

CA Fire Services Task Force on Climate Impacts

Meeting Minutes-**CONFIDENTIAL**

May 25, 2016

Present: Tim Ball (The Fireball Companies), Glenn Barley (Cal FIRE), Danjel Bout, (Cal OES), Jeff Bowman (Orange County Fire Authority), Christina Curry (Cal OES), JR DeLaRosa (CNRA), Brian Fennessy (San Diego Fire-Rescue), Robert Fenton (FEMA Region IX), Mark Ghilarducci (Cal OES), Richard Halsey (The California Chaparral Institute), Tracey Hansen (California Fire Chiefs Association), Emily Holland (Cal OES), Ken Kehmna (FIRESCOPE), Shawna Legarza (USFS), Mike Lopez (Cal Fire), Mark Lorenzen (Ventura County Fire Protection District), Michael McCormick (OPR) Nicole Meyer-Morse (Cal OES), Miriam Morrill (BLM), Carl Pennypacker (Lawrence Berkeley National Laboratory), Dave Roberts (El Dorado Hills Fire Department), Dave Rocha (Alameda County Fire Department), Reggie Salvador (Cal OES), Dave Teter (Cal Fire), Armando Viramontes (Lawrence Berkeley National Laboratory), Jason Weber (Marin County Fire Department), Brian Woodbeck (Cal OES), Brian Young (Orange County Fire Department), Kim Zagaris (Cal OES)

Next meeting: TBD

I. Welcome and Introductions (Mark Ghilarducci, Cal OES)

- Review/Approval of 2/10/16 minutes
 - Approved – no changes or edits.
- Action Item Review
 - Fire Service Task Force documents have been uploaded onto the Fire and Rescue Division tab of the Cal OES website: <http://www.caloes.ca.gov/Cal-OES-Divisions/Fire-Rescue> and choose “Fire Service Task Force on Climate Impacts” on the right-hand side.
- Extreme Weather NEMA workgroup update (Mark Ghilarducci)

Focusing on fire services related items. Overarching all hazards impacts are rising – sea level rise, severe weather in central U.S. – intensity of increase of hazards is putting emergency management on edge. How does Fed government look at disaster activities and their costs. Office of management and budget is looking to reduce the costs through disaster deductible programs. Putting more responsibility on the states. Insurance industry is involved as well – getting more claims from losses of homes and businesses. Climate change is getting more emphasis throughout the nation and even states that were skeptical before are starting to change their tune. How does the federal government look at these disasters that are increasing in incident and magnitude? NEMA asked Mark to chair a workgroup of state leaders and directors. Bringing together recommendations and work with FEMA and Department of the Interior on how to respond to the future events. NEMA represents the states and U.S. Territories.
- Update on Budget/Initiatives

Mark Ghilarducci - Governor recommended/budgeted enhancement in Cal Fires and Cal OES's budgets of fire engines and fire-related capabilities in line with Blue Ribbon Commission recommendations. \$10 million for replacement engines and \$10 million new engines as well as other capabilities to support that initiative and the mutual aid system, including augmentation of OES Fire and Rescue personnel to meet increasing demands. Funding to normalize disaster assistance and recovery teams. Make sure that FMAGs operate appropriately and effectively when an event goes to a federal disaster. Discussions on building a mitigation pilot program into FMAG allocations. If an FMAG is available a component of mitigation funds would be assigned which could be turned into fire prevention actions in communities. Assembly has passed Cal

OES's budget, Senate continues discussions. Getting phenomenal support from present stakeholders. One of the pillars of pushback in the Legislative Analyst's Office is that the Blue Ribbon Commission never provided the science of why we need additional fire engines. We just need to keep working on it to improve understanding. Trying to get performance metrics and a baseline of where we are at.

Jeff Bowman thanked Kim Zagaris for his work in making this process successful. We are having more fires so we need support for this from government officials.

Dave Teter - Department is looking very well. One proposal of the governor's budget – a request to implementing about \$4 million for a centralized dedicated program to identify areas where managers and supervisors need additional tools and training to make employees successful. Controversial on the labor issue. Been spending time with labor to convey what the program is and to enhance employees' rights to due-process. Met with support on the Assembly side, is held open on the Senate side. Department new generation helicopter improvement is approved – Asked for \$12 million to procure one helicopter and will test it to make sure it will be appropriate for the next 20-30 years to meet the state and Department's needs, primarily focusing on the wild land mission. Operational abilities for an all-risk application. Working with Department of General Services to complete a second bid with potential award with the start of the 2016/2017 fiscal year.

Shawna Legarza - Meeting with Secretary Vilsak? and Chief of Forest Services. Talked to the Chief on the importance of having a budget allocation for Forest Service. Need money to pay for fire programs. Previously had to take money from other departments to pay for fire. All staffed up for this season.

Dave Teter – Peak staffing next month. Seasonal workforce only allowed to work nine months, then are required to have a 90 day break. Recently given additional funding for a fourth firefighter. All helicopters are ready and approved for water dropping. Air bases will be fully staffed by the third week of June. One large, exclusive-use next generation air tanker in Paso Robles for retardant dropping. Second large air tanker in Chico and a V-lap DC10 at McClellan. 10 staff helicopters, three additional exclusive use helicopters, two type 2s – one in Auburn and one in Fresno. Type 1 heli-tanker in Paso. These will all be available from the 3rd week of June through November.

Mark Ghilarducci – Still in a drought situation. We had a somewhat normal winter in the north but in Southern California had the same conditions as last year.

Dave Teter – Over weekend two timber fires in Shasta and Siskiyou. Average winter in northern California but deficit of water is seen in the fuels, with bumper grass crop.

Bob Fenton – Pilot discussion attached to FMAGs - Budget looks healthy. \$1 billion for salaries. \$2.57 billion for grants including \$608 million for fire grants. \$100 million for pre-disaster mitigation. \$7.34 billion for disaster relief funds. Majority of funding for mitigation is tied to disasters. California is a participating state with a State Hazard Mitigation Plan that gets us 20% of public assistance funds. As burn teams look at impacts of the watershed, they were able to use mitigation money for projects to treat the watershed. Normal mitigation program continues. Notice of interest closes in June. Expecting more projects than funding. Working with Cal OES to prioritize. Environmental clearance takes time. Criteria for FMAG has not changed from last year.

Kim Zagaris – Received first FMAG request this month. Not close to cumulative yet but getting closer.

II. Tree and Mortality Task Force Update (*Glenn Barley, Cal Fire*)

Mark Ghilarducci – Governor did an executive order for a state of emergency associated with our tree die-off. Set myself and Chief Pimlott to co-chair this very successful task force.

Glenn Barley – Had identified six priority counties, Kern to Tuolumne counties. These are where they are starting because the problem is so significant there. Put four counties into a transitional status - Calaveras, Amador, Placer, and El Dorado that are forming their own task forces. Counties have declared their own local emergencies. Want to see where mortality is in relationship to priority counties. Seeing mortality across California including Lassen, Modoc, Shasta, and south-central coast. Cal fire is purchasing equipment, about 40 pieces. Some is already working (chippers, air curtain incinerators, etc.) Looking for other options before burning. Working with local government partners to do tree-removal work, especially along critical infrastructure, roads, communication sites, public facilities, fire stations, police stations, schools, etc. Forest Services is working on removing trees on their lands including Sierra, Sequoia, and Stanislaus National Forests. Focusing on areas where life safety and assets are at risk. Cal Trans is working on the highways. Local government is removing trees outside the federal highway system. Issue of what to do with removed materials. Governor's proclamation to work with California Public Utilities System to keep bioenergy facilities working. Governor's office is involved. Working to move materials overseas, shipping logs to China. Coming in to fire season. Making agencies aware of life safety issues. Looking at evacuation preparation and planning. Making sure that local agencies are up to speed on their evacuation plans. Making sure Sheriffs are on board. Cal OES is involved in getting California Disaster Assistance Act funds to the counties. Up to about \$50 million in applications coming in. Pushing towards a FEMA declaration. Developing some numbers for this process. Numbers for 10-county area. Looking primarily at road systems and dead trees next to those systems. Have identified approximately 310 thousand trees. At about \$1200 per tree it will cost about \$390 million to remove trees next to roadways within the ten identified counties. Based on areas of know mortality, based on aerial surveys done by U.S. Forest Service. Seeing conditions that are similar to those in Madera, Mariposa, and Fresno Counties last year. Expecting that the mortality in those counties will be significant. Looking at how far it will continue to go. Drought persists in central Sierra so they are focusing more on that area. Drought in Southern California also persists.

Mark Ghilarducci – Many western states are experiencing drought and tree die-off. California is probably the most impacted state due to sheer volume of land. Fires in Canada caused Washington D.C. to focus on a potential increase in this issue. There is an effort to bring together a coalition of western states with Congress to address tree mortality in a broader way, possibly to put together an appropriation to address this issue.

Jeff Bowman – How long may it take to remove all the dead/dying trees? Issue is there are public and private lands. Fire safe councils working with property owners to remove trees on private lands. Use federal funds on federal lands. Cal Fire has proposed using grants to Fire Safe Councils. Asked for an additional \$6 million in the Governor's budget which will be able to provide grants to individuals to do mitigation projects on their lands. There are environmental concerns (NEPA). More discussion is needed.

Shawna Legarza – Did a flight with their staff so they should be getting more numbers. Prioritized with Cal Fire and local government the Tier 1 corridors - cutting trees down for evacuation routes, utility corridors, buildings, etc. where it affects us. Just cut down 67 thousand trees this week in tier one corridors that could affect public health and safety. What do we do with all the wood? Tapped into various recourses to help protect public health and safety - the Healthy Forest Restoration Act to have easier NEPA process, the Farm Bill with categorical exclusions so we can use their authorities. Witnessing a change in landscape in part of the western states. The Forest Services employees had 13 fatalities including 2 firefighter and one volunteer fatalities last year in California. Discussing safety hazards involved in cutting down trees. This is causing serious accidents to crews cutting down the trees.

Kim Z – Telling the legislature that we can't cut our way out of this problem. Need to protect fire crews when clearing trees.

Action Item to Shawna - As those updates occur it would be helpful to California's Fire Service if Tracy and the districts could put something out to all the chiefs in the state saying here are the current numbers, these are the risks associated with them. Perhaps send it to the FIRESCOPE Board.

Shawna – They have meetings every Monday where they report out the previous week's activities with tree removal.

In San Diego there are discussions about dead and dying trees, and how does this affect those communities. They are sending through Mutual Aid resources. There are places in the Sierra Nevada where there are no living trees over massive areas. At this time need to focus on evacuations. Firefighter level of awareness is critical.

Shawna – Meeting June 1-2 Incident Management Team at McClellan. Need to get a liaison for this group that is part of the incident management team. Regular conference calls take place Mondays, Thursdays, and Fridays at 8:00 am. Put this as a standing agenda item for the FIRESCOPE Board because all the stakeholders are represented in the Board?

Mark – Can someone from this group represent the committee and sit in on the calls?

Shawna – Incident Management Team was put together in December 2015. Looking at long-term strategy of management of the national forest. Tied into Cal Fire's tier 1 response. May be opportunity for Bureau of Land Management to get involved. BLM representative on the statewide task force right now.

Mark – What does forest management mean giving all these current conditions, how does the cascading roll-down affect us?

Cal Chiefs has a representative on the task force. Ask for a standardized template for the report-out? Then the information can be made available to this group as well as funneled back to FIRESCOPE.

Task force working on weekly update. Looking at doing monthly or quarterly update. Last year South Ops put out a fuels safety update that can go out to this group. With influx of new firefighters they may not have the experience with large timber stands and may not be aware of the dangers.

III. White House Update (*Patricia Blankenship, U.S. Fire Administration*)

Follow up to meeting on mitigating risk of wildland fire in the Wildland Urban Interface (WUI). This came from the administration's focus on climate change impacts on fire in the WUI. Fire models indicated that wildfire will continue to be longer/hotter/more severe and impose increased risk to communities across extensive areas in the future. There is a concern that geographic areas that don't currently have a history of wildfire might face it in the near future. White House press release and Executive Order indicate that the WUI is expanding on a daily basis. More land and more people threatened. To combat risk we need to increase understanding on how wildfires interact with communities, structures, rain, etc. Requires collaboration of people/agencies/orgs to enhance community resilience. Announced release of an Executive Order on WUI mitigation – leading by example. Mitigate wildfire risk to federal buildings in the WUI. Will apply to new building and alterations to existing buildings on federal land. Implementing guidelines will be developed by the Mitigation Framework Leadership Group representing over 39 agencies/jurisdictions represented at the meeting. Using a multi-scale collaborative approach. Vision statement from the National Cohesive Wildland Fire Management Strategy published in the briefing provided. Committed to safely and

effectively extinguishing fire when needed, using fire where allowable, managing natural resources, and as a nation, living with wildfire safely. Addresses three goals of the strategy – committed to advancing community resilience in the WUI, managing the adjacent landscape wisely, and continuing to improve efficiency of wildland fire response. Meeting: looking at WUI as multi-scale intergovernmental challenge. All lands, all hands, all levels of government need to work together to achieve resilience in the WUI. Spent some time defining the WUI problem and looking at trends. One of the big issues is using resources to address WUI fire response. We need to reduce the problem rather than put more resources to work to address the growing project. The way to achieve that is through better land use planning/zoning/codes. Discussed community engagement, risk management, and mitigation within the WUI. Want to achieve objective of community preparation. Another issue is that community development and land use planning are not always effective in working towards reducing the risk. Another issue is that we need to improve understanding smoke-tradeoff from prescribed fire. Looking at how to advance community resilience through multi-scale and collaborative approaches to these challenges. Challenged to reach out to non-traditional stakeholders like recreation, tourism, insurance industry, banking, utilities, hospitals, etc. Addressed increased complexity of fire response in the WUI. The main objective is to minimize the risk to first responders, communities, infrastructure, and cultural resources. Challenges is that impacts of the changing climate is increasing intensity of fire threat, length, intensity, public endangerment, etc. We are experiencing a new normal – more severe fires, longer fire seasons, etc. There has been a desensitization to the risks - looking at ways to change to culture to be more aware of risks. Goal to provide first responders and community with tools to better understand and handle fire issues and emergencies from training, remotely piloted aircraft technology, etc. Next steps – look at incentives and disincentives at the federal level for wildfire mitigation. Some of the attendees shared some programs that are being undertaken in their states, such as the Pre-disaster Mitigation (PDM) program. The PDM application period is currently open. Know your State Hazard Mitigation Officer (SHMO) and work with them on the grant programs. “There is such a thing as being too late (per President Obama).

Mark – Regarding tools to rapidly extinguish these complex fires, is there a consolidated/ coordinated effort of research and development to look at/leverage public and private ideas and funding to build and evolve products and tools to extinguish fires safely/rapidly/efficiently? Was this discussed at White House Summit?

Patricia – How can we make this into a tool kit for these stakeholders to use?

David Rocha - Suggests public sector Research and Development (R&D) resources.

Mark – Department of Homeland Security Science and Technology, Fire Lab in Missoula, maybe the entities doing R&D along with some private sector partners can get together and discuss this.

Mike Lopez is working on this - partnered Dr. Matt Ron, professor with California State University, San Marcos on R&D, specifically on the health and safety of firefighters. Symposium two or three years ago – looking for research dollars specifically for this. CSU San Marcos to be the first university to develop a four-year program specifically on wildland firefighting. There was something in the 1970's for the Federal Blue Ribbon Commission on structural firefighting.

Patricia – This has been focused on in several sectors. She will contact Pete Mitchell. Action item: Create recommendations to bring together series of public/private groups doing this (silos of excellence) to create an open discussion on R&D for safe and rapid firefighting, specifically on the health and safety of firefighters.

IV. General Plan Guidelines Update (*Michael McCormick, OPR*)

B-3015 is the first executive order and first acknowledgement by the state that supports work on climate change which is really influencing a lot of the work that is happening right now. To achieve long-term goals we have to do more planning including wildfire. One of the big things in the executive order is to incorporate climate adaptation into all planning and investment at the state level. Looking at climate change risk as an opportunity to push good planning and investment. Local Context – fire/fire risk included in almost all the documents. Fewer than 50% of jurisdictions in California have addressed greenhouse gas emissions. Many people don't know what adaptation and climate change is. Locals may have plans and programs addressing vulnerabilities but not always connected to climate change. Will present in the next climate planning survey.

General Plans are long-term blueprints for the community's vision of future growth. OPR manages the GP update process. Plans must accommodate basic statute but OPR can provide additional guidance. Starts with community vision through public engagement and includes goals and objectives. There are seven mandatory elements – all should consider fire. New planning guidelines are coming out this summer. Social equity and environmental justice are now included. SB 379 passed last year requires climate risk to be addressed in GPs. It requires local governments to look to the future to plan for climate change. Supports AB 2140 (integration of LHMPs and GP Safety Elements), AB 162 flood protection, and SB 1241 fire protection.

SB 379 – Requires that if a jurisdiction has and LHMP, the next update must be included in the Safety Element of the jurisdiction's GP. If they don't have an LHMP they will be required to update their Safety Element in 2022. So in 2022 every community in the state will be required to include climate adaptation in their Safety Element to include climate risk. There are three primary steps:

1. Assess vulnerability to identify risks to climate change in local jurisdictions,
2. Develop set of adaptation guidelines,
3. Implement set of feasible measures to carry out goals identified in step 2.

Working with an external group Alliance of Regional Collaboratives for Climate Adaptation (ARCA). Good resource when vetting policy.

Climate APGs – four volumes: the first volume, Planning for Adaptive Communities has a nine-point process to plan for adaptation. Trying to make climate risk assessment more standardized. The Cal Adapt website is a resource and is currently being updated with additional datasets to augment the analysis process. The General Plan Data Tool identifies datasets of core needs local governments need to assist in developing adaptation plans. Opportunities to connect with planners on climate change include the California Climate Change Science Symposium in Long Beach on September 6, 2016 and the California Adaptation Forum on September 7 and 8, 2016. These provide an opportunity to see the practitioners who are doing the application process across the state, get best practices, and understand constraints and gaps in policy including forestry and fire.

Local implementation resources include SB 1241 is a Fire Hazard Planning Technical Advisory created by OPR, Forestry and Fire plans for fire protection, drought resilience plans, Zoning codes/plans/ordinances/agreements, AB 2140, OES consultation process for Safety Elements, updated maps including MyPlan, CalAdapt, GP Data Tool, and Geoport, National Institute of Standards and Technology (NIST), work on disconnect being planning/hazards.

Mark asks the task force to consolidate what is being done and get it out to the membership, then the membership review this information and develop a series of recommendations to roadmap the future. Highlight the effort of this initiative as a best practice for locals to use as guidance.

Revised Safety Element will circulate soon – already through the public review process. Michael McCormick requests quick feedback because this is the final draft before publication

We need to continue Safety Element to be included in the front end of discussion and not as an afterthought. Local agency formation commissions are good forums for discussion. There needs to be more pre-planning on risk assessments. Resiliency is the direction we want to go.

Mark – For the sake of economic interest there is movement to build out to communities where there is risk. Risk needs to be minimized from the front end in regards to risk assessments, where we are building, not putting people in harm's way.

We are at greater risk now with tree mortality and climate change impacts coupled with a recessionary rebound in the interest of local government to build and provide an economy for their constituents.

We can have the best of both worlds by building resilient homes.

Michael McCormick - There is an opportunity to prioritize in-field development, long term planning for WUI issues. There will always be people who want to live in the WUI so the real estate industry needs to take repetitive loss into consideration.

**V. Working Lunch - Guest Presenter from the Lawrence Berkeley National Laboratory (LBL)
(Armando Viramontes - LBL, Carl Pennypacker - LBL, Tim Ball – The Fireball Companies)**

Armando Viramontes:

The lab has about \$880 million annually for the Department of Energy. The lab is the national hub for energy storage. Working with the White House and China on advance de-salination. If successful, it could expand the water supply by 8-12% and would lower the cost of water about 3-fold. Also known for its climate change forecasting capability. Research is needed to create the technologies to get there. Research is a fundamental part of this solution and without it we will not get the policy goals we want to achieve. So much has been achieved by public-invested research. It is our means to solve the biggest problems.

Dr. Carl Pennypacker:

Originally using light particle technology to locate supernovas. Having tremendous breakthroughs using light molecules to predict wildfires and reduce the danger of fires. May have a phase program that can gradually prove itself out to diminish skepticism. An outcome would be to have further discussions on data collection and management, modelling, to provide useful advice to incident commanders. There is a lot we can do this fire season for not much money. Wildland fires create about 6% of Co2 contribution in California. Goal is to reduce to about 3%. We are an active collaboration of multiple UC departments and campuses and private industry. The Fire Urgency Estimator of Geosynchronous Orbit (FUEGO) system. We are spending hundreds of millions of dollars, possibly billions of dollars on fire suppression. Unable to calculate the cost of the Co2 emissions. A good public-private partnership working with the state can help reduce fire damage by 5% within about 3 years. Co2 emissions can be exponential – fires emit Co2, which heats things up which contributes to more fires which then creates more Co2.

Currently working on the Enhanced FUEGO system using sensors at many altitudes including fire watch towers in San Diego and Lake Tahoe. Fires create a lot of light from fire particles. These satellite sensors can cover about thirty miles. Why should Lawrence Berkeley National Laboratory, U.C. Berkeley, and Fireball do this? Because it is effective for signal/data processing to save lives, money, and prevent environmental damage to support Cal Fire's mission. FUEGO addresses urgency. Fire creates huge amounts of loss to people, structures, environment, businesses, loss of business continuity, insurance cost increases, etc. One issue to this project is financing. People are not interested in investing in this venture. How can we make money on this? (Showed a diagram on how it works). There is a hierarchy beyond suppression costs including lives, property, and utilities, and while fires themselves are not

increasing a huge amount, the costs of recovery are increasing. Insurance policies for WUI houses are approaching \$10,000 a year. (Showed total insurance payment amounts for various recent fires).

Way forward

Phase 1 – begin now. Using fire management of existing fires, simulations become validated and part of actionable intelligence, early smoke detection from watch towers, and use of Air Force satellites imagery. Currently working on using existing fire data from satellites, which are very sensitive. Extensive societal cost savings assume 5% fire damage reduction within 3 years with this technology.

Dr. Tim Ball:

Does knowing where a fire is and how it is spreading help to fight a fire? Urge the group to think about ways to quantify the value of intelligence. Are there assets in California that can collect and disseminate data in real time? From discussion from Carl Cameron on the AP Ren system, there is a proposal and Fire Coordinators are taking to their board of directors. San Diego Gas and Electric has a type-1 helicopter that sits at Gillespie. It is a very expensive asset, but they find value because they are routinely one of the biggest property losers from wildland fires. They make a contribution to the county because they get enough benefit to more than pay for that asset.

Proposal - if San Diego G and E would provide about half of the money for the instrument and Fireball provide the other half, they would benefit from the data and Fireball could sell it back to the agencies.

For use with fires, think about intelligence as a 24-hour rhythm. We cannot expect to get ahead of the fire if the data is 12 hours old. Technology provides near real-time, high resolution, day/night mapping and fire characterization that can go to planning and operations people. The system is a battlefield awareness system that has one-foot pixels. The telescope can zoom in to detail so small you can see people's shoe laces. The system uses three cameras, short wave for smoldering fires, mid-wave for flaming fires, and long wave for temperatures. The short wave camera can see through a big ball of gas that sits over the fire perimeter. You can also see cold perimeter and the flame length. It is a predictive simulation model. SDG&E proposed to start using this within a year. This ties into Scout. The data can be taken off the aircraft, formatted into their servers, into Scout, then downloaded to people on the ground. Mapping improvements – images must be gathered at high frequency, processed to usable product on board aircraft as quickly as collected, show current and previous perimeters, needs to make the current and potential behavior of the fire currently understood. Everything on the map is geo-located. Higher resolution than existing fire mappers. This ties into Scout. It is a KML in Google format. Integrated through a portal. Fireball will connect with Cal Fire.

VI. FIRESCOPE Update/Recommendations for Blue Ribbon Commission (*Jeff Bowman, Fire Chief, Orange County Authority*)

Prioritized items not completed.

In October 2015 revisited the Blue Ribbon Commission report from 2004 to go back to the list of recommendations made to see if any progress has been made and to prioritize those that have not been completed. This was completed by the Board of Directors. Discussed seven items and made sure that these were captured and the progress that had been made. The recommendations were due in May. The next meeting will discuss recommendations on the updates.

Mark - Still working on legislation for budget allocations for drought funding including situation awareness, education on threats, and tree mortality. Emphasizing to elected officials of the significance of these issues.

The Chief from Cal Fire endorses the seven items and asks that they be attached to Blue Ribbon Commission document. Put together panel for Blue Ribbon Commission. Document must be updated and implemented but most weren't. FIRESCOPE has a challenge to keep on top of this document and not let it flounder but continue to push it to present it to the Legislature. Also asking the task force to continue updating and implementing the document. Problems include,

- Staffing – Legislators need to understand that there is a price tag to this, and we need to know what our rules of engagement are before launching. Asked the Director to send to the Governor/Local officials need to send out a thank you letter to all public agencies who help with fire suppression for committing to saving lives and property. Firefighters not only work long hard hours, but sacrifice family time to respond to fires. Yet they get criticized for the amount of money they make to protect people and property. Local officials need a reminder that we are in this together.
- Equipment – there were almost six thousand requests that were unable to be filled last year. One of the reasons was insufficient equipment. In the twelve years since this document was created, on 44 of the 150 pieces of equipment has been ordered.

Mark – The letter has been drafted the process is going through. The fires today are much more complex and more rapidly spreading. If we had been able to accomplish all the recommendations earlier we would be better off. Technology has improved exponentially so the document must continue to be updated. It is not due to a lack by this administration to provide support in this. This administration is open to building on this for all hazards, as evidenced by budget proposals the Governor has put forth. This is the platform the fire services needs to acquiesce around. There will be opportunities in the near future to get involved in this. Part of the metric of this group is to ask how we can reinforce this for the future. Mark can take the seven items to the Chief of Staff to look at.

FIRESCOPE is interested. The district association should be interested. CPF should be interested. Nothing is more frustrating than committing all that effort, and not have it happen.

Voters had passed a law last year that allows state senators and assembly members to be in office longer than post-term limit rules. Individuals who are committee members can be in office longer.

Part of the metric of this task force is to reinforce this.

Carl Pennypacker – a few years ago Governor Brown moved \$100 million from U.C. budget to fire suppression. We need to leverage this resource.

Mark – We have ways to minimize and suppress fires as quickly as possible. That goes hand in hand with forest management practices, reducing fuel loads, public information on defensible space, local government enforcement of clearing of space, fire codes, and land use planning. The fact that these fires increase global warming is another reason we want to minimize them.

VII. Progress on Action Items (All)

Dan – A lot of code iterations are not sustainable in a commercial product. And it doesn't scale when put in a cloud environment. Situational Awareness and Collaboration Tool (SAWT) has three phases:

- Phase 1 - Working to make it modularized. Lots of capabilities, building logically. Cal Fire and super-users are testing currently.

- Phase 2 – moving from version 5 to 6.2/6.3. Graphical interface. Using this fire season. List of agencies want to be added on to test the system.
- Phase 3 - will be active system projected for 2017. Want to get cost metrics.

Mark - This is a 24-hour effort to get this working. Cal Fire's budget includes funding for ADL capabilities for mutual aid apparatus to track and make them available.

Mike Esparza – Superbowl 50 status – any opportunities? Put all the available non-sensitive feeds to see if it could handle that caseload issues with law enforcement feeds. Having Lincoln Labs update the code/cyber security protocols.

VIII. New Action Items (Mark Ghilarducci, Cal OES)

- Review OPR's climate materials.
- Put together a collaborative session on Part D.
- Action Item to Shawna - As those updates occur it would be helpful to California's Fire Service if Tracy and the districts could put something out to all the chiefs in the state saying here are the current numbers, these are the risks associated with them. Perhaps send it to the FIRESCOPE Board.
- Meeting June 1-2 Incident Management Team at McClellan. Need to get a liaison for this group that is part of the incident management team. Regular conference calls take place Mondays, Thursdays, and Fridays at 8:00 am. Put this as a standing agenda item for the FIRESCOPE Board.
- Create recommendations to bring together series of public/private groups to create an open discussion on R&D for safe and rapid firefighting, specifically on the health and safety of firefighters.
- Consolidate what is being done and get it out to the membership, then the membership review this information and develop a series of recommendations to roadmap the future. Highlight the effort of this initiative as a best practice for locals to use as guidance.
- Revised Safety Element will circulate soon – already through the public review process. Michael McCormick requests quick feedback because this is the final draft before publication.

Adjourn

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