Getting Cranked Up!

...at the 2009 Conference

Photos: Cynthia Lane

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Hello members! I would like to recognize this year’s board members and short course staff as we continue to strive for excellence in our field. My slogan is, “Water and Wastewater Professionals are a Terrible Thing to Waste,” and it keeps me committed to carrying the torch that has been given to me and to leading our organization by example and helping our members be successful with certification and career goals. My goal and vision as President is to use every possible means to help our members be successful with the training we provide and look for creative ways to get our members more involved.

We hope our training will bridge any gap that exists between the training your employer provides and the requirements to upgrade and/or keep your license current for certification. At the same time we would like to incorporate your fresh ideas and valuable knowledge to come up with creative ways for us to help and serve you better. That’s why it is important for us to hear from you. So please contact me or any board member with what is on your mind.

As far as membership goes, we have reached the 700 club and I hope each member feels they have a voice and a vote in making our organization strong and deciding what direction we take while moving forward in the 21st century. I’m looking forward to coming to each section and training session with you as we build our organization together and overcome the challenges and obstacles we meet throughout this year. Congratulations to our award winners in the different sections who won Operator of the Year, Lab Personnel of the Year and a special recognition to the outstanding facilities who supported our organization goals.

As the fall begins, I look forward to the challenges facing the organization and our industry. The past few years, leadership has focused on increasing the visibility of the association in the public eye. To that end I have adopted as a theme for the year: “Public Outreach, Maintain Public Trust.” CWEA should be viewed as a key resource for the general public, politicians and educators as we solve the problems around our region. Whether it is the Chesapeake Bay or local rivers and streams, all deserve the best our membership has to offer in protecting the environment.

To this end, the Public Education Committee will explore the possibility of producing a video (or series of videos) that project the activities that we lead, such as, operation and maintenance of Waste Water Treatment Plants, and build a storyline that will reach our target market. You can help! Your ideas, concepts, skills and knowledge can make this a successful endeavor. While I expect the lead committee to work very hard to meet this objective, it is all our responsibility to make it happen and make it worthwhile. Please join in, sending your suggestions, volunteering your time and displaying your talents. All are needed.

As to my year as President of the organization, I can not help but be enthusiastic about renewing CWEA’s commitment to training. Just a few days before taking office, I contacted Eric Coates and told him that I would like to see CWEA become even more active in our offering of training. In this arena, I am looking for all of us to become better at what we do. Eric took the challenge and has re-invigorated the committee and CWEA should also look forward to increasing our service to the membership in this vitally important facet of our industry.

Finally, you should know that there are plenty of areas where we need your participation. You can join a subcommittee of the Tri-Association or any of other standing CWEA committee that fits your interest. Or perhaps you are aware of an upcoming trend that we should pay more attention than in the past, if so, let’s discuss. CWEA exists for its members and your involvement will ensure that we meet our objectives.
CALENDAR OF EVENTS

Winter/Spring

February 23–25, 2010
Delaware Rural Water Association Conference
Delaware State Fairgrounds, Harrington, DE
Check www.drwa.org for details

April 7–8, 2010
Asset Management Seminar
Presented by Steve Albee of EPA
Hosted by Collection Systems Committee at MITAGS

www.wwoa-cwea.org

TO ALL MEMBERS:

When completing membership renewals, make sure all information is correct and current. We use WMBA (WEF Membership By Access) for membership information. If there is an e-mail address, please include it.

CHANGE OF ADDRESS

Please forward your change of address and membership number to the appropriate organization:

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Janet Owens
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CWEA Secretary
Carlos Espinosa
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Printed on Recycled Paper
In September a couple of newspapers not located in Baltimore or Washington, The Richmond Times-Dispatch and The Philadelphia Inquirer, gave extensive coverage to the Chesapeake Bay. It is a good sign that other papers, even one outside the watershed, have recognized the importance of informing their readers about the Bay’s health. Also in September, the first official volley in the much talked about Bay wide TMDL was fired when a notice was published in the 9/17 Federal Register. The notice said: EPA is soliciting preliminary comments (send to Jennifer Sincock at 215 814-5766 or sincock.jennifer@epa.gov) on the Bay TMDL for nutrients and sediment until December 18th. Public meetings will also be held in late 2009. After a draft TMDL is developed a second comment period will be held next summer. The TMDL will address up to 92 impaired Bay and tidal tributary segments and will be the largest, most complex TMDL in the country. EPA is obligated by law to establish a Bay TMDL by May 1, 2011.

Back a century ago when populations were low there was a worry that whitetail deer would perish. Thanks to game management, habitat restoration, and during hard winters hay and corn being airlifted to feed them, deer populations spectacularly rebounded. We are now overrun with deer and states like Virginia have taken to outlawing the feeding of deer. Virginia’s ban is in effect until January 2nd. Even if you don’t live in Virginia, do your part and don’t feed deer.

Senator Benjamin Cardin of Maryland has been busy. Prompted by a spat of big broken pipe incidents in his state, he introduced a bill to allow EPA to spend $20 billion on clean water and $15 billion on drinking water, over the next five years. The bill has made it out of the Senate Public Works Committee but has not been voted on by the Senate. Then he put another bill out there called the Chesapeake Clean Water and Ecosystem Restoration Act of 2009 which would include $1.5 billion in grants to control storm water runoff.

Talking to Lancaster, PA farmers, Captain Larry Simns, head of the Maryland Waterman’s Association said that half the pollutants entering the Bay are coming from wastewater treatment plants and septic systems. He went on to say, “If you don’t deal with sewage plants, then all the work and effort that the farmers and waterman have put into saving the bay is going to go for nothing.” We offer this with the idea of providing another, if incorrect, viewpoint on the source of Bay pollutants. You have to wonder if Mr. Simns is misinformed or posturing for an audience, or both. The Lancaster County audience, where 27,500 jobs are related to agriculture, is an important one for the Bay. In the last decade Lancaster County farm production increased from 11% to 18% of Pennsylvania’s total and there was an additional 21,500 acres rezoned for agriculture purposes.

It’s good to see the religious community become involved in the Bay effort. Out in Cumberland, MD, a city with combined sewers, a Unitarian-Universalist church has received a small grant from the Chesapeake Bay Trust (funded by Maryland Chesapeake Bay license plates) to construct a rain garden in the city. These kinds of gardens reduce runoff by absorbing flow from impervious surfaces during rains. On a much larger scale, the City of Philadelphia plans to use numerous rain gardens and barrels, green roofs, pervious surfaces and vegetative strips to reduce storm water flows to the wastewater system as part of their billion dollars plus consent decree with EPA.

When we get a chance to blow our own horn, we take it. At year’s Joint Conference, Cynthia Lane, our Co-Editor and distinguished colleague, was inducted into that illustrious, exclusive, sometimes serious, sometimes sanctimonious, but always 5S Society. She is now a proud carrier of that yellow shovel and ready to scoop. A scoop is a handy thing here in the publishing business.
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March 7 – 10, 2010
Boston, Massachusetts

**Urban River Restoration 2010**
March 7 – 10, 2010
Boston, Massachusetts

**Residuals and Biosolids 2010**
May 23 – 25, 2010
Savannah, Georgia

**Collection Systems 2010**
June 13 – 16, 2010
Phoenix, Arizona

**Membrane Applications 2010**
June 2 – 5, 2010
Garden Grove, California

**Biofilm Reactor Technology Conference 2010**
August 15 – 18, 2010
Portland, Oregon

**Urban River Restoration 2010**
March 7 – 10, 2010
Boston, Massachusetts

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Information for all 2010 Call for Abstracts can be found at www.wef.org.
CALL FOR PAPERS

CWEA/WWOA/CSAWWA
2010 TRI-ASSOCIATION CONFERENCE

August 31 – September 3, 2010
Ocean City Convention Center
Ocean City, Maryland

The Chesapeake Water Environment Association (CWEA), the Water & Waste Operators Association of Maryland, Delaware & the District of Columbia (WWOA) and the Chesapeake Section, AWWA (CSAWWA), will jointly hold their annual conference and exhibition August 31 to September 3, 2010. In addition to the annual meetings, exhibition and social events, the cornerstone of the conference will be the technical sessions for the formal presentation of papers on water treatment, wastewater treatment and related topics.

SUGGESTED TOPICS: WATER, WASTEWATER OR INDUSTRIAL TREATMENT; DISTRIBUTION AND COLLECTION SYSTEMS; INNOVATIVE TREATMENT TECHNOLOGIES; WATERSHED MANAGEMENT; WATER REUSE; RESIDUALS MANAGEMENT; POLICY; REGULATIONS; RESEARCH; LABORATORY; DISINFECTION; EMERGENCY PLANNING AND PROCEDURES; SECURITY; SAFETY; UTILITY MANAGEMENT; ENERGY MANAGEMENT; FINANCING; CUSTOMER SERVICE; PLANNING, DESIGN & CONSTRUCTION; OPERATIONS AND MAINTENANCE; CASE HISTORIES

If you are interested in presenting a paper at the conference, please submit a brief abstract (300 word maximum) by E-mail (preferred), US Mail, or FAX. Please save electronic submissions as LastName-Abstract.doc (LastName2-Abstract.doc etc. for more than one submittal) to the following address:

angela.borders@arcadis-us.com or 410-381-0109 (FAX)
Angela Borders, ARCADIS 9861 Broken Land Pkwy Suite 254, Columbia MD 21046

Abstracts are due by January 8, 2010. Please present sufficient information to enable a knowledgeable program review committee to evaluate the material you wish to present. Authors will be notified of acceptance or rejection of their papers by the end of April 2010. Speakers will be required to pay all applicable conference registration fees and they must pay their own travel expenses, lodging, and meals. PowerPoint projectors, slide projectors and overhead projectors will be provided by the Conference Committee, if needed.

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Pre-Conference Session Topic: 
Asset Management—Do You Know Where Your Assets Are?

—By Chip Wood, Ecoletter Staff

Paresh Sanghevi performed as the moderator over six panelists. The session began with each panelist speaking individually and then all joined into a panel group discussion at the end.

Walter Graf, Program Director, Infrastructure Management, Water Environment Research Foundation (www.werf.org.) WERF was founded in 1989 and is one of America’s leading independent scientific and research organizations dedicated to wastewater and stormwater issues.

Three fundamental management decisions in a PW/WW utility are:

1) What are my work crews doing and where are they doing it—AND WHY!!?
2) What CIP projects should be done and when?
3) When to repair, when to rehab, and when to replace?

What is Asset Management? It is managing infrastructure capital assets to minimize the total cost of owning and operating them, while delivering the service levels customer’s desire at an acceptable level of business risk to the owner-organization. This includes making better acquisition, operation and maintenance, and renewal and replacement. All assets eventually fail. Failures definitely affect systems performance. Consequences of failures require corrective actions and reviews of risk management.

Five Core Questions:
1) What is the current state of assets?
2) What are requirements for sustained levels of service?
3) Which asset failures are critical?
4) What are the best minimum life-cycle costs for CIP and O&M strategies?
5) What is best financial strategy?

Appropriate benefit/cost tools enable direct and indirect costs to be collated in order to present the options for any situation to be compared. This effort will bring costs and benefits together and allow a present value to be determined using appropriate accountancy practice. Additionally, it enables a framework for the valuation of risks and failures.

How is your public communication? What are the stumbling blocks? What are the perceptions of local, elected and regulatory officials? Are rate increases needed? What is your experience with citizen advisory committees?

Tools under development, to be released in mid-2010, include: level of service; condition assessment; business risk exposure; CIP validation; and capital program prioritization.

F. Paul Calamita, Chairman, AquaLaw, PC, spoke on “Legal Perspectives Regarding Asset Management. Regulatory Update.”

Conventional Wisdom? Democratic administrations make rules but don’t necessarily enforce them. Republican administrations enforce rules, but do not add significant regulation. (Not exactly in many cases.).

EPA is looking at permits for WWTPs for proper operation of the Publically Operated Treatment Works (POTWs) A POTW is defined to include collection systems for pretreatment purposes. EPA proposed CMOM regulations in 2000, but they were never adopted. CMOM is Capacity-Management-Operation-Maintenance. Consider EPA Region IV CMOM guidance: This document does not and can not impose legally binding requirements

EPA/States are targeting smaller systems & mid-size communities (In the past, EPA was targeting large metropolitan cities) Update your CMOM as MDE is finding for SSOs. Stay with the herd as the herd increasingly has a formal CMOM/MOM document. We have gone from fines for SSOs to fines for failure to implement CMOM even without SSOs.

Look out for cutting edge enforcement. EPA is making an aggressive push to impose a requirement to implement basement backup response programs. Proving a backup was an act of God event is more rigorous. EPA wants basement backups reported. Pressure is on for utilities to take responsibility for backups attributable to the public systems. However, basements are not waters of the US (at least not yet.) EPA actions could disrupt existing state laws on
basement backups. EPA is looking at validity of design storms based upon 2, 5, and 10 years. The new approach may be not to define design storm in capacity assurance programs.

Status of Bay Executive Order: Numerous reports to president required. EO Section 202 Reports: EPA is lead agency for Water Quality Report. EPA is also the lead for part of SW report (sharing with DOD). Draft reports are due Sept 2009. EPA is being tight lipped about what they are writing and is keeping the whole process in house.

**Gregory Boykin**, Corporate Asset Management Group Leader, WSSC. This is a new position that started in Feb. 2009.

**Goals of WSSC’s Asset Management Program include:** Identify infrastructure needs and investment strategies for the next 30 years. And develop and implement an asset management framework of optimal investment decision making. Enterprise Resource Planning (ERP) and Utility Master Plan (UMP) are to support WSSC.

Utility Master Plan (UMP) Objectives include: development and implementation of asset management plans, institutionalization of asset management approach and structure and Optimized Decision Making (ODM) which is to maximize use of limited resources when deciding to refurbish, replace, or modernize WSSC assets.

**Thais Vitagliano**, Project Manager, WSSC, works with Gregory Boykin.

**Overall time frame includes two concurrent tracks** that will take approximately three years to complete. Tasks include: Master Plan development and refinement, asset implementation strategy and projects, develop summary gap analysis results, planning for renewal/repair of facilities, monitoring maintenance management performance, and capturing and monitoring of life cycle costs.

In conclusion, work is progressing on 11 of UMP 18 projects. The remaining seven projects will be started before spring 2010.

**Myron Olstein**, Amawalk Consulting, spoke on Evaluating Your Utility’s Capital Program.

**Public works and wastewater utilities are very capital intensive.** Capital costs are typically over half of the utility’s budget. In the summer of 2009, the Water Research Foundation published a report “Improving Water Utility Capital Efficiency.” This report details how to improve your utility’s capital efficiency and provides a toolkit with many useful components. Components of an efficient utility capital program include: a capital process that searches for and incorporates best practices, and a rigorous process for identifying candidate capital projects based on criteria such as asset management. Alternatives should include non or light construction alternatives and means for categorizing projects as to purpose and anticipated benefits.

Additional components include: project selection that is consistent with utility strategic plan, determination of the optimum contracting method, determining that the contractor community can bid on and perform the project and managing the project with continuous improvement, including lessons learned.

Tiered Benchmarks include reviews of: asset to revenue ratio; actual dollars spent to budgeted dollars; percent of project costs for change orders, claims, and construction management. A key question is; does your contract fairly allocate risk among the utility, design consultant and contractor? You will have a problem contract if your contract assigns excessive risk and accountability to the contractor for areas such as: unforeseen site conditions, coordination with other contractors, no compensation for owner-caused delays and not disclosing all available geotechnical information.

Is the construction market ready for your product? A capital efficient utility will have regular conversations with their contractors to determine the readiness and competitiveness level of their contractor community. Are you considered a risky client? Does your contract push the risks on to the general contractor to coordinate with other contractors? If you have very few bidders that is a sign your product has problems and you will end up paying big prices.

**Panel Discussion**

Some say the biggest cost savings is in the conceptual stage of a project rather than design and construction. The industry needs increased interest from public. Look at public works and wastewater culture: only one in twenty incidents are reviewed to determine why it happened. The oil and gas utilities are much better at this. To gain public confidence, the general public must learn what we do. Why is what we do valuable? It is key that a utility be judged as competent at what it does by the public.

After the discussion ended the attendees and panelists adjourned to the Early Bird Reception in the Exhibit Hall.
Opening Remarks: Hiram Tanner

Hiram Tanner praised and gave tribute to four CWEA/WWOA professionals deceased since Tri-Con 2008: Jake Bair, past Director of MCET; Maureen Patillo, of MDE; Gary Wyatt, of Baltimore City; and Lewis Schmidt of Howard County (Gary and Lewis attended the 2008 Tri-Con and were pictured in Fall 2008 Ecoletter).

Jake Bair had been Director of Maryland Center for Environmental Training from 1983 to 1998. Maureen Patillo was retired after 25 years at MDE and died in May 2009. Gary Wyatt was retired after 30 years with Baltimore City and died in October 2008. Lewis Schmidt was serving as President of WWOA and died in March 2009.

Keynote Speaker: Steve Albee, U.S. EPA, Project Director, Gap Analysis

Steve provided an unusual life perspective for modern water professional. Steve was born in 1946 and spent his youth in a rural part of Minnesota. Neither Steve’s boyhood home nor his grade school had plumbing. Outhouses, otherwise known as “pit privies,” were the customary depositories for human body waste. Steve’s first job was laying water and sewer pipe in a pasture. His boss directed him to get the pipe in the ground and covered over quickly before the inspector could arrive and check it. In 1979, when Steve took a job with the USEPA, he moved to the Washington, D.C. area. At that time the area 15 miles from D.C was rural—now the area is completely urbanized. Most of Steve’s career with EPA has involved design and management of financial assistance programs.

Steve is the principal author of “The Clean Water and Drinking Water Infrastructure Gap Analysis,” first released at WEFTECH 2002. The purpose of the report was to reach a common quantitative understanding of the alleged funding gap and to present the magnitude of money investment needed to address our growing population, our economic needs, and our aging infrastructure.

Considering his 30 years with EPA, Steve has concluded that starting in the 1970s, the federal financial assistance was extremely helpful in bringing about measurable benefits. During the last six months, President Obama has put funding into drinking and wastewater whereas during the past 30 years, the federal government weaned funding for these programs. Thus, a sustainable approach now demands coming to terms with changes that reach beyond federal and state funding strategies. This means more dependence on local funding.

Under global strategic context, sustainable water is an issue on the same order of magnitude as energy and climate change. Many parts of the USA are not water rich and many parts do not give value to water. Approximately 10 percent of the energy we use goes toward the water and wastewater infrastructure.

Another challenge is dealing with demographic shifts. Many communities are losing people and are more hard pressed to deal with infrastructure funding needs. Additionally, urban densities have declined, i.e., development is more spread out over distance necessitating more costs for operation and maintenance. A first class country or city can not run on second rate infrastructure. Albee estimates that user rates must increase at least by 3 percent every year so that they almost double in 20 years.

Without positive action, the status quo will continue a persistent systemic problem that will lead to increased public health and environment risk. Failure to manage the assets based on least life-cycle cost strategies will require more revenues over the long terms to meet service objectives. If a utility is to gain community support for a sustainable pathway, the customers must understand what the utility does and why it has value and appreciate that the work that is done is competent.

USEPA’s strategic agenda includes new investments in research, better management, water efficiency, full cost pricing, and watershed approaches.
The WWOA Awards Committee received an outstanding response to nomination requests this year illustrating the number of professional members that are deserving of recognition not only from upper management but also from their peers. We as a board are pleased to announce the following 2009 WWOA Award recipients:

**Distinguished Service in Water Distribution:** Worked “above and beyond” to ensure safe delivery of drinking water to the public through a distribution network and demonstrated technical excellence and problem-solving creativeness. This year’s recipients are Steve Strobel, Charles County Government, Darold Butler, Charles County Government and Kristy McAndrew, Charles County Government.

**Distinguished Service in Water Treatment:** Demonstrated technical excellence, administrative, or managerial merit, or exemplary work ethic and dedicated approach to the administration, operation and/or maintenance of a water treatment facility. This year's recipient is Michelle Cutler, Charles County Government.

**Distinguished Service in Wastewater Collection Systems:** Demonstrated exemplary performance, initiative, technical excellence, and problem-solving creativeness in the operation and/or maintenance of conveyance systems and appurtenances that deliver sanitary sewage to wastewater treatment facilities. This year’s recipient is Bobby Smythers, Charles County Government.

**M. McLean Bingley Award for Wastewater Treatment:** Impacted, significantly the administration, operation, and/or maintenance of a wastewater treatment facility and displayed exemplary commitment to the fundamental principles governing the treatment of wastewater and protection of the water environment. This year's recipients are Sidney Butler, Charles County Government and Bonnie Riggans, DCWASA.

**Distinguished Service in Residuals Management:** Contributed significantly to the administration, operation and/or maintenance of a sludge management system, including (but not limited to) incineration, composting or sludge disposal operations. This year’s recipient is Clarence Gilliam, DCWASA.

**Marlene Patillo Laboratory Award:** Contributed significantly to the administration or operation of a water, wastewater, or solids handling laboratory, or demonstrated technical excellence and problem-solving creativeness worthy of peer recognition. This year’s recipients are Teresa Lee, Charles County Government and Sarah Smith, City of Rehoboth.
Stanley Kappe Training Award: Awarded to an individual who has contributed immeasurable time, energies and resources, above and beyond their normal job duties, to provide educational and vocational training to environmental systems professionals. This year’s recipient is Ron Lavender, Maryland Rural Water.

WWOA Award for Outstanding Personal Service to the Association: Contributed extraordinary personal service of a continuous nature to the Association, which enhanced the management, principles, operation, or professional and community standings of the Association. This year’s recipients are Kristy McAndrew, Charles County Government and Dave Wagner, Maryland Rural Water.

WWOA Life Membership Award: This individual has been able to provide continuous membership of 25 years or more to the Water and Waste Operators Association. Documentation of this membership could include past membership cards, membership verification through membership chairperson or canceled checks to the Association. This year’s recipients are Russ Sharpe, Retired and Jerry Michael, DCWASA.

WWOA Employer Recognition Award: This award is a small token of appreciation from WWOA for your employer. It is provided should you have been fortunate enough to be able to provide services to WWOA on one of the numerous committees or as a board member. This years recipients are DCWASA, WSSC Western Branch, Charles County Government, St. Mary’s Metcom, Howard County, and the Burgess of Commissioners of Middletown.

If you would like additional information regarding awards please visit the website at www.wwoa-cwea.org or contact Danny Coats, Awards Chair 202-787-4046.
Each year, the Chesapeake Water Environment Association nominates CWEA members for Water Environment Federation Awards. CWEA presented Certificates of Nomination to the following individuals at the Awards Ceremony at the Annual Conference for their nomination for a WEF Award in 2009.

- A certificate of nomination for the WEF Outstanding Young Water Environment Professional Award was presented to John McGettigan. Tom Wilson accepted on his behalf.
- A certificate of nomination for the WEF George Bradley Gascoigne Medal was presented to Jeneva Hinojosa, Rumana Riffat, Walter Bailey, and Sudhir Murthy.
- Gary Wyatt was selected by WEF to receive the Collection Systems Award. His wife and daughter accepted the award on his behalf at the 2009 WEFTEC conference in Orlando, Florida. They were also presented with a certificate of nomination at the CWEA Conference.
- DuPont Company was selected by WEF to receive the Industrial Water Quality Achievement Award. They were also presented with a certificate of nomination at the CWEA Conference.
- A certificate of nomination for the WEF Public Officials Award was presented to Jerry N. Johnson.
- A certificate of nomination for the WEF Outstanding Young Water Environment Professional Award was presented to John McGettigan. Tom Wilson accepted on his behalf.
- A certificate of nomination for the WEF George Bradley Gascoigne Medal was presented to Jeneva Hinojosa, Rumana Riffat, Walter Bailey, and Sudhir Murthy.
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- DuPont Company was selected by WEF to receive the Industrial Water Quality Achievement Award. They were also presented with a certificate of nomination at the CWEA Conference.

Several other awards were presented to CWEA members for outstanding achievement. Those awards and the recipients included:

**Past Delegates Award:** Sharon Cole was presented with the WEF Past Delegates Award for outstanding service to the WEF House of Delegates on behalf of the Chesapeake Water Environment Association. Sharon served as a Delegate to WEF from 2005 to 2008. During that time, she served on the committee that developed the initial framework of the House of Delegates functions and responsibilities.

**Arthur Sidney Bedell Award:** John Martin was presented with the WEF Arthur Sidney Bedell award for outstanding service to the Chesapeake Water Environment Association. John joined WEF in 1990 and was recruited soon after to be the WERF Liaison for the CWEA board. John also chaired the Technical Education Committee where he organized seminars and other events. John’s next job was on the editorial board of the Ecoletter and in 2002, he became the association’s vice president. In 2004–2005, he served as the president of CWEA.

**William D. Hatfield Award:** For his outstanding performance and professionalism throughout his career, William A. Shreve, Sr. was presented with WEF’s William D. Hatfield Award. Starting in July 2006, Bill started as the Southern Regional Manager for Maryland Environmental Services, supervising water/wastewater facilities in Anne Arundel, Prince George’s, Charles, Calvert and St. Mary’s Counties. As an MES employee, he served under contract as the manager of the Charles County Department of Utilities. In July 2008, Bill was selected by the Charles County Commissioners to be the Director of Utilities for Charles County.
Bill is a member of the Lower Potomac Tributary Team and a member of the St. Mary’s County Commission on the Environment. He has served 2 terms as the President of WWOA. Bill has served for several years on the Training, Review and Evaluation Committee of the Maryland Board of Certification, where he currently serves as Chair of the TRE Committee. Bill also serves as the Chair (Gubernatorial appointment with Senate Confirmation) of the Maryland Board of Certification for Water and Wastewater Systems Operators.

Laboratory Analyst Award: In recognition of his outstanding laboratory service, Mukesh Inamdar was awarded WEF’s Laboratory Analyst Award. Mukesh started working in Wayne, PA in 1987, advancing from Chemist to Supervisor, to Assistant Laboratory Manager and finally Laboratory Manager in 1996. He worked for Chem Clear, which merged with Clean Harbors, for 13 years. Mukesh was a key person for Clean Harbors’ Baltimore laboratory, providing exceptional support to their unique industrial wastewater treatment plant. He then worked for Phase Separation Science from 2000 to 2006 as senior volatile coordinator. Mukesh has worked for WSSC as a Senior Chemist since 2006. He finds every opportunity available within WSSC to serve the community by means of offering volunteer services for “Can the Grease Program,” “Earth Day celebration,” “Children’s Festival,” and representing WSSC at County fairs.

Crystal Crucible Award: For her Outstanding Contributions to the Laboratory Profession, Marlene Patillo was awarded the Crystal Crucible Award by the CWEA Laboratory Practice Committee. Marlene’s son, William Jones, accepted the Award on her behalf. Marlene was a member of WWOA, CWEA, the Rural Wastewater Association, the Maryland Environmental Laboratory Association, CWEA’s Laboratory Practices Committee and served as a member & Chair of the CWEA Awards Committee. She was appointed by the Governor to the National Environmental Laboratory Accreditation Conference. A member of WEF’s Standard Methods Committee, she is largely responsible for current BOD testing procedures. Marlene was heavily involved in training, even after she retired in 2007. She continued to be an instructor at the Annual Short Course and was an instructor for the Maryland Center for Environmental Training. She received the WEF Laboratory Analyst Excellence Award in 1998.

In Memory of Jake Bair: Jonathan “Jake” Bair was the founding director of the Maryland Center for Environmental Training (MCET) from 1983–1998, after which he continued to work with the Center on an on-call basis on special projects. He was committed to improving the professionalism of water and wastewater operators and never hesitated to express that sentiment. Jake was also an avid environmentalist which contributed to his strong commitment to cleaning up the Chesapeake Bay. Jake Bair passed away August 7, 2009. Jake loved his 200+ acre cattle grazing farm in West Virginia, which is where he was laid to rest.
The Second annual Operation OC² (Ocean City, Operations Challenge) event was held this year on Tuesday September 2nd and Wednesday September 3rd as a part of the 2009 CWEA/WWOA Joint Conference in Ocean City, Maryland. This year the challenge was held at the Clarion Fontainebleau Hotel. This event allows operators from around the region to compete in multiple team events that highlight critical skills needed in wastewater collection and treatment operations. This year’s event included teams from last year and new teams that were excited to have an opportunity for one more practice session before the national competition at WEFTEC in Orlando, Florida. The event included the six teams listed below:

**Terminal Velocity—City of Virginia Beach, Virginia (2008 Champions)**
Donnie Cagle, Elijah Smith, Bobby Williams, Steve Motley, Paul Cubilla, Jason Truitt

**Team Collectors—City of Virginia Beach, Virginia**
Sean Smith, Dennis Smith, John Thomas, Barron McPherson, Nathan Bly

**Brown Tide—Suffolk County, New York**
Roy Zimmerman, Dale Grudier, Janice McGovern, Brian Blouin

**Centrifugal Force—DC WASA, Washington DC**
Duane McCoy, Wendell Smith, Melvin Keys, Aaron Montgomery, Kevin Jingorgy, James Small, Moses Riley

**Team HRSD—Virginia Beach, Virginia**
Wesley Warren, Eric Washbon, Riley Riggins, Tim Scott, Demetries Cross

**Cape Shore Workers—Cape May, New Jersey**
Jim Neville, Fran Didrio, Tim Fisher, John Reardon, Art Cowan

This year’s event was exciting for both the competitors and their audience, as each team demonstrated their ability to perform under the scrutiny of a judge and the adrenaline of competition in the following events:

**Process Control Event (Event Coordinator: Stacey Pasaro, Passaro Engineering)**—The exam was taken as a team and included 55 multiple choice, 5 short math, and 3 operational scenario questions with a bonus for teams finishing under 20 minutes.

**Laboratory Event (Event Coordinator Mary Ann Pietrowicz, Spotsylvania County, VA)**—Teams performed all steps of a BOD analysis using Thermo Scientific equipment, including the use of transfer pipets for planting seed correction series and sampling.

**Maintenance Event (Event Coordinator Pat Witt, Godwin Pumps)**—This event tested the skills of the maintenance/operating team to respond to a lift station pumping outage and the need for an emergency back-up pump at a lift station.

**Collection System Event (Event Coordinator TJ Johnson, Delta Systems)**
Teams simulated connecting a 4-inch PVC lateral sewer pipe to an existing 8-inch PVC sewer pipe while in service (i.e., water running through the line) and the programming of an automatic sampler.

**Safety Event (Event Coordinator Joe Yokum, DELCORA)**—Teams performed a rescue after finding a coworker at the bottom of a simulated (confined space) manhole. Teams had to set up a retrieval system, perform a permit required confined space entry, remove the victim from the manhole, call 911, perform AED and CPR (on a rescue team member that suffers an immediate heart attack when arriving on site).
Pipe Cutting Shootout—Our only “open to the public” event was coordinated by Laurie Perkins (CWEA Maryland Trustee). She worked the entire exhibit hall to find a number of worthy contestants in both the men’s and women’s categories. Individuals compete against one another to see who can cut an 8” piece of PVC pipe the fastest—using only a hand saw and a lot of sweat!! This was one of the most exciting spectator events of the challenge and we look forward to many new faces competing next year!

The overall winner and clean sweep of 1st place in each event was Team Terminal Velocity, from the City of Virginia Beach, Virginia. Additional trophies were given to each of the 2nd place event winners.

Terminal Velocity finished 2nd in Division One at the national competition during WEFTEC in Orlando, Florida. The CWEA was represented in Orlando by Centrifugal Force from DC WASA.

** Special thanks to Amy Steiner with RJN Group for handling all the scoring and confirming each of the results.

One last thanks to all of our sponsors listed below. Congratulations to all the teams and thank you for participating! We look forward to another great event next year!
The Abel Wolman Award was established by CWEA in honor of Dr. Abel Wolman, an extraordinary educator and engineer, who throughout his long and active professional career was an articulate spokesman and driving force in the advancement of water pollution control, water treatment, and public health and who is a founding father of both the Chesapeake Water Environment Association and the Water Environment Federation. The Abel Wolman Award is the most prestigious award given by the Chesapeake Water Environment Association.

The award is given to a prominent leader in the public or private sector, who through his or her leadership and long-time commitment to water pollution control has effected significant, positive changes in water quality protection and in the interest in and understanding of water quality issues by the general public. Past Abel Wolman Award Winners include:

- Dr. Abel Wolman, the first award winner in 1993 (posthumously)
- Senator Bernie Fowler
- Dr. Ralph Fuhrman
- Dr. M. Gordon "Reds" Wolman

Jerry N. Johnson was presented with CWEA's Abel Wolman Award at the 2009 Joint Conference Awards Ceremony on September 3, 2009. Mr. Johnson has had an outstanding record as an environmentalist throughout his career. In recent years, he testified both locally and nationally on the limitations of the Lead and Cooper Rule as part of the Safe Drinking Water Act. He was instrumental in the development of the National Wet Weather Partnership and work on the national standards for communities with combined sewer systems. He continues to lead that organization and serves on several Boards of Directors at the national level. He is recognized throughout the industry for his outstanding leadership management ability.

Jerry Johnson has a business degree from Ferrum College, a Degree in Urban Affairs and Economics from Virginia Tech and completed the Program for Senior Executives in State and Local Government at the JFK School of Government, Harvard University. Jerry was a Senior Planner for the City of Charlottesville, Virginia and Assistant to the City Manager for the city of Alexandria, Virginia. He held several positions with the city of Richmond, Virginia, including General Manager for the Metropolitan Richmond Convention and Visitors Bureau, Director of Public Utilities and Deputy City Manager for Operations.

Jerry Johnson is nationally known as a turnaround specialist. Jerry served as the first General Manager of the District of Columbia Water and Sewer Authority from 1998 until 2009. He guided DCWASA from an unrated agency with a projected $18 million deficit to one with an A+ credit rating (currently double A+ rating) and $170 million reserve in two years. He developed long-term capital and financial plans, a comprehensive rate strategy, in addition to resolving major operating and regulatory agency issues. Jerry currently serves as the General Manager of the Washington Suburban Sanitary Commission.
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Fall 2009 • Ecoletter
The Technical Sessions

—By Floyd B. Johnson, Ecoletter Co-Editor

I had the usual problem, albeit a pleasant one, of picking which of the 87 sessions to attend. An over-riding principle in making my choices was the desire to maintain my Maryland Operators license. There is no question that the presentations offered ample opportunity to obtain the required training credits and as a bonus gave me a stimulating education. With the usual apologies to the presentations I did not attend, here is a brief sampling of the technical sessions.

Grease is Good—My experience in wastewater treatment, where we called grease scum, to indicate how desirable it was, made it hard to embrace the title for this paper. But I have an open mind. Grease interceptors, looking like oversized septic tanks, catch the grease and septic haulers bring it to receiving stations for further handling and disposal. Options for disposal include anaerobic digestion (mix with waste biosolids), landfill, mix with dewatered solids, land treatment via subsurface injection (Kent County, Delaware only local place doing), incineration, biofuel (equivalent to #6 boiler fuel or bunker fuel), separate dewatering with lime addition and biodiesel, which currently is not economically feasible. I’m still not convinced grease is good but there are certainly options beyond throwing it away.

Solids Processing Upgrade at WSSC Western Branch Using Innovative Technology—The incinerators cannot handle all solids generated at the plant and a study was undertaken to explore possible solutions. Two basic approaches could be taken; add a second disposal process like lime stabilization to handle the excess or take enough water out of the biosolids so the incinerators can handle it. This study focused on the later approach using Electric-dewatering (current applied to solids under pressure). A pilot study showed this technology workable and a plant in Montreal, Canada has shown it can work plant scale. The study showed that 100 kwh/wet ton is needed for 30% solids and 190 kwh/wet ton for 43% solids. Currently Western Branch is upgrading their incinerators and will decide after the upgrade whether to use this technology and to what extent.

DCWASA Biosolids Program: Evolving to a New Future—Blue Plains WWTP produces 1200 wet tons/day of biosolids, most of which is land applied to 39 counties, primarily in Virginia. A decision was made to go to Class A solids and anaerobic digestion was chosen as the technology. However when only one very high bid was received to build it in October 2006, that plan was dropped. Another study was done to select an alternate method using a 50/50 (cost considerations/ operational and product quality considerations). Thermal Hydrolysis was selected as the best technology for the plant. Part of the study involved estimating the plants carbon footprint. A figure of 208,000 metric tons of emissions (mostly from electric use) was determined, which included a credit for soil sequestration from land application of biosolids.

EPA’s Chesapeake Bay Watershed TMDL Will Define Historic Restoration Goals and Requirements for Bay States and All Regulated Sources—Just around the decade corner in 2011, the Bay-wide TMDL will come due and that certainly promises to stir things up. This will prove to be a very interesting thing for us in the universal solvent (water) business. EPA says the TMDL will be scientific and not political (can this be believed?) and will supersede tributary strategies. WWTP’s, which account for approx. 15% of the nitrogen and phosphorus entering the Bay are on track to met future needs. Non-Pt. Sources, particularly storm water runoff and agriculture will need to be reduced. The “D” in TMDL could also prove to be a sore point. Is it any day or average day? How about a compromise on most days?

Synergy—Infrastructure Changes and Urban Revitalization—In 2007 the DC government created the NoMa (north of Massachusetts Ave.) Business Improvement District in a 50 block area just north of Capital Hill and Union Station. Thus far the area has received over one billion dollars of private investment money. As part of the improvement process the water and sewer lines in area will also be upgraded. Many of the, 11.8 miles of water and 12.8 miles of sewer, lines are 100 years old or older. After a study of the pipe conditions, it was decided to repair or replace all pipes over 75 years old, and using a creative funding mechanism involving the private sector, the District government and WASA, $33 million will be spent to improve the water infrastructure.

Major Changes Proposed to Maryland Storm Water Management Rules Likely to have Implications in All Mid-Atlantic States—These changes would involve not only a more lengthy plan review but also more inspections and enforcement activities. The standard for storm water systems will be woods in good condition. Montgomery County will have one of the toughest rules in the country that calls for a 30% reduction in impervious surfaces and could require costly retro fits of existing developments. On one side of the proposed changes are...
environmental groups who want even tighter measures and on the other are developers who say it will increase home prices. And in the middle are local governments that could be saddled with an unfunded mandate. Keep an eye out for how this turns out.

**Design and Operating Considerations for a Post Denitrification MBBR to achieve LOT Effluent NOx < 1 mg/l and Effluent TP < 0.18 mg/l**—The Blue Plains WWTP is studying the best way to remove nitrogen to below 3 mg/l and phosphorus to below 0.18 mg/l while being able to handle a 518 MG daily flow. MBBR, a combination attached growth and suspended growth process used in Europe for over twenty years was studied in a pilot test at the plant. The MBBR process uses thousands of small (<1" diameter) plastic media to provide growing surfaces for microorganisms and can be used in existing tanks. The test showed that the MBBR process showed promise in both warm and cold temperatures, that mixing will be needed to match the type of media used but will need further attention and optimization to make it a reliable option.

**Analysis of 2 Years of Operating Data from Largest High-Rate Treatment System in U.S.**—Like most cities Toledo, Ohio experiences high flows when it rains. In addition to collection system work, they decided the main treatment plant needed protection. A facility that can handle up to 232 MGD with fine screens, grit removal, chemical addition, clarification, activated sludge and UV disinfection was constructed and designed to be operated only during high flows. This kind of occasional operation is challenging because starting equipment that has been sitting idle can be problematic but so far the facility has done was it was supposed to do. The capital cost for the facility was $67 million and the operating costs are $89/MG.

**From Lagoon to MBR: A Case Study of the Tuscarilla WWTP**—The City of Charles Town, WV decided an old lagoon treatment plant that could not meet cold weather ammonia limits needed to be replaced. Since the lagoon occupied much of the available site and knowing that tighter limits on nitrogen and phosphorus discharges were coming, a small footprint MBR plant was selected. An interesting aspect of the project is use of much of the effluent by a golf course for spray irrigation, the result of which is only a small percentage of the effluent is surface discharged. The plan is to stage the construction with tankage built for 0.5 MGD, but equipment for 0.25 MGD. The construction cost is estimated at $14.1 million.

**Parkway WWTP ENR Upgrade**—Two main alternatives were studied to take the Parkway plant to ENR treatment; Alt. # 1—four stage with filters and Alt. # 2—four stage (two stage in winter) with denitrification filters. A factor that had to be taken into consideration was large slugs of water plant sludge from the Patuxent plant. The Biowin model was used, along with the CFD model for clarifier design. Alt. # 2, which had a slightly lower cost ($18.8 vs. $19.6 million), was selected. The details of this design will include glycerin for nitrogen removal, density current baffles and polymer addition for the clarifiers and a high flow procedure of turning off all air to prevent microorganism washout. The project is expected to be bid for construction in early 2010.

**Chesapeake Bay Watershed Nutrient Trading in PA: The Experience of Dischargers**—Pennsylvania has 183 significant WWTP’s in the Bay watershed, but unlike Maryland and Virginia, has no funding system for upgrades. A survey was conducted to evaluate the several year old trading program, which allows point source to non-point source trading, in the state. Despite incentives to trade, because of lack of funding, very little trading is taking place. Out of a maximum allowable 5.6 million pounds of nitrogen a year only 700,000 pounds is available on the trading market. One of the major problems found was farmers typically look 1-2 years into the future while WWTP’s plan for 10-20 year periods. If the program is to be a viable alternative it will have to be restructured to encourage more trading.
The 2009 Biosolids Beauty Contest was held in Ocean City on Sep 2, 2009. Six samples were received from biosolids producers from around Maryland, Washington, D.C. and Delaware. Purdue Farms Incorporated of Georgetown, Delaware; Seneca, Damascus and Piscataway WWTP operated and maintained by Washington Suburban Sanitary Commission (WSSC), and Blue Plains wastewater treatment plant operated and maintained by DC Water and Sewer Authority (DCWASA) took part in this year’s contest.

Based on objectionable odors, appearance and texture, Purdue Farms biosolids was ranked #1. Piscataway and Seneca WWTP biosolids were ranked #2 and #3, respectively.

The Biosolids Committee would like to thank all our participants for bringing the biosolids for the competition and judges for doing a fabulous job of ranking them. The judges included Karl Ott and Michelle Cutler of Charles County, Jeanette Brown of Water Environment Foundation, Danny Coats of DCWASA, and Winfield McKell of WSSC. Each judge was asked to judge an anonymous biosolids sample, and rank the sample on a scale of 1 to 5, 5 being the best quality. The scores were then added up and the facility with the highest score was ranked no. 1.

Photos: Cynthia Lane
Current membership stands at 715, with 90 new members joining at the 2009 Short Course in June. Membership has remained at this level for the past several years. The organization’s checking account for FY 09 (7/08–6/09) had an inflow of $35,334.55 with profits from last year’s conference accounting for $19,690 and dues accounting for $15,643. The expenses from the account included $16,900 for the conference, $5,813 for membership and $5,198 for the webmaster.

Bill Shreve mentioned that on-line certification tests in Maryland will begin next year. This will make it more convenient for operators to take the tests.

A notable absence from this year’s luncheon was an official sponsor. Hopefully this will not be a problem in future years. One thing recognized was this could be the last conference at the Clarion Fontainebleau. Next year’s Tri-conference will return to the Convention Center and there is talk that every subsequent conference will include all three organizations. The Clarion is not large enough to handle a Tri-conference.

Awards for outstanding service to the organization were given to Dave Wagner, Kristy McAndrew and Russ Sharpe. Employer recognition awards were given to Middletown, Maryland, Charles County, WSSC’s Western Branch WWTP and DCWASA.
Engineers Without Borders (EWB) helps create a more stable and prosperous world by addressing people’s basic human needs by providing necessities such as clean water, power, sanitation and education. EWB has touched the lives of more than one million people and continually strives to increase this number annually.

A silent auction was held at the 2009 Joint Conference with the proceeds being donated to EWB. Auction items included Baltimore Ravens tickets, Orioles tickets, personal electronics, artwork and signed memorabilia.

Left; Carrie DiSimone presides over the auction table.

Photos: Cynthia Lane

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five new members were inducted in the 5S Society during the 2009 Joint Conference. Selection to membership in the Society is recognition of "Outstanding, meritorious service above and beyond the call of duty." Selection bestows the accolade of elevation "on the official shovel to the highest ridge on the sludge bed, with the title of Select Sludge Shoveler and all the honor, atmosphere, prerequisite, and dignity pertaining thereto."

Al Will conducted the induction ceremony during the Wednesday evening reception. The 2009 inductees are Hiram Tanner, Craig Murray, Carrie DiSimone, Ray Schulte and Cynthia Lane.

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If I was called upon in class after returning to school this year and asked what I did over the summer, I would say I answered the great American clarion call, “Go west, young men.” For a number of years the west has been a magnet and this year, as it has for many previous years, took me in.

The sociological cleave in this country has for years been north-south. It seems these days the east-west axis might have more polarity. Aside from the cold/warm difference between the north and south, not much stands out—especially with the sustained Yankee immigration invasion. The west on the other hand cannot be mistaken for anything eastern. The open plains, lack of water, big mountains and lower population density are very un-east. Even transplanted easterners don’t take long out west to become more self reliant and get attached to the outdoors.

Two years ago when I drove out to Colorado I couldn’t help but notice all the corn being grown to fuel the ethanol demand. This year the corn was still there and every time I bought gas I was reminded of all that corn when 10% ethanol, 89 octane, was 10 cents less per gallon than the 87 octane regular gasoline. However, I noticed something very new this year—windmills.

In central Kansas I came across a windmill farm and started counting—15, 16, 17... forget it. There were almost everywhere and must have numbered over 200. In northeastern Colorado I knew better than to start counting. This one was even bigger spread out over the wide open plain. In western Iowa after passing two medium sized windmill farms—which incidentally take up little space in a field, I saw a different spin on things. We are all familiar with water tanks with town names on them; well Stuart, Iowa had their name on a windmill pedestal.

One day while hiking up in the mountains I came across an old gold or silver mine with a small stream, maybe a foot wide, flowing out of it. Showing how water is viewed out west, just inside the mine entrance was a tiny little, partial flume that looked like something out of a hydraulics lab, with a battery powered transmitter, measuring this trickle. I cannot imagine a sight like that in the east. Another sight not seen in the east on that July day was a snowstorm.

I finally took a book off my “to read” pile that’s been there for years. I read Aldo Leopold’s, A Sand County Almanac. This late 1940’s offering by one of the founders of the Wilderness Society is a true classic nature book. Here’s what he says in the foreword.

That land is a community is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics. That land yields a cultural harvest is a fact long known, but latterly often forgotten. Such a view of land and people is, of course, subject to the blurs and distortions of personal experience and personal bias. But wherever the truth may lie, this much is crystal clear; our bigger-and-better society is now like a hypochondriac, so obsessed with its own economic health as to have lost the capacity to remain healthy. The whole world is so greedy for more bathtubs that it has lost the stability necessary to build them, or even to turn off the tap. Nothing could be more salutary at this stage than a little healthy contempt for a plethora of material blessings.

Those words written over 60 years ago have a real relevancy in today’s unhealthy economic times. The San Francisco Chronicle said this, “We can place this book on the shelf that holds the writings of Thoreau and John Muir.” If you get a chance pick up this book, find a quiet chair and let yourself be rewarded.

What I can report is we still have a whole lot of mostly beautiful land in this country and I was fortunate to see some of it. So I had a good summer vacation. I hope you did too.
The Annual Water and Wastewater Industry Student Career Fair is jointly sponsored by the Chesapeake Section of the American Water Works Association (CSAWWA) and the Chesapeake Water Environment Association (CWEA) and is typically held at the end of February each year.

The 2009 Water and Wastewater Industry Student Career Fair was hosted by the City of Baltimore and was held at the Montebello Maintenance Facility, part of the Montebello Finished Water Treatment Plant Complex in Baltimore City. This year’s Career Fair was one of the largest and most successful to date, hosting over 50 students from local universities who enjoyed the opportunity to participate in 20-minute interviews with a selection of 16 different employers that included consultants, public utilities, and government agencies.

If your company is interested in reserving a table for interviews at the 2010 Annual Water and Wastewater Industry Student Career Fair, or for more information contact Brian Gresehover at (410) 235-3450, bgresehover@wrallp.com, or Janine Yieh at (410) 771-4950, jyieh@eaest.com. Details on the date and location of the 2010 Career Fair are to be determined and will be released later in Fall 2009.

Students sign in for the 2009 Career Fair at Montebello.
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