

West Region Wildfire Council
Meeting Minutes
3/12/15

Meeting Attendance

	Last Name	First	Affiliation
1	Angell	Don	Montrose County
2	Barth	Chris	BLM
3	Beckhardt	Dave	Log Hill Fire
4	Bennett	John	Telluride Fire
5	Berg	Eric	SMC SO
6	Blair	Patrick	USFS
7	Brantingham	Eric	USFS
8	Chavez	Thad	USFS
9	Comer	Shad	Camouflage Cutters
10	Dinsmore	Jennifer	San Miguel County
11	Ellis	Steve	DFPC
12	Falk	Lilia	WRWC
13	Garreffa	Nick	Arrowhead Fire
14	Gelsomini	Jim	Arrowhead Fire
15	Gomez	Jamie	WRWC
16	Hibl	Dave	Montrose County Sheriff's Posse
17	Homstad	Kelly	BLM
18	Isle	Steve	Arrowhead Fire
19	Jensen	Mike	Independence Wood Products
20	Jensen	Darrel	Independence Wood Products
21	Latta	Trevor	OFPD
22	Lippert	Tricia	Aspen Ridge Ins.
23	McCarthy	Jim	Log Hill Village HOA
24	Morrill	Scott	Gunnison
25	Mueller	Ted	Norwood Fire
26	Oak	Josh	USFS
27	Odom	Luke	DFPC
28	Pankratz	Sam	CSFS
29	Petersen	Drew	Colorado OEM
30	Rice	Frank	USFS
31	Ripper	Eric	Camouflage Cutters
32	Robison	Corey	USFS
33	Rogers	Kelly	CSFS

34	Shelby	Austin	CSFS
35	Staehle	Alan	Ouray FPD
36	Tisdell	Ben	Ouray County
37	Tledje	Bill	Ouray County Plaindealer
38	Wright	Jeff	Delta County

Objective/Purpose

The Council gathered to discuss the following:

Introductions

Lilia Falk facilitated the meeting and initiated a round of introductions.

Approval of Minutes

The Minutes from February’s meeting were approved as written.

Presentation from Dr. Thomas A. Jeffery, Chief Hazard Scientist with CoreLogic

Jamie Gomez started out the presentation by explaining that, a few years ago, the WRWC invited a panel of insurance agents and brokers to speak about their experience with wildfire and homeowner’s insurance. One of the topics that was discussed at that meeting was related to nearly all of the different insurance providers are client’s of a company called CoreLogic, which supplies wildfire hazard data and analytics. Jamie contacted CoreLogic after that meeting shortly after that meeting and Dr. Jeffery was gracious accept a speaker invitation to the March meeting.

You may view a copy of Dr. Thomas A. Jeffery’s presentation by clicking on or copying and pasting the following link: <http://goo.gl/1B4OIP>

Dr. Thomas Jeffery explained that he has over two decades of experience in wildfire hazard analysis and has been working, in collaboration with others, on a wildfire risk model for approximately 11 years. Dr. Jeffery explained that the company that he was originally involved with was eventually purchased by CoreLogic. Dr. Jefferey has an extensive background in the academic arena and enjoys his role as a scientist in the realms of knowledge creation and distribution.

Dr. Jeffery explained that any scientist that claims that their model is perfect and without error is either a fool or liar. With that said, Dr. Jeffery feels confident in saying that the model that he has helped to develop over the last 11 years is about 96-97% accurate.

Dr. Jefferey explained that looking at wildfire in Colorado between 2002 and 2014, it is difficult to discern a trend as to the number of fires and the number of acres burned. However it appears that, generally speaking, the number of wildfires may decreasing while the amount of acres burned (per year) may be increasing.

With regards to wildfire modeling, Dr. Jeffery is most concerned with how wildfire affects human beings and their properties. The main questions are, what is the risk on the property? And, what is the risk near the property? To start answering these questions, the research team that Dr. Jeffery works with decided to use a 30 meter grid cell to geospatially analyze the entire country. Each square cell, measuring 30 meters by 30 meters (900 sq. meters) is assigned a wildfire risk rating

based on a variety of factors. For perspective, 6 square cells would cover a football field. The four main factors that are assessed on each grid cell are (1) Vegetation / Fuels, (2) Composition Class, (3) Aspect and (4) Slope.

Slope is assessed as a separate entity. Generally speaking, the heat release associated with increasing steeper slopes results in fires that burn increasingly hotter. Aspect information was derived from USGS data. Generally speaking, south facing aspects are drier and more prone to fire. Surface composition is a challenging factor to assess due to a lack of high quality historical data regarding the historical fires and the change of vegetation over time. With that in mind, the Rocky Mountain Research Station has worked to develop a compositional layer which provides some information about the change over time of plant species composition. This layer acts as a “substitute for knowing the true history of the area”. Historic fire perimeter data and analysis of fire return cycles play a big role in this component of overall risk analysis. Finally, the model looks at vegetation (aka fuels). While Google Earth images provide some great perspective, there are limitations to this kind of imagery. This model utilizes Landsat, multi-spectral and infrared to determine the type of vegetation and the biomass of that vegetation. Each species or species risk is given a risk rating and the satellite data is used to determine what species or species mix is present at a particular site.

After acquiring data on each of these four main factors of risk, it is critical that the model adjusts or corrects for the relative influence of each of these factors. This is necessary because the vegetation component is significantly more important than the aspect component and should not be weighted equally. Once these corrections, or weightings were completed, they tested the data against historical burns.

Dr. Jeffery explained that the risk categories (low, moderate, high, very high) were based on statistical breakpoints.

Dr. Jeffery went on to discuss how the science that was beginning to emerge related to home ignition required them to take in to account, in to their model. At the Waldo Canyon fire, a report came out which stated that approximately 55% of the homes that were burned were ignited by windblown embers (firebrands). Therefore, it has become necessary to ask the question: How far from a particular property is the nearest high risk wildland area? So, the final wildfire score calculation takes in to account the influence of windblown embers by tabulating the property’s proximity to the nearest high risk wildland area.

When Dr. Jeffery first developed the wildfire model risk, he developed some potential “Potential Wildfire Risk Buckets”. Because each property is given a score of between 0-100, they lumped those properties with a score of 0-49 as “Acceptable Risk”, 50-59 as “Send to underwriter”, 60-79 as “Inspection Required” and 80+ as “Do Not Write”. However, when he presented this to insurance industry insiders, they told him that he had it all wrong. In the end, it is the last group, the 80+ wildfire risk score properties, that the insurance industry is most interested in working with because this is the part of the overall market that has the most potential growth. Dr. Jeffery is now referring to this group as “Do Not Write Without Mitigation”. He went on to describe a case study of the Black Forest Fire where all of the 478 homes that were affected had a total score of 78 or more about 97% had a score of 81 or more.

Dr. Jeffery ended his presentation by noting the importance of proactive measures that people and communities can take to reduce wildfire risk. Mitigation, according to Dr. Jeffery, is the answer to a lot of our problems and can have multiple beneficial effects.

Jamie opened up the meeting to a question and answer period:

Chris Barth asked about how the “Potential Wildfire Risk Buckets” were determined? Dr. Jeffery explained that he has had limited success acquiring loss data from insurance providers and thus the majority of the information that was used was based on about 250 fires of 40+ acre size. He noted that the categories themselves are arbitrary.

Sam Pankratz asked about whether or not home construction (roofing, siding, decking, firewood, etc.) has played a role in the wildfire risk model? Dr. Jeffery explained that CoreLogic recently purchased a company that has some home characteristic data. At this point, their model does not take these home characteristics in to account when developing a wildfire risk rating, however this may change in the future. Dr. Jeffery believes that this may be the next frontier for their research and modeling efforts.

Jim Gelsomini asked whether CoreLogic is involved in other hazard data analytics, such as wind or hail risk? Dr. Jeffery explained that CoreLogic is involved with just about every type of risk data including wind, hail, earthquake and flood. Each CoreLogic client may choose to purchase this data these products separately and he is not sure if or how insurance providers may or may not be using these separate data sets in combination. He went on to describe how there have been efforts to develop a comprehensive risk analysis, which would take in to account multiple forms of hazards and their associated risk potentials. While these efforts are interested, he feels that the outcome may muddy the water of the overall story.

Jim Gelsomini asked about who has access to the data and whether or not the West Region Wildfire Council might be able to access some of the data? Dr. Jeffery explains that numerous types of clients purchase CoreLogic wildfire risk data, including banks, oil and gas pipeline industry reps and others. The number one client remains the insurance industry. With regards to the second question, Dr. Jeffery said that he would follow up with Jamie to discuss the potential for data sharing, though he noted that CoreLogic is traditionally reticent to share data with anyone that is normally purchased.

Austin Shelby asked what has, in the past, spurred you to change the risk model? Can you give an example? Dr. Jeffery explained that most of the changes have been small and have mostly been around classification of species compositions. They have also made changes related to the weighting of slope and aspect, where slope has been given a heavier weighting.

Chris Barth asked about the how the slope component is calculated? Dr. Jeffery explained that slope is derived using GIS software where the slope is calculated from the center (centroid) of each grid cell to the next grid cell centroid. With regards to the exact break points for different slopes, Dr. Jeffery could not provide additional information, referring to those details as “the secret sauce”.

Lilia Falk asked how, if a property is mitigated, the CoreLogic data will reflect those changes? Dr. Jeffery explained that unless the mitigation project is of a significant size, their model will likely not reflect small changes. He continued by noting that his next goal would be to figure out a way to incorporate mitigation practices in to their model. While Dr. Jeffery does not have a lot of direct

contact with insurance companies, he does know that many of the these companies are taking mitigation seriously.

This concluded the Q&A period. Jamie thanked Dr. Thomas A. Jeffery for his excellent presentation and willingness to share his time and energy with our group.

Special Presentation

After a short break, Chris Barth asked the West Region Wildfire Council Steering Committee, including Austin Shelby, Scott Morrill, Steve Ellis and John Bennett as well as the WRWC Director, Lilia Falk and the WRWC Regional Mitigation & Education Coordinator, Jamie Gomez to come to the front of the room. On behalf of the National Association of State Foresters, Chris Barth presented the West Region Wildfire Council with the 2015 Wildfire Mitigation Innovation Award. More information about the National Association of State Foresters and this award can be found at: <http://www.stateforesters.org/mitigation>.

Special Presentation

Steve Ellis announced information regarding the Certified Burner Program. There will be 8 classes held across the state, including upcoming classes in Rifle, Salida, Montrose and Durango.

Jodi Rist announced several grant opportunities.

Drew Petersen announced upcoming ICS classes, including an upcoming one in Durango. More information is available on www.co.train.org.

Meeting Adjourned at 2:58 pm.
