

## 4. IDENTIFYING CURRENT USDA FOREST SERVICE ISSUES TO PROVIDE CONTEXT FOR HORIZON SCANNING

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**Abstract.**—A key purpose of the Forest Futures Horizon Scanning system is to identify weak signals of potential future change and emerging issues for the USDA Forest Service and its stakeholders. An understanding of current issues facing the agency is a prerequisite for identifying weak signals and emerging issues. Scanners who work for the Forest Service generally have this understanding, but scanners from outside typically have little or no familiarity with current agency issues. This paper briefly describes an effort to develop a list of current issues for the Forest Service to be used by scanners in the Forest Futures Horizon Scanning project. Twelve broad current issues are identified and summarized.

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### INTRODUCTION

A key purpose for creating a horizon scanning system is to identify emerging issues. These are issues that have not yet been identified by decisionmakers as requiring attention or a policy response. Emerging issues can exist at various degrees of emergence—from just identified and a long way off to becoming well known and of imminent impact. Horizon scanning provides early warning of emerging issues, so that decisionmakers can prepare for them before they fully emerge and affect the sector or industry.

In order to identify what qualifies as “emerging,” the scanning team must first be aware of what the *current* issues are for the organization or field for which the scanning is intended. Without a list of current issues, scanners—especially those from outside the organization—may have difficulty determining whether a scanning hit represents an emerging issue or whether it is well known and already on the organization’s radar screen. It is not common for organizations to have a clearly

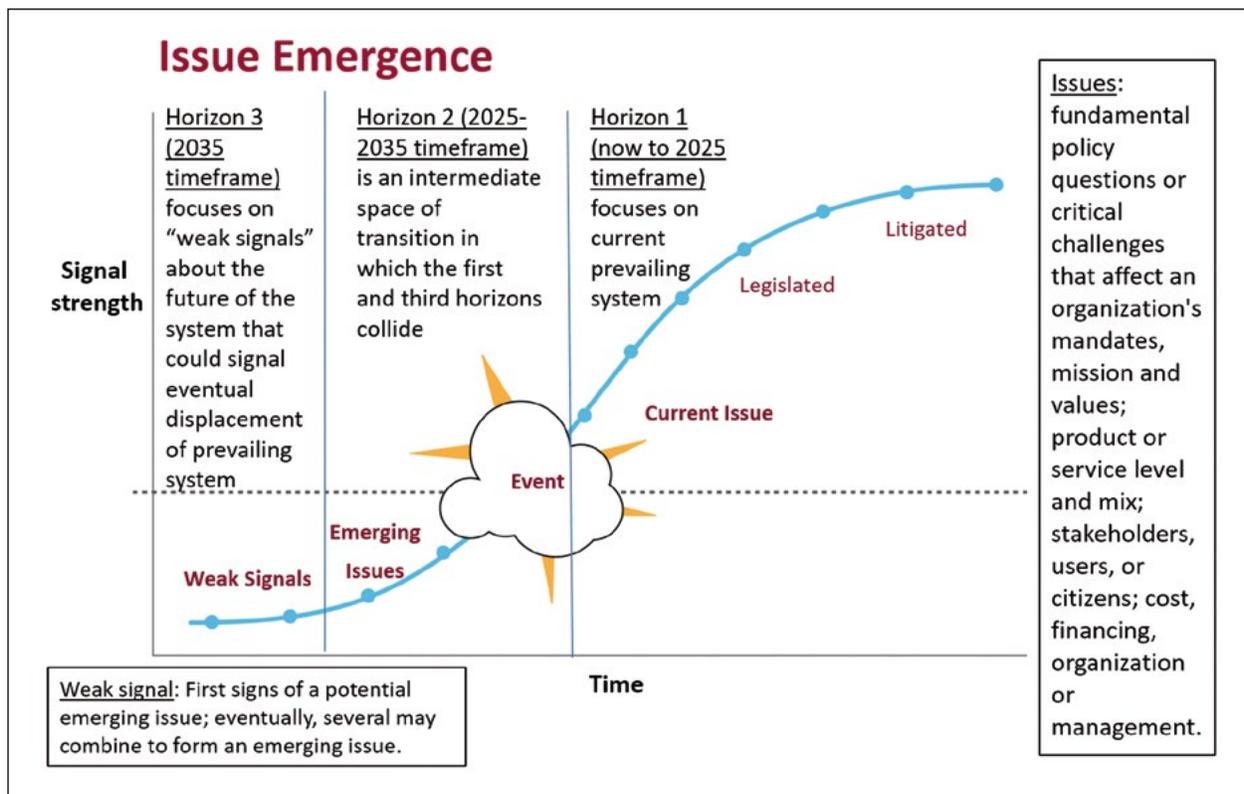
articulated and agreed-upon list of current issues (never mind emerging issues). Such lists are sometimes prepared as part of strategic planning activities, or they may be developed as part of strategic foresight functions where these exist.

This paper briefly describes an effort to develop a list of current issues for the USDA Forest Service (hereafter, Forest Service) to be used by scanners in the Forest Futures Horizon Scanning project. The next section defines key concepts related to issue emergence and their relationships to each other, followed by a description of the simple method used to identify current issues for the Forest Service. The final list of 12 current issues is then presented.

### ISSUE EMERGENCE: KEY CONCEPTS AND TERMS

The relationship between key concepts and terms in issue emergence can be illustrated by combining the public policy lifecycle curve (Bryson 2011, Molitor 2001) with the “Three Horizons” framework (Curry and Hodgson 2008) (Fig. 1). Key concepts in Figure 1 are:

- **Weak signals:** The first signs of a potential emerging issue
- **Emerging issues:** Issues that decisionmakers have not yet identified as requiring attention or a policy response
- **Current issues:** “Fundamental policy questions or critical challenges that affect an organization’s mandate, mission and values; product or service level and mix; stakeholders, users, or citizens; cost, financing, organization or management” (Bryson 2011: 55)
- **Horizon 1:** The near-term time period from now until about 10 years into the future, focusing on current issues and the current prevailing system



**Figure 1.**—The issue emergence process and the three time horizons. Sources: Bryson (2011), Curry and Hodgson (2008), Molitor (1977).

- **Horizon 2:** The intermediate-term time period of about 10 to 20 years into the future; an intermediate space of transition in which the first and third horizons collide
- **Horizon 3:** The long-term time period of about 20 or more years into the future, focusing on weak signals about the future of the system that could indicate eventual displacement of the prevailing system

The public policy lifecycle curve suggests that issues emerge gradually over time. They appear first as weak signals of change. These signals eventually coalesce into an emerging issue, which eventually develops into a current issue, typically when a significant event propels it into public attention and concern (Molitor 1977). Weak signals are associated with the Horizon 3 timeframe, because they signal potential long-term change. As weak signals gain strength and coalesce as emerging issues, they move into Horizon 2. Finally, when emerging issues

mature and become widely recognized as current issues for an organization or field, they fall into the Horizon 1 timeframe. An understanding of the current issues facing an organization is a prerequisite for effective scanning and the ability to identify weak signals and emerging issues.

## METHODS

Most organizations do not have an agreed-upon and explicit list of current issues they are facing. We were unable to find a published current issue list for the Forest Service, and therefore we took the following steps to create one. We:

1. Asked key Forest Service personnel whether an unpublished list of current issues might be available, for example, from the Policy Analysis Group (Washington Office) and Office of Communications (Washington Office). We were told that there is no formal or informal list.

2. Reviewed Forest Service policy documents for explicit and implicit current issues, such as the USDA Forest Service Strategic Plan: FY 2015-2020 (USDA Forest Service 2015), Future of America’s Forests and Rangelands: Forest Service 2010 Resources Planning Act Assessment (USDA Forest Service 2012), and Future of America’s Forests and Rangelands, Update to the Forest Service 2010 Resources Planning Act Assessment (USDA Forest Service 2016). Potential current issues were identified and collected.
3. Reviewed the “Horizon 1” scanning hits in the Forest Futures Horizon Scanning online library for potential current issues. There were more than 200 Horizon 1 scanning hits in the library at the time of this analysis. Potential current issues were identified and collected.
4. Compiled a master list of possible current issues, after combining similar issues from the policy documents that were reviewed and the Horizon 1 scanning hits.

## RESULTS: CURRENT ISSUES FOR THE FOREST SERVICE

Our final current issues list contains 12 major strategic issues (Table 1). These are all well known to the Forest Service and other forestry professionals:

- **Climate change** is having growing impacts on forest ecosystems as well as social and economic impacts.
- **Wildfires** are becoming more frequent and intense and taking up a growing portion of the Forest Service budget.
- **Forest fragmentation and loss** is increasing due to land development.
- **Budget cuts** are straining the ability to effectively manage forests.
- Maintaining a **healthy forest products industry** is increasingly vital to a balanced forest management approach.

- **Exotic and invasive species** are growing threats to sustainable forests.
- **Biodiversity loss** is a growing challenge to forest resource management.
- **Improving forest resilience** to meet a wide range of future demands is a growing challenge.
- **Monitoring technologies** are improving capabilities to monitor and forecast forest health, and to inventory conditions.
- **Water quality protection and water supply** continue to be important.
- **Recreation patterns** are continuing to shift.
- **Urban forestry** is gaining increasing interest and importance.

There was some debate on a few of the issues on the list about whether they are current or still emerging. A challenge in making that distinction for scanning teams is that they may be more aware of issues than their clients. They will tend to see more issues as current because they have been trained to identify them and probably have been watching them for some time. In most cases, the issues that could be treated as either current or still emerging were put on the current list. This decision was made in part to make the scanning team “stretch” and identify truly emerging issues.

## CONCLUDING COMMENTS

This paper described the need to identify current issues in horizon scanning and steps taken to identify current Forest Service issues to be used in the Forest Futures Horizon Scanning system. An understanding of current issues facing the agency is required for accurately identifying weak signals and emerging issues that the agency may need to address in the future. The 12 broad current issues that were identified can guide current and future horizon scanning efforts.

**Table 1.—Current forestry issues, 2017**

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**1. Climate change is having growing impacts on forest ecosystems as well as social and economic impacts.** Climate change is a major driver of other issues relevant to forestry, with wide-ranging impacts from influencing the growing season and enabling the more rapid spread of invasive species to larger and more intense wildfires. These impacts appear to be increasing and cumulative, thus threatening the biodiversity and resilience of entire ecosystems. At the same time, forests could play a significant role in climate change mitigation.

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**2. Wildfires are becoming more frequent and intense and taking up a growing portion of the Forest Service budget.** The increasing intensity and frequency of wildfires threaten natural resources and people's property. Wildfires are increasingly encroaching on the wildland-urban interface (WUI) as human settlements continue to expand. Responding to wildfires takes priority over other projects and consumes an increasing share of the budget. There is growing debate over the use or overuse of aggressive fire suppression versus a "learning to live with wildfire" management paradigm.

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**3. Forest fragmentation and loss is increasing due to land development.** Forest land is being encroached upon by the pressure for development. These human settlements threaten the integrity and viability of forest ecosystems. There has been little public pressure to stop the fragmentation.

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**4. Budget cuts are straining the ability to effectively manage forests.** As one of many agencies continually asked to "do more with less," the Forest Service is increasingly constrained by the resources allocated to it. Lower funding is often accompanied by greater demands.

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**5. Maintaining a healthy forest products industry is increasingly vital to a balanced forest management approach.** The Forest Service must continue to balance the competing priorities of sustainably managing forests and helping to support a healthy forest products industry. Major innovations in wood products and in forest management pose challenges and opportunities for striking this balance.

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**6. Exotic and invasive species are growing threats to sustainable forests.** Invasive species continue to spread through forest ecosystems. They are assisted by human global transportation networks, as well as a warming climate, which allows pests to spread to areas they could not previously tolerate. The results are corresponding declines or changes in native species that are threatened by exotics and invasives.

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**7. Biodiversity loss is a growing challenge to forest resource management.** The influence of humans and economic development on forest ecosystems is a major driver of biodiversity loss, as habitats are disrupted. A key challenge is that much is still not known about the role of biodiversity in maintaining healthy ecosystems. Thus, some losses or shifts could have surprisingly significant negative effects.

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**8. Improving forest resilience to meet a wide range of future demands is a growing challenge.** The growing range of challenges to forest ecosystem health puts a premium on resilience, that is, a system's ability to continue to function, absorb change, recover, and adapt in new directions. A resilient system includes some redundancies, backup, and inefficiency compared to an optimized system, but is better suited for long-term health.

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**9. Monitoring technologies are improving capabilities to monitor and forecast forest health, and to inventory conditions.** Emerging technologies such as the Internet of Things, drones, robotics, and satellites are increasingly being incorporated into monitoring the health of ecosystems. They extend human capabilities to monitor remote areas, and go into greater depth.

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**10. Water quality protection and water supply continue to be important.** Climate change could intensify pressure on water quality and water yield that could in turn pose greater challenges to managing ecosystem services.

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**11. Recreation patterns are continuing to shift.** Nature-based recreation continues to decline, while new innovative proposals for getting people back to nature emerge. Ecotourism, for instance, has continued to grow even as the overall use of nature for leisure and recreation declines.

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**12. Urban forestry is gaining increasing interest and importance.** Affluent societies are increasingly and overwhelmingly urban. More effort is being made to integrate forests and other natural areas into the urban environment, which brings a host of challenges and benefits.

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