

Memo

Adaptive Resources, Inc.

To: Western Water Use Management Modeling Joint Board
From: Thad Kuntz, P.G.
CC:
Date: 10/21/2016
Re: WWUM Modeling Chronological Index of Documentation

Introduction

The Western Water Use Management (WWUM) Modeling is an effort designed to provide the North Platte Natural Resources District, South Platte Natural Resources District, and Nebraska Department of Natural Resources with a set of crop consumptive use, ground water, and surface water modeling tools to aid in management of river, stream, and aquifer systems within the modeling area. This document serves as a chronological index of the various reports and documentation, including authorship where appropriate, that have been completed for this effort.

Chronological Index of Documentation

2010

Irrigated Acreage Assessment Recommendation. By Leonard Rice Engineers; June 2, 2010.

Streamflow accretion by model cell – shapefile stream depletion 100902. Memorandum to Thad Kuntz, North Platte Natural Resources District; By Richard R. Luckey, High Plains Hydrology; September 3, 2010.

Documentation of Unit Response Functions created for Western Water Use Model of the Nebraska Panhandle. By Richard R. Luckey, High Plains Hydrology; December 16, 2010.

2011

Brule Formation Fractures in NRD Priority Area 1 – Preliminary Results. Memorandum to Thad Kuntz, P.G.; By Dennis McGrane, C.P.G., P.E. and Stephanie Ashley, G.I.T., Leonard Rice Engineers; January 3, 2011.

Documentation of Shapefiles for the MODFLOW Stream Package of the Western Water Use Model in the Nebraska Panhandle. By Richard R. Luckey, High Plains Hydrology; February 2, 2011.

28 March 2011 METRIC Presentation Review. Memorandum to Thad Kuntz; by Marc Groff; April 7, 2011.

Characterization of Fractures in the Brule Formation Surrounding Lodgepole Creek, Pumpkin Creek, and The North Platte River, Western Nebraska. By Stephanie Ashley, Nebraska Department of Natural Resources; June 29, 2011.



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2012

High-Resolution GPS Dataset Documentation. Memorandum to FILE; by Thad Kuntz, P.G., North Platte NRD/South Platte NRD; March 2012.

WWUM Model Historical Consumptive Use & Pumping Estimates, Use of StateCU to Develop Historical Consumptive Use and Pumping Estimates. Memorandum to Thad Kuntz, North Platte NRD; by Mark Mitisek and Kara Sobieski, Leonard Rice Engineers, Inc.; April 2012.

Western Water Use Management Model Irrigated and Dryland Acreage Assessment. By Leonard Rice Engineers; May 2012.

Permit Maps for Irrigated Acreage in the North Platte River, Pumpkin Creek, and Lodgepole Creek Basins. Memorandum to Doug Hallum, Nebraska DNR, Ron Cacek, NPNRD, Rod Horn, SPNRD, and Marc Groff, The Flatwater Group; by Kara Sobieski, Leonard Rice Engineers; July 16, 2012.

Western Water Use Management Model Western Canal Service Area Acreage Classification Comparison. Memorandum to Western Water Use Management Model Technical Team; By Marc Groff; August 30, 2012

WWUM Technical Memorandum Colorado Pumping and Recharge Estimates. By Leonard Rice Engineers; December 19, 2012.

2013

WWUM Technical Memorandum Pumpkin & Greenwood Creek Pumping and Recharge Estimates. By Leonard Rice Engineers; January 3, 2013.

WWUM Technical Memorandum Western Canal Co-mingled Pumping and Recharge Estimates. By Leonard Rice Engineers; January 4, 2013.

WWUM Technical Memorandum Wyoming Ground Water Only Pumping and Recharge Estimates. By Leonard Rice Engineers; January 4, 2013.

WWUM Model - Canal and Lateral Recharge. Memorandum to Thad Kuntz, Adaptive Resources, Inc., Dick Luckey, High Plains Hydrology, LLC; By Mark Mitisek, Leonard Rice Engineers, Inc.; March 21, 2013.

Listing of Python Utilities Used to Support WWUM Model Unit Response Function (URF) Update Process. By James Gilbert, Nebraska Department of Natural Resources; April/May 2013.

Draft The Western Water Use Model: Regionalized Soil Water Balance Model. By The Flatwater Group; May 23, 2013.



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Western Water Use Management Model Historical Crop Consumptive Use Analysis, Final Report.

By Kara Sobieski, Wilson Water Group; June 2013.

Ground Water Flow Model for the Southern Half of the Nebraska Panhandle. By Richard R.

Luckey, High Plains Hydrology, LLC; June 2013.

Lodgepole Creek streamflow. Memorandum to Thad Kuntz, Adaptive Resources, Inc.; by Richard

R. Luckey, High Plains Hydrology; June 6, 2013.

Simulated flow to Lodgepole Creek. Memorandum to Thad Kuntz, Adaptive Resources, Inc.; by

Richard R. Luckey, High Plains Hydrology; June 28, 2013.

Western Water Use Management Model Ground Water Model Integration Training Manual. By

Mark Mitisek, Leonard Rice Engineers; July, 2013.

Hydrograph Separation Methods Used to Estimate Groundwater Discharge for Assistance in Calibration of the Western Water Use Model. By Jesse Bradley, Nebraska Department of Natural Resources, Thad Kuntz, Adaptive Resources, Inc., and Richard R. Luckey, High Plains Hydrology;

October 2013.

2014

Western Water Use Management Model Historical Crop Consumptive Use Analysis, Final Report.

By Kara Sobieski, Wilson Water Group; July 2014.

WWUM Technical Memorandum Pumpkin & Greenwood Creek Pumping and Recharge

Estimates. By Wilson Water Group, July 28, 2014.

WWUM Historical Calibrated Surface Water Allocation Model. Memorandum to Thad Kuntz,

Adaptive Resources, Inc. and John Berge, North Platte NRD; by Kara Sobieski, Wilson Water Group; November 4, 2014.

2015

Straight Line Diagram of the North Platte River from Whalen Diversion Dam in Wyoming to

Lewellen, Nebraska. By Wilson Water Group; February 2015.

Western Water Use Management Model Water Resources Model User's Manual, Final Report.

By Kara Sobieski, Wilson Water Group; February 2015.

Western Water Use Management Model StateMod Training Session. By Kara Sobieski, Wilson

Water Group; March 11, 2015.

Quality Assessment and Calibration of the Regionalized Soil Water Balance Model.

Memorandum to Western Water Use Management Modeling Joint Board; By Thad Kuntz P.G.; April 3, 2015.



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Technical Documentation: Development of Water Level Calibration Targets. Memorandum to Western Water Use Management Modeling Joint Board; By Thad Kuntz, P.G., Joe Reedy, and Jason Yuill; October 23, 2015.

Western Water Use Management Modeling, Modeling Data Integration and Calibration Plan. By: Thad Kuntz, Adaptive Resources, Inc., Scottsbluff, Nebraska; Jesse Bradley, Nebraska Department of Natural Resources, Lincoln, Nebraska; Doug Hallum, Nebraska Department of Natural Resources, Lincoln, Nebraska; Kara Sobieski, Wilson Water Group, Lakewood, Colorado; Mark Mitisek, Leonard Rice Engineers, Denver, Colorado; Marc Groff, The Flatwater Group, Lincoln, Nebraska; Dick Luckey, High Plains Hydrology, Aurora, Colorado; November 2015.

Technical Documentation: Update of Stream Baseflow Calibration Targets. Memorandum to Western Water Use Management Modeling Joint Board; By Thad Kuntz, P.G., and Joe Reedy; December 14, 2015.

2016

Technical Documentation: Stream Baseflow Calibration Target Results. Memorandum to Western Water Use Management Modeling Joint Board; By Thad Kuntz, P.G., and Joe Reedy; January 26, 2016.

Technical Documentation: Water Level Calibration Target Results. Memorandum to Western Water Use Management Modeling Joint Board; By Thad Kuntz, P.G., and Joe Reedy; January 26, 2016.

Western Water Use Management Modeling Land Use Dataset Update through 2013. Memorandum to Western Water Use Management Modeling Joint Board; By Thad Kuntz, P.G. and Heath Kuntz; April 2016.

Western Water Use Management Ground Water Model Update through April 2014. Memorandum to Western Water Use Management Modeling Joint Board; By Thad Kuntz, P.G., and Joe Reedy; May 21, 2016.

The Western Water Use Model: Regionalized Soil Water Balance Model. By The Flatwater Group, Inc.; June 24, 2016

The Western Water Use Model: Regionalized Soil Water Balance Model 2013 Extension Report. By The Flatwater Group, Inc.; June 30, 2016

WWUM Modeling Chronological Index of Documentation. By Thad Kuntz, P.G.; October 21, 2016

Western Water Use Management Modeling General Overview. By Adaptive Resources, Inc.; December 2016

