

Wisconsin Groundwater Coordinating Council Report to the Legislature
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Title	Investigators	Contract Period	Funding Agency	UW #	DNR #
A Simple Stochastic Model Predicting Conservative Mass Transport Through the Unsaturated Zone Into Groundwater	John A. Hoopes, John A. Brasino, UW-Mad..	07/30/1985-06/01/1986	DNR	WR85 R015	1
Groundwater Monitoring Project for Pesticides	Jeffrey K. Postle, Kevin Brey, DATCP.	08/13/1985-06/30/1990	DNR	WR85 R007	2
Fate of Aldicarb Residues in a Groundwater Basin Near Plover, Wisconsin	George J. Kraft, WGNHS.	12/05/1985-06/30/1988	DNR	WR85 R010	3
Volatile Organic Compounds in Small Community Wastewater Disposal Systems Using Soil Absorption	William C. Boyle, William C. Sonzogni, James C. Converse, John A. Hoopes, James O. Peterson, E. Jerry Tyler, Bruce A. Greer: UW-Mad..	10/25/1985-06/30/1986	DNR	WR85 R023	5
The Use of Groundwater Models to Predict Groundwater Mounding Beneath Proposed Groundwater Gradient Control Systems for Sanitary Landfill	John A. Hoopes, Kathleen O. Slane, UW-Mad.	09/30/1985-06/30/1986	DNR	WR85 R014	6
Evaluation Techniques for Groundwater Transport Models	John A. Hoopes, Howard Trussell, UW-Mad.	09/25/1985-06/30/1986	DNR	WR85 R013	7
West Bend Area Road Salt Study	Marianna Sucht, DNR	1986-1991	DNR	WR85 R003	8
The Prediction of Nitrate Contamination Potential Using Known Hydrogeologic Properties	Douglas S. Cherkauer, Cynthia L.W. Cruciani, Univeristy of Wisconsin-Mil.	11/25/1985-06/30/1987	DNR	WR85 R020	10
Investigation of Hydrogeology and Groundwater Geochemistry in the Shallow Fractured Dolomite Aquifer in Door County, Wisconsin	Kennth R. Bradbury, Maureen A. Muldoon, WGNHS. Margaret C. Blanchard, UW-Mad..	03/06/1986-06/30/1990	DNR	WR85 R022	12
Groundwater Quality Monitoring - Long Term Effects of Intensive Farming and Sprinkler Irrigation on Groundwater Quality	Phil Kammerer, United States Geological Survey	1986	DNR	WR85 R011	15
The Effect of Construction, Installation and Development Techniques on the performance of Monitoring Wells in Fine-Grained Glacial Tills	Douglas S. Cherkauer, Carl D. Palmer, Duane G. Paul, UW-Mil.	10/01/1985-06/30/1986	DNR	WR85 R019	16
The Occurrence of Volatile Organic Compounds in Wastewater, Sludges and Groundwater at Selected Wastewater Treatment Plants in Wisconsin	Carolyn Hunger, John Melby, DNR	1985	DNR	WR85 R012	18
Fate and Mobility of Radium-226 in Municipal Wastewater Sludge Following Agricultural Landspreading	Thomas L. Portle, Carolyn Hunger, DNR	1985	DNR	WR85 R008	19
Data Management - No report					20
Hydrogeology of the Wisconsin River Valley in Marathon County, Wisconsin	Kenneth R. Bradbury, WGNHS. Eloise Kendy, UW-Mad.	05/01/1986-06/30/1986	DNR	WR85 R021	22
Treatment of Cheese Processing Wastewater by Ridge and Furrow Disposal - Nitrogen Transformations	William Boyle, Frederic J. Doran, UW-Mad.	1985	DNR	WR85 R025	23

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Environmental Investigation of the City of Two Rivers Landfills, Manitowoc County, Wisconsin	Thomas P. Van Biersel, Michael R. Noel, Hydro-Search Inc.	01/30/1986-06/30/1987	DNR	WR85 R002	24
Groundwater Quality and Laundromat Wastewater: Summit Lake, Wisconsin	Jack G. Saltes, Ed Kruel, DNR	1985	DNR	WR85 R005	29
Barron County Nitrate Study	Dave Hanson, William McKinley, DNR	1985	DNR	WR85 R017	37
Volatile Organic Compound Contamination of Private Water Supplies Adjacent to Abandoned Landfills in Marathon County	Thomas Witthopf, Environmental Health Division-Marathon County	1985	DNR	WR85 R001	41
Graphical and Statistical Methods to Assess the Effect of Landfills on Groundwater Quality	Kenneth W. Potter, Iris Goodman, UW-Mad.	08/30/1985-06/30/1987	DNR	WR85 R006	14a
Field Investigation of Groundwater Impacts from Absorption Pond Systems Used for Wastewater Disposal	John A. Hoopes, Laurie Parsons, UW-Mad.	01/21/1985-06/30/1986	DNR	WR85 R016	17a
A Case Study of Nitrogen Transformation at a Rapid Infiltration System Used for the Disposal of Food Processing	William C. Boyle, John A. Hoopes, John Niewoehner, UW-Mad.	11/15/1985-06/30/1986	DNR	WR85 R024	17b
Filtration Preservation Study of Groundwater Samples	David Sauer, John Schwabe, DNR	1985	DNR	WR85 R004	21a
Monitoring of Volatile Organic Compounds in Tomah, Wisconsin	Charles J. Krohn	1985	DNR	WR85 R009	31a
Hydrogeological Investigation of VOC Contaminated Private Wells Near Hudson, Wisconsin	Jim Anklam, William J. Evans, DNR	1985	DNR	WR85 R026	31b
Volatile Organic Compounds in Groundwater and Leachate at Wisconsin Landfills	Marci A. Friedman, DNR	1985-1987	DNR	WR85 R018	4a
Nitrate Contamination in West-Central Wisconsin with Emphasis on Mil.1 Run First Edition Subdivision	John R. Tinker, UW-Eau Claire	1987-1990	DNR	WR86 R002	11
Lead Migration from Contaminated Sites Door County, Wisconsin	James J. Wiersma, Ronald D. Stieglitz, UW-Green Bay	08/07/1986-09/30/1988	DNR	WR86 R001	13
North-Central District Gas Probe					25
Lake Michigan District Maplewood Investigation					26
Lake Michigan District Green Bay Terminal Study					27
Hydrogeologic Investigation and Groundwater Quality Assessment (Havenswood Landfill)	Pratap N. Singh, Miller Consulting Associates, Anthony R. Pawloski, Miller Consulting Engineers	1986	DNR	WR86 R003	28
Flambeau Paper Sulfite Lagoon Site Contamination Study	William Lantz, Dan Detroit, DNR	07/08/1986-08/15/1986	DNR	WR86 R006	30
Computer Purchase					32
SIR System Purchase					33
Lake Michigan District Well Conversion					35
Lake Michigan District Well					36
Downward Movement of Water Below Barnyard Grass Filter Strips - Case Studies	Gary D. Bubenzer, James C. Converse, John W. Patoch, UW-Mad.	08/26/1986-09/30/1988	DNR	WR86 R008	39

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1987 Volatile Organic Compound Testing Project in Rock County, Wisconsin	David Holman, Environmental Health Division, Rock County	1986	DNR	WR86 R007	40
Investigation of Large Scale Subsurface Soil Absorption Systems	Daniel Peerenboom, DNR	11/13/1986-06/30/1987	DNR	WR86 R004	42
Characterization of Groundwater Impacts at an Above Ground Petroleum Storage Terminal	Gregory T. Becker, Robert K. Ham, UW-Mad.	08/13/1986-06/30/1987	DNR	WR86 R010	43
Plover Area Nitrate Study	Fred Bailey, DNR	1986	DNR	WR86 R011	48
Research and Data Analysis of Groundwater Contamination from Municipal Rapid Infiltration Land Disposal Systems	William C. Boyle, John A. Hoopes, Kenneth W. Potter, John Schwalbe, UW-Mad.	1986	DNR	WR86 R009	56
Groundwater Survey of Bacterial Contamination Near Rapid Infiltration Wastewater Treatment System	Chris Norenberg, Jon Standridge, Wisconsin State Laboratory of Hygiene	1986	DNR	WR86 R005	21b
Sealing Characteristics of Sodium Bentonite Slurries for Water Wells	Tuncer Edil, Michael M.K. Chang, AhMad. S.H. Mahanna, L.T. Lan, UW-Mad.	07/27/1987-06/30/2988	DNR	WR87 R008	34
Mutagenic Effects of Selected Toxicants Found in Wisconsin's Groundwater	Lorraine F. Meisner, UW-Mad.. David A. Belluck, DHSS. Boyd Roloff, UW-State Laboratory of Hygiene	08/01/1987-12/31/1989	DNR	WR87 R007	38
Lead Contamination Study of Door County	Rick Stoll, DNR	1987	DNR	WR87 R002	44
North-Central Sand and Gravel Mining					45
Devil's Lake Soils Work					46
Analytical Determination of Atrazine Alachlor and Their Selected Degradation Products in Contaminated Groundwater: Implication for Wisconsin Groundwater	William Sonzogni, Wisconsin State Laboratory of Hygiene. Deborah B. DeLuca, UW-Mad..	09/1987-08/1989	DNR	WR87 R003	47
Assessment of Geologic Controls on Groundwater Flow and Distribution in Precambrian Bedrock, Central Wisconsin, Using Remote Sensing and Geophysical Analysis	Donald M. Davidson Jr., Northern Illinois University. Bruce A. Brown, WGNHS	07/13/1987-06/30/1989	DNR	WR87 R012	49
A Ground Penetrating Radar Study of Water Table Elevation in a Portion of Wisconsin's Central Sand Plain	Mary P. Anderson, Charles R. Bentley, Geoffrey C. Bohling, UW-Mad.	07/22/1987-06/30/1988	DNR	WR87 R014	50
Mineralogical and Geophysical Monitoring Naturally Occurring Radioactive Elements in Selected	Robert W. Taylor, Gregory Mursky, UW-Mil.	07/15/1987-12/30/1988	DNR	WR87 R006	51
Degradation of Atrazine, Alachlor, Metolachlor in Soils and Aquifer Materials	Gordon Chesters, Geronimo V. Simsiman, Riyadh Fathulla, Bashar J. Alhajjar, Robin F. Harris, John M. Harkin, Jonathan Levy, UW-Mad.	07/10/1987-09/30/1989	DNR	WR87 R010	52

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Evaluation of the Effect of Stormwater Disposal on Groundwater	Byron Shaw, Gerald Nienke, James Berndt, UW-Stevens Point	07/16/1987-06/30/1989	DNR	WR87 R005	53
Radionuclides in Drinking Water of North central Wisconsin	Chuck Fitzgerald, Bill Dobbins, DNR	1987	DNR	WR87 R009	54
Digital Simulation of Solute Transport to Green Bay and Lake Michigan by Groundwater from Door County, Wisconsin	Douglas S. Cherkauer, Peter McKereghan, Linda Schalch, UW-Mil.	07/1987-09/1990	DNR	WR87 R011	57
Methods for Determining Compliance with Groundwater Quality Regulations at Waste Disposal Facilities	Kenneth W. Potter, Sarah R. Fisher, UW-Mad.	08/05/1987-12/31/1988	DNR	WR87 R004	14b
VOC Contamination at Selected Wisconsin Landfills - Sampling Results and Policy Implications	Janet R. Battista, DNR	1988-1989	DNR	WR87 R013	4b
Pesticide Migration Study	Byron Shaw, UW - Stevens Point, and Mike Heitman, UW - Stevens Point	07/01/1989 - 06/30/1991	DNR	WR88 R004	55
Grade A Dairy Farm Water Well Quality Survey	Gary LeMasters, DATCP. Douglas J. Doyle, WASS.	09/02/1988-06/30/1989	DNR	WR88 R007	58
Demo of low input strategies for potato/vegetable production in irrigated sands	Shaw, Curwen, Kraft, Osborne	07/01/1989 - 6/30/1991	DNR	WR88 R001	59
Groundwater Quality Investigation of Selected Townships in Jefferson County, Wisconsin	Fred Madison, UW. Andrea Kenter, Wisconsin Geological & Natural History Survey	12/27/1988-07/01/1989	DNR	WR88 R006	60
Effects of Volatile Organic Compounds on clay landfill liner performance	Edil, Berthouex, Park, Sandstrom	December 20, 1988 through December 31, 1990	DNR	WR88 R008	61
Effect of Soil Type on Atrazine and Alachlor Movement Through Unsaturated Zone	Tommy Daniel, Rick Wietersen, Kevin Fermanich, UW-Mad.	10/05/1988-06/20/1989	DATCP, DNR,	WR88 R009	62
Designs for wellhead protection in Central Wisconsin	Osborne, Sorenson, Knaak, Mechenich	September 29, 1989 to November 30, 1989	DNR	WR88 R005	63
Subdivision impacts on groundwater quality	Shaw, Ameson, VanRyswyk	07/01/1989 - 6/30/1991	DNR	WR88 R002	67
Optimum Manure Application Rate - Corn Fertility Management and Nitrate Leaching to Groundwater in	Byron Shaw, Paul Trapp, UW - Stevens Point	07/01/1989 - 06/30/1991	DNR	WR88 R003	71
Atrazine Contamination of Groundwater in Dane County, Wisconsin	Bradbury, McGrath	07/01/1989 - 06/30/1991	DNR, DATCP	WR89 R009	64
Sources and Extent of Atrazine Contamination of Groundwater at a Grade A Dairy Farm in Dane County, Wisconsin	Gordon Chesters, UW-Mad., and Jonathan Levy, Miami University	07/01/1989 - 06/30/1991	DATCP, UWS, DNR	WR89 R008	65
Incorporation of County Groundwater Inventory Data into the DNR Groundwater Information Network (GIN)	Bohn	07/01/1989 - 06/30/1990	DNR	WR89 R010	68
DNR and DATCP Rural Well Survey	LeMasters	01/1990 - 03/1991	DNR	WR89 R005	69

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Follow Up to the Grade A Dairy Farm Well Water Quality Survey	Cowell, LeMasters	07/01/1989 – 06/30/1990	DNR	WR89 R007	70
Report on Bacteriological Water Quality Monitoring of Door County Variance and Special Casing Approval Wells	Keith Hutchinson, Bruce Urben, and Sue Beaumier, DNR	07/01/1989 – 06/30/1991	DNR	WR89 R006	72
Volatile Organic Compound Attenuation in Unsaturated Soil Above and Below an On-site Wastewater Infiltration System	Tyler, Peterson, Sauer	07/01/1989 – 06/30/1991	DNR	WR89 R001	73
Variation in Hydraulic Conductivity in Sandy Glacial Till: Site Variation Versus Methodology	Rayne, Mickelson, Bradbury	0	DNR	WR89 R004	74
A Field Evaluation of Drainage Ditches as Barriers to Contaminant Migration	Jean Bahr, Lucy W. Chambers, UW-Mad.	11/16/1989-09/30/1991	DNR	WR89 R011	75
Nitrogen Isotope Monitoring at Unsewered Subdivisions	John Tinker	01/1990 - 03/1991	DNR	WR89 R002	76
Analytical Determination of Pesticide Metabolites and Carrier Chemicals in Wisconsin Wells	William C. Sonzogni, Michael Eldan, J. Robert Lawrence, Wisconsin Laboratory of Hygiene, UW-Mad.	01/1990 - 03/1991	DNR	WR89 R003	77
Barnyard Management Practices: Effect on Movement of Nitrogen Through Soils and Impact on Groundwater Quality	Byron Shaw, Michael J. Travis, Bryan D. Bowen, UW-Stevens Point. Bob Wilson, Soil Conservation Service. Tim Victor, PCLCC. Dave Jelinski, DATCP.	08/25/1988-09/30/1990	DNR	WR90 R002	9
Effect of Soil Type, Selected Best Management Practices, and Tillage on Atrazine and Alachlor Movement through the Unsaturated Zone	Lowery, McSweeney, Fermanich, Hart, Wang, Seybold	8/18/89-12/31/91	DNR	WR90 R011	66
To Expand Groundwater Sampling in the Lower Wisconsin River Valley	Cates, Madison., Postle	07/01/1990 – 06/30/1991	DNR	WR90 R026	78
Crop Rotations Effects on Leaching Potential and Groundwater Quality	J. L. Posner, G. D. Bubenzer, F. Mad., UW-Mad.	06/01/1990 - 12/31/1992	DNR	WR90 R003	80
A Study of the Response of Nitrate and Atrazine Concentrations in Groundwater from Agricultural use on a Sandy, Irrigated Corn Field in the Lower Wisconsin River Valley	Kim Cates, Fred Madison	07/01/1990 – 06/30/1993	DNR	WR90 R010	81
A Comparative Study of Nitrate Loading to Groundwater from Mound, In-Ground Pressure and At-Grade Septic Systems	Byron Shaw, Nancy Turyk	7/01/1991-6/30/1992	DNR	WR90 R001	82
The Biological Impact of Landfill Leachate on Nearby Surface Waters	William Sonzogni, Jonathon Standridge, and Steven Geis, UW - State Laboratory of Hygiene	07/01/1990 – 06/30/1991	DNR	WR90 R022	83
Dependence of aldicarb residue degradation rates on groundwater chemistry in the Wisconsin Central	George Kraft, Phil Helmke	07/01/1990 – 06/30/1991	DNR	WR90 R014	84
Municipal wastewater sanitary lagoon project	Kopecky, Portle, Dunn	07/01/1990 – 06/30/1991	DNR	WR90 R015	85

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Waupaca County groundwater project: Towns of St. Lawrence and Little Wolf	Wilson, Blonde	7/01/1990-6/30/1992	DNR	WR90 R000	79a
Bioremediation of Herbicide-Contaminated Soil and Water	Robin F. Harris, UW-Mad.	07/01/1990 – 06/30/1992	UWS	WR90 R018	
Contamination Attenuation Indices for Sandy Soils: Tools for Information Transfer.	Kevin McSweeney, UW-Mad., Fred Madison, Geological and Natural History Survey	07/01/1990 – 06/30/1991	UWS	WR90 R008	
Facility plan amendment for wastewater collection for Green Lake Sanitary District, Green Lake, WI		07/01/1990 – 06/30/1991	DIHLR	WR90 R009	
Design of a small scale transportable mixing/loading system	Kammel	07/01/1990 – 06/30/1992	DATCP	WR90 R016	
Prediction of organic chemical leachate concentrations from soil samples	Jae Park	07/01/1990 – 06/30/1991	UWS	WR90 R004	
The economic effects of groundwater contamination on real estate	Rabinowitz, Page		UWS	WR90 R005	
A tracer technique for measuring regional groundwater velocities from a single borehole	Monkmeyer	07/01/1990 – 06/30/1991	UWS	WR90 R006	
Tracking contaminant pathways in groundwater using a geologically based computer code for outwash	David Mickelson, Mary Anderson	07/01/1990 – 06/30/1992	UWS	WR90 R007	
Nitrate Movement through the Unsaturated Zone of a Sandy Soil in the Lower Wisconsin River Valley	Lowery, Fermanich, Grant, McSweeney, Kussow		UWS	WR90 R012	
Using ground penetrating radar to predict preferential solute movement and improve contaminant monitoring in	Kiung, Madison	07/01/1990 – 06/30/1992	UWS	WR90 R013	
Near-source transport of contaminants in heterogeneous media	John Hoopes		UWS	WR90 R017	
The Effects of Complex Mixtures of Chemicals in Leachates on the Transport of Pollutants in Groundwater	Grundl, Cherkauer		UWS	WR90 R019	
Adsorptive Behavior of Atrazine and Alachlor in Organic-Poor Sediments	Grundl, Small		UWS	WR90 R020	
Chemical transport across a sediment-water interface	Green	07/01/1990 – 06/30/1992	UWS	WR90 R021	
Reactions of Chlorohydrocarbons on Clay Surfaces	Fripiat	07/01/1990 – 06/30/1991	UWS	WR90 R023	
In-situ Removal of Fe, Mn, and Ra from groundwater	Christensen, Cherkauer		UWS	WR90 R024	
Renovation of Pesticide Contaminated Rinse Water	Gordon Chesters, John Harkin		UWS	WR90 R025	
Evaluation of Potential Phytotoxicity and Crop Residues when Using Sprayer Rinsate as a Portion of the Diluent in Pesticide Spray Mixtures	Binning	07/01/1990 – 06/30/1991	UWS	WR90 R027	
On-site nitrogen removal systems research demonstration project: Phase 1	Ayers and Associates	07/01/1990 – 06/30/1991	UWS	WR90 R028	
Role of mobile colloids in the transport of chemical contaminants in	Armstrong, Shafer		UWS	WR90 R029	
Integrated decision support for wellhead protection	Adams, Benson		UWS	WR90 R030	

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Arsenic as a naturally elevated parameter in water supply wells in eastern Winnebago and Outagamie	Rick Stoll	07/01/1991 – 06/30/1992	DNR	WR91 R002	87
Spatial attributes of the soil-landscape-groundwater system of the lower Wisconsin River Valley	McSweeney, Madison, Attig, Bohn, Falk	07/01/1991 – 06/30/1993	DNR	WR91 R009	88
Preliminary comparison of a discrete fracture model with a continuum model for groundwater movement in fractured dolomite	Bradbury, Muldoon	07/01/1991 – 06/30/1992	DNR	WR91 R018	89
Evaluation of NURE hydrogeochemical groundwater data for use in Wisconsin groundwater studies	Bradbury, Mudrey, Shrawder	07/01/1991 – 06/30/1992	DNR	WR91 R019	90
Distribution of radionuclides in Wisconsin groundwater	Bradbury, Mudrey	07/01/1991 – 06/30/1992	DNR	WR91 R020	91
Assessment of Wisconsin's Groundwater Monitoring Plan (GWM) Program for Active Non-Approved Landfills (1985-1990)	Laura Pugh, DNR, Barbara Gear, DNR	07/01/1991 – 06/30/1992	DNR	WR91 R004	92
GIS Mapping of Groundwater Contaminant Sources Quality and Contamination Susceptibility for Door County	Richard Stoll, Mike Hronek	07/01/1991 – 06/30/1993	DNR	WR91 R017	93
Evaluation of denitrification systems for improving groundwater from on-site waste disposal systems	Byron Shaw	07/01/1991 – 06/30/1993	DNR	WR91 R003	94
Remediation of Soils Contaminated by Leaking Underground Storage Tanks by Vapor Extraction and in situ Bioremediation	Hickey, Jacobsen, Bubenzer	07/01/1991 – 06/30/1993	DNR	WR91 R011	96
Municipal wastewater absorption pond renovation for enhanced nitrogen	Gilbert, Oman	07/01/1991 – 06/30/1993	DNR	WR91 R013	97
Dane County atrazine/lead management project	Conners, Bohn, Madison, Muldoon, Richardson	07/01/1991 – 06/30/1992	DNR	WR91 R015	99
Waupaca County: Towns of Lebanon and Scandinavia	Wilson, Blonde	07/01/1991 – 06/30/1992	DNR	WR91 R001	79b
Investigation of Potential Groundwater Impacts at Demolition Landfills and Deer Pits	Svavarsson, Fauble	07/01/1991 – 06/30/1993	DNR	WR91 R005	98a
Nitrogen removal from domestic wastewater in unsewered area	Otis, Converse	07/01/1991 – 06/30/1993	DIHLR	WR91 R008	
Estimating the spatial distribution of groundwater recharge rates using hydrologic, hydrogeologic, and geochemical methods	Ken Potter and Carl Bowser			WR91 R006	
New approaches to measuring biologic effects of groundwater contaminants	Warren Porter	07/01/1991 – 06/30/1992	UWS	WR91 R007	
Herbicide and nitrate movement in a sandy soil aquifer in the Lower Wisconsin River Valley	Lowery, McSweeney	07/01/1991 – 06/30/1993	UWS	WR91 R010	
Living mulch systems for nitrate trapping in vegetable production	Harrison	07/01/1991 – 06/30/1993	UWS	WR91 R012	

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Use of tire chips to attenuate VOC's	Tuncer Edil, Jae Park	07/01/1991 – 06/30/1993	UWS	WR91 R014	
Distribution, Sources and Fate of Atrazine in a Sandy-Till Aquifer	Gordon Chesters, Jonathan Levy	07/01/1991 – 06/30/1993	UWS & DATCP	WR91 R016	
GIS for subsurface characterization	Bosscher, Adams	07/01/1991 – 06/30/1993	UWS	WR91 R021	
Effects of transient cross-stratification flow on contaminant dispersion	Jean Bahr	07/01/1991 – 06/30/1993	UWS	WR91 R022	
Evaluation of Groundwater Susceptibility Assessment Systems in Dane County, Wisconsin	Michael A. Bohn, Maureen A. Muldoon, Frederick W. Madison, Kenneth R. Bradbury, Alexander Zaporozec	07/01/1992 – 06/30/1994	DNR	WR92 R009	100
Tracer Study for Characterization of Groundwater Movement and Contaminant Transport in Fractured Dolomite	Maureen A. Muldoon, Kenneth R. Bradbury	07/01/1992 – 06/30/1994	DNR	WR92 R010	101
Urban stormwater infiltration: Assessment and enhancement of	David Armstrong	07/01/1992 – 06/30/1994	DNR	WR92 R012	102
Long-term Transformation and Fate of Nitrogen in Mound-type Soil Absorption Systems for Septic Tank Effluent	John Harkin, Chen Peng Chen	07/01/1992 – 06/30/1994	DNR	WR92 R004	103
A further study of organics at municipal solid waste landfills	Jack Connelly, Janet batista	07/01/1992 – 06/30/1994	DNR	WR92 R006	104
The Impact of Atrazine Management Areas Designation on Weed Control Strategies in Wisconsin Corn Production	Peter Nowak, Steven Wolf and Robert McCallister, Heather Hartley, UW - Mad.	07/01/1992 – 06/30/1994	DATCP and Ciba Geigy	WR92 R001	
Variability of hydraulic conductivity in supraglacial sediments	David Mickelson	07/01/1992 – 06/30/1994	UWS	WR92 R002	
Field evaluation of near source transport of contaminants in heterogeneous media	John Hoopes		UWS	WR92 R003	
Ultrasonic verification technique for evaluating well seals	Tuncer Edil		UWS	WR92 R005	
Impact of tunnel dewatering on surface water bodies in Mil. County	Doug Cherkauer	07/01/1992 – 06/30/1994	UWS	WR92 R007	
Management of sweet corn processing to protect groundwater quality	Larry Bundy		UWS	WR92 R008	
Trace metal transport affected by groundwater stream interactions	Jean Bahr	07/01/1992 – 06/30/1994	UWS	WR92 R011	
Optimization of two recirculating sand filters for nitrogen and organic chemical removal from domestic wastewater	Byron Shaw	07/01/1993 – 06/30/1994	DNR	WR93 R006	95
Integrated computerized mapping of point source contaminants and physical environmental characteristics to protect and manage groundwater quality	Rick Stoll	07/01/1993 – 06/30/1994	DNR	WR93 R004	105
An investigation of field-filtering and low-field pumping when sampling for metals	Jack Connelly, Charles Ostergren	07/01/1993 – 06/30/1994	DNR	WR93 R015	106
Groundwater Monitoring for Pesticides (continuation of project #2)	Jeff Postle	07/01/1993-06/30/1996	DNR		107

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Evaluation of NR140 Groundwater Standards Compliance, NR 103 wetlands Water Quality Standards Compliance, and Groundwater Monitoring requirements for Zone-Of-Saturation Design Landfills in Wisconsin					108
Groundwater hydrogeology of an agricultural watershed	Ken potter	07/01/1993 – 06/30/1995	DNR/DATCP	WR93 R008	109
The further incidence of native arsenic in eastern Wisconsin water supply wells: Marinette, Oconto, Shawano and Brown Counties	Rick Stoll	07/01/1993 – 06/30/1994	DNR	WR93 R003	110
Factors affecting the determination of radon in groundwater	William Sonzogni	07/01/1993 – 06/30/1994	DNR	WR93 R005	111
Groundwater Survey for Alachlor and ESA its Polar Metabolite in Southern Wisconsin	James Vanden Brook, DATCP, Bureau of Agrichemical Management	01/6/1994 – 05/30/1994	DATCP, DNR, Monsanto Company	WR93 R002	112
Investigation of potential groundwater impacts at yard waste sites	Pugh, Connelly	07/01/1993 – 06/30/1994	DNR	WR93 R007	98b
Investigation of potential groundwater impacts at yard waste sites	Pugh, Connelly				98b
Cover Crops to Limit Herbicide Use on Sweet Corn	Astrid Newenhouse	07/01/1993 - 08/30/1995	DATCP	WR93 R009	
Mineral Phase Sorption of Selected Agrichemicals to Wisconsin Soils	Timothy J. Grundl and Greg Small, UW-Mil.	1994 – 1995	UWS	WR93 R014	
The use of peat as an absorbitive medium	Jim Wiersma, Ron Stieglitz	07/01/1993 – 06/30/1994	DATCP	WR93 R001	
Cover crops to limit herbicide use on sweet corn	Newenhouse	07/01/1993 – 06/30/1994	DATCP	WR93 R009	
Leaching potential of Imazethapyr and nicosulfuron in Sparta sand	Birl Lowery	07/01/1993 – 06/30/1994	DATCP	WR93 R010	
Comparative evaluation of biostimulation approaches for enhancing in situ TCE degradation in contaminated	William Hickey	07/01/1993 – 06/30/1995	UWS	WR93 R011	
Using "PREDICT" to reduce herbicide usage and improve groundwater quality	Harvey	07/01/1993 – 06/30/1995	UWS	WR93 R012	
Stratigraphy, sedimentaology and porosity distribution of the Silurian rocks of Door County, Wisconsin	Mark Harris	07/01/1993 – 06/30/1995	UWS	WR93 R013	
Mineral phase sorption of selected agrichemicals to Wisconsin soils	Tim Grundl	07/01/1993 – 06/30/1995	UWS	WR93 R014	
Herbicide contamination of soil and groundwater at a mixing and loading	Gordon Chesters	07/01/1993 – 06/30/1995	UWS & DATCP	WR93 R016	
Improved design of pump and treat systems for heterogeneous aquifers	Jean Bahr	07/01/1993 – 06/30/1995	UWS	WR93 R017	
Photocatalytic degradation of volatile organic carbon	Marc Anderson	07/01/1993 – 06/30/1995	UWS	WR93 R018	
Application of a discrete fracture flow model for wellhead protection at Sturgeon Bay, Wisconsin	Ken Bradbury, Maureen Muldoon	07/01/1994 – 06/30/1996	DNR	WR94 R015	113
A comparison of low flow pumping and bailing for VOC sampling	Jack Connelly	07/01/1994 – 06/30/1995	DNR	WR94 R012	114

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An evaluation of long-term trends and a mineralogical interpretation of naturally occurring metals contamination and acidification	Weissbach, Pelczar	07/01/1994 – 06/30/1996	DNR	WR94 R002	115
Agrichemical impacts to groundwater under irrigated vegetables in the Central Sand Plains	George Kraft, Bryant Browne	07/01/1994 – 06/30/1996	DNR	WR94 R009	116
Characterization of E. coli and total coliform organisms isolated from Wisconsin groundwater and reassessment of their public health	William Sonzogni	07/01/1994 – 06/30/1995	DNR	WR94 R004	117
Collection of hydraulic and geologic data to improve the quality of the Wisconsin Groundwater Monitoring	Zaporozec	07/01/1994 – 06/30/1996	DNR	WR94 R001	118
Vertical and horizontal variability of hydrogeologic properties of glaciated landscapes	David Mickelson	07/01/1994 – 06/30/1995	DNR	WR94 R008	119
Direct and residual effects of land-applied sweet corn processing wastes on nitrate loss to groundwater	Larry Bundy	07/01/1994 – 06/30/1996	DNR	WR94 R014	120
a low-input crop management plan for Wisconsin fresh-market vegetable growers	Delahunt	07/01/1994 – 06/30/1995	DATCP	WR94 R011	
Evaluation of enzyme-linked immunosorbent assay for herbicide analysis of Wisconsin soil in comparison to gas chromatography	William Sonzogni	07/01/1994 – 06/30/1995	UWS	WR94 R003	
Geologic constraints on arsenic in groundwater with applications to groundwater modeling	Tony Simo	07/01/1994 – 06/30/1995	UWS	WR94 R005	
Development and demonstration of an accurate manure spreading system to protect water quality, improve waste management and farm profitability	Shinners	07/01/1994 – 06/30/1996	UWS	WR94 R006	
Synergistic effects of endocrine disrupters in drinking water	Warren Porter	07/01/1994 – 06/30/1996	UWS	WR94 R007	
Use of heavy nitrogen to study nitrate flux from septic systems	John Harkin	07/01/1994 – 06/30/1996	UWS & Commerce	WR94 R010	
Integration of hydraulics and geology into a hydrostratigraphic model for the Paleozoic Aquifer of eastern Dane County, Wisconsin	Doug Cherkauer	07/01/1994 – 06/30/1995	UWS	WR94 R013	
Tracer study for characterization of groundwater movement and contaminant transport in fractured	Ken Bradbury	07/01/1994 – 06/30/1996	UWS	WR94 R016	
Evaluating the effectiveness of landfill liners	Craig Benson	07/01/1994 – 06/30/1996	UWS	WR94 R017	
Delineation of capture zones for municipal wells in Dane County,	Ken Bradbury	07/01/1995 – 06/30/1997	DNR	WR95 R014	121
Optimum management of groundwater resources in the Lower Fox River Valley	Jim Krohelski	07/01/1995 – 06/30/1997	DNR	WR95 R009	122
Variability of nitrate loading and determination of monitoring frequency for a shallow sandy aquifer, Arena,	Fred Madison	07/01/1995 – 06/30/1996	DNR	WR95 R008	123

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An Investigation of VOC Sampling techniques at Slowly Recovering Monitoring Wells	Jack Connelly	cancelled	DNR		124
Evaluation of shallow-soil adsorption fields associated with on-site disposal	Ron Stieglitz	07/01/1995 – 06/30/1997	UWS & DNR & DATCP	WR95 R003	125
GIS as a tool to prioritize environmental releases, integrate their management and alleviate their public threat	Stoll	07/01/1995 – 06/30/1997	DNR	WR95 R002	126
Land Use Effects on Groundwater and Streamwater Quality in the Little Plover River Watershed	Byron Shaw and Phillip Albertson, UW-Stevens Point	07/01/1995 – 06/30/1997	DATCP	WR95 R005	
Groundwater recharge and contamination in Wisconsin's Driftless	Ken Potter	07/01/1995 – 06/30/1997	DATCP	WR95 R006	
An integrated approach to the management of insects in sweet corn grown for fresh market	Wedberg	07/01/1995 – 06/30/1997	UWS	WR95 R000	
The use of azimuthal resistivity and self potential measurements to delineate groundwater flow direction in fractured media	Taylor	07/01/1995 – 06/30/1996	UWS	WR95 R001	
Stratigraphic controls on the mobilization and transport of naturally-occurring arsenic in groundwater: Implication for wellhead protection	Tony Simo	07/01/1995 – 06/30/1996	UWS	WR95 R004	
Characterization of the role of evapotranspiration on groundwater movement and solute chemistry in groundwater-fed wetlands	Ken Potter	07/01/1995 – 06/30/1997	UWS	WR95 R007	
Biostimulation of trichloroethylene degradation in contaminated aquifers	William Hickey	07/01/1995 – 06/30/1997	UWS	WR95 R010	
Iron-based abiotic destruction of chlorinated pesticides in groundwater	Gerry Eykholt	07/01/1995 – 06/30/1996	UWS	WR95 R011	
Evaluation of well seals using an ultrasonic probe	Tuncer Edil	07/01/1995 – 06/30/1996	UWS	WR95 R012	
Responses of biological toxicity tests to mixtures of pesticides and metabolites	Gordon Chesters	07/01/1995 – 06/30/1997	UWS	WR95 R013	
Bioremediation of Hydrocarbons influenced by air sparging: A multi-model approach to assess contaminant mass removal	Jean Bahr	07/01/1995 – 06/30/1997	UWS	WR95 R015	
A study of well construction guidance for arsenic contamination in northeast Wisconsin	Weissbach	07/01/1996 – 06/30/1998	DNR	WR96 R001	127
Improved detection limits for groundwater monitoring	William Sonzogni	07/01/1996 – 06/30/1997	UWS & DNR	WR96 R003	128
Stratigraphic controls on distribution of hydraulic conductivity in carbonate aquifers	Tony Simo	07/01/1996 – 06/30/1998	DNR	WR96 R004	129
Evaluation of the use of DUMPSTAT to detect the impact of landfills on groundwater quality	Ken Potter	07/01/1996 – 06/30/1997	DNR	WR96 R005	130
Nitrate-contaminated drinking water followback study	Marty Kanarek	07/01/1996 – 06/30/1997	DNR	WR96 R008	131

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Determining compatibility between herbicide release and habitat for Karner Blue butterfly in red pine plantations	Sucoff	07/01/1996 – 06/30/1997	DATCP	WR96 R002	
Holding tank effluent and fecal-contaminated groundwater: sources of infectious diarrhea in central Wisconsin	Mark Borchardt	07/01/1996 – 06/30/1998	Commerce	WR96 R014	
Treatment of groundwater contaminated with chlorinated aliphatics using silicone tubing supported methanotrophic biofilm reactor	Jae Park	07/01/1996 – 06/30/1998	UWS	WR96 R006	
Fate of nicosulfuron in Sparta sand	Birl Lowery	07/01/1996 – 06/30/1997	DATCP	WR96 R007	
Molecular techniques for detection and identification of sewage-borne human pathogens in soils	William Hickey	07/01/1996 – 06/30/1998	Commerce	WR96 R009	
Stratigraphy, sedimentology and porosity distribution of the Silurian Aquifer of Ozaukee County, Wisconsin	Mark Harris	07/01/1996 – 06/30/1997	UWS	WR96 R010	
Experimental verification of models used to evaluate landfill liner	Tuncer Edil	07/01/1996 – 06/30/1997	UWS	WR96 R011	
Groundwater bioremediation: Monitoring with MMO probes	MLP Collins	07/01/1996 – 06/30/1998	UWS	WR96 R012	
Development of a variable rate nitrogen application approach for corn	Larry Bundy	07/01/1996 – 06/30/1998	UWS	WR96 R013	
Groundwater protection by application of modern portfolio theory to microbiontesting strategies	George Blondin	07/01/1996 – 06/30/1997	UWS	WR96 R015	
In situ air sparging: Air plume characterization and removal effectiveness	Craig Benson	07/01/1996 – 06/30/1998	UWS	WR96 R016	
Hydrogeochemical and microbiological studies for enhanced groundwater bioremediation	Jean Bahr	07/01/1996 – 06/30/1998	UWS	WR96 R017	
Improved estimation of groundwater recharge rates	Mary Anderson	07/01/1996 – 06/30/1997	UWS	WR96 R018	
Relationships between water quality in stream base flow and private wells and land use in the Tomorrow/Waupaca watershed	Byron Shaw	07/01/1997 – 06/30/1999	DNR	WR97 R005	132
Northeast region public water supply location utilizing GIS and GPS	Stoll	07/01/1997 – 06/30/1998	DNR	WR97 R003	133
Characterization of the hydrostratigraphy of the deep sandstone aquifer in southeastern Wisconsin	Timothy Eaton	07/01/1997 – 06/30/1999	DNR	WR97 R011	134
Evaluation of geology and hydraulic performance of Wisconsin groundwater monitoring wells	Alex Zaporozec	07/01/1997 – 06/30/1998	DNR	WR97 R001	135
Further evaluation of well seals using ultrasonic probes	Tuncer Edil	07/01/1997 – 06/30/1998	DNR	WR97 R010	136
Groundwater-surface water interactions in the Nine Springs watershed	Jean Bahr	07/01/1997 – 06/30/1999	DNR	WR97 R015	137
Evaluation of the Confining Properties of the Maquoketa Formation in the SEWRPC Region of Southeastern	Timothy T. Eaton, Kenneth R. Bradbury	07/01/97 - 08/01/1998			138

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Preliminary Model Design And Literature Review For The Sandstone Aquifer System In Southeastern	Feinstein, Eaton, Krohelsjki, Bradbury	07/01/1997 – 06/30/1998	DNR	WR97 R014	139
Determining Ground-Water Recharge Rates in Southern Wisconsin County	Douglas S. Cherkauer, UW-Mil., and Craig J. LaCosse, UW-Mil.	07/01/1999 – 06/30/2001	UWS	WR97 R012	
Effects of Fosamine, Glyphosate, Picloram, Triclopyr, and Sodium Tetraborate on Reducing Aspen in Prairie Bush Clover Habitat	Paul C. West	07/01/1997 – 06/30/1998	DATCP	WR97 R002	
Impact of Ginseng Production on Groundwater Quality	William DeVita and Byron Shaw	07/01/1997 – 06/30/1998	DATCP	WR97 R004	
Fate of metolachlor,alachlor and nitrate in granular iron/soil/ water systems	Eykholt, Davenport, Wonsettler	07/01/1997 – 06/30/1998	DATCP	WR97 R008	
The direct effect of agricultural chemicals on Wisconsin's declining and endangered amphibians	William Karasov	07/01/1997 – 06/30/1999	UWS & DATCP	WR97 R006	
Investigation of air sparging: Numerical modeling, laboratory verification and design guidelines	Hoopes	07/01/1997 – 06/30/1999	UWS	WR97 R007	
Evaluation of exploration borehole seals using Time Domain Reflectometry	Tuncer Edil	07/01/1997 – 06/30/1999	UWS	WR97 R009	
Watershed-scale nitrate contamination and chlorofluorocarbon ages in the Little Plover Basin: A study at the groundwater/surface water interface	Bryant Browne	07/01/1997 – 06/30/1999	UWS	WR97 R013	
Assessment of impacts on groundwater/lake and wetland systems	Mary Anderson	07/01/1997 – 06/30/1998	UWS	WR97 R016	
Hydraulic Conductivity and Specific Storage of the Maquoketa Shale	Timothy T. Eaton, David J. Hart, Kenneth R. Bradbury, Herbert F. Wang. University; WGNHS and UW-Mad.	07/01/1998 – 06/30/2000		WR98 R001	
Acute and chronic toxicity of nitrate to brook trout <i>Salvelinus fontinalis</i>	Ronald Crunkilton, UW-Stevens Point, and Todd Johnson, UW-Stevens Point	07/01/1998 – 06/30/2000	DNR	WR98 R010	140
Maquoketa Shale as Radium Source for the Cambro-Ordovician Aquifer in Eastern Wisconsin	Tim Grundl	07/01/1998 – 06/30/2000	DNR	WR98 R009	141
Mechanical controls on fracture development in carbonate aquifers: implications for groundwater flow	Cooke, Muldoon	07/01/1998 – 06/30/2000	DNR	WR98 R011	142
Analysis of Microbiological and Geochemical Processes Controlling Biodegradation of Aromatic Hydrocarbons in Anaerobic Aquifers	William J. Hickey, UW-Mad., Jean M. Bahr, UW-Mad.; Madeline Schreiber, UW-Mad.; Michele Zwolinski, UW-Mad.; and Peter Taglia, UW-Mad.	07/01/1998 – 06/30/2000	DNR	WR98 R007	143
Viral contamination of household wells near disposal sites for human excreta	M. Borchardt, W. Sonzogni	07/01/1998 – 06/30/2000	DNR	WR98 R014	144
Assessing and Reducing Leaching of Agricultural Chemicals on Silt Loam Soils under Different Farming Systems	K-J Samuel Kung, Joshua Posner, Gary Bubenzer, and John Hall, UW - Mad.	07/01/1998 – 06/30/2000	DATCP	WR98 R006	

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Fate of herbicides atrazine, cyanazine and alachlor and selected metabolites	Stoltenberg	07/01/1998 – 06/30/1999		WR98 R002	
Natural Attenuation of fuel and related groundwater contaminants - A measurement method	William Sonzogni	07/01/1998 – 06/30/1999	UWS	WR98 R003	
Water and land use: interpretation of existing data to foster constructive public dialog and policy formulation	Harry Read	07/01/1998 – 06/30/1999	UWS	WR98 R004	
Using GIS and soil landscape models to predict critical sites for nonpoint source pollution	Birl Lowery	07/01/1998 – 06/30/2000	DATCP	WR98 R005	
Sedimentology, stratigraphy, and porosity-conductivity relations of the Silurian aquifer in Ozaukee County,	Harris	07/01/1998 – 06/30/2000	UWS	WR98 R008	
Monitoring: Evaluation of the Abundance, Diversity, and Activity of Methanotroph Populations in Groundwater	Mary Lynne Perille Collins and Charles C. Remsen, UW-Mil.	07/01/1998 – 06/30/2000	UWS	WR98 R012	
Groundwater Flow and Heat Transport in Wetlands: Transient Simulations and Frequency-Domain Analysis	Hector Bravo, UW-Mil.	07/01/1998 – 06/30/2000	UWS	WR98 R013	
A rational design for permeable reactive walls	Craig Benson			WR98 R015	
On-line SFE/GC for Improved Detection of Trace Organic Pollutants in Ground Water Monitoring	David E. Armstrong, Robert J. Noll, UW - Mad.	07/01/1998 – 06/30/1999	UWS/DATCP	WR98 R016	
Pheasant Branch Groundwater Quality Study	Hunt, Steuer				145
A groundwater model for the Central Sands of Wisconsin: Assessing the environmental and economic impacts of irrigated agriculture	Anderson, Bland, Kraft	7/1/1999 - 06/30-2000	DNR/DATCP	WR99 R008	146
Remediating Groundwater Using Reactive Walls Containing Waste Foundry Sands	Craig Benson (Gerry Eykholt left UW to start private practice in Madison)	7/1/1999 - 06/30-2001	UWS & DNR	WR99 R006	147
Field Verification of Captures Zones for Municipal Wells at Sturgeon Bay, Wisconsin	Bradbury, Rayne, Muldoon	7/1/1999 - 06/30-2000	DNR/DATCP	WR99 R019	148
Improvement of Wisconsin groundwater monitoring network	Zaporozec	7/1/1999 - 06/30-2000	DNR	WR99 R014	149
Refinement of two methods for estimation of groundwater recharge	Bradbury, Anderson, Potter, Dripps	7/1/1999 - 06/30-2000	DNR	WR99 R018	150
Evaluating options for changing groundwater and leachate monitoring requirements for landfills to reduce mercury used by laboratories	Connelly, Stephens, Shaw	7/1/1999 - 06/30-2001	DNR	WR99 R017	151
An Investigation of the Hydrogeological Conditions Responsible for Springs in a Glaciated Terrain	Susan Swanson, Jean Bahr, UW-Mad.	7/1/1999 - 6/30/00	DNR		161
Degradates of matolachlor and Acetochlor in Municipal and Private Water Supplies of Wisconsin	Jim Vanden Brook	7/1/1999- 6/30/2000	DNR		162
Arsenic in Groundwater in Lake Geneva, Wisconsin	Madeline Gotkowitz WGNHS	3/1/00 - 6/30/00	DNR		163

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Agrochemical Leaching From Sub-Optimal, Optimal, and Excessive Manure-N Fertilization of Corn Agroecosystems	John M. Norman, UW - Mad.	07/01/2001 - 06/30/2003	DATCP	WR99 R001A	
Field Monitoring of Drainage and Nitrate Leaching from Managed and Unmanaged Ecosystems	John Norman, UW-Mad.	7/1/1999 - 06/30-2001	UWS & USGS-B	WR99 R001	
Compatibility of Containment Systems with Mine Waste Liquids.	Tuncer B. Edil , Craig H. Benson, S. Basak Gulec, UW-Mad.	07/1999 - 06/2001	UWS	WR99 R002	
Macropore Flow: A Means for Enhancing Groundwater Recharge or a Potential Source of Groundwater	Kenneth Potter, Peter Bosscher, UW-Mad.	7/1/1999 - 06/30-2001	UWS	WR99 R003	
Development of Neural Network Models for Predicting Nitrate Concentration in Well Water in the Tomorrow-Waupaca Watershed	Hangshen Lin	7/1/1999 - 06/30-2001	UWS	WR99 R004	
Causes of Historical Changes in Groundwater Recharge Rates in Southeastern Wisconsin	Douglas Cherkauer	7/1/1999 - 06/30-2001	UWS	WR99 R005	
Admicelle-Catalyzed Reductive Dechlorination of Perchloroethylene (PCE) by Zero Valent Iron	Dr. Zhaohui Li, UW - Parkside	07/01/1999 - 06/30/2001	UWS	WR99 R007	
Time Domain Electromagnetic Induction Survey Of Eastern Waukesha County And Selected Locations	John Jansen, Aquifer Science and Technology; Robert Taylor, UW-Mil.	7/1/1999 - 06/30-2000	UWS	WR99 R016	
Geologic and geochemical controls on arsenic in groundwater in northeastern Wisconsin	Gotkowitz		DNR	WR00 R013	152
VOC trend analysis of WI solid waste landfill monitoring data: A preliminary analysis of the natural attenuation	Connelly	01/00/00	DNR	WR00 R018	153
Development of analytical methods for comprehensive chemical and physical speciation of arsenicals in groundwater	Aldstadt		DNR	WR00 R021	154
New approaches to the assessment of microbes in groundwater: application to monitoring bioremediation and detection of pathogens	Collins	7/1/2000 - 6/30/2002	DNR	WR00 R019	155
An analysis of arsenic replacement wells to determine validity of current DNR well construction guidance	O'Connor	7/1/2000 - 6/30/2002	DNR	WR00 R009	156
Verification and characterization of a fracture network within the Maquoketa shale confining unit, SE Wisconsin	Eaton		DNR	WR00 R015	157
Public health impacts of arsenic contaminated drinking water	Knobeloch	01/00/00	DNR	WR00 R011	158
A study of microbiological testing of well water quality in Door County and incidence of illness in humans	Braatz	7/1/2000 - 6/30/2001	DNR	WR00 R020	159
An Improved Hydrogeologic Model for the Token Creek Watershed	Jean Bahr, and Laura Parent, UW-Mad.	07/01/99 - 06/30/01	DNR		160
Assessment of the Ability of Mound Sand (ASTM C-33) to Remove Micro-organisms in Column Experiments	Jon Standridge, Jeremy Olstadt, William Sonzogni WSLH	7/1/00 - 6/30/01	DNR		164

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Remediation of Soil and Groundwater Using Effectively and Ineffectively Nodulated Alfalfa	Nancy Turyk, Byron Shaw	7/1/2000 - 6/30/2002	UWS & DNR	WR00 R006	
Groundwater Modeling: Semi-Analytical Approaches for Heterogeneity and Reaction Networks	Lin Li, Gerald R. Eykholt, Craig H. Benson; UW-Mad.	7/1/2000 - 6/30/2001	UWS	WR00 R014	
Importance of Groundwater in Productions and Transport of Methyl Mercury in Lake Superior Tributaries	R.W. Stoor, David Armstrong, et al	7/1/2000 - 6/30/2002	UWS & USGS-B	WR00 R003	
A Basin-Scale Denitrification Budget for a Nitrate Contaminated Wisconsin Aquifer: A Study at the Groundwater/Surface Water Interface	Bryant Browne, George Kraft	7/1/2000 - 6/30/2002	UWS & USGS-B	WR00 R004	
The Spatial and Temporal Variability of Groundwater Recharge	Weston Dripps, Mary Anderson, Kenneth	7/1/2000 - 6/30/2001	UWS	WR00 R008	
Removal of As(III) and As(V) in Contaminated Groundwater with Thin-Film Microporous Oxide Adsorbents	Marc Anderson	7/1/2000 - 6/30/2002	UWS	WR00 R005	
Effect of Clean and Polluted Groundwater on Daphnia Reproduction and Development	Stanley Dodson	7/1/2000 - 6/30/2001	UWS	WR00 R007	
Pesticide and nitrate leaching in soils receiving manure	Lowery, Arriaga, Stoltenberg	7/1/2000 - 6/30/2001	DATCP	WR00 R010	
Screening of agricultural and lawn care pesticides for developmental toxicity using the mouse embryo assay	Greenlee	7/1/2000 - 6/30/2001	DATCP	WR00 R012	
Effectiveness of phytoremediation and hydrogeologic response at an agricultural chemical facility in Bancroft,	DeVita, Dawson	7/1/2000 - 6/30/2002	DATCP	WR00 R016	
Evaluation of pathogen and nitrogen movement beneath on-site systems receiving domestic effluent from single pass sand filters	Converse	7/1/2000 - 6/30/2001	Comm	WR00 R017	
Susceptibility of La Crosse municipal wells to enteric virus contamination from surface water contributions	Hunt, Borchartd	3/1/2001 - 6/30/2002	DNR	WR01 R021	165
Preservation and survival of E. coli in well water samples submitted for routine analyses	Sonzogni, Standridge, Bussen		DNR	WR01 R016	166
Development of a culture method for detection of Helicobacter pylori in groundwater	Sonzogni, Standridge, Degnan		DNR	WR01 R015	167
Monitoring contaminant flux from a stormwater infiltration facility to groundwater	Dunning, Bannerman	7/1/2001 - 6/30/2003	DNR	WR01 R023	168
Occurrence of antibiotics in wastewater effluents and their mobility in soils. A case study for Wisconsin	Karthikeyan, Bleam	7/1/2001 - 6/30/2003	DATCP/DNR	WR01 R020	169
Delineation of High Salinity Conditions in the Cambro-Ordovician Aquifer of Eastern Wisconsin	Tim Grundl, and Lori Schmidt, UW - Mil.	7/1/2001 - 6/30/2002	DNR	WR01 R022	170
Nitrate loading history, fate, and origin for two WI groundwater basins	Kraft , Browne, DeVita, Mechenich	7/1/2001 - 6/30/2003	DNR	WR01 R019	171
Importance of disinfection on arsenic release from wells	Sonzogni, Bowman Standridge, Clary	7/1/2001 - 6/30/2003	DNR	WR01 R017	172

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Time domain electromagnetic induction survey of the sandstone aquifer in the Lake Winnebago area	Taylor, Jansen	01/00/00	DNR	WR01 R014	173
Microfabricated, Low-Power, Inorganic, Water Quality Sensor Based on Direct Current Argon Plasma Emission Spectroscopy	Anderson, Gianchandani			WR01 R011	
Field Evaluation of Rain Gardens as a Method for Enhancing Groundwater Recharge	Kenneth Potter	7/1/2001 - 6/30/2002	UWS	WR01 R002	
Investigation of Changing Hydrologic Conditions of the Coon Creek Watershed in the Driftless Area of	Randy Hunt	7/1/2001 - 6/30/2002	UWS	WR01 R003	
Groundwater-Lake Interaction: Response to Climate Change in Vilas County, Wisconsin	Mary Anderson	7/1/2001 - 6/30/2002	UWS	WR01 R004	
Impacts of Land Use and Groundwater Flow on the Temperature of Wisconsin Trout Streams	Stephen Gaffield	7/1/2001 - 6/30/2003	UWS	WR01 R005	
Impacts of Privately Sewered Subdivisions on Groundwater Quality in Dane County, Wisconsin	Kenneth Bradbury	7/1/2001 - 6/30/2003	UWS	WR01 R006	
Removal of Heavy Metals and Radionuclides from Soils Using Cationic Surfactant Flushing	Christine Evans, Zhaohui Li	7/1/2001 - 6/30/2003	UWS & USGS-B	WR01 R007	
Removal of Arsenic in Groundwater Using Novel Mesoporous Sorbent	Jae Park	7/1/2001 - 6/30/2003	UWS	WR01 R008	
Co-occurrence and Removal of Arsenic and Iron in Groundwater	Paul McGinley	7/1/2001 - 6/30/2003	UWS	WR01 R009	
Monitoring and Scaling of Water Quality in the Tomorrow-Waupaca Watershed	Bryant Browne (Henry Lin was also a PI, but he left USTP)	7/1/2001 - 6/30/2003	UWS	WR01 R010	
Chloroacetanilide and atrazine residue penetration and accumulation in two Wisconsin groundwater basins	DeVita, McGinley, Kraft	7/1/2001 - 6/30/2003	DATCP	WR01 R011	
Agrochemical leaching from sub-optimal, optimal, and excessive manure-N fertilization of corn agroecosystems	Norman, Brye	7/1/2001 - 6/30/2003	DATCP	WR01 R018	
Arsenic Contamination in Southeast Wisconsin: Sources of Arsenic and Mechanisms of Arsenic Release	Jean Bahr, Madeline Gotkowitz, Tara Root	7/1/2002 - 6/30/2004	UWS & DNR	WR02 R003	174
Evaluation of Enzyme Linked Immunosorbent Assay for Analysis of Di Amino Atrazine in Wisconsin Groundwater in Comparison to	John Strauss, William Sonzogni	7/1/2002 - 6/30/2003	DNR	WR02 R008	175
An Experimental and Mathematical Study of the Alpha-Particle Activity of Wisconsin Ground Waters with High	Sonzogni, Arndt, West	7/1/2002 - 6/30/2003	DNR	WR02 R009	176
Determination of Aquitard and Crystalline Bedrock Depth Using Time Domain Electromagnetics	David Hart, David Alumbaugh	7/1/2002 - 6/30/2003	UWS & USGS-B	WR02 R006	
F Test for Natural Attenuation in Groundwater: Application on Benzene	Fe Evangelista	7/1/2002 - 6/30/2003	UWS	WR02 R004	

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Photocatalytic Adsorption Media and Processes for Enhanced Removal of Arsenic from Groundwaters	Marc Anderson	7/1/2002 - 6/30/2003	UWS	WR02 R005	
Monitoring the Effectiveness of Phytoremediation and Hydrogeologic Response at an Agricultural Chemical Facility	William DeVita	7/1/2002 - 6/30/2004	UWS & USGS-B	WR02 R001	
Role of the Hyporheic Zone in Methylmercury Production and Transport to Lake Superior	David Armstrong	7/1/2002 - 6/30/2004	UWS & USGS-B	WR02 R002	
Susceptibility of La Crosse municipal wells to enteric virus contamination from surface water contributions (continued from project 165)	Hunt, Borchardt	7/1/2002 - 6/30/2003	DNR	WR01 R021	177
Monitoring and predictive modeling of subdivision impacts on groundwater in Wisconsin	Bradbury, Bahr	7/1/2003 - 6/30/2005	DNR	WR03 R012	178
Field and Laboratory Validation of Photoactivated Adsorption for Removal of Arsenic in Groundwaters	Anderson (Marc)	7/1/2003 - 6/30/2004	DNR	WR03 R014	179
Development of a groundwater flow model for the Mukwonago River watershed, southeastern Wisconsin	Bahr	7/1/2003 - 6/30/2005	DNR	WR03 R013	180
Groundwater Pollutant Transfer and Export in Northern Mississippi Loess Hills Watersheds	Kraft, Masarik, Browne	7/1/2003 - 6/30/2005	DNR	WR03 R011	181
Design and Evaluation of Rain Gardens for Enhancement of Groundwater	Kenneth Potter	7/1/2003 - 6/30/2005	UWS	WR03 R001	
Evaluation of Contamination of Groundwater around Landfills	Tuncer Edil, Craig Benson and Jack	7/1/2003 - 6/30/2005	UWS	WR03 R006	
Fate Of Representative Fluoroquinolone, Macrolide, Sulfonamide And Tetracycline Antibiotics In Subsurface	K.G. Karthikeyan and Joel Pedersen	7/1/2003 - 6/30/2005	UWS	WR03 R008	
Coupled Modeling of Gravity and Aeromagnetic Data For Analysis of the Waukesha Fault, Southeastern Wisconsin	John Skalbeck	7/1/2003 - 6/30/2004	UWS	WR03 R003	
What happens when the confined Cambrian-Ordovician aquifer in SE Wisconsin is "dewatered"?	Timothy Eaton	7/1/2003 - 6/30/2004	UWS	WR03 R004	
An Assessment of Aquifer Storage Recovery for Selected Generic Hydrogeologic Settings in Wisconsin	Mary Anderson	7/1/2003 - 6/30/2004	UWS	WR03 R005	
Combination of Surfactant Solubilization with Permanganate Oxidation for Groundwater Remediation	Zhaohui Li	7/1/2003 - 6/30/2005	UWS	WR03 R009	
A Combined Hydrogeologic/Geochemical Investigation of Groundwater Conditions in the Waukesha County Area, WI	Timothy Grundl, Kenneth Bradbury, Daniel Feinstein and David J. Hart	7/1/2003 - 6/30/2005	UWS	WR03 R002	
Providing Communities with the Groundwater Information Needed for Comprehensive Planning.	Douglas Cherkauer	7/1/2003 - 6/30/2005	UWS & USGS-B	WR03 R007	

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Water Isotope Analyses of Community Wells in Support of EPA-funded Project: "Community-Randomized Intervention Trial with UV-disinfection for Estimating the Risk of Pediatric Illness from Municipal Groundwater Consumption"	Mark Borchardt Marshfield Medical Clinic, Randy Hunt USGS	6/1/04 - 10/15/04	DNR	0	182
Occurrence of Estrogenic Endocrine Disruptors in Groundwater	William Sonzogni, Jocelyn Hemming, Miel Barman and Steven Geis	7/1/2004 - 6/30/2006	UWS	WR04 R004	
Development of Tools to Address Groundwater in Comprehensive Planning	Lynn Markham, Charles Dunning and Chin-Chun Tang	7/1/2004 - 6/30/2005	UWS	WR04 R005	
Mercury Speciation along a Groundwater Flowpath	David Armstrong and Christopher L. Babiarez	7/1/2004 - 6/30/2006	UWS	WR04 R001	
Delineation of Flow Paths, Capture Zones and Source Areas, Allequash Basin, Vilas County, Wisconsin	Mary Anderson	7/1/2004 - 6/30/2005	UWS	WR04 R002	
Hydrostratigraphy of West-Central Wisconsin: A New Approach to Groundwater Management	David L. LePain and Kenneth R. Bradbury	7/1/2004 - 6/30/2005	UWS	WR04 R006	
Monitoring Environmental Effects at an Established Phytoremediation Site	William M. DeVita and Mark Dawson	7/1/2004 - 6/30/2006	UWS	WR04 R007	
Foundry Slag for Treating Arsenic in Groundwater and Drinking Water	Craig H. Benson and David W. Blowes	7/1/2004 - 6/30/2006	UWS	WR04 R008	
A Comparison of USEPA-Approved Enzyme-Based Total Coliform/E. coli Tests for Microbiological Groundwater Monitoring and Laboratory Consultation	James Schauer, Jeremy Olstadt, Jon Standridge and Sharon Kluender	7/1/2004 - 6/30/2005	UWS	WR04 R003	
Mapping and Characterization of Springs in Brown and Calumet Counties	Fermanich, Stieglitz, Zorn	7/1/2006 - 6/30/2007	DNR	WR05 R012	183
Identification and characterization of springs in west-central Wisconsin	Grote	7/1/2006 - 6/30/2007	DNR	WR05 R011	184
Assessing the Ecological Status and Vulnerability of Springs in Wisconsin	Susan Swanson, Kenneth Bradbury, David Hart	7/1/2005 - 6/30/2007	UWS	WR05 R004	185
A Survey of Baseflow for Groundwater Protection Areas Western Fox-Wolf Watershed	Kraft	7/1/2006 - 6/30/2008	DNR	WR05 R014	186
Evaluating drinking-well vulnerability to viruses	Hunt, Borchardt	7/1/2006 - 6/30/2008	DNR	WR05 R010	187
Disinfection of Enteric Viruses in Wisconsin Municipal Groundwater Systems	Harrington, Borchardt, Xagorarakis	7/1/2006 - 6/30/2008	DNR	WR05 R009	188
Groundwater Mounding and Contaminant Transport Beneath Stormwater Infiltration Basins	Thompson	7/1/2006 - 6/30/2008	DNR	WR05 R013	189
Centralizing Access to Groundwater Information for Use in Comprehensive Planning	Markham, Tang, Dunning	7/1/2006 - 6/30/2008	DNR	WR05 R015	190
Mechanisms of Groundwater Flow across Aquitards	Hart, Bradbury, Feinstein and Yikoff	7/1/2006 - 6/30/2007	DNR	WR05 R016	191
Validation of Transport of VOCs from Composite Liners	Tuncer Edil, Craig Benson,	7/1/2005 - 6/30/2007	UWS	WR05 R008	

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Arsenic Species (III,V) Distribution in Wisconsin Groundwaters: Field Measurements and Prediction Using Multivariate Analysis of Geochemical Data Prediction Using Multivariate Analysis of Geochemical Data	Martin Shafer, Kristie Ellickson, James Schauer	7/1/2005 - 6/30/2007	UWS & USGS-B	WR05 R001	
Measuring and Modeling Macroporous Soil Water and Solute Flux Below the Root Zone of a Plano Silt-Loam Soil	Birl Lowery, John Norman, Brian Lepore	7/1/2005 - 6/30/2007	UWS	WR05 R002	
Nitrate and Pesticide Penetration into a Northern Mississippi Valley Loess Hills Aquifer	George Kraft, Bryant Browne	7/1/2005 - 6/30/2007	UWS & USGS-B	WR05 R003	
Climate Signals in Groundwater and Surface Water System: Spectral Analysis of Hydrologic Processes	Hector Bravo	7/1/2005 - 6/30/2007	UWS	WR05 R005	
Evaluation of On-Site Wastewater Treatment as a Source of Antibiotic Resistance Genes in Groundwater	Katherine McMahon	7/1/2005 - 6/30/2006	UWS	WR05 R006	
Transient Functioning of a Groundwater Wetland Complex, Allequash basin, Wisconsin	Mary Anderson	7/1/2005 - 6/30/2007	UWS	WR05 R007	
Mineral transformation and release of arsenic to solution under the oxidizing conditions of well disinfection	Gotkowitz, Roden, Schreiber, Shelobolina	7/1/2006- 6/30/2007	DNR		192
Precambrian Basement Surface Estimation using Coupled 3D Modeling of Gravity and Aeromagnetic Data in Fond du Lac County and Southeastern,	Skalbeck	7/1/2006- 6/30/2008	DNR		193
Groundwater recharge through a thick sequence of fine-grained sediment in the Fox River Valley, east-central	Hooyer, Hart, Bradbury, Mickelson	7/1/2006- 6/30/2007	DNR		194
Use of Human and Bovine Adenovirus for Fecal Source Tracking	Pedersen, McMahon, Kluender	7/1/2006- 6/30/2008	DNR		195
Knowledge Development for Groundwater Withdrawal Management around the Little Plover River	Clancy and Kraft	7/1/2006- 6/30/2008	DNR		196
Multi-Parameter, Remote Groundwater Monitoring with Referencing Using Crossed Optical Fiber Fluorescent Sensor Arrays	Peter Geissinger	7/1/2006 - 6/30/2008	UWS	WR06 R001	
Enhanced Reductive Dechlorination of Chlorinated Aliphatic Hydrocarbons: Molecular and Biochemical Analyses	William Hickey	7/1/2006 - 6/30/2008	UWS & USGS-B	WR06 R002	
Application of LSQR to Calibration of a Regional MODFLOW Model: Trout Lake Basin, Wisconsin	Mary Anderson, Haijiang Zhang	7/1/2006 - 6/30/2007	UWS	WR06 R003	
Assessment of virus presence and potential virus pathways in deep municipal wells	Bradbury , Gotkowitz, Borchardt and Hunt	7/1/2007- 6/30/2008	DNR		197
Assessing Seasonal Variations in Recharge and Water Quality in the Silurian Aquifer in Areas with Thicker	Muldoon and Bradbury	7/1/2007- 6/30/2008	DNR		198
Hydrostratigraphy and Groundwater Flow Model: Troy Valley Glacial Aquifer, Southern Waukesha Co., WI	Mickelson and Anderson	7/1/2007- 6/30/2008	DNR		199

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Investigating groundwater recharge to the Cambrian-Ordovician aquifer through fine-grained glacial deposits in the Fox River Valley, Wisconsin	Hooyer, Hart, Mickelson and Bradbury	7/1/2007-6/30/2008	DNR		200
Water Balance Modeling for Irrigated and Natural Landscapes in Central	Lowery and Bland	7/1/2007-6/30/2009	DNR		201
Understanding the Effects of Groundwater Pumping on Lake Levels	Kraft, Clancy and Mechenich	7/1/2007-6/30/2009	DNR		202
Assessing the Potential of Hormones from Agricultural Waste to Contaminate Groundwater	Hemming, Landreman and Hedman	7/1/2007-6/30/2009	DNR		203
Transport and Survival of Pathogenic Bacteria Associated With Dairy Manure in Soil and Groundwater	Jin Li, Ching-Hong Yang	7/1/2007 - 6/30/2009	UWS	WR07 R001	
Is Phosphorus-Enriched Groundwater Entering Wisconsin Streams?	Bryant Browne	7/1/2007 - 6/30/2009	UWS	WR07 R002	
Occurrence and Generation of Nitrite in Ground and Surface Waters in an Agricultural Watershed	Emily Stanley	7/1/2007 - 6/30/2009	UWS	WR07 R003	
Geochemical Characterization of Sulfide Mineralization in Eastern Wisconsin Carbonate Rocks	John Luczaj, Michael McIntire	7/1/2007 - 6/30/2009	UWS	WR07 R004	
A Thermal Remote Sensing Tool for Mapping Spring and Diffuse Groundwater Discharge to Streams	Steven Loheide	7/1/2007 - 6/30/2009	UWS	WR07 R005	
Monitoring Septic Effluent Transport and Attenuation using Geophysical Methods	Dante Fratta, David Hart	7/1/2007 - 6/30/2009	UWS	WR07 R006	
Influence of Wetland Hydrodynamics on Subsurface Microbial Redox Transformations of Nitrate and Iron	Jean Bahr, Eric Roden	7/1/2007 - 6/30/2009	UWS	WR07 R007	
Controls on Methylation of Groundwater Hg(II) in Hyporheic Zones of Wetlands	Martin Shafer, Chris Babiarz	7/1/2007 - 6/30/2009	UWS	WR07 R008	
Drawdown in the Northeast Groundwater Management Area (Brown, Outagamie, and Calumet Counties, WI)	Luczaj and Hart	7/1/2008 – 6/30/2009	DNR		204
Human viruses as tracers of wastewater pathways into deep municipal wells	Bradbury, Borchardt, and Gotkowitz	7/1/2008-12/31/2009	DNR		205
Development and Validation of a PCR-based Quantification Method for <i>Rhodococcus coprophilus</i>	Long and Kluender	7/1/2008 – 6/30/2009	DNR		206
Groundwater Sustainability in a Humid Climate: Groundwater Pumping, Groundwater Consumption and Land Use Change	Madeline Gotkowitz		UWS	WR04 R009	
Assessing Levels and Potential Health Effects of Endocrine Disrupting Chemicals in Groundwater Associated with Karst Areas in Northeast Wisconsin	Bauer-Dantoin, Fermanich, Zorn, UW – Green Bay	7/1/2008 – 6/30/2009	UWS	WR08 R004	
The lethal and sublethal effects of elevated groundwater nitrate concentrations on infaunal invertebrates in the Central Sand Plains	Stelzer, Eggert, and Muldoon, UW - Oshkosh	7/1/2008 – 6/30/2010	UWS	WR08 R003	
Use of the 2009 Behavioral Risk Factor Surveillance Survey to Assess the Safety of Private Drinking Water Supplies	Knobeloch, DHS	7/1/2008 – 6/30/2010	UWS	WR08 R001	

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Combination of Co-Precipitation with Zeolite Filtration to Remove Arsenic from Contaminated Water	Li, UW - Parkside	7/1/2009 – 6/30/2010	UWS	WR08 R002	
Fecal Source Tracking Using Human and Bovine Adenovirus and Polyomaviruses	Pedersen, McMahon, Long	7/1/2009 – 6/30/2011	UWS	WR09 R002	
Predicting Mercury Methylation: Testing the Neutral Sulfide Speciation Model in a Groundwater-Dominated Wetland	Shafer	7/1/2009 – 6/30/2011	UWS	WR09 R003	
Assessing the Effect of Pleistocene Glaciation on the Water Supply of Eastern Wisconsin	Grundl, UW-Mil	7/1/2009 – 6/30/2010	UWS	WR09 R004	
Forecasting Impacts of Extreme Precipitation Events on Wisconsin's Groundwater Levels	Gotkowitz, WGNHS	7/1/2009 – 6/30/2010	UWS	WR09 R005	
DTS as a Hydrostratigraphic Characterization Tool	Bahr, Hart, UW-Mad	7/1/2009 – 6/30/2010	UWS	WR09 R006	
From sand bags to sanity: Lessons from the Midwest floods of 2008	D. Moynihan	3/1/2009 – 2/28/2010	UWS/ USGS	WR09 R001	
Opportunities for Reducing Water Use by Wisconsin Golf Courses	D. Soldat, J. Stier	7/1/2010 - 6/30/2012	DNR		207
Information Support for groundwater Management in the Wisconsin Central Sands	G. Kraft, D. Mechenich	7/1/2010 - 6/30/2012	DNR		208
Groundwater Recharge Characteristics and Subsurface Nutrient Dynamics Under Alternate Biofuel Cropping Systems in Wisconsin	A. Thompson, UW-Mad; K.J. Karthikeyan; R. Jackson	7/1/2010 – 6/30/2012	UWS	WR10 R003	
Groundwater nitrate processing in deep stream sediments	R. Stelzer UW-Osh; Bartsch	7/1/2010 – 6/30/2011	UWS	WR10 R005	
Reducing nitrate in groundwater with slow-release fertilizer	Ruark UW-Mad, Lowery, Buckley	7/1/2010 – 6/30/2012	UWS	WR10 R004	
Influence of Adsorbed Antibiotics on Water Quality and Soil Microbes	Li UW-Parkside, McWilliams	7/1/2010 – 6/30/2012		WR10 R006	
Transport of manure-derived, tetracycline resistant Escherichia coli in unsaturated soil	Xu UW-Mil	7/1/2010 – 6/30/2012		WR10 R007	
Development of a User-Friendly Interface for Predicting Climate Change Induced Changes in Evapo-transpiration	S. Loheide, UW-Mad	3/1/2010 – 2/28/2011		WR10 R001	
Ecological Limits of Hydrologic Alteration in Wisconsin Streams	M. Diebel, DNR; J. Stewart, USGS	10/1/2011 - 3/31/2013	DNR		209
Validation of a qPCR Assay for E. coli in Drinking and Recreational Waters	S. Long UW-SLH	7/1/2011 - 6/30/2013	DNR		210
Response of Ice Cover Lake Level and Thermal Structure to Climate Change in Wisconsin Lakes	C. Wu UW-Mad	3/1/2010 – 2/28/2011	USGS**	WR10 R002	
Silage Leachate: Waste Quality Assessment and Treatment	R. Larson, J. Panuska UW-Mad	7/1/2011 - 6/30/2013	UWS	WR11 R007	
Establishing Paleoclimate Records from Spring Tufa Deposits in the Driftless Area of Wisconsin	M. Muldoon UW-Osh; S. Swanson Beloit Col.	7/1/2011 - 6/30/2012	UWS	WR11 R004	
Preferential flow paths in heterogeneous glacially-deposited aquitards	D. Hart WGNHS	7/1/2011 - 6/30/2012	UWS	WR11 R005	

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The effects of particulate organic carbon quantity and quality on denitrification of groundwater nitrate	R. Stelzer, T. Scott, L. Bartsch UW-Osh	7/1/2011 - 6/30/2013	UWS	WR11 R006	
Climate change impacts on stream temperature and flow: consequences for Great Lakes fish migrations	P. McIntyre UW-Mad	3/1/2011 – 2/28/2013	UWS/ USGS**	WR11 R002	
Simulating lake responses to climate change with a mechanistic water quality model	K. McMahon UW-Mad	3/1/2011 – 2/28/2013	UWS/ USGS**	WR11 R001	
Uncertainty and variability of Wisconsin lakes in response to climate change	C. Wu	3/1/2011 – 2/28/2013	UWS/ USGS	WR11 R003	
Identifying the controls on flow and contaminant distribution in siliciclastic bedrock aquifer systems	D. Hart WGNHS	7/1/2012 - 6/30/2014	UWS	WR12 R001	
Effects of nuanced changes in lot layout and impervious area connectivity on urban recharge	S. Loheide UW-Mad	7/1/2012 - 6/30/2014	UWS	WR12 R002	
An evaluation of the distribution and sources of dissolved strontium in the groundwater of eastern Wisconsin, with a focus on Brown and Outagamie	J. Luczaj, M. Zorn UW-GB	7/1/2012 - 6/30/2013	UWS	WR12 R004	
Transport of manure-derived Escherichia coli within naturally-	Xu UW-Mil	7/1/2012 - 6/30/2014	UWS	WR12 R003	
Hexavalent chromium (Cr(VI)) in WI groundwater: Identifying factors controlling the natural concentration and geochemical cycling in a diverse set of aquifers	P. Gorski, UW-Mad	7/1/2012 - 6/30/2014	UWS	WR12 R005	
Evaluation of manure and N fertilizer management strategies for corn to minimize nitrate loss	C. Laboski, UW-Mad	7/1/2012 - 6/30/2013	DNR		211
Selection and evaluation of chemical indicators for waste stream identification	W. DeVita, UW-SP	7/1/2012 - 6/30/2014	DNR		212
Meeting monitoring and information needs to support groundwater management and policy processes in the Wisconsin Central Sands	G. Kraft, UW-SP	7/1/2012 - 6/30/2014	DNR		213
Subsurface fate and transport of cryptosporidium in soils of Wisconsin's carbonate aquifer region	K.J. Karthikeyan, UW-Mad.	7/1/2012 - 6/30/2014	DNR		214
Impacts of potato and maize management and climate change on groundwater recharge across the	Chris Kucharik, UW-Mad	7/1/2012 - 6/30/2014	DNR		215
Microbial community diversity as a predictor of virus survival in groundwater	Trina McMahon, UW-MSN and Mark Borchardt, USDA	7/1/13- 6/30/15	UWS	WR13 R001	
Assessing the Effect of Riverbank Inducement on Groundwater Quality	Tim Grundl, UW-Milwaukee	7/1/13- 6/30/15	UWS	WR13 R002	
Using the New Rome Formation as a geologic weighing lysimeter for water management in Wisconsin's sand plain	Hart, Bradbury, Parsen	7/1/2013 - 6/30/14	DNR		216
Impacts of a rural subdivision on groundwater: results of a decade of monitoring	Bradbury, Rayne, Parsen	7/1/2013 - 6/30/14	DNR		217

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Characterizing the sources of elevated groundwater nitrate in Dane County, WI	McDonald, Lathrop, Bradbury, Sorsa	7/1/2013 - 6/30/15	DNR		218
Evaluating Chemical Tracers in Suburban Groundwater as Indicators of Nitrate-Nitrogen Sources	McGinley, DeVita	7/1/2013 - 6/30/15	DNR		219
Assessment of Environmental Impacts of Geothermal Source Heat Exchange	Christopher Choi, David Hart and James Tinjum, WGNHS	7/1/2014 - 6/30/16	UWS	WR14 R002	
Hydrologic Impacts of the Loss of Wisconsin's Winter on Surface Water-Groundwater Interactions	Steven Loheide, UW-MSN	7/1/2014 - 6/30/16	UWS	WR14 R003	
Effect of Source Chemistry on Mn-Bearing Solid Dissolution and Reactivity in Municipal Water Systems	Matthew Gindervogel and Christina Remucal, UW-MSN	7/1/2014 - 6/30/16	UWS	WR14 R004	
Design of a field-scale approach for evaluating nitrogen management practices impacts to groundwater	Kevin Masarik	7/1/2014 - 6/30/15	DNR		220
Reducing Human Health Risks from Groundwater: Estimating Private Well Testing Behaviors and Water Use Among Private Well Owners in Wisconsin	Kristen Malecki	7/1/2014 - 6/30/15	DNR		221
Meeting the Source Assessment Requirement under the RTCR: A Wisconsin Pilot Project	Sharon C. Long	7/1/2014 - 6/30/16	DNR		222
Monitoring and Modeling Support for Groundwater Management and Policy in the Wisconsin Central Sands	George Kraft	7/1/2014 - 6/30/16	DNR		223
An updated springs inventory for the State of Wisconsin	Kenneth Bradbury and Susan Swanson	7/1/2014 - 6/30/17	DNR		224
The Wonewoc and Tunnel City: A Potential Natural Source of Groundwater Contamination in Western & Central Wisconsin	Jay Zambito, Michael Parsen, Patrick McLaughlin, UW-Extension	7/1/15- 6/30/16	UWS	WR15 R004	
Long-term Alterations in Groundwater Chemistry Induced by Municipal Well Pumping	Jean Bahr, Madeline Gotkowitz, UW-Madison and UW-Extension	7/1/15- 6/30/17	UWS	WR15 R002	
Phosphorus & Arsenic Sensors for Real Time Environmental Monitoring	Daniel Noguera, Marc Anderson, UW-Madison	7/1/15- 6/30/17	UWS	WR15 R001	
Engaging Stakeholders to Improve the Use of Groundwater Flow Models for Decision Making	Kenneth Genskow, Kenneth Bradbury. UW-Madison and UW-Extension	7/1/15- 6/30/16	UWS	WR15 R005	
Predicting the locations of nitrate removal hotspots at the groundwater-surface water interface in Wisconsin	Robert Stelzer, UW-Oshkosh	7/1/15- 6/30/17	UWS	WR15 R003	
Describing connected fracture flow with pressure waves – oscillating flow interference testing	Michael Cardiff, UW-Madison	7/1/15- 6/30/17	DNR		225
Evaluation of Quantitative Real Time PCR (qPCR) for the Measurement of E. coli in Well Water Samples	Greg Kleinheinz, Nilay Sheth, UW-Oshkosh	7/1/15- 6/30/16	DNR		226
Anthropogenically driven changes to the metagenome of a shallow groundwater and its effect on aquifer reactivity	Tim Grundl, Ryan Newton, UW-Milwaukee	7/1/16- 6/30/18	UWS	WR16 R001	

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Investigating the impact of nitrate-nitrogen contamination on uranium concentrations in Wisconsin	Amy Nitka, Paul McGinley, UW-Stevens Point	7/1/16-6/30/17	UWS	WR16 R002	
Geologic sources of radium to municipal wells in Wisconsin	Matthew Ginder-Vogel, Madeline Gotkowitz, UW-Madison	7/1/16-6/30/18	UWS	WR16 R006	
Characterizing the timing and variability of enteric pathogen contamination within the dolomite aquifer in northeastern WI	Maureen Muldoon, UW-Oshkosh and Mark Borchardt, USDA/USGS	7/1/16-6/30/17	DNR		227
Linking groundwater and climate to understand long-term lake level fluctuations in Wisconsin	Noah Lottig, UW-Madison	7/1/16-6/30/18	DNR		228
Field verification of adenovirus assays for source tracking	Sharon Long, UW-Madison	7/1/16-6/30/17	DNR		229
Evaluating the effects of septic system density on groundwater quality in Southeastern Wisconsin	James A. LaGro, UW-Madison	7/1/16-6/30/17	DNR		230
Monitoring support for groundwater management in the Wisconsin Central Sands	George Kraft, UW-Stevens Point	7/1/16-6/30/17	DNR		231
Source investigation of nitrate contamination for private wells in Eau Claire County	Laura Suppes, UW-Eau Claire	7/1/16-6/30/18	DNR		232