Multi-agency Coordination for Direct Storm Management with Limited Resources

Primary Author: Tony Leingang, Washington State Department of Transportation
Secondary Author(s): None Listed

Extreme weather conditions occur infrequently during the winter season in western Washington. For WSDOT, it is not viable to retain optimal levels of equipment, materials, and staff year round to fully respond during significant weather events. The winter operations budget is set to average the historical peaks and valleys that occur over a biennium. When major storms occur, available resources are stretched thin and operational strategies must change to meet public expectations and needs on the roadways. Managing traffic impacts through our Traffic Management Center (TMC) during these conditions becomes a real challenge. Normally, TMC operations are staffed to handle a manageable volume of incidents and routine activities where it is generally possible to stay on top of the traveler information aspect of the work. When major storms hit, radio and telephone communications involving the TMC increase dramatically in volume. The priority quickly becomes dispatching and tracking the necessary field response in coordination with the Washington State Patrol (WSP). Often, all four Maintenance Areas in WSDOT’s Olympic region have simultaneous high priority incidents occurring that outpace the ability of the TMC to focus and deliver the best traveler information possible at these times.

In response to these challenges, we have developed a strategy called “Storm Management Center (SMC) mode” that augments normal TMC activities while meeting the demand for keeping accurate and timely information flowing to the public and maintaining a quick response to highway incidents. This presentation discusses our concept of multi-agency coordination and response for storm management. Our new approach directly supports good traveler information delivery at the TMC through ITS field devices, the WSDOT website, and 511 traveler information systems. Many advantages in using this approach will be showcased where key partners from WSDOT, the WSP, and utility companies jointly staff the SMC prioritizing calls and making the best operational decisions possible. It will also highlight how a common operational picture is developed through the use of various web-based tools WSDOT has created. Use of these tools allows TMC, SMC, and WSP Communications staff to disseminate accurate and timely information to motorists, responders, and emergency operations personnel. This presentation will provide an opportunity to hear about some best practices that are working well to address WSDOT’s need to dynamically size the staffing and communications approach necessary to maintain good traveler information and field response despite limited available resources. It is also a framework that can and should be considered for virtually any natural disaster when similar situations occur.