



TransCanada's Keystone XL Pipeline: Tar Sands Permits Should be Denied due to Texas Drought and Potential Threat to Drinking Water September 15, 2011

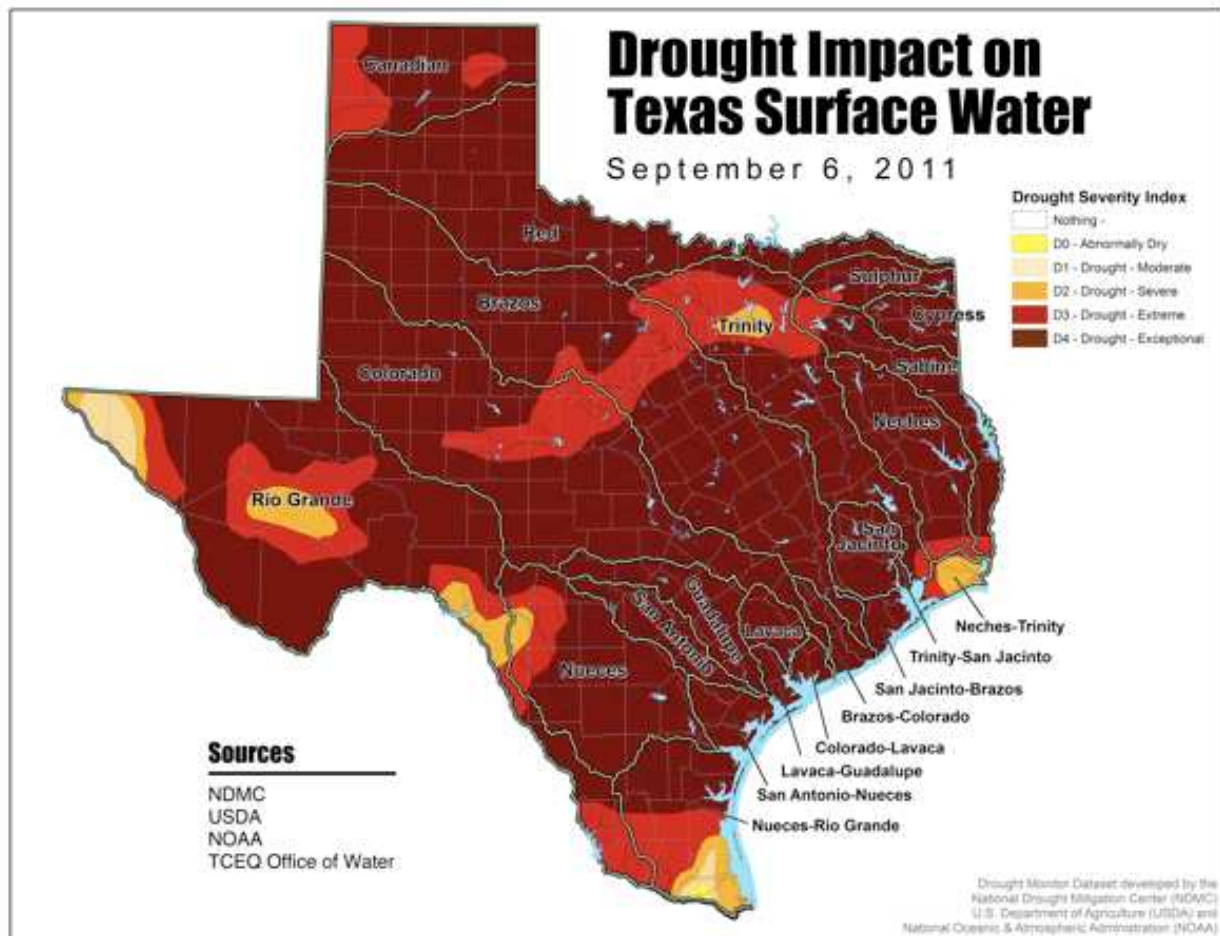


TABLE OF CONTENTS

1. Summary	3
2. US Department of State Federal Environmental Impact Statement is Deficient	4
3. Trans Canada Keystone XL Pipeline Project	4
4. Texas Commission on Environmental Quality (TCEQ) and Permit for the Pipeline	5
5. Drought in Texas	9
6. Office of the State Climatologist	9
7. Drought Could Extend into 2012	10
8. Texas Department of Agriculture	10
9. Texas Water Development Board	11
10. Office of Governor Rick Perry	11
11. Wildfires	12
12. Pipeline Spills	13
13. Threats to Drinking Water	14
14. Conclusion	16
15. Attachments	17

About STOP Stop Tarsands Oil Pipelines

We are a diverse group made up of concerned people and affected landowners. We have all come together to make our communities a safer place through community awareness and education concerning this destructive project. There are overarching concerns with the Alberta tar sands, the Keystone XL Pipeline project, and other tar sands pipelines: safety and health, water contamination, eminent domain abuse, and serious increases of air pollution at the refineries

You may contact us through our website at <http://stoptarsands.org/contact>

1. Summary

Texas is on fire and in the midst of the worst one-year drought in the history of the state since 1895, the year record keeping started. Wildfires are burning out of control because of the exceptional drought. Early estimates of losses ring up at an astounding \$5.2 billion. Back in December of 2010, Texas Governor Rick Perry proclaimed that all 254 counties in Texas are in a disaster due to the exceptional drought and extreme fire hazards caused by the drought. A record 3.7 million acres have burned in 2011. The Texas Commission on Environmental Quality (TCEQ) has started directing over 583 public water supply companies to restrict water usage as far back as April of 2011 and have placed over 294 on watch. On September 9, 2011 President Barack Obama has declared Texas a federal disaster area and approved immediate federal disaster relief for Bastrop County, Texas.

On August 26, 2011 the US Department of State (DOS) issued a Federal Environmental Impact Statement (FEIS) for the TransCanada's Keystone XL Tar Sands Pipeline. Stop Tarsands Oil Pipeline (STOP) a groups of local landowners and others opposed to the pipeline simply do not accept the DOS flawed conclusion that the pipeline would have minimal environmental impact and believes the Keystone XL FEIS is deficient for four reasons:

One: The FEIS does not address drought in Texas. Wildfires have flared up around the proposed pipeline route in Texas. It appears that the Department of State is completely out of touch with the dire reality regarding the exceptional drought in Texas. The Texas Commission on Environmental Quality (TCEQ) has held up water permits due to the exceptional drought, including the six TransCanada Keystone XP Pipeline water permits. STOP is simply stunned that the DOS and the 16 cooperating and assisting agencies that helped to prepare the FEIS all neglected to consider drought in the FEIS.

Two: The FEIS does not address pipeline safety specifically the threat of and effect of wildfires along the route and how a pipeline fueled fire might affect East Texas.

Three: The DOS also needs to revisit the inadequate and flawed assessment of the potential impact of hazardous tar sands oil spills on drinking water. Portions of the pipeline will cross over the outcrop of the Carrizo-Wilcox Aquifer, where near-surface water is in direct communication with the remainder of the aquifer. The aquifer feeds drinking water supplies for up to 10-12 million East Texans in more than sixty counties. It also supplements water for the Dallas and Ft. Worth area and other areas of Central and North Texas. More than 200 public water supply wells, most of which are in Texas, are within one mile of the proposed centerline of the pipeline.

Due to the multiple deficiencies in the FEIS, STOP is asking the Department of State to re-do the EIS taking into account the deficiencies presented in this report and to extend the public comments period to allow public input on a revised FEIS that comprehensively addresses these deficiencies. .

2. US Department of State Federal Environmental Impact Statement is Deficient

On August 26, 2011 the US Department of State issued a Federal Environmental Impact Statement (FEIS) for the TransCanada's Keystone XL Pipeline. Secretary of State Clinton did not fulfill her promise to "leave no stone unturned" and the State Department's pledge to do a "thorough and objective" assessment. The FEIS does NOT address drought or record heat as a factor in the Keystone Pipeline FEIS process. The FEIS also failed to analyze the flashpoint of diluted bitumen to be carried by the proposed project. Considering the Texas heat and drought conditions, more flashpoint analysis should be a mandatory part of the DOS FEIS. The DOS needs to revisit the inadequate assessment of the potential impact of hazardous tar sands oil spills on drinking water resources for up to 12 million Texans and revisit and revise the Keystone XL Pipeline FEIS accordingly.

US EPA has submitted comments to the DOS on the project insisting that the DEIS was "woefully deficient" because "the Draft EIS does not provide the scope or detail of analysis necessary to fully inform decision makers and the public, and we recommend that additional information and analysis be provided". According to the EPA, the U.S. State Department failed to properly analyze potential environmental impacts of TransCanada's planned pipeline to carry crude from Canada to the Gulf Coast. US EPA comments on the FEIS released August 26, 2011 are pending and due by the end of the comments period on October 8, 2011.

Due to the multiple deficiencies in the FEIS, STOP is asking the Department of State to re-do the EIS taking into account the deficiencies presented in this report and to extend the public comments period to allow public input on a revised FEIS that comprehensively addresses these deficiencies.

3. TransCanada's Keystone XL Pipeline Project

The proposed TransCanada Tar Sands Keystone XL Gulf Coast Expansion Project is an approximate 1,661 mile , 36-inch crude oil pipeline that will carry diluted bitumen — an acidic crude oil. Tar Sands is many times more toxic and acidic than conventional Texas crude. When mined, bitumen has the consistency of asphalt. The bitumen crude is then mixed with diluents in order to liquefy it to push it through the pipeline at higher pressures than conventional oil pipelines, increasing the risk and potential harm of leaks. TransCanada has refused to disclose the diluents they will use.

The proposed pipeline would begin at Hardisty, Alberta and extend southeast through Saskatchewan, Montana, South Dakota and Nebraska. It would incorporate a portion of the Keystone Pipeline, the Steele City Segment through Nebraska and Kansas to serve markets at Cushing, Oklahoma before continuing on the Gulf Coast Segment from Oklahoma through Texas to a delivery point near existing terminals in Nederland, Texas to serve the Port Arthur, Texas marketplace. The 435 miles of the

new Gulf Coast Segment and Houston Lateral pipeline extending from Cushing, Okla., to Port Arthur, Texas will include a 47-mile lateral pipeline from Liberty County, Texas to Houston, Texas. The pipeline will pass through 373 miles of Texas and go through 18 counties in East Texas. Texas has the longest segment of the proposed pipeline project. Please refer to the map on page 18.

4. Texas Commission on Environmental Quality (TCEQ) and Permits for the Pipeline

The drought is impacting the Water Permitting Process at the Texas Commission on Environmental Quality (TCEQ). The TCEQ has created and maintains a Texas Drought Information Page which is prominently highlighted on its home page.

The TCEQ bases its Water Permitting action on the Texas Water Code (TWC) and takes the water rights or senior and superior water rights holders very seriously when considering any new permits for water rights in the state of Texas. Texas Water Code Section 11.138 specifies that, in times of shortage, water rights will be administered based on the priority date of each water right; that is, the earliest in time is the senior. The drought is already severely impacting the Water Permitting Process at the Texas Commission on Environmental Quality (TCEQ).

Back in April of 2011, the TCEQ send a letter to ALL water rights holders in the entire state of Texas to discuss the TCEQ's close monitoring of the impact of the drought on stream flows all over the state. They informed the stakeholders that these evolving conditions could impact their senior and superior water rights holder permits and force the Agency to have to curtail water rights on a priority as per your areas particular severity of reduced flow.

The latest Sunset review of the TCEQ led to the passage of a new law that calls for the development of a rule for Drought or Water Shortage Conditions as follow:

Rulemaking to allow suspension and adjustments of water rights by the TCEQ executive director. TCEQ's Sunset Bill, House Bill (HB) 2694, Reg. Session. Legislature, 2011, Section 5.03, adds Section 11.053 to the Texas Water Code, effective September 1, 2011.

New section 11.053 requires that the TCEQ executive director may by order, in accordance with the priority of water rights established in the Water Code, during a time of drought or emergency shortage of water, suspend or adjust water rights. The executive director must consider several factors in deciding whether to issue this Order.

HB 2694 requires that the TCEQ enact rules to define "drought" and "emergency shortage of water" as well as establish procedures. To comply, TCEQ staff is proposing the creation of new 30 Texas Administrative Code Chapter 36, relating to Suspension or Adjustment of Water Rights during Water Shortage.

Prior to developing the rule language, the TCEQ held a rule stakeholder meeting on August 11, 2011, to obtain input from the public on the proposed rulemaking.

The full text of Section 11.053 of the Texas Water Code is:

Sec. 11.053. EMERGENCY ORDER CONCERNING WATER RIGHTS.

(a) During a period of drought or other emergency shortage of water, as defined by commission rule, the executive director by order may, in accordance with the priority of water rights established by Section 11.027:

1. temporarily suspend the right of any person who holds a water right to use the water; and
2. temporarily adjust the diversions of water by water rights holders.

(b) The executive director in ordering a suspension or adjustment under this section shall ensure that an action taken:

1. maximizes the beneficial use of water;
2. minimizes the impact on water rights holders;
3. prevents the waste of water;
4. takes into consideration the efforts of the affected water rights holders to develop and implement the water conservation plans and drought contingency plans required by this chapter;
5. to the greatest extent practicable, conforms to the order of preferences established by Section 11.024; and
6. does not require the release of water that, at the time the order is issued, is lawfully stored in a reservoir under water rights associated with that reservoir.

(c) The commission shall adopt rules to implement this section, including rules:

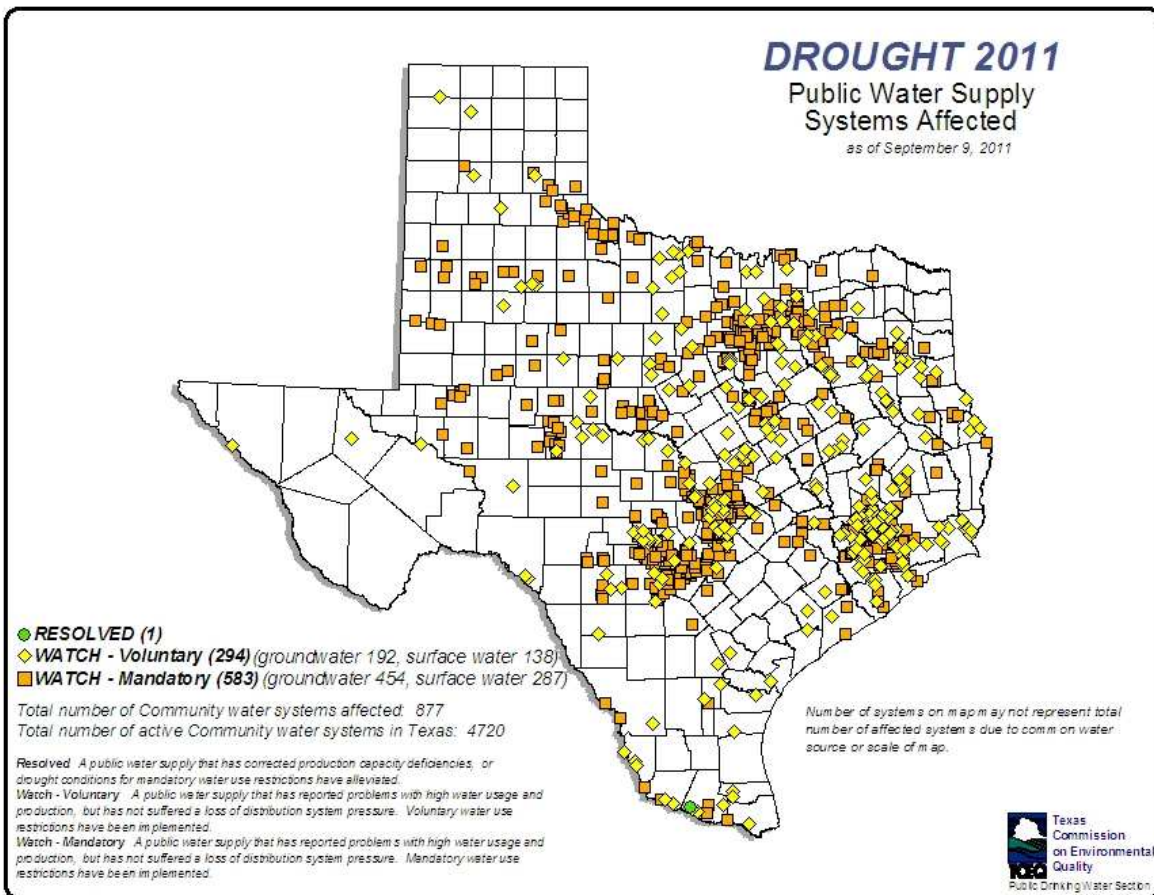
1. defining a drought or other emergency shortage of water for purposes of this section; and
2. specifying the:
 - A. conditions under which the executive director may issue an order under this section;
 - B. terms of an order issued under this section, including the maximum duration of a temporary suspension or adjustment under this section; and procedures for notice of, an opportunity for a hearing on, and the appeal to the commission of an order issued under this section.

Since April 11, 2011 letter to stakeholder on the state of the drought has become more dire. As a result of this harsh and dangerous reality, the TCEQ has created a

page under their Agency drought portal that lists letters to water rights holders, and other interested parties, concerning drought. Letters restricting usage are added as they become available and are grouped by water basin.

The Agency has created a page that lists Texas Public Water Supply Systems (PWSs) that have been instructed to limit using water to avoid shortages. The list is updated weekly. The list also has direct links to maps showing the location of each system on the map.

In conjunction with the list of limited PWSs the Agency has also developed a map of Water systems under water use restriction that it provides monthly to the Governor's Drought Preparedness Council.



TransCanada's Keystone Pipeline Temporary Water Rights Permits

In August of 2010, TransCanada Keystone Pipeline, LP has applied for 6 Temporary Water Rights Permits for the almost 375 miles of pipeline it intends to build in Texas. These permits will divert and use 86 million gallons of water from Texas surface bodies of water and use the water for hydrostatic testing and dust control.

These are TCEQ Permit Applications WRTP # 12627, 12628, 12629, 12630, 12656 and 12657. It is believed that TransCanada intends to submit six additional temporary water rights permits for drill mud preparation

The TCEQ has informed the applicant that the permits are declared “Administratively Complete” the first step in the permitting process, however; in a March 31, 2011 letter to TransCanada Keystone from the TCEQ Water Rights Permitting and Availability Section, TransCanada was informed “Please be advised that staff will likely recommend denial of the application due to the ongoing drought conditions. Additional information may be requested during the technical review phase of the application process”. This is not a formal notice of denial of the permits it is merely a statement of the current recommendations based on the current exceptional and extreme drought conditions in Texas. Please see document on page 19.

Additionally, TCEQ Hydrology Department staff internal Agency in an email dated March 7, 2011 states that “staff would find it difficult to recommend granting a temporary permit during low flow conditions, which occur during a drought or period of low rainfall. Because of ongoing drought conditions, staff will likely recommend denial of the application. “This is not a formal notice of denial of the permits it is merely a statement of the current recommendations based on the current exceptional and extreme drought conditions in Texas. Please see Document on page 22.

The Exceptional Drought conditions in Texas are directly impacting water rights temporary permit approvals in Texas. In fact, this is all somewhat new to the agency and is somewhat uncharted territory because never has the state of Texas experienced such a severe, record-breaking statewide 12-month drought. One can essentially say that the TCEQ is currently in a water rights temporary permit approval holding pattern.

As a matter of fact, the TCEQ informed TransCanada back on October 4, 2010 that “a temporary permit may only be issued if there is surplus water available for use on a short-term (temporary or ephemeral) basis in the source of supply. During low-flow conditions, which occur during a drought or periods of limited rainfall, all water in the basin will be required for existing senior water rights and there is no presumption of any surplus flow”. This was in complete compliance with the Texas Water Code. Please see Document on pages 20,21.

The six TransCanada Keystone Pipeline temporary water rights permit applications state the location of the exact water withdrawal diversion physical location points are in Cherokee, Delta, Fannin, Polk, Rusk and Upshur Counties. Delta County is the only county out of the six counties that does not have any current TCEQ instructions to limit using water. .

In summary, the exceptional drought is directly impacting the water permitting process at the TCEQ based on the directives of the Texas Water Code and this is not factored into the DOS Keystone XL Pipeline FEIS.

5. Drought in Texas

Eighty one percent of Texas is in the worst stage of drought - exceptional drought (D4 status), ninety nine percent of the state is experiencing D3 (Extreme Drought) to D4 (Exceptional Drought) drought status. Drought categories D3 and D4 are two of the worst categories measured by the US Drought Monitor. Please refer to page 2 of this report for a map of drought impact on Texas surface water and the drought classifications. This map is updated weekly by NDMC, USDA and NOAA.

Lack of rainfall and sizzling temperatures bake a state, with almost 25 million citizens, in its worst dry spell in decades, negatively affecting nearly every aspect of Texas life. Current economic losses due to the drought are estimated at \$5.2 billion and this figure is expected to climb to at least \$8 billion and that was before the Labor Day weekend wildfire disaster of 181 new wildfires. These unprecedented drought conditions have placed tremendous stress on water supplies throughout the state. Currently, 250 out of 254 Texas counties have a mandatory burn ban in place. Governor Rick Perry declared a drought disaster as far back as December 2010.

6. Texas State Climatologist

Texas State Climatologist and professor of atmospheric sciences at Texas A&M, Dr. John Nielsen-Gammon has officially declared that the drought in Texas is now officially the worst 12-month drought ever recorded in Texas since the time of reliable record keeping dating back 116 years ago. Reports from the National Climatic Data Center indicate that July 2011 was the warmest month ever recorded statewide for Texas, based on records dating back to 1895!

The drought cycle in Texas is more about continuing drought not just merely isolated drought events or years. Temperature readings above 100 F – many well above that level – continued to occur all over Texas, including DFW, Houston and San Antonio – three of Americas ten largest cities and Austin America's 14th largest city. This summer the DFW area marked 40 consecutive days with readings above the 100 mark; Houston marked 17 days in a row with temps over 100 on August 18th, San Antonio crushed the daily record high temperature of 110 F set in 1940, by 9 F; and Austin broke the old record of 69 days over 100 set back in 1925 with 84 days at or over 100 as of September 13, 2011 and tied its all time high of 112 degrees. Fifteen Texas locations tied or broke high-temperature records on Monday, Aug. 1, for that date; 21 locations tied or broke records for Aug. 2 on that date, and 18 locations did the same on Aug. 3, according to an ongoing data-collection effort by PBS News Hour on record high temperatures. The new Aug. 3 records in Texas included a Dallas location's 111 reading, which shattered the previous record of 106 for that site, set in 1910.

The average high temperature exceeded 100 degrees at all observation stations except the coastal stations, Amarillo, Lubbock, and El Paso. The cities of Austin, Corpus Christi, Houston, San Antonio, and Victoria saw the highest temperatures in August ever recorded this year as records were broken.

Scientific experts agree that temperature records will continue to be broken yet the impact of these high temperatures and their impact on the ongoing drought are not examined in the FEIS

7. Drought Could Extend into 2012

Many weather agencies and experts are predicting the drought will intensify into the fall months. Last month, the US Climate Prediction Center said that the La Nina weather phenomenon blamed for the crippling lack of rain might be back soon, just two months after the last La Nina ended. They raised its forecast odds for the return of La Niña conditions in the equatorial Pacific Ocean this winter to 50 percent and if that happens, the drought in Texas would almost certainly extend into 2012.

The Texas State Climatologist has said “that it’s likely that much of Texas will still be in severe drought this time next summer, with water supply implications even worse than those we are now experiencing.”

Furthermore, state environmental agency staff and climatology experts believe that the 2011 drought may not be a one time drought occurrence and that it is probably linked to the 2009 drought and is part of a bigger drought cycle that seems to have kicked off as far back as 2005.

8. Texas Department of Agriculture

Texas Agricultural Commissioner Todd Staples states that “The extreme heat and unprecedented dry weather are crippling agricultural operations in Texas upon which all Americans rely for food, fuel, clothing and other daily necessities. Texas leads the nation in cattle and cotton production and it’s all at risk now. This historic drought has depleted water resources, leaving our state’s farmers and ranchers in a state of dire need. The damage to our economy is already measured in billions of dollars and continues to mount.

According to the Texas Agrilife Communications, 99% of Texas is in some type of drought condition and 81% of the state is in exceptional drought conditions. These extreme and very dire drought conditions along with record breaking temperatures have placed a tremendous stress on water supplies throughout the state.

To make matters worse, according to the Texas Agrilife Extension Service, the Texas agricultural drought losses of a record \$5.2 billion already exceeds the previous record of \$4.1 billion during the 2006 drought. The \$5.2 Billion figure breaks down into

livestock losses of \$2.1 billion and crop losses of \$3.1 billion in the state. It is projected that the drought losses in Texas can potentially soar as high as \$8 billion and this current drought is expected to continue for months and possibly another year or even two. What is not counted in the figures is the collective damage the drought will cause for farmers and ranchers who will be driven out of business by two massive droughts in five years. The \$5.2 billion estimates do not include any losses from fruit and vegetable producers, horticultural and nursery crops, or other grain and row crops.

9. Texas Water Development Board

The TWDB maintains a database for drought data in addition to a dataset of reservoir storage and stream flow conditions for the state of Texas. Nine out of the ten Texas Climate Regions are in an Extreme Hydrological Drought. They have never seen such low stream flow indices in the history of the state. Groundwater well levels are dropping at alarming rates.

Combined reservoir storage is very low and is dropping on a monthly basis. The latest available data from the end of July 2011, total storage in 109 of the state's major reservoirs was at 21.47 million acre-feet, or 68% of the total conservation storage capacity. This is 1.4 million acre-feet less than a month ago. This equates to 456 billion gallons of water lost in the month of July of 2011. No reservoirs held 100% of capacity. Combined, these 109 reservoirs represent 95% of the total conservation storage capacity of the 175 major water supply reservoirs in Texas.

10. Office of the Texas Governor Rick Perry

On September 1, 2011 Gov Rick Perry renewed his August 3, 2011 State of Disaster Proclamation for all 254 counties in the State of Texas that dates back to the initial declaration in December of 2010:

“A proclamation certifying that all counties in Texas are currently threatened by exceptional drought conditions and extreme fire hazard due to a continuing disaster in Texas”

The Governor's Drought Preparedness Council has been meeting monthly and their latest report for July dated August 8, 2011, states that “ overall, the drought is worsening daily in most of Texas' climate regions. The entire State of Texas has now been declared a Natural Disaster. No relief in sight. The situation is desperate”

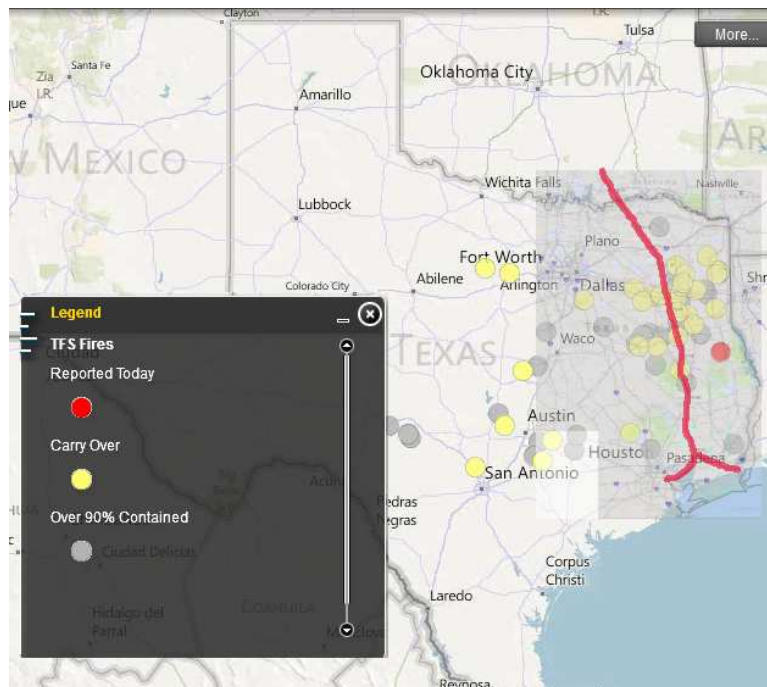
. Governor Perry's website states “Extreme drought conditions have sparked dangerous wildfires across the state,”

11. Wildfires

According to the Texas Forest Service, as of September 11, 2011, about 20,900 wildfires have charred 3.7 million acres across the state in 2011. That is approximately equal to the size of the state of Connecticut. In 2011 alone wild fires in Texas have destroyed 4,998 homes and buildings. The Insurance Council of Texas has estimated that the 181 Texas Labor Day Weekend Fires insured losses could hit \$250 million with the Bastrop Fire estimated to account for \$150 million of that and they expect those figures to climb. The Bastrop Fire destroyed 1,554 homes, burned over 34,000 acres and killed two people. This wildfire has become the most catastrophic wildfire in Texas history. The wild fires over the Labor Day weekend have added to what already was a catastrophic wildfire year for Texas because of the exceptional drought plaguing the state. Texas is now past 300 consecutive days of fighting wildfires. Half of the US's C-130 military fleet – four of them – and one of the largest DC-10 tanker planes in the world are staging out of Austin Bergstrom International Airport in Austin, Texas to fight wildfires for the foreseeable future.

East Texas wildfires:

As of September the 8th - the Longview News Journal reported that there were 24 active fires in East Texas, 14 of which were out of control, 10 in various stages of containment. These wildfires are along the route of the proposed pipeline.

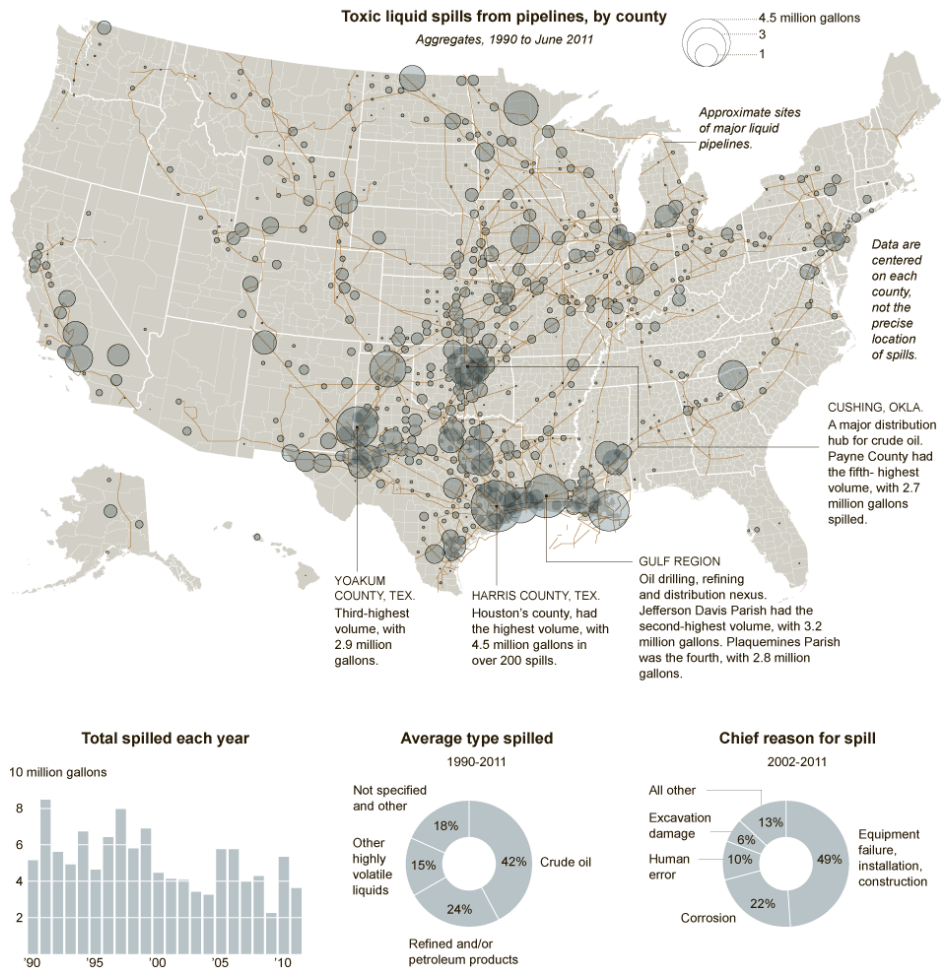


Wildfires are not considered in the FEIS, nor are serious questions about how a pipeline fueled fire might affect East Texas.

12. Pipeline spills

According to the September 10th 2011 edition of the New York Times, “The little-known federal agency charged with monitoring the system and enforcing safety measures — the [Pipeline and Hazardous Materials Safety Administration](#) — is chronically short of inspectors and lacks the resources needed to hire more, leaving too much of the regulatory control in the hands of pipeline operators themselves, according to federal reports, an examination of agency data and interviews with safety experts.

They portray an agency that rarely levies fines and is not active enough in policing the aging labyrinth of pipelines, which has suffered thousands of significant hazardous liquid spills over the past two decades.”



The Times reports that “since the 1990 more than 5,600 incidents were reported involving land based hazardous liquids pipelines, releasing more than 110 million gallons of mostly crude and petroleum products. ...the pipeline agency considered more than half to be significant, meaning that they caused a fire, serious injury, or fatality, or released at least 2,100 gallons,...” It is worth noting that nearly half the spills were due to human error and 22% due to corrosion.

Tar sand pipelines are especially at risk because the crude is more corrosive and difficult to clean when spilled. The Enbridge pipeline, which was carrying tar sands crude, had a history of such problems and between 2007 and 2009 had identified 399 anomalies but had only repaired 61 when the oil spill occurred this summer.

In another incident, On May 7, a pumping station accident in Sargent County, N.D. a pumping station failed on the XL tar sand pipeline and 17,000 gallons of crude spilled. The leak detection system failed and it was calls from the residents that alerted the pipeline operators to the problem.



Incredibly, the DOS has accepted that the pipeline could spill as much as 1.7 million gallons a day without triggering its leak detection system but does not consider this a significant threat in its FEIS. Furthermore, the Executive Summary for the FEIS presents the facts that the existing Keystone pipeline has already had 14 spills since it began operation in June 2010.

13. Threat to Drinking Water

The potential for pipeline oil spills concerns many citizens along the proposed Keystone XL Pipeline. Unfortunately, the DOS review process consistently suggests a low probability of impacts to humans and natural resources from the proposed pipeline.

The pipeline will have the longest span in Texas, citizens of Texas are concerned about a higher potential for hazardous oil spills which could potentially threaten drinking water and agricultural irrigation sources in Texas. The DOS needs to revisit the inadequate and flawed assessment of the potential impact of hazardous tar sands oil spills on drinking water.

DOS assessed the potential impacts of the proposed project on many aquifer systems. Portions of the pipeline will cross over the outcrop of the Carrizo-Wilcox Aquifer, where near-surface water is in direct communication with the remainder of the aquifer. The aquifer feeds drinking water supplies for up to 10-12 million East Texans in more than sixty counties. It also supplements water for the Dallas and Ft. Worth area and other areas of Central and North Texas. The DOS analysis included identification of potable groundwater in water wells within one mile of the proposed centerline of the pipeline. More than 200 public water supply wells, most of which are in Texas, are within one mile of the proposed centerline, and 40 private water are within 100 feet of the centerline. The Dos stated that the pipeline route does not cross any sole-source aquifers, or aquifers serving as the principal source of drinking water for an area.

The threat of pipeline leaks and spills is real. There have already been 14 leaks on the existing sections of the Keystone pipeline. On June 3, 2011, the US Department of transportation PHMSA authorities issued Trans Canada with a Corrective Action Order after determining that the Keystone tar sands pipeline was an “imminent threat to life, property and the environment”.

A March 2011 report, by Larry Dunbar, P.E., specifically addresses and summarizes the Effects of Keystone XL Pipeline Leak into Carrizo-Wilcox Aquifer. He is not in agreement with the DOS suggesting a low probability of impacts to human and natural resources. Dunbar concludes that “thus a release of this tar sands crude oil into the water resources in the area could have disastrous results”. In the report Dunbar states:

”the route of the proposed pipeline does not avoid the most sensitive areas when it comes to the Carrizo-Wilcox aquifer, since the pipeline will cross the outcrop portions of the aquifer, where a near-surface oil spill of tar sands crude oil would be able to enter into the aquifer system, degrading its water quality. In addition, the fact that the proposed route of this pipeline will be directly through the Mount Enterprise Fault Zone will only increase the probability of a spill.”

“The DOS has acknowledged that the spilling of hazardous tar sands crude oil could migrate into a subsurface aquifer (like the Carrizo-Wilcox Aquifer), may reduce or eliminate agricultural or domestic use of this groundwater, and may contaminate surface water resources if the contaminated groundwater discharges into these waters. The major rivers in this area are recognized as being perennial and gain flow from the underlying geology, such as the Carrizo- Wilcox Aquifer. Thus, a release of this tar sands crude oil into the water resources in the area could have disastrous results. “

“Thus, special precautions need to be taken to minimize the likelihood that any of this hazardous liquid material could escape and enter into the water resources in the area in the event of a spill. The consequences of such a spill migrating into the groundwater and/or surface water are significant enough to necessitate a design that can assure the users of these water resources that their source of water is not at risk of being contaminated by tar sands crude oil.”

14. Conclusion

STOP concludes that the Department of State has failed to produce a Federal Environmental Impact Study that meets the goal announced by Secretary of State Hillary Clinton when she promised she would leave no stone unturned in the process.

As this report shows, the FEIS has:

One: failed to analyze the impact of drought on the water needed for the pipeline,

Two: failed to look at the issue of wildfires along the route of the pipeline,

Three: failed to adequately look at the impact of a spill on underlying aquifers that might result if a leak were to occur,

Due to the multiple deficiencies in the FEIS, STOP is asking the Department of State to re-do the EIS taking into account the deficiencies presented in this report and to extend the public comments period to allow public input on a revised FEIS that comprehensively addresses these deficiencies. Furthermore, STOP has concluded that the DOS simply has no business being involved in and more importantly being in charge of this or any other EIS. The DOS is not qualified, is not adequately staffed and it lacks the expertise knowledge, qualifications and experience to produce a meaningful EIS. The EIS appears to be more of a cursory survey rather than a detailed and meaningful environmental analysis of a very complex project. It appears to be a collection of generalized boilerplate documents about oil pipelines. This EIS belongs at US EPA.

Citizens will be given two opportunities to comment on the draft FEIS at public hearings on:

Monday, September 26, 2011 Bob Bowers Civic Center, 3401 Cultural Center Dr., Port Arthur, 4:30 – 10 p.m.

Wednesday, September 28, 2011
Texas: University of Texas Lady Bird Johnson Auditorium, 2313 Red River St., Austin, noon – 3:30 p.m., 4 – 8 p.m. Written comments can be submitted until the end of the comments period on October 8, 2011.

15. Attachments

Map Proposed TransCanada Keystone XL Pipeline	18
TCEQ 3/31/11 Memo to TransCanada	19
TCEQ 10/4/10 Memo to TransCanada	20,21
TCEQ Hydrology Staff Internal Memo 3/7/11	22
Bibliography	23,24,25
Links	26
Drought Definitions	27



Map Proposed Trans Canada Keystone XL Pipeline

Bryan W. Shaw, Ph.D., *Chairman*
Buddy Garcia, *Commissioner*
Carlos Rubinstein, *Commissioner*
Mark R. Vickery, P.G., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 31, 2011

Mr. Dave Beckmeyer
TransCanada Keystone Pipeline, LP
2700 Post Oak Boulevard, Suite 400
Houston, Texas 77056

RE: TransCanada Keystone Pipeline, LP
CN603827155, RN106106560
WRTP 12627
Application No. 12627 for a Temporary Water Use Permit
Texas Water Code §11.138, Requiring Limited Mailed Notice
North Sulphur River, Sulphur River Basin
Delta County

2011 MAR 32 AM 9:28
CHIEF CLERKS OFFICE
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Mr. Beckmeyer:

This acknowledges receipt of additional information for the referenced application.

The application was declared administratively complete and filed with the Office of the Chief Clerk on March 31, 2011. Staff will continue processing the application for consideration by the Executive Director.

Please be advised that staff will likely recommend denial of the application due to ongoing drought conditions. Additional information may be requested during the technical review phase of the application process.

If you have any questions concerning the application, please contact **Tracie Donnelly** at tracie.donnelly@tceq.texas.gov or at (512) 239-0083.

Sincerely,

Kellye Rila, Manager
Water Rights Permitting & Availability Section
Water Supply Division

KR/td

cc: Adrian F. Van Dellen via e-mail

2011 APR -1 AM 9:56
CHIEF CLERKS OFFICE
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • www.tceq.state.tx.us

How is our customer service? www.tceq.state.tx.us/goto/customersurvey
printed on recycled paper

Bryan W. Shaw, Ph.D., *Chairman*
Buddy Garcia, *Commissioner*
Carlos Rubinstein, *Commissioner*
Mark R. Vickery, P.G., *Executive Director*



91 7108 2133 3935 1970 4754

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

October 4, 2010

Mr. Dave Beckmeyer
TransCanada Keystone Pipeline, LP
2700 Post Oak Boulevard, Suite 400
Houston, Texas 77056

CERTIFIED MAIL

RE: TransCanada Keystone Pipeline, LP
WRTP 12627
Application No. 12627 for a Temporary Water Use Permit
Texas Water Code §11.138, Requiring Limited Mailed Notice
North Sulphur River, Sulphur River Basin
Delta County

Dear Mr. Beckmeyer:

This acknowledges receipt, on September 9, and September 14, 2010, of the referenced application and fees in the amount of \$290.24 (Receipt No. RO01428, enclosed).

For the past 120 days, flows at USGS Gage 07343000 (N Sulphur Rv nr Cooper, Texas) have generally been at or above the long term median daily discharge. However, a temporary permit may only be issued if there is surplus water available for use on a short-term (temporary or ephemeral) basis in the source of supply. During low-flow conditions, which occur during a drought or periods of limited rainfall, all water in the basin will be required for existing senior water rights and there is no presumption of any surplus flows.

Additional fees and information are required before the application can be declared administratively complete.

1. Verify that water will be used for dust suppression and drilling mud preparation. Dust control is mentioned as a use for the water in the letter with the application, but this use is not included on the application form. Additionally, mud preparation is requested as a use on the application form, but is not included in the letter submitted with the application.
2. Provide a more detailed description of the request to use water for drilling mud preparation. Staff will use this information to determine whether the intended use would be classified as industrial or mining.

P.O. Box 13087

Austin, Texas 78711-3087

512-239-1000

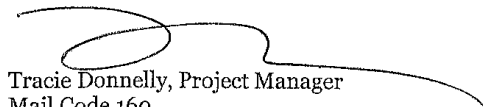
Internet address: www.tceq.state.tx.us

PERMISSION TO REPRODUCE THIS MATERIAL IS GRANTED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY.

Mr. Dave Beckmeyer
Application No. 12627
October 4, 2010
Page 3 of 3

If you have any questions concerning this matter, please contact me at (512) 239-0083 or by e-mail at tdonnell@tceq.state.tx.us.

Sincerely,



Tracie Donnelly, Project Manager
Mail Code 160
Water Rights Permitting Team
Water Rights Permitting & Availability Section

Enclosures

Tracie Donnelly - TransCanada Keyston Pipeline, Lp 12627

From: Leonard Oliver
To: Section Review
Date: 3/7/2011 10:16 AM
Subject: TransCanada Keyston Pipeline, Lp 12627

Hydrology staff has sufficient information to begin technical review. Staff notified the applicant on October 4, 2010 that staff would find it difficult to recommend granting a temporary permit during low flow conditions, which occur during a drought or period of low rainfall. Because of ongoing drought conditions, staff will likely recommend denial of the application.

Bibliography

<http://www.srh.noaa.gov/images/ewx/drought.pdf>

www.tceq.texas.gov/assets/public/response/drought/DM-110823.jpg

<http://tfsweb.tamu.edu/main/article.aspx?id=12888>

<http://www.tceq.texas.gov/assets/public/response/drought/DM-110830.jpg>

<http://www.msnbc.msn.com/id/44398330/ns/weather/>

<http://drought.unl.edu/dm>

www.tceq.texas.gov/assets/public/response/drought/DM-110823.jpg

<http://www.srh.noaa.gov/images/ewx/drought.pdf>

<http://agriflife.org/today/2011/08/17/texas-agricultural-drought-losses-reach-record-5-2-billion/>

<http://atmo.tamu.edu/osc/>

<http://thinkprogress.org/romm/2011/09/01/301763/state-climatologist-texas-severe-drought/>

<http://texasclimateneeds.org/wp/?p=22353>

http://en.wikipedia.org/wiki/List_of_United_States_cities_by_population

<http://texasclimateneeds.org/wp/?p=2353>

<http://www.reuters.com/article/2011/08/17/us-drought-losses-texas-idUSTRE77G4RG20110817>

<http://www.srh.noaa.gov/images/ewx/drought.pdf>

<http://tamunews.tamu.edu/2011/08/04/texas-drought-officially-the-worst-ever/>

<http://blog.chron.com/climateabyss/2011/08/texas-drought-where-is-it-worst/>

<http://tamunews.tamu.edu/2011/08/04/texas-drought-officially-the-worst-ever/>

<http://atmo.tamu.edu/osc/tx/AugBull11.htm>

<http://tamunews.tamu.edu/2011/07/06/drought-scorches-texas-%E2%80%93-and-the-record-books/>

<http://texasclimateneeds.org/wp/?p=2571>

<http://www.scientificamerican.com/article.cfm?id=noaa-makes-2011-most-extreme-weather-year>

<http://www.chron.com/default/article/Forecasters-Drought-may-persist-for-another-year-1725153.php>

<http://www.chron.com/news/houston-texas/article/This-summer-s-drought-may-worsen-next-year-2136436.php>

<http://blog.chron.com/climateabyss/2011/08/texas-drought-where-is-it-worst/>

<http://www.tceq.texas.gov/response/drought/proclamation-august2011>

<http://www.txdps.state.tx.us/dem/CouncilsCommittees/droughtCouncil/sitrep0711.pdf>

<http://tfsweb.tamu.edu/main/article.aspx?id=12888www.tcew.texas.gov>

<http://www.tceq.texas.gov/response/drought>

<http://www.statutes.legis.state.tx.us/Docs/WA/htm/WA.11.htm>

<http://blog.chron.com/climateabyss/2011/08/texas-drought-where-is-it-worst/>

<http://www.tceq.texas.gov/assets/public/agency/4-11-11water-rights.pdf>

<http://www.tceq.texas.gov/response/drought/letters.html>

<http://www.tceq.texas.gov/drinkingwater/trot/location.html>

<http://www.tceq.texas.gov/legal/events/drisawr.html>

<http://www.texasadmin.com/tceqs.shtml>

<http://www.tceq.texas.gov/legal/events/drisawr.html>

<http://www.transcanada.com/keystone.html>

http://www.downstreamtoday.com/projects/project.aspx?project_id=121

http://www.agr.state.tx.us/agr/index/0,1911,1848_0_0_0,00.html

http://www.texasagriculture.gov/media/media_render/0,1460,1848_17053_46269_0.00.html

<http://agrilife.org/drought/>

<http://agrilife.org/today/2011/08/17/texas-agricultural-drought-losses-reach-record-5-2-billion/>

<http://thinkprogress.org/green/2011/08/298787>

<http://www.reuters.com/article/2011/08/17/us-drought-losses-texas-idUSTRE77G4RG20110817>

<http://www.reuters.com/article/2011/08/17/us-drought-losses-texas-idUSTRE77G4RG20110817>

<http://www.reporternews.com/news/2011/aug/17/withering-agribusiness-in-texas-drought-loss-put/>

<http://www.reporternews.com/news/2011/aug/17/withering-agribusiness-in-texas-drought-loss-put/>

<http://www.twdb.state.tx.us/apps/droughtinfo/default.aspx>

<http://midgewater.twdb.state.tx.us/Reservoirs/TWC/PDF/latest.pdf>

<http://www.whitehouse.gov/the-press-office/2011/09/10/president-obama-signs-texas-disaster-declaration>

<http://www.nytimes.com/2011/09/10/business/energy-environment/agency-struggles-to-safeguard-pipeline-system.html?nl=todaysheadlines&emc=tha2>

http://blog.nwf.org/wildlifepromise/files/2011/06/320115006H_CAO_06032011.pdf

<http://phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Keystone%20CAO%20and%20Restart%20Approval.pdf>

<http://www.bloomberg.com/news/2011-06-07/epa-faults-state-department-review-of-transcanada-pipeline-1-.html>

<http://www.keystonepipeline-xl.state.gov/clientsite/keystonexl.nsf?Open>

<http://www.kvue.com/news/national/129615848.html>

<http://www.insurancecouncil.org/news/2011/Sept122011.pdf>

<http://www.insurancecouncil.org/news/2011/Sept062011.pdf>

<http://www.statesman.com/news/local/fleet-of-firefighting-aircraft-to-be-stationed-in-1850786.html>

http://www.statesman.com/news/nation/obama-signs-disaster-declaration-for-wildfires-1834354.html?cxtype=rss_ece_frontpage

http://en.wikipedia.org/wiki/Oil_sands

<http://www.keystonepipeline-xl.state.gov/clientsite/keystonexl.nsf?Open>

http://content.news8austin.com/auscontent/ppv_banners/n8a_frame_create_burnban.htm

<http://www.twdb.state.tx.us/apps/droughtinfo/default.aspx>

<http://www.convertunits.com/from/acre-feet/to/gallons>

<http://tfsweb.tamu.edu/main/article.aspx?id=12888>

<http://www.eponline.com/Articles/2011/09/08/Exceptional-Drought-Hits-Record-Levels-in-Three-More-U.S.-States.aspx>

<http://dallas.about.com/od/neighborhoods/qt/Dfw-Weather-Triple-Digit-Temps-End-Short-Of-Record-At-40-Consecutive-Days.htm>

<http://soitgoesintexas.blogspot.com/2011/08/houston-breaks-heat-record.html>

<http://capitalclimate.blogspot.com/2011/08/meanwhile-back-at-ranch-austin-ties-all.html>

http://www.keystonepipeline-xl.state.gov/clientsite/keystonexl.nsf/03_KXL_FEIS_Executive_Summary.pdf

Links

Governor Rick Perry State of Texas Drought Preparedness Council

<http://www.txdps.state.tx.us/dem/CouncilsCommittees/droughtCouncil/stateDroughtPrepCouncil.htm>

<http://www.txdps.state.tx.us/dem/CouncilsCommittees/droughtCouncil/droughtCouncilOver.pdf>

<http://www.txdps.state.tx.us/dem/CouncilsCommittees/droughtCouncil/droughtAssistDir.pdf>

<http://www.txdps.state.tx.us/dem/CouncilsCommittees/droughtCouncil/councilMembers.pdf>

Office of the Texas State Climatologist

<http://atmo.tamu.edu/osc/>

<http://tamunews.tamu.edu/2011/08/04/texas-drought-officially-the-worst-ever/>

Texas Commission on Environmental Quality (TCEQ)

www.tceq.texas.gov

<http://www.tceq.texas.gov/assets/public/response/drought/DM-110830.jpg>

<http://www.tceq.texas.gov/response/drought>

<http://www.tceq.texas.gov/assets/public/agency/4-11-11water-rights.pdf>

<http://www.statutes.legis.state.tx.us/Docs/WA/htm/WA.11.htm>

<http://www.statutes.legis.state.tx.us/Docs/WA/htm/WA.11.htm>

<http://www.tceq.texas.gov/drinkingwater/trot/droughtw.html>

<http://www.tceq.texas.gov/drinkingwater/trot/location.html>

<http://www.tceq.texas.gov/legal/events/drisawr.html>

Texas Agriculture Commission

http://www.texasagriculture.gov/agr/media/media_render/0,1460,1848_17053_44929_0,00.html

http://www.agr.state.tx.us/agr/index/0,1911,1848_0_0_0,00.html

http://www.texasagriculture.gov/media/media_render/0,1460,1848_17053_46269_0,00.html

<http://agriflife.org/drought/>

<http://agriflife.org/today/2011/08/17/texas-agricultural-drought-losses-reach-record-5-2-billion/>

<http://thinkprogress.org/green/2011/08/298787>

<http://www.reuters.com/article/2011/08/17/us-drought-losses-texas-idUSTRE77G4RG20110817>

<http://www.reuters.com/article/2011/08/17/us-drought-losses-texas-idUSTRE77G4RG20110817>

<http://www.reporternews.com/news/2011/aug/17/withering-agribusiness-in-texas-drought-loss-put/>

<http://www.reporternews.com/news/2011/aug/17/withering-agribusiness-in-texas-drought-loss-put/>

Texas Water Development Board

<http://www.twdb.state.tx.us/data/drought/http://midgewater.twdb.state.tx.us/Reservoirs/TWC/PDF/latest.pdf>

<http://www.twdb.state.tx.us/apps/droughtinfo/default.aspx>

http://waterwatch.usgs.gov/new/index.php?r=tx&id=ww_current

Texas Forest Service

<http://tfsweb.tamu.edu/main/article.aspx?id=12888>

US Drought Monitor

<http://texasdroughtproject.org>

TWDB Report to September 2011 Governor Perry Drought Preparedness Council Meeting

NOAA

www.drought.noaa.gov/

<http://www.srh.noaa.gov/ewx/?n=drought.html>

<http://www.srh.noaa.gov/images/ewx/drought.pdf>

http://www.cpc.ncep.noaa.gov/products/expert_assessment/drought_assessment.shtml

<http://www.ncdc.noaa.gov/climate-monitoring/>

National Drought Mitigation Center

<http://drought.unl.edu/>

National Integrated Drought Information System

http://www.drought.gov/portal/server.pt/community/drought_gov/202;jsessionid=0549761ED234A1A8E615F5C071243E3F

North American Drought Monitor

<http://www.ncdc.noaa.gov/temp-and-precip/drought/nadm/>

UD Drought Monitor Drought Definitions

<http://www.eponline.com/Articles/2011/09/08/Exceptional-Drought-Hits-Record-Levels-in-Three-More-U.S.-States.aspx>

The monitor uses a ranking system that begins at D0 (abnormal dryness) and moves through D1 (moderate drought), D2 (severe drought), D3 (extreme drought) and D4 (exceptional drought). Exceptional drought's impacts include widespread crop and pasture losses, and shortages of water in reservoirs, streams and wells, creating water emergencies.

D0	Abnormally Dry
D1	Moderately Dry
D2	Severely Dry
D3	Extremely Dry
D4	Exceptionally Dry

Types of droughts:

1. Meteorological Drought: This type of drought is often defined by a period of substantially diminished precipitation duration and/or intensity that persists long enough to produce a significant hydrologic imbalance. The commonly used definition of meteorological drought is an interval of time, generally of the order of months or years, during which the actual moisture supply at a given place consistently falls below the climatologically- appropriate moisture supply.
2. Agricultural Drought: Occurs when there is inadequate precipitation and/or soil moisture to sustain crop or forage production systems. The water deficit results in serious damage and economic loss to plant or animal agriculture. Agricultural drought usually begins after meteorological drought but before hydrological drought and can also affect livestock and other agricultural operations.
3. Hydrological Drought: Refers to deficiencies in surface and subsurface water supplies. It is measured as stream flow, and as lake, reservoir, and groundwater levels. There is usually a time lag between a lack of rain or snow and less measurable water in streams, lakes, and reservoirs, making hydrological measurements not the earliest indicators of drought.
4. Socioeconomic Drought: This drought occurs when physical water shortages start to affect the health, well being, and quality of life of the people, or when the drought starts to affect the supply and demand of an economic product.
5. Standard Precipitation Index (SPI): The SPI was designed to quantify the precipitation deficit for multiple time scales. These time scales reflect the impact of drought on the availability of the different water resources.
6. Palmer Drought Severity Index (PDSI): The PDSI is a "meteorological" drought index and responds to weather conditions that have been abnormally dry or abnormally wet. The Palmer Index provides decision-makers with a measurement of the abnormality of recent weather for a region, an opportunity to consider current conditions in a historical perspective, and a spatial and temporal representation of historical droughts.
7. Crop Moisture Index (CMI): The Crop Moisture Index (CMI) is an index that uses a meteorological approach to monitor week-to-week crop conditions. It was designed to evaluate short-term moisture conditions across major crop producing regions. It is based on the mean temperature and total precipitation for each week within a Climate Division, as well as the CMI value from the previous week-to-week crop conditions.
8. Keetch-Byram Drought Index (KBDI): The Keetch-Byram Drought Index is a drought index specifically used for fire potential assessment. The numeric value of the index, ranging from 0 to 800, is an estimate of the amount of precipitation (in 100ths of an inch) needed to bring the soil back to saturation. The KBDI is directly correlated to fire danger; as the index increases, the vegetation is subjected to increased moisture stress.
9. Vegetation and Temperature Condition Index (VT): The VT is a numerical index, being used for estimation of vegetation health and monitoring drought, changes from 0 to 100 characterizing change in vegetation conditions from extremely poor (0) to excellent (100). 08/01/05 v