OFFICE OF STATE PLANNING AND BUDGETING (OSPB)

DEPARTMENT OF NATURAL RESOURCES (DNR)

DEPARTMENT OF PUBLIC SAFETY (CDPS)

DEPARTMENT OF CORRECTIONS (DOC)

DEPARTMENT OF MILITARY AND VETERANS AFFAIRS (DMVA)

COLORADO STATE FOREST SERVICE (CSFS)

FY 2021-22 JOINT BUDGET COMMITTEE HEARING AGENDA

Tuesday , January 12th, 2021
1:30-3:00 pm

1:30-1:45 INTRODUCTIONS, OPENING REMARKS, GENERAL QUESTIONS

Presenter: Aaron Ray, OSPB
Presenter: Dan Gibbs, DNR
Presenter: Stan Hilkey, CDPS
Presenter: Mike Morgan, DFPC
Presenter: Kevin Klein, DHSEM

- General Questions: Page 1, Questions 1-2 in the packet

1:45-2:05 COLORADO FIRE COMMISSION

Main Presenters:
- Director Mike Morgan, DFPC and Vice Chair of CFC

Supporting Presenters:
- Melissa Lineberger, Chief of Staff, DFPC

Topics:
- Colorado Fire Commission: Page 5, Question 3 in the packet

2:05-2:25 WILDFIRE MITIGATION

Main Presenters:
- Dan Gibbs, Executive Director, DNR
- Mike Lester, State Forester and Director, CSFS
- Kevin Klein, Director, DHSEM

Topics:
- Mitigation effectiveness: Page 10, Questions 4-5 in the packet

- Enhancing mitigation efforts: Page 12, Questions 6-8 in the packet,
- Jurisdictional issues and local capacity: Page 16, Questions 9-10 in the packet

2:25-3:00 WILDFIRE SUPPRESSION

Main Presenters:
- Stan Hilkey, Executive Director, DPS
- Mike Morgan, Division Director, DFPC

Supporting Presenters:
- Melissa Lineberger, Chief of Staff, DFPC
- Vaughn Jones, Wildland Fire Management Section Chief, DFPC

Topics:
- Suppression criteria and effectiveness: Page 17, Questions 11-13 in the packet
- Jurisdictional issues and local capacity: Page 19, Questions 14-17 in the packet
- Costs, revenue, and reimbursements: Page 21, Questions 18-20 in the packet
- SWIFT wildfire crews: Page 23, Questions 21-22 in the packet

WILDFIRE STIMULUS PACKAGE AND OTHER WILDFIRE ISSUES

Issue: General Questions

1. **What should be the primary objective(s) of Colorado's wildfire policy over the next decade? What could be considered a "win" by 2030?**

The primary objective of Colorado's wildfire policy over the next decade should be to avoid significant and increasing risks to life, property, and the environment. To this end, Colorado's wildfire policy over the next decade should be to promote wildfire-resilient communities and watersheds by substantially and strategically increasing the pace and scale of wildfire risk mitigation and forest management on acres that will most effectively reduce risk and the loss of homes and structures. At the same time, wildfire risk mitigation can never completely protect communities, which is why investment in initial attack and strategic fire suppression is also important. Since 2005, over 2,500 homes and structures have burned in wildfires in Colorado, which unfortunately also led to several fatalities.[1] Across the US, 62% of the structures lost in wildfires since 2005 were lost in just the last 4 years. In addition, wildfires impact our forested watersheds, which are critical for providing Coloradans and downstream states with clean water. This is a growing problem. Without action, disasters like the 2020 Colorado wildfires are likely to become more common in the future due to factors like climate change, overly dense forests, and declining forest health.

Increasing the pace and scale of mitigation work requires careful evaluation of capacity at the local, state, and national level. Mitigation work is not limited to creating defensible space around structures or reducing home ignitability, but also requires landscape-scale forest management and prescribed fire to restore fire-adapted forests that facilitate lower burn severities and reduced rates of fire spread. A robust forest management workforce and wood products industry

[1] https://headwaterseconomics.org/natural-hazards/structures-destroyed-by-wildfire/

would be beneficial to do this work to the scales necessary in Colorado. Finally, state and federal agencies must also use Appropriate Management Response, which means allowing wildland fires to burn where they do not threaten life or property so they can perform their natural ecological function of reducing fuels and fostering new growth. Suppressing every fire has contributed to Colorado's overly dense forests; Coloradans must prepare themselves and their property to live with wildfire.

Increasing mitigation activities requires continued state engagement in:

- Expanding landowner and community engagement to promote social norms around creating defensible space on private property and reducing home ignitability, and increasing social license for fuels management and prescribed fire use
- Supporting the development and maintenance of Community Wildfire Protection Plans to promote fire-adapted communities
- Promoting local and regional forest health collaboratives and wildfire councils
- Developing and maintaining cutting-edge GIS and forest risk analysis tools such as the Colorado Wildfire Risk Assessment to provide spatial information on fire risk to prioritize fuels treatment funds; and
- Supporting forest products businesses with technical assistance and business loans so these businesses can build capacity to reliably respond to demand for mitigation work.

The benefits of hazard mitigation are the avoided losses of large catastrophic fires, i.e., those losses that would have occurred if the mitigation activity had not been implemented. According to the National Institute of Building Sciences' 2019 *Natural Hazard Mitigation Saves*[2] grant funded wildland fire mitigation projects have an average benefit cost ratio of approximately 3.0. Thus, every dollar spent on wildland fire hazard mitigation projects produced, on average, three dollars of benefits—a significant return on public dollar expenditures. That said, no amount invested in mitigation or suppression will replace the need to fund both adequately.

From CDPS' perspective, there are multiple critical aspects of a successful wildfire policy over the next decade. However, the primary objectives of Colorado's wildfire policy should reflect an emphasis on holistic mitigation and response efforts, including a focus on aggressive, initial attack in order to reduce the impacts of fires to life, property, and the environment when they inevitably occur. It is important to highlight the necessity of a holistic approach, as there is no successful strategy that focuses solely on mitigation or suppression.

Another strategy in the state's overall wildfire policy should be to move toward a definition and understanding of mitigation beyond homeowner vegetation management. Effective wildland fire mitigation efforts occur at scale. Strategically placed, landscape scale projects have a higher return on investment than scattered vegetation management around individual homes.

Our mitigation efforts should also include public education, training of responders, education for public officials, hardening of communities, adoption of nationally recognized codes and standards, adoption of new technology for greater efficiency of both suppression and mitigation efforts, and a variety of other efforts to reduce the severity of wildfire when it occurs. Again, Colorado's wildland fire problem is best addressed through a holistic approach.

The agencies involved in Colorado's fire management (including prevention, suppression, mitigation and recovery) work well together. Roles and responsibilities are clear and the agencies provide support to one another in meeting their unique missions. These collaborative

[2] https://www.nibs.org/page/mitigationsaves

efforts must continue in order to realize any meaningful progress as we address Colorado's growing wildland fire problem.

Lastly, defining winning in this context must include stakeholder input. A tremendous amount of work has been done with fire stakeholders throughout Colorado over the past several years and their work needs to be included in our definition of a :"win". The first product of this stakeholder-driven effort was a "Five Year Plan to Support Colorado's Fire Service," which was developed to provide recommendations on gaps and areas for improvement to better serve the evolving needs of fire stakeholders in Colorado. During the development of that plan, stakeholders recognized a need to formalize stakeholder input and establish a sustainable group of stakeholders that could continue to examine challenges and develop solutions on an ongoing basis. S.B. 19-040 established the Colorado Fire Commission. The Commission published the first set of recommendations in August of 2020. In order to achieve a "win" in the eyes of stakeholders, any path forward should first include a consideration of the recommendations in the playbook and the Fire Commission Annual Report, aspects of which are included in the Governor's Wildfire Package. Policymakers should continue to rely on the Fire Commission to provide creative solutions to new problems as they arise to ensure that new policy meets the needs of the diverse stakeholder groups impacted by fire.

2. **Please explain the logic behind the distribution of funds in the wildfire stimulus package. Why devote more to suppression resources (e.g. helicopter, plane contracts) than mitigation activities?**

The requested wildfire package is structured to strike a balance between the need for wildfire mitigation and restoration with the need for expanded fire suppression capacity. Decades of increasing forest density, climate change driven drought, and an expanding population have drastically increased Colorado's risk of catastrophic wildfires. Simply put, the threat to human life and property from wildfires has never been greater. Although risk mitigation projects provide meaningful results where conducted, the scope of Colorado's forestry problem will require many years of sustained effort to ensure a decline in dangerous and destructive wildfires. While the long term challenge of landscape scale mitigation continues, the threat to human life and property will remain. That is why it is essential that Colorado dedicate the resources necessary to aggressively attack wildfires when they threaten our communities, while also ensuring sustained mitigation activities and allowing wildland fires to burn where they do not threaten life or property so they can perform their natural ecological function. The wildfire suppression resources requested by the Department of Public Safety will also reduce future state liabilities by reducing the number of fires for which the state is responsible.

The wildfire stimulus package is focused on disbursing one-time funds as quickly as possible to help respond to and recover from one of the worst drought and wildfire seasons on record. The package also serves as a significant first step towards mitigation of future fires, while also generating much-needed economic benefits during the current downturn. Available estimates of funding required for large-scale sustained treatment and mitigation work are significant. The Colorado State Forest Service estimates that treatment and mitigation efforts to reduce risk in high risk areas in the wildland urban-interface in Colorado would cost $762.8 million. The requested mitigation and restoration funds represent an important investment that can be deployed rapidly for wildfire mitigation and post-fire recovery purposes, as well as a positive economic impact. The nature of the available stimulus funds also facilitates one-time spending on equipment for suppression, which can occur quickly and meet an immediate need for stronger initial attack capabilities.

Practically speaking, mitigation is a longer-term process that is contingent on a variety of factors including availability of federal, state, local, and private funding, as well as limits on workforce capacity, i.e. the number of forestry contractors in the state. Wildfire mitigation work, such as the projects funded through the Colorado State Forest Service's Forest Restoration and Wildfire Risk Mitigation (FRWRM) grant program, often require months or years of planning and relationship-building to gain local support and partnerships for project work, meaning that only a certain number of projects are currently shovel-ready for the investment of one-time stimulus funds. In order to increase the amount of ongoing mitigation work happening across the state, local governments, community groups, forest collaborative groups, and the Colorado State Forest Service would need to evaluate their administrative and workforce capacities accordingly over time. The forest products industry in Colorado would also have to scale up to accommodate the additional mitigation and treatment activity. However, CSFS is confident that the $11 million proposed for FRWRM (as part the larger $20M total request for mitigation over two years) in the stimulus package for mitigation work can be awarded through the program over the next two fiscal years.

Similarly, some of the post-fire recovery work supported by the Colorado Water Conservation Board's (CWCB) Colorado Watershed Restoration Grant Program can involve months of post-fire assessments, planning and consultations before project implementation. However, this program has the experience and capacity to provide significant resources for post-fire and flood recovery, and did so most recently for fire-affected areas in 2018. CWCB is confident that the requested $9 million across FY 2020-21 and FY 2021-22 can be deployed to address the initial demand for planning support, as well as projects that increase resiliency and proactively address risk by protecting infrastructure and water resources.

As discussed above, future funding and policy decisions around wildfire should be inclusive of both mitigation and suppression efforts conducted throughout the state. Given the incredible scale of the threat to our forests and the practical limitations on what can be mitigated, it is not practical to expect that mitigation alone will alleviate Colorado's expanding fire problem.; Therefore, in addition to mitigation, substantial and continued investment in aggressive suppression capabilities is critical.

The longer a fire burns, the greater the impact to people, property, the economy, and critical infrastructure in Colorado. During the 2020 fire season, DFPC was able to limit the duration of new fire starts by implementing aggressive initial attack strategies utilizing both ground and aviation resources. Conversely, 2020 fires that started and burned in unhealthy forests , burned for weeks or months and significantly impacted multiple communities in Colorado.

In 2020, 16 fires qualified for state responsibility. Current estimates for suppression costs for these 16 fires exceeds $278 million, $38 million of which is coming out of state budgets. These fires burned over 627,000 acres, and five of them (Pine Gulch, Grizzly Creek, Cameron Peak, Mullen, and East Troublesome) burned for an extended period of time. The five fires account for 594,422 (95%) of total acres burned in Colorado and nearly $256 million (93% of total suppression costs. The other 11 fires had significantly less cost and impact because, in part, of aggressive initial attack strategies supported by DFPC's enhanced state assistance resources. Additionally, several fires never rose to the level of state responsibility because these aggressive initial attack efforts were able to contain them prior to more significant growth and impact.

DFPC remains an advocate of vegetation management and other mitigation efforts of its partner organizations, but there is a limit to the efficacy of mitigation alone for fires like Grizzly Creek (jumped four lanes of I-70 and the Colorado River) and East Troublesome (crossed the Continental Divide and burned tens of thousands of acres in a single operational period).. Given the overall forest health conditions in Colorado, climate change resulting in an extended "fire season", continued development in the Wildland-Urban interface, and increasing threats to critical infrastructure and watersheds, policymakers must invest in both suppression and mitigation efforts, and continuing to allow wildland fires to burn where they do not threaten life or property so they can perform their natural ecological function.

Also, it is important to note that response resources are frequently utilized for performing mitigation work while smoke is in the air. On Cameron Peak, over $1 million in "suppression costs" were allocated for surge resources providing structure protection (e.g. mitigation work around homes). On East Troublesome, over $850,000 of suppression costs were spent on surge resources. These resources included engines from departments throughout Colorado responding for a 48-hour shift to aid with structure protection and mitigation around structures to prevent additional loss.

Finally, we cannot forget about recovery costs. Significant fires result in losses to infrastructure, residences, businesses, and our watershed. For wildland fires that cannot be prevented, mitigated and escape a strong and rapid initial attack, the state is burdened with costs associated with recovery, post-fire flood mitigation and watershed restoration.

Issue: Colorado Fire Commission
[Sen. Rankin and Rep. McCluskie both indicated they would like to hear more about the Commission's work.]

3. **Please provide a summary for each of the five recommendations (20-01 through 20-05) contained in the Commission's August 2020 report, including, but not limited to:**

- **Factors that led to the recommendation**
- **Whether the recommendation is related to mitigation, response/suppression, or another mission area.**
- **Annual costs and number of FTE. Please indicate whether these costs are one-time or ongoing**
- **Whether the recommendation is addressed in the wildfire stimulus package request**

What are the Commission's next steps?

Of the five recommendations put forward in the report, three are identified as driving additional costs and FTE needs. Of these three, one is addressed in the Governor's Wildfire Package (Rec. 20-04) and two are not (Rec. 20-01 and Rec. 20-03). Funding for recommendations made by the Commission will continue to be considered as part of the annual budget process and, when appropriate, recommended for funding in the Governor's Budget.

Recommendation 20-01: Implement the Colorado Coordinated Regional Mutual Aid System (CCRMAS) page 17 in CFC Annual Report: Colorado State Fire Chiefs developed the Colorado Coordinated Regional Mutual Aid System to link existing mutual aid plans and

agreements to create a web of redundancy in mutual aid, but the plan has not been implemented. Past efforts to implement CCRMAS as an extra duty have failed because this coordination requires a significant amount of time and ongoing effort that current DFPC staff and local fire chiefs cannot commit. This recommendation would require staff to implement the CCRMAS to support more robust mutual aid beyond existing local agreements.

· **Factors that led to the recommendation:** The Colorado Fire Commission is statutorily tasked with strengthening regional and statewide coordination of mutual aid resources and initial attack capabilities for fires and other hazards. Key assumptions that led to this recommendation include:

- Rapidly expanding incidents can overwhelm local fire department resources and existing local mutual aid plans are insufficient to ensure all necessary resources are deployed to an incident in a timely manner.
- Proactive coordination of regional and statewide mutual aid helps make the process of deploying resources on an incident seamless without requiring additional work from incident commanders, dispatch centers, or others involved in the response.

· **Whether the recommendation is related to mitigation, response/suppression, or another mission area.** This recommendation is related to response as it addresses the mobilization of fire and EMS resources on any hazard that exceeds the capability of the local jurisdiction (e.g. wildland fire, hazmat, traffic accident). As is noted in several answers below, in the case of wildland fires, response resources are often tasked with mitigation work while the fire is burning. For that reason, this recommendation has components that relate to coordination, mitigation, response, and suppression.

· **Annual costs and number of FTE. Please indicate whether these costs are one-time or ongoing.**

The costs below are estimates associated with the recommendation 20-021. The Departments are not requesting funding for these activities at this time.

- Year 1 Costs and FTE:
  - $1,193,695
  - 7 FTE in the Division of Fire Prevention and Control
- Ongoing Costs: $1,093,885
  - 7 FTE personal services and operating expenses
  - Mutual Aid Coordination Software (Annual License)
- Role of 7 FTE
  - Two FTE to serve in a central location with primary responsibility to coordinate and oversee statewide mutual aid, maintain statewide common operating picture, and bridge the gap to interagency dispatch centers and emergency operations centers.
  - Five FTE to serve as regional mutual aid coordinators. One coordinator assigned to each DFPC District to develop regional mutual aid plans, serve as the primary point of contact for regional mutual aid in each district, and coordinate mutual aid requests. One FTE to manage District Mutual Aid Coordinators and oversee the program.

· **Whether the recommendation is addressed in the wildfire stimulus package request:** This recommendation was **not** addressed in the wildfire stimulus package. However, as

discussed below, the requested package does include an $1.8M ongoing for enhanced state assistance to counties and fire departments and $2.3M ongoing for programmatic and customer support needs.

Recommendation 20-02: Updates to Mutual Aid Statutes to Support the Colorado Coordinated Regional Mutual Aid System (page 19 in CFC Annual Report): This recommendation provides updates to existing Colorado Revised Statutes to ensure liability remains with the assisting agency when resources are still under their operational control.

· **Factors that led to the recommendation:** The Colorado Fire Commission is statutorily tasked with strengthening regional and statewide coordination of mutual aid resources and initial attack capabilities for fires and other hazards. Key assumptions that led to this recommendation include:

- Currently, the statutes mandate that a fire chief who requests assistance under mutual aid assume liability for the actions of members of the assisting agency.
- Rewriting CRS 29-5-105, 107, and 109 to keep liability with the assisting agency

· **Whether the recommendation is related to mitigation, response/suppression, or another mission area.** This recommendation is related to response as it addresses the mobilization of fire and EMS resources on any hazard that exceeds the capability of the local jurisdiction (e.g. wildland fire, hazmat, traffic accident). As is noted in several answers below, in the case of wildland fires, response resources are often tasked with mitigation work while the fire is burning. For that reason, this recommendation has components that relate to coordination, mitigation, response, and suppression.

· **Annual costs and number of FTE. Please indicate whether these costs are one-time or ongoing.** This recommendation requires a statutory change to current mutual aid and liability language in CRS 29-5-105, CRS 29-5-107, and CRS 29-5-108. There are no annual costs or FTE required to implement this recommendation.

· **Whether the recommendation is addressed in the wildfire stimulus package request.** As noted above, this recommendation does not require any funding or FTE, so it was **not** included in the wildfire stimulus package request.

Recommendation 20-03: Establish a State Responsibility and Large Wildland Fire Fund Within DFPC (Page 25 in CFC Annual Report). This recommendation would establish a new fund to pay for state responsibility fires, which allows for greater planning and coordination when fires are elevated to this level. This new fund would eliminate the need for Disaster Emergency Funding in most years to pay for wildfires that qualify for state responsibility. The annual appropriation to this fund would be calculated from a five-year rolling average of past state share suppression costs.

· **Factors that led to the recommendation.** The Colorado Fire Commission is statutorily required to review the current emergency fire fund program and provide recommendations to make it more inclusive of counties throughout the state and to evaluate funding mechanisms for effective response to large fires, with consideration given to appropriate cost-share agreements, financial contributions, mitigation and preparedness, mutual aid participation, and local actions and plans. Key assumptions that led to this recommendation include:

- Large wildfires that exceed local and county capacity and require State funding will continue to occur in Colorado
- Over the last decade, the State of Colorado has spent up to $40 million on state-share suppression costs in one calendar year (2018).
- Currently there is no dedicated funding source for management of state responsibility fires. The $1 million generated by the Emergency Fire Fund (county contributions) is typically spent in one day on a large fire. In 2018, these funds were exhausted on April 17. After EFF is exhausted, the Director of DFPC must request a disaster declaration and authorization to use funds from the Disaster Emergency Fund for any state responsibility fires that occur for the rest of that calendar year.
- Not all counties are members of EFF, and if a fire occurs in a non-EFF county, the criteria for state responsibility are the same, so counties who do not contribute are still able to access state funds without any financial contribution. This is a disincentive for counties to contribute to EFF.

· **Whether the recommendation is related to mitigation, response/suppression, or another mission area.** This recommendation is related to response as it addresses payment for state share of suppression costs for large wildfires in Colorado. As is noted in several answers below, in the case of wildland fires, response resources are often tasked with mitigation work while the fire is burning. For that reason, this recommendation has components that relate to coordination, mitigation, response, and suppression.

· **Annual costs and number of FTE. Please indicate whether these costs are one-time or ongoing.** This recommendation would establish a state responsibility and large wildland fire fund within DFPC that could be used to pay state share of suppression costs on large fires. The appropriation into this fund would be based on a five-year rolling average of the state share of suppression costs. For 2020, this average totals $12,311,400 based on state share of suppression costs from 2015-2019.The costs above are estimates associated with the recommendation 20-03. However, the departments are not requesting funding for these activities at this time. The Administration will continue to use state emergency resources to ensure a robust response that protects life, property, and the environment.

· **Whether the recommendation is addressed in the wildfire stimulus package request.** This recommendation was **not** addressed in the wildfire stimulus package. However, the overall package will significantly enhance the ongoing capacity of the state to mitigate the risk from and respond to wildland fires. These new resources and the ongoing availability of state emergency resources will ensure a robust response that protects life, property, and the environment.

Recommendation 20-04: Implement an Enhanced State Assistance Program (Page 26 in CFC Annual Report). This recommendation would establish a sustainable funding source for the Wildfire Emergency Response Fund and other enhanced response resources and allows DFPC to continue to provide assistance to local jurisdictions at no cost so that appropriate resources are ordered to aid in fire suppression efforts prior to a fire meeting the criteria for state responsibility. This recommendation would be funded partially through county contributions and partially through an annual general fund appropriation.

· **Factors that led to the recommendation.** The Colorado Fire Commission is statutorily required to review the current emergency fire fund program and provide recommendations to make it more inclusive of counties throughout the state and to evaluate funding mechanisms for effective response to large fires, with consideration given to appropriate cost-share agreements,

financial contributions, mitigation and preparedness, mutual aid participation, and local actions and plans. Key assumptions that led to this recommendation include:

- State assistance is provided by multiple programs and through various funding sources which can complicate tracking and reporting;
- The Wildfire Emergency Response (WERF) fund can only be used to pay for specific statutorily defined purposes, so requests for aviation assistance beyond what WERF allows are funded through DFPC base budgets. The concern is that heavy use of these resources early in the fiscal year may limit or prevent those resources from being available later in the same fiscal year. As the WERF does not have a regular, ongoing appropriation, DFPC monitors the account balance and requests additional funds from the Governor's Office as needed to continue to provide that assistance to local jurisdictions.
- DFPC piloted an enhanced state assistance program in 2020, and received positive feedback from fire chiefs and sheriffs who saw the benefit of aggressive initial attack keeping fires small that were threatening significant values at risk (Chatridge 2, Green Meadows, Elephant Butte).

· **Whether the recommendation is related to mitigation, response/suppression, or another mission area.** This recommendation is related to response as it addresses payment for state share of suppression costs for large wildfires in Colorado. As is noted in several answers below, in the case of wildland fires, response resources are often tasked with mitigation work while the fire is burning. For that reason, this recommendation has components that relate to coordination, mitigation, response, and suppression. If mitigation is defined as reducing the impact of a disaster, then any funding that is directed to aggressive initial attack would be aimed at mitigating the damage from a fire by keeping it small and limiting its duration.

· **Annual costs and number of FTE. Please indicate whether these costs are one-time or ongoing:** The total cost of this recommendation is $2,800,000. CFC recommends transitioning the EFF into an Enhanced State Assistance Fund and identifying a mechanism to collect contributions equalling $1 million per year from all 64 counties. The other $1,800,000 would be funded through a general fund appropriation annually.

· **Whether the recommendation is addressed in the wildfire stimulus package request.** This recommendation was included in the wildfire stimulus package request for a total of $1,800,000 to enhance state assistance supporting aggressive initial attack efforts to support local jurisdictions before fires grow to the level of state responsibility.

Recommendation 20-05: Implement a Comprehensive Fire Data Collection and Dissemination Program (Page 30 in CFC Annual Report): This recommendation is higher level than the previous four, and recommends some broad goals for improved data collection to better understand the fire problem in Colorado. Without accurate data from volunteer, combination, and career departments from all areas of Colorado, it can be difficult to offer recommendations that are value-add for this diverse group of stakeholders.

· **Factors that led to the recommendation:** One of the Fire Commission's statutory charges is to develop an accurate understanding of Colorado's fire problems, including the number of injuries and fatalities, overall fire losses, and the causes and origins of structural and wildland fires. When the subcommittee focused on fire data first met, they did not fully understand the challenges data collection in Colorado's fire service poses. For that reason, this

recommendation is simply to continue the subcommittee's work, and there are no formal action items related to this recommendation. Assumptions driving this committee's work include:

- Fire data reporting is voluntary in Colorado and involves multiple software systems and databases, so it is hard to get a full picture of the fire problem in Colorado without marrying multiple data sources that are not always compatible;
- Turnover can be high in smaller fire departments, leading to reduced consistency in reporting information due to data-entry variation between personnel.

· **Whether the recommendation is related to mitigation, response/suppression, or another mission area.** The fire data subcommittee is working on how to better collect, analyze and display data related to mitigation, response/suppression, fire origin and cause, and other critical data points to help better understand Colorado's fire problems.

· **Annual costs and number of FTE. Please indicate whether these costs are one-time or ongoing.** Since there are no formal recommendations ready regarding data, there are no costs associated at this time.

· **Whether the recommendation is addressed in the wildfire stimulus package request.** This recommendation was not addressed in the wildfire stimulus package request.

What are the Commission's next steps? Additional information and fact sheets on each recommendation can be found on the commission website: (https://sites.google.com/state.co.us/coloradofirecommission/home).

Commission next steps include ongoing meetings of the entire commission and subcommittees to refine recommendations and respond to stakeholder concerns. For the recommendations that require legislative action, the Commission has a legislative subcommittee that will work with member organizations and the Administration to identify appropriate legislative action. The Commission meets four times per year, and subcommittees meet as needed to advance current recommendations or develop new ones in their subject areas. While the Administration is supportive of the concepts contained within the Commission's mutual aid recommendations, It is important to note that further discussion will be needed in the CCRMAS plan established by the recommendations to ensure that the programs build from the local level up, but also remain part of a broader statewide response network.

Issue: Wildfire Mitigation

Mitigation effectiveness

4. ***[Sen. Moreno]*: How much of an outcome can we expect from state-funded mitigation activities given that the state cannot perform mitigation on federal lands?**

Both the Colorado State Forest Service (CSFS) and the Division of Fire Prevention and Control (DFPC) can and do perform mitigation work on federal lands through various processes.

The Colorado State Forest Service (CSFS) completes mitigation work on federal lands primarily using federal funds. The Colorado State Forest Service can perform treatments on USFS lands through the Good Neighbor Authority. The USFS and the CSFS entered into a ten-year Master Good Neighbor Agreement in early November 2015 and it was updated in July 2019. Under the agreement, the CSFS has the authority to conduct forest treatments on the 11 National Forests

in Colorado, complementing work on state and private lands, and leveraging state resources to accomplish work across land ownership boundaries. The USFS provides funding for CSFS staff time to plan, design, and administer and implement projects, though State funds from the Healthy Forests Vibrant Communities fund were used to initiate Colorado's Good Neighbor Agreement projects. The BLM and the CSFS also have two Cooperative Agreements to conduct treatments on BLM lands in Colorado. Since 2016 CSFS has completed 20 Supplemental Project Agreements (SPAs) on 6 National Forests and 3 BLM districts, with completed and planned treatments totaling over 16,000 acres.

Regarding the Forest Restoration and Wildfire Risk Mitigation (FRWRM) Grant Program specifically, grant funds cannot currently be spent on federal lands pursuant to the requirements in statute (Section 23-31-310, C.R.S.). However, there is sufficient demand for projects on state, county, municipal, and private lands. The resources requested for mitigation work will be dedicated to the highest priority projects.. Successful mitigation work is not measured by treating the most acres, but by treating the most important acres, including acres close to homes and strategic acres that link fuels treatments across boundaries at landscape scales to alter fire behavior. Private landowners must also take responsibility for protecting themselves and their property.

Approximately 2.9 million residents, or 1 in 2 Coloradans, live in the Wildland Urban Interface (WUI), which covers approximately 3.2 million acres in Colorado. One study projects it may grow to over 9 million acres by 2040. Based on the 2017 CO Wildfire Risk Assessment and land ownership data, almost 96% of the WUI is on non-federal ownership[3]. As a result, the requested stimulus funds for the FRWRM grant program will make a significant and immediate impact by funding fuel treatments where property and lives are most at risk. Even so, ensuring that the statutory structure of programs that provide funding for wildfire risk mitigation activities, like FRWRM, align with the multi-jurisdictional impacts of the wildfires those programs are working to prevent, is an important priority.

Meanwhile, DFPC also performs mitigation projects on federal land through local plans and agreements. DHSEM provides wildland fire mitigation funding through FEMA Hazard Mitigation and Building Resilient Infrastructure Communities Program (BRIC) grant programs. State lands are the only place that the state can control/mandate mitigation activities. Both DHSEM and DFPC assists with mitigation projects on local, private, and federal land when requested and when party to an agreement with the landowner. Since relatively few acres of forests are located on state land, the most impactful state-funded or state assisted mitigation activities are those that are done at scale with other land management agencies, local governments and large private landowners.

5. **Could more mitigation work have prevented or reduced structure losses in the larger fires of 2020?**

Several of the 2020 fires, most notably the East Troublesome fire, spread with unprecedented speed and intensity at times due to severe drought conditions and high winds. Many homes in the path of these rapid conflagrations were likely lost despite mitigation work and it is unlikely that increased mitigation work would have fully prevented or significantly reduced the structure loss seen during the larger fires of 2020. While these types of fires are likely to become more common, not every fire will behave this way and mitigation is still a valuable strategy. Landscape-scale fire breaks, defensible space and reduction of structure ignitability reduce

[3] https://comap.cnhp.colostate.edu/

wildfire risk for homes. The 2018 Buffalo Mountain Fire in Summit County, which burned in lodgepole pine forests similar to the large 2020 fires, was stopped because of a large fire break. In the 2016 Cold Springs near Nederland, all 8 homes within the fire perimeter that participated in Boulder County's Wildfire Partners home mitigation program survived. Mitigation work not only reduces the risk of a home igniting and burning, but can also make conditions safe for firefighters to perform structure protection. In addition, continuing to allow wildland fires to burn where they do not threaten life or property improves the long-term health of fire-adapted ecosystems and ultimately improves the unhealthy forest conditions that can lead to devastating fires that take lives and destroy property.

Two factors determine a home's ability to survive a wildfire: (1) the structure's ignitability; and (2) the quality of the surrounding defensible space created by fuels mitigation work. These two factors together are known as the Home Ignition Zone (HIZ), which include three defensible space management zones up to 100-200 feet from the home. Mitigation work that reduces fuels within the Home Ignition Zone reduces the likelihood of a home igniting by direct flame contact or by radiant heat exposure. Homes without defensible space are much less likely to survive a wildfire, and they put firefighters at risk if firefighters are able to reach and defend the home.

Home hardening is also critical to reduce structure loss, either by building new homes with fire-resistant materials, or retrofitting existing homes, including replacing roofing materials and cleaning and covering roof vents. Up to 90% of home ignitions occur due to embers landing on structures, and in this summers' fires there was spotting that occurred 1-2 miles ahead of the flame front, throwing embers on homes. While local building and landscaping codes and defensible space can reduce the risk to homes, structures may still not survive extremely fast wind-driven events like the East Troublesome fire this summer, which grew by 100,000 acres in one day. This is why it is critical that wildfire risk reduction actions are addressed in land use development plans and building codes in the WUI.

Much of the extreme fire behavior observed and the related fire growth was of such magnitude that most mitigation efforts would have been quickly overwhelmed by the conflagration. Much of the Colorado forest is dead or dying due to disease, insects, and age, as well as drying due to climate change and drought. It is these trees that are the primary carrier of fire. That being said, mitigation efforts had significant positive impacts in previous fires including the Buffalo Creek, Walker Ranch and Waldo Canyon fires. However, as noted above, continuing to allow wildland fires to burn where they do not threaten life or property improves the long-term health of fire-adapted ecosystems and ultimately improves the unhealthy forest conditions that can lead to devastating fires that take lives and destroy property.

Firefighters conducted mitigation activities during large fire events in 2020 by removing fuels, especially around structures or critical infrastructure. In addition to the direct fire suppression activities, fire crews are often tasked with preparing structures threatened by the encroaching wildfires to survive. These actions had limited success as there frequently wasn't sufficient time to adequately prepare the structures prior to the arrival of the fire or other factors (structure location, scope of the work needed). Additionally, the fire behavior occurring at the time of impact to the affected properties was of such intensity that it rendered these mitigation efforts ineffective.

Enhancing mitigation efforts

6. **What steps can be taken to increase wildfire mitigation activities in the State, especially in light of limited resources? What statutory or structural changes could be most useful, if any?**

Increasing capacity at the local, state, and federal levels is critical for increasing wildfire mitigation activities in Colorado. Mitigation projects often require years of planning, and require months or years to educate communities and homeowners and gain the social licence necessary to do this work. Given limited resources, it is essential to ensure communities develop and maintain up-to-date Community Wildfire Protection Plans (CWPP). There are currently 239 Community Wildfire Protection Plans in Colorado (50 county-level, 48 fire protection district-level and 141 local-level). CWPPs can quickly become outdated due to lack of capacity, changes in community structure, available information and technology. Over 85% of Community Wildfire Protection Plans are over five years old, and almost half are more than 10 years old. It is critical to keep these plans up-to-date because projects identified in CWPPs exist across all lands and frequently serve as the basis for funding applications, including to the FRWRM Grant Program. CWPPs also assist the federal agencies in setting priorities for planning efforts on their lands in specific communities.

Resource limitations mean it is also more important than ever to ensure any funds that are available are invested strategically in mitigation efforts. The Colorado State Forest Service 2020 Forest Action Plan identifies 10% of Colorado's forests where there is the highest need for action. Under Colorado's Shared Stewardship agreement with the U.S. Forest Service, DNR and CSFS are working with federal partners to determine where in these areas we should strategically focus our investments to achieve the greatest benefit in terms of protecting key values. At the same time, the Rocky Mountain Restoration Initiative -- which started as a federal effort to demonstrate landscape-scale restoration and which is proposed for state funding in this package--identified three landscapes in Colorado and assembled a diverse partnership to strategically connect fuels treatments. Strategic investments will be most effective if the scale of the problem is reduced over time. This means designing incentives to address structural ignitability for both new and existing homes and "fire-smart" development within the WUI. In addition, continuing to allow wildland fires to burn where they do not threaten life or property improves the long-term health of fire-adapted ecosystems and ultimately improves the unhealthy forest conditions that can lead to devastating fires that take lives and destroy property.

DFPC increased its capacity to perform mitigation projects over the past three years with the addition of modules in each district and the transition of permanent-part-time staff to permanent-full-time staff. These resources used to be seasonal and only available during the fire season, so they were unavailable to perform mitigation projects (e.g. prescribed fire, other fuel reduction projects) in the winter months. As funds become available, DFPC has been transitioning these resources to full-time employees and partnering with Colorado Parks and Wildlife, local jurisdictions, and federal land management agencies for cutting projects and prescribed fire projects when conditions allow.

DHSEM administers the FEMA Hazard Mitigation and Building Resilient Infrastructure Communities Program (BRIC) grant programs, that are used to mitigate wildland fire hazards. Last year, Congress greatly expanded funding ($160,000,000) nationwide for mitigation projects. Both the BRIC and Hazard Mitigation grant programs require a 25% state and/or local match. Often, the match requirement prevents the state from taking full advantage of full funding. That is why requested stimulus package includes $3M in one-time funding to provide the match for federal hazard mitigation grants to support wildfire risk mitigation projects.

7. ***[Sen. Rankin]:*** **Are there building codes, especially in wildland-urban interface areas, aimed at reducing wildfire impacts (e.g. spacing between buildings, construction materials, etc.)? If not, should there be?**

Both the International Code Council (ICC) and the National Fire Protection Association (NFPA) have codes for wildland-urban interface areas aimed at reducing wildfire impacts. The ICC WUI Code is designed to "bridge the gap between enforcement of the International Building Code and the International Fire Code by mitigating the hazards of wildfires through model code regulations, which safeguard the public health and safety in all communities, large and small." When adopted, the scope of these WUI codes limit application so that they only apply to construction, alteration, movement, repair, maintenance and use of any building structure or premises within WUI areas in the jurisdiction adopting the code. WUI is defined as "That geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels. The entirety of the 2015 International Wildland-Urban Interface Code can be found at https://codes.iccsafe.org/content/IWUIC2015.

Colorado is a local control state, so zoning and certain building codes are determined at the local level by counties and municipalities. Insurance companies may also require homeowners to perform certain mitigation activities or provide mitigation services themselves, and Homeowner Associations (HOAs) possess the power to develop their own wildfire mitigation requirements. All communities in the wildland-urban interface should strive to become fire-adapted communities through programs such as Firewise USA.

Some counties on the Front Range and Western Slope have building codes that address the WUI, however they are based on varying standards. There are also counties on the West Slope that have fire-smart building codes and zoning requirements. For example, Summit County Government has adopted a land use and development code that is connected to its Community Wildfire Protection Plan. As a result, rezoning requests and new developments must prepare defensible space plans, require non combustible fencing within ten feet of structures, and prohibit uncovered firewood storage within 30 ft of structures in addition to other requirements. CSFS does not have a complete list of building codes for all WUI communities in Colorado.

Home hardening to reduce structural ignitability is a critical issue that has to be addressed along with hazardous fuels and vegetation. Treating vegetation alone will not give a structure the best chance of surviving a wildfire. The CSFS is a non-regulatory agency, but notes that building codes could address both home construction and vegetation if building is occurring in the WUI. Most of the construction in the WUI is existing construction and not subject to current or future building codes, and therefore, homeowners could be incentivized to invest in fire-smart home retrofits that significantly reduce risk.

In Colorado, the Division of Fire Prevention and Control has the authority to adopt statewide codes in four types of facilities: K-12 schools and junior colleges (CRS 24-33.5-1213.3, 22-32-124, 23-71-122); Health Facility buildings or structures (CRS 24-33.5-1212.5), limited gaming structures (CRS 40-30-515), and waste tire facilities (CRS 24-33.5-1203.5(2)). In all of these facilities, DFPC has adopted the 2015 International Wildland-Urban Interface Code by rule in 8 CCR 1507-101 3.2.2.

There is no statutory authority for statewide code adoption in other types of facilities in the WUI, and with local control, the state has very limited jurisdiction over code enforcement. Local municipalities, counties, or building departments are tasked with adopting codes for structures within their jurisdiction. One example of a jurisdiction that has adopted such codes is the City of

Colorado Springs, which requires ignition resistant construction design for new or reconstructed residential structures within the city's WUI:

https://coloradosprings.gov/sites/default/files/inline-images/ordinance_18-50_section_k_updated.pdf; https://coloradosprings.gov/sites/default/files/2020_ignition_resistant_design_manual_march_2020.pdf).

Any effort to adopt WUI codes statewide should include robust stakeholder participation, and this is one of the charges of the Colorado Fire Commission (CRS 24-33.5-1233), which was built to include stakeholders like Colorado Counties, Colorado Municipal League, and Colorado Special Districts Association. If there is an effort to expand WUI codes to other facilities, DFPC's Fire and Life Safety Section has the subject matter expertise and currently provides local jurisdictions technical support in code enforcement.

For statewide codes to be effective, there needs to be applicability across all lands. Currently codes for subdivision design only affect those parcels of 35 acres or smaller (CRS 30-28-101). Existing and future lands created under what has been called "Senate Bill 35" would need to be included into any future adopted WUI codes.

8. ***[Sen. Rankin]*** **What policy or regulatory barriers exist (e.g. wood products markets, utilization of woody material) when it comes to contracting with loggers to do mitigation work?**

If Colorado had a more robust wood products industry treatment costs would be lower. There are multiple barriers to contracting with loggers to do mitigation work in the state, but they are primarily market-based barriers. The number of active wood product processing facilities in Colorado has been decreasing steadily for the past several decades. Between 1982 and 2016 there was a 64.3% decline in the number of sawmills in Colorado. This significantly affects the costs of forest management as haul distances and transportation costs increase. Colorado also only has one large-scale biomass energy plant, located in Gypsum, Colorado, and biomass is largely not cost-competitive compared with other forms of energy.

Some project developers have difficulty finding a contractor to do thinning work as the number of harvesting contractors has declined over time. Colorado has a couple hundred of these businesses, and most have less than 10 employees. The existing workforce is aging and declining in number and will not meet the needs of future timber harvesting and mitigation programs in Colorado.

One of the reasons for the decline in harvesting contractors is that year-to-year variability in the number and size of mitigation projects creates instability and a lack of certainty for businesses. Colorado also relies heavily on imports from out-of-state to satisfy demand for wood products. A more robust market for the utilization of logs for value-added forest products is a key opportunity to offset harvesting costs in the state. Developing robust markets for the use of locally produced wood products from fuels treatments in new construction would also support local business development. Finally, forest products businesses would benefit from access to risk-tolerant lending capital and easily accessible insurance and bonding given they are small businesses performing large projects, and transportation restrictions on hauling weights and overall transportation infrastructure quality can also pose barriers.

Mitigation: Jurisdictional Issues and Local Capacity

9. **Please summarize key jurisdictional issues related to wildfire mitigation, including, but not limited to:**

- **Relationship between federal, state, and local authorities**
- **Impact of recent legislation, if applicable**

Fire does not recognize jurisdictional boundaries and burns across them, and thankfully almost all state partners recognize the need for an all-lands approach that connects treatments across land ownerships. With respect to mitigation work, there are no major challenges with jurisdictional issues between different levels of government in Colorado, provided there is general recognition that local governments, state, and federal agencies all operate on different planning timelines and have different restrictions on how resources and capacity can be used. State agencies and partners overcome these complexities through open communication.

Last year Colorado signed the Shared Stewardship MOU with the U.S. Forest Service, which commits the federal government to focusing on Colorado's restoration priorities and making strategic investments in the places of highest need and potential benefit. The Rocky Mountain Restoration Initiative brings together diverse partners in three landscapes in Colorado, including in southwestern Colorado, to plan cross-boundary treatments across hundreds of thousands of acres. The From Forests to Faucets MOU CSFS signed with Denver Water and Colorado Springs Utilities is another example of all-lands planning and implementation. The USFS and water providers are providing substantial funding for these efforts with CSFS and other entities working on the non-federal land side.

The most significant jurisdictional challenge is that the vast majority of the WUI is a patchwork of private landowners, who all have different views on mitigation work. All levels of government, as well as non-profit organizations and foundations, must spend considerable time and resources educating private landowners about the importance of wildfire risk mitigation in order to connect fuels treatments across private lands.

While DFPC does not have jurisdiction to conduct mitigation projects on non-state lands, DFPC partners with federal and local agencies to perform mitigation work (both prescribed fire and other fuels management projects) during the winter months.

10. ***[Rep. McCluskie, Sen. Rankin]*** **Please provide a summary of local capacity for fire mitigation, including, but not limited to, funding, equipment, or personnel.**

CSFS does not have records on the local capacity for wildfire risk mitigation in every community in Colorado. Based on conversations with community partners, CSFS is aware that there is a lack of community capacity, both in terms of personnel and funding, for implementation at all levels. Many of the applications submitted to FRWRM are prepared by community volunteers. Colorado also has over 30 volunteer forest collaborative groups in the state who work to create local consensus around larger forest management projects and secure funding for project work.

State support for mitigation in communities is now more equitable thanks to HB20-1057, which reduced the match requirement for FRWRM to 25% in areas of the state with fewer economic resources. The FRWRM program also dedicates up to 25% of its funds each year to capacity grants, which allow communities to purchase equipment like chippers to support long-term

mitigation programs. FRWRM has awarded 9 capacity grants, for a total of $217,115 awarded to communities since 2017. Finally, FRWRM also requires applicants to evaluate hiring veteran or youth conservation corps members to perform mitigation work. Conservation corps provide critical capacity and job training for forestry work in Colorado.

Some communities have increased local funding pools to leverage state and federal funding sources. For example, both Chaffee County and Summit County passed local sales tax and property tax increases to fund mitigation work, and these local funding sources provide an important match for state and federal grant programs. Summit County's property tax generates approximately $1.5 million per year for wildfire risk mitigation work, education and outreach. In addition, the Town of Vail uses a real estate transfer tax that contributes $250K to fund their wildfire mitigation program.

There are 372 individual fire agencies in Colorado with vastly different capabilities for fire mitigation in the areas of funding, equipment, and personnel. The Colorado Fire Commission Data Subcommittee is working on a holistic approach to collect data from fire departments and display it on a variety of topics that may be of interest to policymakers.

Issue: Wildfire Suppression

Suppression criteria and effectiveness

11. **What are the criteria for a full-suppression fire? When is it appropriate to let a fire burn, and when does it need to be put out?**

Typically, outside of federal lands, all wildland fires in Colorado are completely extinguished with a full suppression strategy. However, wildland fires must also be allowed to burn where they do not threaten life or property so they can perform their natural ecological function of reducing fuels and fostering new growth. Suppressing every fire has contributed to Colorado's overly dense forests; Coloradans must prepare themselves and their property to live with wildfire.

On federal land, many factors are evaluated when determining the suppression strategy for a fire. The current default strategy is to fully extinguish the fire. Land management agencies have the option to allow certain naturally occurring fires to continue to burn, provided the fire meets established criteria. These criteria include, but are not limited to: the time of the year, the condition of the fuels, the expected weather, values at risk, the availability of suppression resources, and various other goals (e.g. the area affected was scheduled for a prescribed fire) in the fire area.

The decision to allow a fire to continue to burn is made at a fairly high level within the land management agency and is based upon existing forest management plans. During the 2020 fire season, the decision was made early in the season to pursue a full suppression strategy on all fires in Colorado due to fuel conditions and reduction of available resources due to COVID-19. Even with a full suppression strategy, land managers were not able to contain fires before they grew to the point where they were impacting values at risk because response resources do not always match strategy.

12. **Could the requested suppression resources have prevented or contained the larger fires of 2020?**

Given that the most destructive fires in the 2020 season originated on federal land, and that weather, topography, and forest conditions were aligned against us, the short answer is maybe. However, additional state-managed resources proposed in the wildfire stimulus package institutionalize efforts from 2020 that had an impact on decreasing the number and size of several wildland fires in 2020. This is especially true for fires that started on state or private land, over which DFPC had more influence in ordering the appropriate response resources. For fires that start on federally managed land, the state has little to no say in what resources are ordered to fight those fires. Cameron Peak and East Troublesome started on federal land and did not utilize the state's suppression resources during the initial attack phase. Once these fires impacted state and private land, DFPC worked to ensure that all available and appropriate resources were supporting fire suppression efforts. The Chatridge 2 Fire started in Douglas County near Highlands Ranch, and local responders called upon DFPC aggressive initial attack resources (both ground and aviation) to suppress that fire early. The aggressive initial attack effort was successful and the fire was contained in a matter of hours. The actual valuation of the properties evacuated during this fire was approximately $2 billion dollars. While the $300,000.00 spent on aggressive initial attack and enhanced state assistance is significant, the overall cost and losses were much less than had the fire not been subject to aggressive support. Burned homes and an extended duration state responsibility fire would likely have resulted without these efforts.

13. ***[Sen. Rankin]*** **Describe the timing of the recent fires and how that aligns with existing contracts. Had some contracts expired by the time the East Troublesome Fire started?**

Aviation Resource	2020 Planned Contract Dates	2020 Actual Contract Dates
SEAT 1	April 6 to September 3 (150 days)	April 6 to Currently contracted (anticipated release date 11/24)
SEAT 2	June 1 to October 29	May10 to Currently contracted (ARD - 11/24)
Helicopter 1	May 15 to September 12 (120 days)	May 15 to November 2
Helicopter 2	June 12 to October 10	May 10 to November 6
Large Air Tanker	June 15 to August 28	June 28 to September 2

The East Troublesome Fire started on October 14 on US Forest Service land. Within three days high winds and low humidity allowed the fire to grow to over 10,000 acres. Fire activity forced the closure of State Highway 125 and the mandatory evacuation of approximately 90 homes on October 17. Between October 20 and 23, the fire spread increased dramatically with 24-hour increases of 18,000 to 87,000 acres during the four-day run. The fire was fueled by wide-spread

drought, numerous dead and down beetle-killed trees, red flag weather conditions created by high winds and dry conditions, and poor humidity recovery overnight. The combination of these factors led to unprecedented, wind-driven, active fire behavior with rapid spread during the overnight hours. During this period the area north of US Highway 40 from near Granby and extending eastward to Grand Lake and Estes Park had over 7,000 structures threatened, and a population of over 35,000 placed under a mandatory evacuation. As of November 19, the East Troublesome Fire has burned 193,812 acres and is 60% contained. Because DFPC extended contracts for various aviation resources they were available for the East Troublesome fire.

DFPC utilized reserve money in 2020 to bring these resources on early or extend them later in order to respond to fires outside of the planned contract period. Reserve funds are earmarked for replacement of state-owned resources (e.g. multi-mission aircraft), so using these funds for alternative purposes compromises our ability to replace these resources in the future. This is one reason part of the requested package includes a legislative proposal to create a Firefighting Equipment Reimbursement and Replacement Fund that would collect reimbursable fire fighting expenses and use those funds to replace aircraft, engines, or other equipment.

Suppression: Jurisdictional issues and local capacity

14. **Please summarize key jurisdictional issues related to wildfire suppression, including, but not limited to:**

- **Relationship between federal, state, and local authorities**
- **Impact of recent legislation, if applicable**

As noted above, when fires start on federal land, state response strategies are not considered until the fire crosses into state/private land and impacts communities. For this reason, response resources that the state would deploy do not always match the suppression efforts of federal land managers.

15. ***[Sen. Moreno]*** **Outline how fires transition from local to state jurisdiction. Is this process smooth? Does the transition happen before the Governor makes a formal declaration? Are there issues that lead to complications?**

Pursuant to state statute, a fire that starts within a fire protection district is the responsibility of that fire protection district until it exceeds their capabilities. Once it exceeds the local capabilities, the fire protection district requests the assistance of the county sheriff who manages and pays for the fire until it exceeds their capabilities. Once that happens, the sheriff requests assistance from DFPC who performs a complexity analysis to determine whether or not a fire qualifies for state responsibility. Once that determination is made, DFPC will pay for suppression costs through the Emergency Fire Fund or request a disaster declaration from the Governor in order to access Disaster Emergency Fund dollars.

DFPC staff focus on building relationships with these local partners, agreeing to local operating plans, and ensuring local officials understand how the process works prior to fire season. These efforts help ensure that the process for transferring responsibility of growing wildfires is seamless when it occurs. In most cases, the paperwork is ready to go, and when a fire qualifies for state responsibility, approval is granted by the DFPC Director or Governor's Office the same day it is requested.

16. ***[Rep. McCluskie, Sen. Rankin]*** **Please provide a summary of local capacity for fire suppression, including, but not limited to, funding, equipment, or personnel.**

There are 372 individual fire agencies in Colorado with vastly different capabilities for fire suppression in the areas of funding, equipment, and personnel. The Colorado Fire Commission Data Subcommittee is working on a holistic approach to collect data from fire departments and display it on a variety of topics that may be of interest to policymakers.

17. Describe the role of the National Guard in responding to wildfires.

The Department of Military and Veterans Affairs' largest Division, the Division of the National Guard acts as a "second responder" versus a first responder. When the incident commander requests additional resources through the state emergency operations center for a wildfire, whether that is a helicopter for suppression or medical evacuation, or service members for traffic control points to aid law enforcement, we can be called upon to support.

The Colorado National Guard utilizes Joint Task Force - Centennial to ensure that we have a full-time command and control capacity to respond immediately when called. In coordination with the Division of Homeland Security/Office of Emergency Management we work through the logistics of what is available, and what is best assigned to each wildfire (in the case of multiple, simultaneous wildfires) and assign personnel and equipment as appropriate.

The National Guard provides several resources for wildfire suppression. Once approved through an executive order from the Governor, the National Guard can provide suppression helicopters, medical evacuation helicopters, and resources to assist local government with traffic control points. New in 2020, the National Guard provided large-scale COVID testing and participated in TF FireGuard - fire detection and notification and long term fire monitoring.

Costs, revenue, and reimbursements

18. ***[Sen. Rankin]*** **Should the costs of helicopters be shared with other agencies that use them when they are not being used for wild fires?**

While the primary duty of these helicopters should be public safety, there is likely an opportunity to use them for other state agencies' needs when they are not performing fire response. DPS will conduct a survey on aviation needs for each state department to determine how they are being used and whether or not the Fire Hawk would be an appropriate tool to support those efforts. The cost of support efforts for other state Departments, if utilized, will be shared among the impacted Departments.

19. ***[Sen. Moreno]*** **How often are Colorado Firefighting Air Corps resources deployed in Colorado versus other states? How much does the State receive in reimbursements from other states and entities?**

Frequency of out of state deployments can vary drastically from year to year, and rarely is it for an extended period of time or assignment. Availability to respond to an incident out of state is dependent on predetermined preparedness levels based on weather conditions, predicted future forecasts, and statewide resource availability at time of request. In situations when a fire in a bordering state is threatening to cross into CO, we may loan out aircraft as needed to protect and prevent spread into Colorado. If and when responding to an assignment out of state, we typically bill for all operating costs including daily availability.

Revenue collected from a state owned resource, for example out MMA aircrafts, is intended to fund unexpected large maintenance expenses as the apparatus as well as savings towards funding of future capital replacement of state owned aircraft as. Revenue collected from contracted CFAC resources (SEAT, HELI, LAT) is used to recoup operating and contracting costs. This money is also used to extend contracts for exclusive use SEAT and helicopters when fire conditions require an extension past the original contract. We also use this revenue to keep Call When Needed (CWN) apparatuses available when our exclusive use contracts have ended.

2020 (through 11/19/2020)				
Apparatus	In State-Costs	In State-Flight Time	Out of State-Cost (includes daily availability	Out of State-Flight Hours
MMA (2 State owned)	$3,160,336.7	1310.0 Hours	$146,420.00	41.0 Hours
SEAT (2 EU, 2 CWN)	$2,309,600.03	351.95 Hours	$77,110.60	24.4 Hours
HELI (2 EU)	$13,115,705.93	546.6 Hours	$114,739.00	27.0 Hours
LAT (1 EU)	$1,910,482.62		$161,519.44	

HELI: *WY response-8/5-8/10 Richard Mtn and Bradley Fire (SW WY). 9/19-9/21 Mullen Fire**

SEAT: *WY Response: 8/3 Richard Mtn, 8/7 Bradley Fire (SW WY). 9/22 Mullen Fire**

MMA: *8/4 Richard Mtn and 8/8 Bradley Fire (SW WY); 9/18-9/30 California; 10/1-10/17 Mullen*; 5/24; 6/1, 10/18 New Mexico.*

**Mullen Fire started in Wyoming near the CO border, so while this appears that the resources were utilized for an out of state fire, the overall goal was to prevent it from moving into CO, as well as response when it did cross the border.*

20. ***[Sen. Moreno]*** **Describe the time frame and process for the State to claim and receive FEMA reimbursements for wildfire expenses.**

There are different types of FEMA reimbursement for wildland fire expenses. Fires may qualify for the FEMA Fire Management Assistant Grant (FMAG). If the fire involves catastrophic losses, the FMAG may be followed up with a Major Disaster Declaration by the President under the Stafford ACT.

If a fire exceeds the capacity of local resources or funding, the county can request the State to assume responsibility for the fire. The state will conduct a formal assessment and determine if it meets the requirements, and if so determine the appropriate and available funding source. In addition to this, a fire may be eligible for a reimbursement of up to 75% of eligible costs if approved for a FEMA under a FMAG. The process starts when the Governor or Authorized Governor's Representative submits the FMAG request to the FEMA Regional Administrator. This request is initiated verbally and immediately followed up with an official, written request for Fire Management Assistance Declaration that includes pertinent information regarding the fire. This must be done while the fire is burning uncontrollably and the fire is threatening destruction that would constitute a major disaster. There must be an existing and continuing probability of loss at the time of the request. Additional criteria includes threat to lives and property, including threats to critical facilities and watersheds, availability of State and local firefighting resources, high fire danger conditions and potential major economic impact. A Principal Fire Advisor is then assigned by FEMA to provide an on site technical assessment of the condition to confirm it fits into the criteria. Their assessment along with the initial request is then sent for review, and a verbal notification of approval/denial is given to the State.

Once the FMAG declaration has been communicated to the State, the incident period, or timeframe for costs incurred, is determined. This would be the start and end dates of what is commonly referred to as the FMAG period. It is important to note that the FMAG period may not align with the State Responsibility Period and the FMAG period will not align with the actual start and containment date of the fire.

Once formal approval of FMAG declaration and signed add-ons and amendments are received, the State submits a formal Fire Management Assistance Grant application request to FEMA. This must be submitted within 9 months after the declaration date. FEMA then has 45 days after receipt of application to approve or deny. There are multiple categories that can be covered including Category B (Emergency Protective Measures), Category H (Fire suppression) and Category Z (Administrative Costs). A Project Worksheet, outlining all costs requested for reimbursement, must be submitted within 6 months of the incident close date.

The State serves as a pass-through for all cooperator and contractor cost reimbursements, this includes facilitating FEMA FMAG awards. Invoices of expenses must be received and paid by the state before the project worksheet can be submitted for FEMA review. This can present challenges and extend the length of reimbursement. In general, it takes approximately 36 months to close out a fire, though complex cost share agreements, delayed submission of invoices from cooperators, and a very busy fire season can extend these timeframes.

Below is an example timeline of FMAG Reimbursements taken from the 2016 Junkins Fire:

October 17th, 2016: Fire starts, becomes State Responsibility. Receives verbal FMAG approval

October 26th, 2016: End date of FMAG eligible expense. Expiration date to submit project worksheets is determined to be October 26th, 2017

November 2016: Begin receiving invoices and processing reimbursement payments to cooperators, fire cost share applied along with FMAG time period applied. Review of eligible expenses

August 2, 2017: Project Worksheet #1 submitted

September 2017: Due to several missing invoices from federal partners, DFPC requested a 6 month extension for additional submissions. Deadline extended from October 27th 2017 to April 26th, 2019.

June 26th, 2018: Project Worksheet # 1v1 submitted

November 30th, 2018: Project Worksheet # 2 submitted

December 13th, 2018: Project Worksheet # 1v2 submitted

December 20th, 2018: Due to several missing invoices from federal partners, DFPC requested an additional 6 month extension for time to receive, review, and pay additional invoices. Deadline extended to October, 27th, 2019

April 2020: Final closeout review with FEMA requested and approved.

SWIFT wildfire crews

21. **[Rep. Herod]: Why aren't more DOC inmates utilized as wildland firefighters, given their previously-demonstrated bravery and low-likelihood of recidivism?**

The State Wildland Inmate Fire Team (SWIFT) program, operated by Colorado Correctional Industries (CCI), is a voluntary program. The number of teams is dependent upon the number of inmates who apply (Minimum and Minimum-Restricted classifications) and subsequently pass the training requirements. CCI currently operates three SWIFT crews from the Buena Vista Correctional Complex, Four Mile Correctional Center, and Rifle Correctional Center. CCI attempts to recruit 24 inmates per team in order to help mitigate any gaps due to inmate programming, early release, inmate movements, injury, etc.

22. Please describe the utilization of SWIFT crews in 2020. If these crews have not been utilized due to COVID-19, please explain why.

During 2020, SWIFT crews have been utilized for the following activities:

- Forest management treatment which includes tree felling, limbing, piling, and lop/scatter of slash;
- Fire mitigation activities throughout the state;
- Demolition, removal, and disposal of abandoned structures;
- Watershed cleanup;
- In October 2020, a SWIFT crew was deployed to support the Deep Creek fire for three days and another crew deployed to support the Cameron Peak fire for nine days.

The activities of the SWIFT crews have been impacted as a result of COVID-19. In response to the COVID-19 rising cases, in late March 2020, project work for all outside inmate crews, including the SWIFT crews, were discontinued to mitigate the risk of exposure to the virus. As the year continued and in order to assist the State, the Department developed protocols that allowed fire crews to be sent to the Deep Creek and Cameron Peak fires.