

in depth

west virginia

Vol. 24, No. 5



department of environmental protection

June 2016

**Youth Day
promotes recycling,
environmental
education - Page 3**



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Lawmakers Continue Budget Work, Take Up DEP Rules

by Jake Glance

West Virginia lawmakers continue to try to finalize a state budget, as a government shut down date looms less than a month away.

Proposals have been made - everything from increasing the amount of tax paid on a pack of cigarettes to the legalization of marijuana - but as of June 2 no budget has been passed.

The state budget has been significantly impacted in recent years because of a decline of the coal industry, a shrinking tax base and less tax revenue.

The task facing lawmakers during the special session was how to cover a



\$270 million shortfall in order to produce a state constitution-mandated balanced budget by July 1.

It is customary for lawmakers to convene in a special session immedi-

ately after a regular session to work on a budget - but this year lawmakers started work on the budget later in order to have a better understanding of how much revenue they would have, and how much they would have to cut.

Gov. Earl Ray Tomblin has said he will not approve a budget that takes too much from the state's Rainy Day Fund.

Earlier this week, the governor expanded the special session call to include the DEP rules bundle. Legislators failed to pass the package during the regular session.

Environmental Awards Salute 19 Organizations

Recipients come from across state to accept honor

by Jake Glance

They came from as far away as Wheeling and Martinsburg to be honored for their contributions to promoting a healthy environment in West Virginia.

The 19 2016 DEP Environmental Award recipients, who were nominated by DEP employees, received their awards on May 16 at DEP headquarters in Charleston.

After a welcome and thank you from Cabinet Secretary Randy C. Huffman, DEP Sustainability Officer Greg Adolfsen read a brief overview of what each recipient achieved to merit the award.

[A complete listing of the award recipients and their initiatives can be found here on the DEP website.](#)

Pictures of the recipients can be found on page 5 of this issue of in-DEPTH.



The 2016 Environmental Awards honored the work of 19 organizations and individuals from across West Virginia, in categories from Community Involvement to Water Conservation. The awards are handmade Blenko glass.

The Cabinet Secretary Award went to the Buffalo Creek Watershed Improvement Association.

Mitch DeBoard, the group's director, said the award is recognition for nearly a decade of work done by a large group of people.

"We reorganized the watershed, we started applying for grants again, trout in the classroom programs, a lot of work to reduce the acid in the

stream, we've worked with the DNR (Division of Natural Resources) to start doing trout stockings," he said.

This work has resulted in a complete revamping of the watershed, including a rail trail that will hopefully increase tourism to Clay County.

Deboard said nearly 15 miles of the rail trail are almost complete with four more miles to come.

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Rain Barrel Project Dates Announced

by Jake Glance

The DEP's Rain Barrel Project, where people can learn how to collect rain water in order to lessen the strain on drainage systems and get free water for their lawns and gardens, will be held three days in June.

The dates are June 14 at the DEP headquarters in Kanawha City from 6 p.m. to 7:30 p.m., June 15 at Capitol Market in Charleston from noon to 1 p.m., and June 29 at Capitol Market from noon to 1 p.m.

The cost is \$10. Lunch will be included at the Capitol Market events.

The workshops will be hosted by Tomi Bergstrom of the DEP's Watershed Improvement Branch and Lee Ann Grogg of the city of Charleston's Stormwater Program.

If you cannot attend a workshop, [more information about the Rain Barrel Project can be found here on the DIY Network webpage.](#)

Historic, Futuristic, or Both?

State's first
Capitol building is
now a model of
energy efficiency

by Jake Glance

Imagine trying to explain to West Virginia's first governor, Arthur I. Boreman, who gave his inaugural address here, that the first state Capitol can now make electricity from harnessing the power of the sun.

He would no doubt be amazed at such a futuristic concept - in fact, in 1863 Thomas Edison was still 15 years away from inventing the incandescent light bulb.

The same building that served as West Virginia's state Capitol from 1863 to 1870 and then again from 1875 to 1876 is now a model of energy efficiency.

Mary Ellen and Patrick Cassidy, whose efforts were recognized with a 2016 DEP Environmental Award, have owned the property since 1993.

More than 20 years ago, the work that needed done to make this building habitable - let alone energy efficient - seemed daunting. The windows needed replaced, the exterior needed restuccoing, a fire door needed replaced, the HVAC was shot.

Everywhere they turned, it seemed something needed worked on. And it wasn't as if they could do the work



West Virginia's first state Capitol, located in Wheeling, was built in 1858. It has served as the home of the Linsly Institute, a news bureau, museum, and law offices. Mary Ellen and Patrick Cassidy bought the property in 1993.

however they wished. Since this is an historic building, there were rules that had to be followed.

"My husband and I are very interested in keeping with the culture and honoring and respecting the history of this state," Mary Ellen Cassidy said.

The building didn't have to be restored to the way it looked in 1863. But, working with the Historical Preservation Society, the Cassidys had to pick a time period and stick with it.

"When you think of West Virginia, you think of people who are very independent, with a lot of ingenuity, and I think that is represented here," Mrs. Cassidy said.

To help finance the improvements, the Cassidys worked with the Natural Capital Investment Fund and the United States Department of Agriculture's Rural Energy for America Program.

The Cassidys have made several energy efficient upgrades to the building: They completed the replacement of all windows with historically accurate, yet highly energy efficient windows; completed the repair and historically accurate restuccoing of the exterior skin of building, to not only "interpret" the building circa 1920's, but to seal all holes and

make the exterior of the building energy tight; they installed an energy efficient new "Cool Roof" to deflect sunlight on the main building roof and the first solar panels installed on a downtown Wheeling structure; Permafrost was added to all HVAC units; all of the building lighting was replaced to high energy efficiency lighting; they rebalanced the HVAC load to allow for steady, efficient thermostat settings; they replaced their thermostats with programmable units with an override function; and they replaced a metal door on third floor that was not energy efficient and added window seal treatment.

All of these improvements were made in 2013 and 2014, and the couple has already seen big savings.

Mrs. Cassidy said the electric bills have dropped 28 percent and gas bills have gone down 23 percent. She said she hasn't crunched the numbers to see how much money the solar panels are directly responsible for saving, but she expects it to be about 20 percent.

"Even in March, when it was overcast, our electric went down 16 percent and in April it went down 20 percent."

"I am hoping, as the technology gets more prevalent and the research keeps pushing the efficiency up and costs down, this is going to be good news. I think it is closer than what people think. I think it's right around the corner."

Mrs. Cassidy doesn't think Gov. Boreman would have a hard time understanding this project, as futuristic as

CAPITOL TIMELINE

1858: Building at [1413 Eoff Street](#), Wheeling erected to serve as home of the Linsly Military Institute (now The Linsly School)

1863: That building begins serving as West Virginia's first state Capitol building

1865: State Legislature votes to move capital to Charleston

1869: Capitol building on Capitol Street, Charleston construction begins

1870: Capital moves to [Charleston](#)

1875: Wheeling offers to build [new state Capitol](#) if Legislature agrees to move capital back to the city - which it does

1877: Statewide referendum held to determine permanent site of capital; Charleston wins referendum

1885: Capital moves from Wheeling to Charleston.

1921: [State Capitol in downtown Charleston](#) burns; "pasteboard" capitol constructed.

1932: [Current state Capitol building](#) completed.

it seems.

"If you could time travel, you would go back and find that people were doing this kind of thing already. Look at the homes and buildings, they were using passive solar efficiency - putting deciduous trees on the south side where the sun shined. So using solar power for electricity is really the next step from what people have been doing for centuries."



West Virginia's first state Capitol, as it appeared in the late 19th Century.

Youth Environmental Day Recognizes Conservation Efforts

by Terry Fletcher

Nearly 900 children and parents descended upon North Bend State Park one recent Saturday to celebrate their work helping the environment throughout the year.

The West Virginia Department of Environmental Protection's Youth Environmental Program hosted its annual Youth Environmental Day to showcase hundreds of posters, reports and arts and crafts made by various youth conservation groups from all over the state, many of whom received cash prizes for their efforts.

"Youth Environmental Day is an actual award ceremony where we recognize youth groups who have worked all year on projects that make their communities more beautiful," said YEP Director Diana Haid. "They pick up litter and trash, start recycling programs, help build wildlife habitats – just various activities and projects that they feel there is a need for."

Over \$15,000 was handed out by different businesses and corporations that want to support the YEP and recognize young people for what they are doing in their communities.

"It's exciting for the children because they work so hard," said Haid. "They submit a report that is due in

April and it is reviewed and scored and the ones with the highest scores get recognized."

Haid, along with DEP Chief Communications Officer Kelley Gillenwater, representatives from business sponsors and multiple YEP coordinators, handed out awards for litter control, tree planting, recycling and overall environmental efforts, among others.

The attendees were members of boy and girl scout troops, 4-H clubs, Future Farmers of America, school programs and church groups to name a few, and hailed from counties across the state.

The crown jewel of the awards ceremony was the Rick Vecellio Memorial Conservation Scholarship, won by Buffalo's Megan Parsons. Parsons took home a \$2,500-per-year scholarship for the next four years.

The campers also participated in a bevy of activities throughout the day – such as a scavenger hunt, fishing derby, t-shirt toss and a nature hike.

The answers to the scavenger hunt were found in the numerous exhibits on display from various environmental agencies such as the Division of Natural Resources, the Division of Forestry and the DEP's own Division of Air



Despite pesky rain clouds, the recycled hat parade went on as scheduled. Here, members of the Hillbillies 4H Club of Mason County show off their creations.

Quality.

After the scavenger hunt, the groups lined up for a parade to show off their banners and hats made of recycled materials and made their way to the awards ceremony.

After a quick lunch and a few more awards, campers had the choice of participating in a variety of activities, including a nature hike, arts and crafts or a volleyball game. Despite scattered showers throughout the day, many campers braved the rain and the mud to take part in the fishing derby, historically the day's most popular event.

The campers and staff broke for

dinner following the afternoon activities and capped the day with a dance party. DJ Jack Horton from Belpre, Ohio, filled the night air with music from today's top artists, and campers enjoyed snacks, a few laughs and good, old-fashioned line-dancing to end a great day of celebrating the environment.

"It means a lot to the youth groups and their leaders," said Haid of the event. "Not only do they receive money for the work they do, but they feel good about helping make their communities a more beautiful place to live."

Years of Hard Work Rewarded With Scholarship

Vecellio Scholarship Presented at Youth Environmental Day

by Terry Fletcher

The Youth Environmental Program handed out numerous awards and prizes at its annual Youth Environmental Day Saturday at North Bend State Park, but none more coveted than the Rick Vecellio Memorial Conservation Scholarship.

Buffalo's Megan Parsons took home the prestigious honor, which is presented to an active YEP member with exemplary conduct, earning a \$2,500-per-year scholarship for the next four years.

"I had just been rejected from another scholarship, so I was honestly thinking that I didn't get this," said Parsons. "But I opened up the letter

[the YEP] sent me and it said 'congratulations' and I started jumping up and down. It was very exciting when I found out."

"Megan is very focused on a clean environment," said YEP Director Diana Haid. "She's involved in a lot of activities at her school for recycling and cleanups."

Applicants must go through a rigorous process to become eligible for the award, submitting a 500-word essay, three letters of recommendation, and their ACT/SAT scores to be considered finalists.

"We create a three-person panel that I am not a part of to judge the finalists," said Haid. "Because if it were up to me, I'd give them all scholarships."

Parsons' passion for the environment started during her formative years on her family's farm that has since permeated throughout the Kanawha Valley and even other parts of the

world.

A graduating senior at Buffalo High School, Parsons' conservation work began in middle school when she started participating in the Greater Kanawha River Cleanup.

"My aunt, Judy Pauley, got me involved in the environment, but we were very involved in the conservation agency to make our farm as environmentally-friendly as we could," said Parsons. "I also did work with the Putnam County Fair Cleanup and little things like that to get involved and clean up my community and the state of West Virginia."

Parsons took her efforts global a few years later, embarking on a trip to Guatemala with 1:27 Mission Projects.

See SCHOLAR, Page 6



Megan Parsons



Earl Ray Tomblin
Governor
Randy C. Huffman
Cabinet Secretary
Kelley Gillenwater
Communications Director
Jake Glance
Editor

DEP Public Information Office
601 57th Street SE
Charleston, WV 25304
Jacob.P.Glance@wv.gov

inDEPth is published by the West Virginia Department of Environmental Protection, an affirmative action, equal opportunity employer.

Reptiles: Creepy-Crawly Annoyance or Life-Saving Necessity?

EE inspector knows the benefits of a healthy reptile population

by Colleen O'Neill

When people hear the word "reptile," snakes are usually the first thing to spring to mind.



Kevin Saunders

Many think snakes are nasty and unpleasant, and will kill them on sight. However, the truth is that they are naturally inoffensive and even

beneficial to mankind.

"Snakes are easily the most misunderstood reptiles and many people fear them without merit," said Kevin Saunders, an inspector with Environmental Enforcement. He studied herpetology, a branch of science devoted to reptiles and amphibians, for his master's degree.

"Snake venom has many medical uses. Copperhead venom is being used to fight breast cancer by retarding the growth and spread of tumors. The venom of a particular pit viper is used to reduce clot-related risks in major surgical procedures and as a post-treatment for stroke victims. A drug developed from rattlesnake venom is used to treat heart attack victims. Enzymes from cobra and mamba venom are being studied as potential cures for Parkinson's disease and Alzheimer's. The first drug derived from snake venom was used to treat high blood pressure. A synthetic version was developed in the 1970s which gave rise to ACE inhibitors which are frequently prescribed for hypertension today. Entire classes of pharmaceutical drugs have arisen from venom research. Because of this, many people's lives have been saved by venomous snakes without them ever realizing it."

Beyond that, snakes serve an important ecological function as well.

"Much like bees which are im-

DID YOU KNOW?

There are only two kinds of poisonous snakes in West Virginia: the copperhead and timber rattlesnake



Kevin Saunders, an inspector with the DEP's Environmental Enforcement section of the Division of Water and Waste Management, does not suffer from herpetophobia - the fear of snakes.

portant pollinators but better known only for painful stings, snakes are extremely valuable to humans, whether appreciated or not. It should come as no surprise that snakes are effective at reducing rodent populations, preventing agricultural and property damage in the process. While birds and other mammals also prey on vermin, snakes are uniquely suited to track and consume them in burrows or other small spaces where most predators would be unable to access them. One study averaged the number of small mammals rattlesnakes would eat each year as well as the number of ticks per animal. In doing so, they determined that a single rattlesnake will consume 2,500-4,500 ticks per year. Imagine what an impact that has on restricting the spread of Lyme disease."

Saunders has been fascinated by these animals since he was a young child.

"I remember finding box turtles and keeping them in a kiddie pool when I was three-years-old. They were the only reptiles I saw and could catch at the time, but as I grew older I started to find and temporarily keep frogs and snakes that I would find around my neighborhood. In the years since then, I've kept and bred a variety of lizards and snakes. At this point I've had boas, chameleons, monitor lizards, treefrogs, geckos, rat snakes, pythons, lacertas, turtles, bearded dragons, kingsnakes,

skinks, and milk snakes, to name a few. When I was younger, I kept them in my closet, but now they occupy a spare bedroom."

After reading "Amphibians and Reptiles in West Virginia" by N. Bayard Green and Thomas K. Pauley, Saunders realized that Dr. Pauley was a professor at Marshall University.

This made his decision about

which college to attend much easier and his goals of studying under Dr. Pauley became a reality despite constant warnings that the professor would retire before Saunders could begin graduate school.

He spent much of his time crawling around in caves in order to study salamanders for his thesis research.

"Grad school was some of the most fun I've ever had and I know if I hadn't fulfilled that personal goal, I'd always regret it," Saunders said. He still contributes to herpetological research by doing volunteer field work and data collection when possible.

"I've documented range extensions for several species within West Virginia and collected data on the diet, timing of reproduction, habitat use, and seasonal activity of numerous species," Saunders said.

"While I'm no longer a student, I still forward any potentially useful information for inclusion in the West Virginia Biological Survey Museum database."

If you'd like to see photographs of some West Virginia reptiles and amphibians, Kevin has a flickr photo-stream at www.flickr.com/photos/speleomander. Also, if you find any reptiles or amphibians that you'd like some help identifying, feel free to email pictures to Kevin at Kevin.W.Saunders@wv.gov.

Job Fair at Chief Logan



More than 130 employers, including the DEP, took part in a Job Fair held at Chief Logan Conference Center in May. The event, sponsored by Workforce West Virginia and U.S. Sen. Joe Manchin, saw attendees travel from as far away as Morgantown. Workforce West Virginia estimated that more than 2,500 people attended the event. In the above picture, Division of Mining and Reclamation (DMR) Assistant Director Benny Campbell (left, in uniform) and DMR Permitting Supervisor Larry Alt answer questions from job seekers.

Congratulations, 2016 Environmental Award Recipients!



The city of Parkersburg
Sewage Treatment > 400,000 GPD



The city of Fairmont
Municipal Stormwater



The city of Charleston
Municipal Stormwater



Mary Ellen and Patrick Cassidy
Clean Energy



Highland Hospital
Water Conservation



Orbital ATK
Improvement to Air Quality



Guyandotte River Trail
Environmental Partnership



Travis Bailey
Environmental Partnership



Jefferson County Commission
Landuse Development



Lt. Ron Gardner
Berkeley Co. Sheriff's Dept.
Outstanding Litter Control



Friends of Hughes River
Education and
Community Involvement



Dr. Joe Evans
Education and
Community Involvement



Boy Scout Troop 99
Education and
Community Involvement



Mercer County SWA
Education and
Community Involvement



The city of St. Albans
Environmental Stewardship



Sajid Barlas
Environmental Stewardship



Greg Puckett
Environmental Stewardship



Buffalo Creek Watershed Assoc.
Cabinet Secretary Award



Not Pictured: The City of Kingwood
Land Revitalization

JAILED For a Good Cause: MDA Research Funding

DMR deputy director “jailed” to raise money for MDA research

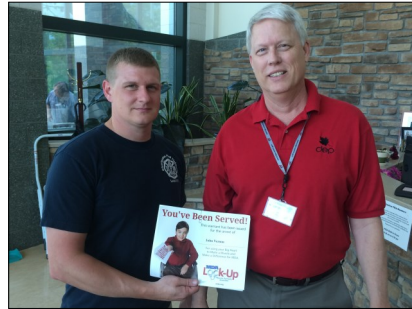
by Jake Glance

The DEP Division of Mining and Reclamation’s (DMR) deputy director was “arrested” on May 25, and the only way he could be released was to raise money for the Muscular Dystrophy Association.

“Happy to do it,” John Vernon said.

He managed to raise the money required for his release - more than \$1,160 - rather quickly. He was only “behind bars” for a couple hours because he worked for weeks asking people to donate, which they did.

Muscular dystrophy is not a single disease, but a group of nine conditions



DMR Deputy Director John Vernon (right) was “arrested” by Charleston firefighter Justin Teal in order to raise money for MDA research on May 25.

that can begin to exhibit its devastating effects from birth all the way to old age. Some forms only affect boys. Some are extremely rare and others are frighteningly common.

That’s why lock-up events like this one are so important - every penny raised is needed to try to eliminate muscular dystrophy altogether.

“This is a very good cause,” Vernon said. “If you agree to do it, you’re supposed to raise money for your ‘bail’ money to get you out of jail. So the whole idea is you have to post your ‘bail’ but you get to start raising money long before they actually come get you. Otherwise, it would be really difficult to raise that much money in such a short period of time.”

One difference from actual jail - not that Vernon has ever been there - is the food set aside for “inmates” at Bar 101 in downtown Charleston is delicious.

Those jailed for the fundraiser also have access to all the technology you can carry in order to raise money.

“You can use your phone to call everyone in your contact list, you can use your computer to email everyone you know. They have donation forms there that you fill out.”

Vernon said taking time to help raise money for MDA research is even more important recently because funding from government agencies in the form of grants is drying up.

“Any cause that helps people who suffering from any disease, and especially one where children are suffering, it’s one that I want to help.”

While Vernon said his family does not have a direct connection with muscular dystrophy, it unfortunately has been affected by other diseases that are just as devastating.

“My dad died of complications from cancer, my mom died from Alzheimer’s disease, my wife has suffered from Lupus her entire life. Everybody is touched by something. And no matter what you do, you’re helping somebody.”

To learn more about muscular dystrophy or to contribute to research, go to <https://www.mda.org/>.



In “lockup,” DMR’s John Vernon managed to raise \$1,160 for muscular dystrophy research in order to free himself from “jail.”

SCHOLAR

con’t from Page 3

1:27 Mission Projects is a non-profit group based in Missouri that helps women and children around the world.

“We went down there and spent

time with the locals and I actually helped start an aquaponic system so they can be a little bit more self-sustaining with agriculture,” said Parsons.

Even with an impressive list of accomplishments under her belt, Parsons has her sights set on a few more lofty goals for her future. She will be

attending the University of Kentucky this fall and will double major in integrated strategic communications and community and leadership development in the hopes of one day becoming an environmental or agricultural lobbyist for the United States Congress, a dream sparked by her visit to Guatemala.

AWARDS

con’t from Page 1

“Clay County is one of the poorest counties in the state. A good trout stream, a trail, it won’t ‘fix’ the county, but every little bit helps. People you never saw out walking before are now out walking the trail, and recently I met a guy on the stream who had come from Putnam County to fish.”

David Sago, the utility director for the city of Fairmont, was on hand to accept an Environmental Award in the Municipal Stormwater category.

“Our philosophy in Fairmont has always been, ‘Let’s get out in front of the bus instead of getting caught under the bus,’” Sago said.

Fairmont’s award-winning initiative began back in 2005, when Fairmont chose to implement its stormwater program with the versatility of a utility under the direction of the Sewer Board. In the following 11 years, a successful illicit discharge detection and elimination system has come online and combined sewer overflows have been permanently eliminated.

“Quotable”

“Like music and art, love of nature is a common language that can transcend political or social boundaries.”



- President Jimmy Carter



New Hires

- Kenzie Cable, Division of Water and Waste Management
- Kelley Cook, Rehabilitation Environmental Action Plan
- Jeffrey Davis, Division of Mining and Reclamation
- Travis Dill, Division of Mining and Reclamation
- Carolyn Elswick, Business and Technology Office
- Terry Fletcher, Public Information Office
- Paul Legg, Homeland Security and Emergency Response
- Leah McAllister, Division of Land Restoration
- Mattie Morgan, Division of Land Restoration

Upcoming/Recent Retirements

- Steven Ball, Division of Mining and Reclamation
- John Britvec, Division of Water and Waste Management