

# **81st Annual Fall Water School for Water & Wastewater Operators & Managers**

Sponsored by:      Montana Environmental Training Center      MSU - College of Engineering  
                         Montana Department of Environmental Quality      Montana Water Center

**Tentative Agenda as of August 22, 2014  
for Further Information Contact Barb Coffman  
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**Each Session Except Breaks & Vendor Show Must Be Stamped in Order to Receive Credit  
To Get Credit for Breaks & Vendor Show You Must Attend Sessions Right Before and After Each Break**  
(Please note: NO CECs will be given for the Certification Review Sessions.)

TUESDAY ~ October 7, 2014						
BALLROOM A						
7:00 AM	Registration					
8:00 AM	<b>Welcome to the 81st Annual Fall School</b> Gretchen Rupp - MSU Civil Engineering, Wyatt Cross - Montana Water Center, Greg Butts - DEQ PWS, Bill Bahr - DEQ WWSRF, & Barb Coffman - METC0.025 Dual CECs					
8:15 AM	<b>Drinking Water and Wastewater Research at MSU-Bozeman</b>  Otto Stein, MSU-Bozeman Mod. Gretchen Rupp0.100 Dual CECs			<b>Certification Review - Ballroom D</b> <b>How to Take a Certification Exam</b> Julie Allen, DEQ All Water and Wastewater ClassesNo CECs		
				<b>Certification Review</b> <b>Water</b> Ballroom D <b>Wastewater</b> Room 235		
9:15 AM	<b>Utility Management for Operators</b>  TEEX Mod: Gretchen Rupp0.100 Dual CECs			<b>SDWA &amp; General Water Terms</b>  Julie Allen, DEQ <b>All Classes 1-5</b> No CECs	<b>Wastewater Terms</b>  Bill Bahr, DEQ <b>All Classes 1-4</b> No CECs	
10:15 AM	<b>Vendor Show - Ballrooms B&amp;C</b> <b>Meet the Vendors - Great Information, Food &amp; Door Prizes</b> Wastewater - Room 233Water - Procrastinator TheaterW & WW - Ballroom A Must attend sessions right before and after each break to get credit for each break0.025 Dual CECs					
11:15 AM	<b>On-site Wastewater Systems</b>  Matt Huggins, Advanced Pump & Equipment Mod: Reta Therriault, DEQ0.075 WW CECs	<b>SWT Rules &amp; Regs</b>  TEEX Mod:0.075 W CECs	<b>Affordable SCADA</b>  Chuck Wambeke, IAC Mod:0.075 Dual CECs	<b>Math Review 1 - Basic for All Water Classes</b>  Greg ButtsNo CECs	<b>Wastewater Terms - Cont'd</b>  Bill Bahr, DEQNo CECs	
12:00 PM	<b>LUNCH - ON YOUR OWN</b>					
1:00 PM	<b>Wastewater Treatment: Optimizing Performance at Lagoons, Mechanical, &amp; Advanced Plants</b>  Bill Bahr, DEQ Mod: Wyatt Cross, MWC0.100 WW CECs	<b>SWT Rules &amp; Regs</b>  TEEX Mod:0.100 W CECs	<b>Hydraulic Valves &amp; Valve &amp; Actuation for W/WW</b>  Jacob McGough, Pipestone Equip. Mod:0.200 Dual CECs	<b>Monitoring, Sampling &amp; Total Coliform Rule All Classes 1-5</b>  All Classes 1-5 Emily Ewart, DEQNo CECs	<b>Wastewater Practice Exam</b> David Frickey, DEQ All Classes 1-4 No CECs	
2:00 PM	<b>Membrane Bioreactor Wastewater Treatment Start-up &amp; First Year</b>  Eric Blanksma, Morrison-Maierle Mod: Wyatt Cross, MWC0.100 WW CECs	<b>Filter Backwashing Rule</b>  TEEX Mod:0.100 W CECs		<b>Basic Water Chemistry</b>  All Classes 1-5 Chris Erickson, DEQNo CECs	<b>Wastewater Practice Exam - Review</b> David Frickey, DEQ All Classes 1-4 No CECs	
3:00 PM	<b>BALLROOMS B &amp; C</b> <b>Vendor Show - Ballrooms B&amp;C</b> <b>Meet the Vendors - Great Information, Food &amp; Door Prizes</b> 0.025 Dual CCECs					
4:00 PM	<b>A Sneak Peak at a "Limits of Technology" MBR</b>  Jeremy Perlinski, Morrison-Maierle Mod: Wyatt Cross, MWC0.100 WW CECs	<b>Revised Total Coliform Rule</b>  Emily Ewart, DEQ Mod: Reta Therriault, DEQ0.100 Water CECs	<b>Reagent Less Chlorine Analyzer Technology</b>  Jerry Berger, Elctro-Chemical Mod:0.100 Dual CECs	<b>Disinfection</b>  Lisa Kaufman, DEQNo CECs	<b>Wastewater Regulations</b>  Bill Bahr, DEQNo CECs	
5:00 PM	<b>Adjourn</b>					

WEDNESDAY ~ October 8, 2014						
TIME	Wastewater Room 233	Water & Management Procrastinator Theater	Water Ballroom B	Water & Wastewater Ballroom C	Cert Review - Water Ballroom D	Cert Review - WW Room 235
8:00 AM	<b>MPDES Permits</b>  Lisa-Kay Keen, DEQ Mod: R. Therriault, DEQ <b>0.100 WW CECs</b>	<b>Asset Management</b>  Glenn Barnes  Environmental Finance Center <b>Mod:</b> <b>0.200 Water CECs</b>	<b>Stage 2 Disinfection Byproduct Rule</b>  John Jose, DEQ <b>Mod:</b> <b>0.100 W CECs</b>	<b>Establishing Operation &amp; Maintenance Procedures</b>  Mike Bacon, Colorado Dept. of Health & Environment <b>Mod:</b> <b>0.200 Dual CECs</b>	<b>Groundwater Basics</b>  <b>All Classes 1-5</b>  Monte Smith, DEQ <b>No CECs</b>	<b>Wastewater Safety</b> Bill Bahr, DEQ  <b>All WW Classes</b> <b>No CECs</b>
9:00 AM	<b>Understanding DEQ's Inspection Process</b> Lisa-Kay Keen, DEQ <b>Mod:</b> <b>0.100 WW CECs</b>		<b>Road Map to Stage 2 Compliance</b>  Joe Schmidt, Hawkins Inc. <b>Mod:</b> <b>0.100 W CECs</b>			<b>Wastewater Math</b> - Frickey, DEQ <b>All WW Classes</b> <b>No CECs</b>
10:00 AM	<b>BREAK</b>  <b>0.025 Dual CECs</b>					
10:15 AM	<b>Completing &amp; Reporting Calculations &amp; Completing DMRs &amp; Reporting Lab Data</b>  Lisa-Kay Keen, DEQ <b>Mod:</b> <b>0.100 WW CECs</b>	<b>Rate Setting &amp; Fiscal Planning</b>  Glenn Barnes, EFC <b>Mod:</b> <b>0.175 Water CECs</b>	<b>Bozeman Water Plant Tour -</b>  Rick Moroney, City of Bozeman <b>Mod:</b> <b>0.175 W CECs</b>	<b>Establishing Operation &amp; Maintenance Procedures</b>  Mike Bacon, Colorado Dept. of Health & Environment <b>Mod:</b> <b>0.175 Dual CECs</b>	<b>Math Review 2 - Hydraulics</b>  <b>Classes 1-5</b> Greg Butts, DEQ <b>No CECs</b>	<b>Wastewater Math - Continued</b> David Frickey, DEQ  <b>All WW Classes</b> <b>No CECs</b>
11:00 AM						
12:00 PM	<b>LUNCH - ON YOUR OWN</b>					
1:00 PM	<b>Wastewater Microbiology</b>  Bill Bahr, DEQ & Barb Coffman, METC Mod: Barb Coffman <b>0.200 WW CECs</b>	<b>Water Loss Reduction</b>  Glenn Barnes, EFC <b>Mod:</b> <b>0.200 Water CECs</b>	<b>Water Operator Roles &amp; Responsibilities; Jeopardy Style</b>  Diane Jordan & Lisa Kaufman, DEQ Mod: R. Therriault, DEQ <b>0.100 W CECs</b>	<b>Confined Space Safety</b>  TEEX <b>Mod:</b> <b>0.100 Dual CECs</b>	<b>Math Review 3 - Dosage Calculations</b>  <b>All Classes 1-5</b> Greg Butts <b>No CECs</b>	<b>Lagoons - Facultative &amp; Aerated</b>  David Frickey, DEQ  <b>WW Classes 3-4</b> <b>No CECs</b>
2:00 PM				<b>Battling the Polar Vortex: Ice Prevention Strategies for Tanks</b>  Karen Losee, PAX <b>Mod:</b> <b>0.100 W CECs</b>	<b>Confined Space Safety</b>  TEEX <b>Mod:</b> <b>0.100 Dual CECs</b>	
3:00 PM	<b>BREAK</b>  <b>0.025 Dual CECs</b>					
3:15 PM	<b>An Introduction to the Microbiology of Drinking Water</b>  Beth Lorence, DEQ & Barb Coffman, METC Mod: Barb Coffman <b>0.175 Water CECs</b>	<b>Energy Management of Water Systems</b>  Glenn Barnes, EFC <b>Mod:</b> <b>0.075 Water CECs</b>	<b>Bozeman Wastewater Plant Tour - 3:15 - 5:00 pm</b>  <b>0.175 Wastewater CECs</b>  <b>OR</b> <b>Mod:</b> <b>Surface Water Multi Barrier, SWP &amp; Unit Processes - Cert. Review 3:15 - 5:00 pm</b>  <b>No CECs</b>	<b>Excavation and Trenching</b>  TEEX <b>Mod:</b> <b>0.175 Dual CECs</b>	<b>Safety for Small Systems</b>  <b>All Classes 1-5</b> Chris Erickson, DEQ <b>No CECs</b>	<b>Mechanical Wastewater Systems</b>  Bill Bahr, DEQ  <b>WW Classes 1-2</b> <b>No CECs</b>
4:00 PM		<b>Accessing Multiple Funding Sources</b>  Glenn Barnes, EFC <b>Mod:</b> <b>0.100 Water CECs</b>			<b>Security &amp; Emergency Preparedness</b>  <b>All Classes 3-5</b> Monte Smith, DEQ <b>No CECs</b>	
5:00 PM	<b>Adjourn</b>					

**THURSDAY ~ October 9, 2014**

TIME	Wastewater Room 233	Water Ballroom B	Water & Wastewater Ballroom C	Cert Review - Water Room 232Ballroom D		Cert Review - WW Room 235
8:00 AM	Collection System Operation & Maintenance      Nick Pericich, Matt Workman & J. Alston, City of Bozeman Mod: 0.200 WW CECs	Consumer Confidence Reports and Public Notice  TEEX Mod: 0.100 Water CECs	Safety Programs, Utility Hazards & Traffic Control      TEEX Mod: 0.200 Dual CECs	Surface Water Treatment Techniques      Gerard Gernand, DEQ No CECs	Water Treatment Classes 3-5 Chris Erickson, DEQ No CECs	Wastewater Disinfection & Sludge Disposal All WW Classes 1-4 Bill Bahr, DEQ No CECs
9:00 AM		Consumer Confidence Reports and Public Notice      TEEX Mod: 0.100 Water CECs			Distribution System Basics All Classes 1-5 Greg Butts, DEQ No CECs	Operations & Maintenance All WW Classes 1-4 Bill Bahr, DEQ No CECs
10:00 AM	BREAK0.025 Dual CECs					
10:15 AM	Industrial Wastewater Systems  Bill Bahr, DEQ Mod: 0.075 WW CECs	Biological Sampling  TEEX Mod: 0.075 Water CECs	Chemical Safety      TEEX Mod: 0.175 Dual CECs	Surface Water Monitoring Requirements Gerard Gernand, DEQ No CECs	Distribution System Basics - Cont'd Greg Butts, DEQ No CECs	General Review David Frickey, DEQ
11:00 AM	Pilot Scale Treatment Wetlands - Bridger & Ennis Fish Hatchery    Otto Stein, MSU-Bozeman Mod: 0.100 WW CECs	Biological Sampling  TEEX Mod: 0.100 Water CECs		Surface Water - Review Gerard Gernand, DEQ No CECs	Groundwater Review DEQ PWS Staff No CECs	
12:00 PM	LUNCH - ON YOUR OWN					
	Water Room 233	Water & Wastewater Ballrooms B & C				
1:00 PM	Repair & Disinfection of Large Water Systems - AWWA Standards John Alston, City of Bozeman Mod: Gretchen Rupp0.100 Water CECs	Dealing with Asbestos Infrastructure in Water & Wastewater Systems Deb Grimm, DEQ Mod: 0.100 Dual CECs		Certification Examinations Location: SUB Ballroom D Registration: 12:30 PM Exams Administered 1:00 PM		
2:00 PM	Repair & Disinfection of Small Water Systems - AWWA Standards Gerard Gernand, DEQ & Kelly Elser, Town of Ennis Mod: Gretchen Rupp0.200 W CECs	GIS 101 - How to Start Mapping Your Utility Carrie Shockly, City of Bozeman Mod: 0.100 Dual CECs				
3:00 PM	BREAK					
3:15 PM	BALLROOMS B & C					
	Backflow Prevention & Cross Connection Control Ray Hedglin, Retired City of Bozeman & Ben Ward, Williams Plumbing Mod: Barb Coffman, METC0.075 Dual CECs					
4:00 PM	Outlaws & Enemies: Typhoid & the Emergence of Public Health in Montana Spencer Shropshire, Jr., M.D. Family & Community Medicine Mod: Barb Coffman, METC0.075 Dual CECs					
4:45 PM	Closing Remarks0.025 Dual CECs					
5:00 PM	81st Annual Fall Water School Adjourned					