

Twenty-ninth Annual Water Environment School

Join us for the 29th Annual PNCWA
Water Environment School at
Clackamas Community College

This event gives the registered participant the opportunity to gain a full 2.3 CEUs. Presented topics will provide supplemental occupational education, training, and technical upgrading for those employed in both the municipal and industrial arenas.

For questions and more school information, contact:



School Information

Naomi Sether or John Lewis
Clackamas Community
College
19600 S. Molalla Avenue
Oregon City OR 97045
Phone: 503-657-6958
X2364 (Naomi)
X2206 (John)
E-Mail:
naomis@clackamas.edu
jlewis@clackamas.edu

Registration Information

Mike Stebbins
City of Portland
Columbia Blvd. WWTP
5001 N. Columbia Blvd.
Portland OR 97203
Phone: 503-823-2653
FAX: 503-823-2407
E-Mail:
mikest@bes.ci.portland.or.us

Pre-Registration

Full-three days: \$ 125
Two days: \$ 105
One day: \$ 65
*Student (3-day) \$ No charge

On-Site Registration

\$ 135
 \$ 115
 \$ 75
 \$ No charge

*Students must be currently enrolled as full-time students in a community college approved environmental program, or full-time science/engineering students in an applicable curriculum at a college, technical college or university to qualify for "No charge" registration. Call, if you have questions on your status.

Included in your registration package are continental breakfast, break time refreshments, and buffet lunch.



March 22-24, 2005



Lunch menu

Tuesday: Fiesta Bar

Taco meat (beef), tortillas & taco shells, Spanish rice, refried beans, diced tomatoes, shredded lettuce, sliced olives, shredded cheese, diced onions and salsa picante.

Wednesday: Sandwich Bar

Sliced turkey, roast beef, and ham, sliced cheddar and Swiss and pepper jack cheese, assorted breads, green leaf lettuce, sliced tomatoes, onions and pickles, salad, and chips.

Thursday: Pasta Bar

Penne noodles with meat sauce (sausage), Fettuccine Alfredo (egg and spinach noodles), Cesar salad, roasted vegetables and bread sticks.

Financial Assistance - Grants-in-Aid Available

The Water Environment School Committee in conjunction with the Oregon Region of the PNCWA is again sponsoring "Grant-in-Aid" assistance to attend the 29th Annual School at CCC. Grants will be given up to \$250 for expenses, and the three-day registration fee will be waived. These grants are intended for individuals who have been unable to participate in organized training programs due to local training budget constraints, travel distance to training opportunities, or other support issues.

To apply for a "Grant-in-Aid" you must make a written request to the Oregon Region PNCWA Education Selection Committee postmarked no later than Friday, March 11th, 2005. Please include (on official letterhead) your wastewater treatment facility/collection system type, size, and staffing level; include your name, certification grade, and a general statement of funding need. All applications will be evaluated and support awards will be dependent on the number of applications that are received, the funding amount being requested, and the availability of funds for distribution this year. Mail your application to:

Leslie Costandi
Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
Phone: (503) 229-5622
FAX: (503) 229-6037
email: COSTANDI.Leslie@deq.state.or.us

Good luck and we hope to see you at the School!

2005 Manufacturer's Representatives Exhibit

This year's manufacturer/exhibitor display will be on Wednesday, March 23, 2005 in Randall Gymnasium. There is still time to reserve a table; please call Mark Stetzel at 503-682-1231 or e-mail: stetzel@ci.wilsonville.or.us for more information.

Please plan to visit the exhibitor's display on Wednesday!!


*Reed Electric • Tool Trade & Supply Co. • Munnell & Sherrill •
Public Works Supply • The Rueck Co. • Solid Waste Equipment
Co. • Beaver Equipment • Enviro Clean Equipment Co. •
Ben-Ko-Matic • Drummond America/Lehr Enterprise • SafetyCal
• 70G Environmental LLC • Titus Industrial Group • Mag Drive
• Correct Equipment • Baker Tanks • Coffey Laboratories*

PNCWA Membership Information

The Pacific Northwest Clean Water Association (PNCWA) is one of the member associations to the Water Environment Federation (WEF). Our association promotes environmental education and issues throughout the world, yet brings needed information, assistance, and training to the local operations level. This year, you will have the opportunity to discuss the benefits of joining this most prestigious and cooperative association of wastewater professionals. For information contact John Lewis at Clackamas Community College by phone at (503) 657-6958 ext. 2206. He will mail you a WEF/PNCWA application or have one ready for you at this year's Water Environment School.

Lodging Information

This list provides you with a few motel choices. The college is located only 5 minutes south off I-205 (Park Place Exit #10), which makes access from this freeway quick and easy. When making your reservation, be sure to mention "Clackamas Community College Water Environment School" to ensure that you are quoted the rates listed here.

<u>Rivershore</u>	<u>Sunnyside Inn Motel</u>
1900 Clackamette Drive Oregon City, OR 97045 1-4 people/room with 1 or 2 beds. \$60* Local Phone: (503) 655-7141 Toll Free Phone: 1-(800) 443-7777 *Add 11% city and county tax. Includes full breakfast.	12855 S.E. 97th (I-205/Sunnyside Exit 14 Clackamas, OR 97015 1-4 people/room with 1 or 2 beds: \$50* Local Phone: (503) 652-1500 Toll Free Phone: 1-(800) 547-8400 *Add a 7% county tax. Includes continental breakfast.
<u>Days Inn</u>	<u>Hampton Inn</u>
9717 S.E. Sunnyside Road (I-205 at Exit #14) Clackamas, OR 97015 1-4 people/room: \$50* Phone:(503) 654-1699 or: 1-(800) 325-2525 *Add a 7% county tax. Includes continental breakfast.	9040 S.E. Adams Clackamas, OR 97015 (I-205 @ Clackamas/Estacada Exit #12 from the South and Exit #12A from the North) Single/Double: \$59* All Reservations, Phone:(503) 655-7900 * Add a 7% county tax. Includes continental breakfast and free evening reception.
<u>Oxford Suites</u>	
75 82nd Drive (by Safeway Store) Gladstone, Oregon 97027 (I-205 @ Gladstone Exit # 11) 1-2 people/room : \$59* 100% Non-smoking Phone:(503)722-7777 or: 1-877-558-7710 * Add a 7% county tax Oxford Suites serves a complete breakfast and evening hors d'oeuvres & beverages	

DEQ Testing

Friday, March 25th, 2005

(Application Deadline: February 1, 2005)

The Oregon Department of Environmental Quality will administer the certification exams in all grades (I-IV) for both wastewater treatment and wastewater collection systems on Friday, March 25th, 2005 (8:30 am - 12:30 pm) at Clackamas Community College, Pauling Center, Room P101, in Oregon City. You must apply to the DEQ by February 1, 2005 and receive approval prior to testing in March. You will need to attach to your application proof, that you have met, or will meet within 4 months following the month of the exam, the education requirements for the certificate sought. Required documents include a copy of your High School Diploma, GED certificate or equivalent, and for all post high school claims, copies of college or university transcripts, and certificates of continuing education (CEUs or training hours). The Water Environment School will offer you the opportunity to meet a minimum of 2.0 CEUs for certificate renewal. For applications and further information, contact the DEQ Certification Program Office, at (503) 229-5622 or toll free in Oregon 1-800-452-4011, ext. 5622. **Do this immediately.**

Current application forms, certification rules, fees and exam information may also be found on the DEQ website at:

www.deq.state.or.us/wq/opcert/opcert.htm

☞ Thank You ☜

Water Environment School Committee

Chair: Mark Stetzel

Co-chair: Bob Watson

Treasurer: Pam Flynn-Anderson

Registration: Brandy Bowers

Andrew Knight

Dick Parker-Resnick

Bruce Robbins

Mike Stebbins

Section 1 - Operations - McLoughlin Theater

Kay Hust, Mark Walter

Section 2 - Source Control - Pauling Center, P101

Brad Rumbaugh, Cloudy Sears, Angie Tomlinson

Section 3 - Collections - Gregory Forum, 10&C

Tom Binder, Jim Lowe

Section 4 - Maintenance - Pauling Center, P132

Buck, Buckland, Tim Munro, Mark Walter

Section 5 - Management and Supervision - Community Center, CC 127

Joel Borchers, Mark Poling, Tom Stow

Section 6 - Wastewater Basics - Pauling Center, P131

Monica Anderson, Steve Desmond

Section 7 - Biosolids Management - Pauling Center, P102

Tim Killingbeck, Bob Watson

Section 8 - Stormwater - Gregory Forum, 10&A & B

Luke Bushman, John Nagy, Shaun Rohret

Section 9 - Safety - DeJardin Hall, DJ191

Faye Lindroos

Section 10 - Laboratory - Pauling Center, P164

Victoria Boettcher, Charles Lytle, Jan Wilson

Section 11 - Technology - DeJardin Hall, DJ233

Dan Dooley, Steve Hanson

Manufacturer Display - Randall Gymnasium

Mark Stetzel, Gus Wettstein

*Section 1
Operations
McLoughlin Theater*

Tuesday

8:30 Opening Ceremony - Randall Gymnasium

*10:00 Nitrification - De nitrification
Ken Abraham, Black & Veatch*

11:00 Nitrification - De nitrification - Continued

*1:00 Nutrient Removal - Phosphorous Removal
Bruce Johnson, CH2MHill*

2:00 Nutrient Removal - Phosphorous Removal - Continued

*3:00 BNR Systems - Layouts
Bruce Johnson, CH2MHill*

*4:00 BNR Systems - Case Studies
Bruce Johnson, CH2MHill*

Wednesday

*8:00 City of Lethbridge's Bioenergy Management
David Perry, CDM*

*9:00 Digester Gas Burner and Safety Equipment O & M
Varec Bio Gas*

*10:00 Enhanced Clarification Processes
Bruce Johnson, CH2MHill*

*11:00 Reading P & Id Drawings
Terry Price, Brown & Caldwell*

1:00 Manufacturer's Display - Randall Gym

*2:00 Screening and Compacting System O & M
HUBER*

*3:00 Understanding & Comparing Odor Control Systems
Martin Crawford, Bay Products*

4:00 Understanding & Comparing Odor Control Systems - Continued

Thursday

*8:00 Comparison of Secondary Treatment Processes
John Harrison, Kennedy Jenks*

9:00 Comparison of Secondary Treatment Processes - Continued

10:00 Comparison of Secondary Treatment Processes -- Continued

11:00 Comparison of Secondary Treatment Processes - Continued

*1:00 Operation of Belt Filter Presses and Gravity Belts
Kelly Brown, BDP Industries*

*2:00 Effect of Upstream Process on UV Disinfection Performance
Ted Greg, Wedeco UV*

3:00 Operations Forum

4:00 Operations Forum - Continued

*Section 2
Source Control
Pauling 101*

Tuesday

- 8:30 Opening Ceremony – Randall Gymnasium*
- 10:00 Pretreatment 101
Curtis Barton, WES*
- 11:00 Portland Harbor Superfund Site
Dawn Sanders, BES*
- 1:00 Columbia American Plating
Miguel Santana, BES & Mark Callaghan, EPA*
- 2:00 Hazardous Wastes and Pretreatment
Tim Dean, BES*
- 3:00 The Pretreatment of Metal Plating Wastes
Jason Smith, Blount Inc.*
- 4:00 Hydrogen Sulfide Damage and Control
Kim Ashmore, City of Centralia*

Wednesday

- 8:00 CWTs
Eric DeBerry, BES*
- 9:00 Cyanide Treatment using Oxidizers
Michael Broussard, Pacific Environmental Solutions*
- 10:00 Manufacturer's Display – Randall Gym*
- 11:00 Field Analysis of Fats, Oils and Grease (FOG) and Petroleum
Hydrocarbons (TPH)
Sandy Rintoul, Wilkes Enterprises*
- 1:00 Glacier NW Hillsboro Site Improvements
Doug Anderson, Glacier Northwest*
- 2:00 Environmental Enforcement – Civil or Criminal?
Jeff Bachman, DEQ & Matt Anderson, EPA Criminal
Enforcement*
- 3:00 Environmental Case Development
Jeff Backman, DEQ & Matt Anderson, EPA Criminal
Enforcement*
- 4:00 No Session*

Thursday

- 8:00 Cross Media and Hazardous Waste Issues
Laurey Cook, DEQ*
- 9:00 Cross Media and Hazardous Waste Issues – Continued
No Sessions for Source Control after 10 a.m. on Thursday*

*Section 3
Collections
Gregory Forum 108C*

Tuesday

- 8:30 Opening Ceremony – Randall Gymnasium*
- 10:00 Collection System Operator Math
Paul Ackley, City of Salem*
- 11:00 Collection System Operator Math – Continued*
- 1:00 SSO Spill Response
John McGregor, City of Portland BES*
- 2:00 Sewer Jetting and Cleaning
Dave Merz, City of West Linn*
- 3:00 Sewer Nozzle Demonstrations
Jim Lowe, Enviro-Clean Equipment Co.*
- 4:00 Pipe Pigging
Don Lauinger, Water Truck Services*

Wednesday

- 8:00 SCADA Systems
Tony Bisson and Chuck McDonald, Hazel Dell Sewer District*
- 9:00 Manufacturer's Display – Randall Gym*
- 10:00 Confined Space and PPE – Combined with Safety
Greg McDonald, Public Works Supply*
- 11:00 Confined Space and PPE – Continued*
- 1:00 Sewer Root Control
Scott Rawls, Duke's Sales and Service*
- 2:00 Television Inspection Systems
Dave Bogie/Sheldon Teeple, ARIES Industries*
- 3:00 Asset Management in Collection Systems
Dan Speicher, CH2MHill*
- 4:00 Plugging Pipes Safely
Bob Checca, Allwest Underground*

Thursday

- 8:00 Traffic Safety and Flagging – Combined with Safety
Dave White, Oregon Tech. Transfer Center*
- 9:00 Traffic Safety and Flagging – Continued*
- 10:00 Traffic Safety and Flagging – Continued*
- 11:00 Traffic Safety and Flagging – Continued*
- 1:00 TV Inspection Software System –
Al Rossmeisl, Aquarius Consulting*
- 2:00 Grease Problems in Sewer Lines – Panel Discussion*
- 3:00 Sewer Vacuum Systems, How They Work
Tom Binder, Solid Waste Equipment Co.*
- 4:00 Sewer Vacuum Systems, How They Work – Continued*

*Section 4
Maintenance
Pauling 132*

Tuesday

- 8:30 Opening Ceremony – Randall Gymnasium*
- 10:00 General Alignment Principles & Methods
Roy Loop*
- 11:00 Understanding Basic Care Maintenance
Jim Weidner*
- 1:00 Vibrations Basics 101
Jim Weidner*
- 2:00 Mechanical Seals, Pump Testing Equip. & Impeller Design
Jerry Hockert*
- 3:00 Diesel Driven Hidrostal Screw/Centrifugal Sewage Pump
Joe Anastasi*
- 4:00 Metering Liquid Chemical Additives
Elmer Van Loo*

Wednesday

- 8:00 Submersible Pumps: Maintenance & Control Part 1
Tim Curns*
- 9:00 Submersible Pumps: Maintenance & Control Part 2
Tim Curns*
- 10:00 Covering Your Plant Gear Reducer Needs
Dean McGee*
- 11:00 Bearing Ideas
Dean McGee*
- 1:00 Compressed Air
Jeff Yarnall*
- 2:00 Manufacturer's Display – Randall Gym*
- 3:00 Chemical Addition Pumps
Phillip Pellitier*
- 4:00 No Session*

Thursday

- 8:00 BFP & GBT Maintenance
Kelly Brown, BDP Industries*
- 9:00 UV System Maintenance
Jackie Leinberger, P. E., Trojan Technologies*
- 10:00 Clarifier Drive Maintenance
Jess Kelly, WesTech*
- 11:00 Engine Generator Maintenance
Halton*
- 1:00 Maintenance Planning & Scheduling*
- 2:00 High Performance Polymer Systems for Repairs
Grant Johnson, Enecon*
- 3:00 Peristaltic Pump Maintenance & Repair
Doug Allie, Goble Sampson*
- 4:00 No Session*

*Section 5
Management & Supervision
Community Center 127*

Tuesday

- 8:30 Opening Ceremony – Randall Gymnasium*
- 10:00 DEQ's Water Quality Priorities
Mark Charles, Manager, Surface Water Section, DEQ*
- 11:00 Water Quality Based Permit Limits
James Nusrala, DEQ*
- 1:00 Asset Management
Mike Tidwell, Greeley & Hansen*
- 2:00 Population Estimates and Projections
Barry Edmonston, Portland State University*
- 3:00 CWS Cost Effectiveness Model
Nate Cullen, Clean Water Services*
- 4:00 No Session*

Wednesday

- 8:00 Getting the Information You Need
Chet Nakada, BOLI*
- 9:00 New Septage Hauling Rules
Uri Papish, DEQ*
- 10:00 Effluent Reuse
Russell Harding, DEQ*
- 11:00 Manufacturer's Display – Randall Gym*
- 1:00 Compliance Rules Update
Les Carlough, DEQ*
- 2:00 Dealing with Construction Defects
Roger Brown, R. Brown Consulting Group*
- 3:00 Construction Changes and Change Orders
Roger Brown, R. Brown Consulting Group*
- 4:00 No Session*

Thursday

- 8:00 Watershed Based Permit Update
Charles Logue, Clean Water Services*
- 9:00 Using the Request for Proposal to Get the Best Value
Roger Dilts, Clean Water Services*
- 10:00 Mixing Zones Update
Renee Nomura, DEQ*
- 11:00 Goalsharing
Clean Water Services*
- 1:00 Use Attainability Analysis
Marilyn Hunsaker, DEQ*
- No Sessions for Mgmt. & Supervision after 2 pm Thursday*



2004-2005 Summer Fall Winter Spring Term

Date: _____

Providing your social security number is voluntary. If you provide it, the college will use your social security number for keeping records, doing research, aggregate reporting, extending credit and collecting debts. Your social security number will not be given to the general public. If you choose not to provide your social security number, you will not be denied any rights as a student. Providing your social security number means that you consent to use of the number in the manner described.

Social security #: _____

Name: Last: _____ First: _____ Initial: _____ Date of birth: (month/day/year) _____

Home Address: Street address _____ Organization/Agency: _____

Address/phone: City: _____ State: _____ Zip: _____ Home phone: _____ Work phone: _____

History: Previous name(s) _____ Last high school or GED center attended _____ State _____ Year of diploma/GED _____

✓ all that apply: Info in this section used for educational planning, maintaining records, support services. Privacy of records is protected (see Student Handbook). We appreciate your voluntary response.

Male Female Oregon resident last 90 days? Yes No Citizen of: _____ I live: In district Out of district Out of state

Ethnic data: White/Non-Hispanic Black/Non-Hispanic American Indian/Alaskan Native Hispanic Asian/Pacific Islander Using Veterans Benefits A veteran not using Veterans Benefits but received Honorable Discharge from Military Service Requesting Disabled Student Services. Disabled but not requesting Disabled Student Services.

Emergency contact: _____ Phone: _____

I'd like to contribute to Student Emergency Fund: \$5 \$10 Other: _____

Program code:
KWSS

Course-Sec. #	Course name	Cred. Time	M	T	W	Th	F	S	Su	Room	Start date
WQT-009-01	Water Environment School	2.3 CEU	8-5	X	X	X				Comm Ctr	3/22-3/24/05

Preregistration: Full Reg \$125 2 Day Reg \$105 1 Day Reg \$65 Students \$0 (Proof required) Amount enclosed \$ _____

On-Site Registration: Full Reg \$135 2 Day Reg \$115 1 Day Reg \$75 Purchase Order # _____

No Visa/Mastercard Accepted
Make checks or purchase orders payable to: **PNCWA Continuing Education Fund.**

Please return form and payment to:
Water Environment School
c/o **PNCWA Continuing Education Fund**
Attn: Mike Stebbins
Columbia Blvd. WWTP • 5001 No. Columbia Blvd., Portland, OR 97203
FAX: 503-823-2407 • Phone: 503-823-2653

DO NOT send registration to Clackamas Community College. One registration per person! Your pre-registration form must be received by March 15, 2005.

You may duplicate this form for multiple registrations.

Clackamas Community College's Affirmative Action Policy ensures that discrimination based on race, color, religion, sex, marital status, age, disability, and family relations does not exist in any area, curriculum activity, or operation of the college.

For Office Use Only
CEU

Section 6
Wastewater Basics
Pauling 131

Tuesday

- 8:30 Opening Ceremony – Randall Gymnasium*
- 10:00 Microbiology*
Dan Lundy, Clackamas Community College
- 11:00 Microbiology – Continued*
- 1:00 Collection System Assets*
Jon Holland, Brown & Caldwell
- 2:00 Sewer System Overflows (SSOs) Reporting and Compliance*
Debra Gorman, Clean Water Services
- 3:00 Wastewater Characteristics/Treatment Issues*
Pat Curan, Curan – McLeod, Inc.
- 4:00 Preliminary and Primary Treatment*
Pat Curan, Curan – McLeod, Inc.

Wednesday

- 8:00 Solids Digestion*
Mark Kennedy, University of Portland
- 9:00 Wastewater Land Application*
Russell Harding
- 10:00 Manufacturer's Display – Randall Gym*
- 11:00 Activated Sludge Basics*
Dale Richwine, MWH
- 1:00 Activated Sludge Basics – Troubleshooting*
Dale Richwine, MWH
- 2:00 Stabilization Ponds*
Holly Ploetz, Linn-Benton Comm. College
- 3:00 Stabilization Ponds – Continued*
- 4:00 Disinfection Basics*
Dale Richwine, MWH

Thursday

- 8:00 DEQ Permit Compliance, Records and Reports*
Beth Moore, DEQ – WQ, Northwest Region
- 9:00 Applied Math for Wastewater*
Robert Sprick, Eugene – Springfield Regional WPCF
- 10:00 Applied Math for Wastewater – Continued*
- 11:00 DEQ Biosolids Compliance Overview*
Judy Johndahl, DEQ
- 1:00 Fixed Film Reactors (Trickling Filters, RBCs & Towers)*
John Harrison, Kennedy/Jenks Engineering
- 2:00 Compliance Monitoring & Quality Assurance*
Chris Redman, DEQ Laboratory Division
- 3:00 Open Forum*
- 4:00 Open Forum – Combined w/Operations in McLoughlin Theater*

Section 7
Biosolids
Pauling 102

Tuesday

- 8:30 Opening Ceremony – Randall Gymnasium*
- 10:00 Biosolid Jeopardy – Tim Killingbeck, WES, Bob Watson, OMI Gresham, and Chuck Edwards, City of Wilsonville*
- 11:00 Compliance State & Federal*
Judy Johndahl, DEQ
- 1:00 Biosolids Management Plans*
Judy Johndahl, DEQ
- 2:00 Mapping a Site with GIS & Database Recordkeeping*
Carol Murdock & Tim Killingbeck, WES
- 3:00 Site Management*
Bob Watson, OMI Gresham
- 4:00 Wrap Up – Tim Killingbeck & Bob Watson*

Wednesday

- 8:00 Dealing with the Media Session #1 –*
Joe Krumm – N. Clack. School Dist. & Ron Oberg, Clack. Co. PRG
- 9:00 Dealing with the Media Session #2 –*
Joe Krumm – N. Clack. School Dist. & Ron Oberg, Clack. Co. PRG
- 10:00 Soil Testing for Biosolids Management*
Craig Cogger, WSU
- 11:00 Biosolids Nutrient and Agronomic Loading Rate Calculations*
Andy Bary, WSU
- 1:00 Biosolids Sampling & Testing*
Dan Strong, Kristina Franklin, & Ron Meyers, WES
- 2:00 Manufacturer's Display – Randall Gym*
- 3:00 Lime Stabilization*
Dale Richwine – MWH
- 4:00 Wrap Up – Tim Killingbeck & Bob Watson*

Thursday

- 8:00 Improvements to Aerobic Digestion*
Dale Richwine, MWH
- 9:00 What is the NBMA*
Jim Fleming
- 10:00 Team Tagro*
Dan Thompson, City of Tacoma
- 11:00 New Application Equipment*
Chuck DeWolf/Ag/Co Ag/Chem
- 1:00 Biosolids in Horticulture*
Eric Smith, Schmidt Farms
- 2:00 Permits and Vehicle Restrictions*
Cynthia Fox-Course
- 3:00 Effluent Reuse/Biosolids Guidance – DEQ*
- 4:00 Wrap Up – Tim Killingbeck and Bob Watson*

*Section 8
Stormwater
Gregory Forum 108A & 108B*

Tuesday

- 8:30 Opening Ceremony – Randall Gymnasium*
- 10:00 Portland Harbor Source Control
Jim Anderson, DEQ*
- 11:00 Partnering Pretreatment & Stormwater
Randy Watson, City of Wilsonville*
- 1:00 Portland's Big Pipe
Patti Oliver, BES*
- 2:00 Stormwater from Agriculture
Claire Klock, CC Soil & Water Conservation District*
- 3:00 Is Your Stream Suffering?
Martha Mitchell, ClearWater West*
- 4:00 No Session*

Wednesday

- 8:00 Green Concrete
Dave Frentress, Glacier NW*
- 9:00 Vortechincs Stormwater Treatment
Mike Tolman, Contech Construction Products*
- 10:00 Stormwater – Reaching the Public
Hilda Stevens, WES & Karen DeBaker, CWS*
- 11:00 Manufacturer's Display – Randall Gym*
- 1:00 Returning Water to the Basins – Challenges & Opportunities Kerry
Rappold, Wilsonville*
- 2:00 Productive Enforcement with the Corps of Engineers
Justin Simms, USACE*
- 3:00 Maintaining the Navigability of the Columbia River
Laura Hicks, USACE*
- 4:00 No Session*

Thursday

- 8:00 Oregon Bridges Replacement Project
Karen Streeter, OBDP*
- 9:00 Clackamas River Fish Habitat Improvements – Barton Side
Channels -- Jim Morgan, Metro*
- 10:00 Rolling Hills Development/Lost Dog Creek Restoration
James Berg, City of Lake Oswego*
- 11:00 Bull Run Temperature & Reservoir Management
Jeff Leighton, Portland Water Bureau*
- 1:00 Oregon Department of State Lands
Steve Morrow, ODSL*
- 2:00 Missoula Floods
Oregon Field Guide, OPB*
- 3:00 Willamette River 1938 – CCC*
- 4:00 No Session*

*Section 9
Safety
DeJardin 191*

Tuesday

- 8:30 Opening Ceremony – Randall Gymnasium*
- 10:00 Below the Hook, Lifting Device Safety
Art Stanley, West Coast Wire Rope & Rigging, Inc.*
- 11:00 Below the Hook – Continued*
- 1:00 Dig Safely
Anita Floyd, Western Region Damage Prevention, Sr. Project
Analyst, Qwest*
- 2:00 Dig Safely – Continued*
- 3:00 Chemical Hygiene Plan
DeEtta Burrows, Wise Steps, Inc.*
- 4:00 Chemical Hygiene Plan – Continued*

Wednesday

- 8:00 Sleep Deprivation
Bill Kolzow, Oregon Technology Transfer Center (ODOT)*
- 9:00 Manufacturer's Display – Randall Gym*
- 10:00 Confined Space and PPE – Combined with Collections, GFC
Greg McDonald, Public Works Supply, Inc.*
- 11:00 Confined Space and PPE – Continued*
- 1:00 Emergency Management
Gene Juve, Clackamas County Sheriff Department, EOM*
- 2:00 Incident Command
Gene Juve, Clackamas County Sheriff Department, EOM*
- 3:00 Drug Testing Awareness
Duane Kobs, Clackamas County*
- 4:00 Managing a Safety Culture for Success
Jeanne Nyquist, Nyquist & Associates*

Thursday

- 8:00 Traffic Safety and Flagging – Combined w/Collections GF C
Dave White, Oregon Technology Transfer Center*
- 9:00 Traffic Safety and Flagging – Continued*
- 10:00 Traffic Safety and Flagging – Continued*
- 11:00 Traffic Safety and Flagging – Continued*
- 1:00 Safety and the Supervisor
Steven Geigle, OR-OSHA*
- 2:00 Safety and the Supervisor – Continued*
- 3:00 Clandestine Drug Labs
Grant Coffey, City of Portland*
- 4:00 Clandestine Drug Labs – Continued*

*Section 10
Laboratory
Pauling 164*

Tuesday

- 8:30** *Opening Ceremony – Randall Gymnasium*
- 10:00** *West Nile Virus in Oregon
Dr. Emilio DeBess*
- 11:00** *West Nile Virus in Oregon – Continued*
- 1:00** *Working Alone in the Laboratory
Charles Lytle, City of Portland WPCL*
- 2:00** *Working With Raw Sewage
Laura Herring, RN, City of Portland*
- 3:00** *Inventory and Storage of Lab Chemicals
Kristina Franklin, Clackamas County WES*
- 4:00** *Pacific Northwest Water Quality Exchange
Curtis Cude, Oregon DEQ*

Wednesday

- 8:00** *The Seal Model AQ-2 Automated Analyzer
Stuart Smith, Seal Analytical*
- 9:00** *The ManTech Alkalinity Auto-Titrator
Jake Bolotin, Fern Creek, Inc.*
- 10:00** *The Lachat Model AP-300 Automated Analyzer
Fred Brinkerhoff, Lachat Instruments &
John Puryear, PSI Pacific NW Corporation*
- 11:00** *The Westco SmartChem Automated Analyzer
Gordon Fromm, Extech, Ltd.*
- 1:00** *The New Seal Segmented Flow Analyzers
Stuart Smith, Seal Analytical*
- 2:00** *The Radiometer TIM-800 Series Auto-Titrator
Fred Brinkerhoff, Lachat Instruments &
John Puryear, PSI Pacific NW Corporation*
- 3:00** *Use of Colilert, Colilert-18, and Enterolert for the
Determination of E. coli, Fecal Coliforms, and Enterococci in
Waste Waters
Gil Dichter, IDEXX Corporation*
- 4:00** *Evaluation of Modified mTEC Media, Colilert, Colilert 18,
mEI Media and Enterolert for Use in Analyzing Wastewater
Samples
Jon Standridge, Standridge Consulting*

Laboratory...continued

Thursday

- 8:00** *An MDL Case Study: Low-Level Hg by ICP/MS
Jason Dahl, City of Portland WPCL*
- 9:00** *Applying for an Alternate Test Procedure for NPDES Work
Chuck Lytle, City of Portland WPCL*
- 10:00** *Selling Your Lab to Your Own Organization
Chuck Lytle, City of Portland,
Jan Wilson, Clean Water Services,
Keith Chapman, City of Salem &
Angela Parrish, City of Corvallis*
- 11:00** *Selling Your Lab to Your Own Organization – Continued*
- 1:00** *Microwave Digestion
Michael Howe, CEM Corporation*
- 2:00** *Microwave Digestion – Continued*
- 3:00** *No Session*
- 4:00** *No Session*

*Section 11
Technology
DeJardin 233*

Tuesday

- 8:30** *Opening Ceremony – Randall Gymnasium*
10:00 ISS Wonderware
Larry Claussen
11:00 iFIX Client/Server Based HMI/SCADA Solution
Mark Fusick
1:00 Using GIS to Identify Natural Resources & Development
Carol Murdock, Clackamas County
2:00 Harmonic Mitigation Technologies in Drive Systems
North Coast Electric
3:00 SCADA/PLC
North Coast Electric
4:00 *No Session*

Wednesday

- 8:00** Innovative Storm Water Treatment Technologies
Lewis Titus
9:00 Innovative Collection System Technologies
Lewis Titus
10:00 Membrane Technology
Pat Curran, P.E., Curran & McLeod Consultants, Inc.
11:00 City of Hillsboro GIS Sanitary & Storm System Management -
Dan Dooley, City of Hillsboro
1:00 *Manufacturer's Display – Randall Gym*
2:00 Users Group
Sean Johnson, ESRI Software
3:00 ESRI GIS
John Sharrard, ESRI Software
4:00 *No Session*

Thursday

- 8:00** Biosolids Drying Technology
Russell Raulston, VP Fenton Environmental Technologies, Inc.
9:00 Using GIS in Habitat Development and Management
Matt Krusemark, Multnomah County
10:00 Fish & Wildlife Habitat Model
Metro Staff
11:00 Using GIS for Data/Planning Management
Ron Wray, City of Gresham
1:00 Water Quality Data Collection
Rob Peacock, P.E., Curran & McLeod Consultants, Inc.
No Sessions for Technology after 2 pm on Thursday

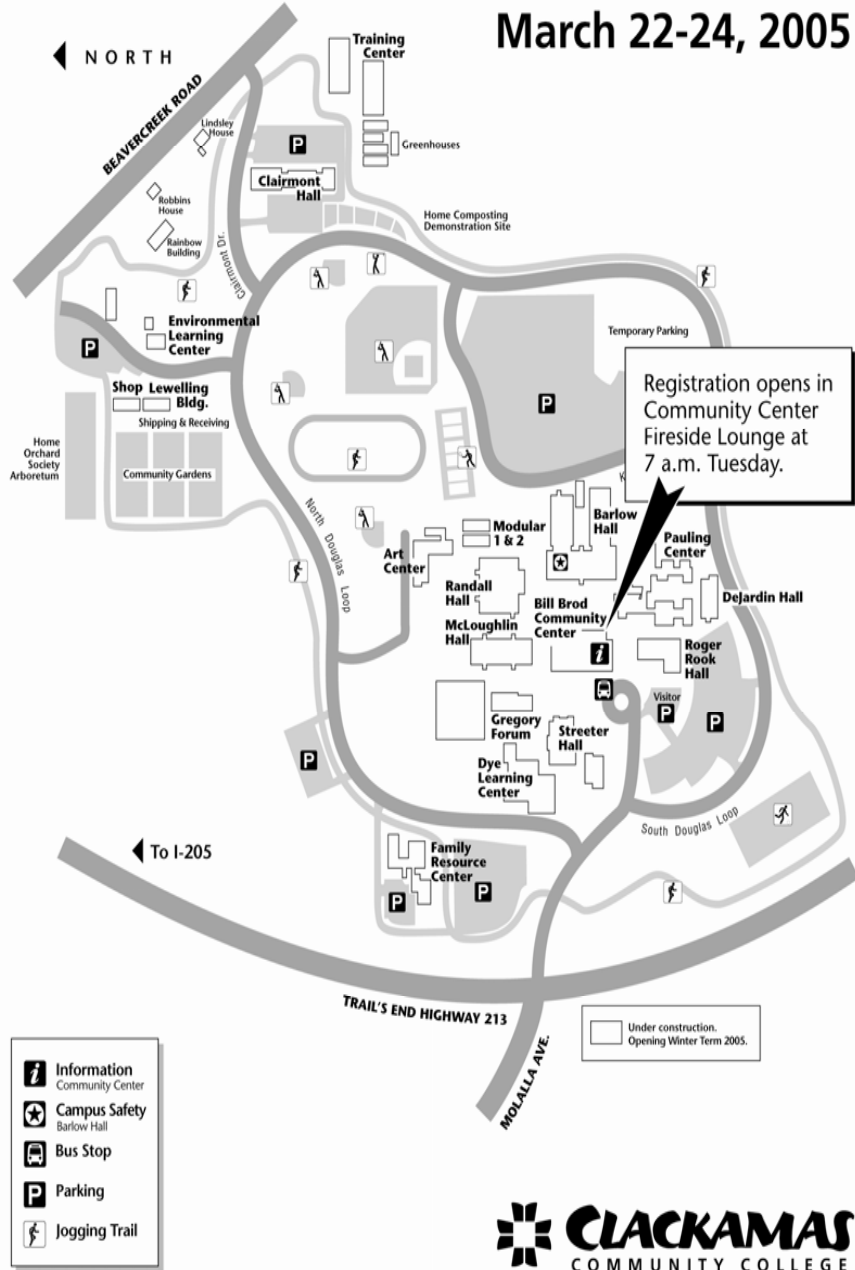
*Directions to
Clackamas Community College
19600 S. Molalla Avenue
Oregon City, Oregon
503-657-6958*

Take Exit 10 off I-205 (north or south);
stay on Highway 213 south toward
Molalla to the 4th stop light; turn left into
the college.

Registration is located in the
Community Center, Fireside Lounge.

Water Environment School

March 22-24, 2005



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