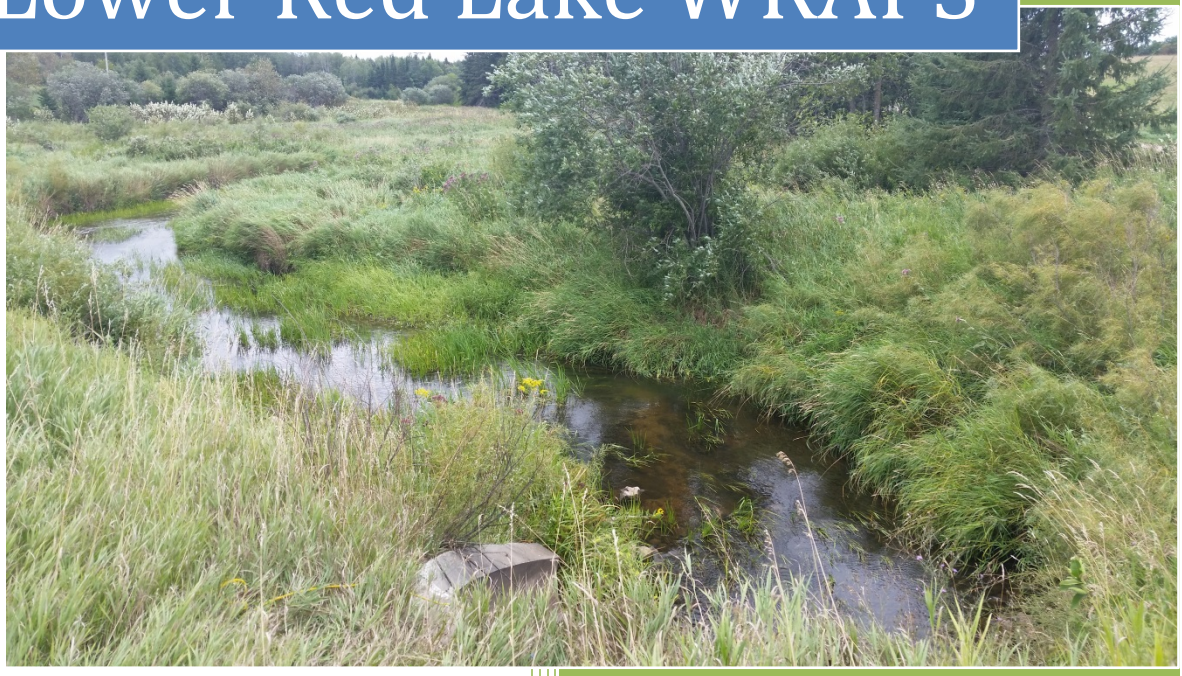
2016

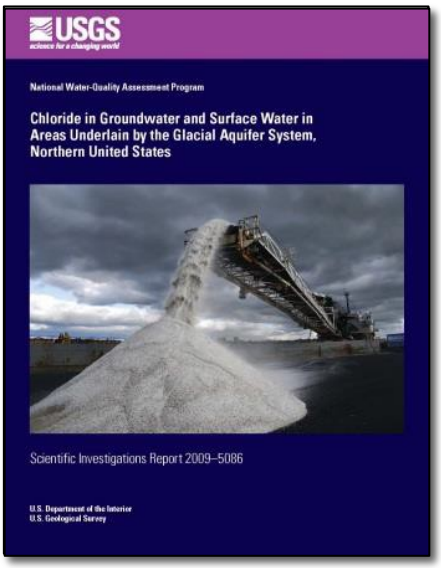
Bibliography for the Upper/Lower Red Lake WRAPS



Kayla Bowe

Red Lake Department of Natural Resources

12/19/2016

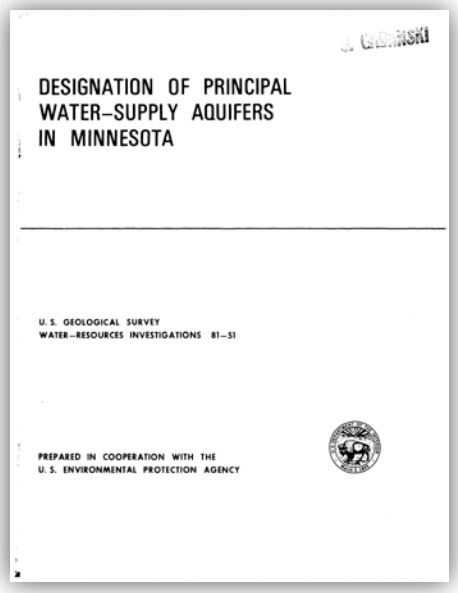


Chloride in Groundwater and Surface Water in Areas Underlain by the Glacial Aquifer System, Northern United States

United States Geological Survey

Mullaney, J.R., D.L. Lorenz, and A.D. Arntson, 2009. Chloride in Groundwater and Surface Water in Areas Underlain by the Glacial Aquifer System, Northern United States, Scientific Investigations Report 2009-5086, prepared by U.S. Geological Survey, Reston, VA, 54 p. Available online at http://pubs.usgs.gov/sir/2009/5086/pdf/sir2009-5086.pdf

This publication describes the presence of chloride in groundwater and surface waters in glacial aquifers throughout the U.S.

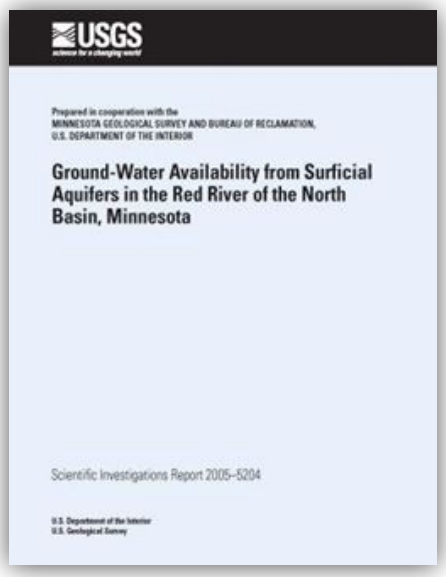


Designation of Principal Water-Supply Aquifers in Minnesota

United States Geological Survey

Adolphson, D.C, J.F. Ruhl, and R.J.Wolf, 1981. Designation of Principal Water-Supply Aquifers in Minnesota, Water Resources Investigations Report 81-51, prepared by the U.S. Geological Survey in cooperation with U.S. Environmental Protection Agency, 25 p. Available online at http://pubs.usgs.gov/wri/1981/0051/report.pdf

This publication summarizes 14 aquifers found throughout the state of Minnesota. Included within the summary are different types of aquifer, substrate composition (formation), minerals found, location and depth, and general water quality and quantity.

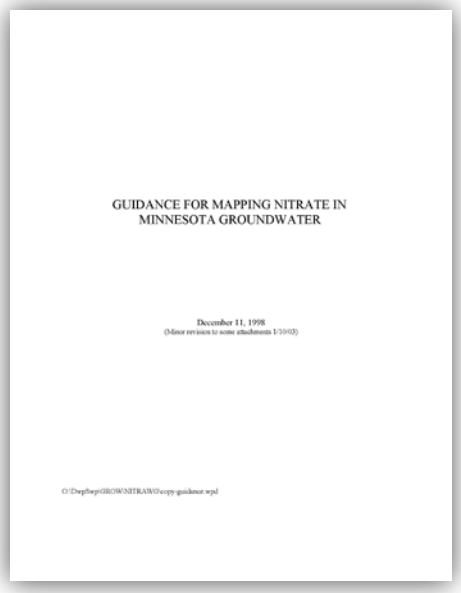


Ground-Water Availability from Surficial Aquifers in the Red River of the North Basin, Minnesota

United States Geological Survey

Reppe, T.H.C., 2005. Ground-Water Availability From Surficial Aquifers in the Red River of the North Basin, Minnesota, Scientific Investigations Report 2005-5204, prepared by the U.S. Geological Survey, Reston, VA, 54 p. Available online at http://pubs.usgs.gov/sir/2005/5204/pdf/SIR20055204.pdf

This publication describes characteristics of the surficial aquifers within the Red River of the North Basin which are examined and statistics given, including water budget estimates, storage volumes, maximum theoretical yields, groundwater quality, and availability.

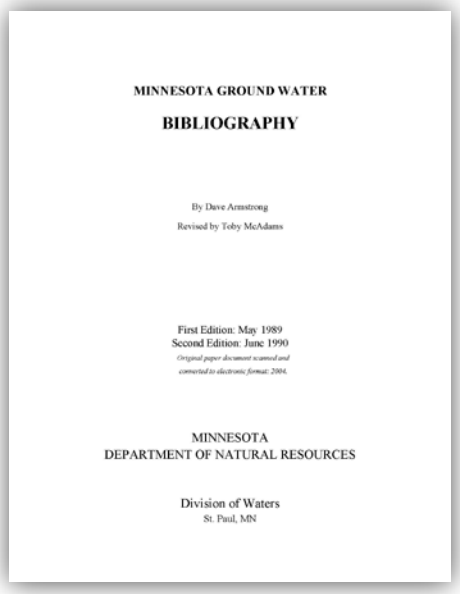


Guidance for Mapping Nitrate in Minnesota Groundwater

Minnesota Department of Health

Minnesota Department of Health, December 11, 1998. Guidance for Mapping Nitrate in Minnesota Groundwater. Available online at http://www.health.state.mn.us/divs/eh/water/swp/nitrate/reports/nitrateguidance.pdf

This guidance was developed by MDH to help identify areas with nitrate contamination and to identify hydrogeologic and well construction factors that control nitrate distribution in groundwater.

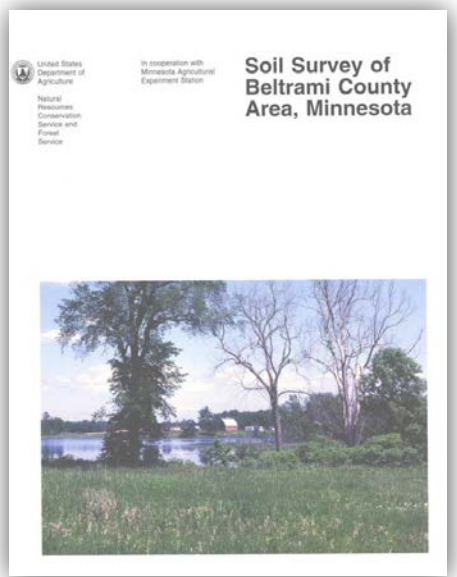


Minnesota Ground Water Bibliography: An Appraisal of Minnesota's Ground Water Quality 1987

Minnesota Department of Natural Resources

Armstrong, D., 1989. Minnesota Groundwater Bibliography. Available online at http://files.dnr.state.mn.us/publications/waters/MN_Ground_Water_Bibliography.pdf

This report is a bibliography of Minnesota's ground water quality by region and by subject such as agriculture, climate, forestry, geology, soil, surface water, surface water-ground water interactions, waste, water resource management and policy, water quality and quantity, and wetlands.

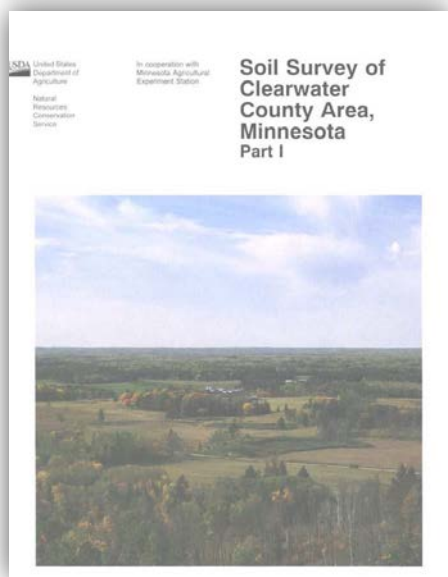


Soil Survey of Beltrami County Area, Minnesota

United States Department of Agriculture

Larson, D.A. and R.E. Rolling, 1997. Soil Survey of Beltrami County Area, Minnesota, prepared by the USDA Natural Resources Conservation Service and Forest Service in cooperation with the Minnesota Agricultural Experiment Station, 327 p. Available online at http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/minnesota/MN007/0/Beltrami_MN.pdf

This publication contains a detailed soil survey of the Beltrami County area.

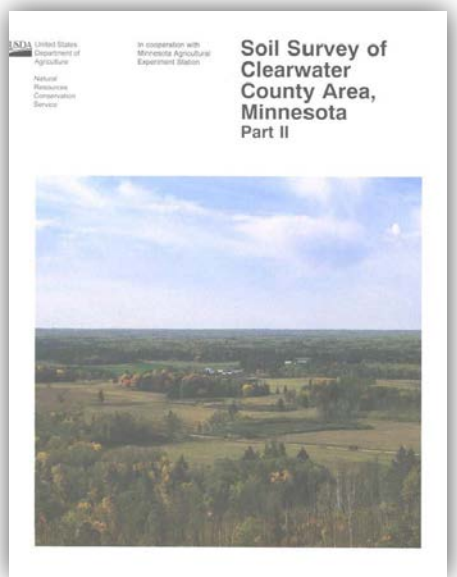


Soil Survey of Clearwater County Area, Minnesota, Part I

United States Department of Agriculture

Larson, D.A., 1997. Soil Survey of Clearwater County Area, Minnesota, prepared by the USDA Natural Resources Conservation Service and Forest Service in cooperation with the Minnesota Agricultural Experiment Station, 145 p. Available online at http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/minnesota/MN029/0/Clearwater_MN_Part1.pdf

This publication contains a detailed soil survey of the Clearwater County area with descriptions of how the soils formed, the best use, and management of soils.

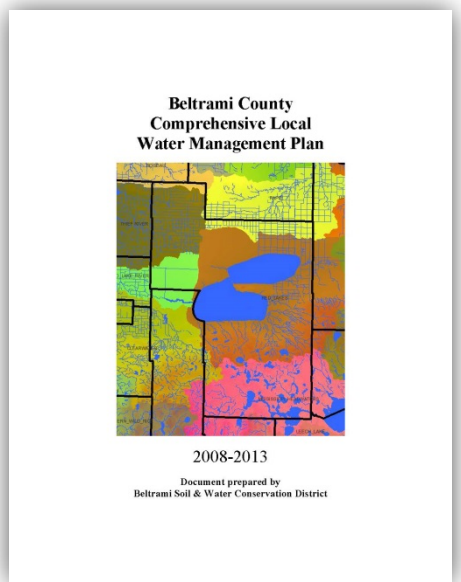


Soil Survey of Clearwater County Area, Minnesota, Part II

United States Department of Agriculture

Larson, D.A., 1997. Soil Survey of Clearwater County Area, Minnesota, prepared by the USDA Natural Resources Conservation Service and Forest Service in cooperation with the Minnesota Agricultural Experiment Station, 239 p. Available online at http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/minnesota/MN029/0/Clearwater_MN_Part2.pdf

This publication contains a soil survey of the Clearwater County area with descriptions of how the soils formed, the best use, and management of soils.

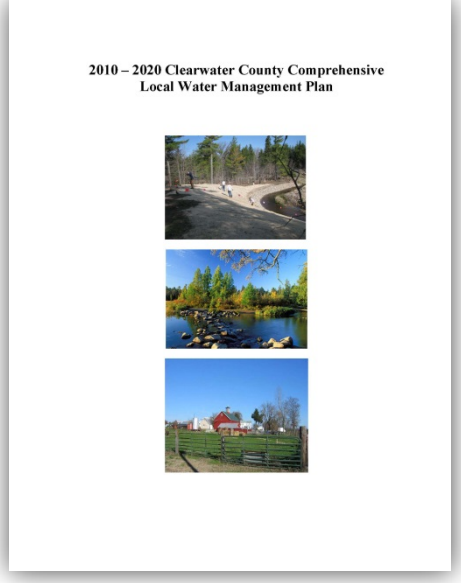


Beltrami County Comprehensive Local Water Management Plan 2008-2013

Beltrami Soil & Water Conservation District

Beltrami County Soil & Water Conservation District, 2008. Beltrami County Comprehensive Local Water Management Plan 2008-2013, 37 p. Available online at http://www.co.beltrami.mn.us/Departments/SWCD/Resources/Local%20Water%20Plan.pdf

This publication provides strategic guidance for water management activities in the county for the five year period.

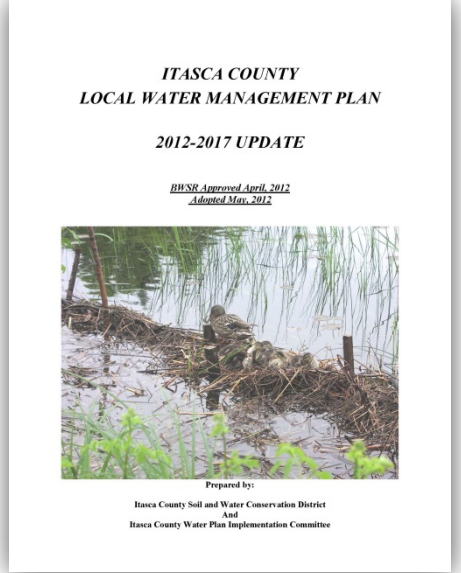


Clearwater County Comprehensive Local Water Management Plan 2010-2020

Clearwater Soil & Water Conservation District

Clearwater County Soil & Water Conservation District, 2010. Clearwater County Comprehensive Local Water Management Plan 2010-2020, 64 p. Available online at http://www.clearwaterswcd.org/2010.final.plan.official.pdf

This publication provides the county with a water management plan to address soil and water issues with the primary focus on three major watersheds in the county: Wild Rice, Clearwater, and Upper Mississippi.

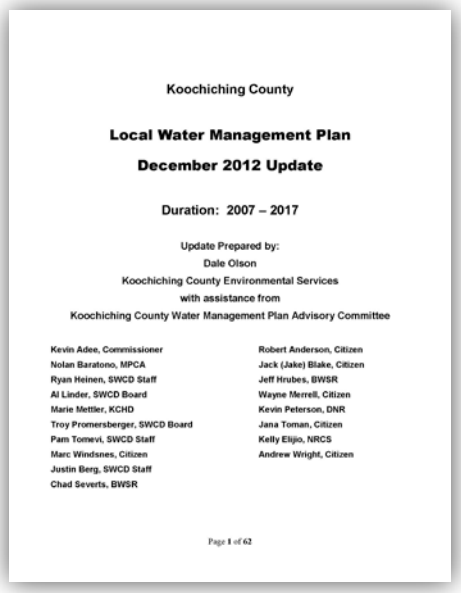


Itasca County Local Water Management Plan 2012-2017 Update

Itasca County Soil & Water Conservation District

Itasca County Soil & Water Conservation District, 2012. Itasca County Local Water Management Plan 2012-2017, 43 p. Available online at https://www.co.itasca.mn.us/Home/Departments/Environmental%20Services/Documents/Itasca%20County%20Local%20Water%20Management%20Plan.pdf

This publication provides Itasca County with six water related concerns to be addressed including surface water quality, land use and development, ground water quality, septic systems, fish and wildlife habitat, and public education.



Koochiching County

Local Water Management Plan

December 2012 Update

Duration: 2007 – 2017

Update Prepared by:
Dale Olson
Koochiching County Environmental Services
with assistance from
Koochiching County Water Management Plan Advisory Committee

Kevin Adee, Commissioner
Nolan Baratono, MPCA
Ryan Heinen, SWCD Staff
Al Linder, SWCD Board
Marie Mettler, KCHD
Troy Promersberger, SWCD Board
Pam Tomevi, SWCD Staff
Marc Windsnes, Citizen
Justin Berg, SWCD Staff
Chad Severts, BWSR
Robert Anderson, Citizen
Jack (Jake) Blake, Citizen
Jeff Hrubes, BWSR
Wayne Merrell, Citizen
Kevin Peterson, DNR
Jana Toman, Citizen
Kelly Elijio, NRCS
Andrew Wright, Citizen

Page 1 of 62

Koochiching County Local Water Management Plan December 2012 Update

Koochiching County Environmental Services

Olson, D., 2012. Koochiching County Local Water Management Plan December 2012 Update, 62 p. Available online at http://www.co.koochiching.mn.us/DocumentCenter/Home/View/98

This publication provides Koochiching County with six water related concerns to be addressed including erosion, subsurface sewage treatment systems, education/collaboration, monitoring, protection of water quality, and forestry.


A Red Lake Project History
1909-2002

LETTER
FROM
THE SECRETARY
OF WAR
TRANSMITTING

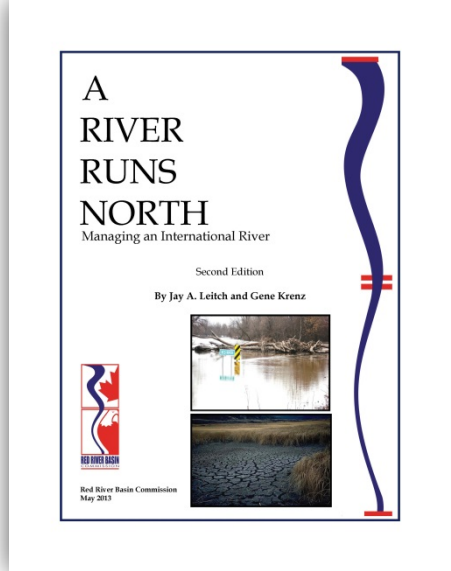
A LETTER FROM THE CHIEF OF ENGINEERS, UNITED STATES ARMY, DATED JUNE 19, 1943, SUBMITTING A REPORT, TOGETHER WITH ACCOMPANYING PAPERS AND ILLUSTRATIONS, ON A PRELIMINARY EXAMINATION AND SURVEY OF RED LAKE RIVER AND IT'S TRIBUTARIES, MINNESOTA, INCLUDING CLEARWATER RIVER, MINNESOTA, AUTHORIZED BY THE FLOOD CONTROL ACT APPROVED ON JUNE 28, 1938

A Red Lake Project History 1909-2002

U.S. Army Corps of Engineers

U.S. Army Corps of Engineers, 2002. A Red Lake Project History 1909-2002, 26 p. Available online at http://www.redlakewatershed.org/planupdate/HistoryRedLakeProject.pdf

This publication describes the U.S. Army Corps of Engineers involvement with environmental issues stemming from the regulation of discharge at the Red Lake River to Zah Gheeng Marsh restoration and fish passage projects.


A
RIVER
RUNS
NORTH
Managing an International River

Second Edition

By Jay A. Leitch and Gene Krenz

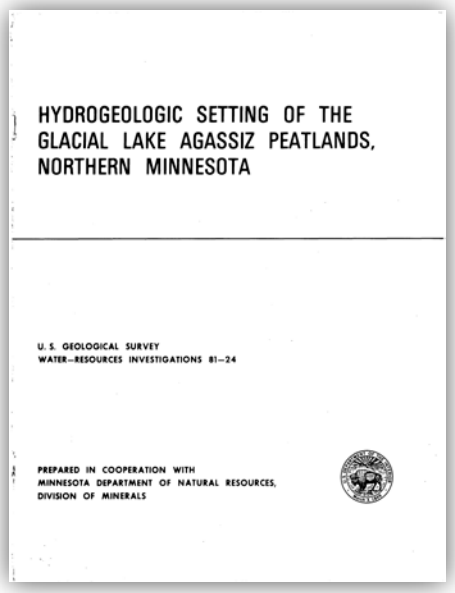
Red River Basin Commission
May 2013

A River Runs North: Managing an International River

Red River Basin Commission

Leitch, J.A., and G. Krenz, 2013. A River Runs North: Managing an International River, 148 p. Available online at http://www.redriverbasincommission.org/Reports/RRN_FINAL__5-13.pdf

This book is a tool for readers to acquire a vision of not only how the Red River Basin has changed but of what it has become. This book's vision is to help readers capture a clearer understanding, a sharper perception of the Red River watershed, and see how it is managed.


HYDROGEOLOGIC SETTING OF THE GLACIAL LAKE AGASSIZ PEATLANDS, NORTHERN MINNESOTA

U. S. GEOLOGICAL SURVEY
WATER-RESOURCES INVESTIGATIONS 81-24

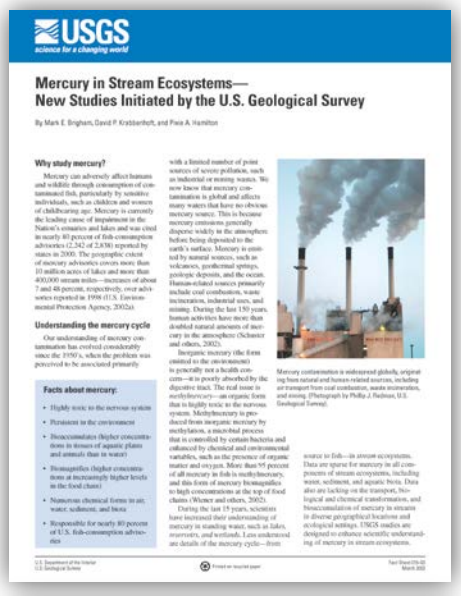
PREPARED IN COOPERATION WITH
MINNESOTA DEPARTMENT OF NATURAL RESOURCES,
DIVISION OF MINERALS

Hydrogeologic Setting of the Glacial Lake Agassiz Peatlands, Northern Minnesota

United States Geological Survey

Siegel, D.I., 1981. Hydrogeologic Setting of the Glacial Lake Agassiz Peatlands, Northern Minnesota, Water-Resources Investigations 81-24, prepared by U.S. Geological Survey in cooperation with Minnesota Department of Natural Resources, Division of Minerals, 36 p. Available online at http://pubs.usgs.gov/wri/1981/0024/report.pdf

This publication illustrates what types of soils are found for this area while depicting recharge and discharge area of groundwater on a regional scale.


USGS
science for a changing world

Mercury in Stream Ecosystems—
New Studies Initiated by the U.S. Geological Survey

By Mark E. Brigham, David P. Krabbenhoft, and Pixie A. Hamilton

Why study mercury?

Understanding the mercury cycle

Facts about mercury:

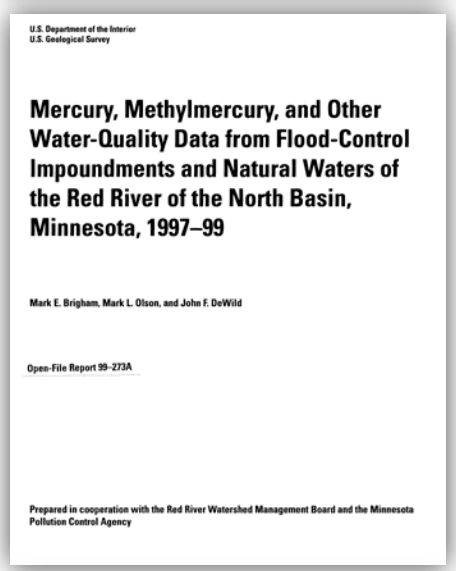
- Highly toxic to the nervous system
- Persistent in the environment
- Bioaccumulates (higher concentrations in tissues of aquatic plants and animals than in water)
- Biomagnifies (higher concentrations at increasingly higher levels in the food chain)
- Numerous chemical forms in air, water, sediment, and biota
- Responsible for nearly 80 percent of U.S. fish-consumption advisories

Mercury in Stream Ecosystems – New Studies Initiated by the U.S. Geological Survey Fact Sheet

United States Geological Survey

Brigham, M.E., D.P. Krabbenhoft, and P.A. Hamilton, 2003. Mercury in Stream Ecosystems – New Studies Initiated by the U.S. Geological Survey, Fact Sheet 016-03, 4 p. Available online at http://pubs.usgs.gov/fs/fs-016-03/pdf/fs-016-03.pdf

This article describes the negative impacts of the different forms of mercury to the consumer (inadvertently by people) and our ecosystem.


U.S. Department of the Interior
U.S. Geological Survey

Mercury, Methylmercury, and Other Water-Quality Data from Flood-Control Impoundments and Natural Waters of the Red River of the North Basin, Minnesota, 1997–99

Mark E. Brigham, Mark L. Olson, and John F. DeWild

Open-File Report 99-273A

Prepared in cooperation with the Red River Watershed Management Board and the Minnesota Pollution Control Agency

Mercury, Methylmercury, and Other Water-Quality Data from Flood-Control Impoundments and Natural Waters of the Red River of the North Basin, Minnesota, 1997-99

United States Geological Survey

Brigham, M.E., M.L. Olson, and J.F. DeWild, 1999. Mercury, Methylmercury, and Other Water-Quality Data from Flood-Control Impoundments and Natural Waters of the Red River of the North Basin, Minnesota, 1997-99, Open-File Report 99-273A, 37 p. Available online at http://pubs.usgs.gov/of/1999/0273a/report.pdf

This publication attempts to explain the impacts impounded waters have on mercury versus natural surface waters. At the time of the study, information on the cycling of mercury was limited.


METHYLMERCURY IN FLOOD-CONTROL IMPOUNDMENTS AND NATURAL WATERS OF NORTHWESTERN MINNESOTA, 1997–99

M. E. BRIGHAM[1], D. P. KRABBENHOFT[2], M. L. OLSON[2] and J. F. DEWILD[2]

Abstract.

Keywords:

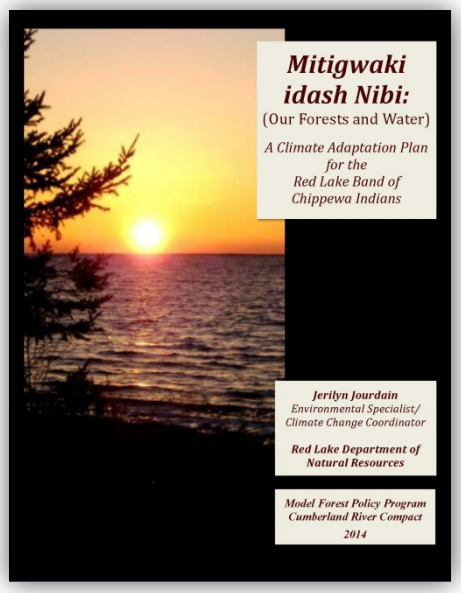
1. Introduction

Methylmercury in Flood-Control Impoundments and Natural Waters of Northwestern Minnesota, 1997-99

United States Geological Survey

Brigham, M.E., D.P. Krabbenhoft, M.L. Olson, and J.F. DeWild, 2002. Mercury, Methylmercury, and Other Water-Quality Data from Flood-Control Impoundments and Natural Waters of the Red River of the North Basin, Minnesota, 1997-99, Open-File Report 99-273A, 37 p. *in* Water, Air, and Soil Pollution 138: 61-78, 2002. Available online at http://link.springer.com/article/10.1023%2FA%3A1015573621474

This publication explains the seasonal variability of MeHg in a variety of field sites. What Brigham et al. conclude was discharge to and from peatlands exhibited the highest levels of MeHg compared to nearby reference natural lakes.

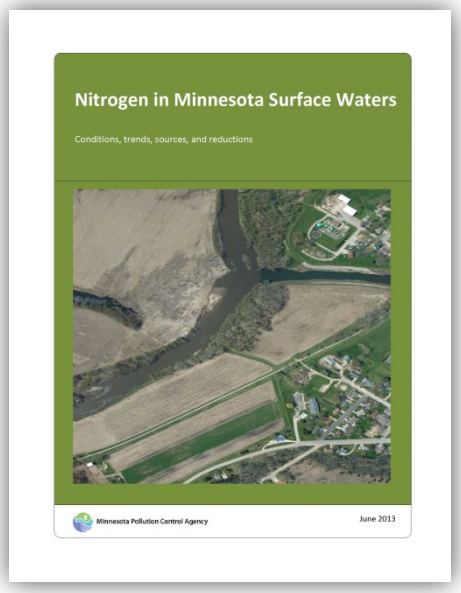


Mitigwaki idash Nibi: (Our Forests and Water) A Climate Adaptation Plan for the Red Lake Band of Chippewa Indians

Red Lake Department of Natural Resources

Jourdain, J., 2014. Mitigwaki idash Nibi: (Our Forests and Water) A Climate Adaptation Plan for the Red Lake Band of Chippewa Indians, 72 p. Available online at http://www.mfpp.org/wp-content/uploads/2011/04/Red-Lake-Forest-Water-Climate-Adaptation-Plan-Final-2014.pdf

This plan addresses possible solutions to combat climate change on the Red Lake Indian Reservation. These solutions include the protection of water and forest activities, public education, and the implementation of guidelines.

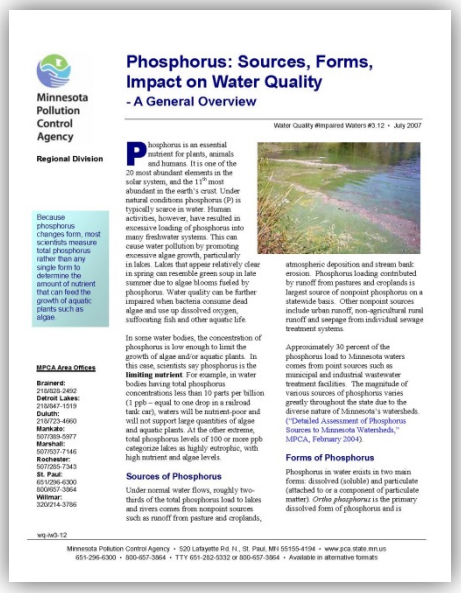


Nitrogen in Minnesota Surface Waters

Minnesota Pollution Control Agency

Minnesota Pollution Control Agency, 2014. Nitrogen in Minnesota Surface Waters prepared by the Minnesota Pollution Control Agency in collaboration with the University of Minnesota and U.S. Geological Survey, 509 p. Available online at https://www.mcknight.org/system/asset/document/529/MPCA-NitrogenInMNSurfaceWaters.pdf

The Minnesota Pollution Control Agency's Nitrogen in Minnesota Surface Waters document provides guidance to reduce the nitrogen Total Maximum Daily Load (TMDL) throughout the entire state in an effort to help combat the hypoxia regions in the Mississippi River and Gulf of Mexico.

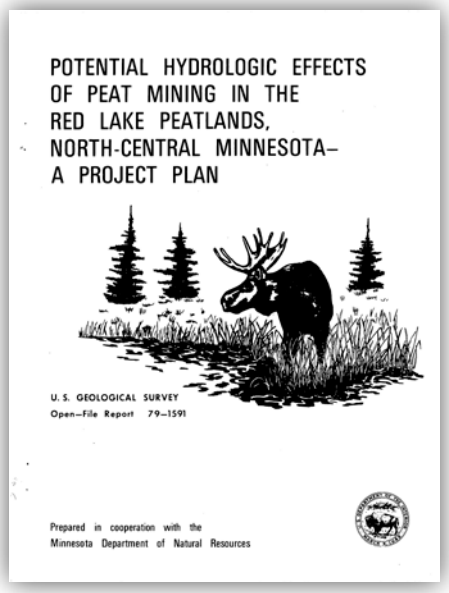


Phosphorus: Sources, Forms, Impact on Water Quality – A General Overview

Minnesota Pollution Control Agency

Minnesota Pollution Control Agency, 2007. Phosphorus: Sources, Forms, Impact on Water Quality – A General Overview, PCA document wq-iw3-12, 2 p. Available online at https://www.pca.state.mn.us/sites/default/files/wq-iw3-12.pdf

The MPCA describes the characteristics and importance of phosphorus within all water related mediums in this fact sheet.

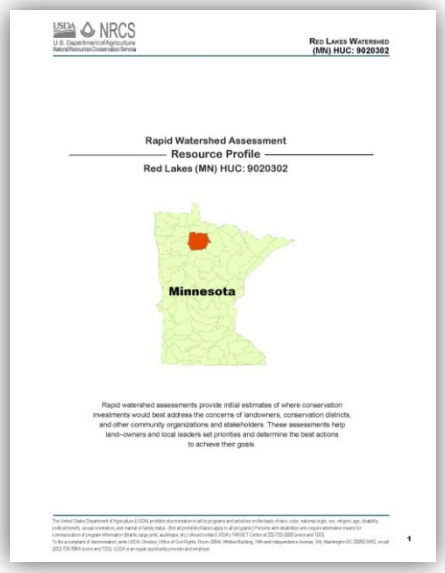


Potential Hydrologic Effects of Peat Mining in the Red Lake Peatlands, North-central Minnesota – A Project Plan

United States Geological Survey

Siegel, D.I., 1979. Potential Hydrologic Effects of Peat Mining in the Red Lake Peatlands, North-central Minnesota – A Project Plan, prepared by the U.S. Geological Survey in cooperation with the Minnesota Department of Natural Resources, Open-File Report 79-1591, 12 p. Available online at http://pubs.usgs.gov/of/1979/1591/report.pdf

This publication describes the potentially harmful effects to water related activities if mining in Northern Minnesota peatlands were to exist. The proposed plan is divided into three parts containing drilling of test holes, collection of water quality data, reporting, and refinement of methods.

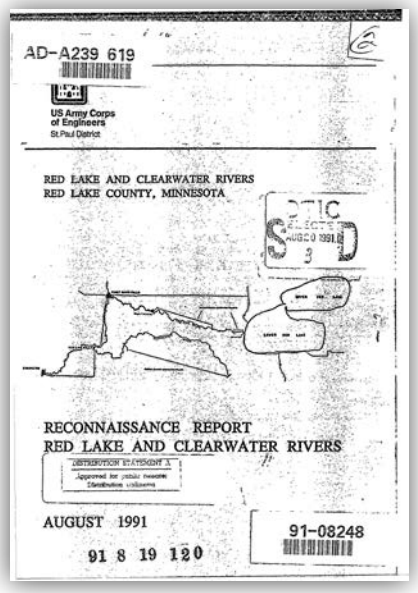


Rapid Watershed Assessment Resource Profile: Red Lakes (MN) HUC: 9020302

Natural Resources Conservation Service

Natural Resources Conservation Service, 2006. Rapid Watershed Assessment Resource Profile: Red Lakes (MN) HUC: 9020302, 18 p. Available online at http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_022513.pdf

This publication is a factual document describing ownership, land use, landscape description, soils and geology, water characteristics and water quality, and drainage information.



Reconnaissance Report Red Lake and Clearwater Rivers

United States Army Corps of Engineers

US Army Corps of Engineers, St. Paul District, 1991. Reconnaissance Report Red Lake and Clearwater Rivers, 210 p. Available online at http://www.dtic.mil/dtic/tr/fulltext/u2/a239619.pdf

This document by the U.S. Army Corps of Engineers describes their involvement in the planning and construction of water resource projects within the Red Lake River subbasin. This report reviews the problems and opportunities associated with existing Corps of Engineers water projects and evaluates the potential for Federal interest in construction of new water resource projects within the subbasin area.

Red Lake River Farm to Stream Tile Drainage Study (Presentation)

Red Lake Watershed District

Red Lake Watershed District Presentation to the 2006 Tile Drainage Workshop in Moorhead, MN. Red Lake River Farm to Stream Tile Drainage Study. Available online at http://www.redlakewatershed.org/Presentations/2006%20Tile%20Drainage%20Conference%20Presentation.pdf

This presentation by the Red Lake Watershed District is a summary of the impacts drain tiling can have on a crop field's (specifically wild rice paddies) water quality.

2008 Red Lake River Watershed Farm to Stream Tile Drainage Study Presentation

Red Lake Watershed District

Red Lake Watershed District Presentation, 2008. 2008 Red Lake River Watershed Farm to Stream Tile Drainage Study Presentation. Available online at http://www.redlakewatershed.org/Presentations/Tile Drainage Study Presentation 30 min compressed.ppt

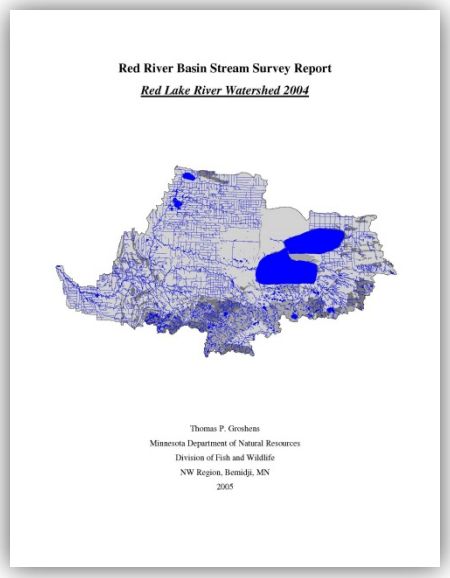
This study completed by the Red Lake Watershed District illustrated the impacts drain tiling can have on a farm field. The results indicate that phosphorus and turbidity levels were much lower than natural farm surface runoff, but total nitrogen and conductivity levels were high.

Red Lake River Watershed Farm to Stream Tile Drainage Water Quality Study

Red Lake Watershed District

Hanson, C., 2009. Red Lake River Watershed Farm to Stream Tile Drainage Water Quality Study Final Report, Revision 3, p. Available online at http://www.redlakewatershed.org/projects/Tile Drainage Study Brochure.pdf

This article is a summary of water quality results from drain tile discharge sites in farm fields throughout the Red Lake Watershed.

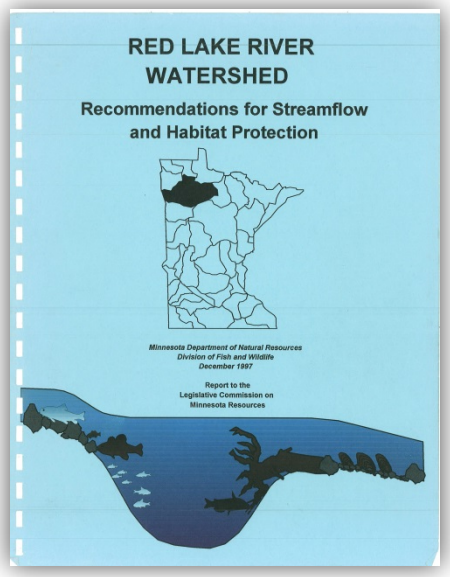


Red River Basin Stream Survey Report: Red Lake River Watershed 2004

Minnesota Department of Natural Resources

Groshens, T.P., 2005. Red River Basin Stream Survey Report: Red Lake River Watershed 2004, 106 p. Available online at www.redlakewatershed.org/waterquality/Red Lake River Watershed 2004 Stream Survey Report.pdf

This report describes the landscape setting, presents and discusses the 2004 results of current sampling, identifies factors impacting aquatic resources, and outlines potential strategies to improve the condition of stream resources within the Red Lake River Watershed downstream of Lower Red Lake and outside of the Red Lake Indian Reservation.

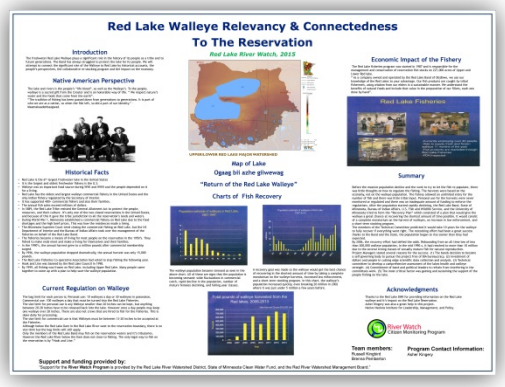


Red Lake River Watershed: Recommendations for Streamflow and Habitat Protection

Minnesota Department of Natural Resources

Harvey, J, L.P. Aadland, S.L. Johnson, A. Kuitunen, and K.L. Terry, 1997. Red Lake River Watershed: Recommendations for Streamflow and Habitat Protection, 163 p. Available online at www.redlakewatershed.org/waterquality/Red Lake River Watershed Streamflow Recommendations.pdf

This publication is a survey of biotic and abiotic characteristics affecting flow in major rivers and streams in the Red Lake River Watershed. The goal of the Stream Habitat Program is to protect degradation of streams by providing the necessary information needed to establish biologically sound protected flows for the rivers and streams of Minnesota.

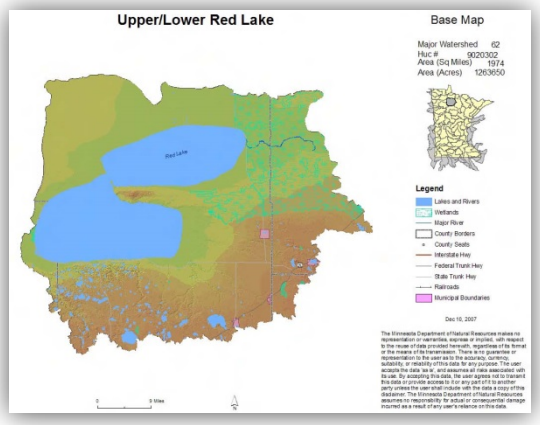


Red Lake Walleye Relevancy & Connectedness to the Reservation: River Watch Forum 2015

Red Lake River Watch

Kingbird, R. and B. Pemberton, 2015. Red Lake Walleye Relevancy & Connectedness to the Reservation, River Watch Forum 2015. Available online at www.iwinst.org/wp-content/uploads/2015/03/Red-Lake-Poster-2015-Final.pdf

This poster is a fact sheet of the Red Lakes and the impact the Lakes have had on the tribe's dependency for subsistence and income from fishing.

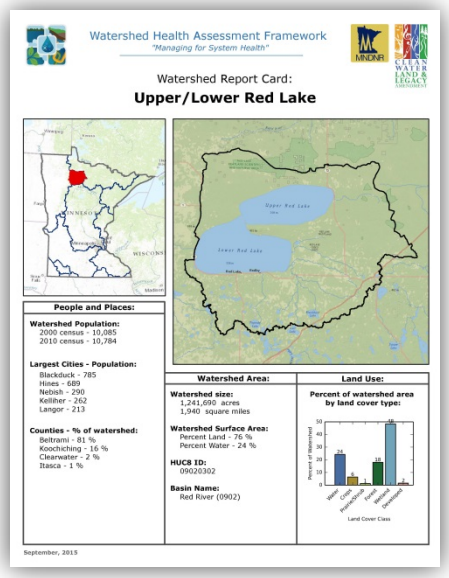


Watershed Demographics

Minnesota Department of Natural Resources

Accessed August 23, 2016. Watershed demographics for Upper/Lower Red Lake, 9 p. Available online at http://files.dnr.state.mn.us/natural_resources/water/watersheds/tool/watersheds/wsmb62.pdf

The Watershed Demographics illustrate a variety of parameters from base maps for lakes, streams and road, to cover types and water quality.

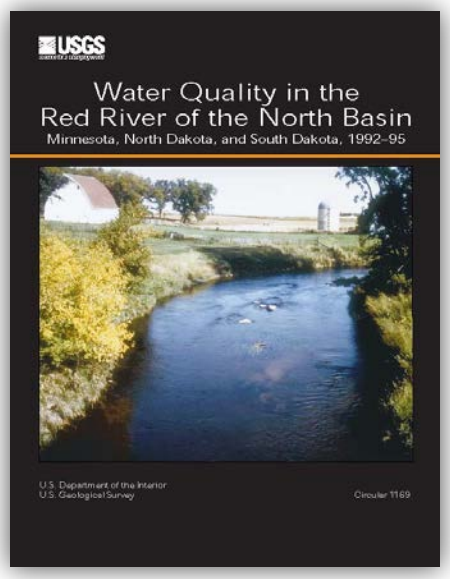


Watershed Health Assessment Framework, Watershed Report Card: Upper/Lower Red Lake

Minnesota Department of Natural Resources

Accessed August 23, 2016. Watershed Health Assessment Framework, Watershed Report Card: Upper/Lower Red Lake, 7 p. Available online at files.dnr.state.mn.us/natural_resources/water/watersheds/tool/watersheds/ReportCard_Major_62.pdf

This publication is a visual survey of a range of variables including population, cover type (perennial and impervious cover percent), hydrology, geomorphology, biology, connectivity, and water quality.

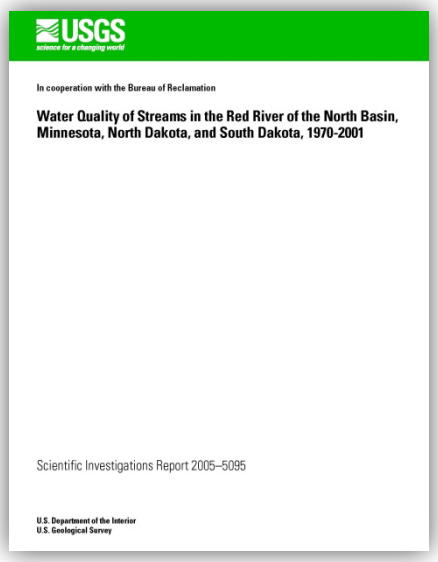


Water Quality in the Red River of the North Basin, Minnesota, North Dakota, and South Dakota, 1992-95

United States Geological Survey

Stoner, J.D., D.L. Lorenz, R.M. Golstein, M.E. Brigham, and T.K. Cowdery, 1998. Water Quality in the Red River of the North Basin, Minnesota, North Dakota, and South Dakota, 1992-95, USGS Circular 1169, 36 p. Available online at http://pubs.usgs.gov/circ/circ1169/circ1169.pdf

This publication is a summary of major issues and findings of water quality in agricultural and nonagricultural areas along with effects of nonpoint-source toxic compounds and sediment in streams.

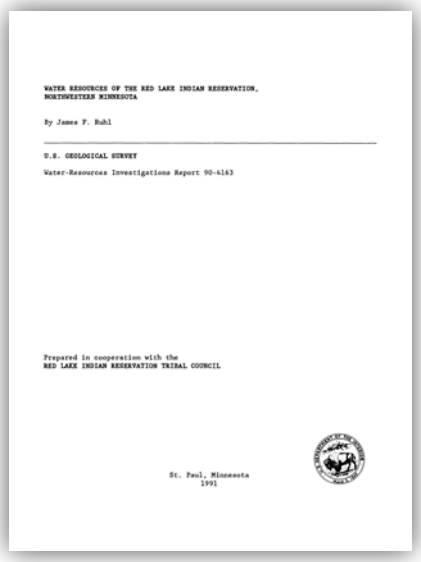


Water Quality of Streams in the Red River of the North Basin, Minnesota, North Dakota, and South Dakota, 1970-2001

United States Geological Survey

Tornes, L.H., 2005. Water Quality of Streams in the Red River of the North Basin, Minnesota, North Dakota, and South Dakota, 1970-2001, prepared by the USGS in cooperation with the Bureau of Reclamation, Scientific Investigations Report 2005-5095, 88 p. Available online at http://pubs.usgs.gov/sir/2005/5095/pdf/report.pdf

This publication is an analysis of water quality data from the Red River Basin to determine whether the water quality of streams in the basin is adequate to meet future needs.

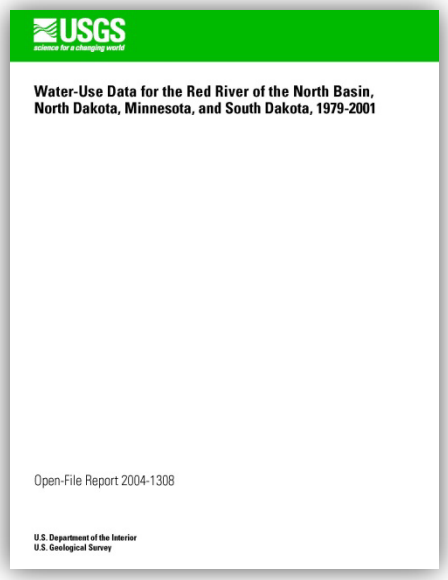


Water Resources of the Red Lake Indian Reservation, Northwestern Minnesota

United States Geological Survey

Ruhl, J.F., 1991. Water Resources of the Red Lake Indian Reservation, Northwestern Minnesota, prepared by the USGS in cooperation with the Red Lake Indian Reservation Tribal Council, Water Resources Investigations Report 90-4163, 55 p. Available online at https://pubs.usgs.gov/wri/1990/4163/report.pdf

This 1991 publication is an evaluation of water resources of the contiguous Red Lake Indian Reservation to determine if water quality and quantity meets the needs for potable supply and other household uses.

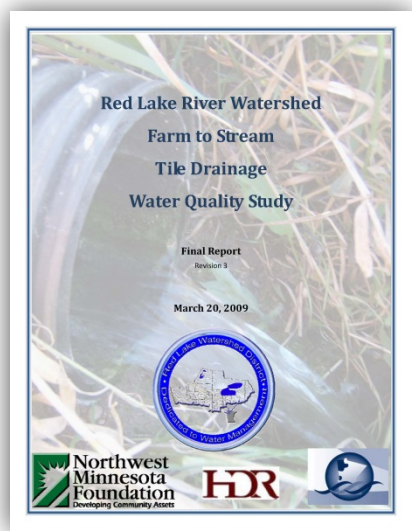


Water-Use Data for the Red River of the North Basin, Minnesota, North Dakota, and South Dakota, 1979-2001

United States Geological Survey

Macek-Rowland, K.M, A.D. Arntson, K.R. Ryberg, and A.L. Dahl, 2004. Water-Use Data for the Red River of the North Basin, Minnesota, North Dakota, and South Dakota, 1979-2001, prepared by the USGS in cooperation with the Bureau of Reclamation, USGS Open File Report 2004-1308, 260 p. Available online at http://pubs.usgs.gov/circ/circ1169/circ1169.pdf

The USGS published this report based on water withdrawal and return flow data from various sources throughout the Red River of the North Basin from 1979-2001 to estimate monthly withdrawal and return flow totals. The purpose of this study was to determine if there is a sufficient supply of water to sustain an increase in population.

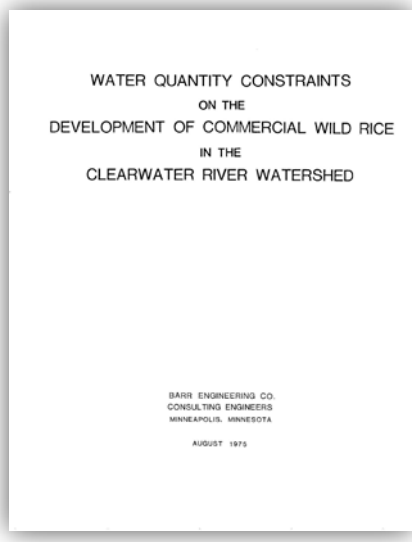


Red Lake River Watershed Farm to Stream Tile Drainage Water Quality Study Final Report, Revision 3

Red Lake Watershed District

Hanson, C, 2009. Red Lake River Watershed Farm to Stream Tile Drainage Water Quality Study Final Report, Revision 3, 131 p. Available online at http://www.redlakewatershed.org/projects/Red%20Lake%20Watershed%20Farm%20to%20Stream%20Tile%20Drainage%20Study%20Final%20Report%20R3.pdf

This publication by the Red Lake Watershed District summarizes their findings of the impacts main line drain tile has on wild rice paddies. The results from data analysis consisted of lowered suspended sediments, phosphorus, and nitrate levels compared to conventional drain tile.



Water Quantity Constraints on the Development of Commercial Wild Rice in the Clearwater River Watershed

Barr Engineering Co.

Barr Engineering Co., August 1975. Water Quantity Constraints on the Development of Commercial Wild Rice in the Clearwater River Watershed, 40 p.

The objective of this study was to determine the extent of suitable land and the water quality, quantity, and discharge needed for the wild rice industry in the Clearwater River Watershed.