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OFFICIAL PUBLIC RECORD
POLK COUNTY, TEXAS

98 JUN 11 AM 8 48

Barbara Middleton

BARBARA MIDDLETON
COUNTY CLERK POLK CO

VOL 44 PAGE 465

NOTICE OF EMERGENCY MEETING OF THE

COMMISSIONERS COURT OF POLK COUNTY, TEXAS # 62

Notice is hereby given that an Emergency meeting of the above named Commissioners' Court will be held on Friday, June 12, 1998 at 9 00 a m in the County Courthouse, Livingston, Texas, at which time the following subjects will be discussed, to wit

CONSIDER PROPOSED BAN OF AERIAL FIREWORKS

Dated Thursday, June 11, 1998

Commissioners' Court of Polk County, Texas

By John P. Thompson

John P Thompson, County Judge

I, the undersigned County Clerk, do hereby certify that the above Notice of Meeting of Polk County Commissioners Court, is a true and correct copy of said Notice, and that I posted a true and correct copy of said notice at the door of the County Courthouse of Polk County, Texas, at a place readily accessible to the general public at all times on Thursday, June 11, 1998, and said notice remained so posted continuously for at least 24 hours preceding the scheduled time of said meeting

Notice filed, Thursday, June 11, 1998

Barbara Middleton, County Clerk

By Barbara Middleton

STATE OF TEXAS }

COUNTY OF POLK }

DATE JUNE 12, 1998

"EMERGENCY" CALLED MEETING
BOBBY SMITH ABSENT
JAMES J "Buddy" PURVIS-ABSENT
KAREN REMMERT ABSENT

BE IT REMEMBERED ON THIS THE 12th DAY OF JUNE, 1998 THE HONORABLE COMMISSIONERS COURT MET IN "EMERGENCY" CALLED MEETING WITH THE FOLLOWING OFFICERS AND MEMBERS PRESENT, TO WIT
JOHN P THOMPSON COUNTY JUDGE, PRESIDING
B E "SLIM" SPEIGHTS COUNTY COMMISSIONER PCT#1, R R "DICK" HUBERT, COUNTY COMMISSIONER PCT#4, AND BARBARA MIDDLETON, COUNTY CLERK, THE FOLLOWING AGENDA ITEMS, ORDERS, AND DECREES WERE DULY HAD, CONSIDERED, & PASSED

1 WELCOME & CALLED TO ORDER BY JUDGE JOHN P THOMPSON AT 9 00 AM JOHN McDOWELL, EMERGENCY MANAGEMENT COORDINATOR, FOR POLK COUNTY, PURPOSE OF THE MEETING WAS STATED & DISCUSSION WAS HELD, WITH THE TEXAS FOREST SERVICE REPRESENTATIVE

2 MOTIONED BY R R "Dick" HUBERT, SECONDED BY B E "Slim" SLEIGHTS TO APPROVE "ORDER" TO BAN THE USE OF CERTAIN (AERIAL) FIREWORKS, IN UNINCORPORATED AREAS OF THE COUNTY (uness such use meets provisions stated within said "Order"), AND ALLOWING FOR THE PROVISION FOR JUDGE THOMPSON TO LIFT THE BAN IF SUFFICIENT RAINFALL OCCURS BEFORE JULY FOURTH (4th) HOLIDAY
ALL VOTING YES (SEE ATTACHED ORDER)

3 MOTIONED BY R R "Dick" HUBERT, SECONDED BY B E "Slim" SLEIGHTS TO ADJOURN COURT THIS 12th DAY OF JUNE 1998 AT 9 20 AM
ALL VOTING YES

John P Thompson
JOHN P THOMPSON, COUNTY JUDGE

ATTEST
Barbara Middleton
BARBARA MIDDLETON, COUNTY CLERK

VOL 44 PAGE 468

POLK COUNTY, TEXAS

ORDER RESTRICTING USE OF FIREWORKS IN UNINCORPORATED AREAS OF POLK COUNTY

On June 12, 1998, first having determined that the normal danger of fire in the unincorporated areas of Polk County is greatly enhanced by the extremely dry conditions now existing, and upon the recommendation of the Texas Forest Service that the Keetch-Buram Drought Index is 658, indicating extreme fire conditions The Commissioners Court adopted the following order effective immediately

I

A. No person may detonate, ignite, or in any way use certain aerial fireworks in any portion of the unincorporated area of Polk County, except for the location listed below

B A person commits an offense if the person knowingly or intentionally violates a prohibition established by this order An offense under this order is a Class C Misdemeanor

C Fireworks means only those items classified under 49 CFR, PAR 173 100 (r) (2) (10-1-86 addition), as *"skyrockets with sticks and other pyrotechnic devices that have fins or rudder for the purpose of achieving aerodynamic flight, including devices that would be considered a missile or a rocket"*

II

A. A person commits an offense if he or she intentionally, knowingly, or recklessly detonates, ignites, or in any way uses fireworks on a county road or in the right-of-way on a county road

B If the landowner's permission is obtained prior thereto, persons may detonate, ignite or use fireworks on private property in unincorporated areas of the county, as long as

1 The person using the fireworks is not intoxicated as defined in Vernon's Ann. Civ St Art. 67011-1(a)(2),

2 Reasonable precautions are taken concerning proximity to structures and flammable vegetation,

3 Children are adequately supervised by adults,

4 Water is readily available for extinguishing fires

C An offense under this Order is a Class C Misdemeanor punishable by a fine up to $500 00

1 As soon as possible, a duly commissioned peace officer shall be sent to the scene to investigate the nature of the violation

2 If in the opinion of the officer at the scene and/or the Fire Chief, the goal of the order can be attained by informing the responsible party about the prohibitions established by this order, the officer may, at his/her discretion, notify the party about the provisions of this order and request compliance with it In such instances, an entry of this notification shall be made into the dispatcher's log containing the time, date, and place of the warning, and the name of the person receiving the warning

APPROVED THIS THE 12th DAY OF JUNE, 1998, BY A SPECIAL HELD MEETING OF THE POLK COUNTY COMMISSIONERS COURT

John P. Thompson

John P Thompson, County Judge

COMMISSIONERS COURT POLK COUNTY TEXAS

Filed in the Office of the County Clerk

Barbara Middleton

Barbara Middleton, County Clerk

June 12, 1998

Date

Mallon

Drought Index

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KBDI Projection for July 4,1998

Station Location	Initial KBDI 5/23/98	Reference Table	Previous KBDI	High Temp	Rainfall	Adjustment Factor	New KBDI
North Texas							
Abilene	416	2	363	93		96	459
Corsicana	424	3	473	94		120	593
DFW Airport	424	3	316	94		144	460
Denton	424	3	497	95		120	617
Longview	432	4	577	93		98	673
Lufkin	432	3	531	91		144	675
Mineral Wells	424	3	329	93		168	497
Paris	424	4	535	90		96	631
Terrell	424	3	472	93		120	592
Texarkana	432	4	467	87		120	587
Tyler	432	4	453	92		144	597
Waco	424	3	467	95		144	611
Wichita Falls	416	2	391	94		168	559
West Texas							
Amarillo	520	2	587	91		48	635
Childress	416	2	514	102		144	658
Dalhart	520	1	564	87		48	612
El Paso	800	1	800	91		0	800
Lubbock	520	1	559	95		72	631
Fort Stockton	800	1	774	101		25	799
Marfa	800	1	800	88		0	800
Midland	520	1	587	98		72	659
San Angelo	656	2	555	98		96	651
Wink	800	1	800	97		0	800
South Texas							
Alice	712	2	738	100		24	762
Austin	512	3	528	97		120	648
Beaumont	512	4	644	90		72	716
Brownsville	696	2	716	93		24	740
Burnet	856	3	573	95		72	645
College Station	432	3	574	95		72	646
Conroe	432	4	638	91		72	710
Corpus Chrsti	512	3	606	92		72	678
Cotulla	712	2	717	105		24	741
Del Rio	656	1	579	101		48	627
Galveston	512	4	500	88		120	620
Hondo	512	2	610	102		72	682
Houston	512	4	586	92		120	706
Huntsville	432	4	654	94		72	726
Junction	656	2	648	98		72	720
Kingsville	712	2	735	98		24	759
Laredo	712	2	750	104		24	774
McAllen	696	2	728	97		24	752
New Braunfels	512	3	599	96		72	671
Palacios	512	4	625	90		72	697
Rockport	512	3	593	90		72	665
San Antonio	512	3	614	97		72	686
Victoria	512	3	620	92		72	692

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TEXAS FOREST SERVICE
WEATHER OBSERVATION FORM

Date	6/11	6/12	6/13	6/14	6/15	6/16	6/17
State of weather	2						
Temperature	955						
Humidity	45						
10-hour sticks	3.7 1						
Wind direction	180						
Wind speed	18.6						
Human-caused risk							
Maximum temp	97.0						
Minimum temp	76.8						
Maximum humidity	100						
Minimum humidity	42						
Rain duration	0						
Rain amount	0						
Morning LAL	1	1	1	1	1	1	1
Yesterday's LAL	1	1	1	1	1	1	1
Herb. green factor	46.5						
Woody green factor	131.0						
Season code							
KBDI	658						
IGNITION COMPONENT	41.9						
SPREAD COMPONENT	24.0						
BURNING INDEX	47.9						
CLASS DAY	IV						

TEXAS FOREST SERVICE
WEATHER OBSERVATION FORM

Date	6/4	6/5	6/6	6/7	6/8	6/9	6/10
State of weather	2	2	1	0	2	2	1
emperature	95.9	92.1	73.2	83.1	91.6	92.8	95.7
lumidity	48	72	100	88	91	77	62
0-hour sticks	4.5	8.9	13.2	4.0	4.2	3.0	1.9
ind direction	180	135	0	90	180	180	180
ind speed	16.8	6.8	10.0	6.6	18.6	13.6	17.2
uman-caused risk							
ax mum temp	98.4	97.7	95.5	83.5	92.7	95.7	97.2
inimum temp	79.2	78.8	67.3	60.8	70.0	76.6	77.9
aximum humidity	100	100	100	100	100	100	100
inimum humidity	42	45	51	86	78	71	45
ain duration	0	1	4	0	0	0	0
ain amount	0	.02	1.32	0	0	0	0
orning LAL	1	1	1	1	1	1	1
esterday's LAL	1	1	1	1	1	1	1
erb green factor	7.0	10.5	19.0	11.1	13.8	10.2	7.5
ody green factor	122.6	123.5	127.6	129.8	131.2	131.8	131.0
eason code							
KDI	724	728	623	627	634	642	650
IGNITION COMPONENT	36.5	10.6	0.6	9.2	9.6	17.0	34.6
SPREAD COMPONENT	21.3	6.3	1.7	5.9	18.8	14.1	20.9
BURNING INDEX	44.0	20.2	6.1	21.8	33.9	34.4	45.6
CLASS DAY	IV	II	I	II	II	III	IV

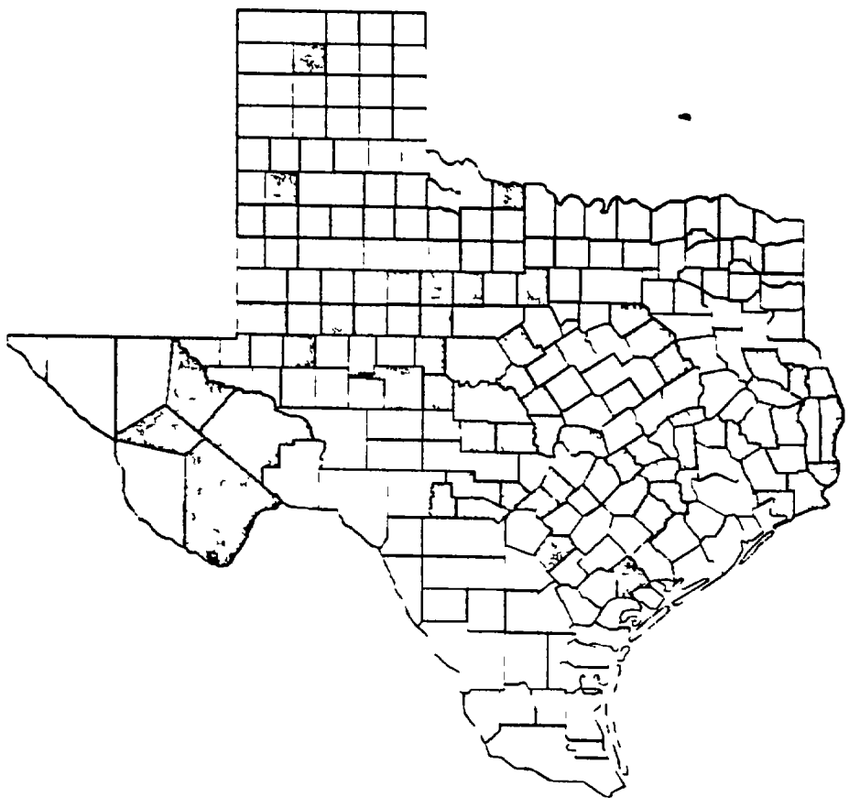
June 8,1998

TEXAS FOREST SERVICE
The Texas A&M University System

Contact Mahlon Hammetter 409-639-8100

Outdoor burning bans by county

County burning bans are established by County Judges and/or County Commissioners Courts The Texas Forest Service is tracking the bans as a public service



Andrews
Angelina
Austin
Bandera
Bastrop
Brewster
Burnet
Caldwell
Chambers
Colorado
Comal
Comanche
Concho
Ellis
Fayette
Fisher
Freestone
Grimes
Hardin
Haskell
Hays
Howard
Jeff Davis
Jefferson
Jones
Kendall
Kerr
Lamb
Lampasas
Lee
Liberty
Llano
Madison
Mason
Midland
Mills
Mitchell
Moore
Nacogdoches
Navarro
Newton
Nolan
Orange
Palo Pinto
Pecos
Polk
Real
Reeves
Runnels
San Augustine
San Jacinto
San Saba
Shackelford
Taylor
Tom Green
Tyler
Victoria
Walker
Washington
Wichita
Williamson
Wilson

Keetch - Byram Drought Index - KBDI

The Keetch-Byram Drought Index (KBDI) is basically a mathematical system for relating current and recent weather conditions to potential or expected fire behavior This system was originally developed for the southeastern United States and is based primarily on recent rainfall patterns

The KBDI is the most widely used drought index system by fire managers in the south. It is also one of the only drought index systems specifically developed to equate the effects of drought with potential fire activities

The result of this system is a drought index number ranging from 0 to 800 that accurately describes the amount of moisture that is missing A rating of zero defines the point where there is no moisture deficiency and 800 is the maximum drought possible

These numbers correlate with potential fire behavior as follows

0 - 200 Soil and fuel moisture are high Most fuels will not readily ignite or burn However, with sufficient sunlight and wind, cured grasses and some light surface fuels will burn in spots and patches

200 - 400 Fires more readily burn and will carry across an area with no "gaps" Heavier fuels will still not readily ignite and burn. Also, expect smoldering and the resulting smoke to carry into and possibly through the night

400 - 600 Fire intensity begins to significantly increase Fires will readily burn in all directions exposing mineral soils in some locations Larger fuels may burn or smolder for several days creating possible smoke and control problems

600 - 800 Fires will burn to mineral soil Stumps will burn to the end of underground roots and spotting will be a major problem. Fires will burn thorough the night and heavier fuels will actively burn and contribute to fire intensity

Relative Terms

Available Fuels - That portion of the total fuel that actually burns

Burning Index - A numerical measurement of the difficulty of fire containment Based on spread component and fire intensity

Drought Index - A number representing the net effect of evaporation, transpiration, and precipitation in producing cumulative moisture depletion.

Fire Danger Rating - The process of evaluating fire danger that integrates the effects of selected factors into one or more qualitative or numerical indices to express current danger or protection needs

Fire Intensity - The rate of heat release from an entire fire at a specific point in time

Fuel Moisture - The amount of water in a fuel, expressed as a percent of the oven-dried weight of that fuel

Fuel Type - An identifiable association of fuel elements of distinctive species, form, size, arrangement, or other characteristics General fuel types are grass, brush, timber, and slash

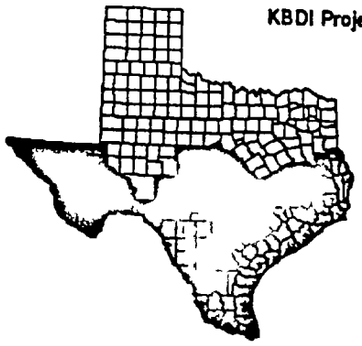
Ignition Component - A rating of the probability that a firebrand will cause a fire requiring suppression action. It is calculated using air temperature, shading, fuel moisture, fuel temperature, wind, slope, and fuel type

Man Caused Risk - A numerical rating of the potential occurrence of a person-caused fire requiring suppression action per million acres

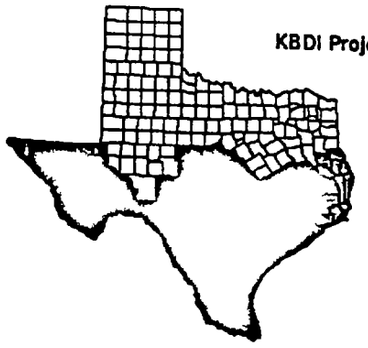
Rate of Spread - The relative activity of a fire in extending its horizontal dimensions It can be expressed as a rate of increase for the total perimeter of the fire, as a rate of forward-spread for the fire front, or as a rate of increase in area It is usually expressed as a rate in chains or acres per hour

Spread Component - A rating of the forward spread of a fire front expressed in feet per minute

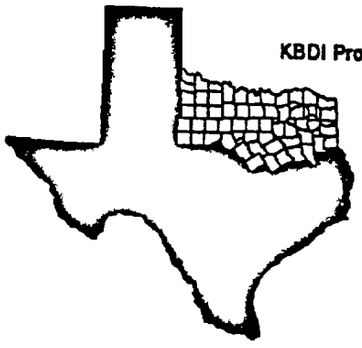
KBDI Projection for June 3, 1998



KBDI Projection for June 8, 1998



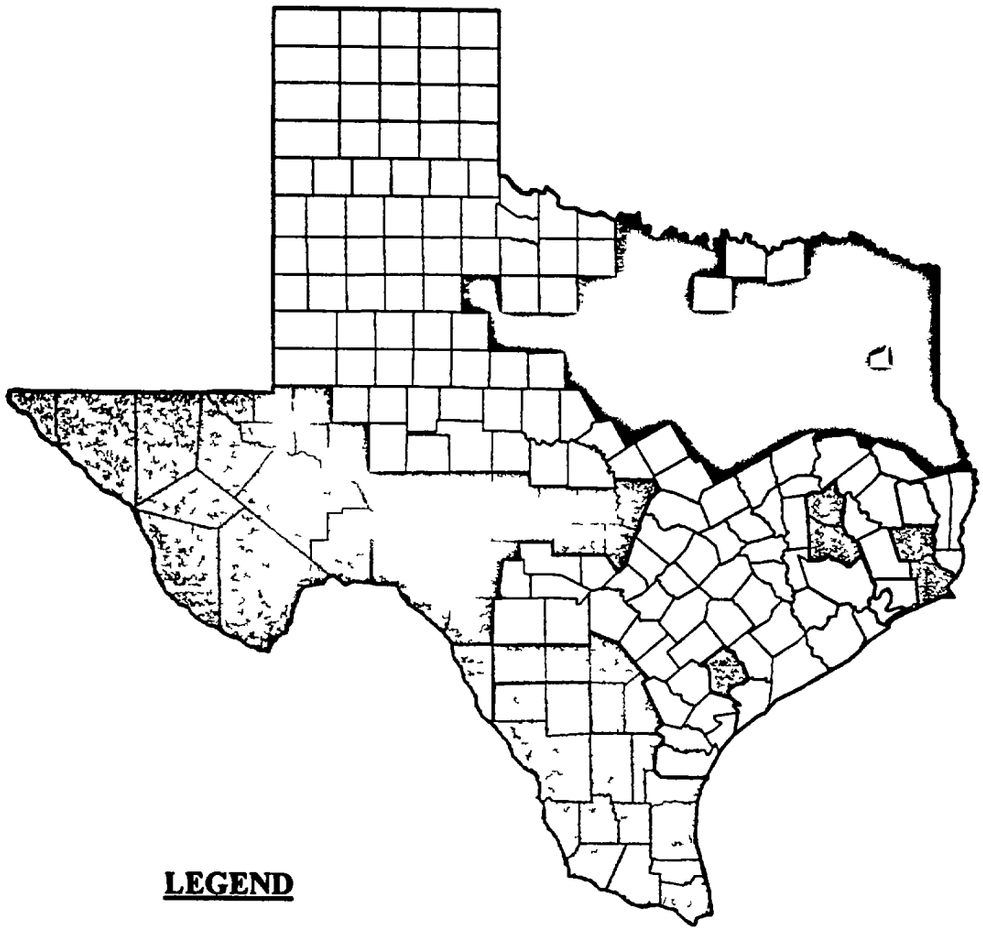
KBDI Projection for June 13, 1998



400-600 KBDI Projected

600 + KBDI Projected

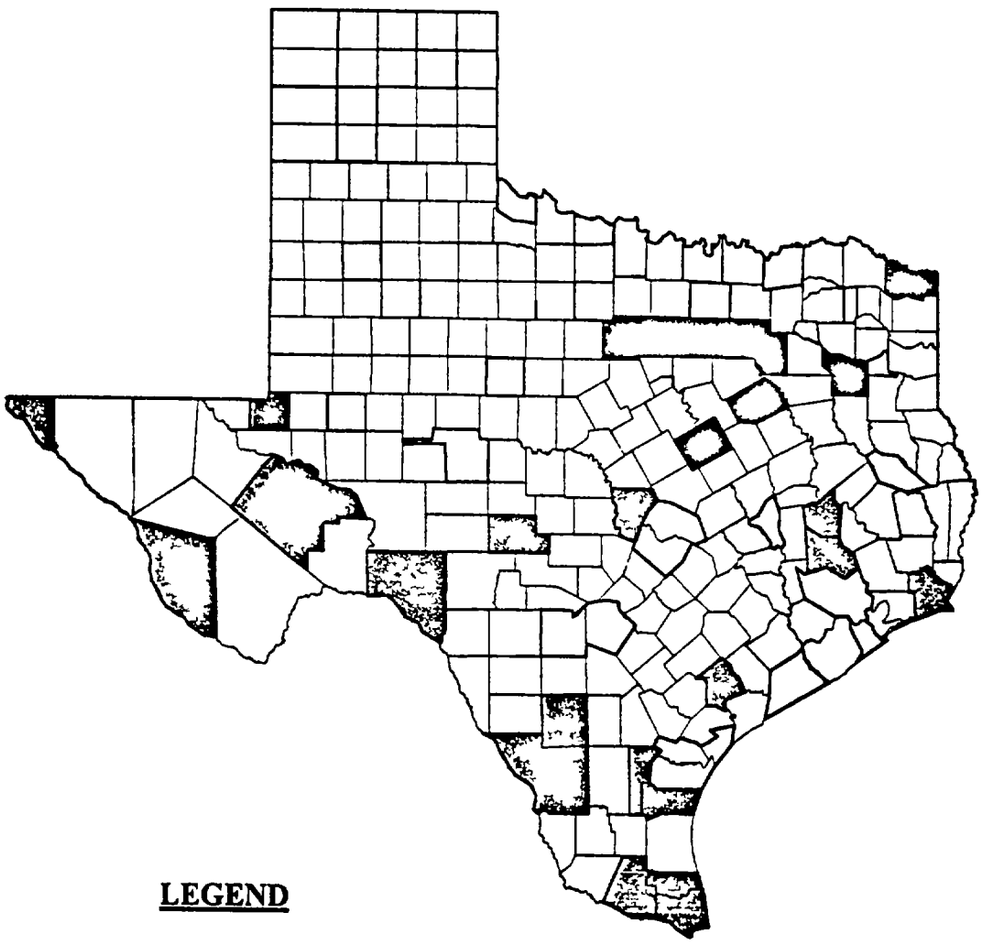
Keetch-Byram Drought Index Summary
June 7, 1998



LEGEND

Map Color	KBDI
	> 700
	> 600
	> 500
	> 400
	> 300
	> 200
	< 200

Keetch-Byram Drought Index Readings
June 7, 1998



LEGEND

Map Color	KBDI
	> 700
	> 600
	> 500
	> 400
	> 300
	> 200
	< 200

III FIRE BEHAVIOR ANALYSIS

Fire Behavior

Fire behavior characterizations are generally site specific Observed or calculated information about topography fuels, weather and fuel moisture are needed to make the most accurate assessments Assumptions for each of these factors are described below

Topography

The Initial Fire Risk Assessment Area (IFRAA) is dominated by rolling hills with interspersed valleys Elevations range from approximately 600 feet mean sea level (msl) to 2400 feet msl For purposes of fire behavior calculations we have assumed a 20 percent slope Several rivers including the Colorado Llano Pedernales Guadalupe Frio Sabinal Blanco Cibolo and Medina bisect this area All aspects are represented within this area

Fuels

Fuel models utilized in making these predictions are as described by Hal E Anderson in the publication "Aids to Determining Fuel Models for Estimating Fire Behavior" (General Technical Report INT 122, April 1982) Calculations were made utilizing a combination of Fuel Model 6 (brush) and Fuel Model 3 (grass) Fuel Model 6 may over predict at winds less than 20 miles per hour but provides the best fit at this time

Fuel Moisture

In order to best characterize the fuel moisture conditions throughout the IFRAA it was necessary to average fuel moistures from various fire weather stations Moisture estimates were made for 1 hour (< .25" diameter) 10 hour (.25 1 diameter) and 100 hour (1 3 diameter) time lag fuels The Balcones automated weather station was utilized as a verification site for these calculations

Keetch-Byram Drought Index

The Keetch Byram Drought Index (K BDI) is a soil/duff drought index that ranges from 0 (no drought) to 800 (extreme drought) and is based on a soil capacity of 8 inches of water Factors in the index are maximum daily temperature daily precipitation antecedent precipitation and annual precipitation

K BDI = 0 -400	Soil moisture and large class fuel moistures are high and do not contribute much to fire intensity Typical of late spring dormant or early growing season Lower litter and duff layers are drying and beginning to contribute to fire intensity
K BDI = 400 -600	[illegible] contribute to fire intensity and [illegible]
K BDI = 600- 800	Often associated with more severe drought with increased wildfire occurrence Intense deep burning fires with downwind spotting can be expected Live fuels can also be expected to burn actively at these levels

Fire Behavior

Calculations for rate-of spread (ROS in chains per hour and feet per minute) flame length (FL in feet) probability of ignition (PI in percent) and spotting distance (SPOT in miles) were made using BEHAVE version 4 3 Direct Spot and Ignite modules Calculations are made as a worst case scenario and are intended to serve as an indication of difficulty of control for suppression forces and to reinforce safety considerations (10 STANDARD FIRE ORDERS and 18 WATCH OUT SITUATIONS)

Predictions

K BDI 0—400

Unplanned ignitions should be at or near normal The current level of fire protection will be able to respond to and suppress fires that occur within these parameters General knowledge of fire behavior will be adequate to assess the situation and develop attack plans Most fires should be able to be controlled on initial attack Minimal mop up will be required

ROS 20 100 chains per hour 22 110 feet per minute
FL 3 15 feet
PI <40%
SPOT Short Range (should not be a factor)

K BDI 400-600

Unplanned ignitions and the difficulty of control will increase through this range Ignitions that occur at the upper limits of K BDI will quickly exceed local capabilities and may require extended attack Local suppression forces will be stretched thin and outside resources may be required As the K BDI approaches the upper limits most ignitions will require indirect attack. Consideration should be given to establishing a Fire Behavior Service Center" (FBSS) Texas Forest Service personnel that have knowledge of local fuels weather and topography should staff this center This center could also serve as a collection point for fire weather information and dissemination As the K BDI approaches the upper limits it might be advisable to have a Fire Behavior Analyst (FBAN) stationed at the center Heavier fuels will become involved increasing intensities and fires will burn deeper into the duff layer Both of these factors increase the mop up requirements and thus the length of time fire crews will be required to remain on the scene

ROS 50- 150 chains per hour 33 165 feet per minute
FL 5 20 feet
PI 40- 60%
SPOT Medium Range (4 to 6 miles with 20 foot winds in excess of 20 mph)

K BDI 600--800

Nearly all unplanned ignitions will require an extended attack Erratic fire behavior including long range spotting will occur Local suppression forces will be exhausted and the number of ignitions may exceed their ability to provide adequate initial attack Nearly all ignitions will require indirect attack. In addition to the FBAN at the FBSS it may be necessary to assign analysts to individual incidents It may also be appropriate to position a Fire Weather Meteorologist at the FBSS Aerial fuels will be cured and will easily become [illegible] opportunity for reburn will increase [illegible] pre heat the aerial fuels. This condition is especially critical in the Texas Hill Country More extensive mop up will be required to minimize the possibility of a rekindle Conditions will be such that most fuels will be consumed leaving bare mineral soil

ROS 65 200 chains per hour 39--220 feet per minute
FL 7 25 feet
PI >60%
SPOT Long Range (6 to >10 miles)

Fire Behavior Conclusion

The K BDI serves as a good indicator of large fuel conditions As the K BDI increases these larger fuel classes add to the fire intensity difficulty of control and mop-up considerations These heavier fuels may be minimally affected by a rain event Fuel moistures in the fine fuels (1 hour and 10-hour time lag) will vary daily with environmental conditions (wind temperature relative humidity and solar radiation) Extreme fire behavior can be experienced at any point above 400 K BDI but will become more critical at the upper ranges When all classes of fuels become critically dry firefighter and public safety considerations become paramount Fuel moistures will fall well below that of kiln dried lumber Daily fire weather information and fire behavior predictions will be required to help fire managers and suppression forces plan their attack Information dissemination to agency management staffs the public and fire suppression forces must be accurate and delivered in a timely manner This includes fuel and burning conditions Fire Weather Watches and Warnings fire occurrence fire prevention and fire suppression activities

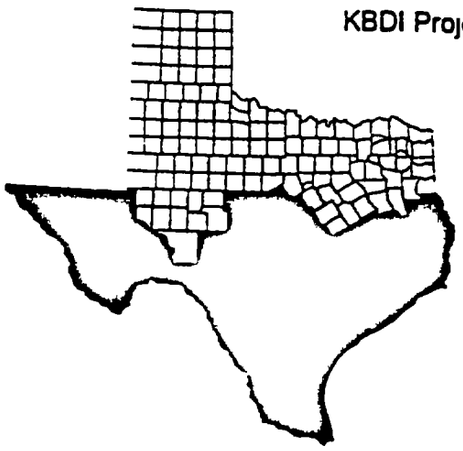
IV PREDICTED FIRE RISK

The following maps showing the projected K BDI indices were calculated from existing data on May 28 1998 These calculations were based on the presumption that no significant rainfall would occur in the interim period If significant rainfall does occur these predictions will change

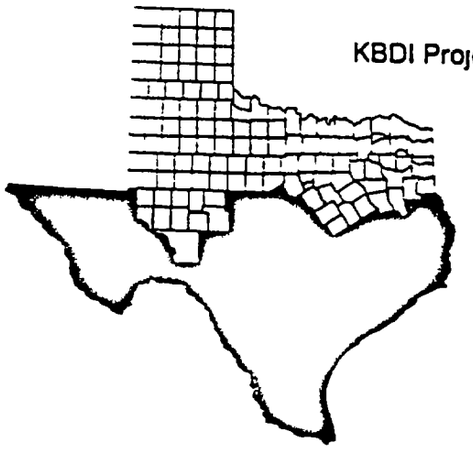
June 3 1998 – The average range of K BDI is between 400-600 for north and west Texas The exception to this is west Texas where areas around Wink and El Paso will be at 800 South Texas indices will range from 515 (College Station) to 732 (Laredo)

June 13 1998 – Although northeast Texas is displayed in the range of 400-600 the index is closer to 600 for most of the locations reporting from this area

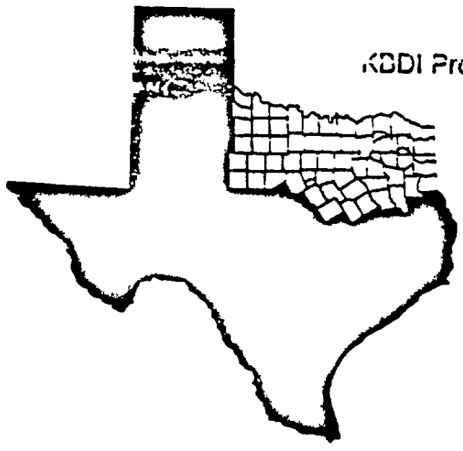
KBDI Projection for June 3, 1998



KBDI Projection for June 8, 1998



KBDI Projection for June 13 1998



400-600 KBDI Projected

600 – KBDI Projected

V PROPOSED ACTION

Fire activity that exceeds local government s initial response capabilities, along with K BDI categories will be factors to consider when placing additional resource requests

K-BDI 0 – 400 (Low to Moderate Fire Danger)

At these fuel moisture levels the current level of fire protection should be able to function using existing staffing and equipment Fire intensity and control difficulty would be within the norms expected for the area and time of year Local resources while they would be stretched more as the K BDI approaches the 400 level should be adequate for the effort needed to suppress most of the wildland fires that would occur

Most of the wildland fires would be small and suppression efforts would be of short enough duration that existing resources would not be over loaded Current mutual aid agreements appear to be sufficient to fill in behind fire resources as they are dispatched to ongoing incidents

Considerations of firefighter and civilian safety would be those normally taken by the fire suppression agencies and would prove adequate for the task at hand

All these activities could adequately be addressed by the existing fire suppression organization However as the K BDI increases and approaches the 400 mark fire suppression personnel must be aware of additional safety requirements and potential containment/control problems Standard fire fighting procedures may not be the norm as the K BDI approaches this level

K BDI 400 – 600 (High Fire Danger) & K BDI 600+ (Extreme Fire Danger)

With K BDI at these levels and/or fire activity that exceeds the area s initial response capabilities the following items may be considered or acted upon

It is important to remember that there is a time lag between when an order is placed for state resources and when the ordered resources arrive on the incident This must be factored in when making plans to increase the resources available for use At the K BDI 600+ level the Texas Forest Service the Division of Emergency Management and other appropriate state agencies should be involved in the planning process

Consider the need for daily or more frequent fire weather forecasts These can be made available through the Texas Interagency Coordination Center (TICC) the National Weather Service or through other sources This information should be distributed to all agencies possibly involved in the wildland fire suppression efforts

Aerial detection for the fire prone area should be considered These aerial resources can be used as needed for init l size p ot incidents and reconnaissance of on going fires &

Staging Areas

As K BDI increases through these two levels and/or fire activity exceeds the area s initial response capabilities it is recommended to delineate and establish Staging Areas to accommodate suppression resources These areas should be established and operated to facilitate the expedient dispatch of resources to on going incidents The number of these is not as important as the location However it is not necessary to saturate the entire area with Staging Areas but only locate those where the resources can be best accommodated and where they can be most readily dispatched In addition the resources in these areas must be supported while they await dispatch Night operation of these facilities should be contemplated and arrangements made for this eventuality These areas need to be of sufficient size to safely accommodate the anticipated resources using the area