



Research Summary

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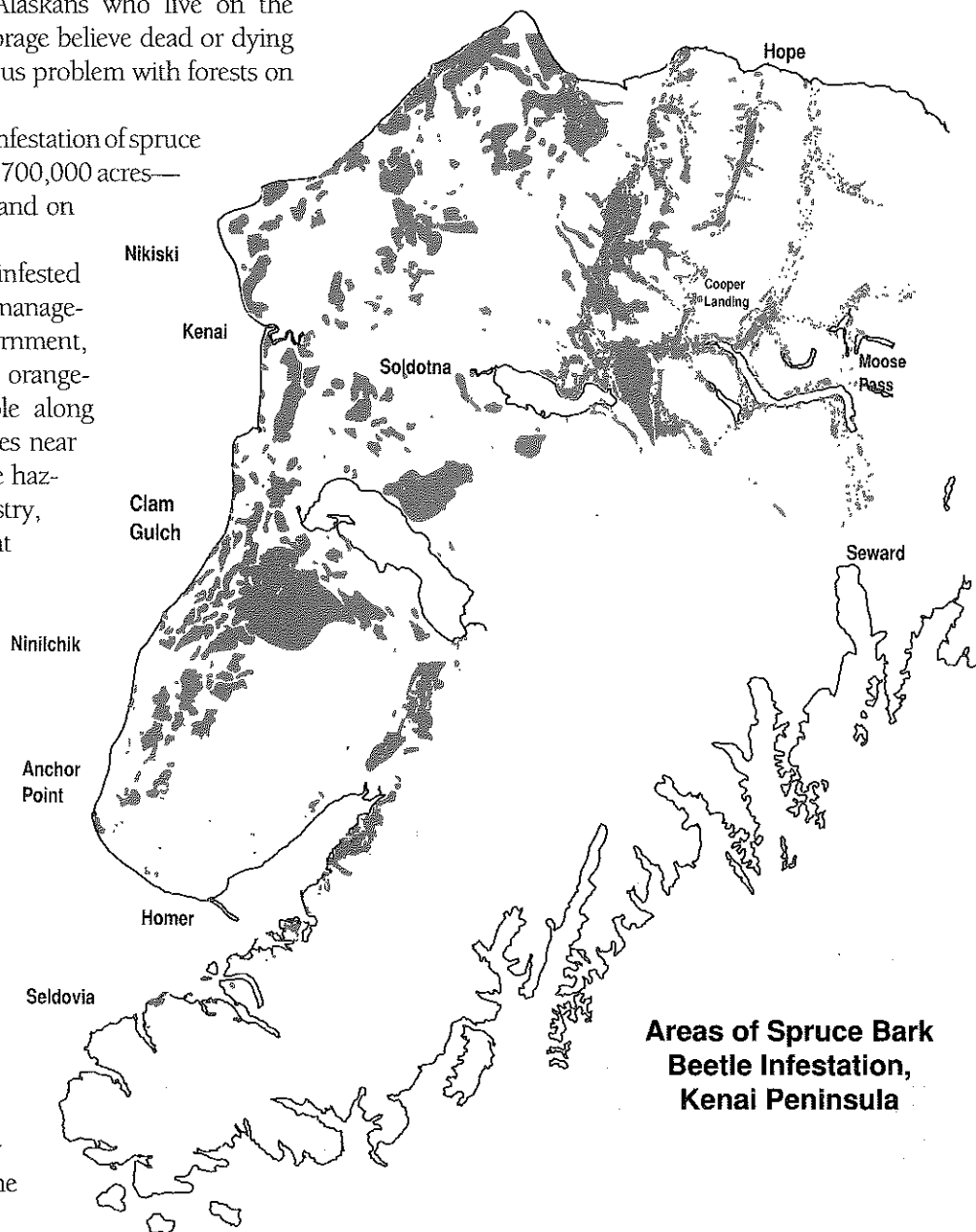
Managing Beetle-Killed Spruce on the Kenai Peninsula

Nearly 90 percent of Alaskans who live on the Kenai Peninsula and in Anchorage believe dead or dying spruce trees are the most serious problem with forests on the Kenai Peninsula.

Since 1970, a spreading infestation of spruce bark beetles has killed trees on 700,000 acres—about 35 percent of forested land on the peninsula.

What to do about the infested trees has become a prominent management issue for the state government, partly because areas of dead, orange-brown spruce are very visible along peninsula highways. Dead trees near communities can also be a fire hazard. The state Division of Forestry, which is part of the Department of Natural Resources, asked ISER to find out how residents of southcentral Alaska want the state to manage areas affected by the spruce bark beetles. The division manages about eight percent of forested land on the Kenai Peninsula.

In March and April 1991 ISER conducted a telephone survey of 400 peninsula households and 100 Anchorage households. ISER also created maps documenting the location and extent of the beetle infestation, using data collected by the U.S. Forest Service over the past 20 years.



This Research Summary is based on *Developing A Public Consensus on the Management of Spruce Bark Beetles on the Kenai Peninsula*, by Jack Kruse and Robert Pelz. The report is available from ISER at a cost of \$5.00. This publication is on recycled paper. ♻️

Below we summarize the report findings. We surveyed three groups of southcentral residents: (1) affected homeowners (Kenai Peninsula residents who reported dead or dying spruce on their own or adjoining properties); (2) other Kenai Peninsula households; and (3) Anchorage households.

We asked southcentral residents whether the state should remove or leave beetle-killed trees; whether it should protect healthy trees near infested ones; and whether and how the state should speed re-forestation in affected areas. Affected areas are near homes, along highways, in campgrounds, and in backcountry.

Bear in mind that the state owns just a part of the beetle-infested lands. Areas of the Chugach National Forest and the Kenai National Wildlife Refuge are also affected, as well as borough and private lands. So whatever the state decides to do about the infestation on its own lands, federal, borough, and private landowners will make their own decisions about large areas of the peninsula.

How Big is the Problem?

Press coverage of the beetle infestation, and the growing swaths of dead trees, have made Alaskans very aware of the spruce beetle infestation. More than half of Anchorage residents and three-quarters of Kenai Peninsula residents have read about the beetle infestation, and half of all southcentral residents say they have seen dead trees along peninsula highways.

What are the problems created when beetles kill spruce trees? Figure 1 shows percentages of affected

peninsula homeowners, other peninsula residents, and Anchorage residents who cited various kinds of problems created by the spruce bark beetle. Southcentral residents think the chief problems resulting from beetle-killed spruce are (1) less attractive views, (2) fire threat, and (3) loss of privacy. Other problems cited include large areas affected, loss of timber, and declining property values.

In researching the problem ISER found:

- Of the total 700,000 acres affected by beetles since 1970, 150,000 acres were infested within the past five years. Some areas that were first infested between 1970 and 1975 were re-infested between 1985 and 1990.
- The estimated value of buildings on or adjacent to properties with beetle-killed spruce is \$686 million. That does not mean all these buildings are at risk in the event of fires, or that all these property owners have lost privacy. The figure simply establishes that a substantial number of homes and other buildings are in areas affected by the spruce bark beetle.
- About 33,000 acres infested by beetles are in the most populated areas of the peninsula, including the communities of Cooper Landing, Nikiski, Kenai, and Soldotna.
- About 5,000 Kenai Peninsula homeowners, or 51 percent of peninsula households, report beetle-killed spruce on their own or adjoining properties.

Dead Trees Near Homes

Figure 2 shows how residents of Anchorage and the Kenai Peninsula want the state to manage beetle-infested trees near homes:

- About three out of four residents of south-central Alaska want the state to cut down and remove dead trees near homes.

- More than half of southcentral residents want the state to plant new trees near homes and either scrape the ground or place mats around the new trees to discourage grasses that can choke seedling trees.

- Fewer than one-quarter of southcentral residents support the use of chemicals near homes to dry or kill grasses that could choke newly planted trees.

**Figure 1. Six Most Commonly Cited Problems
(In Percentages of Respondents)**

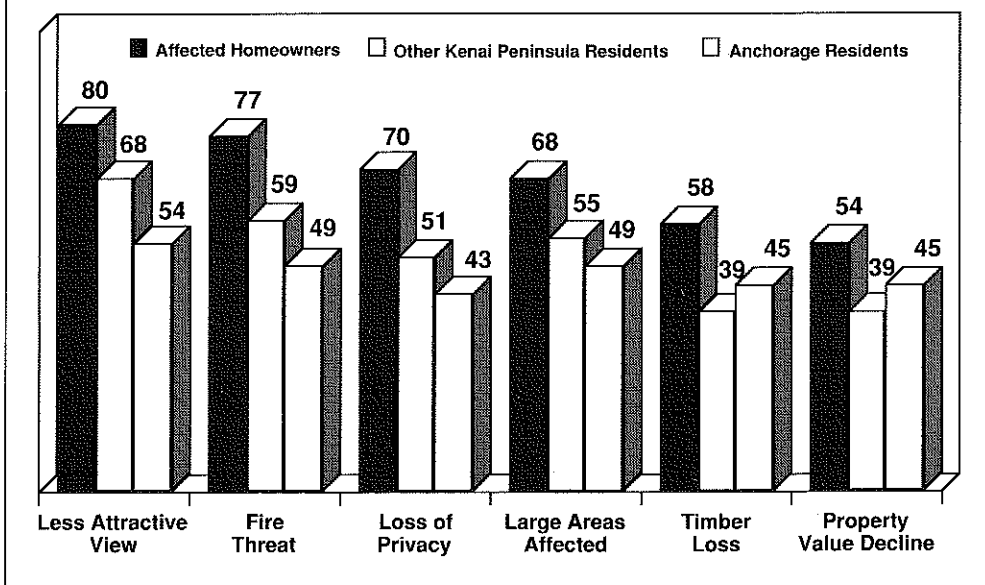


Figure 2. Public Support for Managing Infested Trees Near Homes
(In Percentages of Respondents)

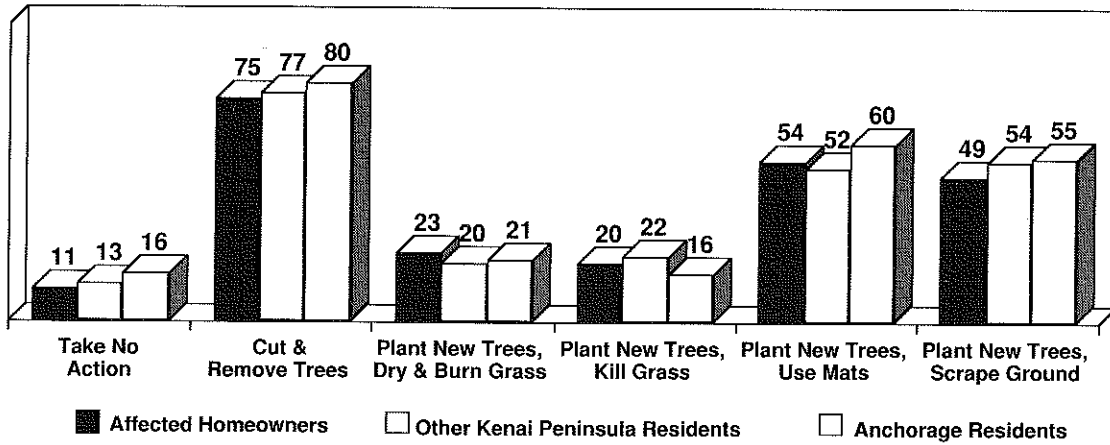


Figure 3. Public Support for Managing Infested Trees Along Highways
(In Percentages of Respondents)

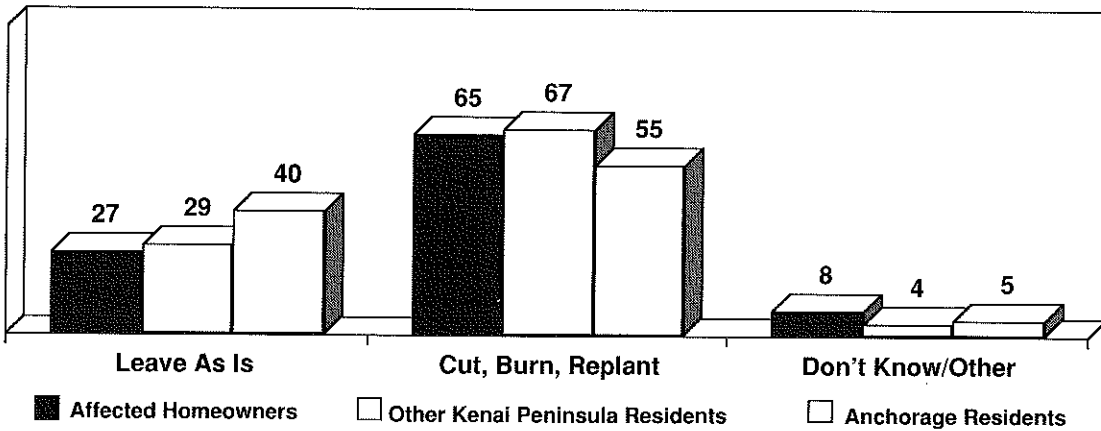
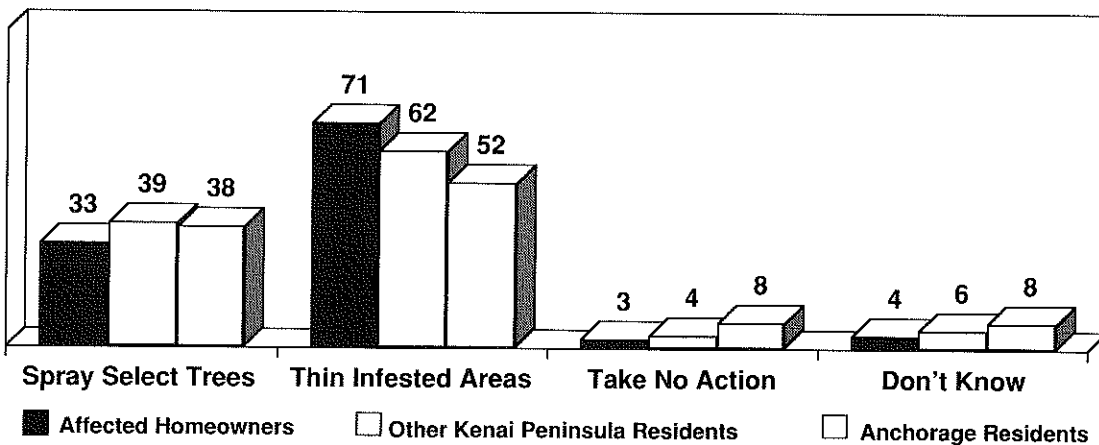


Figure 4. Public Support for Managing Spruce Beetles Near Campgrounds
(In Percentages of Respondents)



Dead Trees Along Highways

Figure 3 shows how southcentral residents want the state to manage beetle-infested trees along highways:

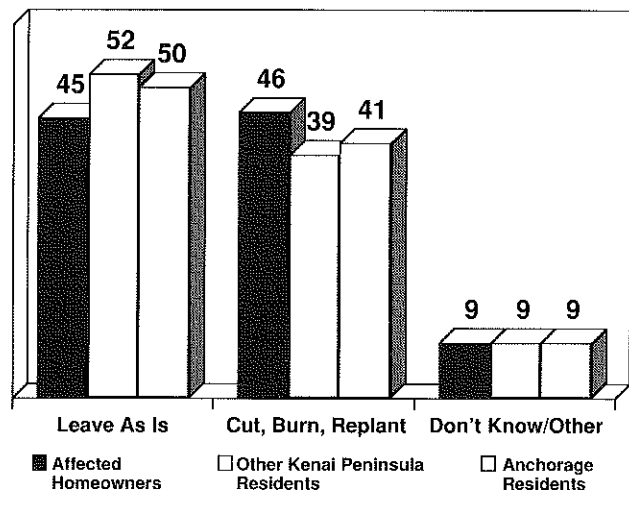
- Two-thirds of peninsula residents and more than half of Anchorage residents want the state to cut and burn beetle-killed trees along the highways and plant new trees.
- A substantial minority of southcentral residents—40 percent in Anchorage and nearly 30 percent on the peninsula—think the state should do nothing about beetle-killed trees along highways.

Dead Trees in Campgrounds and Backcountry

Figures 4 and 5 show how southcentral Alaskans want the state to manage beetle-infested trees in campgrounds and in backcountry:

- Most (71 percent) of peninsula residents whose own properties have been affected by the spruce bark beetle want the state to thin out infested trees in campgrounds. More than half of other southcentral residents also support thinning infested trees in campgrounds.
- Sizable minorities (nearly 40 percent) of Anchorage and Kenai Peninsula residents favor protecting selected trees in campgrounds by spraying them with insecticides.

Figure 5. Public Support for Managing Spruce Beetles in Backcountry
(In Percentages of Respondents)



- Southcentral residents are almost evenly split in their opinions about what the state should do about beetle-killed trees in backcountry: roughly half say the state should do nothing, and almost half want the state to cut and burn dead trees and plant new ones.

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