



INCIDENT COMMAND SYSTEM PUBLICATION

DRAWDOWN CONSIDERATION FOR FIRE AGENCIES

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Drawdown Consideration for Fire Agencies

In the fire service, the term *drawdown* is generally used to describe the level of commitment of an agency's resources at a certain point in time. Most importantly, it defines the agency's ability to perform its basic service levels. In the CalFire *Glossary of Terms*, drawdown is defined as, "The level where the success of extinguishing a fire with the initial attack forces is compromised." (Grijalva, 2008). In another discussion, Resource Exhaustion is identified as the point at which a "system has depleted its resources for both initial response and an area-wide effective response force." (Roberts, 2009). Drawdown levels are a major factor in the ability of an agency to offer mutual aid assistance during periods of increased emergency activity in an area or region. Drawdown should be considered a measurement of the degree of resource exhaustion that an agency is experiencing at a given point in time.

The intent of this document is to provide a common definition of drawdown as it applies to the contribution of resources to the mutual aid system during periods of increased emergency activity that are impacting an operational area, region or State. Common terminology is provided to assist agencies in communicating their operational levels and capabilities at a given point in time.

The degree of drawdown should be determined by considering a variety of conditions and demands. It is possible for an agency to operate for a limited period of time at a diminished capability or drawdown level and still maintain minimally acceptable response levels. There are many factors that contribute to the ability of an agency to fulfill its primary mission and maintain adequate staffing levels while still having the ability to contribute to a greater mutual aid effort. This document is offered as a discussion of factors that may affect an agency's drawdown status and a reference for the decision process of determining an agency's drawdown limits. Each agency must ultimately determine its own tolerance for resource commitment and depletion based on an array of contributing factors.

Common Terminology

In order to clearly communicate the coverage conditions within a department to other agencies, terms should be used that indicate the level of staffing that a station has in place for the drawdown period.

Drawdown - The degree of response capabilities of an agency due to the impact of emergency activity within their home jurisdiction and/or their commitment of resources to the mutual aid system for incident response outside of their jurisdiction. This may be expressed as a percentage of remaining capability.

Covered - A Station should be considered **covered** when the normal daily apparatus and staffing are in place.

Diminished - Coverage of a Station is **diminished** at any time that regular apparatus or staffing levels are below the normal assignment level for that Station. This could be due to apparatus being assigned to an incident, moved up to cover another Station or below normal staffing levels because of the unavailability of qualified staff.

Uncovered - A Station is **uncovered** when there is no resource available to place into the Station for emergency response.

Exhaustion - The point of drawdown for an agency at which they cannot contribute any resources to the mutual aid system without compromising their acceptable level of emergency service coverage within their own jurisdiction.

Agency Size

The size of an agency has a direct impact on its ability to manage its drawdown status. The agency size spectrum runs from major metropolitan departments with a comparative depth of equipment and personnel resources to rural fire districts with few apparatus and volunteer personnel pools. A larger metropolitan resource pool of personnel and equipment logically offers more options for maintaining adequate coverage within the home jurisdiction. The deeper resource pool allows more flexibility for maintaining adequate coverage within the home jurisdiction. As a part of regular operations, some metropolitan agencies are able to assign multiple companies to a single station. This allows a greater ability for the agency to move resources within their jurisdiction to maintain minimal coverage without leaving individual stations void of an available resources.

Federal and State agencies, due to their geographical coverage responsibilities, are normally organized into operational regions or areas. The larger jurisdictional footprint can allow for an internal ability to reassign resources from geographical areas that may not be affected by immediate threat or demand to others that may be in critical need of resources to address increased threat or activity levels. With calculated pre-planning and policy decisions, these agencies may opt to allow one area or region to operate in a low level of drawdown while it reinforces the available resource pool in another area where an increased level of activity is anticipated. These agencies typically employ a predetermined matrix of acceptable resource adjustments to balance real or anticipated response requirements.

Larger fire districts, counties or metropolitan agencies also have some ability to reassign units within their jurisdictions to maintain geographical coverage. Unlike the Federal and State agencies, these agencies may not have the geographical depth to move resources between areas. However, due to their comparative resource depth, it is usually possible for them to adjust the number of units assigned to individual incidents to assure that all calls for service are addressed. Individual responses may need to be dispatched with a minimum acceptable response below normal levels. These agencies have a greater degree of flexibility in the management of their resources than smaller

agencies.

Agencies of medium to smaller size can be challenged to maintain geographical coverage at times of increased emergency activity. Even under normal threat levels, a fairly routine call for service can deplete the availability of their resources and result in a degree of drawdown. If an incident becomes prolonged or requires the commitment of resources beyond the initial response, the agencies capabilities can be affected. In the case of some smaller agencies, a single resource committed to an incident can result in extreme drawdown and challenge their ability to meet their basic jurisdictional coverage responsibilities.

Volunteer agencies have some unique challenges and may operate at inconsistent staffing levels. These agencies may also normally operate at staffing levels that larger agencies might consider a degree of drawdown or resource exhaustion. The agency may be required to maintain acceptable coverage of their jurisdiction through local mutual or automatic aid agreements. This operational concept can also impact the agency's ability to offer resources into the mutual aid system. With the reliance on a volunteer workforce, longer term commitments are challenging.

Levels of Drawdown and Operational Adjustments

Each agency should develop a plan to define drawdown parameters and tolerances that are acceptable to maintain their jurisdictional responsibilities. The plan should include thresholds or levels of resource commitment that trigger actions to maintain acceptable emergency response levels. Options available for response adjustments include reducing the number of resources that are dispatched to an alarm or limiting responses to certain types of incidents. The response adjustments may require reliance on mutual aid or private sector partners to handle specific calls for service.

The plan should recommend actions necessary to maintain the best coverage for their jurisdictions under varied levels of resource commitment. Scaling operational adjustments in accordance with the degree of resource commitment can help to develop

a practical approach to resource management. Adjustments to response levels and staffing can be predetermined for different levels of drawdown.

A degraded response formula may be applied to avoid a total commitment of all resources at a given time. The formula would identify a fewer number of resources to be dispatched to a call for service than would be sent under normal circumstances. For example, if a normal response to a reported structure fire included three engine companies, one rescue squad and one truck company, a degraded response plan might adjust the response to two engines and one truck. The reduced number of committed resources would allow the agency to reserve a greater number of their depleted resources for response to additional calls for service that may arise during the same time period. In the most extreme circumstance, a total resource commitment that leaves the agency incapable of meeting their minimum acceptable level of coverage may be encountered.

Options for Increasing Available Resources

There are several potential options available to boost the number of resources that an agency can deploy. Placing reserve apparatus in service, reducing staffing levels on in-service resources to spread out coverage or accessing coverage agreements with partnering agencies can deepen resource availability.

Increasing the number of available resources through placing reserve apparatus into operation may be the most practical consideration. This option is dependent upon an agency's depth of resources. The concept is to place reserve apparatus into service by staffing it with personnel recalled to duty. This is assuming that the agency has both extra apparatus and off-duty personnel available to build the resource. Challenges to this action may include lack of serviceable and equipped reserve apparatus, lack of available off duty personnel or limitations in labor contract terms that preclude mandated recall of personnel. To accommodate the recall of off-duty personnel, predetermined procedures should be defined.

Staffing level adjustments can help to spread out coverage if additional personal cannot be recalled to duty but additional apparatus are available. Reducing staff by one or two individuals per apparatus would allow a greater number of apparatus to be available for response. This option would affect the operational capability of each resource but could allow for minimal response to a greater number of reported incidents. Each agency would need to determine its tolerance for reduced staffing levels. As with the previous option, available apparatus and labor agreements could limit its effectiveness.

In some cases it may be appropriate to activate assistance by hire (ABH) resources to fill operational or backfill needs. Contracts for these resources including rates of reimbursement should be negotiated and signed prior to the need for services. ABH resources may be available from both cooperating governmental agencies or from private contractors. These resources could be used for either replacement of agency resources on active incidents or as backfill behind the committed resources.

Seasonal Adjustments

Fire jurisdictions with significant wildland coverage responsibilities regularly adjust their resource availability and staffing in anticipation of higher fire activity in the summer months. As the threat of wildland fire increases, a larger force is placed in service. The increase in staffing is designed to both staff a more robust suppression fire response, and to protect against the depletion of resources, or drawdown. The commitment of a certain number of resources during the winter months may result in a critical drawdown for the agency. In the summer months when the forces are bolstered, an equal number of resources committed to incidents would not dangerously deplete the agency due to the increased total force.

Most municipal agencies operate with fixed staffing levels throughout the year. The activity levels in their areas are mostly constant despite the impact of seasonal weather changes. Therefore, staffing adjustments are not a useful tool.

Preparedness Levels

During periods of anticipated or potential emergency activity, an agency may opt to alter their response and coverage plans. This is best managed through a system of predetermined preparedness levels. The preparedness level system should be designed to alter resource deployment at certain predetermined emergency activity levels or fire danger levels. Operational adjustments are intended to increase resource availability where it is needed and adjust response levels as needed to address the potential threat.

A matrix of move ups and operational adjustments, including potential degraded response levels are predetermined and planned to optimize resource allocation to areas of greatest need. The system may result in a calculated drawdown in some areas to maintain adequate deployment in others.

Political Considerations

Every jurisdiction operates under a set of service expectations that is determined by the agency's governing body. The governance may be a Federal or State Agency, Fire District Board of Directors, County Board of Supervisors, City Council or other body. The expectations defined by the governing body may impact an agency's ability to adjust their levels of preparedness, internal response capabilities, and their ability to contribute to the mutual aid system. The complexities of political interaction between jurisdictions need to be managed in a manner that is beneficial to all agencies. A solid line of communication between response agencies, their governing bodies and adjoining jurisdictions should be established to assure that realistic and acceptable coverage levels are maintained. Two way communications between emergency managers and responsible civic leaders prior to an emergency can assist both parties in their efforts to provide acceptable local coverage as well as contribute to a greater area emergency response needs.

Among the considerations are the variety of services that are normally offered by the agency. Contractual commitments cannot normally be abandoned. Advanced Life Support (ALS) service commitments to Emergency Medical Service Agencies (EMSA) may restrict an agency from allowing coverage of a station with a Basic Life Support (BLS) resource. Other special services such as Haz Mat or US&R capabilities may restrict the ability of an agency to lower their operational capabilities.

Many agencies are bound by contracts with adjoining agencies to assure adequate emergency service levels within an operational area. These agreements could potentially cause an agency to reach a greater drawdown level due to an adjoining agency experiencing exhaustion.

Conclusions

There are numerous considerations that an individual agency must apply to their determination of drawdown. The considerations include but are not necessarily limited to the agency's normal operational capabilities, resource pool size (first-run and reserve), jurisdictional responsibilities, mutual aid agreements, labor contracts, current incident commitment and anticipated emergency activity. Because of these elements, it is impossible to apply a simple formula, such as percentage of total resource commitment that accurately defines drawdown for all agencies.

Each agency must independently decide what criteria to apply when determining their drawdown tolerance. A written Drawdown Plan should be crafted by agencies prior to the impact of the emergency conditions as discussed in this document. The guidance contained in the agency's document should allow the agency to more clearly communicate their operational status during periods of extreme emergency activity. A key component of the plan should be to define the criteria for the agency to be able to contribute to the mutual aid needs of the region, area or State.

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