

**AGENDA**  
**Commission for the Environment**  
**March 14, 2016**  
**7:30 p.m.**

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Orange County Solid Waste Administration Building  
1207 Eubanks Road, Chapel Hill

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- | <b><u>Time</u></b> | <b><u>Item</u></b> | <b><u>Title</u></b>   |
|--------------------|--------------------|---|
| <b>7:30</b>        | <b>I.</b>          | <b>Call to Order</b>  |
| <b>7:32</b>        | <b>II.</b>         | <b>Additions or Changes to Agenda</b>   |
| <b>7:35</b>        | <b>III.</b>        | <b>Approval of Minutes – February 8, 2016</b> (Attachment 1)  |
| <b>7:40</b>        | <b>IV.</b>         | <b>Energy and Water Usage - County Buildings &amp; Facilities</b><br>Bouma will provide an update on 2015 energy and water usage for County buildings and facilities, and introduce some draft materials being prepared for "Orange County Waste Wise Events" for CFE consideration and feedback. Finally, Bouma will provide a preview of some of the County's sustainability initiatives that will be of interest to the CFE. (Attachments 2 - 3)   |
| <b>8:10</b>        | <b>V.</b>          | <b>Impaired Streams in Orange County</b><br>Davis will present the State's draft list of "impaired" rivers and streams in Orange County and explain how additional stream monitoring by the County in 2012-14 added to the data upon which these determinations were made.  |
| <b>8:30</b>        | <b>VI.</b>         | <b>CFE Outreach Opportunities / News Articles</b><br>The CFE will review recent and proposed news articles intended to educate/inform the public about issues highlighted in the Orange County State of the Environment. The CFE will also discuss participation in upcoming Earth Evening and Last Friday events. (Attachments 4-7)  |
| <b>9:00</b>        | <b>VII.</b>        | <b>Updates and Information Items</b><br>Staff and/or CFE members will provide updates on the following items: <ul style="list-style-type: none"><li>➤ CFE membership roster (Attachment 8)</li><li>➤ CFE Committee priorities – revised draft (Attachment 9)</li><li>➤ Eno River hydrilla management project update (Attachment 10)</li><li>➤ Coal ash dump in Chapel Hill (Attachment 11)</li><li>➤ Photo Contest 2016 - "The Nature of Orange" (Attachment 12)</li><li>➤ Solarize the Triangle (Attachment 13)</li><li>➤ Green schools save little money – John Locke Fdn report (Attachment 14)</li><li>➤ Natural gas leak a disaster in Calif (Attachment 15)</li></ul> |
| <b>9:20</b>        | <b>VIII.</b>       | <b>Adjournment</b><br><br><i>Next meeting:</i> April 11 (Hillsborough)  |

CFE Meeting Ground Rules (*Adopted 9/12/11*)

1. Keep to agenda topic under discussion
2. Share relevant information
3. One person speaks at a time after recognition by the Chair
4. Everyone is invited to participate in discussions / no one person should dominate discussions
5. Strive to reach consensus first before voting

**Activities the CFE expects to carry out in 2016:**

- Continue to update the Orange County State of the Environment 2014 report
- Continue to explore ways to improve the County's ability to foster local sustainable energy production and energy efficiency strategies, including developing incentives for increasing energy efficiency in new construction
- Recommend ways to reduce the County's "carbon footprint" and implement the County's Environmental Responsibility Goal (BOCC Priority #10)
- Continue to help with public outreach and management efforts related to hydrilla in the Eno River
- Help initiate the development of a comprehensive conservation plan for Orange Co
- Co-sponsor the annual DEAPR photography contest (*The Nature of Orange*)
- Help plan for and participate in County's annual Earth Evening event

**Concerns or emerging issues the CFE has identified for 2016:**

- The CFE will continue to advocate for an expansion of the County's commercial food waste pickup and composting services to reduce food waste in the solid waste stream
- The CFE remains interested in developing incentives for increasing energy efficiency in new construction
- The CFE will continue to learn more about environmental justice matters and incorporate relevant information and considerations in the State of the Environment report and its other activities
- The CFE will continue to follow the Solid Waste Advisory Group's discussions of how to improve the handling and disposal of Orange County's solid waste, and will advocate for better long-term solutions
- The CFE will continue to advocate for increased efforts to gather information related to water resources in Orange County and to increase public awareness and understanding of water supply sources, related concerns, and what steps can be undertaken to maintain or improve the quantity and quality of Orange County water supply resources
- The CFE will continue to address, as appropriate, the critical environmental issues for Orange County as enumerated on page 3 of the 2014 State of the Environment report, which include potential adverse effects from a) invasive, non-native, plant and animal species; b) reductions in State-led collection of water resources data; c) potential drilling for natural gas in the Deep River basin; d) urban sprawl; and CFE support for e) the responsible deployment of clean and appropriately-sited renewable energy and reductions in energy use to help fight climate change

**Orange County  
Commission for the Environment**

**DRAFT Meeting Summary**

**February 8, 2015**

**Richard Whitted Meeting Facility, Hillsborough**

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PRESENT: Lydia Wegman (Chair), May Becker, Peter Cada, Tom Eisenhart, Loren Hintz, Bill Newby, Rebecca Ray, Sheila Thomas-Ambat

ABSENT: Lynne Gronback, Jeanette O'Connor, David Welch

STAFF: Rich Shaw, Brennan Bouma

GUEST: Kathleen Smith

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- I. **Call to Order** – Wegman called the meeting to order at 7:35 pm.
- II. **Additions or Changes to Agenda** – There were none
- III. **Minutes** – Wegman asked for comments on the December 14 meeting summary. Eisenhart motioned approval as written; seconded by Cada. Approved unanimously.
- IV. **Welcome / Resolutions of Appreciation** – Wegman welcomed Bill Kaiser back to the CFE on which he had served previously including two years as chair. Wegman also welcomed Kathleen Smith who has applied for CFE appointment and wanted to observe the meeting. CFE members and staff introduced themselves to Kaiser and Smith.

Shaw presented draft resolutions of appreciation for three outgoing CFE members: Jan Sassaman, David Neal, and Gary Saunders. CFE members offered no changes to the resolutions; they were approved by acclimation. Shaw will prepare final versions of the resolutions for Wegman's signature, and then send or deliver to each recipient.

- V. **\$2 Billion Statewide Bond Campaign** – Shaw provided an overview of the \$2 billion bond campaign for North Carolina (Connect NC), scheduled for a vote as part of the March 15 primary elections. He presented PowerPoint slides about the bond and the kinds of projects to be funded in the categories of education, water and sewer infrastructure, National Guard and public safety, agriculture, parks and zoos.

Shaw said that according to the bond campaign there is bipartisan support for the bond, and that no tax increase is expected to pay for the bond over the next 20 years. He said the bond package includes \$75 million for state parks, with \$4 million of that for the NC Mountains-to-Sea Trail. Shaw noted that \$2.8 million of the parks allotment would go to improvements at Eno River State Park, and Orange County would also be in line for funding to acquire land and trail easements for the Mountains-to-Sea Trail (MST).

CFE members discussed the contents of the bond package and identified elements germane to the CFE's purview that could benefit Orange County. CFE members noted Eno River State Park and the MST in particular, and also Jordan Lake since many Orange County residents visit that site. Thomas-Ambat said the county and its municipalities might also benefit from funding to upgrade and retrofit water and sewer infrastructure, thus improving water quality for residents and aquatic organisms.

Hintz motioned that the CFE write a letter to newspapers in support of the State Bond. Eisenhart seconded the motion; it carried unanimously.

Hintz motioned that the CFE letter identify Eno River State Park, Mountains-to-Sea Trail, Jordan Lake, and public water and sewer infrastructure as potential areas of interest to Orange County residents that could receive direct benefits from the bond. Thomas-Ambat seconded the motion; it carried unanimously.

Wegman and Cada offered to prepare a draft letter and then to Shaw for circulation to all CFE members for approval by email. Wegman thanked Shaw for this information.

- VI. **Lands Legacy Program Update** – Shaw provided an update on plans to open two new Orange County nature preserves: Hollow Rock Nature Park and the Seven Mile Creek Preserve. He displayed a master plan map of the 75-acre Hollow Rock park site, which will include new parking area, nature trails, and bridges. Phase 2 will add a restroom facility, interpretive signage, environmental education area, and platform overlooks. The park is expected to open in May 2016.

Shaw showed a map of the Seven Mile Creek Preserve. This site will also feature nature trails and a group camping area on land adjacent to the Moorefields historic site. Construction of a small parking area will occur this summer, and the site is expected to open sometime in late summer or early fall 2016.

Wegman thanked Shaw for the information. No action required.

- VII. **Committee Meetings** – CFE members broke into three standing committees (Air and Energy Resources, Water Resources, and Land Resources) to review a list of priority issues/projects identified by each committee in 2014-15. The committees met for about 30 minutes and then reported back to the full CFE.

**Air and Energy Committee**

Bouma reported that the Air and Energy Committee discussed five issues

1. GHG Emissions Inventory – The committee agreed to continue discussing whether it would be worthwhile to update the County 2005 greenhouse gas emissions inventory. They suggest looking into updating projections from last report based on what we know has changed, and if estimates show large increase this may suggest compiling a more complete update. Look for easy sources of energy usage that are authoritative and updated regularly.
2. Green Building – The CFE submitted its resolution to BOCC in support of developing a rebate on permit fees for green construction. The committee will await any response from BOCC and continue to monitor the Chapel Hill pilot program.
3. Climate Change – The committee will write news article(s) about climate change, alternative energy sources and efficiency, and ways to reduce our carbon footprint.
4. Energy Efficiency – The committee will research the possibility of working with Piedmont Electric Membership Corp. or Duke Energy and a USDA program for low-interest loans for energy efficient upgrades for its members/owners.
5. Food waste reduction issue – The committee recommends coordinating with the SWAG and others to lend more focus on increased composting in the county.

Water Resources Committee

Cada reported that the Water Resources Committee intends to conduct a literature review of the science in support of maintaining vegetative buffers to protect water quality. Hintz reminded the committee that buffers also protect habitat and biodiversity, and they serve as wildlife corridors. Becker asked the committee to continue monitoring the chemical treatment of hydrilla in the Eno River.

Land Resources Committee

Hintz reported the Land Resources Committee will collaborate with a group that intends to develop a comprehensive conservation plan for Orange County—and perhaps a more regional plan for Orange, Durham, and Chatham counties. The focus will be identifying the most significant natural area corridors that are essential for native plants and wildlife.

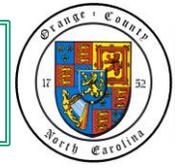
Hintz also reported the committee wants to work with County staff to determine whether conservation land is distributed equitably throughout the county so that everyone has reasonable access to enjoy these areas.

Hintz said the committee wants to continue exploring ways to protect important native plant habitat, including a project with the NC Botanical Garden and educating residents on reasons to landscape with a diversity of regionally native plant species.

- VIII. **Updates and Information Items** – Information on the following subjects was provided in the meeting package; selected items were discussed: a) 2016 CFE meeting calendar, b) CFE news articles re water availability and Solarize Orange, c) airport/airstrip rule amendments canceled, d) Eno River hydrilla management, e) State guidance for local stream buffer rules, f) COP21 agreement summarized, g) 2015 hottest year on record, h) Solarize the Triangle, i) effects of solar panels on farm fields, j) conservative case for solar subsidies, and k) Brumley Forest Nature Preserve.
- IX. **Adjournment** – Wegman adjourned the meeting at 9:40 pm.

Summary by Rich Shaw, DEAPR Staff

# Orange County Sustainability Program



**Coordinator:** The Coordinator's role is to initiate and manage collaborative projects with both County staff and residents.

**Mission:** Orange County Sustainability Program works to safeguard taxpayer dollars while improving the social equity and environmental performance of County operations and programs.

**Work:** Sustainability has been a part of Orange County's work and policies for decades. The Orange County Sustainability Program works to build on our success to date by collaborating with County staff and community groups on projects that will help the County tackle current and upcoming economic, equity, and environmental challenges.

**2015 Project Highlights:** Wrote successful \$100,000 grant to pilot the use of propane bi-fuel vehicles and infrastructure in collaboration with the Sheriff's Office and Orange Public Transportation.



Drafted Telework Policy and program in partnership with Human Resources for implementation in the Spring of 2016.



Collaborated with County residents and non-profits to pursue installation of the County's first solar panels on the Rogers Road Community Center for the benefit of the community.



Worked with Housing, Human Rights and Community Development to organize representatives from County departments and disability support groups to assess accessibility at all County facilities and address any obstacles identified.



Convened Sustainability Roundtable in partnership with Solid Waste to connect all external governmental sustainability partners with jurisdiction in Orange County.

Implemented a grant-funded idle reduction project with Emergency Services to reduce diesel fuel consumption and improve air quality.

Assisted AMS Administrative staff in installing and publicizing the opening of the County's first two public DC Fast Chargers for electric vehicles.

Provided staff support for the Commission for the Environment, facilitating the Air and Energy Committee and leading efforts to create and publish two local news articles and three radio spots.

# Orange County Sustainability Program



## Upcoming Projects:

Reconvene Environmental Stewardship Advisory Committee as Environment and Sustainability Advisory Committee in partnership with DEAPR.

Establish Green Events Program for County staff events in partnership with Solid Waste.

Conduct fleet efficiency analysis and pilot of vehicle reservation and pooling technology.



## WASTE WISE EVENT PLANNING CHECKLIST

### Publicity

	Send out online or email invitations (avoid direct mail publicity campaigns)
	Collect RSVPs to get an accurate headcount to avoid over-ordering food
	Laminate all posters and promotional materials so they can be re-used if event will recur

### Planning

	Identify a menu and a plan for how the food and drinks will be served
	Identify items in waste stream as reusable, recyclable, compostable, or trash. Use “Sorting” tool for help.
	Reserve a venue and identify the disposal options that are available. Decide whether you’ll be collecting compostables. Use “Sorting” tool for help.

### Purchasing

	Generate a list of all the serving items you will need
	Use the “Suggestions” tool to order compostable and reusable event products
	Use our “Caterers” tool to order food from local caterers

### Set Up

	Contact OC Solid Waste Management to borrow signs and containers for waste sorting stations
	Set up waste sorting stations with a clearly labeled compost, recycling, and trash bin
	Remove all trash bins in the event area other than the trash sorting stations
	Plan for how to manage full bags of compostable food and paper waste during and after the event

### During the Event

	Announce to the audience proper waste separation techniques
	Monitor trash sorting stations to ensure recyclable and compostable materials are sorted appropriately
	Manage any compost bins that fill up according to your plan
	Near the end of the meeting/event, encourage participants to take food home

### Once the Event is Over

	Manage compost and recycling according to plan
	If there are leftovers, encourage staff/volunteers to bring “tupperware” to take food home
	If there is unserved/unopened food, take to Orange Congregations in Mission in Hillsborough, (919) 732-6194; Interfaith Council Community House in Chapel Hill, (919) 967-0643
	Clean and return all borrowed items
	Take down and store all posters and promotional materials



The world of composting materials is a rapidly expanding and occasionally confusing place. These guidelines and suggestions should help simplify your waste wise event purchasing quest.

The sources of the specific products below, Staples and Office Depot, were identified by focus group participants as common vendors for servingware for Orange County events.

#### NAPKINS

- Paper napkins can be composted

#### CUTLERY

- Consider buying your own set of stainless steel utensils if your department or event planning committee has many events, and you have access to a dishwasher
- The Orange County Solid Waste Department "[Fork It Over](#)" program has 250 sets of stainless steel utensils and 200 white polyester napkins available for loan. There is no charge, but the items must be returned washed and separated. For more information, e-mail [recycling@orangecountync.gov](mailto:recycling@orangecountync.gov) or call (919) 968-2788. Buckets are also provided so that attendees can drop off their "Fork It Over" utensils and/or napkins once they have finished eating.

Highmark® Compostable Cutlery Set, 6" Ivory	<a href="#">Office Depot</a>	#1389196	ASTM D6400, BPI Certified Compostable
LC Industries Biobased, Spoons, Beige	<a href="#">Office Depot</a>	# 271050	ASTM D6400, BPI Certified Compostable
LC Industries Biobased Knives, Beige	<a href="#">Office Depot</a>	# 271005	ASTM D6400, BPI Certified Compostable

Eco-Products Plantware Renewable & Compostable Fork, Pearl White

[Not Just Paper](#)

# ECO-EPS013

ASTM D6400, BPI

[Staples](#)

ECOEPS012

Certified Compostable

Eco-Products Plantware Renewable & Compostable Spoons, Pearl White

[Not Just Paper](#)

# ECO-EPS013

ASTM D6400, BPI

[Staples](#)

ECOEPS013

Certified Compostable

Eco-Products Plantware Renewable & Compostable Knife, Pearl White

[Not Just Paper](#)

Code # ECO-EPS013

ASTM D6400, BPI

[Staples](#)

Item ECOEPS011

Certified Compostable

Eco-Products Plantware Renewable & Compostable Cutlery Kit, Pearl White

[Staples](#)

Item ECOEPS015

ASTM D6400, BPI

Certified Compostable

World Centric Assorted Cutlery

[World Centric](#)

SKU #AS-PS-R

ASTM D6400, BPI

Certified Compostable

World Centric Wrapped Assorted Cutlery

[World Centric](#)

SKU #AS-PS-TN

ASTM D6400, BPI

Certified Compostable

## PLATES

- Use Chinet brand plates which are compostable and made with recycled paper.
- Also use any uncoated paper plate as these can be composted as well.

Eco-Products® Sugarcane Fiber 3-Compartment Plates, 10"

[Office Depot](#)

# 126997

ASTM D6400, BPI

[Staples](#)

ECOEP005PK

Certified Compostable

Eco-Products® Sugarcane Plates, 9"

[Not Just Paper](#)

#ECO-EPP013PK

ASTM D6400, BPI

[Office Depot](#)

# 405978

Certified Compostable

[Staples](#)

812553

Eco-Products® Sugarcane Plates, 6" [Not Just Paper](#) #ECO-EPP016PK ASTM D6400, BPI  
[Office Depot](#) Item # 390813 Certified Compostable  
[Staples](#) Item 812565

Chinet® Paper Plates, 10.5", White [Not Just Paper](#) #HUH-VENTURECT BPI Certified  
 Compostable

Chinet® Classic Paper Bowl, 12oz, White [Not Just Paper](#) #HUH-21230 BPI Certified  
 Compostable

BioGreenChoice 10" Off White Compostable Fiber/Bagasse Plate [Staples](#) 20004949 BPI Certified  
 Compostable

World Centric 10" Three compartment [World Centric](#) SKU # PLR1-SC-U10T-P ASTM D6400, BPI  
 Plant Fiber Plates (Unbleached) Certified Compostable

World Centric 7" Round Plant [World Centric](#) SKU #PL-SC-U7-P ASTM D6400, BPI  
 Fiber Plates (Unbleached) Certified Compostable

**CUPS**

- Use plain unlined paper "Hot/Cold" cups as they are compostable and sturdy
- Use #7 PLA cups which look and feel like clear plastic, taking care to purchase cups with the label "Certified Compostable."
- Avoid cups that are lined with plastic as these are not compostable.

Eco-Products® GreenStripe® Cold Cups, 16 Oz [Not Just Paper](#) # ECO-EPCC16GS ASTM D6400, BPI  
[Office Depot](#) Item # 424923 Certified  
 Compostable

Eco-Products® World Art™, Hot Cups, 16 Oz

[Not Just Paper](#) #ECO-EPBHC16WA ASTM D6400, BPI  
[Office Depot](#) Item # 435957 Certified  
[Staples](#) Item ECOEPBHC16WAPK Compostable

Eco-Products GreenStripe Cold Cups, 12 Oz, Clear/Green

[Not Just Paper](#) #ECO-EPCC12GS ASTM D6400, BPI  
[Office Depot](#) Item # 673173 Certified  
Compostable

Eco-Products® World Art™, Hot Cups, 12 Oz

[Not Just Paper](#) #ECO-EPBHC12WA ASTM D6400, BPI  
[Office Depot](#) Item # 435858 Certified  
[Staples](#) Item ECOEPBHC12WAPK Compostable

World Centric Ingeo Cold Cup, 10 Oz

[World Centric](#) SKU # CP-CS-10-P ASTM D6400, BPI  
Certified  
Compostable

World Centric 10 oz Hot Paper Cup with Ingeo™ Lining

[World Centric](#) SKU # CU-PA-10-P ASTM D6400, BPI  
Certified  
Compostable

World Centric 10 oz Hot Kraft Paper Cup with Ingeo™ Lining

[World Centric](#) SKU # CU-PA-12-K-P ASTM D6400, BPI  
Certified  
Compostable

## TRASH BAGS

Stout® Compostable Trash Bags, 32 Gallons, 0.85 Mil Thick, 48" x 33"

[Not Just Paper](#) #STO-E3348E85

	<a href="#">Office Depot</a>	#604575
	<a href="#">Staples</a>	STOE3348E85
World Centric 39 Gallon Liner	<a href="#">World Centric</a>	SKU #BG-CS-39-P
World Centric 45 Gallon Liner	<a href="#">World Centric</a>	SKU #BG-CS-45-P

**STIRRERS**

- All wooden stirrers are compostable

# Loss of tax credits clouds future of rooftop solar energy

BY DAVID NEAL

This is another in a series of articles by the Orange County Commission for the Environment. Each article highlights an environmental issue of interest to the residents of Orange County. The CFE is a volunteer advisory board to the Board of County Commissioners.

**T**his past year, with the help of the Solarize Orange campaign, Orange County experienced a surge in the installation of rooftop solar photovoltaic (PV) systems.

In 2015 the Solarize campaign helped 50 homes install rooftop systems that can generate a total of 298 kilowatts (kW) of electricity using sunlight. Each participant saved an average of \$1,500 through bulk-purchasing of solar panels and related equipment.

In combination with the two previous Solarize campaigns, solar PV systems have been installed on a total of 135 homes in Orange County, with the capacity to produce 1 million kilowatt hours (kWh) of clean energy per year! This is the greenhouse gas equivalent of not burning 740,000 pounds of coal or the amount of carbon stored in 565 acres of forest.

 ONLINE

For more information in the Orange County State of the Environment 2014 report go to [bit.ly/1mTE5K2](http://bit.ly/1mTE5K2)

Some of our neighbors were spurred to go solar by the anticipated expiration of the state's renewable energy tax credit, which our General Assembly let sunset at the end of 2015. For others, it was the dramatic decrease in the cost of solar panels and their installation. For some, an opportunity to reduce the amount of air pollution generated from the burning of fossil fuels, including coal, that supply much of our electricity was enough of a motivator. All three of these factors drove my family's participation in the Solarize Orange campaign.

Since we installed our system, we have not paid Duke Energy for a single kilowatt hour. During these short winter days, we will need to rely more on the electric grid for power, but our panels produce electricity every day, even when overcast.

Unfortunately, clouds of a different sort hang over the Solarize initiative. The expired state renewable income tax credit had made solar PV systems significantly more affordable, allowing homeowners to re-

coup up to 35 percent of their costs. Without it, solar is out of reach for many Orange County residents.

Those who balk at state or federal tax credits for renewable energy systems should remember that fossil fuels and nuclear power have received substantial subsidies for generations. In addition, the use of fossil fuels incurs social and health costs that we all bear in the form of increased rates of asthma and other respiratory illnesses, polluted surface waters, and altered landscapes. We should petition our state representatives to restore the state renewable tax credit and thank our congressional delegation for recently extending the federal tax credit through 2020.

In spite of the loss of the tax credits, between now and April 30, two of the biggest Solarize campaign organizers in North Carolina, NextClimate and NCWARN, are joining together to "Solarize the Triangle." Besides increasing solar installations, the Solarize campaign is working to lower the cost of solar through education and easing access to more affordable financing.

On a larger scale, the market for residential solar could be expanded by changing state policies that prevent third-party power purchase agreements. In these arrangements, solar energy companies install solar panels for little to no cost and then bill the homeowner for the energy these panels produce. In states where these agreements are allowed, they have been very successful at bringing solar to homeowners who otherwise might not be able to afford solar power.

A solar system is a great hedge against increases in electricity rates, and provides tangible savings to those who otherwise may spend much of their limited income on electricity. My family is thrilled to have been able to afford the upfront costs and participate in the Solarize Orange campaign. As a community, let's find a way to make the benefits of solar available to *all* of our neighbors.

*David Neal is a member of the Orange County Commission for the Environment.*

# COMMENTARY

## Orange County Commission for the Environment

TO THE EDITOR:

The Orange County Commission for the Environment (CFE) encourages Orange County voters to vote in favor of the Connect NC Bond referendum, which will appear on the March 15 ballot. The Bond would provide \$75 million (out of a total \$2 billion package) to build and improve facilities at state parks, which would help fund work on visitor centers, hiking trails, and campgrounds. Among the parks and trails that would receive significant funding from the bond are Eno River State Park and the NC Mountains-to-Sea Trail, both of which are

see **LETTERS** page 5

## LETTERS

CONTINUED FROM PAGE 4

partially located in our county. The bond funding will enable the county to invest in improving and expanding trails at Eno River State Park and help acquire properties or easements necessary to complete the NC Mountains-to-Sea trail within the county. In addition, the bond includes funding for Jordan Lake State Recreation Area, which is enjoyed by many residents of the county. By funding improvements to these treasured state parks and trails, all county residents will have an opportunity to benefit from the Connect NC Bond initiative for years to come.

The bond also provides over \$300 million in loans and grants for the improvement of water and sewer infrastructure statewide. Orange County will be well-positioned to apply for these funds to repair, rebuild, update, and strengthen the county's water and sewer systems. These improvements could help prevent the loss of treated drinking water through leaking water supply pipes, an important consideration especially in periods of drought. Additionally, these funds can be used to address sanitary sewer infrastructure that is dated or in disrepair, thereby reducing chronic leakage from pipes, as well as sewage overflow events during heavy rain storms.

For all these reasons, the CFE strongly encourages voters to support the Connect NC Bond referendum on March 15.

Sincerely,  
Lydia Wegman, Chair  
Orange County Commission for the Environment

**ORANGE COUNTY  
COMMISSION FOR THE ENVIRONMENT**

Since February CFE members have worked with staff to develop monthly articles for the *Chapel Hill News* and *The News of Orange County*. Thus far there have been articles on hydrilla in the Eno River, electronic vehicle charging stations, the benefits of native plants, problems caused by the emerald ash borer and other invasive species, and the effects of fracking on Orange County.

*Revised Calendar for Preparing/Publishing News Articles*

*March 2016*

Topic	SOE	Committee (Lead)	Completion	Publication
Hydrilla in the Eno	pp. 69-70	Water (Cada/Davis)	April, 2015	April 29, 2015
New electric vehicle charging stations	pp. 21-22	Air & Energy (Bouma)	April 15, 2015	May 17, 2015
Pollinator Issues	pp. 43-44	Land (O'Connor/Shaw)	June 15, 2015	Pending
Terrestrial invasives / choosing native spp.	pp. 43-44	Land Resources (Hintz/Shaw)	Aug 15, 2015	Aug 19, 2015
Potential effects of fracking in Orange Co.	pp. 71-72	Water (Davis/Sassaman)	Nov 15, 2015	Nov 25, 2015
Solarize Orange / Barriers to solar development	N/A	Air & Energy (Neal/Bouma)	Jan 15, 2016	Feb 24, 2016
Water conservation	pp. 47- 54	Water (Cada/Davis)	Dec 15, 2016	Pending
Support for State Bond	pp. 37-42	Wegman/Cada	Feb 15, 2016	March 2, 2016
State funding for aquatic weed control in rivers?	pp. 69-70	Water (_____/Davis)		
Land conservation (Hollow Rock park?)	pp. 37-42	Land (_____/Shaw)		
		Air & Energy (_____/Bouma)		
<i>Reconsider schedule for 2016 (change to quarterly?)</i>				

# 2016 CFE Outreach Opportunities

March 2016

## 1. Events

- **Earth Evening**      April 29<sup>th</sup>, 6 - 8 pm, River Park, Hillsborough
- **Last Fridays**      Downtown Hillsborough, approx. 6:30 – 9 pm  
<http://www.hillsboroughartscouncil.org/#!/last-fridays/c22tz>
  - May 27
  - June 24
  - July 29
  - August 26
  - September 23

## 2. Potential Topics?

- CFE Newspaper Articles
- Hollow Rock Nature Park Opening
- Recruitment of New Members
- Other??

### **Air and Energy Resources Committee**      (May, Tom, Bill N.)

1. Climate Change – Climate change, alternative energy sources and efficiency, and steps to reduce their (and County government's) carbon footprint.

### **Water Resources Committee**      (Peter, Rebecca, Sheila, Bill K.)

1. Eno Hydrilla Management Task Force Pilot Study:
  - a. Educate the public about second year of project in the Eno
  - b. Provide info concerning communicating with NCGA about enabling legislation
2. Water Supply – Local water supplies and what steps can be taken to improve/maintain quality and quantity of water supplies into the future.

### **Land Resources Committee**      (Loren, Jeanette, Lydia, David, Lynne)

1. Native Landscaping - Reasons to choose a diversity of regionally native species for landscaping and other ways to promote biodiversity.

# Orange County COMMISSION FOR THE ENVIRONMENT

(updated January 2016)

NAME HOME ADDRESS	POS #	DATE OF APPOINTMENT COMMITTEE (Representation)	TERM ENDS	TELEPHONE E-MAIL	TOWNSHIP OF RESIDENCE
May Becker 511 Cotton Street Chapel Hill, NC 27516	#1	9/21/10 & 11/6/14 Air & Energy Resources (At Large)	12/31/17	919-969-7439 tomatocutter@yahoo.com	Chapel Hill
Peter Cada 420 Coach House Lane Hillsborough, NC 27278	#10	9/21/10 & 11/6/14 Water Resources (At Large)	12/31/17	919-485-2071 peter.cada@tetrattech.com	Eno
Thomas Eisenhart 605 Jones Ferry Road, Apt TT15 Carrboro, NC 27510	#6	1/22/15 Air & Energy Resources (At Large)	12/31/16	919-360-7468 tomeisenhart@gmail.com	Chapel Hill
Lynne Gronback (Vice Chair) 2420 Sunnyfield Court Hillsborough, NC 27278	#14	3/17/15 & 12/15/15 Land Resources (At Large)	12/31/18	919-219-3219 Lgronback@gmail.com	Bingham
Loren Hintz 804 Kings Mill Rd. Chapel Hill, NC 27517	#4	1/27/09 Land Resources (Biological Resources)	12/31/16	919-933-8987 ldhintz@bellsouth.net	Chapel Hill
Bill Kaiser 2112 Markham Dr. Chapel Hill, NC 27514	#5	12/15/15 Water Resources (Water Resources)	12/31/18	919-933-9794 w_mckaiser@hotmail.com	Chapel Hill
William Newby 2821 Becketts Ridge Road Hillsborough, NC 27278	#2	5/20/14 Air & Energy Resources (Air Quality)	12/31/16	919-541-5296 newby.william@epa.gov	Hillsborough
Jeanette O'Connor 117 S Peak Dr. Carrboro, NC 27510	#9	5/21/13 & 11/6/14 Land Resources (At Large)	12/31/17	703-678-6893 jeanette.oconnor@gmail.com	Chapel Hill
Rebecca Ray 5617 Jomali Drive Durham, NC 27705	#15	11/19/13 & 12/15/15 Water Resources (At Large)	12/31/18	919-383-0685 rebecca.ray@nc.rr.com	Eno
Sheila Thomas-Ambat 103 Hunter Hill Place Chapel Hill, NC 27517	#8	11/6/14 Water Resources (At Large)	12/31/16	919-225-4744 staemail@yahoo.com	Chapel Hill
Lydia Wegman (Chair) 5704 Cascade Drive Chapel Hill, NC 27514	#3	11/19/13 & 11/6/14 Land Resources (At Large)	12/31/17	919-886-8775 lnwegman@gmail.com	Chapel Hill
David Welch 20 East Drive Chapel Hill, NC 27516	#11	9/21/10 & 11/6/14 Land Resources (At Large)	12/31/17	919-406-2101 davwelch@hotmail.com	Chapel Hill
VACANT	#7	/ /16 _____ Resources (At Large)	12/31/16		
VACANT	#12	/ /16 _____ Resources (Engineer)	12/31/18		
VACANT	#13	/ /16 _____ Resources (At Large)	12/31/18		
David Stancil Rich Shaw Tom Davis Brennan Bouma	245-2522 245-2514 245-2513 245-2626	Director, Dept. of Environment, Agriculture, Parks & Rec. Land Conservation Manager Water Resources Coordinator Sustainability Coordinator		dstancil@orangecountync.gov rshaw@orangecountync.gov tdavis@orangecountync.gov bbouma@orangecountync.gov	

## CFE Committee Priorities

(**DRAFT** Revision - February 2016)

### **Air and Energy Resources Committee**

(May Becker, Tom Eisenhart, Bill Newby)

1. GHG Emissions Inventory – Consider whether it is feasible and worthwhile to conduct a comprehensive update of the County 2005 greenhouse gas emissions inventory.
2. Green Building – Help the County develop an incentive program for green construction.
3. Climate Change – Educate county residents about climate change, alternative energy sources and efficiency, and steps to reduce their (and County government's) carbon footprint.
4. Energy Efficiency – Partner with Piedmont Electric Membership Corp and/or Duke Energy to take advantage of USDA program for low-interest loans for energy efficient upgrades for its members/owners.

### **Water Resources Committee**

(Peter Cada, Rebecca Ray, Sheila Thomas-Ambat, Bill Kaiser)

1. Stream Buffers – Conduct a literature review of the science in support of maintaining vegetative buffers to protect water quality, aquatic habitat, and biodiversity.
2. Hydrilla Treatments – Continue to educate the public about hydrilla and other invasive species of concern; continue to monitor chemical treatments to assure they are not harmful to rivers.
3. Surface and Ground Water Quality – Increase the collection of data for surface and ground water quality; increase public education so it might lead to more funding for data collection.
4. Water Supply – Continue to educate county residents about our water supply and what steps can be taken to improve/maintain quality and quantity of future water supplies into the future.

### **Land Resources Committee**

(Loren Hintz, Jeanette O'Connor, Lydia Wegman, David Welch, Lynne Gronback)

1. Comprehensive Conservation Plan – Collaborate on the development of a comprehensive conservation plan for Orange County for Legacy program and others to protect natural areas and wildlife habitat. Consider ways to ensure conservation land is distributed equitably throughout the county so that everyone has reasonable access to enjoy these areas.
2. Native Plant Habitats - Renew collaboration with NC Botanical Garden and others to identify significant roadside habitat for native plants; then ask NCDOT and other utilities to eliminate the use of herbicides to manage vegetation in those special roadside habitats.
3. Native Landscaping - Educate homeowners and businesses on reasons to choose a diversity of regionally native species for landscaping and other ways to promote biodiversity.
4. 2016 State Bond – Educate county residents on reasons to vote in favor of the \$2 billion State Bond (March 15, 2016 primary elections)

ORANGE COUNTY



Department of Environment,  
Agriculture, Parks & Recreation

**MEMORANDUM**

To: Orange County Commission for the Environment  
From: Tom Davis, Water Resources Coordinator  
Date: March 8, 2016  
RE: Eno River Hydrilla Management Funding

The Eno River Hydrilla Management Task Force has been working since 2007 to address the infestation of the Eno River with *Hydrilla verticillata* (hydrilla), a highly invasive submerged aquatic weed. Hydrilla is considered to be the biggest threat to the natural resources of Eno River State Park. In Orange County, hydrilla is currently known to occur in the Eno River, Sevenmile Creek, Lake Orange, Compton's Pond, Lake Arrowhead, and West Fork Eno Reservoir.

In June 2014, the Task Force initiated a two-year pilot study to evaluate the use of an EPA-approved herbicide (Fluridone) to manage hydrilla within a section of the Eno River. The results of the first year of the study were very encouraging. The low concentration of Fluridone that was added to the Eno just east of Hillsborough was highly effective at managing the growth of hydrilla during the 2015 growing season throughout the treatment zone extending to Roxboro Road in Durham.

During the first year of the pilot study, the Task Force relied on the state Aquatic Weed Control Program (AWCP) cost-share program to provide half of the nearly \$150,000 total cost of the project, with the other seven Task Force partners (Orange County, Durham County, Town of Hillsborough, City of Durham, City of Raleigh, NC Division of Parks and Recreation and NC Wildlife Resources Commission) providing the remaining funds. **Unfortunately, the governing legislation for the AWCP was altered by the NC General Assembly in 2014 such that AWCP cost-share funds can now only be used to control aquatic weeds in lakes (see attached).**

With no AWCP cost-share funds available to complete the second year of this pilot study, the Task Force is scrambling to make other arrangements. Each of the seven funding partners, including Orange County, anticipates increasing their contribution by \$2,700 to cover the cost of the project. Hopefully, all necessary funds will be obtained in time to restart the pilot study before the hydrilla growing season begins in May.

Please let me know if I can provide any further information on this topic.

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**NATURAL and CULTURAL RESOURCES DIVISION**

Orange County Department of Environment, Agriculture, Parks & Recreation  
PO Box 8181, Hillsborough, NC 27278  
Phone: (919) 245-2510 Fax: (919) 644-3351



Water Resources  
ENVIRONMENTAL QUALITY

PAT MCCRORY

*Governor*

DONALD R. VAN DER VAART

*Secretary*

S. JAY ZIMMERMAN

*Director*

November 30, 2015

Mr. Tom Davis, Water Resources Coordinator  
Orange County  
306A Revere Rd.  
Hillsborough, NC 27278

**Re: Future State Funding for Aquatic Weed Control Projects**

Dear Mr. Tom Davis;

As a unit of local government currently receiving financial assistance for aquatic weed management through our cooperative funding program, this letter is intended as notification of a change in the funding process for the Aquatic Weed Control Program (AWCP). Under G.S.143-215.73F [Shallow Draft Navigation Channel Dredging and Lake Maintenance Fund] –Uses of Fund.; states the following:

“(2) For aquatic weed control projects in waters of the State **located within lakes** under Article 15 of Chapter 113A of the General Statutes. Funding for aquatic weed control projects is limited to five hundred thousand dollars (\$500,000) in each fiscal year.”

The above referenced statute limits the North Carolina Department of Environmental Quality – Division of Water Resources’ (DEQ-DWR) AWCP to only provide technical assistance and funding of projects that are located within lakes. In the past, the AWCP funding was provided through the Water Resources Development Projects with no limitations on aquatic weed control projects in the states surface waters. This change in the use of funds for the AWCP may affect one or more of your projects, for which the DWR has previously provided technical and financial assistance. We understand this operational change may result in management issues with existing aquatic weed infestations within your jurisdiction that previously qualified for technical and financial assistance. At this time, only projects located within lakes will be eligible for the technical and financial assistance.

Thank you very much for your attention to this important matter. Please contact Linwood Peele at [linwood.peele@ncdenr.gov](mailto:linwood.peele@ncdenr.gov) or (919)707-9024, or Tom Fransen at [tom.fransen@ncdenr.gov](mailto:tom.fransen@ncdenr.gov) or (919) 707-9015, if we can be of further assistance.

Sincerely,

A handwritten signature in black ink that reads 'Tom Fransen'.

Tom Fransen, Water Planning Section Chief  
Division of Water Resources

**From:** Friends of Bolin Creek [mailto:FriendsBolinCreek@gmail.com]

**Sent:** Monday, February 29, 2016



## Friends of Bolin Creek

*Protecting our Bolin Creek Watershed*

<http://bolincreek.org> • [friendsofbolincreek@gmail.com](mailto:friendsofbolincreek@gmail.com)

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### **Clean Up the Coal Ash Dump in Chapel Hill**



Chapel Hill Police station, 828 Martin Luther King Jr Blvd, Chapel Hill

In May 2014, the Town of Chapel Hill informed the public that a coal ash landfill was found to be located on the site of the Chapel Hill Police Building. For more than a decade in the 1960s and '70s, this property was used as a burial pit for coal ash. The coal ash in this unlined landfill contains known hazardous substances, including heavy metals that have leached out into the environment and will continue to do so.

The discovery of the coal ash deposit was likely made during a 2013-14 review of town property launched by the staff when considering the sale of town assets. The presence of the coal ash waste undoubtedly complicates the decision to sell the property. Whatever the town decides to do about the location of a new police station, we would expect that our Town will clean up the site. Chapel Hill residents deserve no less.

In a May 2014 [letter](#) to Mayor Kleinschmidt, Friends of Bolin Creek urged the Town to clean up the large coal ash dump and not to

allow the coal ash to remain in an unlined pit in the center of town. Here is [topographical map](#) showing the location of the coal deposit.

The Town hired a consultant Falcon Engineering to make tests and to report to the North Carolina Department of the Environmental Quality (DEQ). Soil samples taken on the site by Falcon in early 2014 identified elevated levels of coal ash metals in the ground water such as arsenic, mercury, chromium, lead, thallium, and other dangerous pollutants. Well test results have been mixed at a new set of well locations, where the consultant used filtered samples without finding high levels of dissolved coal ash pollutants.

Friends of Bolin Creek has raised questions about the procedures used and the choice of location for the tests, and we have communicated our concerns to the Town and Department of Environmental Quality.

The Town has posted a Web page called "Chapel Hill Coal Ash Disposal Site Remediation Project" containing relevant documents [here](#). In mid 2015, Friends of Bolin Creek requested help from the Southern Environmental Law Center for legal and support services.

Clean up makes a difference. According to a January 29, 2016 report, groundwater contamination dramatically declined along the Catawba-Wateree River after a South Carolina utility removed the coal ash under a settlement negotiated by the Southern Environmental Law Center. [See article](#).

"These results confirm that when you remove the polluting coal ash, you also eliminate pollution of groundwater," said Frank Holleman, senior attorney for the Southern Environmental Law Center. "Duke Energy and North Carolina's Department of Environmental Quality must wake up to this reality, learn from South Carolina, and move all of Duke Energy's polluting coal ash from unlined waterfront pits to safe dry lined storage. Otherwise, North Carolina's groundwater will be polluted for years to come."

North Carolina has more than 30 such sites in 14 different locations across the state. A pipe running under one of the ponds run by Duke Energy in Eden NC ruptured in February of 2014. The coal ash spilled, largely affecting the Dan River which flows into Virginia. The spill is the third largest of its kind in U.S. history.

[CLICK HERE TO SIGN THE  
COAL ASH DUMP PETITION](#)

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May 27, 2014

Mr. Lance Norris  
Public Works Director  
Town of Chapel Hill  
Public Works Department  
6850 Millhouse Road  
Chapel Hill, North Carolina 27516

Re: Coal Combustion Products (CCP) Limits Exhibit  
828 Martin Luther King Jr Blvd  
PN E13047.00

Dear Mr. Norris:

Falcon Engineering, Inc. (Falcon) is pleased to provide the requested exhibit showing the approximate limits of Coal Combustion Products (CCP) located at the property identified as 828 Martin Luther King Jr Blvd in Chapel Hill, NC. This provided figure is only an exhibit and does not present a definitive delineation of these buried materials. Based upon the completed site work, which included limited soil boring locations and visual evaluation of site conditions, Falcon is able to approximate these limits. In order to provide a more exact delineation a more extensive sampling and subsurface investigations would be required.

This exhibit provides data gathered as part of sampling and visual observations performed as part of twelve (12) soil boring locations (indicated as GP) and the installation of three (3) monitoring wells (indicated as MW). The southern limits of this approximate area are based upon field observations and confirmatory soil samples collected at three (3) distinct locations. All soil boring locations were surveyed by a licensed land surveyor for accuracy and data reliability. At each soil boring location, Falcon provides an estimate of native soil cover that was encountered covering the CCP and the depth at which the CCP was observed during these borings. These soil cover and CCP depths are provided for informational purposes only and demonstrate the highly variable condition present at this site.

We appreciate the opportunity to serve the Chapel Hill Community. If you have any questions, please give me a call at (919) 871-0800.

Sincerely,  
**FALCON ENGINEERING, INC.**

A handwritten signature in black ink, appearing to read "Josh Dunbar", is written over a white background.

Josh Dunbar, PE  
Director of Design Services

Enclosures

[www.FalconEngineers.com](http://www.FalconEngineers.com)

Engineering | Inspection | Testing | Agency CM

1210 Trinity Road, Suite 110 | Raleigh, North Carolina 27607 | T 919.871.0800 | F 919.871.0803





2015 3rd Place Adult, Pat French

## Contest Rules:

- 1) Photographs should feature Orange County wildlife, natural resources, landscapes, or people enjoying the parks and other outdoor environments.
- 2) All photos must be taken in a natural setting (no staged photos).
- 3) Photos must be taken in Orange County.
- 4) Orange County employees are eligible with the exception of DEAPR staff. Contest judges are ineligible.
- 5) Entries per person: Maximum of five (5) total photos.
- 6) Complete and submit a Contest Entry Form for each photo entered, form found under "Breaking News" at: <http://orangecountync.gov/deapr/>. Complete the Orange County Photo Release form for any third party appearing in your photos.
- 7) Photos must be high resolution .gif or .jpg files. Photos may also be submitted on a DVD or CD, in the proper format, and mailed or emailed to: Orange County DEAPR, 306-A Revere Rd., PO Box 8181, Hillsborough, NC 27278; email: [lthecht@orangecountync.gov](mailto:lthecht@orangecountync.gov)
- 8) **DEADLINE TO ENTER: May 13, 2016.**  
**Orange County DEAPR, 306-A Revere Rd., PO Box 8181, Hillsborough, NC 27278.**

### The Department of Environment, Agriculture, Parks & Recreation

(DEAPR) works to conserve and manage the natural and cultural resources of Orange County.

Included within this "green infrastructure" are natural areas and nature preserves, open spaces, parks and recreation facilities, water resources, and agricultural and cultural resource lands.

Consistent with the strong environmental ethic of the community, DEAPR also strives to bring environmental education, recreation, athletics and other programs to residents of the County — with a goal of promoting cultural, physical and natural stewardship and well being.

ORANGE COUNTY



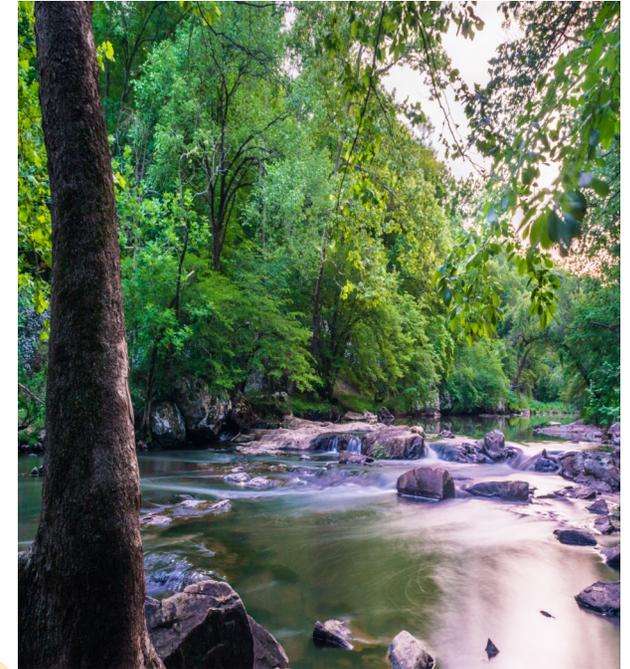
### Department of Environment, Agriculture, Parks & Recreation

Orange County DEAPR  
306-A Revere Rd.  
PO Box 8181  
Hillsborough, NC 27278

Phone: 919-245-2510  
Fax: 919-644-3351  
<http://orangecountync.gov/deapr>  
E-mail: [lthecht@orangecountync.gov](mailto:lthecht@orangecountync.gov)

DEPARTMENT OF  
ENVIRONMENT,  
AGRICULTURE, PARKS &  
RECREATION

## "The Nature of Orange" Photography Contest



2015 Adult Winner, Richie Sheppard

919-245-2510  
<http://orangecountync.gov/deapr/>

## "The Nature of Orange" Photography Contest

The Department of Environment, Agriculture, Parks and Recreation (DEAPR) is proud to present its 5th annual photography contest. The goal is to inspire exploration, celebration and appreciation of Orange County's diverse landscapes and outdoor experiences. Through photography we want to document the beauty of our wildlife, waterways, natural resources, and people connecting with their environment.

**Deadline: All entries must be received by May 13, 2016**

### Age Divisions:

- Youth (age 18 and younger)
- Adult



2015 2nd Place Youth, Kirby Lau

### Photographs should feature:

Orange County wildlife, natural resources, landscapes, or people enjoying the parks and outdoor environments.

### How to Submit Your Photo:

See the Contest Rules on the back panel.

**Prizes:** \$100 First, \$75 Second, and \$50 Third Place cash prizes will be awarded for photos in both divisions. Divisions will be judged separately. In addition, participants will receive a certificate and winning photographs will be displayed in prominent, public locations.

**For more information** about parks and natural settings in Orange County visit: <http://orangecountync.gov/deapr/>

2015 2nd Place Adult,  
Barbara Driscoll



### Owner/Use Rights:

Contestants retain the copyright to their photographs, and all rights thereto, except as follows. Orange County and DEAPR shall have the right to use the likeness, name, and/or images photographed by contestants in any and all publications, including web site entries, without compensation in perpetuity. Photos will be credited to the contestant named in the entry form. Descriptions or titles, if any, used with the photos are in DEAPR's sole discretion (see Photo Release and Agreement on the required Entry Form under "Breaking News") at <http://orangecountync.gov/deapr/>

### Judging Criteria:

*Relevancy to Featured Topics* - Is the photo an obvious illustration of the focus of the contest?

*Composition / Arrangement* - Are the objects in the photo arranged in a meaningful, pleasing manner or are they "haphazard"? Did the photographer use the best angle or otherwise interesting perspective?

*Focus / Sharpness* - Is the object of the photo in focus? If not in sharp focus, does it appear to be an intentional effect to enhance the image in some "artistic" way?

*Lighting* - Did the photographer use proper lighting of the subject matter? Do any extremes of darkness or brightness lend to or detract from the image content?

*Creativity* - Does the photographer show some creative thought or original idea in the making of this image?

## Sponsors

- Orange County Department of Environment, Agriculture, Parks and Recreation
- Orange County Commission for the Environment
- Orange County Parks and Recreation Council



2015 1st Place Youth, Joesph Mohler

### DEPARTMENT OF ENVIRONMENT, AGRICULTURE, PARKS & RECREATION

Orange County DEAPR  
306-A Revere Rd.

Phone: 919-245-2510

Fax: 919-644-3351

<http://orangecountync.gov/deapr>

E-mail: [lthecht@orangecountync.gov](mailto:lthecht@orangecountync.gov)



# Cut Your Electric Bill and Help Slow Climate Change

## *Grassroots Program Makes Rooftop Solar Easy and Affordable*

Between January 1 and April 30, 2016, homeowners and business owners in Wake, Durham, Orange and Chatham counties can sign up for **Solarize the Triangle**.

- Take advantage of group-buying discount.
- Save more by helping spread the word (the price continues to drop as more people sign contracts).
- Take advantage of the 30% Federal tax credit!
- Reduce your own carbon footprint *and* create pressure for large-scale change.



**Sign up for a free solar assessment** and see a list of free public information sessions at

**[solarize-nc.org](http://solarize-nc.org)**

Questions? Call 919.416.5077 or email [info@solarize-nc.org](mailto:info@solarize-nc.org)

**Solar power** helps you generate most of your own electricity. Power bill savings start the day the system is installed, locking in low-cost clean energy for 25 years or more. Your utility gives you credit on your bill for any excess solar power that you send to the grid.

**Solarize the Triangle** uses high-quality equipment installed by two of North Carolina's leading solar companies, Yes! Solar Solutions of Cary and Southern Energy Management of Morrisville.

## How it Works

The first step is to sign up for a free solar assessment at [solarize-nc.org](http://solarize-nc.org).



Then we look at a satellite image of your property to see if it's suitable for solar. If we think it is, we schedule an on-site visit to make more detailed measurements.

We give you a proposal tailored to your needs, you sign the contract, we install the system and you start seeing the savings immediately on your electric bill.



Solar costs have come down 80% in the last 5 years, and this year's Solarize price for an average-size system

is about 14% lower than last year's. Prices vary based on the size of your house, your power usage, and other factors. The price you pay covers all equipment, labor, permits and inspections.

## Why Solarize?

The grassroots Solarize model – pioneered in Portland, Oregon in 2009 – reduces the cost and confusion of going solar because the nonprofit program sponsor:



- pre-selects installers to ensure you're working with top-notch professionals
- negotiates a bulk discount to help make solar more affordable
- provides a detailed website and free public information sessions to answer all your questions about tax credits, utility incentives, financing options and more
- remains available throughout the process to troubleshoot and answer questions

Since we strongly believe that solar energy is for everyone, our Sharing Solar initiative helps low- and fixed-income homeowners, renters and nonprofits benefit from solar. We will donate a small solar system for every 30 contracts signed during Solarize the Triangle.

**Solarize the Triangle** is a joint effort of NC WARN and NextClimate, the state's top sponsors of Solarize programs. Since 2014, the two nonprofits have helped 312 homeowners and businesses go solar.

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Now in its 28th year, NC WARN's mission urgency is to induce Charlotte-based Duke Energy – now the world's largest corporate utility – to make a strong shift to clean, affordable energy in order to help avert climate tipping points and ongoing rate hikes. **More info: [ncwarn.org](http://ncwarn.org)**



NextClimate, based in Carrboro, was founded as a nonprofit in 2013. Its mission is to empower people to take action on climate change. NextClimate believes that bringing affordable solar power to the people of North Carolina is the best way to lower energy costs, heighten self-reliance and strengthen our energy independence in a way that protects our environment and lifestyle for future generations. **More info: [nextclimate.org](http://nextclimate.org)**

Feb. 25, 2016  
News and Observer

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# Report: Green schools save little money

The study looked at schools in Wake, Durham

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BY T. KEUNG HUI  
khui@newsobserver.com

A new report for the John Locke Foundation says green schools in North Carolina and nationally fall short of their promised energy savings and can be less energy-efficient than traditional schools.

The report looked at green schools in four North Carolina school districts, including Wake and Durham counties, and found most were less energy-efficient than similar schools in their districts. The report, which was released this week, says that the failure of those schools to produce energy savings as promised is an "environmental failure."

Proponents of green building say that most schools built according to environmentally sensitive principles do save money and can have other benefits for students. The schools cited in the report had received certification from the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) system.

The report was written by Todd Myers, environmental director of the conservative Washington Policy Center in Seattle.

"Even when green schools are among the best in the district, the amount of extra (construction) money spent outweighs the savings," Myers said. "You're essentially spending a dollar to save a dime at best. But most schools don't even end up with that much."

Joe Desormeaux, Wake County's assistant superintendent for facilities, said schools could have similar results because the district has for years tried to make all schools energy-efficient.

"Our goal is to make a good, energy-conscious school all along whether it has LEED certification or not," Desormeaux said.

In Wake County, Myers said, Alston Ridge Elementary School in Cary uses more natural gas per square foot than comparable district schools. But

“

YOU'RE ESSENTIALLY SPENDING A DOLLAR TO SAVE A DIME AT BEST. BUT MOST SCHOOLS DON'T EVEN END UP WITH THAT MUCH.

Todd Myers, environmental director of the conservative Washington Policy Center

Myers adds that it's not a surprising result because very few of the points that Alston Ridge received for its LEED certification came from the energy efficiency area. The school got extra points in areas such as indoor air quality.

The U.S. Green Building Council cited a 2006 report that found that green schools, on average, use 33 percent less energy and 32 percent less water than conventionally constructed schools.

"Today, nearly thousands of K-12 school projects participating in LEED are saving energy, water and precious resources, reducing waste and carbon emissions, creating jobs, saving money, driving innovation and providing healthier, more comfortable spaces for children to learn, play and grow," the U.S. Green Building Council said in a written statement.

In Durham, Myers said W.G. Pearson Elementary and Sandy Ridge Elementary ranked 10th and 15th, respectively, among 28 comparable district schools in energy cost per square foot. Myers said both schools were also much less energy-efficient than the older Holt Elementary School.

The Green Building Council said there are other benefits to green schools, such as providing more natural lighting, better acoustics and cleaner, fresher, air.

"Green schools emphasize high indoor air quality, remove toxic materials and products and reduce CO2 emissions," according to the Green Building Council. "Green schools offer welcoming learning environments that lessen distractions and encourage student participation."

But Myers said at the center of the green schools' claims is that the higher cost of school construction is worth it because they are helping to save the planet by saving energy.

"School districts and taxpayers are paying extra money to feel good about the environment even if they're not making schools better for the environment," he said.

T. Keung Hui:  
919-829-4534, @nckhui



# The ongoing California natural-gas leak is a disaster for the planet

By Justin Worland

THE COMMUNITY OF PORTER RANCH LOOKS LIKE ANY other prosperous Los Angeles suburb: green lawns, tree-lined streets, three-car garages. But in the hills behind houses that might have sold for a million dollars just months ago, an estimated 65,000 lb. of methane gas per hour is spilling from a 7-in. hole in the ground, forcing thousands of people to flee their homes and polluting the climate—and it's all invisible.

The rupture in an underground pipe linking one of the country's largest natural-gas storage reservoirs, known as Aliso Canyon, to the earth's surface has created one of the worst environmental disasters in recent memory. And the leak, which began in October, will take months more to fix. Children in the area have experienced headaches, bloody noses and vomiting. The Federal Aviation Administration declared the area a no-fly zone out of concern that an aircraft might ignite the highly flammable invisible natural gas. California Governor Jerry Brown declared a state of emergency this month.

The accident may be unique in its enormous scale—one day of the leak warms the climate at a rate equivalent to driving more than 4.5 million cars for a day—but it's just one of thousands of leaks plaguing the country's vast natural-gas system. Wear and tear on the system has worsened in recent years as new fracking technology has greatly expanded the area being drilled. The boom has generally been a good thing—natural gas burns cleaner than coal, and the promotion of gas has been a key part of Obama's climate program. But natural gas's green credentials are diminished by leaks. And new research shows that leaks are uncomfortably common.

It's not clear what caused this leak. Industry experts point to the age of the Aliso Canyon storage facility—it's more than 60 years old—as well as equipment that, while meeting regulatory requirements, has not been updated in decades. What's clear is that the Southern California Gas Co. was slow to recognize the scale of the disaster after it discovered the leak in late October. The company first tried to plug the leak by filling the well's shaft with fluid. But the pressure of the gas as it pushed up from the ground was simply too strong.

The company acknowledged in December—after an estimated 50,000 metric tons leaked—that it had no alternative but to drill a relief well. The process, similar to the method ultimately used to stop the 2010 BP oil spill in the Gulf of Mexico, involves drilling a new well that curves around and intercepts the leaky well deep underground. Engineers will then fill the relief well with mud and fluid intended to seal the original well. Southern California Gas says the operation should be done by March. "We share everyone's concerns about this leak's ongoing impact on the community and environment, and we are working as quickly and as safely as possible to stop it," says Gillian Wright, a customer-service executive for the company.

That's a time frame that pleases no one. Porter Ranch resi-



**Runaway** The Porter Ranch leak will take months longer to fix

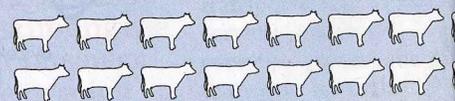
The U.S. is home to more than 400 natural-gas storage sites

### 20 BIGGEST U.S. NATURAL-GAS RESERVOIRS



### CHANGING THE CLIMATE

The 1.6 million lb. of methane released by the leak each day has the same warming effect as ...



2.2 MILLION COWS IN ONE DAY

One cow = 100,000 cows

**"This is the beginning. We're going to see this all over the place!"**

R. REX PARRIS, attorney for Porter Ranch residents

dents say they've experienced a slew of short-term illnesses they connect to the gas spill. Property values have plummeted. Environmentalists warn that the longer the leak goes on, the bigger the impact all that methane—a more powerful greenhouse gas than carbon dioxide—will have on the climate.

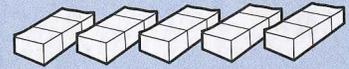
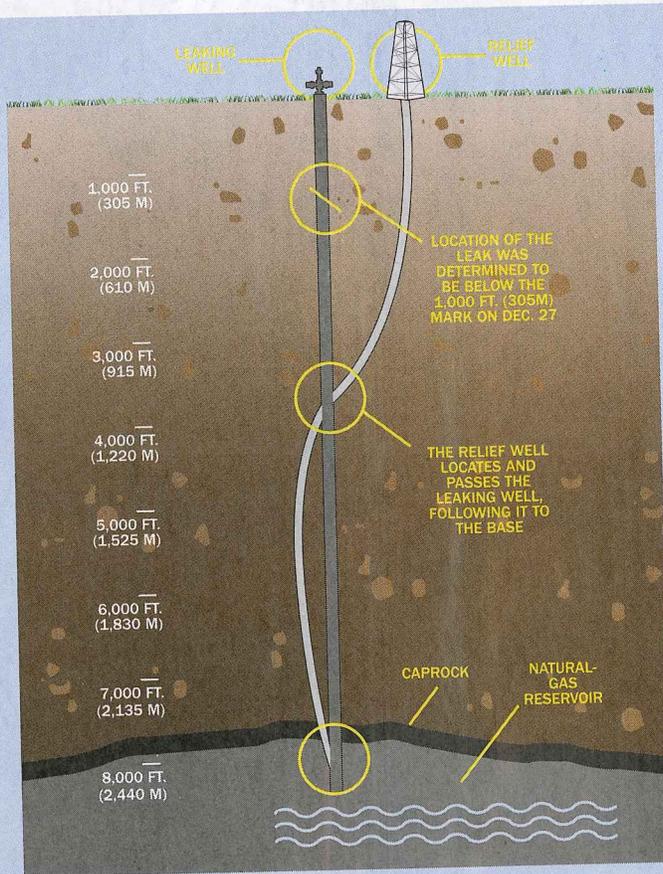
But the gas company argues, and engineers who work on drilling projects agree, that there's simply no way to fix the well faster. "This is very big and complex," said Timothy O'Connor, director of the Environmental Defense Fund's California oil and gas program. "Does that mean you get a free pass because your leaks are very difficult? Or

**WHAT'S BEING DONE TO STOP IT**

**STEP ONE** >  
Drill a new relief well near the leaking well.

**STEP TWO** >  
Locate the leaking well underground and continue drilling the new well roughly parallel to it.

**STEP THREE** >  
The relief well will intercept the leaking well at the natural-gas reservoir. Mud and fluid will be pumped into the relief well to stop the flow of gas before it is plugged with cement.



**\$12 million**

Total market value of natural gas lost so far in the Porter Ranch leak

**2,292**

Number of families relocated from the Porter Ranch area because of the accident, as of Dec. 28

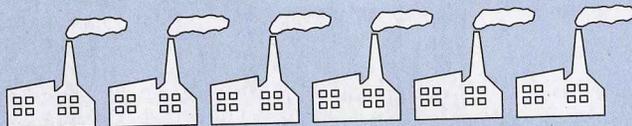


**4,683**

Number of applications for relocation in Porter Ranch



**THE EMISSIONS OF SIX COAL-FIRED PLANTS IN ONE DAY**



**DRIVING OVER 4.5 MILLION CARS IN ONE DAY**

One car = 1 million cars



does that mean you should be held to a higher standard of care?"

Aliso Canyon is not the only storage facility in the U.S. that is at risk of leaking. There are more than 400 natural-gas storage facilities fashioned out of former mines and other underground formations that together store some 3.6 trillion cu. ft. of natural gas. The gas is moved to U.S. homes, businesses and power plants through a vast network of pipes and service lines.

Adam Brandt, a Stanford professor who studies energy engineering, argues that such a complex system needs regular maintenance. "It's like going to the dentist and fixing problems while

they're small," he says. But much of the natural-gas network has operated for decades with little investment in efforts to inspect and update the system, while regulations are outdated and often lightly enforced. A full accounting for methane leaks is difficult to compile, but recent research has estimated that natural-gas-gathering facilities alone leak 100 billion cu. ft. of methane each year—more gas than the entire country burns in a day. Obama proposed new rules last year to reduce fugitive methane emissions from the power sector, but even if finalized—the rules face GOP and industry opposition—they would address only a small portion of total leaks.

The Porter Ranch spill may be a wake-up call. California launched an emergency rulemaking effort this month that requires the use of infrared technology to detect leaks—methane is visible on infrared video—and regular testing of safety valves used on wells. Without such efforts, energy- and environmental-policy makers may need to rethink how they use gas to fight climate change. "This is the beginning. We're going to see this all over the place," said R. Rex Parris, an attorney for displaced residents. "These wells are messed up just like our roads and bridges are messed up. But at least you can see that." □