¼ -		
Oconto  Oct-88 Area 23b	Town of Lakewood (Mid-Town Gas Station LUST Site) (near intersection of STH 32 & CTH F)  T33N, R16E - Section 32 - NW¼ of the NE¼ - SW¼ of NE¼ -- That part north of STH 32	Gasoline	155 feet of casing or contact DNR Northeast Region Office for required approval.
Outagamie  10/01/2004  11/12/2004  09/14/2005 Area 79a	Entire County ("Arsenic Requirement Area")  (This "Special Well Casing Depth Area" supercedes both the "Arsenic Advisory Area" and Areas 74 & 75, above.)	Naturally occurring inorganic arsenic	Required  Option A– Galena-Platteville Dolomite Aquifer wells no deeper than the red numbers on the gray shaded areas of the Township maps. Option B – A well cased & cement-grouted at least to the Cambrian Sandstone to the depths indicated in black on the Township maps.
Outagamie 03/02/1988 Area 25	Village of Bear Creek (Waugamie FS Coop Area) T24N, R15E - Those areas that lie east of the Chicago and Northwestern Railroad right-of-way that are in:  - Section 19 - SW¼ of the SE¼ - Section 30 - W½ of the NE¼ - W½ of the E½ of NE¼	Pesticides	Contact DNR Northeast Region Office for required casing depth.
Outagamie  02/11/1988 Area 26	Town of Osborn (Dunbar Service Station Gasoline Spill) (City of Seymour) (Intersection of Highways 54 & 55) (Area now served by Seymour municipal water) T23N, R18E - Section 4 - N½ - Section 5 - E½ of E½ of the NE¼	Gasoline	150' casing required
Ozaukee  09/01/2000 Area 70	Town of Cedarburg (Kohlwey LUST Site)  T10N, R21E - Section 14 S½ of the SW¼ of the SE¼	VOCs – Petroleum/Gasoline	130' cement-grouted casing required

<b>COUNTY</b>	<b>LOCATION</b>	<b>CONTAMINANT</b>	<b>CASING REQUIREMENTS</b>
Ozaukee	City & Town of Cedarburg (Prochnow Landfill)	VOCs	Any new water supply well constructed or an existing water supply well reconstruction shall be sampled upon completion and tested for volatile organic compounds (VOCs) using EPA Method 502.2 or 524.2 and the results sent to the DNR Southeast Region Office.

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
01/22/1997 Area 27	T10N, R21E - Section 22 - S½ - Section 23 - S½ - Section 26 (Entire section)		Recommended Connection to municipal water system, if possible.
Ozaukee  01/22/1997 Area 28	Town & Village of Grafton (Lime Kiln Landfill & Quarry)  T10N, R21E - - Section 25	VOCs	Any new water supply well constructed or an existing water supply well reconstruction shall be sampled upon completion and tested for volatile organic compounds (VOCs) using EPA Method 502.2 or 524.2 and the results sent to the DNR Southeast Region Office. Recommended Connection to municipal water system, if possible.
Ozaukee 11/18/2013  Area 101	Town of Grafton (Denow Landfill) T10N, R21E  - Section 1 - S½ of the N½  - SE¼ - E½ of the SW¼	VOCs	150' of casing required Any new or replacement water supply well constructed, or an existing water supply well reconstructed, shall be sampled upon completion and tested for volatile organic compounds (VOCs) and the results sent to the DNR Central Office.  150' of casing required. Any new or replacement water supply well constructed, or an existing water supply well reconstructed, shall be sampled upon completion and tested for volatile organic compounds (VOCs) and the results sent to the DNR Central Office.
Ozaukee 11/18/2013 Area 101	Town of Grafton (Denow Landfill) T10N, R22E - Section 6 W½ of the SW¼	VOCs	
Ozaukee 01/16/1991 Area 29a	Village of Thiensville (Personal Auto LUST Site) T9N, R21E - Sections 22 and 23 - - Those portions of these sections that extend 400 feet north and 400 feet south of Spring Street and eastward from the C. M. St. P. & P. Railroad right-of-way to the Milwaukee River	VOCs	140' casing required
Ozaukee 01/16/1991 Area 29b	Village of Thiensville (Spur Gas Station LUST Site) (Roettgers Oil) T9N, R21E Sections 14, 15, 22 and 23 - Those portions of these sections that extend 200 feet north and 200 feet south of Freistadt Road and eastward from the C. M. St. P. & P Railroad right-of-way to a north/south line 200 feet east of the intersection of Freistadt Road and STH57.	VOCs	160' casing required.
Pierce	Town of Trenton (Hager City Area)	TCE (Trichloroethylene)	Casing shall extend to a depth 5 to 10 feet above sandstone or to the 200-foot depth, whichever is shallower. If depth to sandstone is less than 180 feet, contact DNR's West Central Region Office for required casing depth.

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Oct-97 Area 30	T24N, R18W - Section 2 (Portions of this section) (Contact West Central Region Office for better definition of affected area.)		
Racine  03/26/2013 Area 97	Town of Burlington (This is also a Special Area of Well Compensation Eligibility)  T2N, R19E NW ¼ of Section 10	Livestock Waste	Cement-grouted casing shall extend to a minimum of 120 feet below ground surface.
Rock  08/15/2003 Area 76	Town of Fulton (Sand & gravel & industrial landfills) (near Edgerton)  T4N, R12E - Section 3 - That portion lying south of Hwy 59 and west of N Rock River Rd - Section 10 - That portion lying east of Saunders Creek, south of Hwy 59 and west of N Rock River Rd  - Section 11 - That portion lying west of the Rock River, south of West Watts Springs Rd & east of East Watts Springs Rd to its northeasterly extension and, from that point, straight east to the Rock River  - Section 14 - That portion lying west and north of the Rock River - Section 15 - That portion lying north of the Rock River and east of Saunders Creek	VOCs, especially trichloroethylene (TCE)	Cement-grouted casing shall extend at least 30 feet into bedrock and to a depth of at least 225 feet.
Rock  10/01/2011 Area 96	Town of Beloit (Natures Ridge et. al.)  T1N, R12E - W ½ Section 14 - NE ¼ of the E ½ of Section 15  - W ½ of Section 23	Bacteria and Nitrate	Cement-grouted casing shall extend to a minimum depth of 150 feet in Sections 14 and 15.  Cement-grouted casing shall extend to a minimum depth of 120 feet in Section 23
Rock  03/04/1997  Area 31	Town of Turtle (Village of Shopiere Area)  T1N, R13E  - Section 3 - SE¼ (Rectangular area that encompasses the Village)	Bacteria	Cement-grouted casing required to extend to at least the 120-foot depth or to 15 feet into the sandstone bedrock formation, whichever is the greater depth.  Contact DNR South Central Region Office for better definition of the specific area.
Saint Croix	Town of Emerald	Livestock Waste	Cement-grouted casing to extend to a depth at least into the Jordan (Cambrian) Sandstone, which will be encountered at a depth of about 250 to 260 feet below ground surface; and:
05/01/2009	(These are also Special Areas of Well Compensation Eligibility)		-- The upper-enlarged drillhole must be at least 8 ¾ -inch diameter for 6-inch wells or 2 inches larger than nominal casing diameter for larger diameter wells;

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Area 90  and  Area 91 06/05/2009	T30N, R16W  - Section 22 (Area 90) - NW¼ of the SW¼ (Entire quarter-quarter section)  - Section 11 (Area 91) - N ½ of the SW¼ (Entire north half of quarter section) -		-- The cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal. & be verified with a mud balance; -- Only the Bradenhead or Grout Shoe method may be used; -- The grout must be allowed to set for at least 24 hours.
Saint Croix  04/15/2010  Area 93	Town of Emerald  (This is also a Special Areas of Well Compensation Eligibility)  T30N, R16W  - Section 10 - SE¼ of the SE¼ (Rectangular, 4-acre parcel in the SE Corner of Section 10)	Livestock Waste	Cement-grouted casing to extend to a depth at least 40 into the Jordan (Cambrian) Sandstone, which will necessitate cement-grouted casing to a depth of about 205 feet below ground surface; and: -- The upper-enlarged drillhole must be at least 8 ¾ -inch diameter for 6-inch wells or 2 inches larger than nominal casing diameter for larger diameter wells;  -- The cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal. & be verified with a mud balance; -- Only the Bradenhead or Grout Shoe method may be used; -- The grout must be allowed to set for at least 24 hours.
Saint Croix  04/24/2014 Area 103	Town of Emerald  (This is also a Special Areas of Well Compensation Eligibility) T30N, R16W - Section 1 NE¼ of the SE¼	Livestock Waste	Cement-grouted casing to extend to a depth at least 40 into the Jordan (Cambrian) Sandstone, which will necessitate cement-grouted casing to a depth of 250-260 feet below ground surface.
Saint Croix  04/16/2010  Area 94	Town of Forest  (This is also a Special Area of Well Compensation Eligibility)  T31N, R15W  - Section 30 - NE¼ of the NE¼ (Entire quarter-quarter section) -	Livestock Waste	Cement-grouted casing to extend to a depth at least 40 into the Jordan (Cambrian) Sandstone, which will necessitate cement-grouted casing to a depth of about 280 feet below ground surface; and: -- The upper-enlarged drillhole must be at least 8 ¾ -inch diameter for 6-inch wells or 2 inches larger than nominal casing diameter for larger diameter wells;  -- The cement grout must be ordered from commercial concrete company, have a density of at least 15.2 lbs./gal. & be verified with a mud balance; -- Only the Bradenhead or Grout Shoe method may be used; -- The grout must be allowed to set for at least 24 hours.
Saint Croix	Town of Hudson (Junker Landfill, Nor-Lake Area, etc.)	VOCs	Minimum Special Requirements

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Oct-90 Revised 7/92, 10/90,  10/02/1996 Area 32	<p>T29N, R19W</p> <ul style="list-style-type: none"> <li>- Sections 13, 14, 15 (Entire sections)</li> <li>- Section 16</li> <li>- SW¼</li> <li>- S½, N½, SE¼</li> <li>- S½, SE¼</li> <li>- W½, NW¼</li> <li>- Section 17</li> <li>- N½</li> <li>- That portion lying east of the Willow River</li> <li>- N½, S½</li> <li>- SE¼, SE¼</li> <li>- Section 18</li> <li>- N½ of the S½</li> <li>- That portion lying east of Willow River.</li> <li>- S½ of the N½</li> <li>- That portion lying east of Willow River.</li> <li>- Section 21</li> <li>- NE¼</li> <li>- NW¼</li> <li>- That portion lying north of the Chicago &amp; Northwestern Railroad</li> <li>- Section 22</li> <li>- NW¼</li> <li>- Section 24</li> <li>- NW¼</li> <li>- That portion lying north of State Hwy 12</li> <li>- N½, NE¼</li> <li>- N½, SE¼, NE¼</li> <li>- S½, of the SE¼ of the NE¼</li> <li>- That portion located east of Polen Drive</li> <li>- NE¼ of the SE¼</li> <li>- That portion lying east of Polen Drive and north of Badlands Rd</li> <li>- SE½ of the NE¼ of the SE¼</li> <li>- That portion lying south of Badlands Rd</li> </ul>		<p>Ten-inch diameter upper enlarged drillhole to a minimum depth of 50 feet into the Cambrian Sandstone.</p> <p>Entire annular space shall be sealed with neat cement grout using a pressure method according to the requirements of s NR 812.20, Wis. Adm. Code.</p> <p>All wells shall be sampled for VOCs within 30 days of completion, and annually until the Department determines sampling is no longer required. Cost of sampling is a responsibility of the well owner unless other parties volunteer or are ordered by DNR to sample.</p> <p>VARIANCES: A variance to these special casing requirements may be granted with conditions. Contact DNR Northern District Office for variance requirements.</p>
Saint Croix	Town of Star Prairie (City of New Richmond Landfills Area)	VOCs	Minimum Special Requirements

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
11/11/2002 Area 32a	T31N, R18W  - Sections 21  - NE¼  - That portion lying east of the Apple River and south of CTH "C" - SE¼  - That portion lying east of the Apple River - Section 22 - NW¼ of the NW¼ - That portion lying west of 110th Street and south of CTH "C" - SW¼ of the NW¼ - SW¼ of the SE¼ - SW¼ - Section 27 - NW¼ - W½ of the NE¼ - NW¼ of the SE¼ - N½ of the SW¼ - Section 28 - N½ of the NE¼ - SE¼ of the NE¼ - N½ of the SW¼ of the NE¼ -		Ten-inch diameter upper enlarged drillhole to a minimum depth of 50 feet into the Cambrian Sandstone. Entire annular space shall be sealed with neat cement grout using a pressure method according to the requirements of s NR 812.20, Wis. Adm. Code. All wells shall be sampled for VOCs within 30 days of completion, and annually until the Department determines sampling is no longer required. Cost of sampling is a responsibility of the well owner unless other parties volunteer or are ordered by DNR to sample.  VARIANCES: A variance to these special casing requirements may be granted with conditions. Contact DNR Northern District Office for variance requirements.
Saint Croix June, 2002 Area 32b	Town of Warren (Junker Landfill Area) T29N, R18W  - Section 19  - NW¼ of the NW¼  - That portion lying south of STH 12 and south of the Railroad Right of Way  - S½ of the NW¼ - N½ of the SW¼ - SE¼ of the SW¼ - W½ of the SE ¼ - S½ of the SW¼ of the NE¼	VOCs	Minimum Special Requirements Ten-inch diameter upper enlarged drillhole to a minimum depth of 50 feet into the Cambrian Sandstone. Entire annular space shall be sealed with neat cement grout using a pressure method according to the requirements of s NR 812.20, Wis. Adm. Code. All wells shall be sampled for VOCs within 30 days of completion, and annually until the Department determines sampling is no longer required. Cost of sampling is a responsibility of the well owner unless other parties volunteer or are ordered by DNR to sample. VARIANCES: A variance to these special casing requirements may be granted with conditions. Contact DNR Northern District Office for variance requirements.

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Sauk	Town of Spring Green (Lower Wisconsin River Area)	Potential difficulty to keep drillhole open	Recommended

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
08/16/2000 Area 69	T8N, R3E - Sections 2, 3, 4, 5, 8, 9, 10 & 11 (Entire sections)		Percussion drilling method should be used instead of a rotary method.
Sauk  08/14/2000 Area 33	Town of Excelsior (Sauk County Landfill Area)  T12N, R5E - Section 14 - SW¼, NW¼ - W½, SW¼ - Section 15 - SE¼, NE¼ - E½, SE¼ - SW¼, SE¼ - S½, SW¼ - Section 22 - N½, NW¼, NW¼ - N½, NE¼, NW¼ - N½, NW¼, NE¼ - N½, NE¼, NE¼	VOCs	Contact DNR South Central Region Office for required casing depth requirements and map of affected area
Sauk  01/01/2005 Area 80a	Town of Excelsior (West Wastewater Land-Spreading Site)  T12N, R5E - Section 2 - S½, SW¼, SE¼ - SW¼, SE¼, SE¼, - Section 11 - N½, NW¼, NE¼ - NW¼, NE¼, NE¼	BOD, Chlorides, COD, Kjeldahl Nitrogen, Ammonia, Sodium	A minimum of 200 feet of cement-grouted casing. The upper enlarged drillhole shall be constructed using rotary mud-circulation and shall be at least 3 inches larger in diameter than the nominal diameter of the permanent well casing pipe. Either the Bradenhead Method or the Grout Shoe Method shall be used to cement-grout the annular space. Well driller shall provide 24 hours advance notice prior to construction of any well.
Sauk  01/01/2005 Area 80b	Town of Excelsior (East Wastewater Land-Spreading Site)  T12N, R5E - Section 4 - S½, SE¼, SE¼ - Section 9 - NE¼, NE¼	BOD, Chlorides, COD, Kjeldahl Nitrogen, Ammonia, Sodium	A minimum of 200 feet of cement-grouted casing. The upper enlarged drillhole shall be constructed using rotary mud-circulation and shall be at least 3 inches larger in diameter than the nominal diameter of the permanent well casing pipe. Either the Bradenhead Method or the Grout Shoe Method shall be used to cement-grout the annular space. Well driller shall provide 24 hours advance notice prior to construction of any well.

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Sauk	Town of Excelsior (Cannery Waste & Silage Storage Site)	BOD, Chlorides, COD, Kjeldahl Nitrogen, Ammonia, Sodium	A minimum of 200 feet of cement-grouted casing. The upper enlarged drillhole shall be constructed using rotary mud-circulation and shall be at least 3 inches larger in diameter than the nominal diameter of the permanent well casing pipe. Either the Bradenhead Method or the Grout Shoe Method shall be used to cement-grout the annular space. Well driller shall provide 24 hours advance notice prior to construction of any well.

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
01/01/2005 Area 80c	T12N, R5E - Section 5 - SW¼, SW¼, SE¼ - SE¼, SE¼, SW¼ - Section 8 - NE¼, NW¼ NW¼, NE¼		
Sawyer 12/29/1995 Area 34a	Town of Hayward (City of Hayward Landfill Area) T41N, R9W  - Sections 28, 29, 32, and 33 - Those portions of Sections 28, 29, 32, and 33 near their common corner. The area of includes: North of the Namekagon River; east of the unnamed Namekagon River tributary; south of a line between the southwest corner of the City of Hayward's abandoned landfill and the intersection of the unnamed tributary and Highway 63; and west of a line running from the southeast corner of the landfill to the intersection of Highway 63 and Stress Road and then running south along the unnamed dirt road and continuing to the Namekagon River.	Landfill Leachate	Recommended 100-foot casing required. (A variance must be obtained to construct any well that will be within 1,200 feet from the landfill.)
Sawyer 09/30/1996 Area 34b	Town of Hayward (City of Hayward Landfill Area)  T41N, R9W - Section 33 Portions of the S½ of NW¼	VOCs	Contact DNR Northern Region Office in Spooner for better definition of affected area and casing required depth.
Shawano Mar-84 02/25/1988 Area 35	Town of Grant (Village of Caroline) T26N, R13E - Section 23 - NE¼ and NW¼ - That portion of land lying within 300 feet of the intersection of County Highway M and East Water Street, and that land parcel that lies between County Highway M and the Embarrass River extending to the southeast all the way to the eastern boundary of the SW¼ of the NE¼.	Gasoline	65 feet of casing or casing extending to the top of the granite required.
Sheboygan	Town of Greenbush (South Part) (City of Plymouth Landfill)	VOCs	Required

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
12/01/2002  Area 73a	T15N, R20E  - Section 36  - NE¼ and SE¼ of the NW¼ - NE¼ of the SW¼ - NW¼ and NE¼ of the SE¼ - N½ of SE¼ of the SE¼ - N½ of SW¼ of the SE¼ - NE¼ Town of Plymouth T15N, R21E - Section 31 - NW¼ of the SW¼ - SE¼ of the NW¼ - NW¼ and NE¼ of the SW¼		1. That any new or replacement well be constructed by drilling through the glacial aquifer into the top 5 feet of bedrock, set permanent well casing, and seal the annular space with neat cement grout, and then drill an open drillhole into the bedrock.  That any new or replacement well be tested for volatile organic chemicals and that this information be submitted to the department within 60 days from the date of well construction. Certified laboratory lists can be obtained from the WDNR website or from drinking water supply staff.
Sheboygan 12/01/2002  Area 73b	Town of Greenbush (South Part) (City of Plymouth Landfill) T15N, R20E  - Section 36  - NW¼ and SW¼ of the NW¼ - NW¼, SW¼ and SE¼ of the SW¼ - S½ of the SE¼ - S½ of the SW¼ of the SE¼ Town of Plymouth T15N, R21E - Section 31 - NE¼ of the NW¼ - NW¼ and SW¼ of the NE¼ - NE¼ and SE¼ of the NE¼ - Those portions located to the west of the ordinary high water mark of Ben Nutt Creek - NW¼ of the SE¼ - NE¼, the SW¼ - Those portions located to the west of the ordinary high water mark of Ben Nutt Creek - SE ¼ of the SE¼ - Those portions located to the west of the ordinary high water mark of Ben Nutt Creek	VOCs	Recommended 1. While normal NR 812 construction is required, driller and/or owner contact with WDNR staff before well construction in this area is recommended. 2. That any new or replacement well be tested for VOCs and that this information be submitted to the department within 60 days from the date of well construction. Certified laboratory lists can be obtained from the WDNR website or from drinking water supply staff.
Sheboygan	Town of Sheboygan (Interstate Plaza Truck Stop LUST Case)	Petroleum	120 feet of casing required

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
01/22/1997 Area 36a	T15N, R23E - Section 5 That portion of Section 5 extending 400 feet north from the intersection of Hwy J and N. 47th Street, then east 1,200 feet to the edge of Hwy I-43, then south 1,000 feet along the I-43 right-of-way into Section 8, then returning northwesterly 1,300 feet to the starting point at the intersection of Hwy J and N. 47th Street.		
Sheboygan 01/22/1997 Area 36b	Town of Sheboygan (Interstate Plaza Truck Stop LUST Case) T15N, R23E - Section 9 - That portion of Section 9 bounded on the north by the section line (Jay Road), on the south by the Pigeon River, on the east by the section line, and on the west by a line running parallel 300 feet west of the Hwy 42 right-of-way.	Petroleum	200 feet of casing required
Sheboygan 01/22/1997 Area 37	Town of Sheboygan (Town of Sheboygan Landfill, Spielvogel Landfill, Old Town of Sheboygan Dump) T15N, R23E - Section 16 - W½ - Section 17 - E½ - Section 20 - E½ of the NE¼ - Section 21 - NW¼	VOCs	200 feet grouted casing into bedrock required
Walworth 01/16/1991 Area 38	Town of East Troy (Miramar Subdivision) T4N, R18E - Section 10 - E½ (Those portions north of Potter Lake.) - Section 11 - W½, except for the portion south of Potter Lake.	Bacteria and Detergents	Recommended 80 feet casing
Walworth 01/16/1991 Area 39a (Segment B)	Town of East Troy (Town of East Troy Landfill) T4N, R18E - Section 15 - NW¼ of the SW¼ - Section 16 - NE¼ of the SE¼	Landfill Leachate	Casing at least to the top of bedrock required.
Walworth	Town of East Troy (Town of East Troy Landfill)	Landfill Leachate	Recommended

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
01/16/1991 Area 39b (Segments A, C & D)	T4N, R18E - Section 15 - S½ of the SW¼  - NE¼ of the SW¼ - S½ of the NW¼ - Section 16 - SW¼ - S½ of the NW¼ - S½ of the NE¼ - NW¼ of the SE¼ - S½ of the SE¼ - Section 21 - N½ of the NE¼ - N½ of the NW¼		Casing to top of bedrock
Washington 01/16/1991 Area 40	Town of Barton (Metal Working Site) T12N, R19E - Section 27 - SE¼ (That portion lying west of the Milwaukee River.)	VOCs	Recommended Casing to extend 60 feet into bedrock
Washington 01/16/1991 Area 41a (Segments C, D & F) (Also see Area 49)	Town of Barton (City of West Bend Landfill) (Schuster Drive Area) T11N, R19E - Section 3 - S½ of the S½ of the SW¼ (Segment D)  - Section 4  - S½ of the S½ of the SE¼ (Segment C) - Section 9 (Segment F) - E½ (excluding the southern 620 feet) - NE¼ of the SW¼ - E½ of the NW¼ - Section 10 (Segment F) - W½ (excluding the southern 620 feet) - W½ of the SE¼ (excluding the southern 620 feet) - SW¼ of the NE¼	VOC	Cement-grouted casing required to extend to the base of the Maquoketa Shale
Washington	Town of Barton (City of West Bend Landfill) (Schuster Drive Area)	VOC	Recommended

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
01/16/1991 Area 41b (Segments A, B, E & G) (Also see Area 49)	T11N, R19E - Section 3 - S½ (excluding the S½ of the S½ of the SW¼) - Section 4 - S½ (excluding the S½ of the S½ of the SE¼) - Section 9 - W½ of the W½ - SE¼ of the SW¼ - E½ (the southern 620 feet) - Section 10 - E½ of the E½ - NW¼ of the NE¼ - SW¼ of the SE¼ (the southern 620 feet) - SW¼ (the southern 620 feet)		Cement-grouted casing to extend to the base of the Maquoketa Shale
Washington 01/16/1991 Area 42a	Town of Germantown (Rockfield LUST Site) (very high bedrock area) T9N, R20E - Sections 9 and 10 - Those portions that are 500 feet to the east, 500 feet to the west, 200 feet to the north, and 300 feet to the south of the intersection of Rockfield Road and CTH G (Division Road)	Gasoline	100' of cement-grouted casing required
Washington 01/16/1991 Area 42b	Town of Germantown (Rockfield LUST Site) (very high bedrock area) T9N, R20E - Section 9 - NE¼ of the SE¼ - Section 10 NW¼ of the SW¼	Bacteria, Gasoline, Nitrate	Recommended 80' of casing
Washington 01/22/1997 Area 43	Town of Germantown (Willow Creek Area) T9N, R20E - Section 29 - SW¼ of the SW¼ - Section 32 - NW¼ of the NW¼	Gasoline	Recommended 150' cement grouted casing pipe
Washington 01/22/1997 04/09/1998 Area 44/55 (Segment B)	Town of Germantown (Happy Hollow Subdivision Area) T9N, R20E - Section 31 - S½ of the SW¼	Gasoline	Recommended 220' of casing
Washington 01/22/1997 04/09/1998 Area 44/55 (Segment A)	Town of Richfield (Amy Bell Road Site) T9N, R19E - Section 36 - SE¼ of the SE¼  - (Also see requirements in Waukesha County, Village of Menomonee Falls, Section 6 and Town of Lisbon, Section 1)	Gasoline	Recommended 220' of casing
Washington	Town of Richfield (Goetz Garage LUST Site)	Gasoline	100' of casing into bedrock required

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
01/22/1997 Area 45	T9N, R19E - Section 12 and 13 That portion of Section 12 which lies one-eighth mile north of County Hwy 167 and that portion of Section 13 which lies one-eighth mile south of County Hwy 167 and bounded on the west by County Hwy 175 and on the east by the C.M. St. P. & P. Railroad right-of-way. (Five wells replaced by PECFA)		
Washington  06/12/2013 Area 100	Town of Jackson (West Shore Pipeline Spill Site)  T10N,R20E - Section 21 - S½ of the SW¼ - Section 27 - SW¼ of the NW¼ - W½ of the SW ¼ - Section 28 - S ½ - NW¼ - W½ of the NW¼ of the NE¼ - S½ of the NE¼ - Section 29 - SE¼ of the NE¼ - E½ of the NE¼ of the NE¼ - E½ of the SE¼ - Section 32 - NE¼ of the NE¼ - Continued on next page- - Continued from previous page- Town of Jackson (West Shore Pipeline Spill Site) T10N, R20E - Section 33 - N½ of the N½ - Section 34 - NW¼ of the NW¼	Gasoline	Wells must be double cased through the Maquoketa Shale into the Galena/Platteville Dolomite. Contact DNR Drinking Water Program in Central Office for a copy of the complete specification. All newly constructed wells shall be sampled for Petroleum Volatile Organic Compounds within 30 days of completion of well.
Washington 01/22/1991 Area 46a (Segments F & G)	Town of Jackson (Division Road high bedrock area) T10N, R20E - Section 27 - E½ of the NW¼  - NW¼ of the NW¼ - W½ of the NE¼ - Section 28 - - NE¼ of the NE¼	Bacteria, Nitrate	Minimum of 220' cement grouted casing required  (Recommend all wells be sampled for nitrate.)
Washington	Town of Jackson (Division Road high bedrock area)	Bacteria, Nitrate	Minimum of 120' cement grouted casing required

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
01/22/1991 Area 46b (Segments B, C, D & E)	T10N, R20E - Section 21 - SE¼  - Section 22 - SW¼ - Section 27 - E½ of the NE¼ - E½ of the SW¼ - Section 28 E½ of the NW ¼ of the NE¼		(Recommend all wells be sampled for nitrate.)
Washington 01/16/1991 Area 46c (Segments A-G)	Town of Jackson (Division Road high bedrock area) T10N, R20E - Sections 21, 22, 27 and 28 (Entire sections) -	Bacteria, Nitrate	Recommended That all new and existing wells be sampled for nitrate.
Washington 01/16/1991 Area 47	Town of Polk (Ackerville) (Town Dump & Landfill Site) T10N, R19E - Section 20 SE¼	VOCs	210 feet of casing required
Washington 01/16/1991 Area 48	Town of Wayne (Kohlsville LUST Site) T12N, R18E - Section 26 - SW¼ of the SW¼ of the SW¼ - That portion lying south of the Kohlsville River - Section 27 - SE¼ of the SE¼ of the SE¼ - That portion lying south of the Kohlsville Mill Pond and 200 feet west of CTH W - Section 34 - NE¼ of the NE¼ of the NE¼ (The east 200 feet) - Section 35 NW¼ of the NW¼ of the NW¼	Gasoline	150 feet of casing required
Washington 01/22/1997 Area 49 (Also see Area 41)	Town of West Bend (City of West Bend Landfill Area) T11N, R19E - Sections 15 and 16 (Entire sections)  - (Also, see requirements for Area 41: Washington County, Town of Barton, Sections 3, 4, 9 & 10)	VOCs	Recommended Cement-grouted casing to extend to the base of the Maquoketa Shale
Washington 01/22/1997  Area 50	Town of West Bend (Silver Lake Highland Subdivision) T11N, R19E  - Section 27 - SE¼ of the SE¼ That portion within 1,000 feet of 18th Avenue (along Quass Drive).	Methane gas	Recommended Construction of a bedrock well to avoid naturally occurring methane gas in gravel aquifer at 108 feet.

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Washington	Town of Trenton (Also 'Special Area of Well Compensation Eligibility)	Livestock- related bacteria	Required: Cement-grouted casing to a minimum depth of 150 feet; upper-enlarged drillhole.a minimum diameter of 8-3/4 inched; use of Bradenhead Grouting Method only

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
04/01/2011 Area 95	T11N, R20E - W ½ of W ½ of Section 1 & the E ½ of the E ½ of Section 2 (Total of eight quarter-quarter sections of area) -	(Bovine bacteroides)	
Waukesha 11/08/1963 Area 57	City of Brookfield (Hill 'n Dale Subdivision) (High & creviced bedrock) T7N, R20E (Also see Town of Pewaukee) - Section 7 - W½ of the SW¼ - SW¼ of the NW¼ - Section 18 NW¼ of the NW¼	Bacteria	135 feet of cement-grouted casing required.
Waukesha 12/01/1977 Area 51	Town of Delafield (Nickel Landfill Site) T7N, R18E - Section 21 - S½ of the NE¼ - NW¼ - NE¼ of the SW¼ - N½ of the SE¼ of the SW¼ - N½ of the NW¼ of the SW¼ - SE¼ - Section 22 - SW¼ of the NE¼ - S½ of the NW¼ - W½ of the SE¼ - SW¼ - Section 27 - N½ of the NW¼ - N½ of the SW¼ of the NW¼ - N½ of the S½ of the SW¼ of the NW¼ - NW¼ of the NE¼ - Section 28 - NE¼ of the NE¼ - N½ of the SE¼ of the NE¼ - N½ of the S½ of the SE¼ of the NE¼	VOCs, Landfill Leachate	Cement-grouted casing to extend to the base of the Maquoketa Shale required
Waukesha 09/08/1970 Area 52a	Town of Genesee (Saylesville Pond Area – high limestone bedrock area) T6N, R18E - Section 23 - SE¼ - Section 24 - SW¼ - Section 25 - W½ - Section 26 - E½	Bacteria	200 feet of cement-grouted casing required
Waukesha	Town of Genesee (Saylesville Pond Area – high limestone bedrock area)	Bacteria	200 feet of cement-grouted casing or special approval required

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
09/08/1970 Revised 10/12/11 Area 52b	T6N, R18E [Within ½-mile of Area 52a (above), except for the N ½ of Sec. 35] Section 23 - NE¼ - W¼ - Section 24 - NW¼ - E½ - Section 25 - E½ - Section 26 - W¼ - Section 36 - N½		
Waukesha 12/31/1958 Area 59b	Village of Lannon (Incorporated Village Area) (high bedrock area) T8N, R20E - Section 8 - Most of the S½ except for the W¼ of the SW¼ thereof. - Section 17 except for the W¼ of the NW¼ thereof. - Section 18 - S½ - Section 19 - That portion of the W½ lying west and north of STH 74. - That portion of the NE¼ lying NW of STH 74 and north of the Village limit (lying south of Forest View Ave). - Section 20 - The N½ except for a small parcel in the SW corner thereof.	Bacteria	100 feet of cement-grouted casing or special approval required
Waukesha 12/31/1958 Area 53a	Town of Lisbon (High bedrock & quarries area) T8N, R19E (Including the Village of Sussex) - Sections 1 through 36. (Entire Township) Any location that is between 1,200 feet and ½ mile of a quarry. [If the well will be within 1,200 feet of a quarry the well must be constructed to meet the requirements of s. NR 812.12(16), i.e. the minimum casing depth must be referenced from the bottom of the quarry.]	Bacteria	100 feet or special approval required
Waukesha 01/16/1991 Area 53b	Town of Lisbon (High bedrock & quarries area) T8N, R19E - Slightly greater than ½ mile of quarries or rock outcrops	Bacteria	Recommended 100 feet of casing
Waukesha 01/22/1997 Area 55/44 (Segment D)	Town of Lisbon (Rapid Mart LUST Site) (Happy Hollow Subd Area) T8N, R19E - Section 1 - That portion that is bounded by lines 200 feet south of the centerline of Hwy Q and 300 feet west of the centerline of Hwy V  (Also, see requirements in Village of Menomonee Falls and in Washington Co., Town of Germantown and Town of Richfield.)	Gasoline	220 feet of casing required
Waukesha	Town of Lisbon (Village of Sussex)	Bacteria	150 feet of casing or special approval required

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
01/22/1997 Area 54/58 (Segment A)	T8N, R19E - Sections 22, 25, 26, 27, 34, 35 and 36 (Entire sections)		
Waukesha 01/22/1997 Area 55/44 (Segment C)	Village of Menomonee Falls (Rapid Mart LUST Site) T8N, R20E - Section 6 - That portion bounded by lines 200 feet south of the center line of Hwy Q and 300 feet east of the center line of Hwy V.  (Also, see requirements: Washington County, Town of Germantown, Section 31 and Town of Richfield, Section 36 and Waukesha County, Town of Lisbon, Section 1)	Gasoline	220 feet of casing required
Waukesha 12/31/1958 Area 59a	Village of Menomonee Falls (High Bedrock Area) T8N, R20E - Sections 1 through 36 (Entire Township) Any location that is between 1,200 feet and ½ mile of a quarry. [If the well will be within 1,200 feet from a quarry the well must be constructed to meet the requirements of s. NR 812.12(16), i.e. the minimum casing depth must be referenced from the bottom of the quarry.] (Also see Town of Lisbon Area 53a.)	Bacteria	100 feet of casing or special approval required
Waukesha 01/16/1991 Area 56b	Town of Merton (Stonebank LUST Site) T8N, R18E - Section 19 - E½ of the SE¼ of the NW¼ That portion of the SW¼ of the NE¼ of located west of Oconomowoc River	VOCs	Casing to the top of bedrock required
Waukesha 01/16/1991 Area 56a & c	Town of Merton (Stonebank LUST Site) T8N, R18E - Section 19 - W½ of the SE¼ of the NW¼ - That portion of the NW¼ of the SE¼ of located west of the Oconomowoc River	VOCs	Recommended Casing to the top of bedrock
Waukesha	City of Muskego – East Part (Muskego Landfill)	VOCs	Recommended:

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Jan-04 Area 67a	T5N, R20E <ul style="list-style-type: none"> <li>- Section 17</li> <li>- SW¼ and NW¼ of the NW¼</li>   <li>- SW¼ and NW¼ of the SW¼</li>   <li>- Section 18</li> <li>- SW¼ and SE¼ of the NE¼</li> <li>- SE¼ and SW¼ of the SW¼</li> <li>- The entire SE¼</li> <li>- Section 19</li> <li>- NE¼ of the NE¼</li> <li>- NW¼ of the NE¼</li> <li>- N½ of the SE¼ of the NE¼</li> <li>- N½ of the SW¼ of the NE¼</li> <li>- NE¼ of the NW ¼</li> </ul>		Connection to municipal water system. Required: 1. Contact the WDNR Southeast Region Office for updated construction requirements.  Any new water supply well constructed or an existing water supply well reconstruction shall be sampled upon completion and tested for volatile organic compounds (VOCs) using EPA Method 502.2 or 524.2 and the results sent to the DNR Southeast Region Office.
Waukesha Jan-04  Area 67b	City of Muskego – East Part Part (Muskego Landfill) T5N, R20E  <ul style="list-style-type: none"> <li>- Section 17</li>   <li>- NE¼, SW¼ and SE¼ of the SW¼</li> <li>- NE¼, NW¼ and SE¼ of the NW¼</li> <li>- Section 18</li> <li>- NE¼ and NW¼ of the NE¼</li> <li>- Section 19</li> <li>- S½ of the SE¼ of the NE¼</li> <li>- S½ of the SW¼ of the NE¼</li> <li>- SE¼, NW¼ and SW¼ of the NW¼</li> <li>- NE¼ of the SW¼</li> <li>- NW¼ and NE¼ of the SE¼</li> <li>- Section 20</li> <li>- NW¼ and SW¼ of the SW¼</li> <li>- NW¼ of the SW¼</li> </ul>	VOCs	Recommended: 1. Any new water supply well constructed or an existing water supply well reconstruction shall be sampled upon completion and tested for volatile organic compounds (VOCs) using EPA Method 502.2 or 524.2 and the results sent to the DNR Southeast Region Office. 2. Contact the WDNR Southeast Region Office for updated construction recommendations.  2.
Waukesha 11/08/1963 Area 57	Town of Pewaukee (Hill 'n Dale Subdivision – High & Creviced Bedrock Area) T7N, R19E (Also see City of Brookfield) <ul style="list-style-type: none"> <li>- Section 12</li> <li>- SE¼</li> <li>- S½ of the NE¼</li> <li>- Section 13</li> <li>- N½ of the NE¼</li> <li>- (Also see Waukesha County, City of Brookfield for other segment of this area.)</li> </ul>	Bacteria	135 feet cement-casing required
Waukesha	Town of Pewaukee (High & Creviced Bedrock Area)	Bacteria	100 feet casing required

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
01/22/1997 Area 58 (Segment B)	T7N, R19E - Section 1 N½ - Section 2 N½		
Waupaca 03/02/1988 Area 60	Town of Waupaca (Waupaca Foundry) T22N, R12E - Section 28 - SW¼ - NW¼, that portion south of the Soo Line Railroad Tracks -	VOCs	Contact DNR Northeast Region Office for required casing depth
Winnebago  10/01/2004  11/12/2004  09/14/2005 Area 79b	Entire County ("Arsenic Requirement Area")  (This "Special Well Casing Depth Area" supercedes both the "Arsenic Advisory Area" and Areas 72 & 77, below.)	Naturally occurring inorganic arsenic	Required  Option A– Galena-Platteville Dolomite Aquifer wells no deeper than the red numbers on the gray shaded areas of the Township maps. Option B – A well cased & cement-grouted at least to the Cambrian Sandstone to the depths indicated in black on the Township maps.
Winnebago Mar-88 Revised 10/96 Area 64	Town of Winchester (LUST Site – Hwy 150) T20N, R15E - Section 13 - SW¼ - Section 14 - SE¼ - Section 23 - N½ of the NE¼ - Section 24 - N½ of the NW¼ - N½ of the S½ of the NW¼	Gasoline	100 feet of casing required
Wood  11/18/1996 Area 65	Town of Sherry (Village of Sherry) (Buried Petroleum Tank Site)  T24N, R5E - That portion of the NE¼ of the NW¼ and the SE¼ of the SW¼ of Section 4 that are north and west of CTH F; east of 2nd Street and south of a line 150 feet north of CTH N (Main Street)	VOCs	100 feet of casing required; hydrofracturing allowed only with Department approval.
Last Modified: 0	12-3-2015 DG_Projects PR_Special_Casing_Areas Tracking & Lists)		