



Well Monitoring: Fall well measurements are due again. Please be sure to establish a consistent measuring pattern. If you measure in April and October, measure that same time each year if at all possible. Consistency helps in the tracking of ground water trends. Provide some comments on the status of your saline project when you phone or send in your well measurements. This is the best way for us to know if reclamation is occurring and if you have been able to return the hayland back to cropland, or the saline seep is improving or getting worse, or the neighbor's land is getting saline. To provide MSCA with your well measurements; you may send them by mail, email msca@3rivers.net , phone/fax 406-278-3071, or 800-537-6717 by land-line only.

What's Happening at MSCA

Tera Ryan became a part-time MSCA employee this fall. She moved to Butte where her husband is an instructor at the Highlands College of MT Tech. Tera works out of her home office and the MSCA office, and is still a very important part of the MSCA fieldwork team.

MSCA PROJECTS

Traditional saline seep projects with individual landowners for site-specific recommendations. Most projects are cost-shared through NRCS-EQIP funding, but some individuals have paid for the investigations on their own when cost-share is not available or timely.

Judith Basin Nitrate Project – Jane Holzer serves on an advisory committee for MSU-based project to identify the source of nitrate in many domestic wells, and develop BMPs to reduce the nitrate loading from cropland. Project is based in Fergus and Judith Basin counties.

Muddy Creek Project - MSCA will begin a ground water investigation to locate recharge areas for an extremely saline sub-watershed of Muddy Creek near Power in Cascade County. Muddy Creek is a tributary to the Sun River. MSCA will work collaboratively with the landowners and natural resource agencies and other entities to find economical solutions.



Acid Mine Discharge Remediation - Old coal mines create acid mine discharge (water with pH of 3.0) into surface waterways that lead to streams and impoundments. MSCA continues to pursue the potential to use saline seep reclamation techniques to reduce recharge into abandoned coal mine workings. Specifically, MSCA is working with MT Bureau of Mines and Geology staff to document the ground water level and direction of flow below cropland

above Belt, MT. The concept is to use the annual precipitation with perennial forage before it leaches into the mine workings and becomes acidified. More information is needed to convince funding agencies like NRCS and DEQ that this process will work and that surface landowners should be compensated for land-use change to benefit the public.

SARE Grant Cover Crop Project – MSCA assists Dr. Perry Miller/Extension Cropping Specialist and MSU graduate student Susan Tallman with an extensive cover crop research project east of Conrad on private land.

Laird Creek - Sage Creek Monitoring – MSCA continues to work with Sage Creek Watershed Alliance landowner group to address the saline impacts to ground and surface water, monitoring surface water quality, and ground water level trends in over 440 monitoring wells.

City of Conrad UST Projects – MSCA samples ground water monitoring wells associated with old gas stations that have had historical petroleum product releases. The old tanks have been removed so the monitoring is designed to document remediation.



Soil Health-Cover Crop Cocktails – MSCA completed a three-year demonstration project using multi-species cocktails as a fallow substitute to improve soil health and reduce recharge to the ground water. MSCA worked cooperatively with Stacy Eneboe/Conrad NRCS and the MSU-Western Triangle Agricultural Research Center (WTARC) at Conrad. Projects also extended to field-scale size with numerous landowners.



MSCA PROJECTS - cont.

Baseline Water Monitoring – MSCA will begin a pilot project in Fergus and Petroleum conservation districts to sample domestic and livestock wells for a chemical analyses prior to any oil/gas exploration and production. Staff will also measure well production and the ground water level. Once the process has been streamlined, MSCA will work with Toole and Liberty CDs and then in other areas as requested by individuals and CDs.

Open to new ideas – contact MSCA staff with potential projects, we may be able to make them happen or contribute time and talent and equipment to assist with innovative ideas.

Upcoming Events

MSCA Annual Meeting, November 13, 2012, 6:30 pm – Kalispell, Hilton Garden Inn. Program will include guest speakers on soil health and cover crops incorporated into cropland and/or grazing systems. MSCA will also report on the Baseline Water Monitoring pilot project and other projects. Join us!



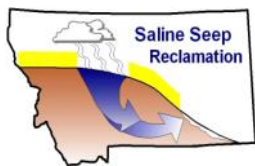
Soil Health Workshops – Guest speakers Dwayne Beck, Dakota Lakes Research Farm/ South Dakota will discuss no-till techniques on dryland and irrigated farms (including crop diversification) and Paul Jasa/University of Nebraska extension engineer will discuss no-till planting equipment and system management. Local producers will share their tips and tricks on improving soil health. Contact the local conservation districts for more specific information.

Great Falls, November 27th, Montana Electric CO-OP 501 Bay Drive, 9 am-4 pm.

Hardin, November 28th, MSU Extension Office, 415 N. Central Avenue, 12 pm-4 pm.

Miles City, November 29th, Sleep Inn & Suites, 1006 Hayne Ave, 10:30 am-4 pm.

Economic Information Conference, November 29 at **Conrad High School**, is being organized by MSCA and Conservation District groups. The presentations will focus on how the state and local economy are impacted by agriculture production and energy development. The speakers will cover MATL transmission, agriculture, oil/gas drilling & production, wind farm or other energy options. There will be a full agenda starting at 7 pm, with a brief break mid-way and opportunity for discussion afterwards if time allows. Everyone is welcome.



Montana Salinity Control Association

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