



**WESTERN
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**Western Forestry Leadership Coalition
Issue Brief, April 7, 2008
Joint Fire Sciences Program (JFSP) - Alternative Futures Workshop**

Workshop Goal: On January 23-24, 2008, the JFSP Governing Board conducted an Alternative Futures Workshop. The goal of the workshop was to explore the assumptions held about the future context of the wildland fire and fuels management environment. By “looking into the future”, the JFSP would best be able to guide their research to meet the needs of the future.

Process: The workshop was attended by approximately thirty people, primarily from federal agency land management, fire, and research organizations. The attendees formed five work groups that each developed scenarios that identified some of the factors that may shape fire management in the coming decade. The scenarios are built around “givens” and “uncertainties”. Givens are factors common to all future fire and fuel management scenarios, whereas uncertainties vary depending on the situation.

Outcomes: The scenarios developed by the groups explored the outcomes of a variety of alternative futures, including the impact of emerging carbon markets, potential for increased biomass utilizations, protracted economic recession, and the application of new technology to fire management. Through the scenario development process, group identified a number of common themes from the scenarios that have implications for the future of fire management and for directions for future fire research. These sceneries will be used to guide future research. The nine scenarios developed by the groups were:

- 1- **“Business as Usual”** - a world where many of today’s trends continue. Fires grow ever larger and more threatening. The public perception that ‘fire is bad’ is reinforced. Suppression takes precedence. Budgets are squeezed, and funding ‘event-driven’. This world was characterized by a lack of collaboration between agencies and other players. For four out of five groups, this was the set of conditions that they believe the fire community believes will happen and is therefore planning for.
- 2- **“We can work it out”** - a more active and influential role for individuals in decisions about fire – with movements like FireWise becoming more popular in local communities, and private insurers and the marketplace having a greater impact on behavior and decisions. Investments in data and information pay off – agencies’ and individuals’ decisions are based on good data and robust models. Fires to be fought and managed more efficiently. The changing climate has few significant, discernible effects. Generally an optimistic set of assumptions about how today’s actions and operations could produce positive results.
- 3- **“Centralization Reigns”** - a combination of accelerating climate change, extreme weather events and larger fires lead to major fire catastrophes. Communities and individuals are powerless to act. Public pressure forces the federal government to “take action”. The government appoints a Fire Czar that takes control of the newly formed Federal Fire Services (FFS) – an amalgamation of fire resources from several departments and agencies. They institute a “10am policy for the 21st Century”. Some groups assumed that later, FFS would be subsumed into a larger Risk Management Agency or taken over by the Department of Homeland Security.
- 4- **“Privatopia/Madd Maxx”** - a situation of extreme weather events and large scale fires. As well, there greater amount of ‘parcelization’ and privatization of wildlands. Some clamor for a centralized, top-down approach, but many people are distrustful of government interference and resist any governmental attempts to plan or regulate behavior (in terms of fire preparedness and clearing out vegetation). Instead the emphasis is on ‘stay-and-defend’ policy by well-informed vigilante groups. In other areas, private fire-fighters are employed by wealthy homeowners. The result is an uncoordinated patchwork of approaches that focus largely on suppression.

- 5- **“Living in Fire Habitats”** - a series of financial and ecological catastrophes provide a wake-up call to many citizens who live within the wildland-urban interface leading to an emphasis on managing fire at a local level. The public changes its attitudes around how to live with fire as fire professionals become seen as stewards of the land. Emphasis is placed on training and understanding the ecology of fire and fuels as part of a broader appreciation of sustainable resource management. There is less emphasis on suppression.
- 6- **“Back to the 1930s”** - a story of a deep economic slump. the US economy spends the next decade struggling to emerge from a period of low growth. Government spending is constrained and overall fire budgets decline. However, unemployment is high, so fire-related jobs become more attractive. The public take on more responsibility for their own risks and protection. There is little funding available for suppression. More fires are left to burn. A significant change in economic circumstances leads to a reshaping of overall policies around, and responsibilities for, fire and fuels management.
- 7- **“Carbon Rules”** - mounting evidence of global climate change increasingly drives government policy. Control of carbon emissions becomes a central feature of policy, having a significant impact on fire and fuels management environment. It becomes increasingly difficult to arrange prescribed burns. Most fires are suppressed to ensure that carbon emissions are kept to a minimum. However, over time, there is a growth in incorporating “carbon management” with other principles of sustainable forestry management.
- 8- **“Forest Alchemy”** - driven by growing demand from China, India and other emerging nations, and by geopolitical uncertainties in the Middle East, Russia and elsewhere, oil prices are ever-higher. There is a growing fear that ‘peak oil’ has been reached. Market realities and policy environment point to alternative, renewable sources of energy, resulting in a major push towards using biomass as an energy source. This drives the development of new technologies and the establishment of a biomass economy. Forests are managed with energy investments in mind. Industrial biomass production raises a whole new set of issues for fire and fuels management.
- 9- **“Snatching Catastrophe from the Jaws of Technology”** - scientists in the fire community release a breakthrough technology (smart water) that helps revolutionize the practice of fire-fighting. The fire community enjoys a very rapid take-up of new information technology, with sensing equipment, data fusion and automation all playing their role in revolutionizing the practice of fire management. The adverse impacts of fire fall for a while, and many claim that technology has saved the day. However, a growing sense of total dependence on technology yields complacency and risky behavior, which lead eventually to another series of catastrophic fires.

Summary: Although the scenarios were very different, there was a common thread among all of them. In all future scenarios information is likely to be more widely distributed, with the demand and supply of information about fire coming from more groups. Information will be used in a wider variety of contexts; not only for fire operations, but for a variety of public and private purposes. Information will be received and disseminated by these groups through multiple channels, including Google Earth, iPods, cell phones, and possibly other technologies yet to be developed. For future research emphasis by JFSP, there was a realization that there is a need to focus on the social aspects of widely accessible information, not necessarily on the distribution of research to the academic and fire communities.

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