

**HB**

**212**

**(File 1)**

9-LS0695K ✓  
Luckhaupt  
11/20/95

CS FOR HOUSE BILL NO. 212(RES)

IN THE LEGISLATURE OF THE STATE OF ALASKA

NINETEENTH LEGISLATURE - SECOND SESSION

BY THE HOUSE RESOURCES COMMITTEE

Offered:  
Referred:

Sponsor(s): HOUSE STATE AFFAIRS COMMITTEE

A BILL

FOR AN ACT ENTITLED

1 "An Act relating to the management and sale of state timber and relating to the  
2 administration of forest land and classification of state land."

3 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

4 \* Section 1. AS 38.05.112(a) is amended to read:

5 (a) The department may not authorize the [SELL OR] harvest of timber, except  
6 for harvests of 10 acres or less or [ISOLATED PERSONAL USE] timber salvaged  
7 from land cleared for a nonforest use [HARVEST], until a site-specific forest land use  
8 plan has been adopted. A forest land use plan is required whether or not a regional or  
9 area land use plan under AS 38.04.065(a) or a forest management plan under  
10 AS 41.17.230 has been adopted.

11 \* Sec. 2. AS 38.05.112(b) is amended to read:

12 (b) In adopting a forest land use plan, the [THE] commissioner shall consider  
13 [BASE A FOREST LAND USE PLAN ON] the best available data, including  
14 information provided by other agencies describing the [IMMEDIATE AND LONG-  
15 TERM] effects of [INDIVIDUAL AND COLLECTIVE] forest activities on the timber

1 base and on other resources and uses.

2 \* Sec. 3. AS 38.05.112(c) is amended to read:

3 (c) If a regional or area land use plan under AS 38.04.065(a) or a forest  
4 management plan under AS 41.17.230, that includes the area to be covered by the  
5 forest land use plan required under (a) of this section, has been adopted, the  
6 requirements of AS 38.04.065(b) do not apply to a forest land use plan under (a) of  
7 this section. If a regional or area land use plan under AS 38.04.065(a) or a forest  
8 management plan under AS 41.17.230, that includes the area to be covered by the  
9 forest land use plan under (a) of this section, has not been adopted, the  
10 requirements of AS 38.04.065(b) apply to a land use plan under (a) of this section.  
11 Regardless of whether AS 38.04.065(b) applies to a forest land use plan under (a)  
12 of this section, [IN ADDITION TO THE REQUIREMENTS OF AS 38.04.065(b),] a  
13 forest land use plan must [SHALL] consider

14 (1) commercial timber harvesting, including related activities;

15 (2) harvesting of forest products for personal use;

16 (3) fish and wildlife habitat, including

17 (A) identification and protection of important wildlife habitat;

18 (B) retention of riparian, wetland, and ocean-shoreline vegetation  
19 critical for fish and wildlife habitat; [AND]

20 (C) classification of water bodies according to physical  
21 characteristics; and

22 (D) the use of silvicultural practices, commercial timber  
23 harvest, and related activities to maintain and enhance the quality of fish  
24 and game habitat;

25 (4) uses of forest land for nontimber purposes, including

26 (A) recreation, tourism, and related activities;

27 (B) mining, mining claims, mineral leaseholds, and material  
28 extraction;

29 (C) uses of fish and wildlife;

30 (D) agriculture, including grazing; and

31 (E) other resources and uses appropriate to the area, including  
32 compatible traditional uses;

- 1 (5) soil characteristics and productivity;  
2 (6) water quality; and  
3 (7) watershed management.

4 \* Sec. 4. AS 38.05.113 is amended to read:

5 Sec. 38.05.113. FIVE-YEAR SALE SCHEDULE. (a) The department shall  
6 annually prepare a five-year schedule of timber sales planned on all land managed by the  
7 department. The timber sale schedule must provide a time line that identifies timber  
8 sales, their amounts, and their locations and must be sufficient to provide the public  
9 and the forest products industry with a basis to comment on future sale offerings  
10 [BE OF SUFFICIENT SPECIFICITY THAT IT PROVIDES A BASIS FOR THE  
11 DEPARTMENT TO ALLOCATE ITS RESOURCES IN CONSIDERING AND  
12 DESIGNING SALES AND IN CONDUCTING ECONOMIC AND ENVIRONMENTAL  
13 ANALYSES. THE SCHEDULE MUST INFORM THE PUBLIC AND THE TIMBER  
14 PRODUCTS INDUSTRY OF LONG-TERM PLANS AND PROVIDE A BASIS FOR  
15 PUBLIC COMMENT].

16 (b) Except as provided in (c) of this section, a proposed sale may not be held  
17 unless it has been included in the two five-year schedules preceding the sale. [THIS  
18 REQUIREMENT DOES NOT APPLY UNTIL ONE YEAR AFTER THE FIRST FIVE-  
19 YEAR SCHEDULE IS PREPARED UNDER THIS SECTION.]

20 (c) Sales of 160 acres or less [THE DEPARTMENT MAY ADOPT  
21 REGULATIONS EXEMPTING SMALL] and emergency sales are exempt from the  
22 requirements of this section.

23 \* Sec. 5. AS 38.05.113 is amended by adding a new subsection to read:

24 (d) A proposed timber sale that has been scheduled as specified in (b) of this  
25 section may be offered past the originally scheduled year without being included in  
26 future schedules if the sale is held within two years of the scheduled year and the sale

27 (1) was offered as scheduled and was not purchased; or

28 (2) was sold as scheduled and was returned to the state uncompleted.

29 \* Sec. 6. AS 41.17.090(c) is amended to read:

30 (c) Before beginning operations on municipal or private forest land or on state  
31 land not managed by the division, the operator shall provide the state forester with a  
32 detailed plan of operations. The detailed plan of operations must include

1 (1) a description of the proposed operations, identifying the land involved  
2 and the action proposed in sufficient detail to inform the public of the nature and  
3 location of the proposed operations; the description must include a map and must be in  
4 a form suitable for duplication;

5 (2) the name, address, and approving signature of the forest landowner,  
6 timber owner, and operator; and

7 (3) other information required in the regulations adopted under this  
8 chapter.

9 \* Sec. 7. AS 41.17.200 is amended to read:

10 Sec. 41.17.200. STATE FOREST PURPOSES. The purpose of AS 41.17.200  
11 - 41.17.230 is to permit the establishment of designated state-owned or acquired land and  
12 water areas as state forests. The primary purpose in the establishment of state forests is  
13 multiple use management that provides for the production, utilization, and  
14 replenishment of timber resources while perpetuating [THE PERPETUATION OF]  
15 personal, commercial, and other beneficial uses of resources [THROUGH MULTIPLE-  
16 USE MANAGEMENT].

17 \* Sec. 8. AS 41.17.200 is amended by adding a new subsection to read:

18 (b) In managing a state forest, the commissioner shall, consistent with the  
19 primary purpose of a state forest under (a) of this section,

20 (1) allow for the fullest practicable access to, and use and consumption  
21 of, the natural resources, including timber, fish and wildlife, and minerals; and

22 (2) restrict the public use of the land and its resources only when  
23 necessary to carry out the purposes of this chapter.

24 \* Sec. 9. AS 41.17.210(a) is amended to read:

25 (a) The governor may propose to the legislature the establishment of state forests  
26 consisting primarily of commercially valuable forest land determined by the governor to  
27 be necessary for retention in state ownership for management under the principles of  
28 multiple use and sustained yield and consistent with AS 38.04. The proposal of the  
29 governor must include a report and recommendations of the commissioner including

30 (1) a preliminary forest inventory;

31 (2) a summary of the testimony offered at public hearings held on the  
32 management of the proposed state forest in communities proximately located to a

1 proposed state forest;

2 (3) the findings of the commissioner on anticipated incompatibilities of  
3 uses described in AS 38.05.112(c) under AS 41.17.230 [AS 38.05.112(d)];

4 (4) written comments from appropriate state agencies on the compatibility  
5 of the uses described in AS 38.05.112(c) within the proposed state forest;

6 (5) an estimate of the cost of a full implementation of an operational  
7 level forest inventory and the management plan.

8 \* Sec. 10. AS 41.17.230(a) is amended to read:

9 (a) The commissioner shall prepare a management plan consistent with  
10 AS 38.04.005 and this chapter for each state forest and for each unit of a state forest to  
11 assist in meeting the requirements of this chapter. An operational level forest inventory  
12 shall be completed before a management plan for the state forest or the unit of a state  
13 forest is adopted. The management plan shall be adopted, implemented, and maintained  
14 within three years of the establishment of a state forest by the legislature. The  
15 management plan must consider and permit the uses described in AS 38.05.112(c).  
16 If the commissioner finds that a permitted use is incompatible with one or more  
17 other uses in a portion of a state forest, the commissioner shall affirmatively state  
18 in the management plan that finding of incompatibility for the specific area where  
19 the incompatibility is anticipated to exist and the time period when the  
20 incompatibility is anticipated to exist together with the reasons and benefits for each  
21 finding.

22 \* Sec. 11. AS 41.17.400 is amended by adding a new subsection to read:

23 (e) The wildlife management objective of the Tanana Valley State Forest is the  
24 production of wildlife for a high level of sustained yield for human consumption through  
25 habitat improvement techniques to the extent consistent with the primary purpose of a  
26 state forest under AS 41.17.200.

27 \* Sec. 12. AS 38.05.112(d) is repealed.

# Alaska State Legislature


Committees:  
House Resources  
Co-Chairman  
World Trade &  
State Federal Relations  
Transportation  
Rules  
Oil & Gas



During Session:  
State Capitol  
Juneau, AK 99801-1182  
(907) 465-3424  
Fax (907) 465-3793

In Ketchikan:  
352 Front Street  
Ketchikan, AK 99901  
(907) 247-4672  
Fax (907) 225-8546

Representative William K. Williams  
**MEMORANDUM**

Date: January 12, 1996  
To: House Resources Committee members  
From:  Rep. W.K. Williams, Co-chair  
House Resources Committee  
Re: Proposed new CSHB 212 (9-LS0695M, 1/4/96)

1. At our December 5 hearing, the Administration came to us with four changes they wanted in the bill as amended by the CS we adopted at that hearing. The attached new CS addresses two of those four recommendations.

A. Section 8 of the bill: In paragraph (1), the Administration wanted the words "the fullest" deleted. In paragraph (2), the Administration wanted the word "only" deleted.

To accommodate this request, the section has been redrafted. In discussing the issue with the Department, we found that the major concern here was whether the language would be interpreted to mean that a high level of roading would be required. The new language eliminates that interpretation while still protecting against unnecessary restrictions on access, which is the primary purpose of the section.

B. Section 11 of the bill: The Administration wanted the word "consumption" changed to the word "use."

This change was adopted as requested. So far as we know, no one objected to this amendment, including the sponsor.

2. Representative James' office has provided a new sponsor statement for HB 212. A copy is attached for inclusion in your bill packets.

3. If you have any questions about the bill or the proposed new CS, please feel free to contact my committee aide, Jack Phelps at 465-3715.

9-LS0695M✓

Luckhaupt

1/4/96

## CS FOR HOUSE BILL NO. 212(RES)

IN THE LEGISLATURE OF THE STATE OF ALASKA

NINETEENTH LEGISLATURE - SECOND SESSION

BY THE HOUSE RESOURCES COMMITTEE

Offered:

Referred:

Sponsor(s): HOUSE STATE AFFAIRS COMMITTEE

A BILL

FOR AN ACT ENTITLED

1 "An Act relating to the management and sale of state timber and relating to the  
2 administration of forest land and classification of state land."

3 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

4 \* Section 1. AS 38.05.112(a) is amended to read:

5 (a) The department may not authorize the [SELL OR] harvest of timber, except  
6 for harvests of 10 acres or less or [ISOLATED PERSONAL USE] timber salvaged  
7 from land cleared for a nonforest use [HARVEST], until a site-specific forest land use  
8 plan has been adopted. A forest land use plan is required whether or not a regional or  
9 area land use plan under AS 38.04.065(a) or a forest management plan under  
10 AS 41.17.230 has been adopted.

11 \* Sec. 2. AS 38.05.112(b) is amended to read:

12 (b) In adopting a forest land use plan, the [THE] commissioner shall consider  
13 [BASE A FOREST LAND USE PLAN ON] the best available data, including  
14 information provided by other agencies describing the [IMMEDIATE AND LONG-  
15 TERM] effects of [INDIVIDUAL AND COLLECTIVE] forest activities on the timber

1 base and on other resources and uses.

2 \* Sec. 3. AS 38.05.112(c) is amended to read:

3 (c) If a regional or area land use plan under AS 38.04.065(a) or a forest  
4 management plan under AS 41.17.230, that includes the area to be covered by the  
5 forest land use plan required under (a) of this section, has been adopted, the  
6 requirements of AS 38.04.065(b) do not apply to a forest land use plan under (a) of  
7 this section. If a regional or area land use plan under AS 38.04.065(a) or a forest  
8 management plan under AS 41.17.230, that includes the area to be covered by the  
9 forest land use plan under (a) of this section, has not been adopted, the  
10 requirements of AS 38.04.065(b) apply to a land use plan under (a) of this section.  
11 Regardless of whether AS 38.04.065(b) applies to a forest land use plan under (a)  
12 of this section, [IN ADDITION TO THE REQUIREMENTS OF AS 38.04.065(b),] a  
13 forest land use plan must [SHALL] consider

14 (1) commercial timber harvesting, including related activities;

15 (2) harvesting of forest products for personal use;

16 (3) fish and wildlife habitat, including

17 (A) identification and protection of important wildlife habitat;

18 (B) retention of riparian, wetland, and ocean-shoreline vegetation

19 critical for fish and wildlife habitat; [AND]

20 (C) classification of water bodies according to physical  
21 characteristics; and

22 (D) the use of silvicultural practices, commercial timber  
23 harvest, and related activities to maintain and enhance the quality of fish  
24 and game habitat;

25 (4) uses of forest land for nontimber purposes, including

26 (A) recreation, tourism, and related activities;

27 (B) mining, mining claims, mineral leaseholds, and material  
28 extraction;

29 (C) uses of fish and wildlife;

30 (D) agriculture, including grazing; and

31 (E) other resources and uses appropriate to the area, including  
32 compatible traditional uses;

- 1 (5) soil characteristics and productivity;  
2 (6) water quality; and  
3 (7) watershed management.

4 \* Sec. 4. AS 38.05.113 is amended to read:

5 Sec. 38.05.113. FIVE-YEAR SALE SCHEDULE. (a) The department shall  
6 annually prepare a five-year schedule of timber sales planned on all land managed by the  
7 department. The timber sale schedule must provide a time line that identifies timber  
8 sales, their amounts, and their locations and must be sufficient to provide the public  
9 and the forest products industry with a basis to comment on future sale offerings  
10 [BE OF SUFFICIENT SPECIFICITY THAT IT PROVIDES A BASIS FOR THE  
11 DEPARTMENT TO ALLOCATE ITS RESOURCES IN CONSIDERING AND  
12 DESIGNING SALES AND IN CONDUCTING ECONOMIC AND ENVIRONMENTAL  
13 ANALYSES. THE SCHEDULE MUST INFORM THE PUBLIC AND THE TIMBER  
14 PRODUCTS INDUSTRY OF LONG-TERM PLANS AND PROVIDE A BASIS FOR  
15 PUBLIC COMMENT].

16 (b) Except as provided in (c) of this section, a proposed sale may not be held  
17 unless it has been included in the two five-year schedules preceding the sale. [THIS  
18 REQUIREMENT DOES NOT APPLY UNTIL ONE YEAR AFTER THE FIRST FIVE-  
19 YEAR SCHEDULE IS PREPARED UNDER THIS SECTION.]

20 (c) Sales of 160 acres or less [THE DEPARTMENT MAY ADOPT  
21 REGULATIONS EXEMPTING SMALL] and emergency sales are exempt from the  
22 requirements of this section.

23 \* Sec. 5. AS 38.05.113 is amended by adding a new subsection to read:

24 (d) A proposed timber sale that has been scheduled as specified in (b) of this  
25 section may be offered past the originally scheduled year without being included in  
26 future schedules if the sale is held within two years of the scheduled year and the sale

27 (1) was offered as scheduled and was not purchased; or

28 (2) was sold as scheduled and was returned to the state uncompleted.

29 \* Sec. 6. AS 41.17.090(c) is amended to read:

30 (c) Before beginning operations on municipal or private forest land or on state  
31 land not managed by the division, the operator shall provide the state forester with a  
32 detailed plan of operations. The detailed plan of operations must include

1 (1) a description of the proposed operations, identifying the land involved  
2 and the action proposed in sufficient detail to inform the public of the nature and  
3 location of the proposed operations; the description must include a map and must be in  
4 a form suitable for duplication;

5 (2) the name, address, and approving signature of the forest landowner,  
6 timber owner, and operator; and

7 (3) other information required in the regulations adopted under this  
8 chapter.

9 \* Sec. 7. AS 41.17.200 is amended to read:

10 Sec. 41.17.200. STATE FOREST PURPOSES. The purpose of AS 41.17.200  
11 - 41.17.230 is to permit the establishment of designated state-owned or acquired land and  
12 water areas as state forests. The primary purpose in the establishment of state forests is  
13 multiple use management that provides for the production, utilization, and  
14 replenishment of timber resources while perpetuating [THE PERPETUATION OF]  
15 personal, commercial, and other beneficial uses of resources [THROUGH MULTIPLE-  
16 USE MANAGEMENT].

17 \* Sec. 8. AS 41.17.200 is amended by adding a new subsection to read:

18 (b) In managing a state forest, the commissioner shall, consistent with the  
19 primary purpose of a state forest under (a) of this section, restrict the public use of the  
20 land and its resources, including timber, fish and wildlife, and minerals, only when  
21 necessary to carry out the purposes of this chapter.

22 \* Sec. 9. AS 41.17.210(a) is amended to read:

23 (a) The governor may propose to the legislature the establishment of state forests  
24 consisting primarily of commercially valuable forest land determined by the governor to  
25 be necessary for retention in state ownership for management under the principles of  
26 multiple use and sustained yield and consistent with AS 38.04.005. The proposal of the  
27 governor must include a report and recommendations of the commissioner including

28 (1) a preliminary forest inventory;

29 (2) a summary of the testimony offered at public hearings held on the  
30 management of the proposed state forest in communities proximately located to a  
31 proposed state forest;

32 (3) the findings of the commissioner on anticipated incompatibilities of

1 uses described in AS 38.05.112(c) under AS 41.17.230 [AS 38.05.112(d)];

2 (4) written comments from appropriate state agencies on the compatibility  
3 of the uses described in AS 38.05.112(c) within the proposed state forest;

4 (5) an estimate of the cost of a full implementation of an operational  
5 level forest inventory and the management plan.

6 \* Sec. 10. AS 41.17.230(a) is amended to read:

7 (a) The commissioner shall prepare a management plan consistent with  
8 AS 38.04.005 and this chapter for each state forest and for each unit of a state forest to  
9 assist in meeting the requirements of this chapter. An operational level forest inventory  
10 shall be completed before a management plan for the state forest or the unit of a state  
11 forest is adopted. The management plan shall be adopted, implemented, and maintained  
12 within three years of the establishment of a state forest by the legislature. The  
13 management plan must consider and permit the uses described in AS 38.05.112(c).  
14 If the commissioner finds that a permitted use is incompatible with one or more  
15 other uses in a portion of a state forest, the commissioner shall affirmatively state  
16 in the management plan that finding of incompatibility for the specific area where  
17 the incompatibility is anticipated to exist and the time period when the  
18 incompatibility is anticipated to exist together with the reasons and benefits for each  
19 finding.

20 \* Sec. 11. AS 41.17.400 is amended by adding a new subsection to read:

21 (e) The wildlife management objective of the Tanana Valley State Forest is the  
22 production of wildlife for a high level of sustained yield for human use through habitat  
23 improvement techniques to the extent consistent with the primary purpose of a state  
24 forest under AS 41.17.200.

25 \* Sec. 12. AS 38.05.112(d) is repealed.



# Alaska State Legislature

## HOUSE RESOURCES COMMITTEE

State Capitol  
Juneau, Alaska 99801-1182  
(907) 465-3715

### MEMORANDUM

Date: January 18, 1996

To: Resources Committee members

From: *for* Rep. W.K. Williams, Co-chair *WRP*  
House Resources Committee

Re: Proposed amendments to HB 212, version M

Attached are the amendments to HB 212 that Rep. Davies wants considered. There is also a proposal from Rep. Long which would change the word "production" on page 5, line 22 to "protection."

We will consider these amendments at the beginning of the House Resources committee meeting this afternoon at 3:00. It is still my intention to move the bill from committee today. If you have any questions, feel free to call me or my committee aide, Jack Phelps, at 465-3715.

1/17/96  
Version M

**AMENDMENT**

**OFFERED IN HOUSE RESOURCES**

**BY REPRESENTATIVE JOHN DAVIES**

**TO: CSHB 212 (RES)**

**Page 3, line 20:**

**Delete: 'Sales of 160 acres or less'**

**Insert: 'Sales under 500,000 board feet'**

1/17/98  
Version M

**AMENDMENT**

OFFERED IN HOUSE RESOURCES

BY REPRESENTATIVE JOHN DAVIES

TO: CSHB 212 (RES)

Page 5, line 20-24:

Delete all material

Page 5, line 25:

Delete "\*Sec. 12."

Insert "\*Sec. 11."

1/17/96  
Version M

**AMENDMENT**

**OFFERED IN HOUSE RESOURCES**

**BY REPRESENTATIVE JOHN DAVIES**

**TO: CSHB 212 (RES)**

**Page 5, line 20-24:**

**Delete all material**

**Page 5, line 25:**

**Delete "\*Sec. 12."**

**Insert "\*Sec. 11."**

1/17/96  
Version M

**AMENDMENT**

**OFFERED IN HOUSE RESOURCES**

**BY REPRESENTATIVE JOHN DAVIES**

**TO: CSHB 212 (RES)**

**Page 5, line 20-24:**

**Delete all material**

**Page 5, line 25:**

**Delete "\*\*Sec. 12."  
Insert "\*\*Sec. 11."**

# HOUSE COMMITTEE REPORT

(9)

Date Referred: March 22, 1995

FURTHER REFERRALS:

Finance

Date of Committee Action: 1/18/96

The RESOURCES Committee considered:

HB 212

HOUSE BILL NO. 212

TIMBER MANAGEMENT

"An Act relating to the management and sale of state timber and relating to the administration of forest land and classification of state land."

recommends it be replaced with the following committee substitute CS HB 212 (RES)  the same title  a new title

additional referral to \_\_\_\_\_ Committee  
 attached amendment(s)

ADOPTS: \_\_\_\_\_ Letter of Intent

ATTACHES NEW FISCAL NOTE(S): (Dept) \_\_\_\_\_ APPROVES PREVIOUS: (Dept/Date) \_\_\_\_\_  
 fiscal note(s) ADF+G \_\_\_\_\_  fiscal note(s) \_\_\_\_\_

zero fiscal note(s) DNR, DEC \_\_\_\_\_  zero fiscal note(s) \_\_\_\_\_

SIGNING WITH RECOMMENDATIONS	DP	DNP	NR	AM
<u>Nicholia</u> (Nicholia)				X
<u>Davies</u> (Davies)				X
<u>Long</u> (Long)				X
<u>Kott</u> (Kott)	X			
<u>Austerman</u> (Austerman)	X			
<u>Barnes</u> (Barnes)	X			
<u>Ogan</u> (Ogan)	X			
<u>Williams</u> (Williams)	X			
<u>Green</u> (Green)	X			
	(6)			(3)

CHAIR'S SIGNATURE W.K. Williams  
 (Williams)

# Alaska State Legislature

REPRESENTATIVE  
**JEANNETTE JAMES**

P.O. Box 56622  
North Pole, Alaska 99705  
(907) 488-1546  
FAX (907) 488-9006



White In Juneau  
State Capitol  
Juneau, Alaska  
99801-1182  
(907) 465-3743  
FAX (907) 465-2381

## House of Representatives

House District 34

### SPONSOR STATEMENT

### HOUSE BILL 212 TIMBER MANAGEMENT

The House State Affairs Committee introduced HB212 at the request of constituents from the timber industry in Fairbanks. These people are operators of small lumber businesses in the local communities. Their livelihoods have been impacted by the overly complicated procedures they must endure to secure timber from the state. It is not the lack of timber which has caused a problem, it is the inability of the Department of Natural Resources to allow the harvesting of this resource. Current statutes are such that the five-year planning and three year updates required by Title 38 make continuation of an ongoing industry very difficult.

Well-managed timber harvesting not only helps create and support jobs and a healthy economy, it creates and supports healthy forests. The Fairbanks community, as well as many other Alaskan communities, are being prohibited from developing the basic timber industries necessary for maintaining strong forest ecology and a strong economic environment.

HB212 addresses the minimum changes necessary to ensure the survival of the timber industry in Alaska.

# Alaska State Legislature

REPRESENTATIVE  
**JEANNETTE JAMES**

P.O. Box 56622  
North Pole, Alaska 99705  
(907) 488-1546  
FAX (907) 488-9006



While in Juneau,  
State Capitol  
Juneau, Alaska  
99801-1182  
(907) 465-3743  
FAX (907) 465-2381

House of Representatives

House District 24

## HOUSE STATE AFFAIRS COMMITTEE

March 7, 1995

### *SPONSOR STATEMENT*

HB-212 was introduced by me at the request of constituents from the timber industry in Fairbanks. These people are operators of small lumber businesses in the local communities. Their livelihoods have been impacted by the overly complicated procedures they must endure to secure timber from the state. It is not the lack of the resource that has impacted them, it is the inability of the Department of Natural Resources to allow the harvesting of this resource. Current Statues are such that the five-year planning and three year planning updates required by Title 38 are totally impracticable for the continuation of an ongoing industry.

For a number of years now, the Fairbanks Industrial Development Corporation has worked with and recruited timber companies to come to the Fairbanks area and set up shop. So far, they have not been successful because of the over restrictive policies that have been mandated by Title 38. Without the ability to be guaranteed a supply timber over the long term, no one will make the capital investment necessary to develop this industry.

This long standing irritation has deprived my community and other communities across the state from developing the basic timber industries necessary for jobs and a healthy economic environment.

I feel that this bill addresses the minimum changes necessary to ensure the survival of the timber industry in Alaska.

# FISCAL NOTE

STATE OF ALASKA  
1986 LEGISLATIVE SESSION

BILL NO. CSHB 212 (RES)

Title: An Act relating to the management and sale of state timber  
 Sponsor: House State Affairs  
 Requestor: House Resources

Dept. Affected ADF&G  
 BRU: Habitat & Restoration  
 Components: Habitat  
 Serial # 486

**EXPENDITURES/REVENUES: (THOUSANDS OF DOLLARS)**

OPERATING	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02
Personal Services	15.1					
Travel	1.5					
Contractual	2.5					
Supplies	0.5					
Equipment	0.0					
Land & Structures	0.0					
Grants, Claims	0.0					
Miscellaneous	0.0					
<b>TOTAL OPERATING</b>	<b>19.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

CAPITAL						
---------	--	--	--	--	--	--

REVENUE						
---------	--	--	--	--	--	--

**FUNDING: (THOUSANDS OF DOLLARS)**

General Fund	19.6					
Federal Fund						
Other						
<b>TOTAL</b>	<b>19.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**POSITIONS :**

Full-Time						
Part-Time	1					
Temporary						

**ANALYSIS: (ATTACH A SEPARATE PAGE IF NECESSARY)**

Prepared by: Jack Phelps, staff JEP  
House Resources Committee  
W.K. Williams  
 Rep. W.K. Williams, Co-chair

Date: 1/23/96  
 Phone: 465-3715  
 Phone: 465-3424

# FISCAL NOTE

STATE OF ALASKA  
1996 LEGISLATIVE SESSION

BILL NO. CSHB 212 (RES)

Title: An Act relating to the management and sale of state timber

Sponsor: House State Affairs

Requestor: House Resources

Dept. Affected DEC

BRU: Environmental Quality

Components: Water Quality Mgt

Serial # \_\_\_\_\_

**EXPENDITURES/REVENUES: (THOUSANDS OF DOLLARS)**

OPERATING	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02
Personal Services	0.0	0.0	0.0	0.0	0.0	0.0
Travel	0.0	0.0	0.0	0.0	0.0	0.0
Contractual	0.0	0.0	0.0	0.0	0.0	0.0
Supplies	0.0	0.0	0.0	0.0	0.0	0.0
Equipment	0.0	0.0	0.0	0.0	0.0	0.0
Land & Structures	0.0	0.0	0.0	0.0	0.0	0.0
Grants, Claims	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0
<b>TOTAL OPERATING</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

<b>CAPITAL</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
----------------	------------	------------	------------	------------	------------	------------

<b>REVENUE</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
----------------	------------	------------	------------	------------	------------	------------

**FUNDING: (THOUSANDS OF DOLLARS)**

General Fund	0.0	0.0	0.0	0.0	0.0	0.0
Federal Fund	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
<b>TOTAL</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**POSITIONS :**

Full-Time	0	0	0	0	0	0
Part-Time	0	0	0	0	0	0
Temporary	0	0	0	0	0	0

**ANALYSIS: (ATTACH A SEPARATE PAGE IF NECESSARY)**

Prepared by:

Jack Phelps, staff *JEP*

House Resources Committee

*W.K. Williams*

Rep. W.K. Williams, Co-chair

Date: 1/23/96

Phone: 465-3715

Phone: 465-3424

# FISCAL NOTE

STATE OF ALASKA  
1995 LEGISLATIVE SESSION

BILL NO. HB212

Revision Date: \_\_\_\_\_ Dept. Affected: Fish and Game  
 Title: An Act relating to the management and sale of BRU: Habitat and Restoration  
state timber and relating to the administration of forest land Component: Habitat  
 Sponsor: House State Affairs Committee  
 Requester: State Affairs COMPONENT SERIAL NO. 486

**Expenditures/Revenues** (Thousands of Dollars)

OPERATING EXPENDITURES	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01
PERSONAL SERVICES	15.1					
TRAVEL	1.5					
CONTRACTUAL	2.5					
SUPPLIES	0.5					
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
<b>TOTAL OPERATING</b>	<b>19.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

CAPITAL EXPENDITURES						
----------------------	--	--	--	--	--	--

CHANGE IN REVENUES ( )						
------------------------	--	--	--	--	--	--

**FUND SOURCE** (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF	19.6					
1005 GF/Program Receipts						
1006 GF/MHTIA						
Other						
<b>TOTAL</b>	<b>19.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Estimate of any current year (FY95) cost: \$ \_\_\_\_\_

**POSITIONS**

FULL-TIME						
PART-TIME	1					
TEMPORARY						

**ANALYSIS:** (Attach a separate page if necessary)

See Attached.

Prepared by: Ellen Fritts, Acting Director  
 Division: Habitat and Restoration

Phone: 465-4105  
 Date: 3/15/95

Approved by Commissioner: Frank Rice  
 Agency: Department of Fish and Game

Date: 3.15.95

**PREPARER TO PROVIDE ALL DISTRIBUTION COPIES TO GOVERNOR'S LEGISLATIVE OFFICE**  
 For further distribution information, call the Governor's Legislative Office

**BILL NO.        HB212**

An Act relating to the management and sale of state  
timber and relating to the administration of forest land

**Analysis: (continued)**

HB212 would change the way state forests and sale offerings of state timber are managed. The purpose of the bill appears to be to increase availability of small state timber sales for smaller logging/sawmill operators.

If HB212 is adopted, we believe that over the next five years, that there would be an increase in the availability of small timber sales and would increase the annual cut in the areas of the state where they occur. This means more fish and wildlife habitat will be affected and more Title 16 reviews and forest practices inspections will be required if impacts to fish and wildlife habitat and production are to be minimized. Because pre-sale planning opportunities and pre-contract reviews may be minimized or eliminated under HB212, many impacts which would have formerly been addressed in the pre-sale planning process, will have to be addressed in the field. This will necessitate increased reliance on field monitoring and enforcement to protect anadromous fish habitat and wildlife habitat. Resolution of resource conflicts with small operators is expected to be much more difficult because of the relatively high economic costs. This would require increased field presence by ADF&G field staff to meet ADF&G statutory responsibilities under Title 16 and Title 41. Because of the expected increased number of small timber sales and likely accelerated harvest, increased Habitat Biologist and clerical support would be required as these new areas come on line.

# FISCAL NOTE

STATE OF ALASKA

BILL NO. CSHB212 (RES)

**1996 LEGISLATIVE SESSION**

Revision Date: 16-Jan-96 Dept Affected: Natural Resources  
 Title: An Act relating to the management and sale of BRU: Resource Development  
state timber, administration of forest land and classification Component: Forest Management & Development  
 Sponsor: House State Affairs  
 Requestor: \_\_\_\_\_ Component Serial No. 435

Expenditures/Revenues (Thousands of Dollars)

OPERATING EXPENDITURES	FY97	FY98	FY99	FY00	FY01	FY02
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
<b>TOTAL OPERATING</b>	0.0	0.0	0.0	0.0	0.0	0.0
<b>CAPITAL EXPENDITURES</b>	0.0	0.0	0.0	0.0	0.0	0.0
<b>CHANGE IN REVENUES ( )</b>	0.0	0.0	0.0	0.0	0.0	0.0

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1006 GF/MHTIA						
Other						
<b>TOTAL</b>	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY96) cost: \$ none anticipated

POSITIONS

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

**ANALYSIS:** (Attach a separate page if necessary)

There is no anticipated fiscal impact associated with this legislation.

Prepared by: Tom Boutin, Director Phone: 465-2400  
 Division: Forestry Date: 16-Jan-96  
 Approved by Commissioner: \_\_\_\_\_ Date: 16-Jan-96  
 Agency: Natural Resources

**PREPARER TO PROVIDE ALL DISTRIBUTION COPIES TO GOVERNOR'S LEGISLATIVE OFFICE**  
 For further distribution information call the Governor's Legislative Office

# FISCAL NOTE

STATE OF ALASKA

BILL NO. HB212

**1995 LEGISLATIVE SESSION**

Revision Date: 20-Mar-95  
 Title: An Act relating to the management and sale of state timber, administration of forest land and classification  
 Sponsor: House State Affairs  
 Requestor: \_\_\_\_\_

Dept Affected: Natural Resources  
 BRU: Resource Development  
 Component: Forest Management & Development  
 Component Serial No. 435

Expenditures/Revenues

(Thousands of Dollars)

OPERATING EXPENDITURES	FY96	FY97	FY98	FY99	FY00	FY01
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
<b>TOTAL OPERATING</b>	0.0	0.0	0.0	0.0	0.0	0.0
<b>CAPITAL EXPENDITURES</b>	0.0	0.0	0.0	0.0	0.0	0.0
<b>CHANGE IN REVENUES ( )</b>	0.0	0.0	0.0	0.0	0.0	0.0

FUND SOURCE

(Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1006 GF/MHTIA						
Other						
<b>TOTAL</b>	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY95) cost: \$ \_\_\_\_\_

POSITIONS

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

ANALYSIS:

(Attach a separate page if necessary)

See attached comments and proposed amendments.

Prepared by: Nico Bus, Acting Legislative Liaison  
 Division: Support Services  
 Approved by Commissioner: [Signature]  
 Agency: Natural Resources

Phone: 465-2406  
 Date: 20-Mar-95  
 Date: 3-20-95

**PREPARER TO PROVIDE ALL DISTRIBUTION COPIES TO GOVERNOR'S LEGISLATIVE OFFICE**  
 For further distribution information call the Governor's Legislative Office

## **HB212 ANALYSIS**

There is no fiscal impact from HB212. The Division of Forestry would continue to do Forest Land Use Plans as a matter of policy for all harvests (Section 1). Therefore the savings from doing a reduced number of Forest Land Use Plans would be very small.

Eliminating consideration of requirements in AS 38.04.065(b) from Forest Land Use Plans does not present a savings (Section 3). Considering silvicultural practices, etc. to maintain and enhance the quantity and quality of wildlife habitat is a current practice and presents no additional costs to preparation of a FLUP. Forestry defers to ADF&G for habitat expertise and advice.

The Division of Forestry would continue to include most sales in the 5 year timber sale schedule, rather than only sales of 500,000 board feet or more as the HB212 provides. Therefore any savings in having a smaller document for the 5 year schedules, if indeed there is a savings, would be very small (Section 4).

No other part of HB212 presents any opportunity for fiscal analysis. Cost accounting information is not available to DNR. However, an analysis using cost accounting techniques would not be likely to provide a different answer in the instance of HB212.

# FISCAL NOTE

STATE OF ALASKA  
1995 LEGISLATIVE SESSION

BILL NO. HB 212

Revision Date: 1-Mar-95  
 Title: "An act relating to management and sale of state timber"  
 Sponsor: House State Affairs  
 Requestor: House State Affairs

Department Affected: Environmental Conservation  
 BRU: Environmental Quality  
 Component: Water Quality Management

**COMPONENT SERIAL NO.**

Expenditures/Revenues:

(Thousands of Dollars)

OPERATING EXPENDITURES	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01
PERSONAL SERVICES	58.0	58.0	58.0	0.0	0.0	0.0
TRAVEL	7.0	7.0	7.0	0.0	0.0	0.0
CONTRACTUAL	0.0	0.0	0.0	0.0	0.0	0.0
SUPPLIES	2.5	2.5	2.5	0.0	0.0	0.0
EQUIPMENT	2.5	2.5	2.5	0.0	0.0	0.0
LAND&STRUCTURES	0.0	0.0	0.0	0.0	0.0	0.0
GRANTS, CLAIMS	0.0	0.0	0.0	0.0	0.0	0.0
MISCELLANEOUS	0.0	0.0	0.0	0.0	0.0	0.0
<b>TOTAL OPERATING</b>	<b>70.0</b>	<b>70.0</b>	<b>70.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

CAPITAL EXPENDITURES	0.0	0.0	0.0	0.0	0.0	0.0
----------------------	-----	-----	-----	-----	-----	-----

CHANGE IN REVENUES ( )	70.0	70.0	70.0	0.0	0.0	0.0
------------------------	------	------	------	-----	-----	-----

**FUND SOURCE**

1002 Federal Receipts	0.0	0.0	0.0	0.0	0.0	0.0
1003 GF Match	0.0	0.0	0.0	0.0	0.0	0.0
1004 GF	70.0	70.0	70.0	0.0	0.0	0.0
1005 GF/Program Receipt	0.0	0.0	0.0	0.0	0.0	0.0
1006 GF/MHTIA	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
<b>TOTAL</b>	<b>70.0</b>	<b>70.0</b>	<b>70.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Estimate of any current year (FY95) cost: \$ 0.0

**POSITIONS:**

FULL-TIME	1	1	1	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

**ANALYSIS:** (Attach a separate page if necessary.)

HB 212 is similar to HB 16. It expands the exemptions from DNR preparing forest land use plans to include sales of less than 10 acres or salvaged timber from land cleared for nonforest uses. Sales of less than 500,000 board feet are exempt from 5 year sale scheduling requirements. Amends the primary purpose of establishing state forests to multiple use management with emphasis on production and utilization of timber resources while maintaining other beneficial uses. Requires a scientific demonstration that timber use is incompatible with other uses in order to specify such incompatibility in the management plan. These provisions will require more field presence by resource agencies.

Prepared by: Doug Redburn  
 Division: Chief, Water Quality Management

Phone: 465-5303  
 Date: 3/9/95

Approved by Commissioner: *[Signature]*  
 Agency: Department of Environmental Conservation

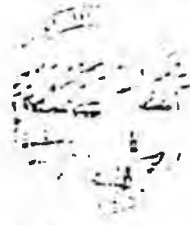
Date: 3/9/95

PREPARER TO PROVIDE ALL DISTRIBUTION COPIES TO GOVERNOR'S LEGISLATIVE OFFICE

For further information, contact the office

# Alaska State Legislature

REPRESENTATIVE  
**JEANNETTE JAMES**  
PO. Box 56622  
North Pole, Alaska 99705  
(907) 488-1546  
FAX (907) 488-9006



While in Juneau  
State Capitol  
Juneau, Alaska  
99801-1182  
(907) 465-3743  
FAX (907) 465-2381

House of Representatives

House District 34

## HOUSE STATE AFFAIRS COMMITTEE

March 7, 1995

### *SPONSOR STATEMENT*

HB-212 was introduced by me at the request of constituents from the timber industry in Fairbanks. These people are operators of small lumber businesses in the local communities. Their livelihoods have been impacted by the overly complicated procedures they must endure to secure timber from the state. It is not the lack of the resource that has impacted them, it is the inability of the Department of Natural Resources to allow the harvesting of this resource. Current Statues are such that the five-year planning and three year planning updates required by Title 38 are totally impracticable for the continuation of an ongoing industry.

For a number of years now, the Fairbanks Industrial Development Corporation has worked with and recruited timber companies to come to the Fairbanks area and set up shop. So far, they have not been successful because of the over restrictive policies that have been mandated by Title 38. Without the ability to be guaranteed a supply timber over the long term, no one will make the capital investment necessary to develop this industry.

This long standing irritation has deprived my community and other communities across the state from developing the basic timber industries necessary for jobs and a healthy economic environment.

I feel that this bill addresses the minimum changes necessary to ensure the survival of the timber industry in Alaska.

**DIVISION OF LEGAL SERVICES  
LEGISLATIVE AFFAIRS AGENCY  
STATE OF ALASKA**

(907) 465-3867 or 465-2450  
FAX (907) 465-2029  
Mail Stop 3101

130 Seward Street, Suite 409  
Juneau, Alaska 99801-2105

**MEMORANDUM**

May 25, 1995

**SUBJECT:** Sectional Summary HB 212 (Work Order No. 9-LS0695\F)

**TO:** Representative Bill Williams  
Attn: Jack Phelps

**FROM:** Gerald P. Luckhaupt *GL*  
Legislative Counsel

You have requested a sectional summary of the above-described bill. As a preliminary matter, please note that a sectional summary of a bill should not be considered an authoritative interpretation of the bill - the bill itself is the best statement of its contents.

Section 1 of the bill amends AS 38.05.112(a) relating to when a site-specific forest land use plan must be prepared.

Section 2 of the bill amends the requirements for preparation of forest use plans under AS 38.05.112(b).

Section 3 of the bill amends AS 38.05.112(c) relating to the considerations required in a forest land use plan.

Section 4 of the bill amends AS 38.05.113 relating to the requirements of the five year schedule of timber sales; provides an exception for timber sales previously noticed in the five year sale schedules; and adds exceptions from the five year sale schedule listing requirements.

Section 5 of the bill adds a new subsection to AS 38.05.113 dealing with continued offerings of timber sales after the sale has been listed in the five year sale schedules.

Section 6 of the bill amends AS 41.17.090(c) by providing that detailed plans of timber operations on state land do not have to be prepared and submitted to the state forester under the Forest Practices Act.

Section 7 and 8 of the bill amend AS 41.17.200 by providing new direction for the commissioner of natural resources in the management of state forests.

Representative Bill Williams

May 25, 1995

Page 2

Section 9 of the bill amends AS 41.17.230(a) by providing that the commissioner of natural resources must permit and allow the uses mentioned in AS 38.05.112(c) in state forest management plans and provides procedures for the commissioner to follow if it is found that a permitted use is incompatible with other uses.

Section 10 of the bill provides a wildlife management objective for the Tanana State Forest.

Section 11 of the bill provides a repealer to correspond to the change in section 9 of the bill.

GPL:klb

95-374.klb

Land Use Allocations for the Tanana Valley  
Revised 3-21-1994

Land Use	Acres(%)
Tanana Valley Total	29.0 million
State land:	15.0 million(52%)
Tanana Valley State Forest.....	1.8 million(6%)
Tanana Basin Area Plan-forest classified	1.3 million(5%)
Total	3.1 million(11%)
After Research Nat. Areas, buffers, BEF, uneconomical forest, unaccessible, and non-commercial forest are removed, there is available for sustained yield forest harvest.....	1.2 million(4%)
Public recreation/wildlife habitat.....	11.0 million(47%)
Federal Park, Preserve, Refuge, Wilderness, Recreation, special use and Military....	11.7 million(40%)
BLM, non forestry.....	2.5 million(9%)
Denali, Wrangel-St. Elias, Tetlin....	7.6 million(26%)
Military.....	1.6 million(6%)
Native Ownership.....	2.3 million(8%)
Private land, UAF, FNSB, Mental Health, Ag.	.3 million
<b>TOTAL RECREATION/WILDLIFE HABITAT/NON-FORESTRY</b>	<b>22.7 MILLION(78%)</b>
Current timber harvest per year.....	1,000 acres(.003%)
Potential timber harvest on sustained yield per year.....	16,000 acres(.05%)
Average annual amount of acres burned per year.....	95,000 acres(.3%)
Average annual amount of acres estimated to have burned before fire fighting.....	165,000 acres(.6%)



# Alaska Society of American Foresters

Cook Inlet Chapter  
Juneau Chapter  
Kenai Chapter  
Yukon Chapter  
Sitka Chapter  
Stikine River Chapter

## A POSITION STATEMENT ON SOUTH-CENTRAL AND INTERIOR ALASKA'S DETERIORATING FOREST HEALTH

### I. Summary

The largest spruce bark beetle epidemic in North America is resulting in substantial and expanding impacts to wildlife, fisheries, recreation, and timber resources, as well as loss of critical old-growth habitat, in the white and Lutz spruce forests of Southcentral and Interior Alaska. Continued extensive tree mortality and associated resource impacts constitutes the greatest ecological crisis facing Alaska forests today.

An aggressive forest restoration and forest health maintenance program involving federal, State, local and private forest managers is necessary to fully recognize the severity and extent of impacts to forest resources and to develop coordinated forest management actions to restore damaged ecosystems and prevent unnecessary additional ecological impacts.

The Society of American Foresters fully supports coordinated multi-ownership forest health planning at the landscape scale, research to identify spruce beetle induced impacts to all forest resources, and development of a forest industry as the funding mechanism to subsidize implementing planned forest health actions.

### II. Definition of Issue

Forest health in Southcentral and Interior Alaska is rapidly deteriorating. The spruce beetle epidemic is manifesting unprecedented rapid forest change within the white, Lutz and Sitka spruce forest types. Spruce beetle induced mortality is in many instances eliminating all live forest cover (main canopy) in major portions of large drainages. Impacts associated with forest tree canopy losses are occurring to all resources that require a forested landscape (ie. wildlife, fisheries, watersheds, scenic vistas, etc.). Many of these infested forest stands do not meet current definitions of "ecologically functional" old-growth and lack of regeneration following infestation has potential to convert these stands to

Other than conifer forest cover for an extended period of time. Loss of old-growth habitat from spruce beetle infestation in the white, Lutz and Sitka spruce forests of Alaska (Southeast included) is occurring at a rate of 5-8 times the combined rate of all other forest change agents (fire, timber harvest, urban sprawl, etc.). This long-term beetle induced loss of old-growth habitat will have a significant impact on maintaining current biological diversity in Southcentral and interior Alaska.

Lack of fully recognizing ecological impacts coupled with lack of a viable forest industry to provide cost effective management options has resulted in little direct action to address this declining forest health problem to date. Meanwhile, hundreds of thousands of acres of Alaska forests are being subject to ever-increasing negative impacts, losing future resource potential, and rapidly losing economic value that could fund positive management actions.

Long-term loss of old-growth habitat, substantial forest conversion, and associated resource impacts in the naturally fragmented landscape patterns of Southcentral and interior Alaska, coupled with little direct action to contain the epidemic or rehabilitate previously impacted areas, make this situation the most ecologically critical issue to sustained ecosystems facing Alaska's forests today.

### III. Background

Southcentral and interior Alaska have hundreds of thousands of acres of white and Lutz spruce forest types that are simultaneously entering a mature, decadent condition and consequently becoming highly productive spruce beetle habitat. This, coupled with recent favorable weather conditions has increased spruce beetle population growths to epidemic proportions.

Systematic monitoring of insect conditions by the U.S.D.A. Forest Service has documented that the area of active spruce beetle infestation is growing at an exponential rate and will likely exceed 1 million acres by the summer of 1994.

There is currently a lack of research documenting specific resource impacts from this forest health crisis. Impacts to wildlife and streamside stability are observable, but documentation of these through research studies or published monitoring is limited.

### IV. Discussion

Spruce beetle populations have shifted from endemic to epidemic levels. Halting the infestation in the near term is unlikely. However, concerted efforts by all landowners and resource managers can significantly slow the buildup, restore already impacted areas, and minimize future resource impacts from this insect.

The only recognized effective treatment to reduce hazard and risk of spruce beetle induced resource damage at the landscape scale is to maintain a mosaic of species and age types. Maximum resource values can be maintained using coordinated restoration and prevention silvicultural treatments. While economics should not be the major driver for addressing Alaska forest health problems, clearly, economics should not be ignored. The fact that implementation of forest management to address forest health will not only assist to pay for the needed forest health treatments, but meet other state goals such as rural economic development is significant. Particularly with wood product values anticipated to rise, the potential for significant economic returns from implementing forest health treatments, and consequent loss of these values through inaction, should not be ignored.

The Society of American Foresters has recently published a National Task Force report "Sustaining Long-Term Forest Health and Productivity". This report describes the need to address the sustainability of healthy forests by considering social or human forces as well as considering scientific and economic forces. A coordinated effort applying positive management actions to deal with this Alaskan forest health crisis would be consistent with the recommendations of this report to sustain long-term forest health and productivity in our ecosystems. Lack of action allowing continuation of increasing forest health decline would be inconsistent with sustained ecosystem productivity.

#### V. Recommendations

The Alaska Society of American Foresters recommends and fully supports:

- (a) Coordinated multi-interest forest health planning at the landscape scale.
- (b) Research to identify spruce beetle induced impacts to all forest resources.
- (c) Development of a forest industry as the funding mechanism to subsidize planned forest health actions.

The Alaska Society of American Foresters should actively highlight the need for assertive management actions to address declining forest health in south-central and interior Alaska to local, state, and federal officials. This implies implementation of ecologically and silviculturally sound management approaches that will assure maintenance of the health of the forest as well as its biodiversity.

The Alaska Society recommends using the 1994 National Convention to highlight the National significance of this extensive forest health problem and promote understanding and support for assertive ecological management applications within the American Forestry profession.

This position was approved by the Alaska Society of American Foresters Executive Committee on November 7, 1993 and will expire November 7, 1996.

A STUDY REPORT  
of the  
DETERIORATING FOREST HEALTH  
OF SOUTH-CENTRAL AND INTERIOR ALASKA

Alaska State Society of American Foresters  
July, 1993

## TABLE OF CONTENTS

1. Background .....	1-2
2. Discussion .....	2-3
3. Statement of Findings .....	3-4
4. Conclusions .....	5
5. Recommendations .....	6
6. References .....	7-8

## 1. BACKGROUND

The largest spruce bark beetle epidemic in North America is resulting in substantial and expanding impacts to wildlife, fisheries, recreation, and timber resources, as well as loss of critical mature forest ecosystems, in white, Sitka, and Lutz spruce forests of south-central and interior Alaska. Increased spruce beetle activity is also occurring in the maritime Sitka spruce stands of Prince William Sound and southeast Alaska, although of lesser magnitude than infestations further north. This epidemic constitutes one of the most significant forest health declines currently impacting Alaska forests.

Historical descriptions from miners, fur traders and settlers (Lutz 1960, Johnson 1975) indicate common and extensive fires in these Alaska forest types in the mid-to late 1800's. Fire was a major natural change agent that helped maintain species and age class diversity on the landscape. Stand development following these early fires, and effective fire suppression since the 1950's, has created hundreds of thousands of acres of white, Sitka, and Lutz spruce forest types that are simultaneously becoming mature, decadent and highly susceptible to spruce beetle damage today.

In a 1987 timber inventory, the Kenai Peninsula was estimated to have 364,000 acres of white/Lutz spruce type, of which 220,500 acres was considered commercial timberland, -- that is producing over 20 cubic feet of wood per acre per year (Van Hees and Larson, 1991). This inventory estimated that on the Chugach National Forest portion of the Kenai Peninsula, mortality exceeds annual growth and that 57% of this mortality is estimated to have been caused by the spruce bark beetle. Van Hees (1992) noted dramatic increases in spruce bark beetle populations on the Kenai Peninsula since the 1987 inventory.

Systematic monitoring of insect conditions by the U.S. Forest Service has been in effect since the 1950's. Entomologists monitoring the spruce beetle infestations have been predicting substantial population increases for a number of years (Holsten 1990). Rapid beetle population increases to epidemic levels have become a reality in the last 4 years. Statewide, acreages of active spruce beetle infestation from the U.S. Forest Service annual forest insect and disease aerial surveys (USDA Insect Conditions Reports; 1989, 1990, 1991, 1992) are:

1989 - 177,000 acres  
1990 - 232,000 acres  
1991 - 375,000 acres  
1992 - 600,000 acres

The current infestation of 600,000 acres is located in three principal geographic locations. These are the Kenai peninsula, the Copper River basin, and the Yukon River basin. This infestation is the largest area of active spruce beetle infestation ever mapped in Alaska and constitutes the largest existing spruce bark beetle infestation in North America.

This epidemic spans a variety of private as well as state and federal land ownerships. Addressing this situation will require coordinated land management actions. Significant ownerships of infested forest types include: the Bureau of Land Management, the U.S. Fish and Wildlife Service, the U.S. National Park Service, the State of Alaska, the U.S. Forest Service, several boroughs, and privately owned forest lands. Some of these ownerships have few or no forest management specialists to address this problem. (ie. The State Division of Forestry currently has less than 2 full time forestry people dedicated to planning and implementing forest health treatments on the Kenai Peninsula.)

Efforts to address this problem to date include:

..During 1991 and 1992, the U.S. Forest Service coordinated a comprehensive forest health protection and restoration effort for the Cooper Landing area of the Kenai Peninsula. The majority of that project has been implemented.

..As part of a State Forest Health Initiative, the State Division of Forestry completed a general Forest Health plan for the Western Kenai Peninsula and Kalgin Island in 1992. Seven project areas were identified in that plan to receive management actions. The first of the seven areas (Falls Creek) is planned for project implementation, but is receiving criticism from the environmental community. Also as part of this initiative, the Division of Forestry has established a citizen working group to consider management actions in the Copper River basin.

..The U.S. Forest Service has begun a planning effort for the Seward Scenic By-Way and Hope portions of the Kenai Peninsula. These actions constitute the extent of coordinated planning and implementation efforts to date in spruce beetle impacted areas.

These actions have thus far resulted in approximately 3,000 of the current 600,000 acres (0.5%) receiving actual ground treatments.

## 2. DISCUSSION

Concern for maintenance of healthy forest ecosystems has become a national issue in recent years. A national strategic plan has been developed by the U.S. Forest Service to address concerns of forest health (USDA, 1993). The current national forest health monitoring programs by the U.S. Forest Service and the Environmental Protection Agency give strong emphasis to maintaining forest health along with forest biodiversity, all within the context of sound ecosystem management. Many existing silvicultural practices have strong application within this context.

Public perception regarding the spruce bark beetle problem in Alaska has been documented (Daniels 1991, Kruse 1991). Study respondents overwhelmingly were in favor of prevention of spruce beetle outbreaks, mitigation of associated impacts as well as providing management actions that would restore the health of the impacted forests. Surveyed publics expressed a willingness to subsidize reforestation actions if necessary.

The Society of American Foresters has recently published a National Task Force report "Sustaining Long-Term Forest Health and Productivity" (Society of American Foresters, 1993). This report describes the need to address the sustainability of healthy forests by considering social or human forces as well as considering the scientific and economic forces. This Task Force Report includes 26 recommendations on ecologically sound approaches to maintaining or improving forest health. These fall in four broad areas of action:

- Advocate ecosystem management.
- Integrate ecosystem management into educational programs.
- Promote ecosystem management research.
- Coordinate between land owners and the public.

A coordinated effort applying assertive management actions to deal with this Alaskan forest health crisis would be consistent with the recommendations of this report to sustain long-term forest health

and productivity in our ecosystems. Lack of action allowing continuation of increasing forest health decline would be inconsistent with sustained ecosystem productivity and biodiversity.

Not all resource disciplines are actively furthering the ecological significance of these forest alterations. Changes in forested wildlife habitat and/or old-growth habitat has not been raised as an issue in south-central or Interior Alaska. The limited and naturally fragmented landscape patterns of south-central and Interior Alaska make this loss of forest habitat a much more critical issue to sustained ecosystems than loss of habitat in southeast Alaska where the forested landscape is broader and more contiguous. Yet, habitat loss has been raised as a major issue in southeast and virtually not acknowledged in south-central or Interior Alaska.

Lack of fully recognizing the ecological impacts coupled with lack of a viable forest industry to provide cost effective management options has resulted in little direct action to address this declining forest health problem. Meanwhile, hundreds of thousands of acres of Alaska forests are being subject to ever-increasing negative impacts, losing future resource potential, and rapidly losing economic value that could fund positive management actions.

Forest economic development is often billed as the rationale for "logging". While economics should not be the major driver for addressing Alaska forest health problems, clearly, economics should also not be ignored. Implementation of forest management to address forest health can not only assist to pay for the needed forest health treatments, but contribute to other state goals such as rural economic development and economic diversification. Particularly with wood product values rising rapidly, the potential for significant economic returns from implementing forest health treatments, and consequent loss of these values through inaction, should not be ignored. The U.S. imports nearly thirty (30%) percent of its wood fiber, much of which comes from countries with less stringent environmental guidelines than our own (Salwasser, MacCleery, and Snellgrove). Non-use of the large and growing inventory of beetle killed spruce, while supporting the harvest of green trees from foreign sources, may be considered environmentally irresponsible.

The previous lack of viable timber markets in South-central and Interior Alaska have prevented development of a forest industry to utilize industrial wood recovered in silvicultural management activities. Without an industry to provide a reasonably cost effective vehicle to support forest management actions, few silvicultural management actions have been taken to assist ecosystem manipulations. The recent national rise in industrial wood product values has set the stage for ecosystem and silvicultural management that could subsidize assertive forest health enhancements. Markets are rapidly developing for a variety of forest products from Alaskan forest types including house logs, veneer, dimension lumber, and chips. All indications are that market values will increase in the future.

### 3. STATEMENT OF FINDINGS

Forest health in South-central and Interior Alaska is rapidly deteriorating. However, the greatest forest impact is potential long-term change in forest cover from spruce bark beetle induced tree mortality over extensive portions of the white, Sitka, and Lutz spruce forest types.

Spruce beetle populations have shifted from endemic to epidemic levels in many areas of Alaska. Spruce beetles have and always will be a feature of these ecosystems, however, the notion that this infestation is or should be managed as a totally 'natural' event is erroneous. While several environmental factors such as annual weather conditions, host susceptibility, changes in predator and parasite populations, etc., continue to influence beetle population changes, past and future human intervention (such as fire suppression, clearing activities, or simply increased habitation) has re-

moved this situation from a 'natural' setting. Even if this event was natural, impacts are occurring which could be either positive or negative depending on the affected resource and the desired future condition. Consideration of human needs and influences to establish an appropriate desired future condition for these impacted forest types is ecologically appropriate.

Spruce beetle induced mortality is currently occurring on over 600,000 acres in these forest types (USDA, Insect Conditions Report-1993). In many instances this mortality is eliminating all live forest cover (main canopy) in major portions of large drainages. Impacts associated with forest tree canopy losses are occurring to all resources that require a forested landscape (ie. wildlife, fisheries, watersheds, scenic vistas, etc.).

Many of these spruce beetle impacted forest stands will not meet current definitions of 'ecologically functional' old-growth (USDA, Ecological Old-Growth Definitions-1992) following beetle infestation. This long-term loss of old-growth habitat will have a significant impact on maintaining current biological diversity in South-central and Interior Alaska.

Natural regeneration of spruce in these impacted stands is spotty at best. Without assertive reforestation actions, long-term forest conversion from spruce to hardwood stands or grass dominated areas could occur on many sites. This conversion will drastically alter current landscape patterns, substantially reducing forested wildlife habitat for the long term. Cover and large organic material input to anadromous streams will be significantly altered over time. From a human ecology standpoint, fire risk and hazard are increasing and causing substantial concern in rural communities as well as in the larger urban forest interface areas such as the Anchorage bowl.

Research on impacts of the bark beetle on the timber resource and control methods exists (Werner and Holsten, 1983; Werner, Hard, Holsten, 1988; Holsten and Werner, 1990; Hard, 1989), but more emphasis is needed in this area. There is currently a lack of research documenting impacts to non-timber resources associated with the spruce bark beetle infestation. Impacts to wildlife and stream side stability are observable, but documentation of these through research studies or long-term monitoring are limited. The emergency nature of this beetle epidemic dictates use of an adaptive management approach based upon known research.

Lack of action and continued forest health decline will result in:

- Increasing loss of wildlife habitat for mature forest species.
- Continued riparian area degradation.
- Substantial long-term conversion from forest to grass or hardwoods (lack of spruce regeneration).
- Increased community fire hazard & associated increased fire suppression costs.
- Degradation of aesthetic quality of forested landscapes.
- Degradation of developed recreation areas and increased trail maintenance costs for removal of hazard and down trees.

Continued focus of habitat loss in southeast Alaska (primarily the Tongass National Forest) with little expressed concern for habitat loss in south-central or interior Alaska is a serious wildlife management oversight. Applying fundamental habitat relations and fragmentation concepts, it is clear that hundreds of thousands of acres of tree mortality (with little natural regeneration) to forested habitat in a naturally fragmented environment (south-central and interior situation) has tremendously more impact than one-thirtieth of those acres being converted to young forest conditions a less fragmented environment (southeast situation). Wildlife species only respond to habitat changes, regardless if those changes are human induced (timber harvesting) or from another change agent (spruce

beetles). Ecologically sound resource management philosophy must be founded upon biological and ecological reasoning rather than development versus non-development opinion. Strong focus needs to be directed to maintaining the biological diversity through sound ecological management (including silvicultural) procedures.

#### 4. CONCLUSIONS

Lack of forest management, non-recognition of the biological/ecological impacts, and lack of expressed professional concern have all contributed to this forest health problem.

Halting the infestation in the near-term is unlikely; however, concerted efforts by all landowners and resource managers can significantly slow the buildup, restore already impacted areas, and minimize future resource impacts from this insect.

Once forests are dead, options for the type and size of ecosystem management are limited. If, however, silvicultural treatments are considered not only for restoration of damaged areas, but also for damage prevention of currently uninfested areas, a variety of silvicultural options are available to meet various resource objectives. Maximum ecosystem values can be maintained using coordinated restoration and assertive silvicultural treatment planning.

Coordinated ecosystem enhancement and restoration planning has the capability to provide:

- Restoring damaged wildlife habitat (forage and cover).
- Restoring damaged riparian area integrity (cover and stream bank stability).
- Providing immediate reforestation.
- Reducing potential fire hazard to communities.
- Preventing additional uncontrolled impacts (reduced mortality).
- Providing rural community development (jobs).

The most generally accepted treatment to reduce hazard and risk of spruce beetle induced resource damage at the landscape scale is to maintain a mosaic of species and age types. Considering public habitation and use of the forests, eliminating fire suppression now and allowing this change agent to create future mosaics through unrestricted burning is not a viable option. Active ecosystem management, applying appropriate silvicultural techniques to create a future desired mosaic is the most plausible solution.

An aggressive forest restoration and forest health maintenance program involving federal, state, local and private forest managers is necessary to fully address the severity and extent of impacts to forest resources and to develop coordinated forest management actions to restore damaged ecosystems and prevent unnecessary additional ecological impacts. This conclusion is consistent with the recommended option of the Kenai Peninsula Borough report (Hall 1992) addressing forest health management needs for the Kenai Peninsula.

## 5. RECOMMENDATIONS

The Alaska Society of American Foresters fully supports:

- 1) Coordinated multi-interest forest health planning at the landscape scale.
- 2) Research to identify spruce beetle induced impacts to all forest resources.
- 3) Development of a forest industry as the funding mechanism to subsidize implementing planned forest health actions.

Following the lead of the National SAF Task Force report on Sustaining Long-Term Forest Health and Productivity, it is recommended that the 26 specific recommendations from that Task Force Report be implemented in Alaska using ecologically sound approaches to maintaining or improving forest health. These recommendations will be applied through the following four broad areas of action:

- Advocate ecosystem management.
- Integrate ecosystem management into educational programs.
- Promote ecosystem management research.
- Coordinate between land owners and the public.

The Alaska Society of American Foresters should actively highlight the need for assertive management actions to address declining forest health in south-central and interior Alaska to local, state, and federal officials. This implies implementation of ecologically and silviculturally sound management approaches that will assure maintenance of the health of the forest as well as its biodiversity.

The Alaska Society recommends that agencies charged with a mandate to manage sustainable forest resources establish adequate organizations with appropriate expertise to develop site specific silvicultural treatments to accomplish those goals.

The Alaska Society recommends that the U.S. Forest Service's Pacific Northwest Research Station prepare a white paper evaluating the significance of the loss of old-growth habitat in south-central Alaska resulting from continued forest health decline.

The Alaska Society recommends using the 1994 National Convention to highlight the National significance of this extensive forest health problem and promote understanding and support for assertive ecological management applications within the American Forestry profession.

## REFERENCES

- Alaska Dept. of Nat. Res. 1992. Forest Health Management Plan For The Western Kenai Peninsula and Kaigín Island. Div. of Forestry. 40 p.
- Daniel, T. C., Orland, E.; Hetherington, J.; Paschke, J. L. 1991. Public Perception and Attitudes Regarding Spruce Beetle Damage to Forest Resources on the Chugach National Forest, Alaska. USDA For. Serv., Alaska Region Report. 35p.
- Hall, John L. 1992. Report to the Kenai Peninsula Borough Economic Development District, Inc. for a master timber harvesting program plan development for the Kenai Peninsula Borough, Alaska. 53p.
- Hard, John S. 1989. Sequence of trees attacked by spruce beetles in a mature even-aged spruce stand in south-central Alaska. *Northwest Science* 63 (1) 5-12.
- Holsten, E. H. 1990. Spruce Beetle Activity in Alaska: 1920-1989. USDA For. Serv., State and Private Forestry, Alaska Region. Tech. Rpt. R10-90-18. 28p.
- Holsten E. H.; Wemer, R. A. 1990. Comparison of white, Sitka and Lutz spruce as hosts of the spruce beetle in Alaska. *Canadian Jour. of For. Research*. 20(3) 292-297.
- Johnson, A. 1975. History of Fires on the Kenai Moose Range. Canadian-Alaska Fire Seminar, October, 1975. Unpublished report, 4p.
- Kruse, J.; Pelz, R. 1991. Developing a Public Consensus on the Management of Spruce Beetles on the Kenai Peninsula. Institute of Social and Economic Research, University of Alaska Anchorage. 36p.
- Kruse, J.; Pelz, R. 1991. Managing Beetle-killed Spruce on the Kenai Peninsula. 1991. Research Summary No. 51. 4p.
- Lutz, H. J. 1960. History of the Early Occurrence of Moose on the Kenai Peninsula and on Other Sections of Alaska. Alaska Forest Research Center, U.S. Forest Service, Juneau, AK, Miscellaneous Pub. 1, 25p.
- Schwasser, H.; MacClenry, D.; Snellgrove, T. 1992. New Perspectives for Managing The U.S. National Forest System. Report to the North American Forestry Commission, Sixteenth Session, Cancun, Mexico, February 1992. 24p.
- Society of American Foresters, 1993. Sustaining long-term forest health and productivity. A Task Force Report. Bethesda Md. 83 p.
- USDA For. Serv. 1989. Forest Insect and Disease Conditions in Alaska-1989. For. Pest Mgt., State and Private Forestry, USDA For. Serv., Alaska Reg., Juneau, AK. FPM Conditions Rpt. R10-89-C-1. 19p.
- USDA For. Serv. 1990. Forest Insect and Disease Conditions in Alaska-1990. For. Pest Mgt., State and Private Forestry, USDA For. Serv., Alaska Reg., Juneau, AK. FPM Conditions Rpt. R10-90-C-1. 25p.

USDA For. Serv. 1992. Forest Insect and Disease Conditions in Alaska-1991. USDA For. Serv. Alaska Reg., Forest Health Mgmt. Rpt. R10-TP-22. 25p.

USDA For. Serv., Alaska Region. 1992. August. Ecological Definitions for Old-Growth Forest Types in South-central Alaska. Tech. Rpt. R10-TP-28, 30p.

USDA For. Serv. 1993. Forest Insect and Disease Conditions in Alaska-1992. USDA For. Serv. Alaska Reg., Forest Health Mgmt. Rpt. R10-TP-32. 27p.

USDA For. Serv., Washington Office. 1993. Healthy forests for America's future, a strategic plan. Washington, DC, Doc. number MP-1513, 58 p.

van Hees, Willem W. S.; Larson, Frederic R. 1991. Timberland resources of the Kenai peninsula, Alaska, 1987. Resour. Bull. PNW-RB-180, Portland, OR: U. S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, 56 p.

van Hees, Willem W.S. 1992. An analytical method to assess spruce beetle impacts on white spruce resources, Kenai Peninsula, Alaska. Res. Pap. PNW-RP-446. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 15p.

Werner, R.A.; Holsten, E.H. 1983. Mortality of white spruce during a spruce beetle outbreak on the Kenai Peninsula in Alaska. Canadian Journal of Forest Research. 13: 96-101.

Werner, Richard A.; Hard, John S.; Holsten, Edward H. 1988. The development strategies to reduce the impact of the spruce beetle in south-central Alaska. The Northwest Environmental Journal. 4: 319-323.

FINAL REPORT

INCREASED  
TIMBER HARVESTING  
IN THE  
TANANA VALLEY:

WHAT DOES THE PUBLIC THINK?

A Public Opinion Survey

Andreas P. Anger  
John R. Boyce  
Laura M. Milner

School of Management  
University of Alaska Fairbanks  
Fairbanks, Alaska 99775-6080

Prepared for:

Fairbanks Industrial Development Corporation  
515 Seventh Avenue, Suite 320  
Fairbanks, Alaska, 99701

March 1995

**EXECUTIVE SUMMARY-LONG VERSION  
INCREASED TIMBER HARVESTING IN THE TANANA VALLEY  
WHAT DOES THE PUBLIC THINK?**

Prepared for the Fairbanks Industrial Development Corporation

by

Andreas P. Anger, John R. Boyce, and Laura M. Miiner  
University of Alaska Fairbanks School of Management  
March, 1995

### **Introduction**

During the fall, 1994, a public opinion survey was conducted regarding proposals for increased timber development in the Tanana Valley by University of Alaska Fairbanks School of Management undergraduate and graduate marketing students as part of a course assignment. The survey was designed in general to assess several major topics: How do people feel about increased timber harvesting through long-term contracts with timber companies; how people use the forest and how those uses impact their support of increased timber harvesting; how respondents' attitudes impact their support of increased timber harvesting; and how support for increased timber harvesting would change given different logging proposal scenarios.

### **Methodology**

Sample. The sampling frame for the survey was determined to be registered voters living in the Tanana Valley in Alaska. This sampling frame was selected for a number of reasons. First, registered voters were selected because any decision to open the Tanana Valley for increased timber harvesting had to be made by the state legislature. The non-voting population would not affect that decision. Second, we restricted ourselves to registered voters living in the area possibly affected. In part this decision was based on a desire to know what people who actually live in the areas possibly affected think rather than how voters elsewhere in the state or even elsewhere in the US or world think. As the impact of increased timber harvesting would be most directly felt by local residents, this group was deemed to be the most important group to survey. However, our decision was also based in part on budgetary reasons. We wanted to make sure that our sample of respondents within the affected regions would be adequate for statistical accuracy, and this entirely exhausted our budget.

Having selected the sampling frame as registered voters in the affected area, our next decision was how to sample from this population. We chose to do a simple random sample from this entire population. As our sample size was fairly large (1584 respondents received a survey in the first mailing), we felt that such a sample would be sure to include respondents from each area roughly in proportion to the size of the different communities being sampled.

The September 1994 registered voter list was purchased for \$165.00 in electronic form from the Alaska Elections Commission, Division of Voter Registration. We selected all registered voters in the Tanana Valley from the tape and then randomly selected from that list. There were 37,705 registered voters identified as living in the possibly affected area.<sup>1</sup> The survey was mailed to 1584 registered voters living in the Tanana Valley; 362 respondents could not be

reached at the address in the registered voter's file, leaving a total of 1222 possible respondents. The large percentage of non-deliverables is due to the transient population (especially military personnel) and to the length of time (two years) before an inactive registered voter is removed from the list.

We initially considered doing three mailings to our sample. However, after the second mailing we checked to see if the sample of respondents in the first mailing was different from the sample in the second mailing in our main question regarding supporting increased timber harvesting. Our statistical test suggested that there was not a statistically significant difference between respondents who replied during the first mailing and those who replied during the second mailing.

The sample contains 253 respondents who replied in the first mailing and 264 respondents who replied in the second mailing for a total of 517 surveys or a 42.3% response rate on the deliverable surveys. The larger number in the second mailing is due to the fact that we used a one dollar gift incentive in the second mailing which we did not use in the first mailing. The overall response rate is similar to comparable studies.<sup>2</sup>

Surveys Designed and Pretesting. A draft of the survey was completed by the first of October, 1994. We then began circulating the survey to various interest groups in the area to solicit their comments.<sup>3</sup> The result was that a number of substantial changes were made to the survey over the following month. By the first of November, we had a survey instrument which was in an advanced enough state that we began testing it on various classes at the University of Alaska Fairbanks.<sup>4</sup> These pretests allowed us to find several areas of confusion as well as to obtain estimates of length, difficulty, and expected response rates.

The final survey was mailed to respondents as a sixteen page booklet. The survey was accompanied with a letter of introduction on University letterhead, personally signed by our project director, Mr. Anger. This technique is recommended by survey design experts.<sup>5</sup> In addition to the cover letter, respondents were given an information sheet with arguments for and against the increased timber harvesting on one side, and a map in three colors on the back showing the areas possibly affected. The information sheet was designed in conjunction with the survey, and the interest groups and pretest groups were given an opportunity to comment on it as well. Finally, each respondent received a business-reply return envelope with our address. Each return envelope contained an identification number on the upper left-hand-side of the envelope. This number was used to determine whether or not the respondent had returned the survey for subsequent mailings. About a half a dozen respondents removed the number physically from the envelope, but in most cases the number was visible on the back side of the envelope where the stamp left an indentation, so we were able to record who it was. For the two respondents who destroyed the marking completely, we discarded the survey to prevent double counting.

Data Collection and Analysis. The data was entered into an Excel spreadsheet as the surveys were returned. The only identifying information we have retained about the respondents is the zip code of the area in which they live. Our primary concern in the data analysis was to determine what factors influenced whether a respondent would vote "yes" or "no" on a referendum which would allow increased timber harvesting in the Tanana Valley. We used a logit statistical model to predict the probability that a respondent would vote "yes" or "no" given demographic characteristics, how they used the forest, and what their attitudes were on a number of related issues.

## RESULTS

Referendum Vote. Over sixty-three percent of respondents said they would be willing to vote yes on a referendum which would allow increased timber harvesting in Tanana Valley through long-term contracts with timber companies. This finding can be generalized to the over all voter population of the Tanana Valley within an error margin of plus or minus four percentage points given the current level of information.

Uses of the Forest. We examined how people used the forest and how that affected whether or not they would support increased timber harvesting through long-term contracts with timber companies. Results indicated the following:

- Over ninety percent of respondents indicated that they used the forest for recreation. About thirty percent of the total thought that increased timber harvesting would make them worse off in their recreational use of the forest, and about twenty percent thought their recreational use of the forest would be made better off. Those who thought they would be made worse off supported increased timber harvesting only about twenty-five percent of the time, relative to over eighty percent of the time for those who thought they would be made better off.

- About seventy percent of the respondents used the forest for hunting and gathering, and about forty percent indicated that they used it for trapping. Less than twenty percent of respondents thought they would be made worse off hunting, gathering and trapping, but those who thought they would be made worse off supported the increased timber harvesting much less than those who did not think they would be made worse off.

- Between sixty and seventy percent of respondents used the forest for lumber, firewood, or in their business or employment. Only ten to twenty percent of respondents in these categories thought they would be made worse off with increased timber harvesting. However, those who thought they would be made worse off in these uses were much less likely to support proposals for increased timber harvesting.

- Viewing was a use category indicated by over ninety percent of the respondents. This is also the use category with the most respondents who thought they would be made worse off, with over forty percent saying they would be made worse off in their viewing use of the forest. About sixty percent of those who thought they would be made worse off in viewing opposed increased timber harvesting.

- Respondents were asked how increased timber harvesting would affect their spiritual use of the forest. About seventy-five percent of the population reported using the forest in this way. Those who said they would be made worse off were about three times less likely to support timber harvesting than other respondents.

Respondents Attitudes. There is a very high correspondence between how people voted on the referendum and how they felt about a number of issues relating to development and the environment. In particular, we found the following:

- Over eighty percent of respondents felt that the Tanana Valley needed more economic development. About seventy percent of respondents felt that increased timber harvesting would be good for the economy, and only about twenty-five percent of respondents disagreed that increased timber harvesting was the right type of economic development for the Tanana Valley.

- Most respondents were either neutral or did not know whether the timber industry in the Tanana Valley had been environmentally responsible, and only about fifteen percent disagreed. However, about forty percent of respondents agreed that increased timber harvesting would be harmful to the environment.
- About ten percent of respondents agreed that development should be pursued no matter what the environmental cost. An additional ten percent said they agreed that the environment should be protected no matter what the cost. Thus about twenty percent of respondents were either adamantly opposed to or in favor of increased economic development at the expense of the environment.
- Although about sixty percent of respondents felt the state would ensure that the timber harvesting would be sustainable, about sixty percent also thought the state needed to do more planning before it allows increased timber harvesting.
- About eighty percent of respondents either agreed or were neutral to the idea of keeping any roads built for timber harvesting open to public access.
- About half the respondents agreed that the state might end up subsidizing the industry, although only about twenty percent actually supported doing this.
- About sixty percent of respondents felt that increased timber harvesting should be done only if Alaskan owned and operated. However, those who agreed with this were not much different than the remaining population in how they supported the increased timber harvesting proposal.

Logging Proposal Scenarios. We also tried to determine whether or not changes in the proposals would affect support one way or another. We found that:

- Restricting the increased timber harvesting to particular regions (e.g., Fairbanks region or Delta Junction and Tok region) would encourage less support.
- Putting fifty percent of the forest off-limits to timber harvesting would have no effect.
- A restriction that the industry could only produce high valued-added products would have no net effect on public support. Those who opposed increased timber harvesting without the restriction were more likely to support it with this restriction, but those who supported increased timber harvesting without the restriction were less likely to support it with the restriction.
- However, if the industry were only permitted to produce low value-added products such as wood chips, there would be about a twenty-five percent decline in support. This would mean that almost sixty percent of respondents would oppose increased timber harvesting in this case.
- Setting fifty percent of the land aside for small operators would cause a slight increase in support, but subsidizing them directly would cause support to decline by over twenty -five percent.
- If the cutting were coordinated to maximize habitat for game, support rose to almost three fourths of the population.

## Discussion and Conclusions

Our survey found that there is support for increased timber harvesting in the Tanana Valley. However, this support is based on a number of implicit assumptions. In particular, it does not appear that the public would support such a plan if the only use were limited to products such as wood chips or paper pulp. We believe that there are a number of other factors which could affect public support. For example, while most respondents felt they would be adversely affected for viewing, a large percentage still voted "yes" on our main referendum question. Were the visual effects to be worse than expected, this support would likely decline. Our section on respondent attitudes suggest that there are a number of other areas which could affect the support for such a program as well.

Our demographic results indicate that respondents are on average fairly well educated, a common finding for surveys such as this. However, with the exception of this possible response bias, our survey results provide a much different picture than would be obtained by non-random methods such as public meetings or letters to the editor.<sup>6</sup> In fact, when we asked whether respondents had been involved in the debate over timber harvesting, of the eighty-five percent who said they had not been involved, almost sixty-nine percent voted "yes" of the principle issue. This simply shows that a count of pro-versus-con letters to the editor or of pro-versus-con people at a public meeting is not representative of the population. While we expect that public opinion may change as new information becomes available, we believe that we have an accurate depiction of public opinion at this stage of the game.<sup>7</sup>

## Endnotes

1The affected area includes all of legislative district 29 to 34, and parts of legislative district 36 (precincts 533, 536, 542, 547, 550, 597, 605, 613, 615, 620, 627, 645, 683, 685, 687, and 688).

2See Robert Cameron Mitchell and Richard T. Carson, *Using Surveys to Value Public Goods: The Contingent Valuation Method, Resources for the Future*, Washington, D.C., 1989

3Groups and organizations contacted included the Northern Alaska Environmental Center, the Boreal Forest Council, the Alaska Outdoor Council, the Forestry Division of the Department of Natural Resources, and the Forestry Department of the School of Agriculture and Land Resource Management, University of Alaska Fairbanks. None of these groups is responsible for the final survey, although each was given an opportunity to comment at various draft stages.

4Classes and faculty who allowed us to pretest the survey include Dr. John Boyce's Introduction to Natural Resources Economics class, Professor Jim Ranney's Political Economy Course, and Dr. Laura Milner's Principles of Marketing class. The Political Economy courses were our largest and most representative pre-test groups. We tested it on about sixty students in one section and about forty students in the other section. The Political Economy class is a required course for incoming freshmen, and is taken by students from across campus.

5See Don A. Dillman, *Mail and Telephone Surveys: The Total Design Method*, 1978, John Wiley & Sons, New York.

6For example, see the publication, "*Voices of the Forest: Public Testimony on the Future of the Tanana Valley State Forest*," edited by Janice C. Dawe, Anthony N. Whitworth, Richard J. McCaffrey, and Douglas A. Yates. 1994. Alaska Boreal Forest Council.

7Copies of this report, in its entirety, are available from Fairbanks Industrial Development Corporation.

Table 4.1: Percentage of Respondents Agreeing or Disagreeing with Attitude Statements

	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE	DON'T KNOW	DID NOT ANSWER
1. Increased timber harvesting would help the Alaskan economy.	20.11	45.84	7.16	10.25	4.26	4.46	1.74
2. Increased timber harvesting would be harmful to the environment.	15.47	24.76	13.15	27.27	13.15	5.03	1.16
3. The state needs to do more planning before it allows increased timber harvesting.	29.01	30.95	11.80	14.70	7.35	5.22	0.97
4. Increased timber harvesting should be opposed no matter how it is done.	5.22	6.00	10.44	39.65	36.75	1.16	0.77
5. Increased timber harvesting is the right type of development for the Tanana Valley.	12.38	29.40	22.05	15.67	8.32	11.22	0.97
6. Increased timber harvesting will improve big game habitat and hunting.	12.19	30.75	13.93	18.96	8.70	14.89	0.58
7. The timber industry has been environmentally responsible in the Tanana Valley.	5.80	21.08	22.82	11.61	4.06	33.08	1.55
8. The state should keep access roads open for the public.	20.12	41.78	13.15	14.70	5.80	3.09	1.35
9. Development should be pursued no matter what the environmental impact.	2.51	6.96	6.58	33.66	47.97	1.35	0.97
10. The environment should be protected no matter what the cost.	14.70	22.44	15.67	31.53	12.38	1.56	1.74

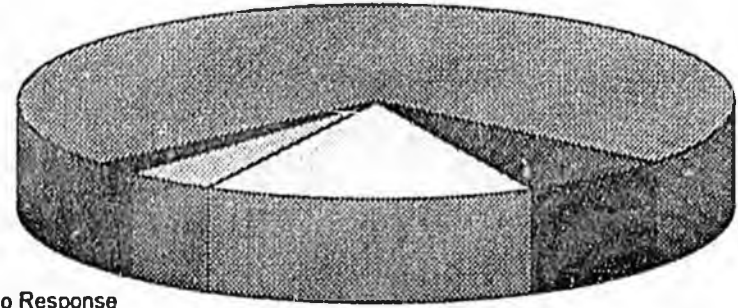
Table 4.1 (continued)

	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE	DON'T KNOW	DID NOT ANSWER
11. The Tanana Valley needs new economic development.	31.33	50.29	8.12	5.42	1.55	2.32	0.97
12. Even if increased timber harvesting is bad for the environment, American know-how will fix it.	0.97	10.06	12.19	33.66	36.75	3.68	2.71
13. Increased timber harvesting cannot be environmentally safe.	4.84	9.67	8.90	48.16	21.28	6.38	0.77
14. With long-term timber contracts, the state will end up subsidizing industry.	7.74	22.63	15.67	17.21	8.12	27.66	0.97
15. Increased timber harvesting should be allowed only if Alaskan owned and operated.	25.92	34.82	16.44	16.05	3.68	2.13	0.97
16. We should not produce raw logs for export outside of Alaska.	27.66	23.21	13.15	24.95	5.61	4.64	0.77
17. We can trust the state to ensure that the timber harvesting is sustainable.	3.29	18.38	17.41	28.82	21.66	9.67	0.77
18. Increased timber harvesting will ruin the small operators.	3.48	14.89	18.96	32.50	4.26	24.56	1.35
19. Increased timber harvesting should be allowed if it is used for paper pulp.	2.51	18.38	27.27	25.73	9.48	15.67	0.97
20. The state should not lower the price it charges for timber to create local jobs.	11.80	36.56	16.25	15.86	4.45	13.15	1.93

**Questions**  
**Regarding the Economy**  
**and Timber Harvesting**  
**in the Tanana Valley**

**Would Increased Timber Harvesting Help the Alaska Economy?**

Yes 72%



No Response  
2%

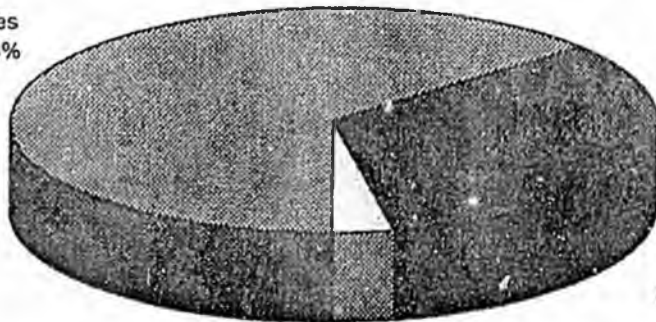
Unsure  
4%

No  
15%

Neither Agree Nor  
Disagree 7%

**Would You Support A Referendum to Increase Timber Harvesting in the Tanana Valley?**

Yes  
64%



No  
33%

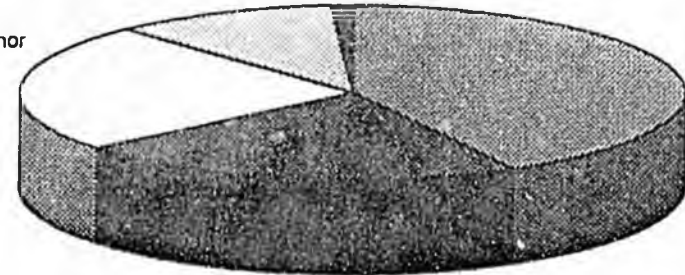
No Response 3%

**Is Increased Timber Harvesting the Right Type of Development for the Tanana Valley?**

Don't Know  
11%

No Response  
1%

Neither Agree nor  
Disagree  
24%



Yes 42%

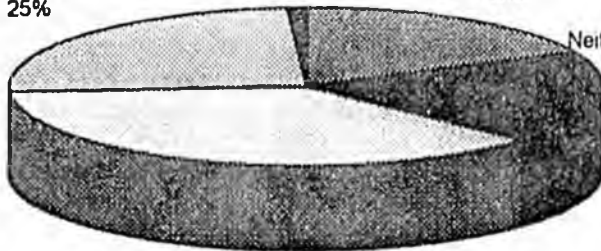
No 22%

**Will Increased Timber Harvesting Ruin Small Operators?**

Unsure  
25%

No Response  
1%

Yes  
18%



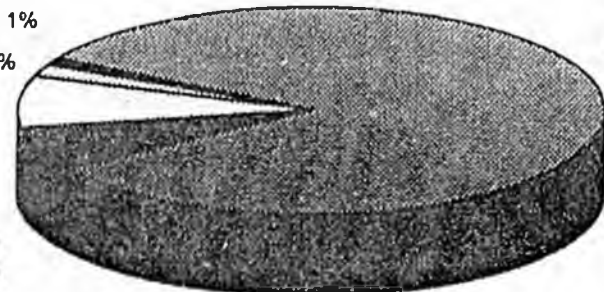
Neither Agree Nor  
Disagree  
19%

No  
37%

**Does the Tanana Valley Need New Economic Development?**

No Response 1%  
Don't Know 2%

Neither Agree Nor  
Disagree 8%



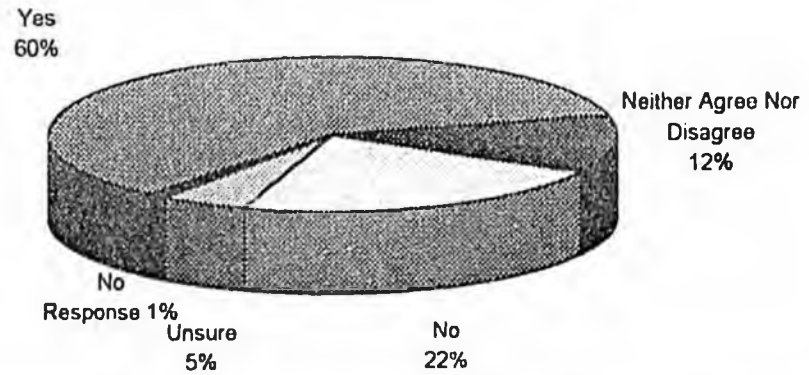
Yes  
82%

No  
7%

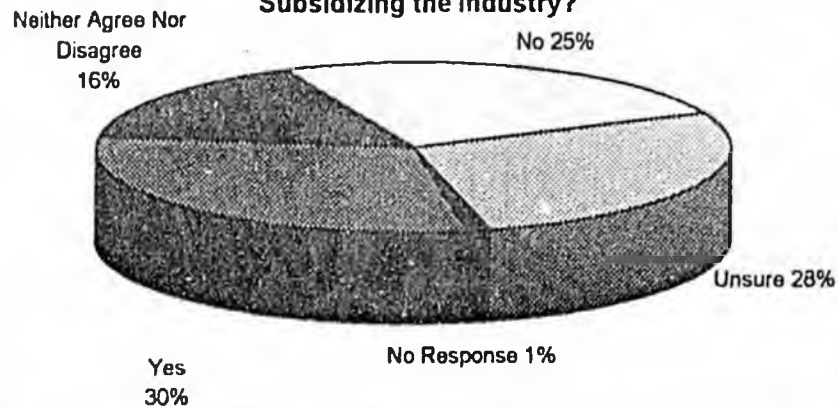
## Questions

### Regarding the State and Timber Harvesting in the Tanana Valley

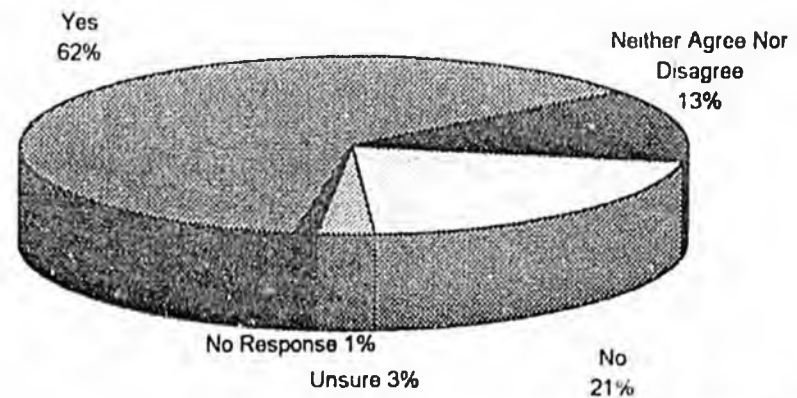
Does the state need to do more planning before it allows increased timber harvesting?



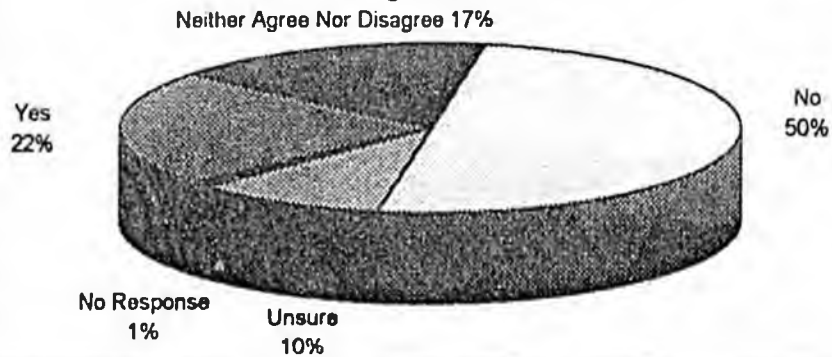
With Long-Term Timber Contracts, Will the State End Up Subsidizing the Industry?



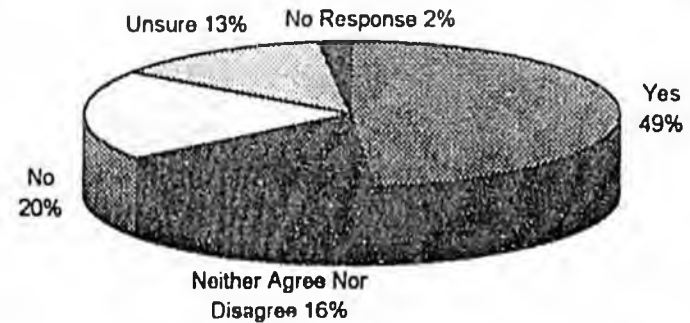
Should the State Keep Access Roads Open for the Public?



Can We Trust the State to Ensure that the Timber Harvesting is Sustainable?

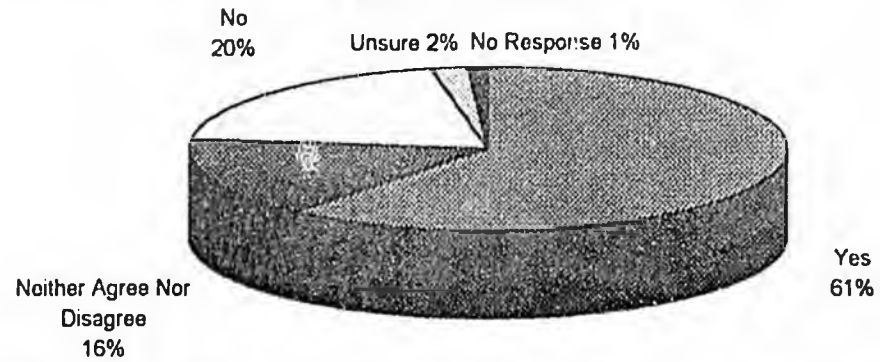


Should the State Not Lower the Price It Charges for Timber to Create Local Jobs?

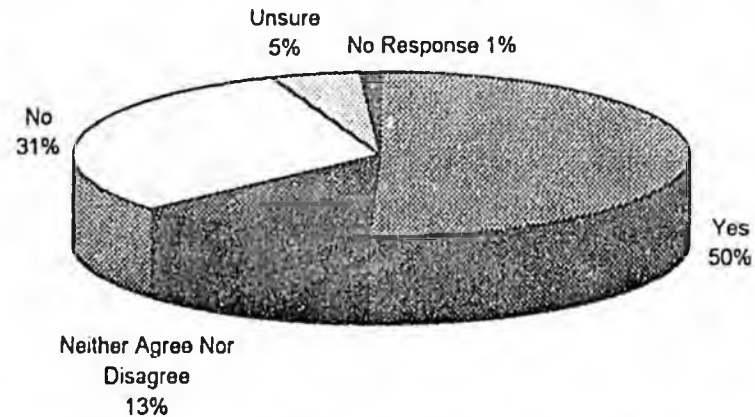


**Questions Regarding  
Conditions Under Which  
Timber Harvesting in the  
Tanana Valley  
Should Be Allowed**

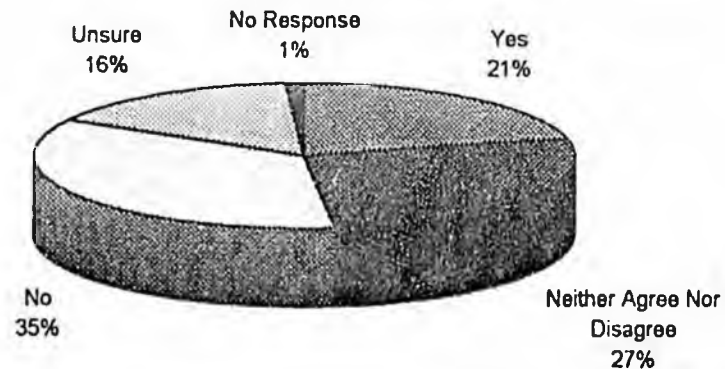
**Should Increased Timber Harvesting Only Be Allowed If Alaskan  
Owned and Operated?**



**Should We Not Produce Raw Logs for Export Outside of Alaska?**



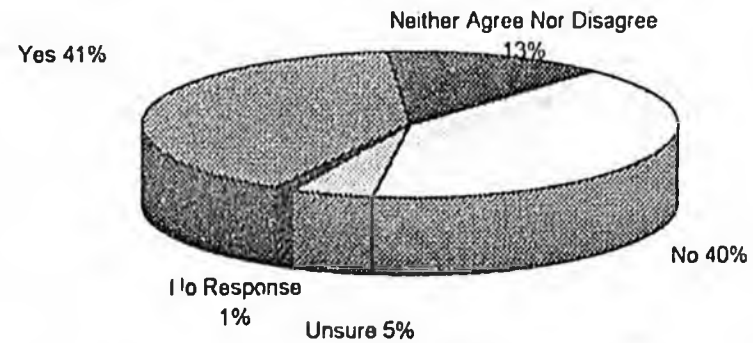
**Should Increased Timber Harvesting Be Allowed If it is Used for  
Paper Pulp?**



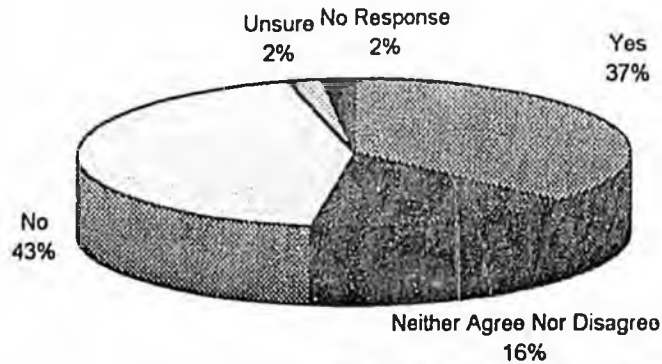
## Questions

### Regarding the Environment and Timber Harvesting in the Tanana Valley

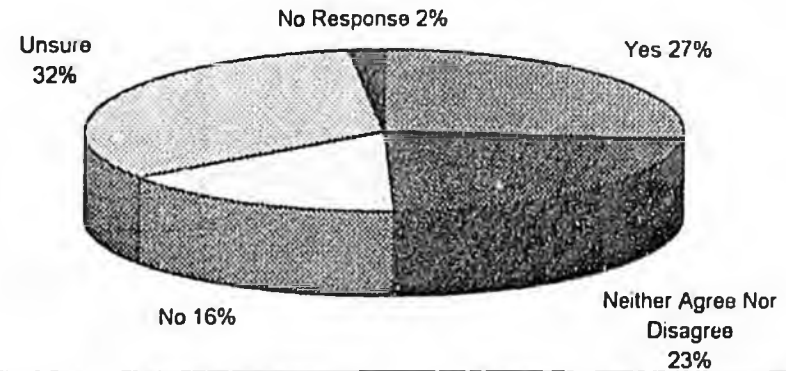
#### Will Increased Timber Harvesting be Harmful to the Environment?



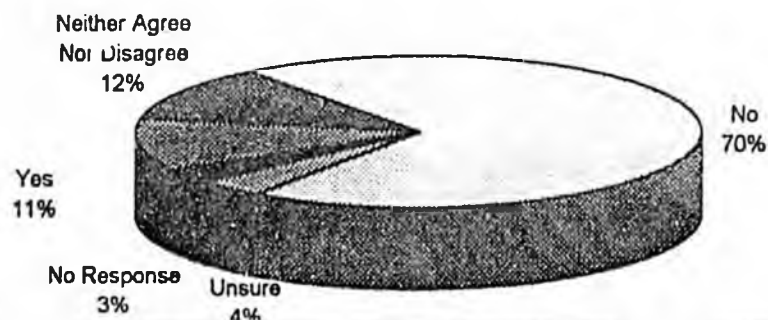
#### Should the Environment Be Protected No Matter What the Cost?



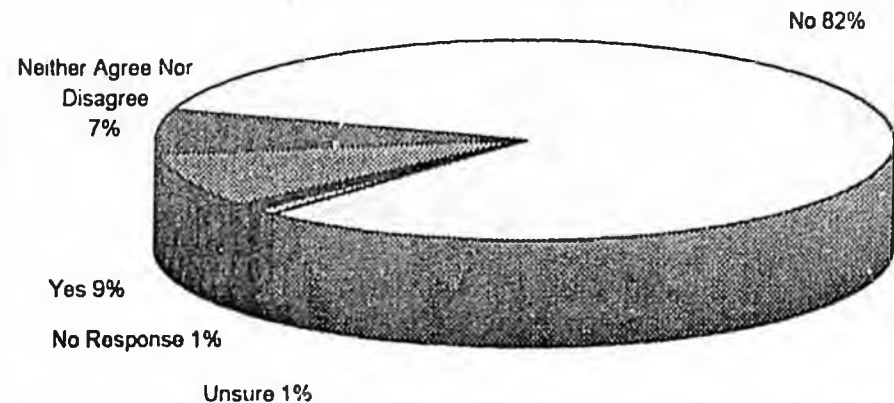
#### Has the Timber Industry Been Environmentally Responsible in the Tanana Valley?



#### Even if Increased Timber Harvesting is Bad for the Environment, Will American Know-How Be Able to Fix It?



#### Should Development Be Pursued No Matter What the Impact?

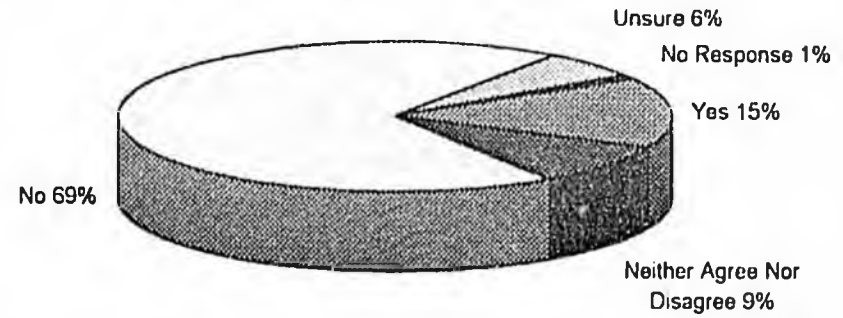


## Questions

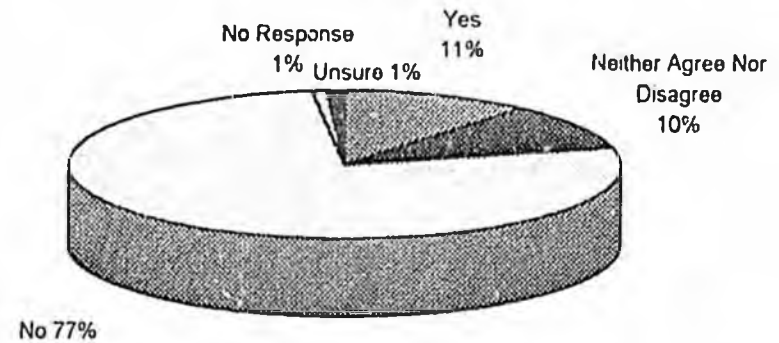
### Regarding the Environment

#### Continued

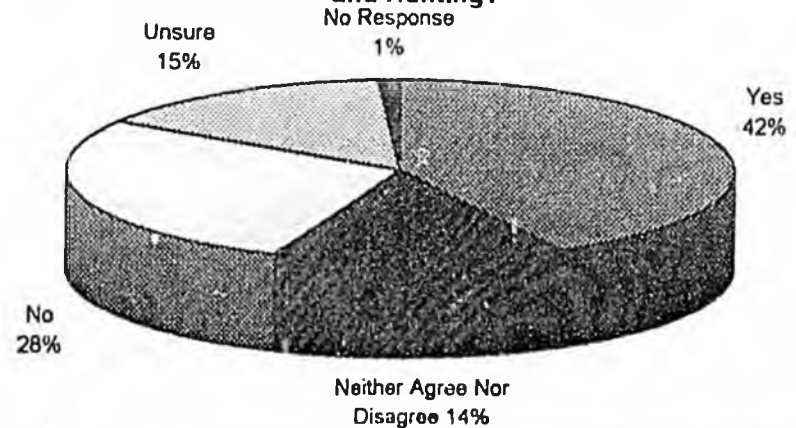
Do You Agree that Increased Timber Harvesting Cannot be Environmentally Safe?



Should Increased Timber Harvesting Be Opposed No Matter How It is Done?

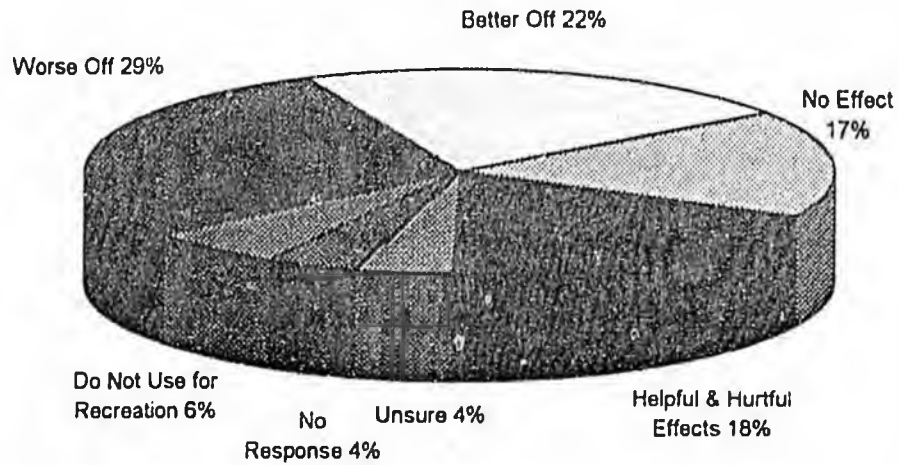


Will Increased Timber Harvesting Improve Big Game Habitat and Hunting?

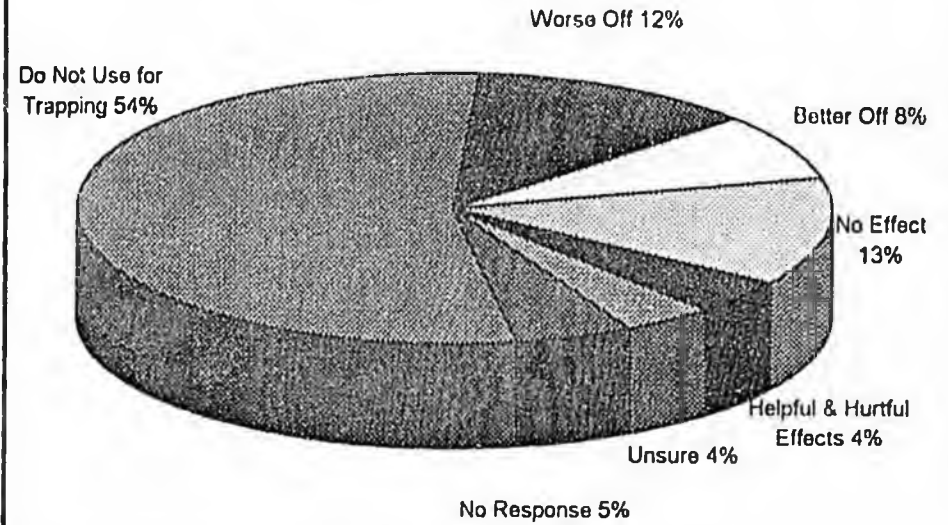


# Would Increased Timber Harvesting in the Tanana Valley Make You Better or Worse Off?

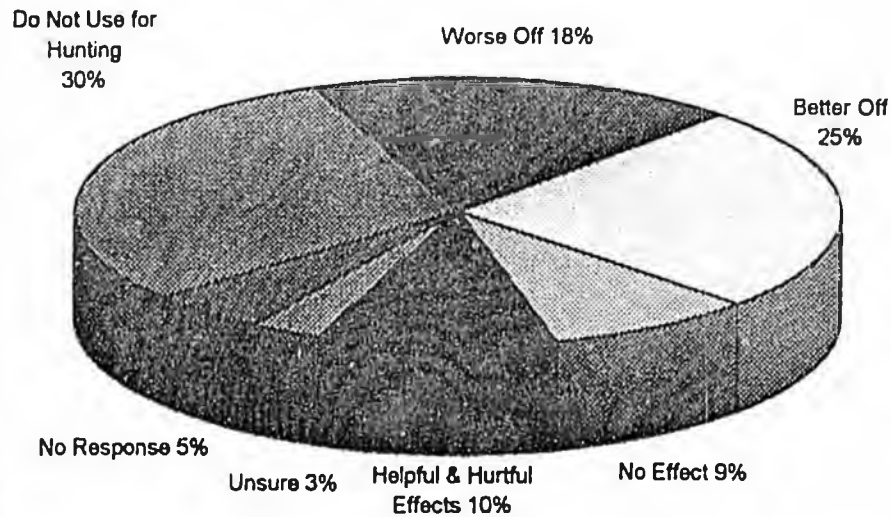
## Use Forest for Recreational Activities



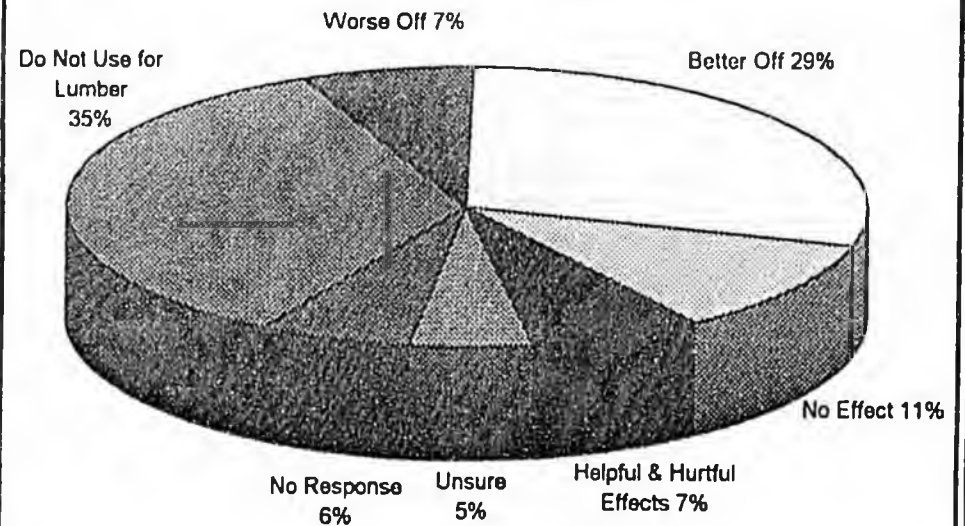
## Use Forest for Trapping



## Use Forest for Hunting

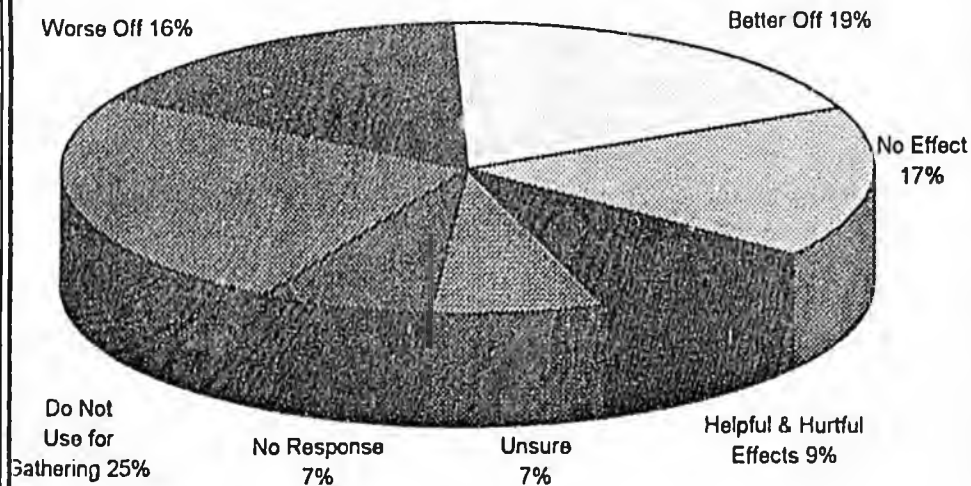


## Use Forest for Lumber



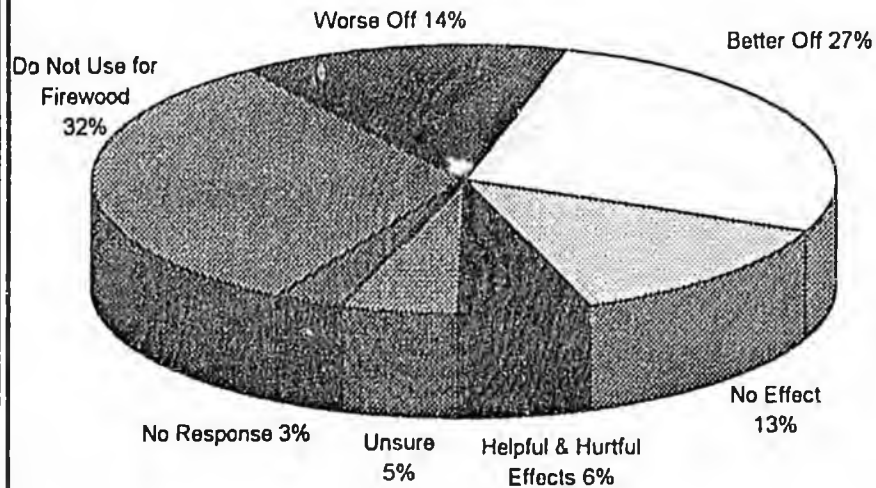
# Would Increased Timber Harvesting in the Tanana Valley Make You Better or Worse Off?

## Use Forest for Gathering Activities

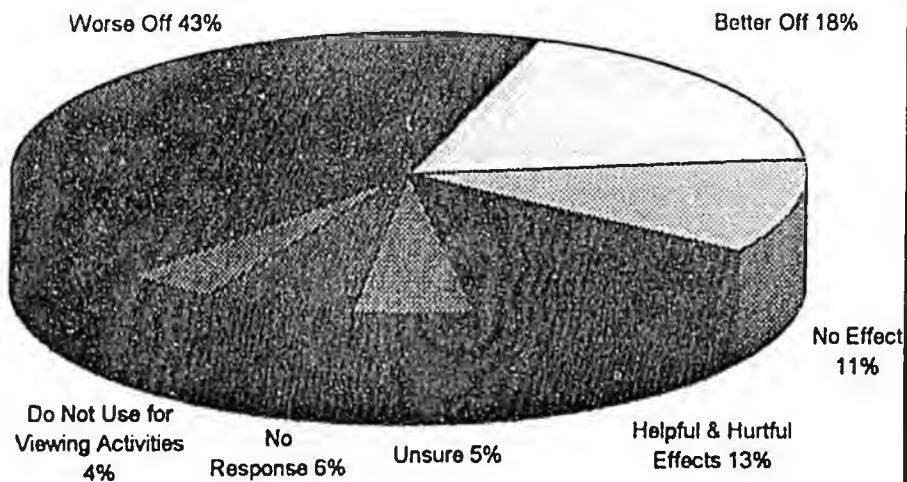


Gathering includes activities such as berrypicking

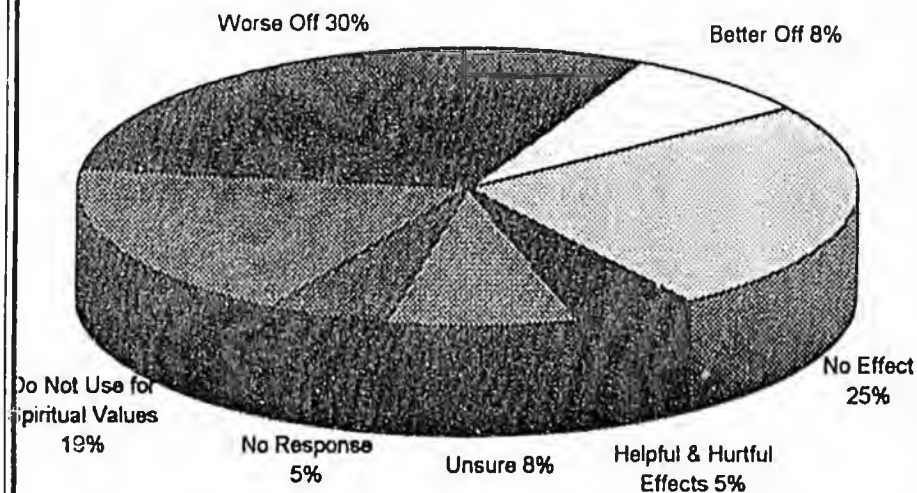
## Use Forest for Firewood



## Use Forest for Viewing



## Use Forest for Spiritual Values



'APR 24 1994

Big Delta Milling  
HC 60 Box 4190  
Delta Junction, Alaska 99737-9450  
Fax/Phone 895-4768  
April 19, 1995

To the Honourable *Bill Williams*

We of the interior who are in the timber industry are very concerned with the slow response to HB 212. This bill is crucial to the on-going business of the small operator as well as any future development.

While in Juneau on Mar. 8th and 9th of 1995, most of the members of the Senate and the House of Representatives that I spoke with were very supportive of HB 212. On Mar. 16th, Gov. Knowles was in Delta Junction and made some comments supporting increased timber harvest and releasing funds to make it possible. All this encouragement is sadly framed by an editorial in the Daily News Miner of Feb. 22 titled, "We Support You". To quote, "Sure we support your industry...you just can't cut trees here, and not these, either. Well, there really aren't any trees you can cut... but we still support you."

Without a primary use statement included in the statutes specifically defining the state forest for a timber base for industry, all the funds and increased harvest schedules and salvage timber won't mean anything in the long run. The state forest is the only land classification without this protection.

As you are aware, the language was changed in 1990 without any representatives present from the interior. The fourteen uses listed under multiple use were also deleted. This point of empty words of support are emphasized even more graphically by the current revising of the Tanana Valley Basin Plan. As we drag our feet over HB 212, the same people who revised the Susitna Plan in 1991, effectively doing away with the timber industry in that area, are working to do the same here. DNR adopted a plan that allowed only 5.6% of the sustainable yield to be harvested, reducing the annual sales from twelve per year to only one. HB 212 would guarantee that this mistake cannot be repeated in the interior state forest.

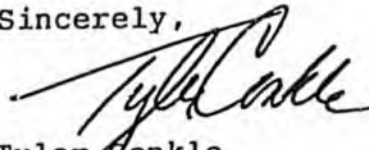
I am aware that there are amendments to HB 268 being considered at present. This is not a bad effort, but it is far, far too little to address the real issue. It is actually an issue of funds being

released for roads and sales and manpower to work in the current State Forest and ensuring that state forest is protected for a timber base for industry under sound management with multiple use and sustained yield guidelines.

I urge you to move this bill along this session this year now!

Thank you very much for your consideration.

Sincerely,

A handwritten signature in cursive script, appearing to read "Tyler Conkle".

Tyler Conkle  
Spokesman I.A.F.A.

mjr

# Alaska State Legislature

REPRESENTATIVE  
**JEANNETTE JAMES**  
P.O. Box 56622  
North Pole, Alaska 99705  
(907) 488-1546  
FAX (907) 488-9006



While in Juneau  
State Capitol  
Juneau, Alaska  
99801-1182  
(907) 465-3743  
FAX (907) 465-2381

House of Representatives  
House District 34

## **MEMORANDUM**

March 16, 1995

**TO:** All members of the Alaska State Legislature  
**FROM:** Rep. Jeannette James, Chairman, House State Affairs Committee  
**SUBJECT** Backup information on HB-212, Timber Management.

My staff has conducted extensive research on the timber industry. Included in your packets are excerpts from the book "Environmental Overkill, whatever happened to common sense", by Dixy Lee Ray and Lou Guzzo, published by Regency Gateway, 1130 17th Street, NW, Washington, DC 20036.

I knew Dixie Lee Ray and found her to be a well educated, intelligent person who had a positive outlook on life, the world and especially America.

Among her accomplishments, she was a professor of zoology at the University of Washington, Governor of the state of Washington, chairman of the Atomic Energy Committee and Assistant Secretary of State in the U.S. Bureau of Oceans.

These excerpts from her book are not meant to be a criticism of the environmental community but they are information for you to consider when making decisions regarding the harvesting of timber on state land. This information will perhaps help you to understand why some people in Alaska are concerned and opposed to this bill.

I urge you consider the enclosed information and ask you be deliberate in reaching a conclusion on the merits of this bill.

## People, Trees, and Grizzly Bears

Recently five tiny towns, two counties, a family-owned timber mill, and a grass-roots organization filed a lawsuit against the U.S. Forest Service. In the Kootenai National Forest in Northwestern Montana and Northern Idaho, the Forest Service decided to cut back the allowable timber harvest by 43 percent so as to achieve a one percent increase in grizzly bear habitat. In these timber-dependent communities—communities in which more than 60 percent of the county land is federally owned—such a cutback will have devastating economic consequences.

It will also have catastrophic environmental consequences, since, at the same time, the Forest Service has decided to leave standing millions of board feet of timber devastated by the Mountain Pine Beetle. These diseased trees not only serve as a source of infection for a healthy forest; it is these trees that will serve as the tinder for the next cataclysmic fire to sweep through the region.

122      THIS LAND IS OUR LAND

When it does—not if, but when—it will destroy not just the dead trees but also the healthy forest and homes; not just the homes of people, but the habitat of the grizzly bear that the government is trying to help!<sup>7</sup>

This lawsuit is unique because the plaintiffs are not timber companies but the people of a community banding together to fight for their own survival—not just for the economic viability of their communities but for the health of the forest that surrounds them and that they love.

## CHAPTER 11

# Government Ownership of Land and Forests

---

## How Much Is Enough?

---

WHATEVER may have been the forestry practices of the past and whatever claims are made about logging today, there is considerably more forested land in America now than there was even a few decades ago. This has resulted from vigorous reforestation programs, and because marginal agricultural land has been abandoned and returned to wood lot and forest. The increase is estimated to be at least 450 million more acres of wooded land and 23 percent more standing forest trees than 40 years ago. The present, average annual wood growth is three-and-a-half times more than in 1920, and the annual increase in the size of forests exceeds logging by 37 percent per year. In 1989 alone, approximately 2.1 billion seedlings covering more than 3 million acres were planted in the U.S. In 1991 alone six new trees were planted for every American.<sup>1</sup>

When faced with such facts about the extent and growth of America's forests, opponents of managed logging and reforestation argue that a second growth forest or a tree farm is different—not to be compared with the “natural” stands they have replaced. Further, the Greens persist in calling tree farms “monoculture.”

They are not. Many species invade planted areas to establish a varied undergrowth, and shade-tolerant trees associated with old growth forests soon return.<sup>2</sup>

Old growth forests, that is, forests that contain trees 200 years old and older, are claimed to have unique and irreplaceable virtues. It's also asserted that what remains of old growth is in imminent danger of total destruction. Is there evidence to support these claims? There are in the U.S. today 13.2 million acres of old growth, of which 8 million acres are totally protected in national parks and wilderness areas. These trees can never be cut. If we took this 8 million acres of protected old growth and imagined it to form a band five miles wide, it would extend from the Pacific Coast all across the country to the Atlantic Ocean.<sup>3</sup>

Where old growth is being logged—outside of national parks and wilderness, as for example in the Tongass National Forest in Alaska—it is cut at a rate of only 1 percent per year. The forest management plan for the Tongass dictates that no more than 10 percent of the trees will ever be harvested. And, of course, the seedlings already planted will one day become “old growth.”

The current public debate about old growth forests and trees on public lands is really about what purpose the forest serves. A combination of recreation and preservation with the least possible human intervention is the underlying philosophy of the national parks: visit, look, enjoy, but don't take anything away. National forests, on the other hand, were meant to serve society's needs. They were established for multiple use. Their purpose has traditionally been to provide for recreation and resource uses. The national forests were intended to be used for a sustained supply of timber in a perpetual cycle of cutting and reforestation. But now, and increasingly in recent years, the trend of public opinion seems to be swinging away from all uses other than recreation, and even what kind of recreation is more and more rigidly controlled.

Many of the national forests have stands of quite old trees, some approaching one or two centuries in age. Sometimes these parcels of forest are misleadingly called “ancient forests,” which seems to imply no impact by humans. But “original” forests do not really exist; nature takes care of that at intervals of from 200 to 450 years in cycles of forest fires and/or blowdown from fierce windstorms. A

forest is a dynamic system going through a life cycle of growth, maturity, old age, and death. These cycles occur whether humans are present or not.<sup>4</sup>

Despite the biological fact that every tree will eventually age and die, the extent to which trees on public lands should be used continues to be unresolved. Unfortunately, government uncertainty, environmentalist-lobby pressure, and conflicting agency approaches to forest management have led to "management by neglect." This has brought our national forests to a condition where vast areas are being destroyed by bugs and disease, and large numbers of people and their communities that are dependent on the forest products industry are facing economic ruin.

While it might seem reasonable to believe that the two systems, National Parks and National Forests, could provide the framework to resolve the differences between preservation and use, it has not worked out that way. Instead, there is a long history of polarization and acrimony; it shows no sign of abating. There is also a lengthy trail of legislation, none of it really addressing the central problem: Should America's natural resources, including timber, be government-owned, government-managed, and government-controlled? Incidentally, isn't that what socialism and communism are all about?

The reality is that after 200 years of supporting individual freedom and the right to own private property, our country appears to be succumbing to an assault on both. How is it that, as we have moved from an agrarian nation of small independent farmers to a largely industrial nation, the central government has become by far the largest landowner and has taken over the dangerous, freedom-destroying role of central planning for the future of all of us?

History reveals that a consensus about what should be done with vast land holdings in the U.S. has never been reached.<sup>5</sup> By the year 1784, 220,000 square miles of real property had been acquired by the federal government. Who should administer them was a critical question. Several states laid claim to territory west of the Appalachian Mountains, but, one by one, beginning with New York and followed by Virginia, all the original states relinquished their claims to the U.S. government by 1802 and lands in the "public domain" were established.

This "public domain" was expanded by the Louisiana Purchase from France in 1803. In 1819, the U.S. bought Florida from Spain. In 1845, we annexed Texas and in 1846 acquired the Northwest Territory, now including Oregon, Washington, and Idaho by treaty with Great Britain. In 1848, following war with Mexico, we absorbed all the Southwest, including parts of New Mexico and Colorado, all of Nevada, Utah, California, and most of Arizona. The final act of U.S. expansion on the North American continent was the purchase of Alaska from Russia in 1867. This amounted to a lot of "public land."

What to do with it? Sentiment was divided between the Jeffersonian belief that the future of the republic rested in the hands of a large number of individual, independent land owners and the convictions of Alexander Hamilton, who placed his faith in transferring land to investors and stock companies. And so we got a bit of both.

The Homestead Act of 1862 provided title to blocks of 160 acres of land to individuals who settled on the land. Less well known were the Timber Culture Act of 1873 (the U.S. government was an early supporter of reforestation), the Desert Land Law of 1877, and the Timber and Stone Act of 1878. All of these congressional actions were clearly supportive of private property rights and of placing responsibility for natural resource development in the private sector.

Federal land grants also went to various industries—for example, railroads and timber companies. Between 1812 and 1934, 62 percent of the original 1.8 billion acres of public land owned by the federal government was disposed of, mostly through land sales and outright grants.

Meanwhile, some sentiment for retaining a large measure of federal ownership persisted, and in 1871 the American Association for the Advancement of Science petitioned Congress to pass legislation that would protect and provide management of America's forests.<sup>6</sup> This occurred at the height of the irresponsible, "cut and run" way in which logging was practiced at that time. Public outrage against the timber companies' practices grew, and the result was creation of the Forest Reserve Act of 1891, which authorized the President to establish forest reserves by procla-

mation. Thus, the National Forest system was born. Presidents Harrison and Cleveland set aside 33 million acres for National Forests and President Theodore Roosevelt added 132 million acres by 1908.

Then, in 1911, Congress passed the Weeks Act, which further authorized expansion of the National Forest system through acquisition of private forestlands. It was under this law that most of the national forests in the eastern half of the U.S. were established. While it is beyond the scope of this book to recount the full history of legislation governing land and natural resource ownership, it amounts to a tangled web of private-public rights. There have always been claims as to who does the better job of managing land—government bureaucrats or private owners.

This muddled situation persists to the present, with new laws and agency-promulgated regulations that are growing at an accelerating rate. The ultimate goal of the environmental movement appears to be to move as much land as possible into the public domain. As Warren Brookes said, cogently, "Even as the [nations of the former] Soviet Union moves to grant property rights to its citizens, Congress and the Greens are leading an assault on U.S. property rights."<sup>7</sup> No agency is more active in this assault than the National Park Service, and this merits careful scrutiny.

The important thing to remember about National Parks is that they are *preserves*, but where previously existing homes or other private enterprises were present within the parks' boundaries, these were frequently "grandfathered." Even so, this guarantee of private property rights of "inholders" has not always been honored.

Perhaps the most outlandish and incredible example of bureaucratic arrogance and duplicity on the part of the National Park Service was reported in a July 1991, issue of the *Land Rights Letter*.<sup>8</sup> A newly appointed and controversial superintendent of the Olympic National Park decided that a modest wilderness camp for disadvantaged young people that had operated with great success at Washington's Lake Quinault had to go because it was on federal land—despite the fact that the joint Kiwanis Club-YMCA operators had received approval years earlier by previous National Park administrators. So the main lodge of Kamp Kiwanis, which

provided ideal wilderness experience for 300 youths each year, including disadvantaged and Native American children, was ordered burned to the ground!

In a classic case of government intimidation, government inspectors first issued a series of trumped up health and safety charges against the rustic camp, then put the "fix up" cost so high the camp's operators couldn't afford it. Then, in a final charade, the Olympic National Park characterized the burning of the lodge as a necessary "fire drill." It was arson, pure and simple, and at the behest of your government and mine.

When the incident was publicly reported, families and communities unleashed a barrage of protests against the Olympic National Park superintendent. Congress eventually reacted, over the protest of the National Park Service, to the citizen complaints and directed the superintendent of the ONP to issue a ten-year permit for continued operation of Kamp Kiwanis.

But who will pay to rebuild the camp? In all fairness, the funds for a new Kamp Kiwanis should come out of the superintendent's paycheck! But even more important is this question: If Congress can see the folly in the case of the ONP superintendent, why can't it address the even greater issue of rapid increase in the government's "takings" of private property all across the U.S.?

Again, history can tell us a lot about the origin of attitudes. It is revealing to read the point of view of Park Service officials, as set down in the Service's own publication, *The National Parks*:

In the national parks, there is no harvesting of timber, no hunting of wild animals, no extraction of minerals, and no grazing of domestic livestock. Trees are apt to be consumed by disease. Or by wildfire, left to run its course. Or blown down in a windstorm. By whatever cause, trees are left where they fall. This is nature's way. The dead or dying tree provides a home for insects, and these, in turn, draw birds to feed upon them. In time, the tree will decompose to enrich the earth from whence it sprang. The burned-over area will become the source of a new forest destined to fulfill its cycle in time.<sup>9</sup>

OK. That is the operational philosophy of the National Park Service. But should it govern the National Forests and *all* public lands?

The oldest federal set-aside land program in the National Park system, Yellowstone, was established by legislation in 1872. It became the first National Park "for the benefit and enjoyment of the people."

Interest in parks, however, dates from 40 years earlier. In 1832, the first such action by the U.S. Congress was a reservation established at Hot Springs, Arkansas. A big step was taken with the 1870 exploration of Yellowstone (Washburn-Lanford-Doane Expedition). Instead of laying claim to their discoveries, the explorers decided that Yellowstone is unique should be a permanent preserve for all people.<sup>10</sup> In 1872, it became our first designated "National Park." By 1907, there were eight; now there are 37 National Parks in the traditional sense of an unusual natural area preserved for all people and all time and the number continues to grow.

Beyond this, there are 16 new, full-scale National Parks planned, and recently the National Park Service has expanded to include archaeological sites, historical sites, and seashores and parkways and rivers and even national recreation areas like Lake Mead, created when the Hoover Dam was built. The 1.5 million acres of Lake Mead make a wonderful recreation site, but it hardly fits the nature-preserving "crown jewels of our natural heritage" image of the National Parks.

In a continuing program to expand its holdings, a fund-raising letter sent out by the National Park Service and the Conservation Association says that of 86 priority areas targeted for acquisition in 1988, ten had already been added. The 1988 recommendations include expansion of the NPS to more than 71 million acres, adding to 178 existing National Park units another 130 new areas! Under the new definitions, the NPS, as of Spring 1992, had 358 separate "national park" units encompassing 80 million acres.

Additionally, there is now the National Natural Landmarks Program, also administered by the NPS.<sup>11</sup> There are 587 designated landmarks and 3,000 potential landmarks encompassing more than another 60 million acres . . . so far. Landmark evaluation is a feeder program for parks. Internally in the NPS this program is called "Ladies in Waiting." It's used to justify acquisition, but there is no authorizing legislation, as yet.

How much land is enough? Or is this country headed toward becoming one gigantic park? Incredibly, something like that seems to have been suggested by EPA Administrator William Reilly in an article in 1985, in which he proposed "to extend the National Park tradition to land not owned by the federal government . . . to further the evolution of the park ideal." Brock Evans, the Audubon Society's Washington lobbyist, said at a "Growth Management Forum" of the New England Environmental Network at Tufts University in November 1990 that land "should *all* be in the public domain. Be unreasonable. You can do it. Let's take it *all* back."<sup>12</sup>

The main problems facing national parks today grow out of their popularity: too many visitors. Many of the parks are being "loved to death," and the Park Service is hard put to exercise proper management. The agency's answer is to add more and more land to its holdings. A plethora of new laws, beginning with the Wilderness Act of 1964, has made this possible. Now in addition to the Wilderness Act, we have the Wild and Scenic Rivers Act, Surface Management Control and Reclamation Act, National Forest Management Act, Federal Land Policy Management Act, National Environmental Policy Act, Endangered Species Act, Clean Water and Clean Air Acts, Multiple Use Sustained Yield Act, Oregon Wilderness Bill, Federal Water Pollution Control Act—and a variety of others dealing with Scenic Areas, Historic Places, National Monuments, etc., etc. . . . Where will it end?

As of the end of 1991, the already authorized NPS land acquisition backlog was estimated to cost anywhere from \$3 billion to \$10 billion! And this despite an NPS maintenance backlog cost of \$2 billion and a major repairs backlog bill of \$5 billion!

The fiscal 1993 federal budget includes \$100 million to the Forest Service to purchase 126,933 acres, \$84.4 million to the NPS for an additional 29,483 acres, \$79.5 million to the Fish and Wildlife Service for 63,013 acres, and \$42 million to the Bureau of Land Management for 66,325 acres—and these, of course, are in addition to all the private land the federal government is taking without compensation.

To repeat, how much land in the "public domain" is enough?

According to a 1990 report from the Bureau of Land Management, private use through leasing of public lands in the past 30 years has increased the population of elk on public lands by 800 percent, bighorn sheep by 435 percent, and moose by almost 500 percent. By any measure, private management excels. When will common sense prevail?

ric, *New Imperatives*, by Jo Kwong Eckard, Capital Research Center, 1990, Section 7, "The Free Market Alternative," especially p. 93, "The Myth of Government Efficiency."

#### CHAPTER 10: OF PRIVATE PROPERTY

1. Letter from Governor Fife Symington to the president of the Arizona State Senate re: Senate Bill 1053, excerpted in *News From the FLOC*, Cambridge, MD, November 1991, p. 7.
2. Arbogast, Nicole, 1991, "Public Vs. Private Land Management," *CEI Update*, December 1991, p. 4.
3. Pendley, William Perry, 1992, "Whither the West? A Call to Action," manuscript from the Mountain States Legal Foundation.
4. Ibid.
5. Ibid.
6. Reported in *The Litigator*, publication of the Mountain States Legal Foundation, Summer 1992, p. 4.
7. Op cit, Perry, Reference 3.
8. Ibid.

#### CHAPTER 11: GOVERNMENT OWNERSHIP OF LAND AND FORESTS

1. "NHLA Greenspeak," Elizabeth Pease, editor, *Forest Facts*, Issue 39, December 1992, p. 3.  
 "The American Forest: Facts and Figures, 1991," American Forest Council, Washington, DC, 1992, 23 pages.  
 "Managing Our Forest Resources," *Update*, 1992, Weyerhaeuser Co., Tacoma, WA.
2. Ibid, "The American Forest: Tree Farm System," pp. 13, 14.
3. Ibid.
4. Sedjo, Roger A. and Marion Clawson, 1984, "The History of U.S. Forests," in *The Resourceful Earth*, by Julian Simon and Herman Kahn, Basil Blackwell, Inc., 1984, pp. 138-43.
5. Eckard, Jo Kwong, 1990, "Protecting the Environment; Old Rhetoric, New Imperatives," Section 1, *Creating a "Public Domain"*, pp. 1-14.
6. Ibid, American Association for the Advancement of Science, p. 7.
7. Brookes, Warren T., 1991, "Greenlining: An Assault on U.S. Property Rights," *Detroit News*, January 21, 1991.
8. Christian, George L., 1991, "Outrage at Olympic," in *Land Rights Letter*, July 1991, p. 4.
9. Frome, Michael, 1977, "The Search for Meaning," *The National Parks*, p. 6, Rand, McNally & Co.
10. Ibid, p. 7.

# Governing by Regulation

---

## At What Cost?

---

ALMOST without our realizing it, a whole new level of government has emerged in America. It is composed of a combination of lawyers and bureaucrats who have come to dominate federal, state, and local government. Nobody likes it, except its practitioners. It is government by regulation. It is now the fourth branch of government. It functions as law maker; though unelected, its rules and regulations have the force of law. It functions also as both judge and jury in cases involving its own rules. The accumulation of legislative, executive, and judicial power in the same hands is the real definition of tyranny. And it has become the essence of environmental overkill.

Since 1954 the number of federal regulations has increased from 16,502 to 200,000.<sup>1</sup> Add to that the proliferation of state and local regulations. Who benefits? Well, lawyers do, expert consultants on environmental law do, and special interests that can manipulate the regulations do. Consider these examples:

1. New federal rules require the closing of most community garbage dumps and increase the cost of opening a new landfill to \$10 million or more, up five times from what it cost in 1975. The revenues of big waste management companies will soar, while their

competitors, the small companies, fold. Adding to the problem are the mountains of mandated "recyclables" that cannot be sold in a glutted market. New York City has already suspended its recycling program because of the high cost—\$300 per ton, compared to the average landfill fee of \$28 per ton.<sup>2</sup>

2. Three billion dollars have been spent to protect housewives from labels that proclaim spaghetti sauce to be "fresh."<sup>3</sup>

3. The rehabilitation of 222 sea otters was mandated after the Exxon Valdez oil spill at a cost of more than \$80,000 per animal. At the same time, the population of more than 500 sea otters within Valdez harbor itself was untouched by the spill, and thousands of sea otters occupy Alaskan waters.<sup>4</sup>

4. The Stevens Kangaroo rat recently received exclusive rights to land worth \$100 million (and the rats didn't even ask for it!).<sup>5</sup>

5. The regulatory bureaucracy drains \$13.5 million from the economy for each premature death averted by a rule governing arsenic emissions from glass plants, or \$5.76 trillion per premature death averted by a regulation covering wood-preserving chemicals. Never mind; it's only your money.<sup>6</sup>

6. Dr. J. Laurence Kulp calculates the cost of the acid rain requirements of the 1990 Clean Air Act at \$4 billion a year. The benefits come in at just \$100 million. This is one of the few regulated areas where a cost-versus-benefit study has been conducted. Most environmentalists maintain that it is unlawful to take possible benefits into account!<sup>7</sup>

Enough. Just remember that regulations have required \$1.4 trillion to be spent since 1970 on cleaning up roughly 90 percent of industrial air and water pollution; the next 5 percent will cost an additional \$1.6 trillion, amounting to another \$25,000 per family of four.

In a carefully documented study for the National Chamber Foundation entitled *The Cost of Federal Regulation*, Thomas D. Hopkins, former deputy administrator for the Office of Management and Budget's Office of Information and Regulatory Affairs (now at the Rochester Institute of Technology), wrote:

Regulation is an essential but costly tool of government policy. Complying with federal regulatory requirements, however well-designed they may be, creates costs that mostly do not show up in the federal budget. . . . While it is not possible to provide definitive cost estimates at this point, available evidence exists, however incomplete it may be, to suggest that regulatory costs are substantial and growing. . . . The fastest growing regulatory costs are in the environmental protection area.<sup>8</sup>

The Joint Economic Committee for the U.S. Congress revealed in 1992 that the costs of administering and policing all federal regulations had reached about \$500 billion dollars annually. The committee broke it down in the following categories: environmental regulations, \$115 billion; safety regulations, \$29 billion; economic regulations, \$256 billion, and paperwork (reporting) costs, \$100 billion. The federal budget for fiscal year 1993 includes \$562 billion for implementing federal regulations. That is double the 1992 defense budget! These costs, even without new rules or added laws, are expected to reach an *annual outpouring* of \$688 billion by the end of the century.<sup>9</sup>

In the meantime, regulations keep coming. In October 1991, the *Unified Agenda of Federal Regulations* lists 707 pending regulatory actions that could affect state governments, and another 486 that affect local governments.

In an article for the *American Economic Review*, Wayne B. Gray estimated that 30 percent of the American drop in industrial productivity in the 1970s and 1980s could be traced to regulations imposed by the Environmental Protection Agency and the Occupational Safety and Health Administration.<sup>10</sup> Other economists agree.

Overall, it is the "growth of governmental regulation that is responsible for the shrinking of the private economy," says David Littman, senior economist at Manufacturers National Bank of Detroit. He points out that regulation forces private firms to increase staffing, work longer hours, and add to mail, paperwork, travel, and phone expenses. Further, he points out that the regulations force a "misallocation of time from productive work or research to government paperwork that boggles the mind." These

are all hidden costs, and unproductive, as well. They also impact jobs.<sup>11</sup>

Since 1991, reports Littman, there have been more than 300 firms sufficiently well known to merit front page coverage in the *Wall Street Journal* that have made layoff announcements.<sup>12</sup> In one year, 1991-1992, private employment decreased by more than 800,000 workers. If we go back to January 1990, the loss is 1.5 million jobs. At the same time, the federal regulatory agencies were hiring; their employment increased by 6.8 percent. The size of the staff at EPA has increased 7.4 percent from 16,999 to 18,262 in just the past two years. Moreover, the total number of federal employees engaged in writing and implementing regulations now exceeds 123,000. The number of bureaucrats involved in the general policing of business alone totals more than 14,000. Somehow, somewhere, greater attention must be given to the burdens that regulations put on private business, the enterprise that generates America's wealth.<sup>13</sup>

Perhaps it would help if more of the lawmakers and regulation writers had experience in trying to make a living in the private economy. Recently, a sadder, wiser Senator George McGovern, after going through bankruptcy, has had to face the true cost of all those federal regulations he helped to pass.

"I wish," he said, "that during the years I was in public office I had had this firsthand experience about the difficulties business people face every day. That knowledge would have made me a better U.S. senator. . . . My business associates and I [have] lived with federal, state, and local rules that we all passed with the objective of helping employees, protecting the environment, raising tax dollars for schools, protecting our customers from fire hazards, etc., etc. While I have never doubted the worthiness of these goals, the concept that most often eludes legislators is: Can we make consumers pay the higher prices for the increased operating costs that accompany public regulation and government reporting requirements with reams of red tape?"<sup>14</sup>

The former senator from South Dakota found that his business, operating an inn in Connecticut, could not survive the regulations. He is not alone.

Some time ago, in 1974, Irving Kristol of New York University

predicted, "If the EPA's concept of its mission is permitted to stand, it will be the single most powerful branch of government, having far greater control over our individual lives than Congress, or the Executive, or state, or local government."<sup>15</sup>

And what is the EPA's concept of its mission?

In a mostly overlooked and surprisingly candid article published in the March 1984, issue of *The Washington Monthly* by Jim Sibbison, a former press officer for the EPA, he boasted about how easy it was to use "gullible reporters to spread scare messages." Sibbison joined the EPA in 1970 under Administrator William Ruckelshaus and stayed with the agency through 1981.

"In those days," Sibbison wrote, "the idea was to get the media to help turn the EPA into an enforcer that struck fear into the heart of polluters."

Sibbison went on to say, "We [EPA press agents] routinely wrote scare stories about the hazards of chemicals, employing words like 'cancer' and 'birth defects' to splash a little cold water in reporters' faces. . . . Our press releases were more or less true; the air and water really were dirty and we really were out to make them cleaner. . . . Few handouts, however, can be completely honest, and ours were no exception. The deception lay in what we didn't say. The main thing was that we tended to omit that we weren't able to do as much about the problems we were complaining about as we implied. . . . We were out to whip the public into a frenzy about the environment."<sup>16</sup>

As Administrator Ruckelshaus put it, "We [EPA] couldn't even afford the appearance of being soft."<sup>17</sup>

That attitude about enforcement of environmental regulations still pervades the EPA, as communities all across the country have discovered. One, the city of Columbus, Ohio, decided to figure out just how much this was actually costing the municipal budget. Between 1988 and 1990, new federal and state environmental regulations arrived at Columbus' City Hall at the rate of one every two weeks. They totalled 67 for the period of nearly two years. The laws and the regulations to enforce them covered every imaginable use of land, air, and water; they were mandatory, with no local variances allowed. Of course, neither state nor federal funds were available for implementation. Note that every

other U.S. city has been equally affected, but up to now, Columbus is the only municipality to prepare a thorough documentation of the problem.

Columbus' assistant health commissioner, Michael J. Pompili, was appointed to head a city task force to make the study. Both Pompili and the citizens of Columbus were shocked by the findings.

The Pompili task force identified more than one billion dollars (in 1991 dollars) in costs that were required to achieve compliance with the environmental regulations over the next ten years. They also determined that the city budget, which in 1991 was \$591 million, would have to be increased by \$100 million each year for a decade just to comply with the environmental regulations. As Pompili pointed out, "It will mean that fewer funds will be available to provide other city services, and that city leaders will have fewer choices and less freedom in budgeting." It also means a shift in control from local governments to Washington, D.C.<sup>18</sup>

Now, if all the environmental rules were reasonable and truly made needed improvements in the quality or safety of air, water, and/or land use, there would be little objection. But the evidence suggests that is not the case. According to Pompili, most of the added money will go for water—\$770 million for compliance with the Clean Water Act and another \$110 million for the Safe Drinking Water Act. The present average water bill in Columbus is \$290 per month; this will increase to \$550 a month within ten years. Now judge that increase in water bills against one of the rules that drives up the cost: a requirement for Columbus to spend \$16 million to build a new treatment plant to use ozone to flush a farm chemical, atrazine, out of the water. The plant will have an annual operating cost of about \$2.5 million. Is it really needed? Although atrazine is used in some nearby farms, it does not occur in the city drinking water in amounts exceeding one part per billion. EPA standards permit a level of 3 parts per billion—so the water is well within acceptable limits. Why, then, does the EPA insist upon the expense of a new treatment plant? Yet the EPA insists upon it.

Too often environmental mandates from the EPA are not based either on good, sound scientific data or on knowledge of local

conditions. In Anchorage, Alaska, for example, the EPA, following to the letter the 1987 amendments to the Clean Water Act, requires the city sewage treatment plant to remove 30 percent of the organic material. The trouble is, Anchorage's sewage, which is heavily diluted with rain water, contains so little organic material that it is physically impossible to comply. The EPA demands were met by the officials in Anchorage in this manner: They invited three local fish processing plants to discharge 1,500 pounds of fish wastes daily into the municipal sewer. Then 30 percent of it could be removed, thus satisfying the bureaucrats!<sup>19</sup>

The EPA also frequently underestimates both the cost and consequences of its rules. The city of Columbus was told that its November 1990 storm-water permit rule would cost the city \$76,680. The lowest bid Columbus received from contractors to implement the storm-water permit requirements was \$1.779 million! This is a common experience.<sup>20</sup>

These examples are, unfortunately, not unique and they add enormously to the size of municipal utility bills. An accurate estimate of how much the modern mania for ever more regulation really costs is hard to obtain. Says the nationally recognized economist, William J. Laffer, III:

To be sure, the precise cost of regulation is extremely difficult to determine. Nonetheless, combining the estimates of different scholars suggests that the direct costs of regulation on the economy currently amount to at least some \$636 billion to \$857 billion per year, or between \$6,565 and \$8,869 annually per household. Even after subtracting the benefits of regulation, using the most generous estimates available, the net direct cost of regulation is some \$364 billion to \$538 billion per year, or between \$3,762 and \$5,561 annually per household.<sup>21</sup>

Then, echoing Hopkins, Gray, and others, Laffer commented:

These figures include the costs to businesses and consumers of complying with environmental and other social regulations, the total cost to consumers in the form of higher prices and reduced choices due to economic regulations, the costs imposed by government paperwork requirements, administrative costs due to federal regulation of health

care, and the direct costs imposed by state tort law. . . . Most important, the cost estimates do not include any of the indirect, dynamic effects of regulation. In particular, the figures do not include any estimate of the reduction in productivity and output caused by the direct costs, or of the impact of regulation on technological innovation. While the productivity effects are difficult to quantify and the effect on innovation is impossible to quantify, a number of studies suggest that, taken together, the indirect costs due to reduced productivity and innovation probably are greater than the direct costs counted above.

Finally, Laffer concludes:

Assuming instead that the indirect costs only amount to somewhere between 50 percent and 100 percent of the direct costs, it appears that the total cost of regulation . . . could be anywhere between \$811 billion and \$1.656 trillion per year, or between \$8,388 and \$17,134 annually per household. . . . If transfers (of costs from one regulatory group to another) are not subtracted as benefits, then the total cost of regulation works out to somewhere between \$1.056 trillion and \$1.969 trillion per year, or between \$10,922 and \$20,376 per household. By way of comparison, Americans will pay an estimated \$1.053 trillion in federal taxes in 1992, or about \$10,897 per household. Although these estimates are subject to considerable uncertainty, it is quite possible that the total cost of regulation now exceeds the total cost of taxation.<sup>22</sup>

This is a trend that shows no sign of abating. When does environmental regulation become too expensive? And even too frivolous? Where does common sense come in? Of course, everyone wants to avoid pollution and to improve on what has occurred in the past. But standards must be set that are reasonable and achievable. The policies and procedures must be practical without consuming so high a portion of disposable income. Any other path leads to poverty—and poverty is truly the ultimate pollution. Wealthier is healthier, and excessive regulations can compromise the public health and safety that they are often designed to protect

## CHAPTER 13: GOVERNING BY REGULATION

1. "Regulatory Proliferation," *Alert*, newsletter of the National Council for Environmental Balance, Inc., Vol. 14, No. 1, Winter-Spring 1992.
2. through 6. *Ibid.*
7. Kulp, J. Laurence, "How Zealous Greens Hurt Growth," *Fortune*, March 23, 1992, p. 26.
8. Hopkins, Thomas D., "Whose Lands Are Wetlands?," *Journal of Regulation and Social Costs*, Vol. 2, No. 1, March 1992, pp. 5-31.
9. "Choked by Red Tape," *Reason* magazine, October 1992, p. 10.
10. Gray, Wayne B., "The Cost of Regulation: OSHA, EPA, and the Productivity Slowdown," *American Economic Review*, December 1987.
11. Quoted in *Wall Street Journal*, April 21, 1992.
12. *Ibid.*
13. *Ibid.*
14. "The True Cost of Federal Regulation," *Weekly Update*, National Hardwood Lumber Association, June 29, 1992.
15. Drummey, James J., quoting Irving Kristol in *The Establishment's Man*, p. 55.
16. Sibbison, Jim, "The Real Asbestos Horror Story," *AIM Report, Accuracy in Media*, XIX-17, Sept-A 1990; see also *Washington Monthly*, March 1984.
17. *Ibid.*
18. "EPA to Your Town: Drop Dead," *Aim Report*, publication of Accuracy in Media, Washington, DC, April 1992.
19. *Op cit*, *AIM Report, Accuracy in Media*, Reed Irvine, editor, XXI-8, April-B 1992, p. 4. See also "Officials See Groundswell Opposing EPA Mandates That Deny Local Priorities," *Inside EPA*, December 20, 1991.
20. *Inside EPA*, July 26, 1991.
21. Laffer, William G., 3rd, "George Bush's Hidden Tax: The Explosion in Regulation," *Background*, Heritage Foundation, Washington, DC, July 10, 1992.
22. *Ibid.*

# Who's Responsible for Overkill?

---

## Why Do People Always Tend to Believe the Worst?

---

*As the science editor at Time, I would freely admit that on this issue (the environment) we have crossed the boundary from news reporting to advocacy.*

—CHARLES ALEXANDER, *Time*<sup>1</sup>

*I do have an axe to grind. . . . I want to be the little subversive person in television.*

—BARBARA PYLE, CNN environmental director<sup>2</sup>

*There is no such thing as objective reporting. . . . I've become even more crafty about finding the voices to say the things I think are true. That's my subversive mission.*

—DIANNE DUMANOSKI, *Boston Globe* environmental reporter<sup>3</sup>

*We in the press like to say we're honest brokers of information, and it's just not true. The press does have an agenda.*

—BERNARD GOLDBERG, CBS, "48 Hours"<sup>4</sup>

*I'm not sure it is useful to include every single point of view.*

—LINDA HARRAR, PBS producer<sup>5</sup>

*It doesn't matter what is true; it only matters what people believe is true. . . . You are what the media define you to be. [Greenpeace] became a myth and a myth-generating machine.*

—PAUL WATSON, co-founder of Greenpeace<sup>6</sup>

*It is journalistically irresponsible to present both sides [of the greenhouse, global warming theory] as though it were a question of balance. Given the distribution of views . . . it is irresponsible to give equal time to a few people standing out in left field.*

—STEPHEN SCHNEIDER, National Center for Atmospheric Research (in *Boston Globe*, May 31, 1992)<sup>7</sup>

WITH attitudes like these shaping the news, is it any wonder that the public gets only the side that the media elite approve? It begs another crucial question: Having stated our case against “environmental overkill,” we are obliged to ask ourselves, “Who is responsible for it?”

Is it the educational process? At least a measure of the responsibility belongs to the schools, mainly because they have been targeted by a barrage of “learning materials” from the extreme environmental organizations and because they have been influenced by media reports. For the most part, teachers and reporters and editors have neither the time nor the patience to challenge the assertions put forth by those who *appear* to have credentials or have been presented as “experts.” The truth about the environment belongs in the classroom, of course. But *the whole truth* is not always what students get.

Jonathan H. Adler, environmental policy analyst at the Competitive Enterprise Institute, put it this way:

alarm over it, that is—a growing danger to children particularly. Several scientists were at each other's legal throats in a developing donnybrook over research on lead poisoning. One faction says it's terribly dangerous if not controlled, while the other insists the problem has been seriously overblown and should be put back into proper perspective. At last reports, the EPA apparently wasn't waiting to find out who would win the lead poisoning battle. It was already using the work of the "terribly dangerous" advocates in writing regulations on the use of lead.<sup>31</sup> What could one expect, given the shoot-from-the-hip, environmental-overkill nature of the EPA?

In the meantime, it's appropriate to end this discussion of the role of education and media in overkill with this warning from Dr. Bernard Cohen, University of Pittsburgh physicist and one of America's most distinguished nuclear scientists:

Our government's science and technology policy is now guided by uninformed and emotion-driven public opinion, rather than by sound scientific advice. Unless solutions can be found to this problem, the U.S. will enter the 21st century declining in wealth, power, and influence. . . . The coming debacle is not due to the problems the environmentalists describe, but to the policies they advocate.<sup>32</sup>

That should spell out the peril inherent in continued "environmental overkill."

And that brings us to looking forward. Too many of us seem not only to have lost a sense of Wonder at human accomplishments but to accept the notion that now all progress must stop. We are told that humanity's marvelous achievements might be severely damaging to the Earth. Some environmentalists even tell us that *any* human use of nature's resources is detrimental. In the name of environmentalism, we are being urged to change from a society that believes in progress and betterment of the human condition to one that is dedicated to "sustainability." It is by no means clear just what this condition of "sustainability" really is, except that it rejects further industrialization and is essentially a back-to-nature movement.

"In living in the world by his own will and skill, the stupidest peasant or tribesman is more competent than the most intelligent workers or technicians or intellectuals in a society of specialists," writes Wendell Berry, an agrarian admired by both greens and cultural conservatives.<sup>2</sup>

My, my. Should all of us become peasants?

In the name of environmentalism, it is no longer enough to be kind to animals, careful of wastes, and sensitive to ecosystems. According to the spokesmen for the environmental movement (those who are leaders and officers of the large international organizations, such as Greenpeace, WorldWatch, the Wilderness Society, the Audubon Society, Environmental Defense Fund, Friends of the Earth, Nature Conservancy, Earth First!, various Green political groups, and many others), it is necessary not only to be good stewards of the Earth and its resources, but it is essential also to reduce human impact upon the air, water, and land, and to do it immediately by any and all means possible—no matter how drastic, no matter how costly. This extreme view of environmentalism is, unfortunately, the one that drives public policy.

And there's the rub. Despite all the evidence of dramatic improvement in the use of natural resources and in better stewardship of the natural world, many leaders of the environmental movement continue to speak as if nothing had changed in the past 25 years. Consider another statement by Vice President Gore:

Humankind has suddenly entered into a brand new relationship with the planet Earth. The world's forests are being destroyed; an

enormous hole is opening in the ozone layer. Living species are dying at an unprecedented rate. Chemical wastes in growing volumes are seeping downward to poison groundwater, while huge quantities of carbon dioxide, methane, and chlorofluorocarbons are trapping heat in the atmosphere and raising global temperatures.<sup>3</sup>

No evidence is given in support of any of these charges. Statements like this need to be put into context. And one very meaningful context is comparison. In the capitalist, free-market West, technology is actually improving the environment, and environmentally-sensitive products are being freely produced to meet consumer demand. But in those areas of the world that most reflect the socialist economic system preferred by regulating-via-government environmentalists—as in Eastern Europe and the former USSR—an environmental mess *has* been made, a mess, however, that Western companies and Western technology, far from harming the environment, will actually help clean up. It won't be easy or quick, but it will be done, thanks to the very modern, high-tech, capitalist society environmentalists fear and blame.

The radical and political environmentalists still speak as if no solutions were possible, as if modern industrial civilization has to be stopped in order to save the Earth. Here is what some of the leaders and spokesmen for environmentalism have to say in the widely distributed Worldwatch report, *The State of the World, 1992*.

Lester Brown, president of the Worldwatch Institute, wrote: "Building an environmentally sustainable future requires restricting the global economy, dramatically changing human reproductive behavior, and altering values and lifestyles. Doing this quickly requires nothing short of a revolution."<sup>4</sup>

Sandra Postel, co-author of Worldwatch's *Annual Report*, calls for "a rethinking of our basic values and vision of progress." This restructuring must include "a shift from fossil fuels to solar-based energy systems, new transportation networks, and new city designs that reduce auto use, enhance recycling and reuse of resources, equality between the sexes in all cultures, and strenuous population control."<sup>5</sup>

Another co-author, Hilary F. French, declares, "central to the

task of strengthening global environmental governance is reform of the vast United Nations system." And, French added, "What is needed is a transfer of financial and technological support from North to South, from wealthy developed countries to debt-ridden, trade-starved developing countries."<sup>6</sup>

Still another co-author, Michael Renner, targets five manufacturing industries—chemical, oil refining, paper, primary metals, and clay, stone, and glass—as being "capital intensive, notorious users of energy, prodigious producers of pollution, and stingy users of human labor." According to Renner, these industries are "marginal and ever-shrinking."<sup>7</sup>

Worldwatch supports alternatives, and proposes to replace them with recycling and reuse. But real, factual evidence to back up the Worldwatch position is questionable or lacking. Its adherents seem to assume that others share their opinions and values, and, indeed, their annual reports are widely quoted.

Judy Bari of Earth First! apparently agrees with the Worldwatch position. She says, "I think if we don't overthrow capitalism, we don't have a chance of saving the world ecologically. I think it is possible to have an ecologically sound society under socialism. I don't think it's possible under capitalism."<sup>8</sup>

The theoretician and one of the founders of the German Green movement, Rudolf Bahro, recommends that people should live in socialist communities of no more than 3,000, consuming only what they produce and that they should be restricted from trading with other communities. There should be no mechanized transportation, no computers, no modern technology.<sup>9</sup> Any volunteers?

"Green politics," wrote Jonathon Porritt and David Winner of the British Greens, "demands a whole new ethic in which violent, plundering humankind abandons its destructive ways, recognizes its dependence on Planet Earth, and starts living on a more equal footing with the rest of nature. . . . The danger lies not only with the odd maverick polluting factory, industry, or technology, but in the fundamental nature of our economic systems. It is industrialism itself—a 'supra-technology' embraced by socialist countries, as well as the capitalist West—which threatens us."<sup>10</sup>

From David Brower, founder of the Friends of the Earth and former executive director of the Sierra Club, we get this bit of

wisdom on ecological values: "While the death of young men in war is unfortunate, it is no more serious than the touching of mountains and wilderness areas by humankind."<sup>11</sup>

In a similar vein, Brower told a travel group in Whistler, British Columbia, September 23, 1992: "Loggers losing their jobs because of Spotted Owl legislation is, in my eyes, no different than people being out of work after the furnaces of Dachau shut down."

The aforementioned Jonathon Porritt, spokesman for Britain's Ecology Party and director of Friends of the Earth, observed that "from all the knowledge we now have about environmental issues, the inevitable conclusion is that our way of life cannot be sustained. . . . We cannot go on living as we do now." Those who support "sustainable growth" leave him "spitting with rage. We cannot continue with our same material living standard and at the same time be warriors on behalf of the planet. We in the West have the standard of living we do only because we are so good at stripping the Earth of its resources and oppressing the rest of the world's people in order to maintain that wealth."

And finally this statement from David M. Graber, research biologist with the National Park Service: "Human happiness and certainly human fecundity are not as important as a wild and healthy planet. I know social scientists who remind me that people are part of nature, but it isn't true. Somewhere along the line—at about a billion years ago and maybe half that—we quit the contract and became a cancer. We have become a plague upon ourselves and upon the Earth. It is cosmically unlikely that the developed world will choose to end its orgy of fossil energy consumption and the Third World its suicidal consumption of the landscape. Until such time as *Homo sapiens* should decide to rejoin nature, some of us can only hope for the right virus to come along."<sup>12</sup>

Many, many more examples could be cited. The anti-human, anti-Western civilization attitude can be traced back to the beginning of the environmental movement and to one of its founders, John Muir. Speaking to alligators (!), he said, "May you enjoy your lily pads and your aquatic grasses, secure in your undisturbed habitat. And may you occasionally enjoy a mouthful of terror-stricken man, by way of a dainty."

Nice sentiment, no? In today's world, this attitude and the agenda for achieving ecological goals is well summed up by Christopher Manes in his book, *Green Rage* (1990).<sup>13</sup> The author outlined a program for ecological reform. Its main features include:

- Deindustrialization of the West.
- Reduction of human population.
- Elimination of all use of fossil fuel, including automobiles, coal-fired plants, and manufacturing processes using petrochemicals.
- End of all monoculture and cattle production.
- End of all commercial logging.
- Restoration of wilderness on developed land.
- Reintroduction of large predators, such as grizzly bears and wolves. And so on. . . .

Manes is one of the intellectual leaders of the activist environmentalists. His book is provocative; according to his supporters, he makes "a profoundly affecting plea for the unmaking of civilization—powerful enough to change our view of the world and our place in it."

It would be a mistake to dismiss what the Greens want as mere paranoia. If we believe in the world that knowledge and technology have built, we must defend it. The question is how do we do it?

First, we must recognize that the environmental movement is not about facts or logic. More and more it is becoming clear that those who support the so-called "New World Order" or World Government under the United Nations have adopted global environmentalism as a basis for the dissolution of independent nations and the international realignment of power. Note the announcement of a new unifying principle espoused by the Council of the Club of Rome in 1991:

"In searching for a new enemy to unite us, we came up with the idea that pollution, the threat of global warming, water shortages, famine, and the like would fit the bill. . . . All these dangers are caused by human intervention. . . . The real enemy, then, is humanity itself."<sup>14</sup>

Second, it is about how people feel. The rational assembling of evidence and the drawing of conclusions from data are the responsibility and business of science. But whether those facts, data, and conclusions warrant action plans that require expenditure of public funds is the responsibility and business of those officials who are elected to make public policy. This distinction is too seldom appreciated.

Third, we have to understand that no amount of scientific "proof," however decisive it may seem to a scientist, will influence or change the minds of those who hold deeply felt beliefs.

Fourth, despite any rejection of facts or logic, science must persist in its constant search for the truth, without itself falling victim to the convictions that arise from preconceived beliefs.

Fifth, the obligation of science to provide factual explanations of phenomena and issues, certainly including environmental ones, cannot be abrogated by remaining silent. The public deserves and must have access to reliable information or it will be dominated by emotionally driven but factually empty statements freely uttered by self-appointed "experts" and "spokesmen." Why don't more competent scientists speak up?

One explanation for this silence was given several years ago, May 24 and 25, 1978, by the late Dr. John Isaacs, then director of the Institute of Marine Resources at the University of California. Speaking in testimony to the Water Resources Subcommittee of the House Committee on Public Works, Dr. Isaacs called attention to the dilemma many scientists face:

Many of the great regulatory and enforcement agencies of the United States are beginning to adopt the pose of the medieval churches, with regard not for what is true or right, but rather for what defends their notions of the intent of regulatory laws or their established policies and for what supports their own delusions of power, omniscience, and infallibility! The beleaguered scientist with evidence of the fallibility of these agencies, or the triviality of a program that they regulate, or of the underlying faults in their regulations can only recant his findings (if he wants any more research support) and content himself with the muttered aside: *Eppur si muove* (nevertheless it moves), as did Galileo, following his confrontation with the awesome forces of the hierarchy of his times.<sup>15</sup>

It is obvious that our regulatory “command and control” system, relying as it does too much on fees and penalties, is itself out of control. Reform is overdue.

In the same testimony (95th Congress), Dr. Isaacs also quoted Niccolo Machiavelli (*The Prince*, 1530): “An hypothesis is always more believable than the truth, for it has been tailored to resemble our ideas of truth, whereas the truth is just its own clumsy self. Ergo, never discover the truth when an hypothesis will do.”

As the months and years roll by without the appearance of the catastrophes that have been projected by the Greens—and if scientists continue to improve both our knowledge and understanding of natural processes and the degree to which mankind may influence them—the public may get fed up with emotionalism. Then it will become evident that all the predictions of ecological disaster are based upon hypotheses, on imperfect models, and on computer simulations, not on a solid body of truth.

Computer models and simulations are important and necessary tools of scientific inquiry, from which much can be learned. But they are far too imperfect to use as a basis for public policy. They are fundamentally subjective and their projections are totally dependent on the data programmed into them. Nature is infinitely more complex, and, most important, nature is real. Computer models are nothing but hypotheses. Our future cannot be governed by them.<sup>16</sup>

We started this Epilogue with a quotation from the writing of Lord Macaulay. Since so much of the “environmental overkill” movement in today’s world is directed against our form of government, we begin our conclusion with another Macaulay quotation. On May 23, 1857, in a letter to an American friend, he wrote:

A democracy cannot survive as a permanent form of government. It can last only until its citizens discover that they can vote themselves largesse from the public treasury. From that moment on, the majority (who vote) will vote for the candidates promising the greatest benefits from the public purse, with the result that a democracy will always collapse from loose fiscal policies, always followed by a dictatorship.

9. Ercole, Antony J., 1992, "Wetlands and Coal," *Perspective: Eco-Logic*, June 1992, pp. 4, 5; reprinted from *Pennsylvania Coal Quarterly*, Vol. 8, No. 2, June 1991.
10. Albrecht, Virginia S., 1991, "Are All Wetlands Created Equal? Bring Standards Back to Reality," *National Wetlands Newsletter*, Vol. 13, No. 5, September-October 1991, pp. 6, 7.
11. Most estimates of the "original" extent of wetlands are based on guesses made by the Audubon Society — hardly a disinterested organization. The assumption that 50 percent of America is wetlands is also a guess. See discussion in *CFACT, Citizen Outlook*, "Wetland Policy Soaks U.S. Property Owners," Vol. 7, No. 2, March-April 1992, pp. 1, 2.
12. Laffer, William G., 1991, "Bogged Down in Wetlands," *Ludwig von Mises Institute Freemarket*, November 1991.
13. Op cit, Reference 3, Brookes, Warren T., 1991, *Forbes*, p. 109.  
Ibid, p. 112.  
Ibid, p. 106

In a 1991 article titled "Bankrupted by EPA," Peter Samuel, director of *Greentrack International*, a Washington, DC-based news service covering environmental issues from a skeptical position, wrote this: "Last month the Environmental Protection Agency put out a thick 'Note to Correspondents' and staged a press conference on what it called its 'record-breaking enforcement accomplishments for clean water in 1991.' It was a 'banner year for enforcement,' with 3,109 prosecutions, \$28 million in penalties, and 346 months of incarceration for the polluters. 'The 1991 numbers [of prosecutions] are more than all previous years combined,' said the EPA. But does this mean justice is being done? Take the case of Lewis 'Chuck' Law, 54, of Charleston, WV. Mr. Law was sentenced in U.S. District Court to \$160,000 in fines and two years in jail for breaches of the Federal Clean Water Act.... The prosecution did not argue that the discharges from the springs [on his property] constituted any health hazard. They just didn't meet EPA clean-water standards. And in what appears to be a complete perversion of the principles of common law, the U.S. Attorney prosecuting the case argued that it is immaterial under the Clean Water Act whether the property owner is the cause of the pollution. He argued that under the act the defendant could be found guilty simply on the basis that polluted water was emerging from his property, regardless of its source." This is justice?

14. Ibid.
15. Ibid.
16. Reilly, William, 1991, in a *Human Events* article by Warren T. Brookes, "EPA's Reilly Continues His War on Private Property," August 3, 1991, p. 11. See also Brookes, "War on Property Rights," *Washington Times*, July 18, 1991.

roof coatings. Asked if they would accept the Court's finding, an EPA spokesman said, 'We've asked the Court to reconsider.' To date, the Court hasn't, and the EPA continues to ignore the ruling."

*AIM Report, Accuracy in Media*, "Notes From the Editor's Cuff," Reed Irvine, editor, Nov-A 1991.

"Fifth Circuit Court Overturns 1989 EPA Ban on Asbestos," *Environment Week*, 1991, Vol. 4, No. 42, October 24, 1991.

Bennett, Michael J., 1992, "Great Hoax on Asbestos Finally Ends," *Science and Environment Policy Project*, Washington, DC, 1992.

"One Life Worth \$76 Million: EPA Didn't Follow Own Regulations," *Washington Inquirer*, Vol. XI, No. 41, October 25, 1991.

Op cit, Reference 56, *Detroit News* editorial.

58. Beckmann, Petr, 1989, "Power Lines and Magnetic Fields," *Access to Energy*, Vol. 17, No. 1, p. 3, September 1989.
59. Beckmann, Petr, 1991, *Electromagnetic Fields and VDT-itis*, Golem Press, "Effects of Non-Ionizing EM Fields," p. 5.
60. Douglas, John, 1992, "Taking the Measure of Magnetic Fields," *EPRI Journal*, Vol. 17, No. 3, April-May 1992, pp. 16, 17.
61. Moore, Taylor, 1990, "Exploring the Options for Magnetic Field Management," *EPRI Journal*, Vol. 15, No. 7, October-November 1990, pp. 5-19.  
Florig, H. Keith, "Responding to the Potential Health Effects of Electric and Magnetic Fields," *Resources*, publication of Resources for the Future, Fall 1992, pp. 6-10.
62. Op cit, Beckmann, Reference 59, p. 9.
63. Beckmann, Petr, 1991, "No Ground for Loopholes," *Access to Energy*, Vol. 18, No. 7, March 1991, p. 3.
64. Moore, Taylor, 1992, "Sharpening the Focus in EMF Research, Health Effects," *EPRI Journal*, Vol. 17, No. 2, March 1992, pp. 5-13.

### CHAPTER 13: GOVERNING BY REGULATION

1. "Regulatory Proliferation," *Alert*, newsletter of the National Council for Environmental Balance, Inc., Vol. 14, No. 1, Winter-Spring 1992.
2. through 6. Ibid.
7. Kulp, J. Laurence, "How Zealous Greens Hurt Growth," *Fortune*, March 23, 1992, p. 26.
8. Hopkins, Thomas D., "Whose Lands Are Wetlands?," *Journal of Regulation and Social Costs*, Vol. 2, No. 1, March 1992, pp. 5-31.
9. "Choked by Red Tape," *Reason* magazine, October 1992, p. 10.
10. Gray, Wayne B., "The Cost of Regulation: OSHA, EPA, and the Productivity Slowdown," *American Economic Review*, December 1987.