**Coordination**

Welcome to the New South Wales Royal Fire Service. My name is Inspector Ash Morrow. Today's presentation is going to cover coordinated firefighting arrangements in New South Wales amongst the firefighting agencies.

The New South Wales Rural Fire Service is the world's largest volunteer firefighting agency with over 70,000 members. The first bushfire brigade was formed in 1900, with the RFS becoming a Central State agency in 1997. The RFS is the combat agency for all fires within rural fire districts in New South Wales, which covers over 800,000 square kilometers. The RFS is the lead agency for Bush Fires in New South Wales and we provide fire and emergency services to approximately 95% of New South Wales. The RFS typically responds to over 25,000 incidents per year.

There's two key pieces of legislation that govern the coordinated firefighting arrangements in New South Wales. The Rural Fires Act 1997 stipulates the requirements in which that the RFS is required to do certain things such as fire suppression, public information and warnings. It provides authority to fire officers to access land and to take water and sets requirements for bushfire management.

In New South Wales, the State Emergency Rescue Management Act provides authorization to the state emergency management plan and outlines the emergency management arrangements in New South Wales. This provides a clear, comprehensive and holistic approach to emergency management in the state.

Coordinating firefighting arrangements in Australia are done under the Australasian Interservice Instant Management System, commonly known as AIMS. AIMS has five key principles, which are management by objectives, functional management structures, span of control, flexibility, and continuity of command. And what this does is it provides a standardized approach to instant managements across all hazards and all agencies. So in practical terms, whilst we are a fire agency and we primarily deal with fire, we can also use the same skills with those functional management structures across other hazards such as floods.

So there's three classes of fire that we currently use in New South Wales.

* A Class one fire is typically our everyday localized response that doesn't consist over more than a single shift.
* A class two fire might be multiple sectors or multi agencies and requires more than a localized response.
* And a Class three fire is a protracted response to a bushfire which may go on for some weeks or months.

The Bushfire Coordinating Committee in New South Wales is chaired by the New South Wales Rural Fire Service Commissioner and consists over 20 different agencies and representatives to ensure that there is a strategic approach to bushfire planning and response activities across the state.

This ensures that our bushfire management committees, of which there is over 50 in New South Wales, are well supported to understand their local issues and conduct items such as their bushfire risk management plan.

Bushfire management committees are local committees across each bushfire management area in New South Wales. Currently we have over 50 of these committees and they're represented by numerous land agencies, land managers, and firefighting authorities. What that does is it drives authority to the localized area so they can have a good understanding on their bushfire risk and management of bushfire in their local area.

That's also governed by documentation stipulated by the Bushfire Coordinating Committee, which is a supporting body in New South Wales.

There's three tiers of emergency management, that being:

* the state, which is represented at the State Emergency Management Committee by members of agency such as our commissioner.
* we've got regional emergency management committees, which are usually done over larger geographic parts of New South Wales.
* and then we have our local emergency management committees, which are often defined by a local government area boundary.

It's really important that we have these three tiers and that these three tiers are able to communicate effectively to ensure that we have localized emergency management plans, which are supported by regional emergency management plans, and then are supported by state emergency management plans as well, ensuring that we have coordinated, comprehensive and holistic approach to emergency management in New South Wales.

The Emergency Management Cyclical framework is the accepted emergency management approach in Australia that is prevention, preparedness, response and recovery. And those items are all interlinked.

So to dig into detail about how we do that under coordinated arrangements:

* Prevention might be things such as community engagement, ignition prevention strategies or functional and hazard specific committees.
* Preparedness would be emergency management, emergency management representation at a local, regional, or state level, emergency management planning, exercising and hazard reductions.
* Response talks to the combat agency for specific hazards and that's outlined in the state emergency management plan itself, emergency operations centers and ensuring that we are all operationally ready to respond to emergencies.

Whilst we have the state emergency management plan, which drives authority from the State Emergency Rescue Management Act, we also have sub plans which are hazard specific such as the state bushfire plan, which is maintained by the Rural Fire Service.

This ensures that we have a coordinated approach to bushfire in New South Wales, but we also have a wide array of sub plans that support hazard specific things such as biosecurity or marine pollution.

Conversely, we also have supporting plans which are in place to ensure that our functional areas such as educational or telecommunications are also supported in the emergency management sphere as well Combat agencies.

So in New South Wales we have quite a comprehensive list of combat agencies and they're all derived with authority from the State Emergency Rescue Management Act and then separately the emergency management plan.

So a fire within a rural fire district is the New South Wales Rural Fire Service, whereas conversely, a fire within Metropolitan or a fire district would be Fire and Rescue New South Wales separately.

If we know we're going to a search and rescue, that might be New South Wales Police Force, a pandemic would be New South Wales Health or a food industry issue would be the New South Wales Department of Primary Industries and Regional Development.

It's really important that those are all outlined. So when any of those incidents occur, everyone is already defined in their roles and what they're doing In New South Wales, we've got numerous functional areas which have been outlined in the State Emergency Management Plan. So these are things such as agricultural and animal services, energy and utility engineering, environmental health, public information, telecommunications, transport services, welfare services and education.

So the State Emergency Operations center is a whole of government approach to emergency management and it may be established to support emergencies where combat agencies are tied up with the certain hazard that they're dealing with at the particular time. Quite often the State Emergency Operations Center will be co-located in the RFS Operations Center here behind me. And what that allows, it allows that coordinated approach to that emergency.

So whilst the combat agency might be dealing with, for instance, the bushfire, the State Emergency Operation Center can stand up and be in that support function to ensure that all the other functional areas across New South Wales are being dealt with.

And an example of that would be, for instance, a school. So if we've got a bushfire that is threatening schools, whilst obviously that fire is controlled at a local level, it is beneficial to us at a state coordination level to have a liaison with education that we can go straight to, to ensure that information is accurate, timely, and relevant. And also that's a two-way street there and the room here certainly allows for that coordination and information flow to happen effectively.

Also in the room behind me at the RFS Operation Center is the state air desks. The state air desks provides a coordinated approach for all firefighting aircraft dispatch. Whilst the RFS do own some of their own aircraft, we also have a large list of aircraft on call when needed contracts and the state air desk allows that single coordinated approach to dispatch for that aircraft. As a redundancy as well, we have a state aviation duty officer and they can be contacted 24/7, 365 days a year for any aircraft taskings.

The operation center that you see on the screen now is a world class facility and is designed so information flow is effective for coordination efforts. In the center of the room, we have a desk, which is commonly referred to as the battle table, and surrounded by that is state level liaison officers. So they are people with the authority from their certain agency that can delegate crews and equipment and resources where required to certain areas of the state.

An example of that would be New South Wales Police where they may have a police inspector that would be able to represent on behalf of that agency. Conversely, we also have New South Wales Ambulance, New South Wales National Parks and Wildlife Service, fire and Rescue, the State Public Information Officer, fire Behavior Analyst, the state Operations Controller, and the Deputy State Operations Controller.

Moving out from the center of the room, we've got our major incident coordination desks, and then on the outer ring of the room we have all of our functional areas and bodies of government that we need as liaison officers. So that includes people such as the road network with Transport, Education, Health, Surf Lifesaving, Marine Rescue, the State Emergency Service, Defense.

On the large wall at the rear, you'll see our common operating picture to ensure that everyone in the room is on the same page at all times and it shows live incident updates as they come through. On the front left of the room, you'll see the state air desk and on the right we'll see the major logistics desk as well, which again supports our coordination efforts for firefighting.

Whilst this is the State Operations Center, it is important to note that fires in New South Wales are controlled at a local level, and this is a coordination center to ensure that our firefighters are being supported where necessary and to ensure that effective fire suppression methods are being undertaken across the state.

The activation of the Operation Center here is a crucial piece to coordinated firefighting arrangements in New South Wales. We utilize a matrix system, based on four separate levels and that is tied back through to the Fire Behavior Index or for plain terms, what we expect the fire weather to do across the state. And that's broken up into certain segments. So for instance, the State Operation Center being one of them, the briefing requirements, the emergency management arrangements, and what liaison officers that we will require in the coordination center, any activation of the state air desk aircraft availability, state logistics, media and public liaison and activation of support functions such as the bushfire information line.

Currently in New South Wales we have four firefighting authorities. That being the New South Wales Rural Fire Service, New South Wales National Parks and Wildlife Service, Fire

and Rescue New South Wales, and Forestry Corporation New South Wales. Amongst all of those firefighting authorities, it's imperative that we have a good understanding of the capability of each agency so we can come together to conduct coordinating firefighting efforts.

The RFS hosts over 70,000 volunteer firefighters and has over 700 remote area firefighter specialists and over 40 aviation rescue crew. We have over 3,800 appliances and over 350 approved heavy plant contractors with bulldozers and excavators. The RFS has 11 aircraft including a 737 large air tankers, three fixed wing jets, and six rotary helicopters. We also have access to over 200 contract aircraft.

New South Wales National Parks and Wildlife Service have over 1200 firefighters, over 350 appliances, three owned aircraft, and three leased aircraft.

Fire and Rescue have over six and a half thousand firefighters. They've got over 574 bushfire tanker specific appliances over 97 drones.

Forestry Corporation have over 550 firefighters, 453 fire appliances, and over 35 heavy plant,

and they have four contracted aircraft.

The RFS has a responsibility under the Rural Fires Act to issue warnings about bush fires to the public. And this is done on a nationally coordinated approach with the Australian Fire Danger Rating System. There are four levels of fire danger in Australia currently, which are moderate, high, extreme, and catastrophic. And with each of those comes a call to action. So it's predefined and allows for coordinated firefighting efforts to occur seamlessly.

There are three levels of bushfire alerts in New South Wales:

* Advice. A fire has started. There's no immediate danger. Stay up to date in case the situation changes.
* Watch an act. There is a heightened level of threat. Conditions are changing, and you need to start taking action now to protect you

and your family and an emergency warning.

* Emergency warning is the highest level of bushfire alert. You may be in danger and you need to take action immediately. Any delay now puts your life at risk.

A demonstration of the coordinated firefighting arrangements occurred in 2019-2000 with our black summer bushfires. There was more than 160 days of continuous major operations in the operation center behind me Here we had over 11,000 bush and grass fires over 5.5 million hectares burnt, which is approximately 7% of New South Wales, three state of emergency declarations, more than 40 section 44 bushfire emergency declarations. More than 2,400 homes destroyed. 26 lives were lost, and nearly 15,000 homes saved in the direct area of fire impact.

Shortly we'll watch a time lapse of the heat map from the 3rd of July, 2019 to the 14th of March, 2020, which shows the burn scar occurring in the 2019-2020 season.

Thank you for joining this presentation at the New South Wales Rural Fire Service Operation Center. If you require any further information about the New South Wales Rural Fire Service, please see our website below.