

RESOURCES



An Environmental Newsletter

RESOURCE CONSULTING, INC.

Vol. XII, Issue 2 - Fall 2010

From Dan's Desk...	Hurricane Katrina	Mother Nature's Cleanup	Haiti	Environment & Volcanos	For Your Information
Mother Nature.	Five Years Later.	Gulf Oil Spill.	Earthquake cleanup.	Iceland.	Trivia Time!
<i>Page 1</i>	<i>Page 1</i>	<i>Page 2</i>	<i>Page 2</i>	<i>Page 3</i>	<i>Page 4</i>

From Dan's Desk...

Mother Nature can dish it out, and she can take it--a fact that has been proven over and over again in many countries throughout the world, including the United States. When a large natural disaster hits not many people think about how it will effect the environment at the time, five years down the road, or even more. Both the environment and the people impacted by the disasters require time, capital, and resources to recover from the disasters' effects.

In this issue of the Resources newsletter, we explore some recent natural disasters and how they have affected the environment at the time of the incident and a few years after the event. Once a natural disaster is over in terms of the event, many days, weeks, months, and even years are spent rebuilding the area. And it all takes place without media coverage so little is known about the progress. That is why we thought it would be good to take another look at some of these areas again.

"We cannot command Nature except by obeying her." ~Francis Bacon

Hurricane Katrina

Environmental Impacts Five Years Later

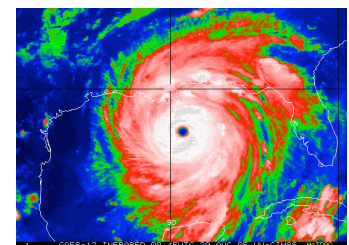
In August 2005, Hurricane Katrina made landfall in southeast Louisiana as a Category 3 storm. The devastation that resulted is still being felt 5 years later. When the storm hit, the surge of water caused the antiquated levee system to fail and pushed water as far as 12 miles inland. Major flooding and severe destruction were widespread in the region. The exact human death toll from the storm is still not known but stands at over 1,800.

Environmental effects of Hurricane Katrina included massive beach erosion resulting in the losses to the Barrier Islands and coastal marshes. These ecosystems provide habitats for many coastal mammals, birds, turtles, and fish. A series of four devastating hurricanes in four years - Ivan in 2004, Katrina in August 2005, Rita in September 2005, and Gustav in August 2008 - caused the destruction of 340 square miles of wetlands in the region. Efforts are ongoing in Mississippi and Louisiana to restore the Barrier Islands and coastal marshes as they are important not only as wildlife habitat protection against storm surges, but

because they are the location of over 25% of U.S. energy production.

Nearly fifty oil spills occurred during Hurricane Katrina. Forty-six off-shore oil production platforms were destroyed and twenty more were damaged; as a result over seven million gallons of oil were released into the Gulf of Mexico. Many different methods were employed to clean up the oil from commercial areas and sensitive coastal marshes.

As cleanup efforts began, flood water contaminated with sewage, agricultural & industrial chemicals, medical wastes, food, and human & animal remains was pumped into Lake Pontchartrain. According to a study done by the USGS just 6 weeks after the hurricane, indicators of pollution in the Lake had returned to pre-storm levels. (USGS circular 1306 Heitmuller & Perez - Science and the Storms: the USGS Response to the Hurricanes of 2005).



What Do You Think?

We would love to hear from you.

These newsletters reach clients, friends, and partners of Resource Consulting, Inc. and are intended to reach others who have an interest in the environment. We hope that you find some value in them. Our clients and friends know that we work hard to keep them informed. The newsletters provide information of a general environmental nature that may be of interest to many different readers.



All of you are welcome to contact our office via phone, fax, email or mail with questions or comments regarding anything from the content of the newsletters to the status of environmental programs in Illinois. We look forward to hearing from you.

We may be reached at:
PO Box 123, Geneva, IL 60134; by phone at (630) 232-9820; by fax at (630) 232-9824 or via email at www.resourceillinois.com.

Did You Know?

Fall Fun Facts

- ~ The largest pumpkin ever grown weighed 1,469 pounds.
- ~ Antarctica is the only continent where pumpkins can't be grown.
- ~ Pumpkins are 90% water.
- ~ The first Thanksgiving feast lasted an entire 3 days.
- ~ Turkey is the traditional dish served because in the 1600s, turkeys were the most plentiful of meats.
- ~ Benjamin Franklin wanted the turkey to be the national bird.

Earthquake Recovery Efforts In Haiti

The 7.0 magnitude earthquake that struck the Caribbean nation of Haiti made a bad situation much worse. As the poorest country in the Western Hemisphere, Haiti had many serious problems before the destructive quake: poverty, deforestation, over-farming, and political instability & corruption. Add to that the damage caused by three hurricanes (Gustav, Hannah, and Ike), and a major tropical storm (Fay) that struck in late summer of 2008, Haiti's infrastructure and government could barely keep up.

On January 12, 2010, the Haitian capital of Port-au-Prince was severely damaged by the earthquake that was centered just 10 miles southwest of the city. Because of the devastation to the government buildings and aid agencies located in Port-au-Prince, as well as political and logistical problems, billions of dollars in aid money pledged by countries around the world have not yet made it to the people of Haiti.

According to a press release by the United Nations Environment Programme (UNEP) on July 21, 2010, a main focus in the recovery effort for Haiti is sustainable development. Much of the energy demand in Haiti is met by wood fuel, which has led to deforestation, which in turn has led to soil erosion. Since the earthquake, demand for wood has gone up as people have fled the City of Port-au-Prince and are settling in rural camps. Another major environmental problem in Haiti is the dumping of construction debris. Rubble and refuse from the hundreds of thousands of destroyed and damaged buildings is choking the streets and hampering recovery efforts because dumping is largely uncontrolled.

Besides timber and debris, other problems are also holding up the recovery efforts. Disposal of medical wastes, hazardous chemical spills, flooding risks at the temporary camps, and the environmental impact of such a large scale population displacement are

all issues humanitarian aid workers are facing. The UNEP has collaborated with the Earth Institute and Haitian partners, including the National Center for Geospatial Information, to form the Haiti Regeneration Initiative to try to bring additional relief to this devastated country.



Mother Nature's Cleanup From The Gulf Oil Spill

As oil flowed from a wellhead deep under the Gulf of Mexico for months this summer, the idea of a complete clean-up seemed less and less possible. The joint federal industry response team has been attacking the oil slick with chemical dispersants, protective booms, and sea-floor containment domes, among other techniques. But Mother Nature is also doing some cleaning of her own.

According to a recent article by National Geographic News, surface oil evaporates in sunlight – which is good because the lightest oil is the most harmful to wildlife. The heavier oil gets broken into droplets and dispersed by wind and waves. Microbes can ingest this heavier oil; however, this process can further deplete oxygen from the Gulf waters. The warm sunny climate of the Gulf of Mexico allows more microbial activity than was seen in the Prince William Sound cleanup in Alaska after the Exxon Valdez oil spill in 1989.

These processes are nature's way of recovering from a disaster, but the Gulf's natural cleanup efforts are impeded by environmental degradation that occurred long before the spill. Years of over-fishing, other spills, and toxic inflow from the Mississippi River have limited the natural response to this crisis. There are still large pools of oil that are hidden under beaches and in coastal marshes, as well as covering the sea-floor in many locations. It may be many years before the full impact of this spill is understood.

Environment & Iceland's Eyjafjallajökull Volcano

Air traffic was disrupted worldwide in April of this year when Iceland's Eyjafjallajökull Volcano spewed clouds of ash, smoke, and steam over 30,000 feet into the air. The volcano, located about 75 miles southeast of Reykjavik, started showing signs of activity in late 2009. In March of 2010 a small eruption occurred, and by mid-April a second phase of the same eruption produced a large plume that drifted over much of northern Europe forcing transportation officials to cancel over 95,000 flights and close airspace for a period of six days. Much of the news coverage focused on the problems travelers faced because of the eruption. In Iceland, raising cattle, horses, and sheep is the primary farming activity, so there were many other serious consequences.

The Icelandic Food and Veterinary Authority asked owners of horses, cattle, and sheep to keep their animals indoors and out of the ash. Ingesting the ash can cause internal bleeding, long-term bone damage, and tooth loss. The fluoride that is in the ash and consequently the water supplies can form acids which can destroy intestines and cause hemorrhages. The timing of the eruption magnified the impacts on farm and wild animals. Spring is birthing season for many livestock, and the thick layer of ash put the lives of the young animals in jeopardy. Also, migrating birds return to Iceland in the spring and had to travel through the ash cloud to reach their breeding grounds.

The eruption caused large-scale melting of the Eyjafjalla Glacier. Floodwaters destroyed roads and bridges and forced hundreds of residents in southern Iceland to evacuate. The second phase of the eruption occurred under a thick layer of glacial ice, causing the ice to melt quickly. The steep slopes of the volcano drove the melt-water downhill in a quick and powerful torrent.

The ash from this eruption is much finer than ash from previous eruptions in 1947 and 1970, and it becomes a very dense clay when it gets wet. In some locations the ash was 10 cm thick, potentially choking the young vegetation in the fields at the foot of the volcano. However, more recent reports are showing that the ash has actually improved the soil in the region and farmers are seeing higher wheat yields than they have in previous years despite the interruption to the growing season.



Climatologists are concluding that the 2010 eruption of the Eyjafjallajökull Volcano will not have any long-term effects on the Earth's climate. While it is true that the volcanic eruptions release CO₂ into the atmosphere and large amounts of ash in the atmosphere can produce compounds that destroy ozone and increase the Earth's albedo (blocking out sunlight), this eruption was not really large enough to have that kind of effect. One fun fact about this eruption: the volcano released approximately 0.15 million tons of CO₂ each day of the eruption, but the massive reduction of air travel in Northern Europe caused by the ash cloud saved an estimated 1.3 to 2.8 million tons of CO₂ from entering the atmosphere during the period of the eruption.

Resource Guide:

These are just a few of the resources used to complete this newsletter. There are many others online if you would like to explore any of the areas further.

<http://news.nationalgeographic.com/news/2010/05/100507-science-environment-gulf-mexico-oil-spill-cleanup-bacteria/>

<http://www.nwrc.usgs.gov/hurricane/post-hurricane-katrina-photos.htm>

http://en.wikipedia.org/wiki/Eyjafjallaj%C3%B6kull#2010_eruption

<http://www.cnn.com/2010/WORLD/americas/07/14/haiti.donations/index.html>

For Your Information: Trivia Time!

The answer to last issue's Trivia Time question is...April 21, 1965. That was the date the first Earth Day was celebrated. The winner of the Trivia Time question was Joe Stahl of Gurnee, IL. Congrats!

Below is the new Trivia Time question that our readers are welcome to answer to be entered into a drawing for a \$25 Restaurant.com® gift card. Simply email your answer to bschroeder@resourceillinois.com and your name will be entered into the drawing. Don't forget to include your phone number and mailing address with your response. Deadline for entries is 12/20/10.



The Trivia Time question is:

“What was the final score of the Blackhawks game that won the Stanley Cup?”

The next edition of *Resources* will have the answer to the Trivia Time question and the lucky winner of the Restaurant.com® card. You have to enter to win, so we look forward to hearing from everyone. Good luck!

(Note: The information in this document should not be considered legal advice. It is the view and interpretation of materials gathered by Resource Consulting, Inc. and is provided for educational purposes to its clients and associates as such. Any omission of credit to an author is purely unintentional and should not be construed as plagiarism or literary theft.)

Resource Consulting, Inc.

P.O. Box 123

Geneva, IL 60134



Experienced, knowledgeable, professional.