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**Date: August 1, 2008**

**To: Dr. Sabah Randhawa, Provost**

**From: Michael E. Campana, Director, Institute for Water and Watersheds**

**Re: 2008 Progress Report for Water and Watersheds Initiative**

This document contains: 1) an outline of the progress of the Water and Watersheds Initiative (WWI), as indicated by the accomplishments of the Institute for Water and Watersheds (IWW); 2) plans and goals for the next 12 months; (2008-2009); 3) where the WWI will be at full maturity; 4) updated metrics; and 5) other helpful information.

**1) Accomplishments to Date**

- Development of the *OUS Water Vision* and *Oregon Water Institute* (with PSU and UO); \$1.5M Federal Agenda request and \$1.2M OUS POP for inclusion in the Governor's budget to the 2009-2011 State legislature
- MOU with the U.S. Army Corps of Engineers for the UNESCO Category II Centre ICIWaRM (International Center for Integrated Water Resources Management); proposal now moving through the UNESCO hierarchy, acceptance highly likely
- Collaboration with Oregon Business Council to develop OBC water agenda
- Planning of Statewide water roundtables with Rep. J. Dingfelder
- Development of international water resources e-Campus course
- Creation of EWERC (Environmental and Water Education and Research Center), a partnership among OSU and local community organizations and school districts
- One-day symposium on *Aquifer Storage and Recovery and Artificial Recharge in Oregon*, 28 February; over 180 attendees
- Approval of Certificate in Water Conflict Management and Transformation (with CoS as lead)
- Expansion of collaboratory user base to include users from 9 OSU departments
- Increase in collaboratory instrumentation and analytical capability
- Collaboratory open house, classroom and informational tours
- Improved collaboratory safety measures
- Redesign of IWW WWW site
- Sponsorship of water resources seminar series
- Development of the *International Conference on Nonrenewable Ground Water Resources* (Portland, 13-14 October 2008)
- Proposals submitted – 1) USAID – Blue Revolution Initiative (\$225K; pending); 2) State Department - Environmental Institute of Central America & Caribbean (\$320K; awarded);
- Two Diversity and Excellence Fellowships and 12 graduate student research Projects funded
- USGS Research Funds for FY 2009 awarded

- WaterWired blog: 55,000 page views, 110 subscriptions
- Inaugural External Advisory Board meeting held on 4 April
- Representation and promotion of OSU water/environmental interests and expertise at numerous meetings
- OSU co-sponsorship of and participation in the Great Basin Research Management Partnership

## 2) Next 12 Months (2008-2009): Plans and Goals

- Convene Second External Advisory Board meeting
- Work with OSUF to raise funds - support from private entities for visiting/endowed professorships; fellowships; programs; continue to implement business plan for fundraising. **Goal:** \$1,500,000 raised
- Increase proposal-writing. **Goal:** two substantial multi-disciplinary proposals
- Conduct Statewide water roundtables. **Goal:** white paper on Oregon water issues
- Work with Oregon Business Council on its water agenda. **Goal:** substantial input to OBC agenda
- Convene conference on *Wells and the Well-Being of Oregon*
- Develop sustainable funding model for the IWW. **Goal:** model approved
- Inreach: on-campus visits, faculty meetings, conferences, etc.
- Pursue projects with Native Americans. **Goal:** at least one joint project
- Develop and implement EWERC business plan. **Goal:** acquire funding for EWERC through a project, foundation grant, or private donation
- Expand analytical capability using current instrumentation
- Acquire additional laboratory equipment; survey needs of existing and potential users
- Broaden collaboratory user group to include external customers (e.g., Extension, OUS schools). **Goal:** \$5,000 from OUS institutions
- Expand collaboratory classroom/educational offerings
- Support Oregon Climate Change Research Institute: joint projects, water impacts
- Support of ongoing OSU initiatives/themes in Earth System Sciences and Natural Resources

## 3) Maturity of the WWI

- Fully-functioning Water Collaboratory with state-of-the art suite of analytical equipment, educational offerings to OSU and external communities, and state-funded 0.5 FTE Collaboratory Director and administrative/maintenance expenses
- Funded Pacific Northwest Hydrologic Observatory
- Oregon Water Institute (OWI-OUS) in existence with stable state and/or federal funding base and additional funding for seed research, scholarships, visiting faculty
- Stable funding for IWW administrative expenses
- \$5,000,000 in endowments
- Stable funding for EWERC
- Recognition of OSU water expertise, especially by the State of Oregon, local governments, PNW trade groups, PNW NGOs, Federal agencies

#### 4) Updated Metrics

**Water and Watersheds Initiative/Institute for Water and Watersheds**  
**METRICS OF SUCCESS MATRIX**  
**August 2007 – August 2008**  
**Date: 1 August 2008**

<b>Objective: Institute for Water and Watersheds in Teaching, Research, and Outreach</b>			
<b>Metric</b>	<b>Indicator</b>	<b>Data Collection Method</b>	<b>Achievements</b>
Interdisciplinary proposals, projects, courses, sponsored workshops	No. of courses	No. of Cat. I/II proposals	<ul style="list-style-type: none"> <li>• Co-taught WRP 524 – Sociotechnical Aspects of Water Resources</li> <li>• Launched CSS/GEO 335 – Introduction to Water Science &amp; Policy through eCampus</li> <li>• Sponsored Fall, Winter &amp; Spring Seminar series</li> <li>• IWW identified in <i>Reader's Digest</i>, <i>National Geographic</i></li> <li>• Aquifer Storage and Recovery in Oregon Symposium Corvallis, OR with 180 attendees</li> <li>• State Department Environmental Institute for Central America and the Caribbean (\$320K-awarded)</li> <li>• USAID Blue Revolution Initiative – Middle East-North Africa Water Management (\$225K-pending)</li> <li>• IGERT Waterborne Diseases (pre-proposal)</li> <li>• NOAA Rural Communities &amp; Climate Change (pre-proposal; unfunded)</li> </ul>
	No. of sponsored seminars	Seminars offered in OSU Catalog	
	No. of Newspaper/Newsletter articles	Newspaper/Newsletter Events	
	No. of Workshops	Workshop Events	
	No. of Interdisciplinary Proposals	Proposals submitted	
	No. of Exec. Comm. Mtgs.	Meeting minutes Equipment awards	<ul style="list-style-type: none"> <li>• Quarterly meetings</li> <li>• Collaboratory moved to new</li> </ul>

Evidence of coordination of IWW activities at OSU	No. of Collaborative Facilities  Newsletters	Newspaper/Newsletter Events	location for increased water quality analyses  <ul style="list-style-type: none"> <li>• H<sub>2</sub>O News online and updated monthly</li> <li>• Over 15,000 webpage hits in 12 months</li> </ul>
No. of water/watershed proposals submitted & dollar amount	No. of “blue-sheet” proposals	Research Office and Office of Post Award Data base	<ul style="list-style-type: none"> <li>• 158 water-related proposals submitted for \$40.8 M <ul style="list-style-type: none"> <li>• 30 awarded for \$2.7M</li> <li>• 114 pending for \$32.9M</li> <li>• 14 declined for \$5.2M</li> </ul> </li> </ul>

Metric	Indicator	Data Collection Method	Achievements
<p>New and increased recognitions of OSU water/watershed programs emphasizing Oregon</p>	<p>No. of projects in Oregon</p> <p>No. of conferences featuring IWW faculty and staff</p> <p>No. of events sponsored by IWW</p> <p>No. of Newspaper/Newsletter articles</p>	<p>No. of project awards for Oregon projects</p> <p>Listing maintained on H2OSU newsletter</p> <p>Listing maintained in H2OSU newsletter</p> <p>Listing maintained in H2OSU newsletter</p>	<ul style="list-style-type: none"> <li>• Two project awards for Oregon projects Umatilla Basin ASR Technical Review; Springfield Wastewater Hyporheic Zone Study</li> <li>• IWW staff presented at the following conferences: Benton County Planning Commission; Oregon Planning Institute; Western Governor’s Association; Western Oregon University; UO Law School/Environmental Conflict Resolution Program; American Water Resources Association; Universities Council on Water Resources; Geological Society of America; University Education in Natural Resources Conference; Riverfront Alternative School (Eugene); Dept. of Health Services Benton County Forum; National Ground Water Association Summit; Sea Fest (Newport); Saturday Academy: Apprenticeships in Science and Engineering (OSU); Kiwanis (Corvallis)</li> <li>• Sponsored Winter Water Film series</li> <li>• Sponsored Environmental Journalist Cynthia Barnett author of <i>Mirage</i></li> <li>• Sponsored “Whitewater: Decentralization of River Basin Water Resource Management” by Dr. Ariel Dinar, Lead Economist, World Bank</li> </ul>

			<ul style="list-style-type: none"> <li>• Sponsored “America's Ground Water Dependence: Trends and Forecasts in a Changing Marketplace” by Kevin McCray Executive Director, National Ground Water Association</li> <li>• Maintained TOWL - (The Oregon Water List) – listserv (715 subscribers)</li> <li>• Maintained WaterWired Blog – (372 posts; 55,000 page views; 110 subscriptions)</li> <li>• 30 blog posts picked up by syndicators/newsletters</li> </ul>
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**Objective: Innovative Educational Programs**

<b>Metric</b>	<b>Indicator</b>	<b>Data Collection Method</b>	<b>Achievements</b>
Evidence of interdisciplinary courses developed or taught	<p>No. of courses</p> <p>No. of sponsored seminars</p>	<p>No. of Cat. I/II proposals</p> <p>Seminars offered in OSU Catalog</p>	<ul style="list-style-type: none"> <li>• 30 students enrolled in eCampus for Introduction to Water Science and Policy during Winter term</li> <li>• 23 students enrolled in Socio-technical Aspects of Water Resources</li> <li>• 23 students in CE - 514 - Groundwater Hydrology for faculty on sabbatical</li> <li>• Sponsored Fall, Winter &amp; Spring Seminar series</li> </ul>
Evidence of underrepresented minorities participating in water and watershed activities	No. of scholarships and awards	Competitive RFP for Scholarship	Two IWW Diversity and Excellence Fellowships awarded in 2007
Interest in Water Resources Graduate Program	No. of inquiries, applications, and acceptances	WRGP Rosters	47 students in WRGP for 2008 123 inquiries for 2008
Number of students taking water and watershed courses	Class Enrollments	Online records of class enrollments for Fall, 2008	Over 485 students enrolled in water-related courses in CSS, GEO, FE, CE, ENVE, WRGP, BEE, RGE, POLSCI, AREC,

			SOC, CHEM, F&W, COMM
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<b>Objective: High Opportunity Funding</b>			
<b>Metric</b>	<b>Indicator</b>	<b>Data Collection Method</b>	<b>Achievements</b>
Number of water and watershed proposals submitted by value	No. of RFPs from NSF or DOE labs, etc.	OSU Research Office submittals	<ul style="list-style-type: none"> <li>• USGS Water Center (\$93K)</li> <li>• \$1.5M Federal agenda request (pending)</li> <li>• \$1.2M POP to Governor's Office for inclusion in 2009-2011 budget (pending)</li> </ul>
IWW-facilitated investments in projects	No. of cooperative agreements	Press releases, new contracts	<ul style="list-style-type: none"> <li>• Twelve IWW-sponsored graduate student awards totaling \$55K spread across 10 major fields of study in COS, COE, and CLA</li> <li>• IWW-PSU award for Adaptive Governance for Land &amp; Water Management: The Rock Creek Sustainability Initiative (\$26K)</li> <li>• MOU with ICIWaRM – International Center for Integrated Water Resources Management</li> </ul>
Evidence of new and increased recognition of OSU Water and Watershed programs	No. of awards and invitations to conferences	Press releases	<ul style="list-style-type: none"> <li>• IWW assisting Rep. J. Dingfelder with Statewide Water Roundtables</li> <li>• IWW assisting Oregon Business Council with Water Working Group in concert with INR</li> <li>• Director invited by Sen. G. Smith to help plan meeting to improve Water for the Poor Act</li> <li>• Director's advice sought by Rep. Sheila Jackson Lee (D-TX) on legislation related to global water issues</li> </ul>

**Objective: Faculty, Students, and Oregonians Engaged in Water and Watershed Problem Solving**

Metric	Indicator	Data Collection Method	Achievements
Number of participants in OSU Water and Watershed activities	No. of attendees	Registrations, sign-in, and head count	<ul style="list-style-type: none"> <li>• Co-sponsor of Aquifer Storage and Recovery Symposium with OWRD with 180 attendees</li> <li>• Winter Water Film Series – 250 attendees, mostly from public</li> </ul>
Number of organizations in OSU Water and Watershed activities	No. of co-sponsors of activities	Cooperative agreements	<ul style="list-style-type: none"> <li>• Willamette River Map update with Corvallis Environmental Center (August 2008 release)</li> <li>• Sponsor of Hydrophiles</li> <li>• Sponsor of Drinking Water Protection Program intern with City of Corvallis</li> <li>• Sponsor of Water Policy Coordinator Intern with Benton County Commissioner</li> </ul>
Number of K-12 teachers involved in IWW Programs	No. of classes or attendance at festivals	IWW-USGS Mini-grant Program  IWW Participation in School Events	<ul style="list-style-type: none"> <li>• Oregon Trout Stewardship</li> <li>• Sea Fest at HMSC</li> <li>• Apprenticeships in Science and Engineering Midsummer Conference at OSU</li> <li>• Developing Environment and Water Education and Research Center to partner with local school districts</li> </ul>
Evidence of new and increased recognition of OSU Water and Watershed programs – emphasizing Oregon	IWW personnel on committees  IWW contracts for services	Press releases  New and ongoing contracts	<ul style="list-style-type: none"> <li>• IWW Director selected for Executive and Steering Committees for Benton County Water Planning</li> <li>• Director invited to speak at Water Summit (Rep. Blumenauer)</li> <li>• Director invited to address Oregon Water Commission; Water Subcommittee of Global Warming Commission; and OR House Energy &amp;</li> </ul>

			<p>Environment Committee</p> <ul style="list-style-type: none"> <li>• IWW ongoing with Umatilla County Critical Groundwater Taskforce Outreach Assistance for ASR Project funded by SB 1069</li> <li>• Director on OWRD Technical Review Committee for Water Supply &amp; Conservation Initiative</li> </ul>
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<b>Objective: Collaboratory for Water and Watersheds on the OSU Campus</b>			
<b>Metric</b>	<b>Indicator</b>	<b>Data Collection Method</b>	<b>Achievements</b>
Quantity of Collaboratory water services	Nutrient analyses including 7 anions and 6 cations using IAC and AA	IWW website	<p>New equipment &amp; capabilities:</p> <p>IAC = 7 anions  AA Spectrometer 13 cations  Spectrophotometer 200 - 1100 nm  Carbon Analyzer: Organic, inorganic and total carbon  Gas Chromatograph FID, TCD and ECD Detectors  Auto Analyzer 4 nutrients  pH Meter  Conductivity Meter</p>
Quantity of Collaboratory facilities	Equipment and Location	IWW website	Move to Forestry Sciences Laboratory in April 2007, and formally opened the doors for business with an Open House October, 2007.
External funding supporting Collaboratory	No. of Analyses	Invoice Records	<p>Total No. of Samples = 2,249  Total Charges for Analysis = \$2,702  Collaboratory Users = 10</p> <ul style="list-style-type: none"> <li>• Dept. Using the Collaboratory:</li> <li>• Bio. and Eco. Engineering</li> <li>• Fisheries and Wildlife</li> <li>• Forest Engineering</li> </ul>

			<ul style="list-style-type: none"> <li>• Forest Science</li> <li>• Soil Science</li> <li>• Industrial Engineering</li> <li>• Geosciences</li> <li>• Botany and Plant Pathology</li> </ul>
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**5) Other Helpful Information**

- Dr. Todd Jarvis named IWW Associate Director
- Director and Dr. Todd Jarvis met with numerous stakeholder groups
- Director elected to Board of Directors of American Water Resources Association, USA's premier multidisciplinary/interdisciplinary water society; chaired AWRA Annual Conference, Albuquerque, November 2007
- IWW played prominent role in supporting the Umatilla County Critical Groundwater Basin Task Force; work in basin has been featured internationally.
- Director concluded membership on NAS *Committee on Hydrology, Ecology, and Fishes of the Klamath River Basin*, resulting in report publication
- IWW (Dr. Todd Jarvis) helped frame the debate on Measure 37/49 effect on water resources, water planning, and bottled water
- IWW Director recognized as one of the academic leaders in hydrophilanthropy
- IWW Director served as Chair, Water Resources Graduate Program Director Search Committee and serving on Forest Engineering, Resources, and Management Department Head/Professor Search Committee
- IWW Director co-advisor of Hydrophiles student group
- IWW played prominent role in helping create the Great Basin Research Management Partnership; may enhance funding opportunities
- IWW assisting Benton County in developing water plan
- IWW facilitates submission of interdisciplinary and multidisciplinary proposals by assembling teams using a matrix model