

A scenic view of a forest with a small wooden cabin on a hillside, reflected in a calm body of water. The cabin is nestled among tall, thin trees, and the water in the foreground is still, creating a clear reflection of the cabin and the surrounding forest. The sky is a pale blue, and the overall atmosphere is peaceful and natural.

Challenges to Forest Resource Management and Conservation

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Managing...

- **Forests under change:**
 - Water resources
 - For traditional forest products
 - Fire
 - Recreation
 - Wildlife
- **Conclusions**

Managing forests under change

- More human influence
- Smaller tracts
- New owners with different objectives
- Different products – commodity ? non-commodity
- New stresses (pollutants, invasives)
- Management influence at all scales

Managing water resources

A group of people are rafting down a river with large rocks and rapids. The water is turbulent and white with foam. The rafters are wearing helmets and life jackets. The background shows a dense forest of trees.

Forests are critical to the nation's fresh water

- Urbanization is the biggest threat
- When forests are replaced by impervious surfaces...
- Urbanization also brings challenges with wastewater management
- Managing at the watershed scale is essential

Naturescaping for Clean Rivers

A photograph of a garden path leading through dense greenery. A lamp post stands in the middle ground, and a house is visible in the background. The scene is brightly lit, suggesting a sunny day.

- Goal = to improve the quality and reduce the quantity of water reaching the storm drains in Portland's watershed.
- Courses for citizens teach:
 - Native plants and using less mowing, fertilizers, water, and chemicals in backyards

A photograph of a forest stream with a light blue text box overlaid at the top. The stream flows through a dense forest with large trees and ferns. The water is clear and reflects the surrounding greenery. The text box contains the title "Needs – Research:" in bold black font.

Needs – Research:

- **Watershed studies**
- **Use of riparian buffers**
- **Impacts at the interface**
- **Effects of individual measures on quality**

A photograph of a forest stream. The water is clear and flows through a wooded area. Large trees with thick trunks are visible on both sides of the stream. The ground is covered with fallen brown leaves and green ferns. The overall scene is a lush, natural environment.

Needs – Education:

- Public awareness of watershed issues
- Programs for developers
- Long-term stewardship programs

Managing for traditional forest products

- South has 40% of US timberland; 600,000 jobs
- South has most cities with forests within 50 miles
- At the WUI, management is becoming increasingly difficult
 - Higher land prices, higher production costs
 - Perceived impermanence of land use
 - Public perceptions and values – may lead to increased regulations
- Need for new management models

The Forest Bank

- TNC's Center for Compatible Economic Development
- Forms partnerships with private landowners to maintain working forests
- Landowners deposit their forests
- Virginia has 650 acres valued at \$750,000

Needs – Research:

- Options for maintaining working forests at the WUI
- Workable plans for managing small parcels
- Techniques for incorporating new neighbors into decisionmaking

Needs – Tool and Education:

- Landscape level partnerships
- Economic incentives for managing
- Forestry programs for all parcel sizes

Managing Fire



- Fuel build-up, More people
- Fire management = prevention, suppression, and use of fire to maintain forest health

FL Wildfire Mitigation Program

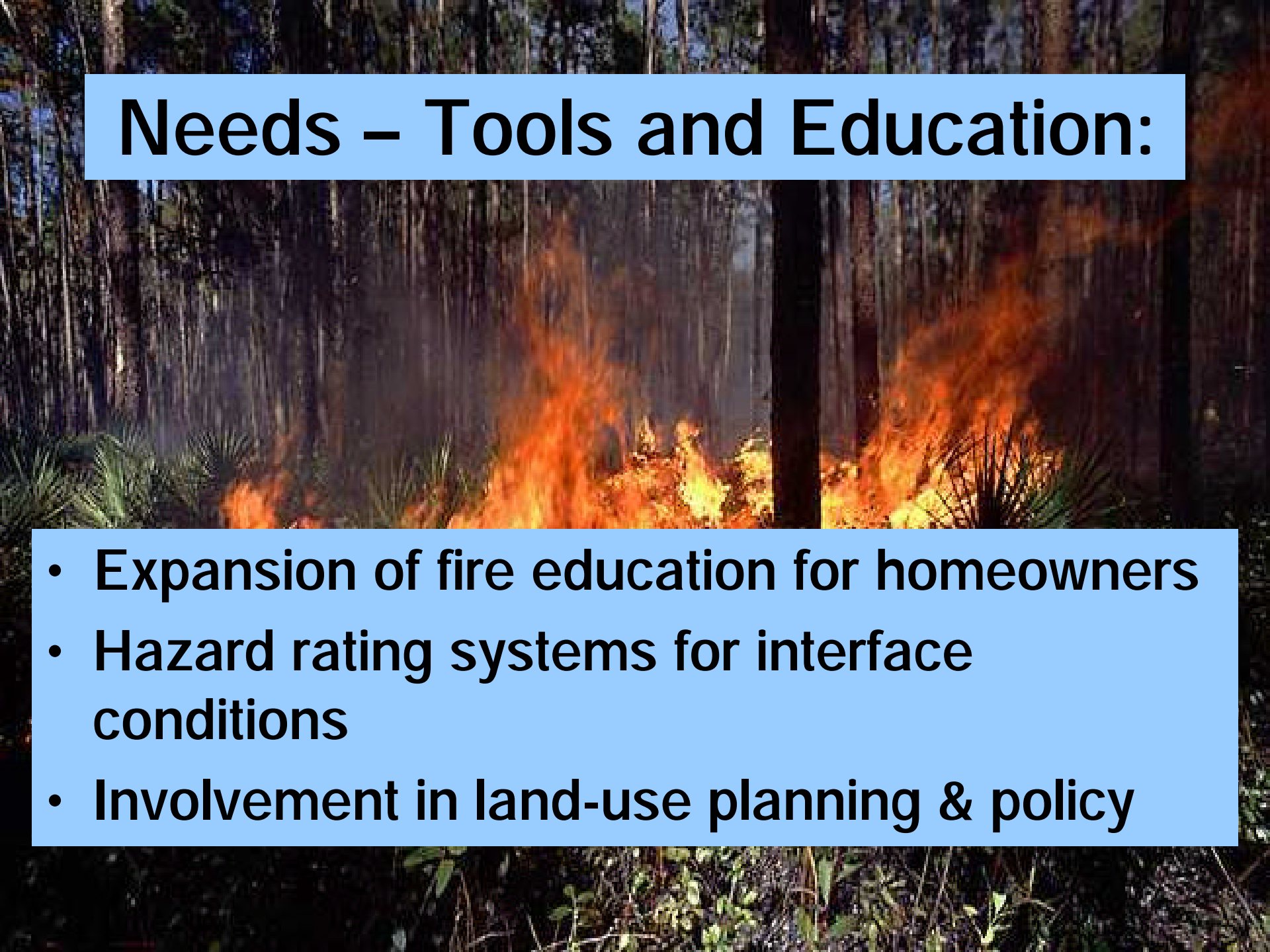
- 4 Wildfire Mitigation Teams
- Responsible for reducing fuels in interface communities
- Public awareness and involvement is the key





Needs – Research:

- **Understanding public perception about wild- and prescribed-fires**
- **Models for predicting and monitoring smoke**
- **Firewise landscaping parameters/design**



Needs – Tools and Education:


- Expansion of fire education for homeowners
- Hazard rating systems for interface conditions
- Involvement in land-use planning & policy

Managing Recreation



- Outdoor recreation will continue to increase
- Especially hiking, wildlife viewing, and biking
- Pressure on interface lands
- Challenge is high quality recreation while sustaining natural resources
- Challenge to provide for diversity of people

Greenways

A group of people, including a man in a uniform, standing on a dirt path in a wooded area, looking towards the camera. The scene is outdoors with a dense forest of tall trees in the background under a clear blue sky. The people in the foreground are looking towards the camera, and the man in the uniform is holding a camera. The overall atmosphere is bright and sunny.

- One way to meet increased recreation demand
- 5,000 active greenways in U.S.
- Usually originate from grass-roots efforts by citizens who want more green space

Needs – Research:

- Study markets, trends, opportunities
- Assess impacts on natural resources
- Identify diversity of experiences and user groups



Needs – Education:

- Courses for recreation managers on social and political dimensions of their work
- Involvement of diverse user groups in planning and education programs



Managing Wildlife

A photograph of a kestrel perched on a bare, brown branch against a clear blue sky. The bird is facing right, with its head turned slightly towards the viewer. The text of the slide is overlaid on the image.

- Urbanization often destroys, degrades or fragments habitat
- Greatest threat to biodiversity at species and ecosystem levels
- Conserving ecosystem size, connectivity, and processes are key
- Other populations are increasing
- People/wildlife conflicts are real

The background of the slide is a photograph of two white egrets standing in a field of tall green grass. One egret is in the foreground, facing right, with its long neck extended. Another egret is visible in the background, slightly out of focus, also facing right. The text is overlaid on this image.

Needs – Research:

- Models that identify valuable habitats for local planning, design, management
- Improve techniques for habitat restoration
- Continue research on patch habitats and connectivity

The background of the slide is a photograph of two white egrets standing in a field of tall green grass. One egret is in the foreground, facing right, with its long neck curved. Another egret is in the background, also facing right, slightly out of focus. The text is overlaid on this image.

Needs – Education:

- **Educate new interface residents about wildlife**
- **Programs for planners and developers – how to sustain and manage ecosystems**

Conclusions

- **Forests are changing in ownership, tract size, ecological qualities**
- **Ecosystems and their goods and services are in peril**
- **There are some promising alternatives and solutions**
- **Need research, tools, education programs to find practical, creative solutions**