



## COLORADO

### Division of Fire Prevention & Control

Department of Public Safety

690 Kipling Street, Suite 2000  
Lakewood, CO 80215

### MEMORANDUM

TO: Governor John Hickenlooper &  
Members of the Colorado General Assembly

FROM: Mike Morgan, Director

DATE: April 13, 2018

RE: 2018 Wildfire Preparedness Plan

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### Wildfire Preparedness Plan

Colorado law, specifically Section 24-33.5-1227 (2) (a), C.R.S. requires the Director of the Division of Fire Prevention and Control to develop an annual Wildfire Preparedness Plan in collaboration with a representative of the County Sheriffs of Colorado, a representative of the Colorado State Fire Chiefs' Association, the Director of the Office of Emergency Management and the Adjutant General.

The Wildfire Preparedness Plan shall be designed to address the following:

- (1) The amount of aerial firefighting resources necessary for the state of Colorado at times of high and low wildfire risk;
- (2) The availability of appropriate aerial firefighting equipment and personnel at times of high fire risk to respond to a wildfire;
- (3) The availability of state wildfire engines and staffing of the engines at different levels of wildfire risk;
- (4) The availability of wildfire hand crews, including state inmate wildfire hand crews, at different levels of wildfire risk; and
- (5) A process for ordering and dispatching aerial firefighting equipment and personnel that is consistent with, and supportive of, the statewide mobilization plan prepared pursuant to Section 24-33.5-705.4, C.R.S.



## History of Wildfire Preparedness Fund

The Wildfire Preparedness Fund (WPF) in Colorado was authorized by the Legislature through Senate Bill 06-096, which also appropriated funding for state fiscal years 2006 through 2010 to support implementation of the actions directed by the legislation. Senate Bill 11-238 extended the annual transfer of \$3.25 million by the Department of Local Affairs from the mineral leasing fund to the Division of Fire Prevention and Control for two years beginning July 1, 2012.

Senate Bill 13-270 amended Section 10-3-209 (4), C.R.S., and allows for appropriations to be made by the General Assembly for the Wildfire Emergency Response Fund (WERF) and the WPF from insurance premium taxes collected by the Division of Insurance in the Department of Regulatory Agencies prior to their transfer to the General Fund. However, SB13-270 did not make an appropriation for FY 2014-15 to the WPF.

The Department of Public Safety requested an annual appropriation of \$4,150,000 Cash Funds from the proceeds of insurance premium taxes to the WPF for FY 2014-15, FY 2015-16, and beyond for the ongoing funding of wildfire suppression functions within the Division of Fire Prevention and Control (DFPC). The request was approved and the moneys in the WPF are now continuously appropriated.

DFPC may use the moneys in the Wildfire Preparedness Fund to implement the Wildfire Preparedness Plan, including:

(a) Increase upgrades to fire engines acquired through the federal excess personal property program that are on loan to local fire departments;

(b) Increase technical assistance in wildland fire preparedness to counties, municipalities, and fire protection districts; and

(c) Ensure, in conjunction with the wildfire preparedness plan, that state firefighting equipment is fully operational and both available to and coordinated with the equipment capacities of fire protection districts and that county, municipality, and fire protection districts personnel are fully trained in the use of such equipment;

(d) The division may use moneys in the wildfire preparedness fund for the purpose of training, equipping, or supervising one or more hand crews employed by veterans' fire corps programs in Colorado for wildland fire mitigation and suppression.

## Other Wildland Fire Legislation and Funding

House Bill 12-1283 consolidated the State's fire prevention and control and homeland security and emergency management functions, resources, and personnel within the Department of Public Safety. This legislation transferred the State responsibilities for wildland fire preparedness, response, suppression, coordination, and management from the Colorado State Forest Service (CSFS) to DFPC.

Since the passage of HB 12-1283, the following legislation has further expanded the responsibilities of DFPC related to wildland fire:

- Senate Bill 13-083 – Colorado Prescribed Burning Act;
- Senate Bill 13-245 and SB 14-164 – Colorado Firefighting Air Corps and the Center of Excellence for Advanced Technology Aerial Firefighting (CoE). SB 14-164 included \$19.7 million General Fund and 19.3 FTE in FY 2014-15, \$9.8 million General Fund and 27.0 FTE in FY 2015-16, and \$9.6 million and 27.0 FTE in on-going base funding;
- Senate Bill 14-008 – Creation of the Wildfire Information and Resource Center. SB 14-008 included \$27,175 General Fund and 0.5 FTE in FY 2014-15 and \$22,472 General Fund and 0.5 FTE in FY 2015-16 and beyond;
- Senate Bill 15-205 – Veterans Fire Corps for Wildland Firefighting. The bill appropriated 6.0 FTE to DFPC and authorized DFPC to expend moneys out of the Wildfire Preparedness Fund for the implementation of the bill;
- House Bill 15-1129 – Colorado Disaster Prediction and Decision Support System. HB 15-1129 included \$600,000 General Fund and 0.5 FTE for five fiscal years, FY 2015-16 through FY 19-20;
- Senate Bill 15-234 (Long Bill) included \$1,660,000 Capital Construction Fund for the purchase of five wildland firefighting engines. DFPC took delivery of five Type 3 Engines in 2017.

For FY 17-18, DFPC has approximately \$18.3 million total funds available for wildland firefighting operations and research through three main funding sources: General Fund, the Colorado Firefighting Air Corps Fund and the Wildfire Preparedness Fund. Please note that at the time of the writing of this report, the FY 2018-19 base operating budget for the Division has not been approved, however, the Division requested continuation funding from FY 2017-18. The funds and activities are summarized in the table below.

<b>DFPC Wildland Fire Management Operations Budget - FY 2017-18</b>				
	<b>General</b>		<b>Reappropriated</b>	
	<b>Fund</b>	<b>Cash Funds</b>	<b>Funds</b>	<b>Total Funds</b>
Aviation Program	9,169,404	2,000,000	0	11,169,404
Center of Excellence (CoE)	927,374	0	0	927,374
Colorado Disaster Prediction and Decision Support System (H.B. 15-1129)	600,000	0	0	600,000
Other Wildland Fire Management Programs*	811,445	600,000	4,150,000	5,561,445
<b>Total WFMS Operating Budget</b>	<b>\$11,508,223</b>	<b>\$2,600,000</b>	<b>\$4,150,000</b>	<b>\$18,258,223</b>

\* Funding includes General Fund, cash funds from the Colorado Firefighting Air Corps Fund and the Wildfire Emergency Response Fund, and reappropriated funds from the Wildfire Preparedness Fund for the following programs: 1. Wildland fire management services, technical assistance, and training through the Fire Management Officers (FMOs) Program; 2. Suppression and Prescribed Fire Program including staff and engines located strategically throughout the state; 3. Veterans Fire Corps Program; 4. State Wildland Fire Team (SWIFT) Crews; 5. Vehicle Maintenance Shop; and 6. various other support staff.

As the table above shows, the majority of the wildland fire preparedness budget for the Division is provided through General Fund appropriations, the Wildfire Preparedness Fund, and reimbursements deposited in the Colorado Firefighting Air Corps Fund when DFPC aircraft are used by federal agencies or other states.

In addition to the base operating budget of the Wildland Fire Management Program, the State has available resources from other funding sources to cover expenses for state responsibility wildland fire emergencies and disasters. These funding sources include:

- Emergency Fire Fund (EFF) - funded by a \$1.0 million yearly voluntary contribution assessed among 42 participating counties as well as approximately \$30,000 in contributions from four non-county participants (Colorado Springs Utilities, Denver Water, City of Aurora, Denver Mountain Parks). This is the first resource the state uses when responsibility for a wildland fire is transferred to the State. Once this fund is depleted, Disaster Emergency Funds are requested from the Governor.
- Wildfire Emergency Response Fund (WERF) – This fund provides, at a minimum, funding or reimbursement for the first aerial tanker flight, the first hour of a firefighting helicopter, and/or two days of a wildfire hand crew at the request any county sheriff, municipal fire department, or fire protection district.

The Governor may increase the use of WERF funding on wildland fires at his discretion. The fund does not currently have a dedicated annual revenue source, however, the fund can be replenished through appropriations by the General Assembly either from direct General Fund dollars or insurance premium tax dollars pursuant to Section 10-3-209 (4)(a)(II), C.R.S, or from the Disaster Emergency Fund (DEF) pursuant to Section 24-33.5-706 (4.5)(b), C.R.S.

Within the past 5 fiscal years, WERF-funded activities have received resources twice, once through a General Fund appropriation of \$608,200 through the FY 2012-13 supplemental process (S.B. 13-101) to cover requests for reimbursement from the 2012 wildland fire season and again in FY 2013-14 through a transfer of \$500,000 in insurance premium tax dollars into the fund (S.B. 13-270).

- Disaster Emergency Fund (DEF) – The Disaster Emergency Fund is available to provide State funding for State disasters upon a commitment by the Governor of DEF resources through an Executive Order. During the 2017 wildland fire season, there were 10 wildland fires that became state responsibility fires, of those, 5 fires received an Executive Order and funding from the DEF.
- Federal Emergency Management Agency (FEMA), Fire Management Assistance Grant Program (FMAG) - Fire Management Assistance is available to States, local and tribal governments, for the mitigation, management, and control of fires on publicly or privately owned forests or grasslands, which threaten such destruction as would constitute a major disaster. Colorado had no FMAG eligible fires in 2017.

<b>2017 State Responsibility Fires</b>	<b>Colorado Share of Cost (Estimated)</b>	<b>Other Agency Share of Cost (Estimated)</b>	<b>Total Cost (Estimated)</b>
Logan Fire	\$150,000	\$0	\$150,00
Sunshine Fire	\$400,000	\$0	\$400,000
Dead Dog Fire	\$234,000	\$1,566,000	\$1,800,000
Lightner Fire	\$1,525,000	\$975,000	\$2,500,000
Mill Creek Fire	\$1,104,000	\$96,000	\$1,200,000
Wilson Fire	\$150,000	\$350,000	\$500,000
Deer Gulch Fire	\$84,000	\$216,000	\$300,000
Deep Creek Fire	\$2,025,000	\$195,000	\$2,220,000
Pine Tree Fire	\$438,000	\$162,000	\$600,000
Winter Valley Fire	\$345,000	\$455,000	\$800,000
<b>Total</b>	<b>\$6,455,000</b>	<b>\$4,015,000</b>	<b>\$10,470,000</b>

## History and Background on Wildland Fire in Colorado

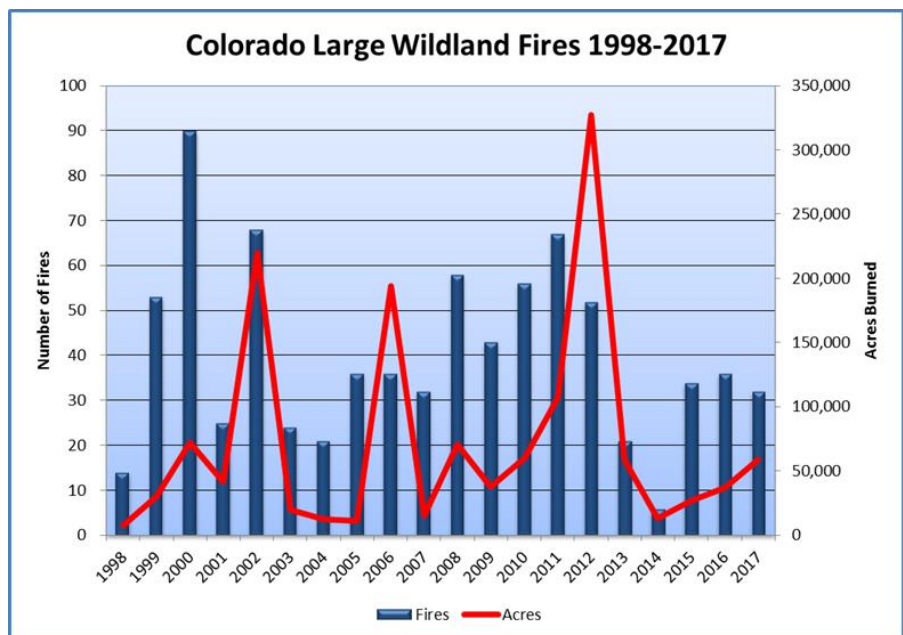
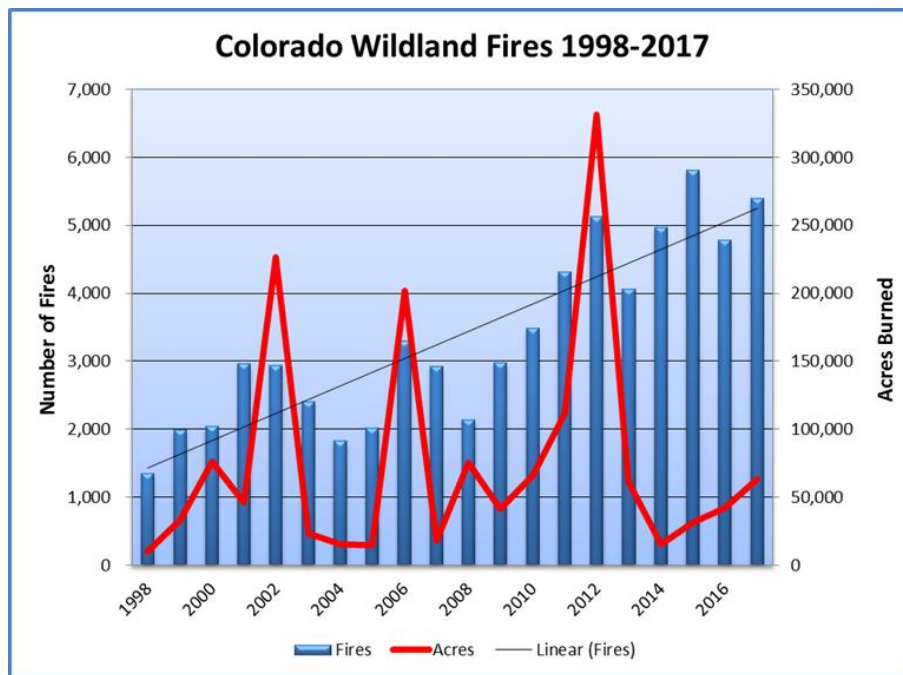
Wildfires occur as unscheduled emergency events in wildland fuels (grassland, shrub land, and forest vegetation) and in fuels that include a combination of wildland and human introduced fuels such as houses and improvements. Wildfires often involve or threaten human life, residential housing or other improvements, natural resources, the economy, and quality of life in Colorado.

Wildfire knows no boundaries; it does not recognize jurisdictional responsibilities. A single wildfire often crosses private, county, state, tribal and federal lands and threatens communities, infrastructure, economies, watersheds, and valuable natural resources that affect citizens, landowners and fire managers across all landscapes. A large wildfire has significant potential to impact millions of lives including those who live, work or play in our great State, as well as those who rely on Colorado for their water supply. For these reasons, wildland firefighting in Colorado is interagency in nature, involving state, county, local, federal, and tribal partners.

Due to natural fuels build-up, declining forest health, and increased population in wildland-urban interface areas, wildfires that exceed the control efforts of local and county resources are becoming more common. Colorado's wildfires have become fires within subdivisions requiring additional management efforts and coordination of resources. Further compounding the criticality of the situation, is that Colorado's traditional fire season has expanded into times of the year that we have not traditionally experienced fires. DFPC continues to be engaged in a Strategic Planning process and is working with partners and stakeholders to identify ideas and solutions to assist in making resource availability mirror Colorado's growing fire seasons.

Since the 1990s, the number, intensity, and complexity of wildfires in Colorado have been growing exponentially, and experts predict that it will continue to worsen. In the 1960s, the average annual number of wildfires in Colorado was 457. These fires burned an average of 8,170 acres annually. By the 1990s, the average number of fires and acres burned had more than doubled to about 1,300 fires with 22,000 acres burned. Between the 1990s and the 2000s, the average number of fires and acres burned more than doubled again.

In 2017, there were a total of 5,398 wildland fires reported on state and private lands by local fire agencies that burned 63,182 acres. Of these, a total of 32 were classified as large fires. For statistical purposes, a large wildland fire is a fire of 100 acres or more or is of a complexity requiring a Type 1 or Type 2 Incident Management Team.



The number of State Responsibility fires has continually increased since the creation of the Emergency Fire Fund (EFF). Between its creation in 1967 and 1979 there was a total of 1 fire that became a state responsibility fire, from 1980 and 1989 there were 8, from 1990-1999 there were 15, and in 2001 through 2009 that number exploded to 65 qualifying events. So far in this decade, even with the single qualifying fire in 2014 and no qualifying fires in 2015, we have had 56 state responsibility fires in this decade, costing nearly \$65 million in EFF and State suppression costs alone. This number does not include local or federal agency suppression costs or total losses that resulted from the fires.



## Preparedness Planning Assumptions

- Public and firefighter safety is the priority.
- Wildfires that exceed the capabilities of local and county resources will occur.
- Wildfires will threaten lives, property, and natural resources.
- Wildfires will threaten water supplies for residents and non-residents of Colorado.
- Wildfires have significant potential to threaten local and state economies.
- No single entity or jurisdiction alone can suppress every wildfire.
- Successful suppression and extinguishment of catastrophic wildfires requires organized interagency cooperation at all levels of government.
- Ensuring that state wildfire resources are identified, staffed, and positioned to respond will prevent some wildfires from becoming large catastrophic events and will assist in the containment and suppression of those wildfires that do escape initial attack, thereby minimizing the far reaching impacts of these large incidents.

## Fire Season Outlook 2018

In late April and early May of every year, scientists and land managers produce coordinated outlooks for fire season across the western US to better prioritize resources. While it is too early to forecast with accuracy what the 2018 fire season will bring, the current National Predictive Services models indicate an **above average core fire season** for the first time since 2012 and 2013 in portions of Colorado.

- Weather patterns in February and March prior to green-up of grasses and herbaceous fuels resulted in significant fire activity on the Eastern side of the Continental Divide. This included a fire on March 4 in Elbert County (4 homes lost and multiple outbuildings), a fire in El Paso County on March 16 (2 homes lost and multiple outbuildings), and the Stateline fire which burned nearly 30,000 acres in New Mexico, Oklahoma and Colorado.
- Beginning in the fall of 2017, weather patterns have resulted in precipitation and snow pack deficits, particularly in southern Colorado. Statewide Snow Water Equivalent (SWE) levels at SNOTEL sites are at 69% of average, compared to 111% in April of 2017. Multiple SNOTEL sites are at the lowest SWE levels recorded, in some cases, since the mid-1970s. Previous years with similar low snow pack levels had a high correlation to increased acres burned in May through June.
- Drought conditions have expanded and intensified since 2017, with the majority of southern Colorado currently being in the Severe to Extreme drought categories.
- Long range predictors point towards above average temperatures and average to below average precipitation levels in Colorado during the core fire season (June, July, and August).
- Factors continue to line up for an above average fire season for the southern portion of Colorado for the first time since 2012 and 2013. Large fire potential for April is expected to be average across the state, with the exception of above average potential in southeast Colorado. Above average large fire potential is expected to expand across the southern half



of the state in May, and continue to expand farther north across most of Colorado in June and July. Average severity conditions are forecast for northern portions of the state.

- There is less certainty with outlooks for late summer and early fall. La Niña conditions are forecast to weaken later this spring, with an average onset on the Southwest Monsoon expected in early July. Delayed weakening of La Niña conditions could lead to a later than average onset of the Southwest Monsoon and thus longer period of above average fire potential across southern portions of the state.
- There are three primary contributors to large fire potential: weather, fuel, and topography. Current weather outlooks and fuel conditions indicate that Colorado may experience an increased number of large wildland fires in the 2018 season.

## Colorado's Wildfire Management Goals

Suppression costs escalate significantly as fire size increases. A wildland fire becomes a local emergency before it evolves into a State, then regional, and then national incident. Colorado's wildfire management program should continue to hold as a high priority the strengthening of first response firefighting forces to safely and effectively suppress wildland fires when the fires are small.

Fast, aggressive, initial attack on new fires (for fires where full suppression efforts is the appropriate management response) can reduce the number of mega fires that may burn hundreds of homes and cost the taxpayers tens of millions of dollars in suppression costs. The safety of firefighters and the public will continue to be the first priority in all fire management activity.

**DFPC's strategic policy initiative for wildland fire management is to reduce the number of large wildland fires that threaten lives or property by 5.0 percent by June 30, 2018 and by 10.0 percent by June 30, 2020 for the people of Colorado.**

### Enabling Objectives

Because DFPC's role is primarily to support local and county firefighting organizations, in order to achieve this wildfire management goal, accomplishment of the following enabling objectives will be necessary:

1. Generate an incident assessment for every fire within 60 minutes of request or detection.
2. Deliver the appropriate aviation suppression resources to every fire within 60 minutes of the request.

Aviation assets will be strategically located based on preparedness levels, interagency situational awareness of fire activity, weather, National Fire Danger Rating System indices, location of other aerial assets, and other relevant factors.

**Leaders' intent on incident priorities:**

When developing incident strategies, tactics, and plan implementation. The following list, in order of numerical importance, shall be considered:

1. Public and Firefighter Safety
2. Incident Stabilization
3. Property Conservation
4. Endangered Species, Environmental, and Economic Impacts
5. Resource Benefit

**2018 Wildfire Preparedness Plan**

Following is a summary of the activities that will be implemented to address the required components of the annual Wildfire Preparedness Plan as well as facilitating the achievement of DFPC's wildfire management goals:

**Wildland Fire Management**

Colorado's structure for combatting wildland fires is a cooperative, interagency system involving local, county, state, and federal agencies. Wildland fire protection responsibilities on non-federal lands in Colorado follow a hierarchy of local jurisdiction, to the county sheriff, and finally to the State of Colorado. The Division of Fire Prevention and Control (DFPC) is the lead state agency for wildland fire suppression as identified in the Colorado state emergency operations plan and in accordance with the provisions of Section 23-31-301, C.R.S.

Wildland fire management services, technical assistance, and incident support will continue to be implemented and delivered to counties and local fire departments through the Wildland Fire Management Section, consisting of the Section Chief, Deputy Chief, Planning Branch, and Operations Branch, which includes the Area and Regional Fire Management Officers (FMOs), and available State aviation and suppression resources. In order to achieve its goals for the 2018 Wildfire Preparedness Plan, the DFPC relies on a core group of Wildland Fire Management Section employees. Based on estimated base funding levels for FY 2018-19, the DFPC staffing assumptions for wildland firefighting personnel are based on a mixture of approximately 60 FTE equivalent full-time and part-time positions as well as 23 temporary employees.

**Technical Support**

DFPC has 2 Area Fire Management Officers (FMOs) and 10 Regional Fire Management Officers positioned throughout Colorado to provide technical assistance and support to local jurisdictions. These FMOs are the first point of contact for local jurisdictions when they need training, funding support, or someone with additional subject matter expertise.

## Aerial Firefighting Resources

The 2018 plan for DFPC aerial firefighting resources will be based on wildfire risk and need, as well as available funding, and may include any number of potential arrangements. To the degree practicable and possible, the minimum deployment of DFPC aerial firefighting resources will be:

**Multi-Mission Fixed-Wing Aircraft** – In order achieve the goal of generating an incident assessment for every fire within 60 minutes of request or detection of a wildfire, DFPC will operate two fixed- wing multi-mission aircraft.

**Rotor-Wing Multi-Mission Aircraft** – In order achieve the goal of providing the appropriate aviation suppression resources to every fire within 60 minutes of the request, DFPC will operate a minimum of two helicopters with helitack crews through an exclusive-use contract.

**Single Engine Air Tankers (SEATs)** – In order to achieve the goal of providing the appropriate aviation suppression resources to every fire within 60 minutes of the request, DFPC will operate a minimum of two SEATs through an exclusive-use contract. DFPC will also administer a “Call-When-Needed” program that makes additional SEATs available if the wildfire situation dictates the need for additional resources. Based on fire season intensity and severity, DFPC has started the first exclusive-use SEAT contract April 3, 2018 and will continue to evaluation and make adjustments to bring on additional aviation assets or extend contract periods as appropriate.

**Other Aviation Resources** – DFPC continues to evaluate and pursue other opportunities for Call When Needed resources to enhance firefighting capabilities. This includes the use of Large Air Tankers and Very Large Air Tankers.

## Engine Program

The DFPC Engine Program provides assistance to local jurisdictions when local firefighting resources are overburdened due to number, complexity, or duration of fires. When areas of the state are under high or extreme fire danger, DFPC engines may be pre-positioned on "severity" assignments for the purpose of supplementing local resources for quick initial attack. DFPC has engines located in Berthoud, Lyons, Timberline, Rifle, Canon City, Alamosa, and Montrose. These engines consist of Type 3, Type 4, and Type 6 engines and utilize a combination of staffing models to increase efficiency and availability.

The 2018 plan for state engines and firefighters will be based on wildfire risk and need, as well as available funding, and may include any number of potential arrangements, including:

- Strategically located State Engines (with Permanent, Seasonal, and/or local government staffing)
- Strategically located Squads and Hand crews.

### **Five Person Squad and Veterans Fire Corps Program**

Senate Bill 15-205, which was signed into law on May 12, 2015, directs DFPC “to the extent practicable, should train, equip, and supervise hand crews employed by Veterans’ Fire Corps program in Colorado for wildland fire mitigation and suppression.”

In 2016, DFPC converted the Ft. Collins Engine into a 5 person squad by adding 2 additional personnel. The resource is available for initial attack as a squad, and has the capability to form the overhead and supervision for a 20 person hand crew. The squad partners with Veterans’ Fire Corps, BLM Team Rubicon (comprised of military veterans), and local government personnel to increase hand crew capacity in Colorado. When not involved in incident response, the squad is actively involved in teaching courses to Veterans and local agencies, implementing fuels management projects, and planning and implementing prescribed fire projects.

### **State Wildland Inmate Fire Team (SWIFT) Crews**

DFPC will continue to support the State Wildland Inmate Fire Team (SWIFT) crews operated by Colorado Correctional Industries to providing training, logistical and/or overhead support that may be needed to ensure operational readiness and hazardous fuel reduction projects.

DFPC will also ensure the maintenance of process for ordering and dispatching aerial firefighting equipment and personnel that is consistent with, and supportive of, the statewide mobilization plan prepared pursuant to Section 24-33.5-705.4, C.R.S. DFPC will provide the technical assistance and program management that identifies local, county, and state resources; their qualification to national standards; and their listing in interagency zone dispatch centers and in the Colorado Statewide Resource Mobilization System.

### **Future State**

DFPC is working with partners and stakeholders to identify what gaps still exist in how Colorado prepares for future wildland fire seasons. This includes evaluating a framework for prepositioning of resources to enhance initial attack based upon severity. Since last Fall, the Governor’s Advisory Committee to the Director of DFPC on Wildland Fire and Prescribed Fire Matters has established working groups to evaluate other identified gaps in the initial attack phase of rapidly emerging incidents. Working groups are comprised of over 40 representatives from multiple disciplines across Colorado. Topics being discussed include: dispatch and preparedness, fire management staffing, and availability of aviation and other firefighting and mitigation resources. In addition to the working group meetings DFPC has visited Alamosa, La Junta, Durango, and Steamboat. DFPC is committed to continuing its work with partners and stakeholders to generate creative solutions that meet Colorado’s evolving wildland and wildland urban interface fire challenges.

**Concurrence**

The following organizations and individuals were consulted in the development of the Wildfire Preparedness Plan and concur with the recommendations contained therein:

**For the County Sheriffs of Colorado**

_____	_____
Printed Name	Signature

**For the Colorado State Fire Chiefs'**

_____	_____
Printed Name	Signature

**For the Director of the Office of Emergency Management**

_____	_____
Printed Name	Signature

**For the Adjutant General**

_____	_____
Printed Name	Signature

