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• TELL A FRIEND

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JUNE 2018 CHAPTER ACTIVITIES
by Martha Klein

We are always extremely busy here at CT Chapter Sierra Club HQ. The Political Committee has been conducting interviews with candidates and incumbents, preparing to make early endorsements to have a maximum positive impact on the coming August primary and November general election.

The Legislative Committee is already gearing up for the 2019 legislative session by preparing summer and fall trainings, so that our member-activists can participate most powerfully in grassroots lobbying.

We've added new volunteers to our conservation campaigns, are ramping up our efforts to protect forests, to promote electric vehicles and to increase the truly renewable energy that our state uses and produces.

Public Forest Controversy
In June, we attended a hearing about a proposed firing range that would be built in the heart of Connecticut’s largest public forest. The CT Chapter submitted testimony in opposition, because the plan to use the forest as a “buffer” is exactly the wrong use of public forest. The harm to wildlife shouldn’t be discounted in the search for an improved shooting range for the State Police. We also have concerns about criminal justice and the increased militarization of police. We question if training on an increased variety of weapons will make either police or the public safer. Connecticut already has 4000 more people in prison than Massachusetts, despite having half the population, with identical demographics and crime rates. Read article below entitled, “Save Connecticut’s Largest State Forest from Development.”

Offshore Wind Power Wanted for Connecticut
On June 19, the Communications Committee published a release in the Fairfield Sun/ Han Network News about the procurement of 200 MegaWatts (MW) of offshore wind power. While we are excited that wind power produced off the coast of Massachusetts and Rhode Island will power approximately 3 percent of our electricity needs, we still wonder why there isn't a push to build wind turbines off the Connecticut coast, and bring the jobs and tax revenues here. An additional 54 MW of fracked gas powered fuel cell energy was also procured, which is extremely disappointing. Connecticut calls energy from fuel cells “clean” even when it is fracked gas powered. That means that as the State tries to meet the mandate to get 40 percent of our power from "clean" energy, fracked gas or climate destroying methane could continue to be an ever growing part of the energy mix. The situation continues to require our endless vigilance and activism.

We attended numerous political events in June for a variety of candidates, and have noted with enthusiasm that a large number of women, young people and people of color are running.

Speaking of elections, the CT Chapter Sierra Club is preparing its annual end of year election for the board or Executive Committee (ExCom). If you would like to submit a candidate to run for the 2019-2020 ExCom, which could be yourself, please send the contact information and a bio to martha.klein@sierraclub.org.

Martha Klein is CT Chapter Chair, Communications Chair and lead volunteer on Beyond Gas and Save Remington Woods conservation campaigns.
SJ 35 Makes the Ballot! Now It’s Your Turn!

By Ann Gadwah

Every year, the General Assembly proposes, under the Conveyance Act, that state-owned public lands (such as State Parks, Forests and Wildlife Management Areas) be sold, traded, or given away with no public input or scrutiny by most Legislators. This means that state lands, YOUR LANDS, being held on behalf of the public are being given away without any input from you. These land deals are often used as political favors or as a way to increase funds for the state and municipalities. Frankly, we in the environmental community think the public has been getting the short end of the deal. But this year, there is hope on the horizon.

Constitutional Amendment Proposal

In the 2018 legislative session, Senate Joint Resolution 35, “The Resolution Proposing an Amendment to the State Constitution to Protect Real Property Held or Controlled by the State” was passed by both the Senate and the House of Representatives. This proposed amendment to the constitution would require that before the General Assembly can sell, trade, or give away public lands, they must first hold a public hearing in the General Assembly and achieve a two thirds vote for any public lands held by the Department of Energy and Environmental Protection (State Parks, Forest, etc.) or the Department of Agriculture (state-owned agricultural lands or easements).

This is good news! It ensures a more deliberative and transparent process before any conveyance of public land. It honors the intentions of those who donated lands to the state in good faith for future generations to enjoy. Our public lands protect our clean air and water and they serve as habitat for wildlife. They are also a valuable economic asset. The Connecticut State Parks attract eight million people a year, generate one billion dollars in revenue and support over 9,000 private sector jobs. Protecting these lands from being given away without due process is a no-brainer.

Take Action: Vote YES on SJ 35

So, what are the next steps? Now that the Resolution has passed the General Assembly, it needs to pass on the ballot this November, so the Constitution can be amended. In addition to getting yourself to the polls, talk to your friends about how important this vote is. Tell them how important public lands are to the state and the people who live here. Tell them how public lands are our lands and that we are stewards of that land, just as much as the Park Rangers, DEEP, or our elected officials. Take a stand for your public lands this November. Vote YES on SJ 35!

Read more: Here

Ann Gadwah is the Chapter’s Political Chair and a member of CT Chapter Sierra Club ExCom.
Gubernatorial Forum on Climate Change Announced by Connecticut Environmental Groups

National Public Radio’s John Dankosky to Moderate

A broad coalition of 16 Connecticut environmental groups including Connecticut Chapter Sierra Club, 350 Connecticut and the League of Conservation Voters will hold a Gubernatorial Forum focused on Climate Change on Monday, **July 16 from 6pm to 8pm** in the Washington Room at **Mather Hall at Trinity College in Hartford**. All qualified candidates for governor including Democrats, Republicans and Independents have been invited and are expected to attend.

The event is sponsored by Connecticut organizations concerned about environmental issues and climate change in particular. National Public Radio’s John Dankosky will lead the discussion on climate change with questions submitted in writing from the audience. Following the program, light refreshments will be served.

**Sponsor Comments**

**Trinity College Professor** of Religion in Public Life, Mark Silk stated, “We hope you will join us for a conversation about what Connecticut should be doing in the years ahead to meet the challenge of climate change.”

Ann Gadwah, Political Chair for the **Connecticut Chapter of the Sierra Club** said, “Connecticut has a real chance to be on the frontlines of the fight against climate change and our next governor should be leading that charge. I look forward to hearing all of the candidates' views and having a robust discussion of this critical issue.”

“Connecticut's residents are ready to move to 100 percent clean, renewable energy and to address the negative environmental impact of fossil fuels on our most vulnerable communities. We look forward to the forum to discuss these issues,” added Susan Miller of **350 CT**.

Lori Brown, Executive Director of the **Connecticut League of Conservation Voters** stated, "Climate change is a salient issue for voters across the country, especially Millennials. This forum spotlights the urgent need to address climate change in Connecticut, and will focus on how our next Governor plans to take meaningful action."

Leticia Colon de Mejias, CEO of **Energy Efficiencies Solutions** underscored the importance of the forum stating that, “Energy policy is connected to everything from our economy to our environment and our health. Making it one of the most important gubernatorial issues we can question.”

Moderator John Dankosky
Dankosky is Executive Editor of the New England News Collaborative, an eight-station consortium of public media newsrooms. He is also the host of NEXT, a weekly program about New England and appears weekly on The Wheelhouse, WNPR's news roundtable program. As an editor, he has won national awards for his documentary work, and regularly works with NPR and member stations on efforts to collaborate in the public media system. He is also a regular moderator for political debates.

For more information about the forum, contact Christine McMorris, administrator of the Program on Public Values at Trinity College, at 860.297.2352 or christine.mcmorris@trincoll.edu. Or log onto: Meetup.com at: Meetup or Facebook Events at: Facebook.

Stronger Protections for Parks—STOP the SWAP Gets its Day on the Ballot
by Melissa J. Schlag

It’s been nearly ten years since my little town newspaper, the Haddam Bulletin, heard about a secret backroom deal at a planning and zoning meeting that would put all state properties and parks at risk.

That deal was to give 17 acres of state property (Clark Creek Wildlife Management Area overlooking the Connecticut River and Goodspeed Opera House) to a private developer, in return for an 87-acre hilly and rocky failed subdivision in the center of town.


Original Land Swap Deal
At first shrouded in mystery, it became clear a deal had been struck between Riverhouse Properties LLC, Goodspeed Opera House and then-Senator Eileen Daily to insert the land swap into the annual conveyance bill, legislation usually reserved for mundane land transfers.

After two failed attempts and a third starting, Haddam resident Sharon Botelle and I formed Citizens for Protection of Public Land (CPPL), which started as a local group, but quickly grew to a statewide campaign to “STOP the SWAP,” the colloquial name for the opposition. When we first organized the group, I inquired as to which statewide organizations could help, and was told, “Call Marty Mador at the Sierra Club, he’ll know what to do.” Marty became an integral part in the fight to protect our public lands.
Clause Inserted into Conveyance Bill
With help from then State Representative Phil Miller, and because of such strong opposition, a clause was inserted into the bill requiring the lands to be equal in value or the developers would have to come up with the difference. The third time was the charm, and in 2011, the swap was approved via the conveyance bill.

Unfortunately, two independent yellow book appraisals proved that the 17 acres overlooking the Connecticut River were worth more than four times the price of the 87 acres inland. In the end, the Riverhouse partners could not produce the difference in price, the swap failed and the legislation was overturned during the next legislative session in 2012.

From that point forward, environmental leaders wary of the lack of protections for any state park, public open space, or state forest, began working together as the State Lands Working Group to find ways to ensure this type of swap couldn’t happen again without an open, properly vetted, process.

Constitutional Amendment Proposed
In an attempt to guarantee each proposed conveyance for the public trust will be protected, the lands group concluded that only a constitutional amendment could provide the best protection against this type of swap. Indeed, many of Connecticut's neighbors, like New York and Massachusetts already had such successful protections.

After years of raising awareness and lobbying the legislature, resolution SJ35 finally passed both Connecticut’s House and Senate. The resolution imposes important protections, including public hearings, municipal involvement and a two-thirds vote by the legislature to divest important state lands.

Now the resolution heads for a statewide vote on the ballot this November, when you will personally have a chance to weigh in on this important issue—an issue hatched during a simple planning and zoning meeting at a small community center in a sleepy little town called Haddam.

*Melissa Schlag is a former First Selectwoman of Haddam and is the Advocacy Communications Specialist for Connecticut Fund for the Environment/Save the Sound.*
TAKE ACTION NOW

Save CT’s Largest State Forest from Becoming a Firing Range
by Martha Klein

A powerful and moving public hearing took place June 5 at Griswold High School. The auditorium was packed with roughly 250 people who spoke with a unified voice: Do not develop a new firing range in the heart of Pachaug State Forest, Connecticut's largest protected forest.

Connecticut’s Department of Administrative Services (DAS) and Department of Emergency Services and Public Protection (DESPP) have determined that the State Police require a new firing range in Griswold. This is curious, as there are numerous firing ranges across the state that are available or actively being sought for State Police training. A few are located centrally and conveniently, such as in Manchester and Cheshire.

Location Concerns
The choice of location in the heart of the 27,000-acre Pachaug State Forest for a firing range is perplexing. As a legally protected nature area, it provides recreation to tens of thousands of people each year, as well as habitat to countless species of wildlife.

Noise Pollution and Habitat Loss

The CT Chapter Sierra Club decided to join the protest of this project for some important reasons. One obvious reason is that firing guns is loud, and noise and light pollution are harmful to wildlife. 225-caliber guns, used by State Police during training, fire at approximately 150 decibels or more, whereas motorbikes roar at around 82 decibels.

In addition, a firing range would be lit with spotlights for 24 hours a day. More sensitive species of birds, insects, mammals, amphibians and reptiles may cease migrating through and reproducing in the area, and may not find adequate habitat to move to because of the light. Hence, a dramatic decline in numerous species can be expected.

Bob Panko, a retired federal law enforcement officer and Vice President of Friends of Pachaug Forest, says “We know that noise will impact bird species and other wildlife that can be disrupted by as little as 40 decibels on a continuous basis....” A firing range goes well above that.

Increased Climate Change and Toxins

More reasons to protest the new firing range are increased climate change and increased air and soil pollution. Cutting trees and paving roads in protected forest releases greenhouse gases, and building facilities on this rural site will pollute the air with increased traffic. Although the State claims that non-lead bullets will be used in Pachaug Forest, there is concern that the site could wind up contaminated by lead by rule-breakers.
Criminal Justice versus Overreach
An issue of justice comes into play here, too. Although Connecticut has half the population of Massachusetts, our prison population includes 4,000 more incarcerated people. Our states have virtually identical demographics and crime rates, and Massachusetts actually has a higher percentage of people living in poverty. This disparity in incarceration rates suggests that our criminal justice system is in overreach.

Meanwhile, DAS and DESPP determined that a new firing range was needed because, at the current site in Simsbury, two different types of weapons cannot be shot simultaneously. Is it possible that overemphasis on weapons is a cause of criminal injustice, and not a solution?

Construction on Wetlands
Currently, the State Police training facility in Simsbury is prone to flooding, because it was built on wetlands. There are wetland areas in Pachaug State Forest that will be impacted by the construction of a new firing range. Also, the Simsbury site has not been remediated or tested for lead in 75 years. Thus, Connecticut residents have little confidence that DAS and DESPP are making decisions that are in the best interest of taxpayers and of our shared protected resources.

Costs Without Transparency
Lewis Button, III, a staff attorney for the Legislation and Elections Administration Division in the Office of the Secretary of State, owns a parcel of private land in the center of Pachaug Forest. The state decided to purchase his parcel for three times the appraised value of the land, and build a firing range there. Its purchase, construction and maintenance are to be at taxpayer expense.

These decisions have been characterized as having a “lack of transparency” by State Senator Heather Somers. At the June 5 hearing, Somers presented the math used to sell the property of a state employee to the state: “This property...was originally appraised at $240,000. They clearly didn’t like the appraisal, so they tried to find better comps and they compared it to land off of Foxwoods casino which is not comparable, but they did it anyway. That bumped it up to $490,000 and they are paying $1.1million.”

Grossly Underestimated Costs
The opposition to this project is unified and vocal. Congressman Joe Courtney supports sharing a National Guard firing range in East Haven rather than building a new and expensive facility. State Representative Kevin Skulczyck, Griswold’s former First Selectman, calls the process for procuring the firing range “egregious.” Pam Patalano, Chairperson of the non-profit organization Friends of Pachaug Forest, addressed the hearing panel to say that “DAS and DESPP have stated that this project will cost approximately $7 million. Through our extensive research, we know it would be closer to $28 million. This would only add to the state debt, raise taxes, and decrease local property values. The citizens of Griswold and all Connecticut residents deserve better.”
Taking Action
Pachaug State Forest touches six Connecticut towns, and each one will be impacted by the construction and use of this unnecessary firing range. We asked the state to increase scoping meetings from one in Griswold to six – one in each affected town. The CT Chapter submitted testimony to the state in opposition to this project, on behalf of all our members and supporters. Read more: [Here](#)

Martha Klein is Chair, CT Chapter Sierra Club

Day of Action-Climate, Jobs and Justice
by Angel Serrano

Monday, July 16 is the day the nation and the world will organize in a movement for climate action that is rooted in racial and economic justice. This is a chance for everyone to get together for one all-inclusive cause—climate, jobs and justice. This is an action call promoted by People’s Climate Movement, [350.org](#) and various other organizations that support the issues of climate and justice. This movement hopes to send the message that the climate is important to all of us and we as a community want to play our part in the solution. We want a transition to 100 percent clean renewable energy and an economy that is beneficial to everyone.

The CT Chapter Sierra Club is working with a number of local organizations to host a rally and march event on the New Haven Green on September 9. Other smaller events will be hosted in other area of the state on September 8. We are currently looking for speakers, musicians and other performers for our event. Volunteers for the planning committee are welcome. Please contact Angel Serrano at [aserrano1776@gmail.com](mailto:aserrano1776@gmail.com) if you would like to help us plan this event.

Angel Serrano is Legislative Chair and a member of the Executive Committee, CT Chapter Sierra Club
LEGAL ACTIVISM

Fund Raid Lawsuit Filed Against Connecticut

by Leticia Colon De Mejias

A group of businesses and nonprofits, invested in improving the state’s energy efficiency and clean energy economy, joined forces in May 2018, to file a federal lawsuit against the State of Connecticut for voting to sweep $155 million of ratepayer funds from the bank accounts of Connecticut’s electric utilities into the state’s general fund to plug unrelated budget holes. The case number is Case 2:18-cv-00817, filed May 24, 2018.


The plaintiffs are challenging the constitutionality and other legal defects of the sweep, seeking to reverse the extraordinary overreach by the General Assembly, working to block the governor, state treasurer, and comptroller from unlawfully seizing the funds at the end of June and guarding them for their legally protected purposes in the future.

Origin of Funds

The $155 million comes from payments by ratepayers on their electric bills. Their stated purpose is to fund programs for the Energy Efficiency Fund, Regional Greenhouse Gas Initiative, and the award-winning Connecticut Green Bank, all of which create economic growth, improve health, and lower demand for new power plants through green energy and energy efficiency measures.

Some of the programs affected by the sweep:

• Help minorities and low and moderate income families save thousands of dollars on energy bills
• Provide good-paying local jobs when Connecticut is working hard to retain corporations and jobs
• Reduce Connecticut’s peak demand for electricity through energy efficiency
• Lower energy costs
• Lower carbon emissions through the implementation of the state’s Conservation and Load Management Plan and Comprehensive Energy Strategy
• Enable grid stabilization and decreased demand for new power plants
• Offer low cost financing of clean energy programs, such as solar installations
**Consequences of Fund Diversion**
Diverting these funds will be a default on Connecticut’s commitments to deliver energy savings to the regional power grid. The loss of the funds will also cost electric ratepayers millions in penalties and lost energy savings, as well as create drastic consequences to Connecticut’s burgeoning green economy. According to a 2017 U.S. Department of Energy report, Connecticut’s efficiency programs have created close to 34,000 jobs so far from programs that have created $1 billion in economic activity and $21.9 million in Connecticut state tax revenue. These services and products are meant to help Connecticut residents/rate-payers, and businesses, in lowering their home or building operating costs through cost effective building efficiency improvements and the installation of renewable resources.

Instead, the losses from the pending transfer include:

- Job losses and massive reductions in efficiency and clean energy improvements
- 12,900 homes in 2018 unable to receive energy assessments, weatherization upgrades, reduced pricing for insulation, nor the associated energy bill savings
- Cut off energy efficiency programs for low-income consumers, small businesses and minority-owned businesses (these groups often pay the highest percentage of their income to energy bills), and 5,600 low income households will not receive financial assistance to close the energy affordability gap
- A loss of $31 million per year in energy efficiency upgrades for Connecticut businesses and industries that generate millions in energy cost savings
- The elimination of contracts worth an estimated $126 million, plus $252 million in private capital from customer investments leveraged from those contracts

**Benefits by the Numbers**
Energy Efficiency (EE) generates over $1.5 billion a year in our local economy and saves residents and businesses over $70 million dollars annually.

These highly awarded EE programs have a 1 to 7 return on investment and many positive outcomes for Connecticut.

**Lawsuit Filing Press Conference Links**
Reducing energy waste is the cheapest way to mitigate the effects of climate change and air and water pollution. Pollution from the burning of fossil fuel to heat, cool and light our homes and businesses is one of the top two contributors to asthma, stroke, heart attack and other negative pollution and climate change health hazards. Our leaders have already admitted that the diversion of funds was short-sighted, harmful and will reap negative economic harm, job losses, and will result in environmental and negative health impacts.

To learn more about the raids or donate to this effort visit: [www.efficiencyforall.org](http://www.efficiencyforall.org).

**Links to News and Articles**
Connecticut Network
WNPR
CT News Junkie
Hartford Business

*Leticia Colon De Mejias is CEO of Energy Efficiencies Solutions, Inc.*
ENVIROMENTAL HEAT

Spilling the Beans about Hazardous Liquid Incidents
by Tim K. Keyes

In the June issue of the *Quinnehtukqut*, I wrote about basic analytics related to hazardous materials incidents in the United States, using data from the Department of Transportation (DOT) Pipeline Hazardous Materials Safety Administration (PHMSA). I showed how the pipeline system is more incident-prone than is widely known, and how PHMSA data can be used for public awareness and for pro-active incident mitigation.

*To recap, there were almost 3,330 hazardous material leaks, spilling nearly 300,000 barrels (BBLS) and costing about $2.5 billion USD from 2010 to April 2018.*

Now let's evaluate pipeline companies (operators), as well as the primary causes of leaks.

**Basic Statistics**

**Table 1** shows the top ten pipeline operators responsible for incidents since 2010. As the table shows, these ten operators (near 6 percent of total) were responsible for more than 50 percent of the incidents, more than 50 percent of BBLS (Barrels) spilled unintentionally and more than 60 percent of the total cost.

**Table 1: Consequence Metrics by Top 10 Operators**

<table>
<thead>
<tr>
<th>Operator / Group</th>
<th># Incidents</th>
<th>BBLS Spilled</th>
<th>Total Cost (USD)</th>
<th>BBLS Inc</th>
<th>Total Cost Inc (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTERPRISE PRODUCTS</td>
<td>428</td>
<td>173,614</td>
<td>$94,234,232</td>
<td>406</td>
<td>$290,197</td>
</tr>
<tr>
<td>MACGILLAN</td>
<td>235</td>
<td>35,411</td>
<td>$53,905,037</td>
<td>151</td>
<td>$229,983</td>
</tr>
<tr>
<td>SUNCO</td>
<td>207</td>
<td>20,505</td>
<td>$46,891,080</td>
<td>99</td>
<td>$226,527</td>
</tr>
<tr>
<td>PLAINS PIPELINE, L.P.</td>
<td>177</td>
<td>19,929</td>
<td>$172,965,532</td>
<td>113</td>
<td>$977,206</td>
</tr>
<tr>
<td>KINDER MORGAN</td>
<td>171</td>
<td>13,250</td>
<td>$223,551,107</td>
<td>77</td>
<td>$131,878</td>
</tr>
<tr>
<td>COLONIAL PIPELINE</td>
<td>156</td>
<td>17,974</td>
<td>$109,676,301</td>
<td>115</td>
<td>$703,063</td>
</tr>
<tr>
<td>PHILLIPS 66</td>
<td>138</td>
<td>23,750</td>
<td>$233,369,366</td>
<td>172</td>
<td>$169,943</td>
</tr>
<tr>
<td>BUNGE</td>
<td>138</td>
<td>3,694</td>
<td>$333,138,629</td>
<td>27</td>
<td>$240,135</td>
</tr>
<tr>
<td>ENBRIDGE</td>
<td>118</td>
<td>40,823</td>
<td>$950,221,260</td>
<td>346</td>
<td>$8,652,723</td>
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<tr>
<td>MARATHON</td>
<td>98</td>
<td>13,833</td>
<td>$72,865,255</td>
<td>139</td>
<td>$743,523</td>
</tr>
<tr>
<td><strong>Top 10 Total</strong></td>
<td>1,866</td>
<td>362,585</td>
<td>$1,579,827,839</td>
<td>194</td>
<td>$946,839</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>3,288</td>
<td>688,177</td>
<td>$2,501,633,336</td>
<td>209</td>
<td>$760,837</td>
</tr>
</tbody>
</table>

**Enterprise Products** had the greatest share of incidents at 438, and unintentional BBLS spilled at 174,000, but the total cost was lower than the incidents and spills for Plains Pipeline and Colonial Pipeline.

**Plains Pipeline** was responsible for a significant spill in California of about 3,000 BBLS near the Pacific Ocean in 2015, resulting in around $140 million USD in total cost.
Colonial Pipeline had three significant spills in 2015-2016 in Alabama and Virginia, costing $78 million USD.

Enbridge Energy produced the largest leak of 20,000 BBLs in Michigan’s Kalamazoo River in 2010, amounting to a total cost of $840 million USD.

Note: These results are not adjusted for pipeline miles under management by the operator.

Company with Greatest Spillage
Enterprise Products produces spills with almost twice the BBLs spilled unintentionally per incident than all of its competitors. In their case, the larger spills are chiefly “highly volatile gas (HVL) or other flammable or toxic fluid, which is a gas at ambient conditions,” as compared to “crude oil” or “refined and/or petroleum, product (non-HVL), which is a liquid at ambient conditions” for other operators.

The analysis is based on data downloaded April 27, 2018, representing hazardous liquid incidents since 2010. The data and analysis have been posted to EGBANA.com, for others to review, amend or extend.

What Causes Leaks?
Table 2 displays data related to apparent causes. Equipment failure is the cause in 44 percent of the incidents, but has the lowest consequences. Surprisingly, Causes for failure that had the greatest number of incidents, yielded Greater Impacts with much higher costs per incident. Other outside force damage (e.g., industrial, vehicular) and other incident cause (e.g.,

Figure 1: # Incidents and BBLs/Incident by Apparent Cause

miscellaneous or unknown) have the fewest incidents. They do, however, have a higher total cost per incident than those causes with greater incidents.
Table 2: Consequence Metrics by Apparent Cause

<table>
<thead>
<tr>
<th>Apparent Cause</th>
<th># Incidents</th>
<th>Unintentionally</th>
<th>Total Cost/inc (USD)</th>
<th>BBLS/inc</th>
<th>Total Cost/inc (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQUIPMENT FAILURE</td>
<td>1,463</td>
<td>105,587</td>
<td>$164,580,073</td>
<td>72</td>
<td>$112,495</td>
</tr>
<tr>
<td>CORROSION FAILURE</td>
<td>676</td>
<td>91,230</td>
<td>$437,861,612</td>
<td>135</td>
<td>$647,724</td>
</tr>
<tr>
<td>INCORRECT OPERATION</td>
<td>461</td>
<td>59,683</td>
<td>$116,387,626</td>
<td>129</td>
<td>$252,468</td>
</tr>
<tr>
<td>MATERIAL FAILURE OF PIPE OR WELD</td>
<td>236</td>
<td>164,022</td>
<td>$1,130,567,828</td>
<td>685</td>
<td>$4,790,542</td>
</tr>
<tr>
<td>NATURAL FORCE DAMAGE</td>
<td>154</td>
<td>63,248</td>
<td>$230,301,881</td>
<td>411</td>
<td>$1,455,467</td>
</tr>
<tr>
<td>EXCAVATION DAMAGE</td>
<td>118</td>
<td>97,859</td>
<td>$129,640,088</td>
<td>829</td>
<td>$1,098,645</td>
</tr>
<tr>
<td>OTHER INCIDENT CAUSE</td>
<td>116</td>
<td>59,813</td>
<td>$135,874,084</td>
<td>516</td>
<td>$1,171,328</td>
</tr>
<tr>
<td>OTHER OUTSIDE FORCE DAMAGE</td>
<td>64</td>
<td>46,436</td>
<td>$156,420,144</td>
<td>726</td>
<td>$2,444,065</td>
</tr>
<tr>
<td>Grand Total</td>
<td>3,288</td>
<td>668,177</td>
<td>$2,501,633,396</td>
<td>209</td>
<td>$760,837</td>
</tr>
</tbody>
</table>

Figure 1 below highlights this visually, and demonstrates the challenge that more numerous incidents (e.g., related to equipment failure) are not associated with greatest impact or consequence (e.g., BBLS/incident). The 2010 Kalamazoo River incident was associated with material failure of pipe or weld.

Take-Aways
Relatively few companies are responsible for hazardous material incidents. Mitigating their causes requires isolating and understanding incidents of greater materiality, the subject of a future article.

Tim K. Keyes, Ph.D., Evergreen Business Analytics, LLC is a CT Chapter Sierra Club member and investigator of the CT Chapter Sierra Club report on methane regulation Gas Pipelines

Correction: In June’s Quinnehtukqut article, “Spilling the Beans about Oil Spills,” the amount in the following sentence should read “~$950 thousand, for each 100 miles of pipeline.” “Adjusting for pipeline miles in the top ten states, on average there were three incidents, 300-400 BBLS spilled, and total costs of ~$950 million, for each 100 miles of pipeline.”

Madison Bans Fracking Waste by Tom Paul

A group of eight Madison residents including myself worked with the town’s Selectman, Al Goldberg to enact a fracking waste ban for the town. The selectman voted to ban fracking waste. As a result of the ban, an environmental organization, Live Green Connecticut, gave Madison a Climate Champion Award for our ban of fracking waste. The award was presented to Madison June 5 at the Discovery Museum in Bridgeport. Other Connecticut towns that received awards include Bridgeport, Fairfield, Greenwich, Milford, Norwalk, Redding, Shelton, Stamford, Westport and Wilton

Tom Paul is member of the CT Chapter Sierra Club Excom and Shoreline Group Connecticut Chapter Sierra Club Excom

Photo Credit: Madison Patch
In *Spineless*, author Juli Berwald, attempts to mix memoir with a discourse on her special field of study, jellyfish. Despite some extraneous detail, at times in the personal narrative, she delivers an engaging and accessible book on the esoteric subject of those gelatinous blobs of pulsating goo, that, in our beach encounters, we find so disturbing and fascinating.

**Jellyfish as Diagnostic Ocean Assessors**
As explained in the book, these ancient creatures, among the first in the scientific reality of our past to have been visible to the naked human eye on this planet, are worthy of study for a number of reasons. Most trenchantly for the Connecticut environmentalist, they have increasingly been considered an indispensable ‘diagnostic’ species in assessing the state of health of our oceans-and the effects of our activities on them.

While cause and effect differ with every geographical location and species of jellyfish, the sudden increase in these creatures, an event termed a “bloom,” is usually connected to disturbances in ocean water chemistry and/or fish ecology. Basically, the Cnidarians (scientific name for all things jellyfish) seem to be in over abundance (from a human standpoint) where small ‘feed’ fish have disappeared perhaps either from algae blooms or overfishing.

**Jellyfish as Ecological Disrupters**
Massive blooms of jellyfish sometimes occur, with devastating results, because of an inadvertent, invasive transfer of the creatures, in the bilges of cargo ships. Often the ‘polyp,’ or prior plant-like life cycle form of the better know adult ‘medusas’ jellyfish forms we recognize, can spin off thousands of clones of itself or baby medusas-after leaving the host cargo ship. Jellyfish blooms have disabled power plants and crippled the entire Black Sea fishing industry through ecological disruption.

**Biological Research Value**
Outside of its said ecological ‘diagnostic’ value, jellies have shown valuable, and marketable, intrinsic diagnostic qualities in general biological research. The bioluminescent chemical found in most of them has been isolated and genetically spliced into mobile cells in other creatures to track biological processes that were heretofore invisible.

These fluorescent marker proteins have revolutionized HIV and Alzheimer’s research. The ultra energy efficient propulsion method of the jelly, which mostly uses a created vacuum upfront-rather than rear propulsion, is being studied for imitation in machines. Most profoundly, the freaky apparent ability of jellies to reverse their life cycle is an obvious point of interest for scientists. Incredibly, dead adult medusas have been observed to somehow transform into the polyp forms that previously produced them.

More broadly, researchers are intrigued at the creatures’ considerable predatory ability, despite possessing a minimal nervous system. One jelly work around to sparse ‘wiring’ seems to be
multiplicity, as demonstrated by their relative crude but numerous and complementary ‘vision’ organs that, together, render a performance comparable to our more complex, all-in-one eyes. Berwald includes, of course, a chapter on the infamous stinging aspect of Cnidarians-including the exotic, often very powerful toxins, and the remarkable, and also very powerful, chemically powered dart delivery system.

Spineless (named after its invertebrate subjects) is a non-threatening hard science summer read for those interested in the attractively bizarre jellies themselves and/or the contextual, under discussed evil twin effect of climate change: the current rapid warming and acidification of our oceans of all their indispensable contents.

James Root is a CT Chapter Sierra Club member who lives in Danbury

OUTDOOR EVENTS: SUMMER KAYAKING

*Common info for each kayak event*

**Dress:** Be sure you dress for the weather and the activity. We suggest you bring water and a snack. Bug repellent and sunscreen are advised.

*Safety vests must be worn at all times.*

**Free event open to Sierra Club members and the public**

**Sierra Club Outing Waiver:** You may review the waiver you will be asked to sign by clicking the attachment here: [Waiver](#)

**Willimantic River**

Description: Kayak on the Willimantic River and Eagleville Lake through Mansfield and Coventry, CT. Expect to paddle a quiet river area down to Eagleville Lake and its dam before return trip.

**Date:** Saturday, July 14  
**Time:** 11:00am  
**Access:** Carry in kayak at paved boat launch,

**Sponsor:** Greater Hartford Group Connecticut Chapter Sierra Club

**GPS Location:** Plains Road, Coventry, CT  
**Directions:** At the intersection of Route 44 and Route 32, travel south on Route 32 for 0.35 miles. Turn right onto Plains Road and travel 0.2 miles. Parking area is on the right.

Please no cell phone use or smoking on the water.

**Leader:** Renee Taylor

**RSVP:** Email yes only to Renee at mchawigirl@yahoo.com by 7/12, leaving cell phone number should weather or winds require site change or canceling outing.
Upper Moodus Reservoir, Moodus, CT

**Description:** Paddle the perimeter of this rambling body of water surrounded by woods, farmland, swamp and some homes, with lots of nooks to explore. Lake area is 361 acres for the Upper Basin and 125 acres for Lower Moodus Reservoir.

Map and description of both upper and lower reservoirs at [Map and Description](#)

**Date:** Saturday, July 28  
**Time:** 11:00am  
**Sponsor:** Greater Hartford Group Connecticut Chapter Sierra Club  
**Meet:** [Boat launch at Shore Road](#)  
**GPS:** Shore Road, East Haddam, CT  
**Directions:** From Route 149, turn south on Bashan Falls Road. Turn left to head east on Haddam-Colchester Turnpike. Take a right on Launching Area Road, just before the causeway.

Please no cell phone use or smoking on the water.

**Leader:** Renee Taylor

**RSVP:** Email yes only to Renee at [mchawigirl@yahoo.com](mailto:mchawigirl@yahoo.com) by 7/26, leaving cell phone number should weather or winds require site change or canceling outing.

**Lunch:** Join us after at Village Pizza, [26 Falls Rd, Rte. 149, Moodus, CT](#). Menu at: [Village Pizza Menu](#)

Lake Williams, Lebanon, CT

**Description:** Paddle Lake Williams a 250-acre pond, 2.5 miles long. About 3/4 of the shoreline is undeveloped with mostly deep woods surrounding. It has seven islands in the southern end of the lake, two with houses. A nice contrast to the open lake is the far east end where there’s a secluded pond guarded by small rocky islands.

**Date:** Saturday, August 25  
**Time:** 11:00am  
**Access:** Easy put in at southern end of lake at intersection of Route 207 (Old Exeter Road) and Colchester Road.

**Sponsor:** Greater Hartford Group Connecticut Chapter Sierra Club

**GPS:** Exeter Road and Old Colchester Road, Lebanon, CT  
**Directions:** Take Route 2 to Route 66E to Route 85 S to Route 207

**Parking:** Small parking lot on site  
Please no cell phone use on the water.

**Leader:** Renee Taylor

**RSVP:** By email yes only by 8/23 to Renee at [mchawigirl@yahoo.com](mailto:mchawigirl@yahoo.com) leaving cell phone number in case weather or winds require site change or canceling
Vigilance Needed to Honor George McLean’s Legacy of Peaceful Coexistence
by Annie Hornish

The beautiful McLean Game Refuge in Granby/Simsbury was generously donated by Senator George McLean, who intended it to be a sanctuary for wildlife. McLean wrote in his will:

I want the game refuge to be a place where trees can grow unmolested by choppers and trout and birds and other animal life can exist unmolested by hunters and fisherman, a place where some of the things God made may be seen by those who love them as I loved them and who may find in them the peace of body and mind I have found.

Unconditional Protection of Wildlife
Once a hunter and fisherman himself, McLean changed his mindset. He grew to value the wild life within his refuge; the peace he found was not born of exploitation, but of a peaceable vision of coexistence. In another section of his will, he even wrote that if there ever was a problem with funding the Refuge’s operations, that the refuge would be closed to people. McLean wanted to prioritize protection of wildlife and the land from certain types of people, and he was right to be cautious.

DEEP’s Unwritten Agenda
If you go to the McLean Game Refuge’s website, you’ll see an adulteration of what’s in McLean’s will: the first clause about his not wanting logging/hunting/fishing is boldly omitted. Misleading information (as of June 12, 2018) on www.mcleangamerefuge.org:
The change from the stated content of the will to the current content of the website is noteworthy because 1) concerns over McLean Trustees allowing logging have come up in the past, and 2) when a jogger encountered a bear in 2015, Connecticut’s Department of Energy and Environmental Protection (DEEP), with support from McLean Game Refuge officials, reacted with unnecessary violence by hunting and killing a young bear.
Bear Trophy Hunting Objective
A curious juvenile black bear had been following a jogger. When the jogger finally stopped and began yelling and waving her arms at the bear while backing away slowly, the bear lost interest in her and moved off, as expected. But DEEP incorrectly labeled this bear as “unusually aggressive,” set up traps and killed a bear they caught. We’ll never know if it was the same bear, but either way, no bear needed to die, especially in his own home, a purported sanctuary.

Over a short time, this bear, like most bears, would have grown up learning to keep his distance from people. Many speculate that DEEP’s reckless killing is politically motivated, designed to desensitize the public to the killing of bears so that DEEP can more easily sell its bear trophy hunting agenda to a public that currently, and wisely, wants no part of.

The McLean Game Refuge is a rare place of sanctuary for animals, and when people enter this sacred space, it is their personal responsibility to ensure they are knowledgeable about and prepared to manage any encounters with wildlife, even though such events are exceedingly rare. Making noise occasionally while hiking (wear a whistle!) can keep wildlife at a distance.

We need more leaders like the great George McLean; wise and visionary leaders who understand the priceless value of coexistence and the peace it brings. Maintaining his will requires constant vigilance.

Annie Hornish is Connecticut Senior State Director, State Affairs at The Humane Society. ahornish@humanesociety.org
POETRY

Summer Sadness

Millie, our corgi, died this Spring
and we were left, bereft. She was
the last of a rollicking band of rascals,
a half century of tailless mischief.
Out in the garden, an apparition
occasionally seems shyly, slyly,
to rustle the bushes, an after
image lingering in the irises.

Noticing our solitary bird-feeding,
Mother Nature has come to soothe
our grief, lending us her own band
of lively creatures. A woodchuck
now ambles across the crushed white
marble. In the gloaming, bunnies
graze contently, at edge of the lawn,
near bolt holes corgis once snouted.

This morning, a deft doe delicately
picked her way, her faun behind,
through pachysandra, her footfalls
silent, barely disturbing the thicket
of leaves. Butterflies flit flutter,
bees hover, birds bush-sheltered
dart to feed, Summer ascendant
shares her garden's secret life.

J. Roger Guilfoyle is a poet, writer and critic. He retired this spring as a Professor from Pratt Institute.
REQUEST FOR CONTENT

All Connecticut Sierra Club members are invited to contribute to our online newsletter, the *Quinnehtukqut*, which posts ten times per year: monthly, with one summer issue for July and August, and one holiday/winter issue for December and January. We accept articles, book reviews, puzzles, events, photos, poems, etc. Articles, limited to 500 words, should be on a subject of local or national interest to the Connecticut Chapter membership. The goal of the newsletter is to inform, educate, motivate and involve our members.

To submit newsletter articles, letters to the editor, etc. for the *Quinnehtukqut*, send to ctsierraq3@gmail.com. To post information to the website or social media, send content to connecticut.chapter@sierraclub.org.

Visit our website at [CT Sierra Club](https://www.ctsierraclub.org). See us on Facebook at [Facebook CT Sierra Club](https://www.facebook.com/CTSierraClub/)

Below is the newsletter calendar for the next two 2018 submission dates. Please read dates carefully. The calendar is intended to make it easier for you to plan your *Quinnehtukqut* contributions for publication.

The *Quinnehtukqut* is distributed at the beginning of the month.

**SEPTEMBER CALENDAR**

- **Monday, August 13**, September Submissions Due
- **Saturday, September 8**, September Q Distribution

**OCTOBER CALENDAR**

- **Thursday, September 13**, October Submissions Due
- **Saturday, October 6**, October Q Distribution

*All decisions regarding use are made by the Communications Committee.*
TELL A FRIEND

Do you agree with the Sierra Club principles of exploring, enjoying and protecting our state, country and planetary environment? Do you enjoy reading the Quinnehtukqut? Why not tell a friend? Invite people to join the Sierra Club. It’s easy! Go to our website and click the blue JOIN or the red DONATE button in the upper right corner. Follow the directions.

You can also give memberships as gifts. It’s a wonderful way to honor your friends and family, or perhaps enlighten them.

For gift memberships, go to: Gift Memberships

Help Us Keep Our Programs Running!

The Q is brought to you by:

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