Food for Thought

WHAT GOES INTO THE MEAL ON YOUR HOLIDAY TABLE?
Growing up in southwest Michigan, I worked on my father’s 40-acre fruit and vegetable farm. At various times, we raised corn, grapes, plums, cherries, asparagus, wheat, soy beans and several varieties of peaches. With each season (even in the bitter winter), we had something farm-related to do. The spring and early summer, however, were the glorious times of year. Traveling through the rural farmlands of my home, spring lights up with the sights and smells of fruit and vegetable blossoms and, more importantly, the sound of buzzing pollinators such as bees.

The flight of those pollinators is at risk. This summer, Friends of the Earth launched our Bee Action campaign and elicited the support of more than 140,000 members and activists to tell companies like Home Depot and Lowe’s, as well as members of Congress, to stop selling a class of pesticide called neonictinoids, which is contributing to the massive bee-die offs occurring in the United States and around the world. The traditional Norman Rockwell holiday dinner would look significantly different if bees were not around.

In addition to poisoning our bee populations, agro-companies are interested in controlling and re-engineering the food supply chain. Corporations are knocking on the federal government’s door to get approval to grow and sell fast-growing genetically engineered salmon, to genetically engineer apples so they do not brown, as well as to radically re-engineer yeast to synthetically produce vanilla.

Friends of the Earth, with your help, is fighting back. Over the last two years, we have been engaged in state ballot initiative fights in California and Washington to force the labeling of genetically modified organisms. While these initiatives were ultimately bought out by anti-labeling corporate interests, we are creating a national debate on public disclosure. Ultimately, we believe that, if labeled, people will not buy GMOs — but it should be your right to choose. We are also successfully educating some of the largest food retailers, and they are agreeing to not stock genetically engineered salmon, apples, or vanilla, despite the failure of the federal government to protect us from these products.

Finally, our capacity to produce food is also being threatened by our insatiable appetite for energy. The oil and gas industry is threatening to start fracking for oil and natural gas in one of the most fertile areas in California. Make no mistake, fracking is destroying our water aquifers, but apparently to the industry and political forces that ignore self and planetary preservation, cheap energy is more valuable than water for food crops.

Friends of the Earth and members like you are pushing back against fracking, against genetically modified organisms and against chemicals that are killing bees and other pollinators. The farming system that I grew up in is deeply changing. You know, deep-down like I do, that we can produce our foods in a manner that is healthy for us and healthy for the planet. Please lend us your voice, it is time we make good.

Erich Pica
President, Friends of the Earth

P.S. At the time of publication, the human tragedy in the Philippines as a result of Typhoon Haiyan began to unfold before our eyes. Please keep the victims of this climate disaster in your thoughts.
HOLDING WILMAR’S FEET TO THE FIRE

Over the summer, just as Friends of the Earth launched our campaign to drive back the expansion of palm oil plantations, the issue caught fire — literally. Massive fires in Indonesia have put a global spotlight on the palm oil industry, as landowners clear land for palm oil plantations by burning forests, and the fires rage out of control. The Center for International Forestry Research pinpointed the chief cause of the fires as “the profitability of oil palm.” Among the guilty parties are many small plantation companies that supply Wilmar International, one of the largest palm oil plantation owners in Asia, and the company we’re targeting as the worst of the worst.

When we launched our Landgrabs, Forests and Finance campaign this June, we contacted dozens of banks and investors and asked them to hold Wilmar’s feet to the fire or face public shame. Behind the scenes, several of these investors have begun a dialogue with the company to get it to clean up its act. Between the fires and daily revelations about palm growers’ abusive practices, from child labor to incursions into national parks, there’s never been a better moment to cut off the flow of money to this destructive industry.

DEPARTMENT OF ENERGY REASSESSES MOX

The Department of Energy is seeking to reduce the exorbitant cost of a dangerous experimental fuel program called MOX. MOX, which stands for mixed oxide fuel, is created by putting plutonium from retired nuclear weapons into nuclear reactor fuel. MOX creates nuclear proliferation risks and increases accident risks in nuclear reactors. Budget reduction is not enough — join Friends of the Earth in demanding that the government shut down this dangerous program at its Savannah River Site in South Carolina and pursue safer methods of plutonium disposal.

ARCTIC SEA ICE

Global warming continues to take its toll on the Arctic, leading to yet another year of extremely low sea ice — 2012 was the lowest summer sea ice extent in recorded history and 2013 was the sixth lowest. If ice levels continue to decrease, the Arctic stands to become a standard shipping route for cargo vessels carrying everything from cars to crude oil — endangering the area’s fragile marine life, ecosystems and communities. Friends of the Earth is committed to preserving our polar regions by working to create protective zones in the Arctic to help defend it from vessel pollution and other shipping impacts.

Get involved in issues and debates affecting human health and the planet by signing up for Friends of the Earth action alerts and monthly e-newsletters. Visit www.foe.org today!
We express gratitude for the food on our table not only on special days, but also throughout the year. But do we really know what we are eating? Friends of the Earth is carefully examining what is in our food and how best to protect our food system and reduce the negative impact it has on the environment. We are taking a comprehensive look at the supply chain — from the bees that pollinate two thirds of the food crops we eat to the salmon on the grill and the apple pie topped with vanilla ice cream — to understand what we as individuals can do to ensure that some of our favorite and traditional foods remain safe and sustainable.

For more information on how to get active with Friends of the Earth’s projects related to food, see www.foe.org/food
Fish, fruit and flavor — Friends of the Earth looks at the threats facing our delicate food system.

By Dana Perls

New GMOs, New Concerns

Look at your plate. You can thank the pollinating honeybee for two thirds of your favorite foods: apples, corn and cranberries are all examples of food pollinated by bees. But now, bees are being endangered by the pervasiveness of pesticides called neonicotinoids (neonics), which are used in agricultural fields and even our own backyards. A recent report from Friends of the Earth found that Home Depot, Lowe’s and other home improvement stores are carrying plants containing pesticides that could harm or kill bees. In an effort to help save this species important to our food chain we are asking Home Depot and Lowe’s to not carry these bee-killing pesticides and we are pushing our government to ban these pesticides, as has been done in Europe.

Genetically engineered foods are becoming more of a threat as they move from animal feed directly onto our own plates. As early as 2014, three new genetically engineered foods may be approved to enter into our global food system: genetically engineered salmon, GMO apples and synthetic biology-derived vanilla. Like other genetically engineered foods before them, they will likely enter our food system with inadequate assessment of their impacts on our health and environment and won’t be labeled as genetically engineered. The little science that there is suggests that these unique organisms are far from safe. Luckily, Friends of the Earth has strategies to help us protect our food system and our right to know what is on our dinner tables and in our communities.

Reinventing Salmon

Salmon, be it grilled, broiled or baked, is a healthy source of protein. We want salmon to stay that way.

Genetically engineered salmon, designed to grow twice as fast as natural salmon, is a threat to our environment. A new peer-reviewed study published in Proceedings of the Royal Society, a biological research journal, provides evidence that genetically engineered salmon can breed with wild trout and create offspring that can outcompete wild fish. In addition, AquaBounty®, the company producing the salmon, had an egg production facility infected with infectious salmon anemia, a deadly salmon virus that could decimate wild fish populations if infected fish were to escape.

As with many genetically engineered foods, the full extent of health impacts is untested and unknown. However, AquaBounty’s own studies show that genetically engineered salmon are found to have higher levels of a growth hormone called IGF-1, which may increase the risk of certain cancers if the IGF-1 is absorbed and active
in the human body. This should be evidence enough to keep
genetically engineered salmon off our dinner plates.

Given the U.S. Food and Drug Administration’s lack
of response to protests by scientists, fishermen,
conservationists and consumers, Friends of the Earth
launched the GE-Free Seafood Campaign. We’ve
been working with more than 50,000 Friends of
the Earth members and nearly 5,000 grocery
stores across the nation to commit not to sell
genetically engineered seafood. These stores
include Whole Foods, Trader Joe’s, Aldi’s,
H-E-B and Target, among many others.

Friends of the Earth and members continue to
work with grocery stores, restaurants and
chefs to take the GE-Free Seafood Pledge.
Currently, we are working to get Kroger, the
country’s largest grocery store chain, to step
up as a leader, to protect consumers’ right to
know what they are eating and to support
sustainable seafood.

Engineering Apples

One of the most iconic, and
delicious, American foods
is apple pie a la mode. But
depending on the the U.S.
Department of Agriculture’s
next moves, we might
want to think twice before
serving apples or vanilla ice
cream at our holiday meals.

The genetically
gineered Arctic® apple
may enter our food supply in
everything from grandma’s apple pie
to packaged, pre-sliced apples served in
school lunches, applesauce and baby food. Like
most genetically engineered foods, it won’t be labeled,
despite polls that show that the majority of Americans want GMO
labeling, nor will it receive independent safety testing by the FDA or
the USDA before approval.

This genetically engineered apple is designed for purely
cosmetic purposes: not to turn brown when cut or bitten. The
natural browning process we see in apples is caused by an enzyme
that produces melanin, which gives cells a brown tint when exposed
to oxygen. Scientists believe the browning may play an important
role in helping apples fend off pests and disease. The natural,
age-old technique to prevent apples from browning by applying
lemon juice, apple juice or another source of vitamin C makes this
risky genetically engineered apple completely unnecessary. Neither
consumers nor apple growers want this new GMO apple.

Take Action

Join our fight to keep
synbio vanilla out of our
ice cream. Please refer to the
Friends of the Earth envelope
attached and tell ice cream
manufacturers to keep this
virtually unregulated, unlabeled
synthetic vanilla out of our sweet
treats. Protect rainforests and
farmers as well as the right to
know what you are eating.
The Arctic® apple, genetically engineered using a potentially hazardous new technique called RNA interference, was designed by the Canadian company Okanagan Specialty Fruits not to brown for up to 15-18 days after being sliced, bruised or bitten. In order to force this cosmetic change in apples the company inserted a manmade gene into the apple’s DNA. The apple’s own natural defense system destroys both the copy and the original gene, and, with no genes left to create the browning chemical, the apple does not turn brown after it has been cut. It may even look fresh when, in reality, it is decaying or rotten. Also, the genetically engineered apple may require even greater pesticide use because an apple’s natural browning enzyme, which would be eliminated, may also help to fight diseases and pests.

In addition, genetically engineered apples could yield large-scale economic consequences through product rejection, domestically and internationally. Trade associations like the U.S. Apple Association and the British Columbia Fruit Growers Association fear that the introduction of a genetically engineered fruit would force them to implement costly measures to protect against cross-contamination and would decrease sales to foreign markets where GMO labeling and restrictions exist.

That’s why Friends of the Earth has urged major food companies to commit to not using this problematic apple — and our efforts are paying off. McDonald’s, the largest restaurant chain in the world, and Gerber, the largest baby food company in the U.S., recently told Friends of the Earth that they had no plans to use GMO apples in their products. While this isn’t the end of our work to stop poorly tested and unlabeled GMOs from entering our food supply, it’s a major victory and demonstrates that companies are beginning to listen to the overwhelming majority of consumers rejecting GMOs. For more information, visit www.NoGMOApples.org.

**Synthesizing Vanilla**

To top it all off, the natural vanilla ice cream on your favorite pie is also in danger. Whereas genetically engineered salmon and GMO apples are being created by traditional genetic engineering, there is now a newer, faster and riskier form of genetic engineering called synthetic biology. Synthetic biology vanilla (or synbio vanilla) is about to be introduced into the marketplace as the first high-profile synthetic biology ingredient to be used in food.

We already have two types of vanilla extract: natural and artificial. Now, there will be one more, and like other genetically engineered products, it will not be labeled as such. In fact, this unnatural vanilla could be disguised with a “natural” label.

Synthetic biology vanilla is made in labs using computers, synthetic DNA and yeast. Despite the fact that synbio vanilla is not derived from the vanilla bean or plant, a synthetic biology company, Evolva®, in collaboration with International Flavors and Fragrances, has marketed its synthetic biology vanilla as “natural” and “sustainable.”

Like the genetically engineered salmon and the GMO apple, this new product is neither “natural” nor “sustainable” and is virtually unregulated. Even though no one knows what the impacts of synbio ingredients really are, the FDA may approve synbio vanilla as “generally regarded as safe.” But regulatory agencies should treat each new synthetic genetically engineered organism and its byproducts as new and assess whether they are safe for use in foods.

The use of synthetic biology vanilla as a “natural” vanilla flavoring sets a dangerous precedent that could soon lead to using many other virtually unregulated synthetic biology ingredients in food, such as orange and grapefruit flavoring and coconut oil replacements, all masquerading as “natural.”

On a global scale, this new synbio vanilla could speed rainforest destruction and harm sustainable farmers and poor communities that rely on producing rainforest-raised vanilla beans to survive, in part because synbio vanilla removes a reason to protect these forests. If consumers buy synbio vanilla thinking it is “natural,” the demand for real natural vanilla may decline. Without the economic boost of the natural vanilla market, these last remaining rainforests will be vulnerable to more destructive agricultural markets such as soy, palm oil and sugar.

Increased demand for sugar needed for the engineered yeast for synthetic biology could result in the further clear-cutting of tropical forests in Latin America, Africa and Southeast Asia for more sugarcane production. These problems will be exacerbated as this and other synthetic biology applications using yeast scale up to meet increasing demand and replace current production of natural flavors and fragrances, including vanilla.

Vanilla is used in many products, but ice cream companies are one of its biggest purchasers. Friends of the Earth has recently launched a campaign to urge major ice cream companies not to use synbio vanilla. Only if ice cream companies make this commitment can we help keep risky, extreme genetic engineering — which has gone without adequate testing and regulations — off of our plates.

**What We Can Do**

Our campaigns against bee-killing pesticides, genetically engineered salmon, GMO apples and synbio vanilla are all important battles in the fight to ensure our entire food is healthy, sustainable and just. Whether it involves a fish, fruit or flavor, genetic engineering is not ready to enter our foods. Our government agencies currently lack the sophisticated assessments and regulations to properly evaluate the risks GMOs pose to our health and environment. Until these are in place, we need labeling to ensure people have a choice not to eat these experimental foods and to know if they are feeding them to their families.

We need your help to send a loud message to the USDA, the FDA and our food producers that not only should all genetically engineered food be labeled, but also that, until it’s tested and regulated, it should not be on our plates.
As portrayed in this iconic Norman Rockwell scene, holidays are a time of family, fellowship and feasting. Whichever holiday you celebrate this season, remember that Friends of the Earth works all year long to ensure that the food you and your loved ones eat is wholesome and produced in a sustainable and socially just manner. Here are some ways Friends of the Earth’s efforts impact the dishes on your holiday table.

**Apple pie:** As early as 2014, the genetically engineered Arctic Apple® may enter our food supply. This apple was designed for purely cosmetic purposes: not to turn brown when cut. Like other genetically engineered foods, this new apple won’t be labeled and hasn’t undergone independent safety testing.

**Salmon:** The FDA is poised to approve genetically engineered salmon, the first-ever genetically engineered animal for human consumption. This “frankenfish” poses significant risks to wild salmon, our health and the environment. Friends of the Earth is fighting to keep this fish out of grocery stores.

**Vanilla flavoring:** Think twice about the vanilla flavoring in the ice cream atop grandma’s apple pie. The natural vanilla flavor may not come from an actual vanilla bean for long. As the first major use of synthetic biology in our food, synbio vanilla could open the floodgates to allow more synthetic genetically engineered ingredients labeled as “natural” into our grocery stores. Friends of the Earth supports robust and clear requirements to label our food so consumers can know where it is coming from and can choose locally grown ingredients when possible.

**Water:** Think about that glass of water on your holiday table. The recent fracking boom threatens our freshwater supplies with the enormous amount of dangerous chemicals being pumped into the ground to free deposits of natural gas and dirty shale oil.
What's on Your Holiday Table?

**Cornucopia:** Bees pollinate two thirds of global food crops. Without bees, a whole cornucopia of food items might not make it to your holiday table. Friends of the Earth is working to keep neonicotinoids, a class of pesticide implicated in massive worldwide bee die-offs, off the shelves of our country’s garden centers.

**Corn:** In 2012, the USDA approved Monsanto’s Bt sweet corn, the first genetically engineered corn to be eaten straight off the cob. This past summer, grocery stores began selling the Bt corn. Like most genetically engineered products, this corn has gone unlabeled, and it was approved without conducting proper studies to address the significant environmental and public health concerns. Additionally, roughly 40 percent of the U.S. corn crop is currently being used to fuel our vehicles, increasing costs for this important crop — one of the many reasons Friends of the Earth is fighting biofuels as a solution to our energy needs.

**Beer:** Brewers across the United States and Germany are also calling for protection of water supplies from benzene, methane and other chemicals used in the fracking process, which would pollute water used in the brewing process. Friends of the Earth supports a moratorium on fracking.

**Turkey:** Many people are becoming more aware of the pollution and lack of humane practices associated with concentrated animal feeding operations. And since 80 percent of soy and corn — the main components in poultry feed — is genetically engineered in this country, many turkey farms also rely on genetically engineered feed. Even folks who enjoy tofu turkey substitutes might be inadvertently consuming genetically engineered soy.

**Collard greens:** Leafy greens, like collards, collected just south of the Vogtle nuclear reactors in eastern Georgia have tested 13 times higher than background levels for radioactive tritium. Friends of the Earth’s anti-nuclear campaign works to reduce risks for people and the environment by supporting efforts to close existing nuclear reactors and by fighting proposals to design and build new reactors and use federal funds to underwrite such initiatives.

**Side Dish**

**Processed Foods.** Whether it’s fried onions, frozen pies or whipped frosting, many processed foods contain palm oil. To meet this demand, palm oil plantations in Africa, Central America and Southeast Asia threaten natural forests and human and animal habitats, and invite unjust economic and cultural practices. Friends of the Earth is campaigning against “land grabbing” practices that are often associated with massive palm oil plantations.

**Toxic Food Technology.** Despite concerns about new toxicity risks of nanomaterials, Americans may be unwittingly ingesting them because regulators are struggling to keep pace with their rapidly expanding use. Nanotechnology, the manipulation of matter at the scale of atoms and molecules, is now used to manufacture some nutritional supplements, flavor and color additives, food packaging, cling wrap and containers and chemicals used in agriculture. Many of the world’s largest food companies, including Heinz, Nestle, Unilever and Kraft, are currently exploring nanotechnology for food processing and packaging. We advocate for policies to protect the public from the risks posed by the increasing use of nanomaterials.

**Trade and Transport.** Friends of the Earth has won regional, national and international limits on air, water and oil pollution from the cargo ships that may have carried the imported foods that end up on your holiday table. Further, our long-standing program on international trade seeks to educate the public and policymakers about the environmental dangers and undemocratic nature of trade agreements. We monitor existing trade and investment deals and work to prevent trade agreements that allow big corporations to overturn laws that protect the environment.

www.FoE.org

Friends of the Earth News magazine  Fall 2013 9
The phrase, “As California goes, so goes the country” evolved from a similar statement about Wisconsin in the early 1900s. This phrase didn’t get applied to California until the 1940s, when it stuck, and it’s still relevant today. The cultural, electoral, political and economic environment in this most populous state has created conditions for unusual political activity and precedent-setting. Because of that, Friends of the Earth is focused on assuring the dangerous and dirty practice of fracking doesn’t set a destructive precedent in the Golden State.

Dirty Politics for Dirty Oil
The fracking surge in the Golden State could have national implications.

By Ross Hammond
Fracking concerns

Water: Fracking involves injecting massive amounts of water, chemicals and sand deep underground. The industry claims they use between 80,000 and 300,000 gallons of water per well, though that figure is likely low. This drought-prone state doesn’t have water to spare for fracking. With 38 million people and the largest agricultural industry in the U.S., there is simply not enough water to accommodate such excessive levels of water use for oil and gas drilling in California.

And scarcity isn’t the only water concern. The chemicals that are blasted underground — many of them known carcinogens — are another huge problem with fracking. Most of the toxins are injected along with the rest of the wastewater deep underground, where they can contaminate groundwater and aquifers, poisoning what freshwater reserves the state has. Some of these toxins return to the surface in wastewater and are disposed of in evaporation pits, which can cause serious problems when they leak. And they do leak. One investigation conducted by ProPublica found more than 1,000 cases of water contamination near drilling sites.

Dirty Oil: California’s shale oil is incredibly dirty. In fact, shale oil is so dirty that legally, California may not be able to use much of it. Thanks to the state’s Low-Carbon Fuel Standard, fuel producers must lower the carbon intensity of all fuels sold in California, which means California is injecting toxic chemicals into the ground, risking fresh water supplies and more — largely for other states’ benefit.

But even if California doesn’t burn this filthy fuel in-state, just extracting it is bad enough. Drilling and fracking contribute to air pollution as well as climate change. Some of the fluid in the fracking process turns into gas at high pressures, which then vents to the surface. And, like the wastewater, that gas is filled high pressure. This cracks the rocks and allows the trapped shale oil to escape and be extracted. And another new twist in the quest to unleash this oil is “acidizing,” in which hydrochloric acid is pumped underground to dissolve rocks and soil. The state agency that regulates oil drilling — the Division of Oil, Gas and Geothermal Resources, within the California Department of Conservation — doesn’t keep track of acidizing or fracking (Occidental Petroleum Corp., which controls much of the Monterey Shale property, has told Wall Street analysts that it relies more on acidizing than fracking to tap California’s shale formations.)

The problems with fracking are legion and well documented in places like Pennsylvania and North Dakota, where an oil and natural gas boom has meant a dramatic increase in the practice. Pollution, spills, accidents, earthquakes and property damage have all been tied to this dirty and destructive practice.

Friends of the Earth and our allies in the new coalition Californians Against Fracking are fighting to ban fracking for good in California. In September, California Governor Jerry Brown signed legislation to create the first set of fracking regulations. But, according to the Monterey Herald, last-minute “heavy behind-the-scenes surgery by the oil and gas industries eviscerated important parts of it. For instance, companies injecting great amounts of water, sand and chemicals underground will be able to keep some of the ingredients confidential simply by labeling them trade secrets.”

While California prides itself on being one of the greenest states in the nation, Governor Jerry Brown — who has spent decades fighting Big Oil, advocating for clean energy and limiting greenhouse gas emissions — has just signed legislation contrary to his green stance. This legislation would allow oil companies to continue to mine by hydraulic fracturing, or “fracking,” the estimated 15 billion barrels of dirty shale oil from the Monterey Shale — an underground geological formation that stretches across 1,750 square miles from central California all the way down to Los Angeles. This area is home to some of the state’s most productive farmland, critical water sources and important wildlife habitat, not to mention home to millions of Californians.

Drilling for oil in California is nothing new — it’s the third-highest oil-producing state in the nation, just behind Texas and North Dakota. Oil was first drilled in California in 1861, but back then the oil was easier to retrieve, practically bubbling up at the surface of the land. If you’ve seen the movie “There Will Be Blood” — you’ll have a good picture. Over the century, these oil wells have been depleted. Today’s reserves are deep underground, trapped in rock formations.

Due to new high-tech advances, California is on the verge of another oil boom: a fracking boom. Fracking involves drilling horizontal wells deep underground and pumping water and toxic fluids into them at

The Wall Street Journal reports that “15.3 million Americans have a natural gas well within one mile of their home that has been drilled since 2000.” With more than a million additional wells set to be drilled in the next ten years, threats to human health and the environment will skyrocket unless bold action is taken.
with cancer-causing fracking chemicals. A report from Food and Water Watch found “that people living within half a mile of fracking operations face a significantly higher cancer risk, and higher risk of developing other health problems, because of air pollution, compared to people who live farther away.”

Increased seismic activity: The journal of the American Geophysical Union has documented the link between the fracking process and increased seismic activity in areas with known faults. California is one of the most earthquake-prone states in the country. Extraction companies assure us that it’s fine — they won’t drill into any known faults. But the Northridge earthquake in Los Angeles, which killed 50 people in 1994, happened on an unknown fault. No one knows what will happen when companies start injecting massive amounts of fracking fluids underground; already, fracking in states not near fault lines, such as Oklahoma, has been found to be the cause of localized earthquakes.

Additionally, claims that fracking will provide a big boost to California’s economy may not actually be true. A recent study released by the University of Southern California claims that fracking California’s Monterey Shale could grow the state’s economy by 14 percent, creating half a million jobs in the next two years. However, those rosy projections must be taken with an enormous grain of salt: The study cited was financed and run by — you guessed it — the oil companies. Investigative reporters found that the report was funded in part by the Western States Petroleum Association, which brings together many of the large oil companies in the West. Perhaps more damning is the fact that the study wasn’t peer-reviewed — the outside reviewers who did look at the report also had ties to Big Oil.

Gov. Brown has called fracking a “fabulous economic opportunity” and signaled that he would not impose a moratorium, according to climate blogger and chair of the California Democratic Party’s environmental caucus R. L. Miller, who says Brown has cut a deal with the oil companies. For instance, Occidental Petroleum Corp. maxed out its donations to Brown’s 2014 reelection campaign in June 2013. And the East Bay Express reports that “the governor accepted at least $2.49 million in financial donations over the past several years from oil and natural gas interests, according to public records on file with the Secretary of State’s Office and the California Fair Political Practices Commission.”

In the next 10 years, Venoco and Occidental have plans to significantly ramp up fracking in California to make it the largest source of on-shore oil production in the country. California has a chance to be out in front of the fight against fracking by declaring a moratorium on this dangerous extraction method. Only a few states — New York, New Jersey and Vermont — have already enacted bans or moratoriums on fracking.

Now it’s our turn. Friends of the Earth and Californians Against Fracking are demanding that Brown and the California legislature impose a moratorium on these dangerous practices immediately and we’ll be helping rally Californians statewide to call for this important ban. Together, we can work to ensure that California’s stance against fracking leads the country by setting a powerful precedent.
The Keystone XL Pipeline project opposed by Friends of the Earth illustrates the escalating international problems caused by extreme oil retrieval methods. Big Oil is dredging gooey tar sands oil from Alberta, Canada and hopes to pump this sludge the length of the U.S. to refine in Texas for export around the world. Because the pipeline crosses the border, the U.S. Department of State must review the pipeline, although the president must ultimately decide whether to approve it. Friends of the Earth has uncovered a web of deceit and corruption surrounding the review process, which has led to an official conflict of interest investigation.

The State Department’s environmental review of Keystone XL is hopelessly tainted. But President Obama already has more than enough evidence to kill the pipeline now! #NoKXL
Friends of the Earth ranks cruise lines and sheds light on the seas’ worst polluters.

By Marcie Keever

It’s that time of year — as temperatures drop, people start daydreaming about warm weather, and the lucky ones begin scheduling their tropical getaways. For those planning a cruise vacation while keeping their impact on the environment in mind, Friends of the Earth has a great tool for choosing a greener cruise. Friends of the Earth’s 2013 Cruise Ship Report Card ranks 16 major cruise lines and 162 cruise ships for their air and water pollution footprint.

It’s no secret that the cruise industry is one of the biggest polluters around. For the fourth time, Friends of the Earth is rating cruise ships and exposing the dirty environmental practices of these luxury vacations.

Behind the clean and green image the industry presents is a river of polluted wastewater and a smokestack belching soot. Many cruise ships burn some of the dirtiest fuel around and have generated more than one billion gallons of sewage last year that isn’t required to be treated much or at all before being discharged into our oceans.

While the waters of North America are now governed by an international control program that regulates the emissions of nitrogen oxides, sulfur oxides and particulate matter from ships within 200 nautical miles of the shore, many cruise lines have run to Congress and the EPA requesting exemptions. Outside of North American waters, ships can burn viscous, dirty bunker fuel, which is made from the residual fuel left over from the refining of diesel, jet fuel and gasoline.

Currently, the EPA estimates that every single day an average-size cruise ship travels between Vancouver, B.C., and Alaska burning bunker fuel, it emits the same amount of sulfur dioxide as 13.1 million cars and releases as much soot as 1.06 million cars.

The best way to clean up cruise ship fuel is for the ship to install and use shorepower — its use would be equivalent to taking millions of cars off the road. Shorepower technology allows cruise ships in port to plug in to shore-based power and receive electricity to operate their refrigeration, cooling, heating and lighting systems without

For more information, visit www.foe.org/cruise-ships
Carnival Cruise Lines, the company with the largest fleet of cruise ships in the world with 24 vessels, and whose parent company, Carnival Corporation, also owns six other cruise lines on the report card, continues to get an F in the sewage treatment category since only two of its 24 ships use advanced sewage treatment. Half of Carnival Corporation’s fleet continues to use outdated technology that pollutes our oceans and threatens sea life, our health and that of our marine ecosystems. It is time for Carnival to clean up its act.

Though six cruise lines improved their rankings from 2012, air pollution reduction remains an enormous oversight in the cruise industry. Ten of the 16 lines reviewed received an “F” in this category. Of those 16, only Disney and Princess Cruises had any significant improvement. By lagging in their efforts to reduce their air pollution, cruise lines are contributing to high rates of respiratory diseases in the cities and towns near ports.

Though many cruise lines tempt us with images of pristine natural views, the efforts to reduce their air and water pollution impacts are half-hearted. Many lines continue to refuse to make the necessary upgrades that would protect the ecosystems they travel through and, in fact, actively work to oppose stronger shipping regulations that would protect public health and the environment. So while people continue to take cruise voyages, the destinations and communities that host cruise ships and our oceans and airsheds continue to suffer. The cruise industry will only shape up if cruise passengers insist on cleaner ships. So please, take a look at our Cruise Ship Report Card and choose the greenest cruise vacation possible.

### 2013 Cruise Ship Report Card

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Visit our website at www.foe.org/cruise-report-card for an explanation of our grading system, to learn more about the environmental efforts of individual cruise ships, and to find out what actions you can take to make cruise lines clean up their act.

Carnival Cruise Lines, the company with the largest fleet of cruise ships in the world with 24 vessels, and whose parent company, Carnival Corporation, also owns six other cruise lines on the report card, continues to get an F in the sewage treatment category since only two of its 24 ships use advanced sewage treatment. Half of Carnival Corporation’s fleet continues to use outdated technology that pollutes our oceans and threatens sea life, our health and that of our marine ecosystems. It is time for Carnival to clean up its act.

Though six cruise lines improved their rankings from 2012, air pollution reduction remains an enormous oversight in the cruise industry. Ten of the 16 lines reviewed received an “F” in this category. Of those 16, only Disney and Princess Cruises had any significant improvement. By lagging in their efforts to reduce their air pollution, cruise lines are contributing to high rates of respiratory diseases in the cities and towns near ports.

Though many cruise lines tempt us with images of pristine natural views, the efforts to reduce their air and water pollution impacts are half-hearted. Many lines continue to refuse to make the necessary upgrades that would protect the ecosystems they travel through and, in fact, actively work to oppose stronger shipping regulations that would protect public health and the environment. So while people continue to take cruise voyages, the destinations and communities that host cruise ships and our oceans and airsheds continue to suffer. The cruise industry will only shape up if cruise passengers insist on cleaner ships. So please, take a look at our Cruise Ship Report Card and choose the greenest cruise vacation possible.
Our Mission: Friends of the Earth defends the environment and champions a just and healthy world.

CFC #12067

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