

AK LEGISLATURE FINANCE COMMITTEES FILES 2007-2008 3258

40

**HB**

**326**

**HFIN**

**FILE**



# FISCAL NOTE

STATE OF ALASKA  
2008 LEGISLATIVE SESSION

Fiscal Note Number: 1  
Bill Version: HB 326  
(H) Publish Date: 1/17/08

Identifier (file name): 0016-DOA-DOP-12-17-07 Dept. Affected: Administration  
Title: "An Act authorizing the governor to delegate to the adjutant RDU Central Administrative Services  
the authority to order organized militia into active state svc..." Component: Personnel  
Sponsor: Rules Committee  
Requester: Governor Component Number: 56

(Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

	Appropriation Required	Information						
		FY 2009	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
<b>OPERATING EXPENDITURES</b>								
Personal Services	0.0	0.0	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	0.0	0.0
Contractual	0.0	0.0	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	0.0	0.0
Equipment	0.0	0.0	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	0.0	0.0
Grants & Claims	0.0	0.0	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	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>0.0</b>	<b>0.0</b>

<b>CAPITAL EXPENDITURES</b>								
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<b>CHANGE IN REVENUES ( )</b>								
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(Thousands of Dollars)

FUND SOURCE	FY 2009	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
1002 Federal Receipts	0.0	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	0.0
1004 GF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1005 GF/Program Receipts	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1037 GF/Mental Health	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Interagency Receipts	0.0	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>	<b>0.0</b>

Estimate of any current year (FY2008) cost: 0.0

**POSITIONS**

Full-time							
Part-time							
Temporary							

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

This bill will have no fiscal impact on the Division of Personnel

Prepared by: Nicki Neal, Director  
Division: Division of Personnel  
Approved by: Kevin Brooks, Deputy Commissioner  
Department of Administration

Phone 907-465-4429  
Date/Time 12/17/07 1:40 p.m.  
Date 12/26/2007

# FISCAL NOTE

STATE OF ALASKA  
2008 LEGISLATIVE SESSION

Fiscal Note Number:  
Bill Version: CS HB3216 FIN  
( ) Publish Date:

Identifier (file name): 0016-DMVA-ARNG-3-4-08 Dept. Affected: DMVA  
Title TAG authorization to order militia into active state service and RDU Military and Veterans Affairs  
authorization of payment for fighting wildfires Component National Guard Military Headquarters  
Sponsor Rules Committee  
Requester Governor Component Number 2135

## Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below

	Appropriation Required	Information						
		FY 2009	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
<b>OPERATING EXPENDITURES</b>								
Personal Services	0.0	0.0	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	0.0	0.0
Contractual	0.0	0.0	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	0.0	0.0
Equipment	0.0	0.0	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	0.0	0.0
Grants & Claims	0.0	0.0	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	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>0.0</b>	<b>0.0</b>

<b>CAPITAL EXPENDITURES</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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<b>CHANGE IN REVENUES ( )</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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## FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts	0.0	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	0.0
1004 GF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1005 GF/Program Receipts	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1037 GF/Mental Health	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Interagency Receipts	0.0	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>	<b>0.0</b>

Estimate of any current year (FY2008) cost: 0.0

### POSITIONS

Full-time	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Part-time	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Funds to pay for firefighter services are RSA'd from the Fire Suppression Fund of the Department of Natural Resources.

In the past six years of wildland fire suppression efforts, the Department of Military and Veterans Affairs has not paid for personnel costs associated with these efforts.

Prepared by: McHugh Pierre, Communications Director/Legislative Liaison  
Division: National Guard Military Headquarters/Commissioner's Office  
Approved by: Commissioner Craig Campbell

Phone 907 465-4402  
Date/Time 3/4/08 8:00 AM  
Date 3/4/2008

# FISCAL NOTE

STATE OF ALASKA  
2008 LEGISLATIVE SESSION

Fiscal Note Number: \_\_\_\_\_  
Bill Version: CS HB 326 (FIN)  
( ) Publish Date: \_\_\_\_\_

Identifier (file name): HB326CS(FIN)-DNR-Fire-03-04-08 Dept. Affected: Natural Resources  
Title Authorizing the governor to delegate the adjunct general RDU Statewide Fire Suppression  
the authority to order the organized militia into active state service... Component Fire Suppression Activity  
Sponsor Rules Committee  
Requester H FIN Component Number 2706

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

Note: Amounts do not include inflation unless otherwise noted below.

	Appropriation Required	Information						
		FY 2009	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
<b>OPERATING EXPENDITURES</b>								
Personal Services								
Travel								
Contractual								
Supplies								
Equipment								
Land & Structures								
Grants & Claims								
Miscellaneous								
<b>TOTAL OPERATING</b>		*** INDETERMINATE ***						

<b>CAPITAL EXPENDITURES</b>							
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<b>CHANGE IN REVENUES ( )</b>							
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**FUND SOURCE** (Thousands of Dollars)

1002 Federal Receipts							
1003 GF Match							
1004 GF							
1005 GF/Program Receipts							
1037 GF/Mental Health							
Other Interagency Receipts							
<b>TOTAL</b>		*** INDETERMINATE ***					

Estimate of any current year (FY2008) cost: Indeterminate

**POSITIONS**

Full-time							
Part-time							
Temporary							

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

The cost is indeterminate. See analysis.

Prepared by: Lynn Wilcock  
Division: Forestry  
Approved by: Tom Irwin, Commissioner  
Natural Resources

Phone (907) 451-2675  
Date Time 3/4/2008  
Date 3/4/2008

## FISCAL NOTE

STATE OF ALASKA  
2008 LEGISLATIVE SESSION

BILL NO. CS HB 326 (FIN)

### ANALYSIS CONTINUATION

Since 2000, the Guard has been utilized four times, once in 2002 twice in 2004 and once in 2007. Actual availability of the Guard has been impacted by their mobilizations to other parts of the world, making them totally unavailable during some fire seasons.

Identification of costs associated with future usage is dependent upon factors we cannot predict – such as the severity of the fire season, availability of National Guard Units, the configuration (number and types of positions or resources required for the situation). The Division of Forestry can only utilize the National Guard units after we have used all available civilian assets (also a variable that is impacted by other industry use and the season). In recent years there has been a lack of civilian helicopters in the state. A number of factors in the aviation and oil and gas industries have led to a steady decline in the number of civilian helicopters available for use on wildland fires.

#### Summary of use since 2000:

- In 2002, AKNG flew for 39.0 helicopter hours and DOF paid \$177,000 for a total of 5 days. During this fire season the Guard was not called in to active state service.
- In 2004, AKNG flew 258.1 helicopter hours and DOF paid \$1,010,895.92 (includes flight hours, personnel, meals, lodging, etc.), during 2 different mobilizations totaling 50 days. The Guard was called in to active state service this fire season.
- In 2007, AKNG flew 30.4 helicopter hours and DOF paid \$147,351.80 for a total of 4 days (includes flight hours, personnel, and a fuel truck, ...no meals and lodging as the crews flew back and forth from the Willow to Fort Rich every night). During this fire season the Guard was not called in to active state service.

In 2002 and 2007 this proposed legislation would not have increased the amount paid - as the National Guard units were not put on Active Duty and thus continued to receive their normal guard pay plus overtime.

#### Summary of increase in costs (2004 example):

The cost of a Blackhawk flight crew in 2004 under State Active Duty pay was \$691/day. Under the EFF-pay rate scenario, the cost of this crew would have been \$869/day, resulting in an increase of 20.48%

In 2004, the cost of Alaska Army National Guard personnel was \$245.1. Under the EFF-pay scenario, this cost would have increased by \$50.2 to a total of \$295.3

~~app~~ adopted 3/3/08

cu

AMENDMENT 1

OFFERED IN THE HOUSE BY REPRESENTATIVE MEYER BY REQUEST  
TO: CS HB 326 (MLV), Version 25-GH2016C

- 1 Page 1, line 2
- 2 Delete "wildfire"
- 3 Insert "wildland fire"
- 4
- 5 Page 1, line 3
- 6 Delete "wildfire"
- 7 Insert "wildland fire"
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- 9 Page 1, line 5
- 10 Delete "wildfire"
- 11 Insert "wildland fire"
- 12
- 13 Page 1, line 11
- 14 Delete "wildfire"
- 15 Insert "wildland fire"
- 16
- 17 Page 2, line 13
- 18 Delete "wildfire"
- 19 Insert "wildland fire"
- 20
- 21 Page 2, line 15
- 22 Delete "wildfire"
- 23 Insert "wildland fire"
- 24

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Page 2, line 16

Delete all material and insert:

“wildland fire” includes the uncontrolled burning of grass, brush, timber, and other natural vegetative material.”

Page 2, line 24

Delete “wildfire”

Insert “wildland fire”

Page 3, lines 9-10

Delete all material and insert:

(2) “wildland fire” includes the uncontrolled burning of grass, brush, timber, and other natural vegetative material.”

3/3/00

<u>GRADE</u>	<u>SAD Daily Rate</u>	<u>SAD Weekly Rate</u>
O6/COL	\$357.50	\$2,502.50
O5/LTC	\$298.00	\$2,086.00
O4/MAJ	\$257.12	\$1,799.84
O3/CPT	\$226.06	\$1,582.42
O2/1LT	\$195.30	\$1,367.10
O1/2LT	\$169.56	\$1,186.92
O3E/CPT	\$301.58	\$2,111.06
O2E/1LT	\$264.88	\$1,854.16
O1E/2LT	\$213.32	\$1,493.24
CW5	\$415.40	\$2,907.80
CW4	\$233.60	\$1,635.20
CW3	\$213.34	\$1,493.38
CW2	\$188.78	\$1,321.46
CW1	\$165.70	\$1,159.90
E9/SGM	\$282.26	\$1,975.82
E8/MSG	\$231.04	\$1,617.28
E7/SFC	\$160.62	\$1,124.34
E6/SSG	\$127.30	\$972.44
E5/SGT	\$127.30	\$891.10
E4/SPC	\$121.92*	\$853.44
E3/PFC	\$121.92*	\$853.44
E2/PVT	\$121.92*	\$853.44
E1/PV1	\$121.92*	\$353.44

OK) FILE

EFF Title	Hourly	Overtime rate (1.5x)	Daily (12 Hours)	Weekly (7x12)
EFF-12 (Pilot)	\$35.23	\$52.85	\$422.76	\$3,734.38
EFF 9 (Loadm	\$24.30	\$36.45	\$291.60	\$2,575.80
EFF-8 (Rear d	\$21.99	\$32.99	\$263.88	\$2,330.94
EFF -11 (Ager	\$29.39	\$44.09	\$352.68	\$3,115.34



An AKNG Military Liaison Officer (MLO) will be dispatched when two or more aircraft are sent to the same incident. The MLO will be responsible for the coordination between AKNG and agencies on issues. The MLO answers to the OIC.

## H. Aircrew Staffing

UH-60	Personnel
PC	1
PI	1
CE	1

## I. PAY

### Guidelines for Alaska Army National Guard personnel in immediate recall status:

The AK ANG will ensure that two UH-60 aircraft equipped with 900 gallon Bambi buckets; aircrews and ground support will be available in immediate recall status as requested by the Division of Forestry. This will include the following personnel

- 2 Pilots in Command
- 2 Pilots
- 2 Crew Chiefs
- 2 Mechanics
- 1 Fueler
- 1 Operations Office
- 1 Avionics/Electrician

2004 AKNG/DOF  
Annual Operating Plan

AK ANG Personnel requested to be in immediate recall status in order to respond to wildland fire incidents will be compensated as follows:

AK ANG personnel will be hired as emergency firefighters (EFF-5) and placed in pay status starting at 1000 hours on all days that they are requested to be on immediate recall status; they will be paid until 2000 hours.

The 2004 hourly operating rate for the AK ANG UH- 60 is: \$2,516/hr.

The 2004 AK ANG hourly EFF 5 rate is \$23.00

The AK ANG personnel will be paid for a 10 hour day.

## J. Time Schedule for Deployment

To complete all the necessary preparations to configure the aircraft and notify the flight crews, 24 hours notice will normally be required prior to deploying for wildland firefighting operations. Deployment prior to 24 hours will depend on pre-warning time. The AAML or MHIEM will, in

3/3/08

**DNR Comments on 773-08-0016**  
**Authorizing payment of Alaska National Guard called into service to fight wildfires**  
**at RFF Rates of Pay**

Division of Forestry use of the DMVA National Guard resources has occurred infrequently and only under extreme fire occurrence. When we have used the National Guard they have been of immense value. Since 2000, the Guard has been utilized four times, once in 2002 twice in 2004 and once in 2007. However, the actual availability of the Guard has been impacted by mobilizations to other parts of the world, making them totally unavailable during some fire seasons.

Identification of the costs associated with their future usage is totally dependent upon factors we cannot predict – such as the severity of the fire season, availability of National Guard Units, and the configuration (number and types of positions or resources required for the situation), as well as the fact the Division of Forestry can only use them after we have used all available civilian assets (also a variable that is impacted by other industry use and the season). The primary reason that we have used the Guard in recent years has been the lack of civilian helicopters in the state. A number of factors in the aviation and oil and gas industries have led to a steady decline in the number of civilian helicopters available for use on wildland fires. Both the legislature and previous administrations have supported use of private sector contracts for Forestry aviation.

Summary of use since 2000:

- In 2002, AKNG flew for 39.0 helicopter hours and DOF paid \$177,000 for a total of 5 days.
- In 2004, AKNG flew 58.1 helicopter hours and DOF paid \$649,379.60 (includes flight hours, personnel, meals, lodging, etc.), during 2 different mobilizations totaling 50 days.
- In 2007, AKNG flew 30.4 helicopter hours and DOF paid \$147,351.80 for a total of 4 days (includes flight hours, personnel, and a fuel truck, . . . no meals and lodging as the crews flew back and forth from the Willow to Fort Rich every night)

It is worthy to note that in two of those three years this proposed legislation would not have increased the amount paid. In 2002 and 2007 the National Guard units were not put on Active Duty and thus continued to receive their normal guard pay plus overtime. In 2004 when they were placed on Active Duty and received combat pay, which in most cases is less than they would receive as regular employees.

The 2007 EFF rates are attached. Under the new legislation, Pilots would be paid at the EFF Pilot rate (EFF-12, \$35.23/hr.). Aircraft mechanics and other support personnel would be paid at rates equivalent to those positions on EFF rate schedule. Rates have not been established for 2008, but typically go up about 3% year.

IN FILE

SARAH PALIN  
GOVERNOR

GOVERNOR@GOV.STATE.AK.US



STATE OF ALASKA  
OFFICE OF THE GOVERNOR  
JUNEAU

P.O. Box 110001  
JUNEAU, ALASKA 99811-0001  
(907) 465-3500  
FAX (907) 465-3532  
WWW.GOV.STATE.AK.US

3/3/08

January 15, 2008

The Honorable John Harris  
Speaker of the House  
Alaska State Legislature  
State Capitol, Room 208  
Juneau, AK 99801-1182

Dear Speaker Harris:

Under the authority of art. III, sec. 18, of the Alaska Constitution, I am transmitting a bill authorizing the Governor to delegate to the adjutant general the authority to order the organized militia into active state service and authorizing payment of Alaska National Guard called into active state service to fight wildfires at rates of pay established for certain emergency fire-fighting personnel.

Section 1 of the bill would amend AS 26.05.070, which authorizes the Governor to order the organized militia into active state service in certain circumstances, to authorize the Governor to delegate to the adjutant general the authority to order the organized militia into active state service if these circumstances exist. The organized militia includes the Alaska National Guard, the Alaska Naval Militia, and the Alaska State Defense Force. The circumstances under which the organized militia may be called into active state service include the occurrence or imminent danger of occurrence of a disaster or other catastrophe. Authorizing the Governor to delegate to the adjutant general the authority to order the organized militia into active state service is appropriate to allow a rapid response to such events, particularly if the Governor is not immediately available.

Section 2 of the bill would amend AS 26.05.260(b), which establishes the pay for members of the Alaska National Guard and the Alaska Naval Militia called into active state service under AS 26.05.070, to authorize the payment of Alaska National Guard personnel called to active state service to fight wildfires at rates of pay established for emergency fire-fighting personnel under AS 41.15.030 if the adjutant general and the commissioner of natural resources so agree. Existing AS 41.15.030 provides that the commissioner of natural resources may hire emergency fire-fighting personnel and shall establish classifications and rates of pay for the emergency fire-fighting personnel

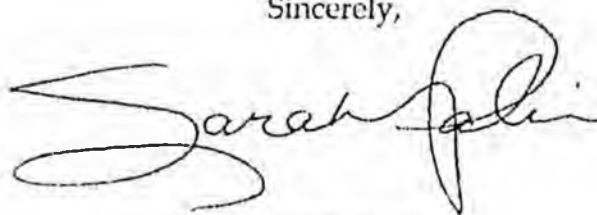
3/3/08

The Honorable John Harris  
January 15, 2008  
Page 2

consistent with the compensation paid by other fire-fighting agencies. The amendment to AS 26.05.260(b) will allow pay parity between national guard and civilian personnel of specified classifications fighting wildfires by agreement between the commissioner of natural resources and the adjutant general. Section 2 would also amend AS 26.05.260(b) to remove an outdated provision relating to payment of Alaska National Guard and Alaska Naval Militia members for active service performed during the fiscal year ending June 30, 2000.

I urge your prompt and favorable action on this measure.

Sincerely,

A handwritten signature in cursive script that reads "Sarah Palin". The signature is written in dark ink and is positioned above the printed name and title.

Sarah Palin  
Governor

Enclosure

# STATE OF ALASKA

Department of Military and Veterans Affairs

OFFICE OF THE COMMISSIONER

3/23/00  
SARAH PALIN, GOVERNOR

P.O. BOX 5800  
FORT RICHARDSON, AK 99505  
PHONE: (907) 428-6003  
FAX: (907) 428-6017

## Sectional Analysis for HB 326-Emergency Firefighter Pay for Alaska National Guard Members

- Section 1, the Governor may delegate authority to the Adjutant General of the Alaska National Guard to activate troops to fight wild fires when asked for by the Commissioner of the Department of Natural Resources.
- Section 2 changes the statute to allow National Guard members, when fighting wild fires, to be paid the same as all other emergency firefighters instead of State Active Duty rates.
- Section 3 provides an immediate effective date.

# STATE OF ALASKA

Department of Military and Veterans Affairs

OFFICE OF THE COMMISSIONER

3/3/08

SARAH PALIN, GOVERNOR

P.O. BOX 5800

FORT RICHARDSON, AK 99505

PHONE: (907) 428-6003

FAX: (907) 428-6017

## Changes Made to HB 326 in House MVA

- All sections are changed to reflect that the Governor may only delegate activation of the Alaska National Guard to the Commissioner of DMVA/ Adjutant General of the Alaska National Guard for wildfire suppression efforts.

# FISCAL NOTE

Replaced 3/4/08

STATE OF ALASKA  
2008 LEGISLATIVE SESSION

Fiscal Note Number: 3  
Bill Version: HB 326  
(H) Publish Date: 1/17/08

Identifier (file name): LL#08-0016-DNR-Fire-01-08-08 Dept. Affected: Natural Resources  
Title: Authorizing the governor to delegate the adjunct general RDU: Statewide Fire Suppression  
the authority to order the organized militia into active state service... Component: Fire Suppression Activity  
Sponsor: Rules Committee  
Requester: Governor Component Number: 2706

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

Note: Amounts do not include inflation unless otherwise noted below.

	Appropriation Required	Information						
		FY 2009	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
<b>OPERATING EXPENDITURES</b>								
Personal Services								
Travel								
Contractual								
Supplies								
Equipment								
Land & Structures								
Grants & Claims								
Miscellaneous								
<b>TOTAL OPERATING</b>		*** INDETERMINATE ***						

<b>CAPITAL EXPENDITURES</b>								
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<b>CHANGE IN REVENUES ( )</b>								
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**FUND SOURCE** (Thousands of Dollars)

1002 Federal Receipts								
1003 GF Match								
1004 GF								
1005 GF/Program Receipts								
1037 GF/Mental Health								
Other Interagency Receipts								
<b>TOTAL</b>		*** INDETERMINATE ***						

Estimate of any current year (FY2008) cost: Indeterminate

**POSITIONS**

Full-time								
Part-time								
Temporary								

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

The cost is indeterminate. Since 2000, the Army National Guard (ANG) has been utilized four times: once in 2002, twice in 2004, and once in 2007. The only impact may be to the Fire Suppression Activity Component when ANG Units are involved in the actual suppression of wildland fires. The use of ANG resources on wildland fires has been and will continue to be highly variable as it is based on factors that cannot be easily predicted such as: severity of the fire season, availability of other resources, and the unavailability of ANG units due to deployment elsewhere in the world. Identification of costs is dependent on unpredictable factors including availability of civilian resources, Guard module configurations to meet specific wildland fire situations, and industry availability of private sector equipment contracts such as helicopters.

Prepared by: Lynn Wilcock  
Division: Forestry  
Approved by: Tom Irwin, Commissioner  
Natural Resources

Phone: (907) 451-2675  
Date/Time: 1/8/2008  
Date: 1/8/2008

Replaud 3/4/08

# FISCAL NOTE

STATE OF ALASKA  
2008 LEGISLATIVE SESSION

Fiscal Note Number: 2  
Bill Version: HB 326  
(H) Publish Date: 1/17/08

Identifier (file name): 0016-DMVA-ARNG-1-11-08 Dept. Affected: DMVA  
Title TAG authorization to order militia into active state service and RDU Military and Veterans Affairs  
authorization of payment for fighting wildfires Component National Guard Military Headquarters  
Sponsor Rules Committee  
Requester Governor Component Number 2135

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

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	Appropriation Required	Information					
	FY 2009	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Personal Services	.	.	.	.	.	.	.
Travel	.	.	.	.	.	.	.
Contractual	.	.	.	.	.	.	.
Supplies	.	.	.	.	.	.	.
Equipment	.	.	.	.	.	.	.
Land & Structures	.	.	.	.	.	.	.
Grants & Claims	.	.	.	.	.	.	.
Miscellaneous	.	.	.	.	.	.	.
<b>TOTAL OPERATING</b>	.	.	.	.	.	.	.

<b>CAPITAL EXPENDITURES</b>	.	.	.	.	.	.	.
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<b>CHANGE IN REVENUES ( )</b>	.	.	.	.	.	.	.
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**FUND SOURCE** (Thousands of Dollars)

1002 Federal Receipts	.	.	.	.	.	.	.
1003 GF Match	.	.	.	.	.	.	.
1004 GF	.	.	.	.	.	.	.
1005 GF/Program Receipts	.	.	.	.	.	.	.
1037 GF/Mental Health	.	.	.	.	.	.	.
Other Interagency Receipts	.	.	.	.	.	.	.
<b>TOTAL</b>	.	.	.	.	.	.	.

Estimate of any current year (FY2008) cost: \_\_\_\_\_

**POSITIONS**

Full-time	.	.	.	.	.	.	.
Part-time	.	.	.	.	.	.	.
Temporary	.	.	.	.	.	.	.

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

Funds to pay for firefighter services are RSA'd from the Fire Suppression Fund of the Department of Natural Resources

Due to fluctuating demands for firefighters and unknown number of events per year, we are submitting an indeterminate fiscal note. It is not known at this time what the impact of this legislation will be to the Department of Military and Veterans Affairs budget.

Prepared by: McHugh Pierre, Communications Director/Legislative Liaison  
Division: National Guard Military Headquarters/Commissioner's Office  
Approved by: Commissioner Craig Campbell

Phone 907 465-4621  
Date/Time 1/11/08 1:30 PM  
Date 1/11/2008

**HB**

**326**

**SFIN**

**FILE**

# SENATE FINANCE COMMITTEE REPORT

DATE: 3/21/08

FURTHER:

DATE TURNED  
IN TO OFFICE: \_\_\_\_\_

Finance Committee considered CS FOR HOUSE BILL NO. 326(FIN)

## HB 326 MILITIA & NAT'L GUARD FIGHT WILDLAND FIRE

"An Act authorizing the governor to order the organized militia into active state service to fight wildland fire, authorizing the governor to delegate to the adjutant general the authority to order the organized militia into active state service to fight wildland fire, and authorizing the payment of Alaska National Guard called into active state service to fight wildland fire at rates of pay established for certain emergency fire-fighting personnel; and providing for an effective date."

and recommends:

- be replaced with  SCS or  CS \_\_\_\_\_ (\_\_\_\_\_)
- adopt previous  SCS or  CS \_\_\_\_\_ (\_\_\_\_\_)
- attached amendment(s)
- adopt \_\_\_\_\_ Letter of Intent
- further referral to \_\_\_\_\_ Committee

**SENATE BILL:**  
 Same Title  
 New Title

---

**HOUSE BILL:**  
 Same Title  
 Technical Title Change  
 New Title w/ SCR # \_\_\_\_\_

**NEW FISCAL NOTE(S):**

Department	Date	Fiscal	Indet.	Zero	FN#

**PREVIOUS FISCAL NOTE(S):**

Department	Date	Fiscal	Indet.	Zero	FN#
ADM	12/26/07			✓	1
MVA	3/4/08			✓	4
DNR	3/4/08		✓		5

APPROPRIATION - no fiscal note

SIGNATURES AND RECOMMENDATIONS:	PRINTED LAST NAME	DO PASS	DO NOT PASS	NO REC	AMEND
	ELTON			✓	
	THOMAS	✓			
	DYSON	✓			
	HUGGINS	✓			
	OLSON			✓	
CO-CHAIR:	HOFFMAN	✓			
CO-CHAIR:	STEPANOV	✓			

# FISCAL NOTE

STATE OF ALASKA  
2008 LEGISLATIVE SESSION

Fiscal Note Number: 1  
Bill Version: HB 326  
(H) Publish Date: 1/17/08

Identifier (file name): 0016-DOA-DOP-12-17-07 Dept. Affected: Administration  
Title: "An Act authorizing the governor to delegate to the adjutant RDU Central Administrative Services the authority to order organized militia into active state svc..." Component: Personnel  
Sponsor: Rules Committee Component Number: 56  
Requester: Governor

(Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	Appropriation Required	Information					
	FY 2009	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Personal Services	0.0	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	0.0
Contractual	0.0	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	0.0
Equipment	0.0	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	0.0
Grants & Claims	0.0	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	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>0.0</b>

<b>CAPITAL EXPENDITURES</b>							
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<b>CHANGE IN REVENUES ( )</b>							
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FUND SOURCE	(Thousands of Dollars)						
1002 Federal Receipts	0.0	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	0.0
1004 GF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1005 GF/Program Receipts	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1037 GF/Mental Health	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Interagency Receipts	0.0	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>	<b>0.0</b>

Estimate of any current year (FY2008) cost: 0.0

**POSITIONS**

Full-time							
Part-time							
Temporary							

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

This bill will have no fiscal impact on the Division of Personnel

Prepared by: Nicki Neal, Director  
Division: Division of Personnel  
Approved by: Kevin Brooks, Deputy Commissioner  
Department of Administration

Phone: 907-465-4429  
Date/Time: 12/17/07 1:40 p.m.  
Date: 12/26/2007

# FISCAL NOTE

STATE OF ALASKA  
2008 LEGISLATIVE SESSION

Fiscal Note Number: 4  
Bill Version: CSHB 320(FIN)  
(H) Publish Date: 3/5/08

Identifier (file name): HB326CS(FIN)-DMVA-ARNG-3-4-08 Dept. Affected: DMVA  
Title: TAG authorization to order militia into active state service and authorization of payment for fighting wildfires RDU: Military and Veterans Affairs  
Component: National Guard Military Headquarters  
Sponsor: Rules Committee  
Requester: Governor Component Number: 2135

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

Note: Amounts do not include inflation unless otherwise noted below.

	Appropriation Required	Information						
		FY 2009	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
<b>OPERATING EXPENDITURES</b>								
Personal Services	0.0	0.0	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	0.0	0.0
Contractual	0.0	0.0	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	0.0	0.0
Equipment	0.0	0.0	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	0.0	0.0
Grants & Claims	0.0	0.0	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	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>0.0</b>	<b>0.0</b>

<b>CAPITAL EXPENDITURES</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>0.0</b>	<b>0.0</b>
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<b>CHANGE IN REVENUES ( )</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>0.0</b>	<b>0.0</b>
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**FUND SOURCE** (Thousands of Dollars)

1002 Federal Receipts	0.0	0.0	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	0.0	0.0
1004 GF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1005 GF/Program Receipts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1037 GF/Mental Health	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Interagency Receipts	0.0	0.0	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>	<b>0.0</b>	<b>0.0</b>

Estimate of any current year (FY2008) cost: 0.0

**POSITIONS**

Full-time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Part-time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Funds to pay for firefighter services are RSA'd from the Fire Suppression Fund of the Department of Natural Resources.

In the past six years of wildland fire suppression efforts, the Department of Military and Veterans Affairs has not paid for personnel costs associated with these efforts.

Prepared by: McHugh Pierre, Communications Director/Legislative Liaison  
Division: National Guard Military Headquarters/Commissioner's Office  
Approved by: Commissioner Craig Campbell

Phone 907-465-4402  
Date/Time 3/4/08 8:00 AM  
Date 3/4/2008

# FISCAL NOTE

STATE OF ALASKA  
2008 LEGISLATIVE SESSION

Fiscal Note Number: 5  
Bill Version: CSHB 326(FIN)  
(H) Publish Date: 3/5/08

Identifier (file name): HB326CS(FIN)-DNR-Fire-03-04-08 Dept. Affected: Natural Resources  
Title Authorizing the governor to delegate the adjunct general RDU Statewide Fire Suppression  
the authority to order the organized militia into active state service... Component Fire Suppression Activity  
Sponsor Rules Committee  
Requester H FIN Component Number 2706

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

Note: Amounts do not include inflation unless otherwise noted below.

	Appropriation Required	Information						
		FY 2009	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
<b>OPERATING EXPENDITURES</b>								
Personal Services								
Travel								
Contractual								
Supplies								
Equipment								
Land & Structures								
Grants & Claims								
Miscellaneous								
<b>TOTAL OPERATING</b>		*** INDETERMINATE ***						

<b>CAPITAL EXPENDITURES</b>								
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<b>CHANGE IN REVENUES ( )</b>								
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**FUND SOURCE** (Thousands of Dollars)

1002 Federal Receipts								
1003 GF Match								
1004 GF								
1005 GF/Program Receipts								
1037 GF/Mental Health								
Other Interagency Receipts								
<b>TOTAL</b>		*** INDETERMINATE ***						

Estimate of any current year (FY2008) cost: Indeterminate

**POSITIONS**

Full-time								
Part-time								
Temporary								

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

The cost is indeterminate. See analysis.

Prepared by: Lynn Wilcock  
Division: Forestry  
Approved by: Tom Irwin, Commissioner  
Natural Resources

Phone (907) 451-2675  
Date/Time 3/4/2008  
Date 3/4/2008

FISCAL NOTE #5

STATE OF ALASKA  
2008 LEGISLATIVE SESSION

BILL NO. CSHB 326(FIN)

ANALYSIS CONTINUATION

Since 2000, the Guard has been utilized four times, once in 2002 twice in 2004 and once in 2007. Actual availability of the Guard has been impacted by their mobilizations to other parts of the world, making them totally unavailable during some fire seasons.

Identification of costs associated with future usage is dependent upon factors we cannot predict – such as the severity of the fire season, availability of National Guard Units, the configuration (number and types of positions or resources required for the situation). The Division of Forestry can only utilize the National Guard units after we have used all available civilian assets (also a variable that is impacted by other industry use and the season). In recent years there has been a lack of civilian helicopters in the state. A number of factors in the aviation and oil and gas industries have led to a steady decline in the number of civilian helicopters available for use on wildland fires.

Summary of use since 2000:

- In 2002, AKNG flew for 39.0 helicopter hours and DOF paid \$177,000 for a total of 5 days. During this fire season the Guard was not called in to active state service.
- In 2004, AKNG flew 258.1 helicopter hours and DOF paid \$1,010,895.92 (includes flight hours, personnel, meals, lodging, etc.), during 2 different mobilizations totaling 50 days. The Guard was called in to active state service this fire season.
- In 2007, AKNG flew 30.4 helicopter hours and DOF paid \$147,351.80 for a total of 4 days (includes flight hours, personnel, and a fuel truck, ...no meals and lodging as the crews flew back and forth from the Willow to Fort Rich every night). During this fire season the Guard was not called in to active state service.

In 2002 and 2007 this proposed legislation would not have increased the amount paid - as the National Guard units were not put on Active Duty and thus continued to receive their normal guard pay plus overtime.

Summary of increase in costs (2004 example):

The cost of a Blackhawk flight crew in 2004 under State Active Duty pay was \$691/day. Under the EFF-pay rate scenario, the cost of this crew would have been \$869/day, resulting in an increase of 20.48%.

In 2004, the cost of Alaska Army National Guard personnel was \$245.1. Under the EFF-pay scenario, this cost would have increased by \$50.2 to a total of \$295.3.

<u>GRADE</u>	<u>SAD Daily</u> <u>Rate</u>	<u>SAD</u> <u>Weekly</u> <u>Rate</u>
O6/COL	\$357.50	\$2,502.50
O5/LTC	\$298.00	\$2,086.00
O4/MAJ	\$257.12	\$1,799.84
O3/CPT	\$226.06	\$1,582.42
O2/1LT	\$195.30	\$1,367.10
O1/2LT	\$169.56	\$1,186.92
O3E/CPT	\$301.58	\$2,111.06
O2E/1LT	\$264.88	\$1,854.16
O1E/2LT	\$213.32	\$1,493.24
CW5	\$415.40	\$2,907.80
CW4	\$233.60	\$1,635.20
CW3	\$213.34	\$1,493.38
CW2	\$188.78	\$1,321.46
CW1	\$165.70	\$1,159.90
E9/SGM	\$282.26	\$1,975.82
E8/MSG	\$231.04	\$1,617.28
E7/SFC	\$160.62	\$1,124.34
E6/SSG	\$138.92	\$972.44
E5/SGT	\$127.30	\$891.10
E4/SPC	\$121.92*	\$853.44
E3/PFC	\$121.92*	\$853.44
E2/PVT	\$121.92*	\$853.44
E1/PV1	\$121.92*	\$853.44

EFF Title	Hourly	Overtime rate (1.5x)	Daily (12 Hours)	Weekly (7x12)
EFF-12 (Pilot)	\$35.23	\$52.85	\$422.76	\$3,734.38
EFF 9 (Loadm)	\$24.30	\$36.45	\$291.60	\$2,575.80
EFF-8 (Rear d)	\$21.99	\$32.99	\$263.88	\$2,330.94
EFF -11 (Ager)	\$29.39	\$44.09	\$352.68	\$3,115.34

SARAH PALIN  
GOVERNOR  
GOVERNOR@GOV.STATE.AK.US



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STATE OF ALASKA  
OFFICE OF THE GOVERNOR  
JUNEAU

January 15, 2008

The Honorable John Harris  
Speaker of the House  
Alaska State Legislature  
State Capitol, Room 208  
Juneau, AK 99801-1182

Dear Speaker Harris:

Under the authority of art. III, sec. 18, of the Alaska Constitution, I am transmitting a bill authorizing the Governor to delegate to the adjutant general the authority to order the organized militia into active state service and authorizing payment of Alaska National Guard called into active state service to fight wildfires at rates of pay established for certain emergency fire-fighting personnel.

Section 1 of the bill would amend AS 26.05.070, which authorizes the Governor to order the organized militia into active state service in certain circumstances, to authorize the Governor to delegate to the adjutant general the authority to order the organized militia into active state service if these circumstances exist. The organized militia includes the Alaska National Guard, the Alaska Naval Militia, and the Alaska State Defense Force. The circumstances under which the organized militia may be called into active state service include the occurrence or imminent danger of occurrence of a disaster or other catastrophe. Authorizing the Governor to delegate to the adjutant general the authority to order the organized militia into active state service is appropriate to allow a rapid response to such events, particularly if the Governor is not immediately available.

Section 2 of the bill would amend AS 26.05.260(b), which establishes the pay for members of the Alaska National Guard and the Alaska Naval Militia called into active state service under AS 26.05.070, to authorize the payment of Alaska National Guard personnel called to active state service to fight wildfires at rates of pay established for emergency fire-fighting personnel under AS 41.15.030 if the adjutant general and the commissioner of natural resources so agree. Existing AS 41.15.030 provides that the commissioner of natural resources may hire emergency fire-fighting personnel and shall establish classifications and rates of pay for the emergency fire-fighting personnel

The Honorable John Harris

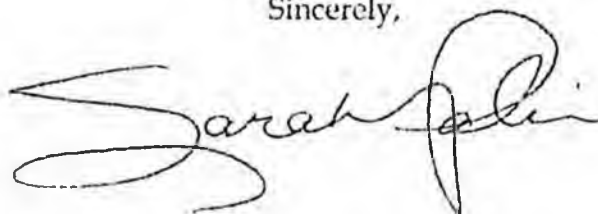
January 15, 2008

Page 2

consistent with the compensation paid by other fire-fighting agencies. The amendment to AS 26.05.260(b) will allow pay parity between national guard and civilian personnel of specified classifications fighting wildfires by agreement between the commissioner of natural resources and the adjutant general. Section 2 would also amend AS 26.05.260(b) to remove an outdated provision relating to payment of Alaska National Guard and Alaska Naval Militia members for active service performed during the fiscal year ending June 30, 2000.

I urge your prompt and favorable action on this measure.

Sincerely,

A handwritten signature in black ink that reads "Sarah Palin". The signature is written in a cursive style with a large, looping initial "S" and a distinct "P" for "Palin".

Sarah Palin  
Governor

Enclosure

# STATE OF ALASKA

Department of Military and Veterans Affairs

OFFICE OF THE COMMISSIONER

SARAH PALIN, GOVERNOR

P.O. BOX 5800

FORT RICHARDSON, AK 99505

PHONE: (907) 428-6003

FAX: (907) 428-6017

## Sectional Analysis for HB 326-Emergency Firefighter Pay for Alaska National Guard Members

- Section 1, the Governor may delegate authority to the Adjutant General of the Alaska National Guard to activate troops to fight wild fires when asked for by the Commissioner of the Department of Natural Resources.
- Section 2 changes the statute to allow National Guard members, when fighting wild fires, to be paid the same as all other emergency firefighters instead of State Active Duty rates.
- Section 3 provides an immediate effective date.

# STATE OF ALASKA

Department of Military and Veterans Affairs

OFFICE OF THE COMMISSIONER

SARAH PALIN, GOVERNOR

P.O. BOX 5800

FORT RICHARDSON, AK 99505

PHONE: (907) 428-6003

FAX: (907) 428-6017

## Changes Made to HB 326 in House MVA

- All sections are changed to reflect that the Governor may only delegate activation of the Alaska National Guard to the Commissioner of DMVA/ Adjutant General of the Alaska National Guard for wildfire suppression efforts.

DNR Comments on 773-08-0016

Authorizing payment of Alaska National Guard called into service to fight wildfires at RFF Rates of Pay

Division of Forestry use of the DMVA National Guard resources has occurred infrequently and only under extreme fire occurrence. When we have used the National Guard they have been of immense value. Since 2000, the Guard has been utilized four times, once in 2002 twice in 2004 and once in 2007. However, the actual availability of the Guard has been impacted by mobilizations to other parts of the world, making them totally unavailable during some fire seasons.

Identification of the costs associated with their future usage is totally dependent upon factors we cannot predict – such as the severity of the fire season, availability of National Guard Units, and the configuration (number and types of positions or resources required for the situation), as well as the fact the Division of Forestry can only use them after we have used all available civilian assets (also a variable that is impacted by other industry use and the season). The primary reason that we have used the Guard in recent years has been the lack of civilian helicopters in the state. A number of factors in the aviation and oil and gas industries have led to a steady decline in the number of civilian helicopters available for use on wildland fires. Both the legislature and previous administrations have supported use of private sector contracts for Forestry aviation.

Summary of use since 2000:

- In 2002, AKNG flew for 39.0 helicopter hours and DOF paid \$177,000 for a total of 5 days.
- In 2004, AKNG flew 258.1 helicopter hours and DOF paid \$649,379.60 (includes flight hours, personnel, meals, lodging, etc.), during 2 different mobilizations totaling 50 days.
- In 2007, AKNG flew 30.4 helicopter hours and DOF paid \$147,351.80 for a total of 4 days (includes flight hours, personnel, and a fuel truck, ...no meals and lodging as the crews flew back and forth from the Willow to Fort Rich every night)

It is worthy to note that in two of those three years this proposed legislation would not have increased the amount paid. In 2002 and 2007 the National Guard units were not put on Active Duty and thus continued to receive their normal guard pay plus overtime. In 2004 when they were placed on Active Duty and received combat pay, which in most cases is less than they would receive as regular employees.

The 2007 EFP rates are attached. Under the new legislation, Pilots would be paid at the EFP Pilot rate (EFP-12, \$35.23/hr.). Aircraft mechanics and other support personnel would be paid at rates equivalent to those positions on EFP rate schedule. Rates have not been established for 2008, but typically go up about 3% year.

2007

2007 LIST OF APPROVED EFF CLASSIFICATIONS

Title	Mnemonic	Rate	Title	Mnemonic	Rate
Agency Representative*	AREP	EFF-11	Incident Commander Type 3*	ICT3	EFF-10
Aircraft Base Radio Operator*	ABRO	EFF-3	Incident Communication Center Mgr*	INCM	EFF-5
Air Support Group Supervisor	ASGS	EFF-10	Incident Communication Technician	INCT	EFF-6
Air Tactical Group Supervisor	ATGS	EFF-10	Initial Attack Dispatcher*	IADP	EFF-8
Airtanker Base Manager*	ATBM	EFF-10	Interagency Resource Rep*	IARR	EFF-9
Barracks Worker		EFF-3	Laborer***	THSP	EFF-3
Barracks Worker- Lead		EFF-4	Line Officer	LINE	EFF-11
Base Camp Manager*	BCMG	EFF-5	Loadmaster***	LOAD	EFF-9
Buying Team Member	BUYM	EFF-6	Maintenance Mechanic***		EFF-6
Camp Crew Member***	THSP	EFF-1	Maintenance Worker**		EFF-2
Camp Crew Squad Boss***	THSP	EFF-3	*Master*	MXMS	EFF-7
Camp Crew Boss***	THSP	EFF-4	Materials Handler*	WHHR	EFF-5
Carpenter**		EFF-9	Materials Handler Leader*	WHLR	EFF-6
Clerk**	CASC	EFF-3	Mechanic (Automotive/Heavy Equip)	GMEC	EFF-7
Commissary Manager*	CMSY	EFF-5	Medical Unit Leader*	MEDL	EFF-8
Cook, Head Camp***	COOK	EFF-6	Operations Branch Director*	OPBD	EFF-11
Cook Helper**	CAMP	EFF-2	Ordering Manager*	ORDM	EFF-5
Crew Administrative Representative*	CAR	EFF-8	Paramedic*	EMTP	EFF-10
Crew Boss*	CRWB	EFF-6	Personnel Time Recorder*	PTRC	EFF-5
Crew Representative*	CREP	EFF-7	Pilot* or Pilot***	PILO	EFF-12
Damob Unit Leader*	DMOB	EFF-8	Prevention Education Team Leader*	PETL	EFF-11
Detection Specialist***	AOBS	EFF-0	Prevention Education Team Member*	PETM	EFF-10
Display Processor*	DPRO	EFF-3	Public Information Officer Type I*	PIO1	EFF-12
Division/Group Supervisor*	DVGS	EFF-10	Public Information Officer Type II*	PIO2	EFF-11
Documentation Unit Leader	DOCL	EFF-6	Public Information Officer	PIOF	EFF-7
Dozer Boss*	DOZB	EFF-5	Radio Operator*	RADO	EFF-2
Dozer Operator***	DOZ1	EFF-8	Ramp Manager*	RAMP	EFF-6
Driver, CDL Required	DRCL	EFF-5	Receiving & Dist. Manager*	RCDM	EFF-5
Driver, >1 Ton and <4 Tons (No CDL)	DRVS	EFF-4	Receptionist***		EFF-2
Driver, <1 Ton	DRVP	EFF-3	Resource Advisor	READ	EFF-9
EMT1***	EMTB	EFF-7	Resources Unit Leader*	RESL	EFF-8
EMT1**	EMT1	EFF-7	Standard Worker**		EFF-6
EMT1***	EMTP	EFF-10	Safety Officer Type 1*	SOF1	EFF-12
Engine Boss* or Engine Boss**	ENGB	EFF-6	Safety Officer Type 2*	SOF2	EFF-11
Engine Operator* or Engine Operator**	ENOP	EFF-5	Safety Officer, Line*	SOFL	EFF-4
Equipment Manager*	EQPM	EFF-5	Section Chiefs Type 1*	FSC1	EFF-12
Equipment Time Recorder*	EQTR	EFF-5	Section Chiefs Type 2*	FSC2	EFF-11
Expanded Dispatch Recorder*	EDRC	EFF-3	Situation Unit Leader*	SUUL	EFF-8
Expanded Dispatch Coordinator*	EDCC	EFF-10	Security Manager*	SEGM	EFF-5
Expanded Supervisory Dispatcher*	EDSP	EFF-8	Staging Area Manager*	STAM	EFF-6
Expanded Support Dispatcher*	EDSD	EFF-0	Status Check-In Recorder*	SCRN	EFF-5
Field Observer*	FOBS	EFF-0	Strike Team Leader-All Types*		EFF-8
Firefighter Type 1*	FFT1	EFF-4	Structure Protection Specialist*	S.P.S	EFF-10
Firefighter Type 2*	FFT2	EFF-3	Swamper***		EFF-2
Fire Behavior Analyst*	FBAN	EFF-10	Task Force Leader*	TFLD	EFF-7
Fire Investigator*	INVF	EFF-11	Time Unit Leader*	TIME	EFF-8
Fixed Wing Base Manager*	FWBM	EFF-9	Unit Leaders* (w/ exception of DOCL & PROC which are EFF 0 & 0 respectively)		EFF-8
Fixed Wing Parking Tender*	FWPT	EFF-3	Warehouse Worker***		EFF-4
Ford Service Worker***		EFF-1			
Fork Lift Operator***		EFF-2			
Fueler***		EFF-2			
Fuel Specialist***	FUEL	EFF-4	Crew Member* Type 2 Crew	FF12	EFF-5
GIS Specialist*	G:SS	EFF-7	Squad Boss*	FF11	EFF-4
Ground Support Unit Leader*	GSUL	EFF-8	Crew Boss*	CRWB	EFF-6
Helicopter Boss, Single Resource*	HELB	EFF-5			
Helicopter Manager*	HELM	EFF-7			
Helibase Manager Type 2*	HEB2	EFF-8			
Helibase Manager Type 1*	HEB1	EFF-9	Crew Member* - 2 seasons		EFF-3
Helicopter Crew Member*	HECM	EFF-4	Crew Member*		EFF-4
Incident Commander Type 5*	ICT5	EFF-5	Squad Boss*		EFF-4
Incident Commander Type 4*	ICT4	EFF-6	Asst. Crew Superintendent*		EFF-7
			Crew Superintendent*		EFF-8

Pilot  
→

←  
Pilot

\* Must meet ICS requirements and possess a valid Red Card. Trainees are hired at one pay rate below qualified rates.

\*\* Must be dispatched as part of a Structure Fire Department (SFD) unit of apparatus.

\*\*\* Alaska positions, local hire, not normally sent to the Lower 48 states.

EFF-1	\$10.85	EFF-6	\$17.68	EFF-11	\$29.39
EFF-2	\$11.94	EFF-7	\$19.65	EFF-12	\$35.73
EFF-3	\$13.58	EFF-8	\$21.93	EFF-13	\$41.59
EFF-4	\$14.92	EFF-9	\$24.34		
EFF-5	\$16.38	EFF-10	\$26.75		

To get the rate for a position not listed here, contact Karen Gordon at 451-2682 for the Northern Region and Christine Long at 261-6229 for the Coastal Region.

An AKNG Military Liaison Officer (MLO) will be dispatched when two or more aircraft are sent to the same incident. The MLO will be responsible for the coordination between AKNG and agencies on issues. The MLO answers to the OIC.

#### H. Aircrew Staffing

UH-60	Personnel
PC	1
PI	1
CE	1

#### I. PAY

Guidelines for Alaska Army National Guard personnel in immediate recall status:

The AK ANG will ensure that two UH-60 aircraft equipped with 900 gallon Bambi buckets; aircrews and ground support will be available in immediate recall status as requested by the Division of Forestry. This will include the following personnel:

- 2 Pilots in Command
- 2 Pilots
- 2 Crew Chiefs
- 2 Mechanics
- 1 Fueler
- 1 Operations Office
- 1 Avionics Electrician

2004 AKNG/DOF  
Annual Operating Plan

AK ANG Personnel requested to be in immediate recall status in order to respond to wildland fire incidents will be compensated as follows:

AK ANG personnel will be hired as emergency firefighters (EFF-5) and placed in pay status starting at 1000 hours on all days that they are requested to be on immediate recall status; they will be paid until 2000 hours.

The 2004 hourly operating rate for the AK ANG UH-60 is: \$2,516/hr.

The 2004 AK ANG hourly EFF 5 rate is \$23.00

The AK ANG personnel will be paid for a 10 hour day.

#### J. Time Schedule for Deployment

To complete all the necessary preparations to configure the aircraft and notify the flight crews, 24 hours notice will normally be required prior to deploying for wildland firefighting operations. Deployment prior to 24 hours will depend on pre-warning time. The AAML or MHEM will, in

**HB**

**330**

**HFIN**

**FILE**

**Louanne Christian**

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**From:** Jeanne Ostnes  
**Sent:** Monday, March 10, 2008 11:14 AM  
**To:** Suzanne Cunningham; Rep. Les Gara  
**Cc:** Louanne Christian  
**Subject:** FW: Fireweed and Lupine (draft)

---

**From:** Wright, Stoney J (DNR) [mailto:stoney.wright@alaska.gov]  
**Sent:** Monday, March 10, 2008 11:07 AM  
**To:** Jeanne Ostnes  
**Cc:** Havemeister, Franci A (DNR); Lesh, Melanie G (DNR)  
**Subject:** Fireweed and Lupine (draft)

Jeanne,

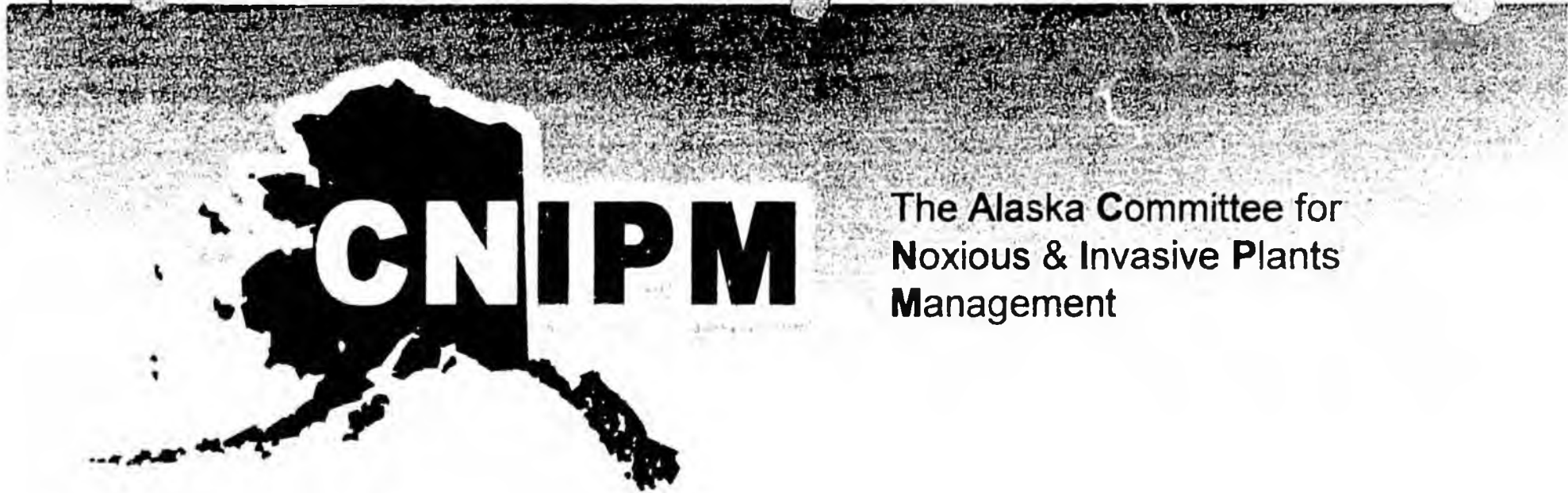
Both tall fireweed and lupine have been studied by the Plant Materials Center. While we have been successful in mechanically collecting tall fireweed from wild stands, we have not been successful in either planting production fields or using it in revegetation projects as a seeded component. There are some germination issues that need to be resolved before it is a viable species for revegetation. It is also an extremely small seed that most commercial growers are not yet ready to work with in a production field. We have had more success with dwarf fireweed with regard to establishment. But on the other hand it is more difficult to harvest. Only two growers (we are aware of) in the state have attempted to harvest wild stands. They have collected in the range of 2-4 pounds of clean seed. This has not been marketed to the broader seed market and has been sold by packets or use in specialty packets of wild flowers. Until these difficulties are overcome in production and cleaning neither tall or dwarf will be viable choices for seed production. The possibility of using fireweed in conjunction with seeded grasses hasn't even been examined to our knowledge. There will be some likely competition issues to get it established with the grasses needed to control erosion along roadways.

Lupine is more available, however most of the seed we see in Alaska comes from Iceland. It is of Alaskan origin but grown in Iceland. The Icelandic government has made a concerted effort to grow this species for restoration of overgrazed land and restoration of volcanic ash lands which covers vast tracts of land in Iceland. The species is falling out of favor in some quarters of Iceland, since it is considered as an invasive species. Now the excess seed is being marketed in Alaska. The species grows well on the pure volcanic soils in Iceland but is much more difficult to commercially produce in Alaska where the soils are not pure volcanic ash. To date we have been unsuccessful in getting either lupine or fireweed in commercial production in Alaska.

Both are tall species and could create sighting distance problems if used on highways. Intentionally planting these species on highway rights-of-way will create added maintenance costs associated with mowing to maintenance of sighting distances. This will be an unintended negative consequence of using either species on highway right of ways.

In closing both species are of interest to the PMC but all the production and use problems have not yet been resolved. Both will eventually enter the commercial seed industry in Alaska but we are not there yet.

Stoney Wright



The Alaska Committee for  
Noxious & Invasive Plants  
Management

**Jamie Nielsen**, UAF Cooperative Extension Service

Telephone: (907) 786-6315

Email: [ffjmn@uaf.edu](mailto:ffjmn@uaf.edu)

**Gino Graziano**, Alaska Association of Conservation Districts

Telephone: (907) 354-1227

Email: [ginoqraziano@alaskaswcds.org](mailto:ginoqraziano@alaskaswcds.org)

# Invasive Plants IMPACTS

- Agriculture
- Tourism
- Wildlife
- Fisheries
- Subsistence Resources
- Land Values
- "...economic or environmental harm or harm to human health." (Executive Order 13112)



Norman E. Rees, USDA Agricultural Research Service, Bugwood.org

## Spotted knapweed

- Costs the state of Montana 14 million per year in direct economic impacts. Now spread over nearly 6 million acres.

# Purple Loosestrife

- Control efforts cost US economy \$45 million per year
- Clogs wetlands, blocks fish passage

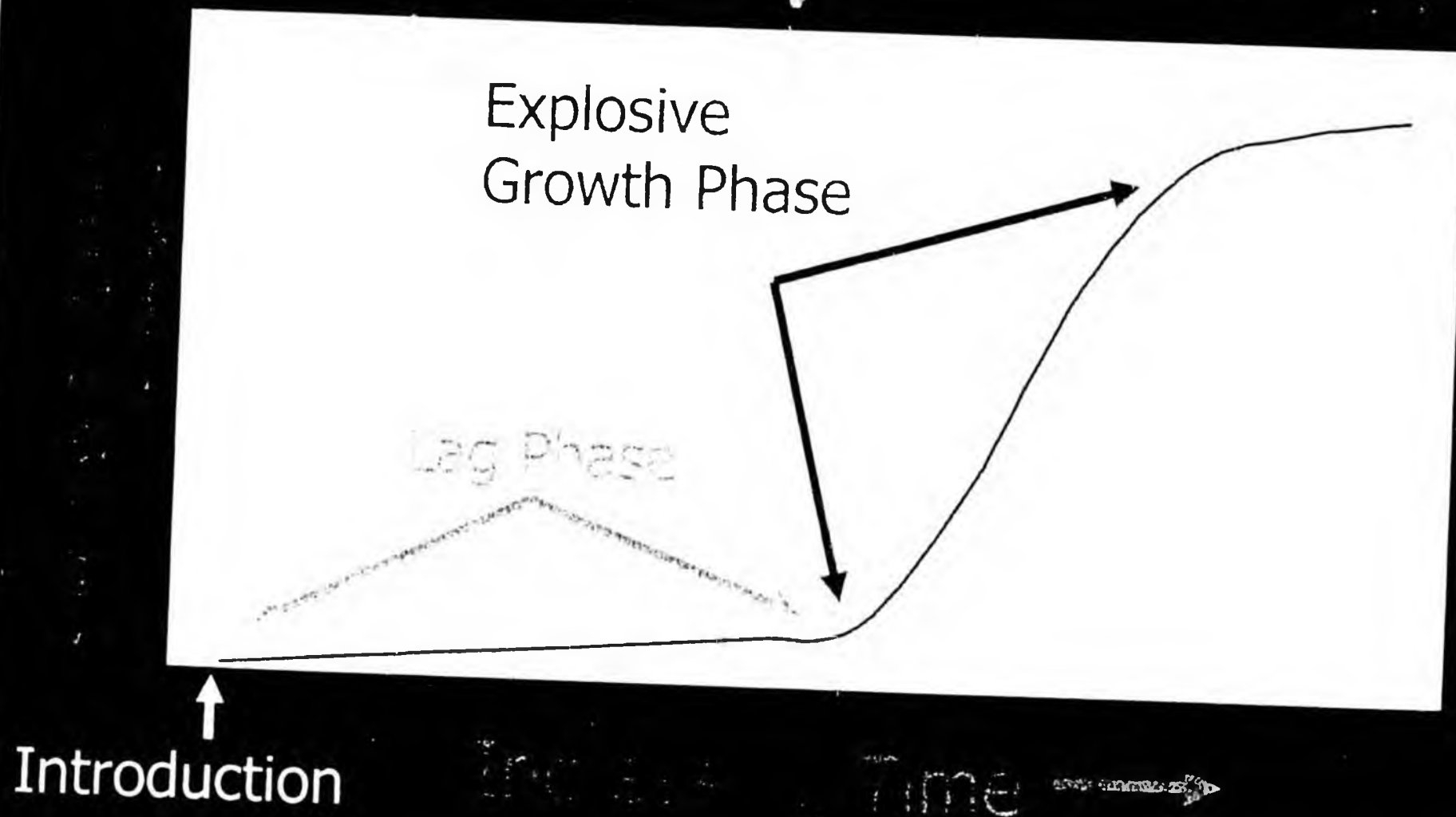


# Leafy Spurge

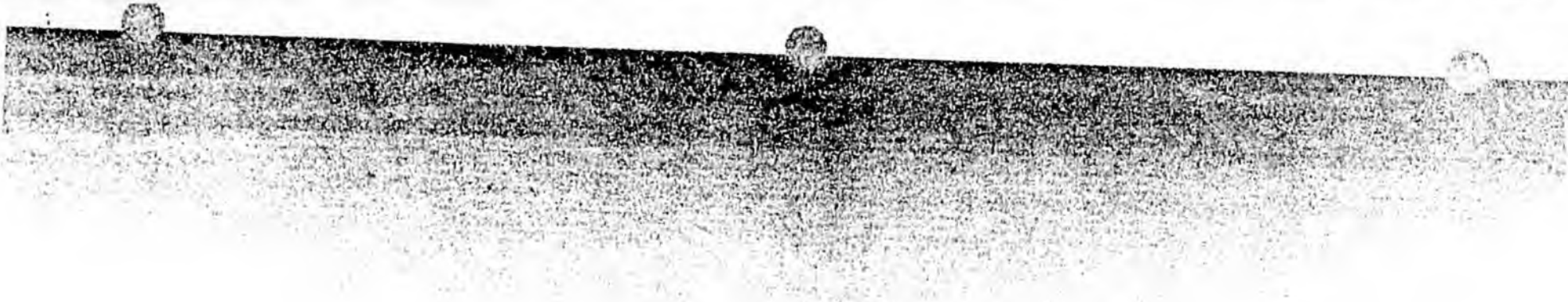
- Costs agricultural producers and tax payers in the Dakotas, Montana, and Wyoming \$144 million per year.
- Caustic latex (sap) causes blisters, blindness



# Weed Invasion Curve



Slide courtesy of Tim Miller, Washington State University



Laying the groundwork for  
successful invasive plants  
prevention and management:

WHAT, WHERE, WHY

# Laying the Groundwork- the "WHAT"

[http://akweeds.uaa.alaska.edu/akweeds\\_ranking\\_page.htm](http://akweeds.uaa.alaska.edu/akweeds_ranking_page.htm)

Alaska Weed Ranking Project | Microsoft Internet Explorer provided by USDA Forest Service

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address [http://akweeds.uaa.alaska.edu/akweeds\\_ranking\\_page.htm](http://akweeds.uaa.alaska.edu/akweeds_ranking_page.htm)

Go Links



**Weed Ranking Project**  
 Alaska Natural Heritage Program  
 major funding from  
 US Forest Service, State and Private Forestry  
 in cooperation with  
 National Park Service, Alaska Support Office  
 USDA, Agricultural Research Service  
 UAF, Cooperative Extension Service  
 US Geological Survey, Alaska Biological Science Center



Below are two tables. The first table lists non-native species present in Alaska the second table lists non-native species currently not recorded in Alaska

[Home](#)

They are also available below as MS Excel tables

[Non-native species present in Alaska \(Excel table\)](#)

[Non-native species not recorded in Alaska \(Excel table\)](#)

[Workshop & Training Presentations](#)

[Alaskan Non-native Species Literature and Websites](#)

[Collaborators](#)

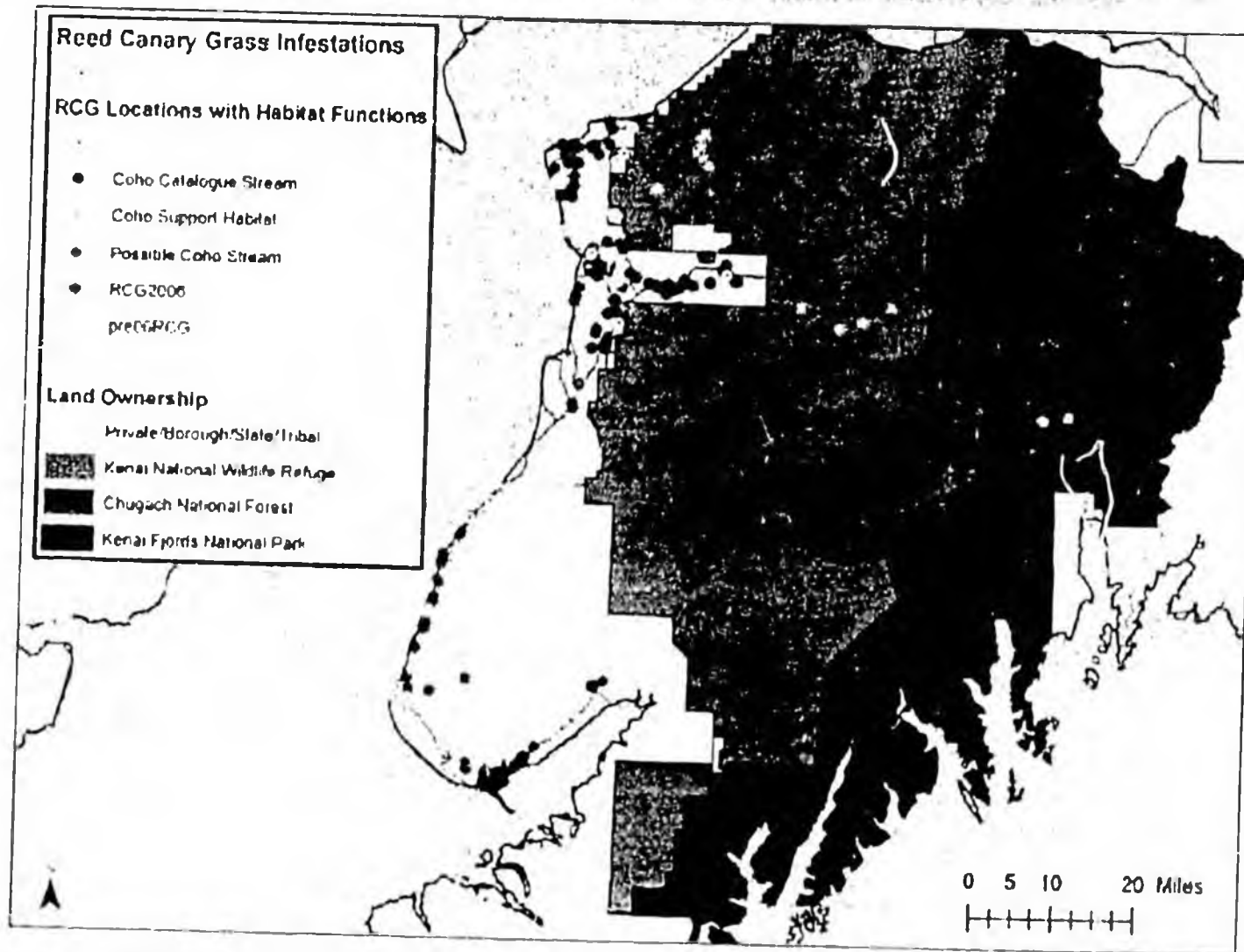


## Non-native species PRESENT in Alaska

Species Biography	Risk Assessment Report	Scientific Name	Common Name	Rank 0-100 (low-high)	Climate similarity of Alaska ecogeographic regions and areas where the species occurs		
					South Coastal	Interior Boreal	Arctic Alpine
<a href="#">ACTM1.htm</a>	<a href="#">ACTM1.rpt</a>	<i>Achillea millefolium</i> var. <i>millefolium</i> L.	common yarrow	48	Yes	Yes	Yes
<a href="#">ACTP1.htm</a>	<a href="#">ACTP1.rpt</a>	<i>Achillea ptarmica</i> L.	aneezewort	46	Yes	Yes	Yes
<a href="#">ALIF1.htm</a>	<a href="#">ALIF1.rpt</a>	<i>Alliaria petiolata</i> (Bieb.) Cavara & Grande	gale mustard	70	Yes	No	No
<a href="#">ANTC1.htm</a>	<a href="#">ANTC1.rpt</a>	<i>Anthemis cotula</i> L.	Mayweed chamomile, dog fennel	41	Yes	Yes	No
<a href="#">BRIN1.htm</a>	<a href="#">BRIN1.rpt</a>	<i>Bromus inermis</i> ssp. <i>inermis</i> Leyss	smooth brome	62	Yes	Yes	Yes
<a href="#">BRIT1.htm</a>	<a href="#">BRIT1.rpt</a>	<i>Bromus tectorum</i> L.	cheatgrass	78	Yes	Yes	Yes
<a href="#">CABZ1.htm</a>	<a href="#">CABZ1.rpt</a>	<i>Campanula rapunculoides</i> L.	Creeping bellflower	64	Yes	Yes	Yes
<a href="#">CAPS1.htm</a>	<a href="#">CAPS1.rpt</a>	<i>Capsella bursa-pastoris</i> (L.) Medik L.	shepherd's purse	40	Yes	Yes	Yes
<a href="#">CARA1.htm</a>	<a href="#">CARA1.rpt</a>	<i>Caragana arborescens</i> Lam	Siberian pea shrub	63	No	Yes	Yes
<a href="#">CENT1.htm</a>	<a href="#">CENT1.rpt</a>	<i>Centaurea biebersteinii</i> DC	spotted knapweed	88	Yes	Yes	No
<a href="#">CERU1.htm</a>	<a href="#">CERU1.rpt</a>	<i>Cerastium fontanum</i> ssp. <i>vulgare</i> (Hartman) Dreuter & Ilinden & <i>C. glomeratum</i> Thell	mouse-ear chickweed, big chickweed & sticky chickweed	39	Yes	Yes	Yes
<a href="#">CHAM1.htm</a>	<a href="#">CHAM1.rpt</a>	<i>Chenopodium album</i> L.	lambsquarters	35	Yes	Yes	Yes
<a href="#">CIRU1.htm</a>	<a href="#">CIRU1.rpt</a>	<i>Cirsium arvense</i> L. Scop	Canada thistle	76	Yes	Yes	Yes
<a href="#">CIRV1.htm</a>	<a href="#">CIRV1.rpt</a>	<i>Cirsium vulgare</i> (Sav) Ten	bull thistle, common thistle	61	Yes	Yes	Yes
<a href="#">COMU1.htm</a>	<a href="#">COMU1.rpt</a>	<i>Convolvulus arvensis</i> L.	field bindweed, morning glory	38	Yes	Yes	Yes
<a href="#">COTU1.htm</a>	<a href="#">COTU1.rpt</a>	<i>Cotula coronopifolia</i> L.	common brassbuttons	42	Yes	No	No
<a href="#">CREP1.htm</a>	<a href="#">CREP1.rpt</a>	<i>Crepis tectorum</i> L.	narrow leaf hawk's beard	43	Yes	Yes	Yes
<a href="#">CYNU1.htm</a>	<a href="#">CYNU1.rpt</a>	<i>Cynus scoticus</i> (L.) Link	English broom, Scotch broom	69	Yes	No	No

# Laying the Groundwork- The "WHERE"

## AKEPIC: The Alaska Exotic Plants Information Clearinghouse



<http://akweeds.uaa.alaska.edu/>

High-priority Wetland Infestations of Reed Canary Grass  
Recorded on Western Kenai Peninsula, 2006

Prepared by: Alaska Exotic Plant Information Clearinghouse  
2007  
Version 2.0



# Laying the Groundwork- the "WHY" Public Awareness



CNIPM Website: [www.cnipm.org](http://www.cnipm.org)

# CNIPM Recommendations

- I. Develop a Noxious and Invasive Plant Management Program within the Department of Natural Resources



# CNIPM Recommendations

II. Appoint a State Weed Coordinator for the program and provide administrative support



# CNIPM Recommendations

III. Create a **State Weed Board** with representatives from a broad range of stakeholders to:

- Provide recommendations to state agencies
- Develop a **Statewide Weed Management Plan**
- Seek outside funding for state weed prevention and management efforts

# Need for a Weed Board

- Coordination Imperative- weeds don't respect boundaries
- Groundwork has been laid, now we need an overarching system of support from the state
- Don't need to reinvent the wheel- other states provide lessons, templates, and examples
- Act now to safeguard AK resources and economy- never cheaper than TODAY



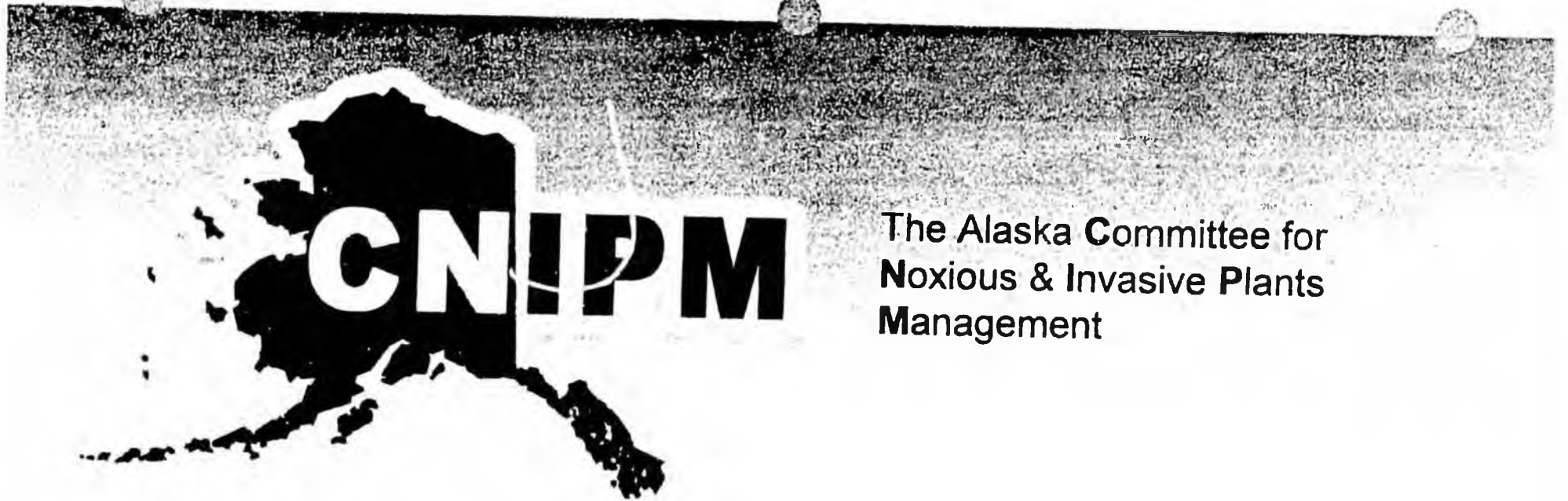
Citizens are  
working  
in their  
communities,  
but...





*"It takes a State to stop a weed"*

-Anchorage residents Troy and Lori Zaumseil



The Alaska Committee for  
Noxious & Invasive Plants  
Management

**Jamie Nielsen**, UAF Cooperative Extension Service

Telephone: (907) 786-6315

Email: [ffjmn@uaf.edu](mailto:ffjmn@uaf.edu)

**Gino Graziano**, Alaska Association of Conservation Districts

Telephone: (907) 354-1227

Email: [ginograziano@alaskaswcds.org](mailto:ginograziano@alaskaswcds.org)

### Changes from HB 330 to CS for HB 330

Original HB 330 formed Article 2 in AS 41.10. This would be in Chapter 10, Soil and Water Conservation of Title 41, Public Resources.

The original bill formed a board and identified the powers and the duties of the board. It delineated advisory groups of the board, agency cooperation and joint operations. The original HB 330 also formed a noxious weed and invasive plant management fund.

The CS for HB 330 reincarnates as a state coordinator employed or appoint by the Commissioner of Natural Resources. It is now in Title 3, Agriculture and Animals, Chapter 5, Powers and Duties of Commissioners of Natural Resources and Environmental Conservation. It forms a new section, 027.

This bill will allow the Commissioner of Natural Resources to employ or appoint a state coordinator for noxious weed, invasive plant, and agricultural pest management and education. This coordinator will work through the Division of Agriculture along with state departments, agencies and institutions. This person will bring together the afore mentioned entities in addition to the University of Alaska Cooperative Extension Service and the Alaska Association of Conservation Districts. Through this coordination the State of Alaska will develop a strategic plan. More importantly, a start toward limiting economic loss and adverse effects to the state's agricultural, natural, and human resources because of the presence and spread of noxious weeds, agricultural pests, invasive terrestrial and aquatic plants in the state.

# ALASKA STATE LEGISLATURE

## House Resources Committee

**Carl Gatto, Co-Chair**

State Capitol Building, Room 108

Juneau, AK 99801-1182

Phone (907) 465-3743

Fax (907) 465-2381

Rep\_Carl\_Gatto@legis.state.ak.us



**Craig Johnson, Co-Chair**

State Capitol Building, Room 126

Juneau, AK 99801-1182

Phone (907) 465-4993

Fax (907) 465-3872

Rep\_Craig\_Johnson@legis.state.ak.us

### Sponsor Statement

#### An Act relating to Noxious Weed, Invasive Plant and Agricultural Pest Management and Education CS for HB 330

In recent years, well established and expanding populations of highly invasive plants have been documented in Alaska. These species pose a serious threat to Alaska's agriculture, tourism, wildlife, fisheries, land values, and subsistence resources. Alaska is in a unique position to avoid the scope of problems now impacting all 48 contiguous states and Hawaii.

Many of the invasive plants in Alaska are not yet widespread and can be controlled relatively quickly and more cheaply by taking action now. Alaska needs an updated state noxious weed list, updated state regulations, and a designated state agency with the resources to adequately address this emerging issue. A need exists to build upon the strength of existing programs, to improve areas that are weaker, and integrate efforts into an efficient unified state response to the threat.

Private, local, state, and federal organizations and citizens' groups are working together to raise awareness about invasive plants and keep our communities invasive weeds-free. Representatives of public and private organizations with an interest in controlling and preventing the spread of noxious weeds and invasive plant continue to need a mechanism for cooperation, collaboration, and development of statewide plans of action to meet this threat.

This bill will allow the Commissioner of Natural Resources to employ or appoint a state coordinator for noxious weed, invasive plant, and agricultural pest management and education. This coordinator will work through the Division of Agriculture state departments, agency and institutions. This person will bring together the afore mentioned entities with the University of Alaska Cooperative Extension Service and the Alaska Association of Conservation Districts. Through this coordination the State of Alaska will develop a strategic plan. More importantly, a start toward limiting economic loss and adverse effects to the state's agricultural, natural, and human resources because of the presence and spread of noxious weeds, invasive terrestrial and aquatic plants in the state.

# LEGAL SERVICES

DIVISION OF LEGAL AND RESEARCH SERVICES  
LEGISLATIVE AFFAIRS AGENCY  
STATE OF ALASKA

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

State Capitol  
Juneau, Alaska 99801-1182  
Deliveries to: 129 6th St., Rm. 329

## MEMORANDUM

February 4, 2008

**SUBJECT:** Sectional Summary (HB 330) (Work Order No. 25-L.S1062\E)

**TO:** Representative Craig Johnson  
Attn: Jeanne Ostnes

**FROM:** Alpheus Bullard *AB*  
Legislative Counsel

You have requested a sectional summary of the above-described bill.

As a preliminary matter, note that a sectional summary of a bill should not be considered an authoritative interpretation of the bill and the bill itself is the best statement of its contents. If you would like an interpretation of the bill as it may apply to a particular set of circumstances, please advise.

Section 1. Adds a new article to AS 41.10 (Soil and water conservation) entitled: "Article 2. Noxious Weeds and Invasive Plants."

41.10.200. States that it is the purpose of the article to limit economic loss and adverse effects to the state resulting from noxious weeds and invasive plants.

41.10.210. Establishes a Noxious Weed and Invasive Plant Board.

41.10.220. Provides for board membership.

41.10.230. Establishes that board members are not entitled to compensation other than per diem and travel expenses.

41.10.240. Provides for board meetings.

41.10.250. Provides that the board will choose a presiding officer from its members.

41.10.260. Allows the board to employ staff and contract for services relating to matters within its authority.

41.10.270. Establishes the powers and duties of the board.

Representative Craig Johnson  
February 4, 2008  
Page 2

41.10.280. Provides that the board may establish advisory groups.

41.10.290. Provides that state efforts shall be in cooperation with federal noxious weed and invasive plant laws and initiatives.

41.10.300. Establishes that state departments, agencies, and institutions shall cooperate with the board.

41.10.310. Provides that the board may engage in joint operations related to noxious weeds and invasive plants with other persons, political subdivisions of the state, Native villages or regional corporations, the federal government, or Canada.

41.10.320. Creates a noxious weed and invasive plant management fund as an account within the general fund.

41.10.330. Directs the commissioner of natural resources, the commissioner of fish and game, the commissioner of environmental conservation, and the commissioner of transportation and public facilities to adopt regulations to implement the article.

41.10.399. Defines terms.

Section 2. Provides for the initial terms of board members.

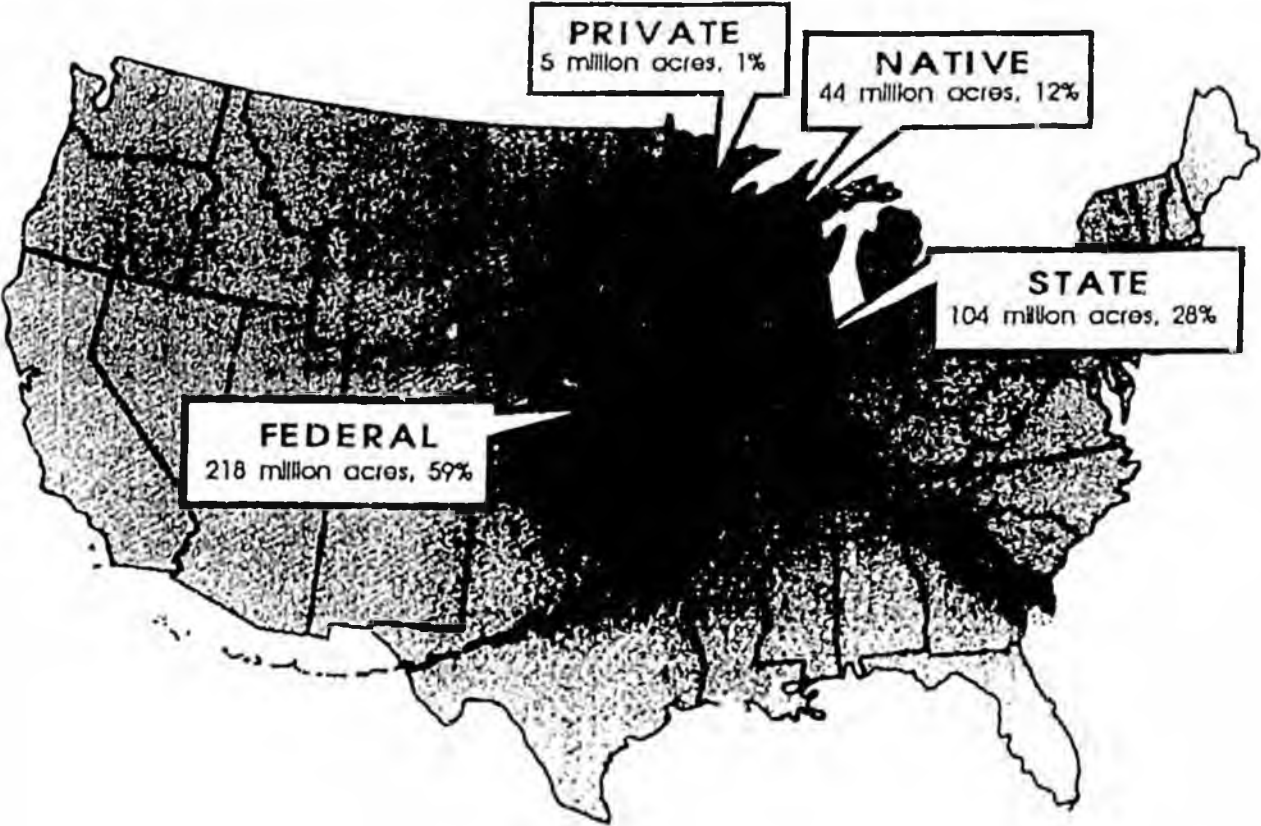
Section 3. Establishes a deadline for the board's first meeting.

Section 4. Instructs the Revisor to amend AS 41.10 to conform with the Act's creation of a new article.

If you have questions, please do not hesitate to contact me.

TLAB:med  
08-079.med

# WHO OWNS ALASKA?



# STATE OF ALASKA

**DEPT. OF TRANSPORTATION AND  
PUBLIC FACILITIES  
OFFICE OF THE COMMISSIONER**

**SARAH PALIN, GOVERNOR**

3132 Channell Drive  
Post Office Box 112500  
Juneau, Alaska 99811  
Phone: 907-465-8365  
Fax: 907-465-3900

February 13, 2008

The Honorable Ralph Samuels, Chairman  
Alaska Climate Impact Assessment Commission  
State Capitol, Room 204  
Juneau, AK 99801-1182

Dear Representative Samuels:

This is in response to your December 14, 2007 letter requesting department input regarding budgetary impacts and engineering and construction considerations from perceived climate changes involving flooding, erosion, and permafrost degradation.

The Department of Transportation and Public Facilities (DOT&PF) manages the State's transportation infrastructure in a very challenging environment with many of the State transportation facilities in the Alaska's interior, northern, and southwest region's underlain by ice-rich permafrost. The department has been battling the effects of warming/melting permafrost for decades. Our Maintenance and Operations Divisions spend an average of \$10 million annually to combat melting permafrost on our highway system. The \$10 million annual figure realistically represents only a fraction of the actual need and therefore this cost may need to increase, perhaps dramatically, if the recent warming trend continues. However, at this point, the department does not have or collect the data necessary to accurately account for permafrost mitigation costs for our entire transportation infrastructure or predict supplemental costs associated with the future impacts of climate change. Doing so would require changing the department's current practices and a significant investment in additional resources. Damages to the public infrastructure could be large, but there is little reliable information detailing the degree and location of impacts.

As part of our mission to manage the State's transportation infrastructure, we have assessed the potential future effects of climate warming trends. Provided below is a list of potential impacts to department's transportation infrastructure and our operations if the climate warming trend continues.

- A longer seasonal transition period from Fall to Winter and Winter to Spring may require a different and potentially more costly approach to snow and ice control.
- The longer seasonal transition may lead to changes in weight restriction policies - both in terms of weights allowed and the length of time the restrictions will be in place.

- An increase in the rate of degrading permafrost is likely to increase highway and airport surface distress requiring an increase in both maintenance and capital expenditures to address the resulting safety problems. In some cases this may require the reevaluation of current design, construction and maintenance practices.
- The majority of roads in the interior, particularly around Fairbanks and north of Fairbanks, traverse areas underlain by ice-rich permafrost and will likely require substantial rehabilitation/ reconstruction and/or relocation if the warming trend continues.
- Increased Active Layer Detachments (slope sloughing and failures) on slopes adjacent to the highway system that result from the thawing of ice-rich surface layers. The thawing of these ice-rich slopes leads to a form of mass wasting. The potential for damage to the highway infrastructure is high and will require a pro-active geotechnical approach to prevent impacts to the transportation system. Even in less extreme instances, the mud-flow sloughing of cut banks fills ditches and plugs culverts, which will result in higher maintenance costs.
- A significant percentage of our airports in northern, western and interior Alaska are built over permafrost that will require significant rehabilitation/reconstruction and/or relocation if their foundations thaw.
- A number of our public buildings in northern, western and interior Alaska are built over permafrost that will require significant rehabilitation/reconstruction and/or relocation if their foundations thaw. These facilities include the majority of M&O maintenance stations.
- Embankments built over permafrost will need to be thicker to prevent the underlying ground from thawing. This will add to the cost of rehabilitation and reconstruction as more fill materials will be required.
- The continued warming trend will likely result in the increase in erosion of shorelines and riverbanks which will impact any facility constructed adjacent to the waterbody.
- Aufeis problems will likely increase as melt water flows out of warming zones of permafrost, requiring additional maintenance.
- Glacial fed rivers and streams will likely experience increased flows with the potential for flooding and the cutting of new, unanticipated stream channels. Highways such as the Copper River Highway and segments of the Richardson Highway may experience increased flooding requiring larger culverts and/or larger bridges.
- An increase in the frequency and severity of hot days could result in more highway and airport problems related to asphalt softening and traffic-related pavement damage and rutting.
- Milder winters, with more freeze-thaw cycles, would accelerate road deterioration and increase maintenance costs.

- If the timing, frequency, form and/or intensity of precipitation change in the future, then related natural processes, including debris flows, avalanches and floods, would likely increase with the resulting effect of increased repair costs.
- Coastal communities and their infrastructure are vulnerable to accelerated coastal erosion due to storm activity and wave action eroding shorelines once protected by shore-fast sea ice. As the climate continues to warm, coastal erosion will increase as sea ice retreats and coastal storms become more frequent.
- Coastal communities and their infrastructure are vulnerable to a rise in the sea level. A rise in the sea level could result in the required relocation on many public facilities as well as entire communities.
- As the Geophysical Institute has determined, warming temperatures are altering the blend of vegetative growth on the North Slope of Alaska. Extending this affect to all of Alaska leads to the conclusion that we may well face increased vegetation throughout our more northern areas, and face increasing demands for vegetation management that have never cropped up before.
- The slowly increasing temperatures being forecast by scientists will allow a variety of invasive plants to prosper in Alaska, which will pose new challenges and demands on our maintenance forces.

The climatic warming trend, combined with an increase in transportation energy costs, will probably lead to alterations in the current vehicle "mix" (i.e., personal automobiles versus mass transit; buses and trains). Our transportation system is not well adapted to a dramatically different vehicle mix than has been experienced over the previous 50 years.

- The maintenance and operations fleet is totally dependent on the combustion of diesel - now shifting to ultra-low sulphur diesel. When viewing these vehicles in the sense of their carbon footprint, we are considering what tomorrow's fleet will be comprised of.

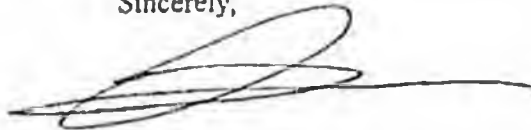
The department is currently assisting several communities that have already been affected by changing climate conditions. The department is actively involved in planning for designing and/or constructing shoreline protection, facility relocation, drainage improvements, and permafrost protection measures. We have active projects in Kivalina, Newtok, Kotzebue, Nome, Unalakleet, Shishmaref, Noatak, Allakaket, and Alakanuk.

To date, the department has not systematically studied the need for or implemented specific changes, policies or regulations to address the potential effects of climate change. At this point in time, we do not have the available data to accurately assess and determine required policy or procedural changes. As stated above, climate change can potentially impact the transportation infrastructure in a multitude of ways - melting/warming permafrost, sea level rise, increased river and shore erosion, increased scour of bridge foundations, increased storm frequency and

intensity, and increasing temperatures. We need to increase the collection and density of data ranging from stream flow records, precipitation and other weather related data records, geotechnical and foundation information, hazards mapping, and other hydrologic data. Our engineering staff needs the appropriate level of data to predict and determine more effective approaches for adapting to changes in climate. As an example, increased precipitation and runoff, storm intensities, and sea-ice conditions will potentially require new and/or revised hydrologic calculations for sizing culverts, designing bridges and their foundations, and erosion control structures. However, at this stage, we are lacking sufficient meteorological information to recommend changes in our planning and engineering processes.

The department will continue to address the impacts of climate change as they occur and will continue to investigate alternative design, construction, and maintenance techniques to address the changing environment that we work in. Right now we need accurate data to be able to design for future impacts to our transportation assets. By partnering with the University of Alaska and other State and Federal agencies we are addressing the most immediate needs for communities already being impacted and identifying the critical information we need to gather to be able to address future impacts of climate change.

Sincerely,



Leo von Scheben, P.E., L.S., M.B.A.  
Commissioner

cc: Larry Hartig, Commissioner, Department of Environmental Conservation  
Frank T. Richards, P.E., Deputy Commissioner of Highways & Public Facilities, DOT&PF  
Mary Siroky, Legislative Liaison, DOT&PF



## A Chance to Catch the Problem Early

Noxious and invasive plants are a problem in Alaska, but land management agencies are working together to keep it from growing into an unmanageable one.

Biologists and land managers thought Alaska's remoteness offered protection from the introduction of noxious and invasive plants. However, the state now has well-established infestations of several invasives, including Canada thistle (*Cirsium arvense*), White sweetclover (*Melilotus alba*),

Japanese knotweed (*Polygonum cuspidatum*), and bird vetch (*Vicia cracca*). These, along with other invasive species, now threaten to invade Alaska's forests, riparian areas, and its nonforested wetlands.

governmental organizations in Alaska began working together to address the introduction of invasive and noxious plant species. Under a memorandum of understanding, the agencies developed a plan and laid the groundwork for cooperative surveys, education, prevention, control, and eradication of invasive plant species. The Forest Health Protection Program of State and Private Forestry has a new emphasis to help address invasive plants. The program has provided \$100,000 to accelerate the excellent cooperative efforts already underway. The program focuses on the following five areas:

### Inventory and Monitoring

The cooperating agencies are first focusing on inventory, using uniform field survey protocols and reporting. We are also determining how best to merge existing databases into a statewide Geographic Information System (GIS) invasive plant layer that will hold existing and future weed survey information. State and Private Forestry is providing seed money for the project. The Alaska Geospatial Data Clearinghouse, operated by the US Geological Survey, is also cooperating in the effort.

State and Private Forestry is also providing funding to the Integrated Pest Management Program, a part of the Alaska Cooperative Extension Service, for invasive species surveys.



Bird vetch (*Vicia cracca*) crawling up and over planted spruce along the Seward highway in Anchorage. (Photo by Michael Rasy)

Invasive plants are aggressive non-native plants that have been introduced without the insect predators and plant pathogens that help keep them in check in their native habitats. Noxious weeds are a subset of invasive plants legally defined by each state or province.

### Cooperative Effort

Alaska is in a unique position to keep its invasive plant problem from growing into an ecological quagmire. The costs can be low if we quickly identify, control and/or eradicate infestations.

In 2000, six state agencies, eight federal agencies and many non-



The inventory effort in 2002 will be near Anchorage in south-central Alaska. Anchorage is the state's major population center and one of the primary locations for invasive plant introductions. Inventory work will also continue in the Delta Junction and Fairbanks areas, and within Alaska's national parks. Data from these new and continuing surveys will be added to the new "invasives" GIS layer. These inventories will help direct inventory dollars, guide eradication efforts and will serve as a principle monitoring tool.

#### Education

Web-based and printed informational materials about specific invasive plants in Alaska are being developed. This information will help landowners recognize and work on controlling and eradicating invasive species. A web-based field guide to noxious and other weeds of Alaska will be created to assist the general public as well as those doing the inventories.

#### Coordination

State & Private Forestry funds are being used in support of an invasive plant species coordinator who will facilitate information exchange between agencies. A statewide steering committee may be set up to streamline decision making across agencies.

#### Research

Once the preliminary invasive plant inventory work has been



Left: Japanese knotweed (*Polygonum cuspidatum*) found in an estuary on the Tongass National Forest in SE Alaska. (Photo by Brad Kriekhaus)



Above: White sweetclover (*Melilotus alba*) found along the road in Denali National Park. (photo by Roseann Donsmore)



Above: Canada thistle (*Cirsium arvense*) in a Anchorage city park, most likely brought in with tree plantings. (Photo by Corlana Rose)

Above: Flower of Bird vetch (*Vicia cracca*) the plant shown in the photo on the front of this story.

completed, literature searches and research will begin to determine the best treatment options for these invasive plant species in Alaska.

#### Eradication and Control

Several eradication projects are already underway, including:

- 1) a Japanese knotweed eradication project on Baranof Island
- 2) a white sweetclover trial control project along the Stikine River, Wrangell District, Tongass National Forest
- 3) a cooperative project between Kenai Fjords National Park and the Seward Ranger Dis-

trict (Chugach National Forest) to control and eradicate invasives before they reach the recently deglaciated moraines of Exit Glacier

4) a roadside dandelion pulling project in Denali National Park

Further information on the Alaska invasive plant network is available online at [www.invasivespecies.gov/geog/state/ak.shtml](http://www.invasivespecies.gov/geog/state/ak.shtml)

#### Partners in this Project

- Forest Service, Alaska Region, State and Private Forestry
- Tongass & Chugach National Forests
- Cooperative Extension Service
- US Fish and Wildlife
- Alaska Division of Forestry
- Alaska Division of Agriculture
- Alaska Dept. of Fish & Game
- Alaska Dept. of Transportation
- US Geological Survey
- Bureau of Land Management
- National Park Service
- Natural Resources Conservation Service
- Soil and Water Conservation Districts
- U.S. Dept. of Defense

#### To Find Out More

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# When is eradication of exotic pest plants a realistic goal?

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**Abstract** Using a unique data set on eradication attempts by the California Department of Food and Agriculture on 18 species and 53 separate infestations targeted for eradication in the period 1972-2000, we show that professional eradication of exotic weed infestations smaller than one hectare is usually possible. In addition, about 1/3 of infestations between 1 ha and 100 ha and 1/4 of infestations between 101 and 1000 ha have been eradicated. However, costs of eradication projects increase dramatically. With a realistic amount of resources, it is very unlikely that infestations larger than 1000 ha can be eradicated. Early detection of the presence of an invasive taxon can make the difference between being able to employ offensive strategies (eradication), and the necessity of retreating to a defensive strategy that usually means an infinite financial commitment. Nevertheless, depending on the potential impact of individual weedy species, even infestations larger than 1000 hectares should be targeted for eradication effort or, at least, substantial reduction and containment. If an exotic weed is already widespread, then species-specific biological control may be the only long-term effective method able to suppress its abundance over large areas.

**Keywords** Costs of eradication; early detection; eradication effort; exotic pests; initial infestation; invasive plants; noxious weeds.

## INTRODUCTION

Many control methods and their combinations (usually involving mechanical, chemical, and biological means) are available to managers for containing, controlling, or eradicating harmful alien plants. However, sound management strategies demand an objective means for setting priorities. Undoubtedly, exotic taxa with large-scale environmental impacts ("transformers" – see Richardson *et al.* 2000, Rejmánek *et al.* 2002) should always be targets for control and eradication. But when is complete eradication a realistic goal? There are numerous examples where small infestations of invasive plant species have been eradicated. These include *Silybum marianum* on Santa Barbara Island and *Osteospermum fruticosum* on Santa Cruz Island, California (Junak *et al.* 1993; Junak pers. comm.), *Pueraria phaseoloides* in Galapagos (Soria *et al.* 2002), and nine species on Rangitoto Island (Wotherspoon and Wotherspoon 2002). There are also several encouraging examples where widespread alien animals have been completely eradicated (Dahlsten and Garcia 1989; Chapuis and Barnaud 1995; Priddel *et al.* 2000; more examples are in this volume). Can equally widespread and difficult alien plants also be eradicated? We try to answer this question by using a unique data set on exotic weed eradication attempts by the California Department of Food and Agriculture.

The California Department of Food and Agriculture (CDFA) is actively involved in preventing the establishment and invasion of "noxious weeds." The Food and Agricultural Code of California defines a noxious weed as "any plant species which is, or is liable to be, detrimental or destructive to agriculture, silviculture, or important native species, and difficult to control or eradicate." Each noxious weed is given a pest rating (A, B, C, or Q) which indicates the most appropriate action to be taken against it

(O'Connell 1999). An "A" rated weed is subject to action by the CDFA and County Agricultural Commissioner Offices including eradication, quarantine, containment, rejection of shipments, or other holding actions. A "B" rated weed is subject to State action only when found in a nursery; otherwise action is at the discretion of the local County Agricultural Commissioner. A "C" rated weed is not subject to State action other than to provide for general cleanliness in nurseries, otherwise action is at the discretion of the local County Agricultural Commissioner. Those weeds that are widespread and can no longer be eradicated are usually given a "C" rating. A weed is rated "Q" when it is newly detected and seems likely to significantly impact agriculture. These weeds are treated as "A" rated until they are fully evaluated. Currently, there are 128 plant species that are listed as "noxious" by CDFA: 45 are "A" rated, 55 are "B" rated, 24 are "C" rated, and 4 are "Q" rated.

Eradication and other actions directed at "A" rated weeds are performed by personnel in the Integrated Pest Control Branch of CDFA and the County Agricultural Commissioner Offices who work closely together to detect and eradicate exotic weeds state-wide. When a new infestation of an "A" rated weed is detected, the site is visited and size of the infestation is delimited. Two estimates of infestation size, net and gross, are obtained. Gross infestation size is the area over which the weed is distributed. Net infestation size is the area to which treatment is actually applied. Gross infestation size is the area that must be surveyed in return trips following control treatments.

Eradication efforts consist of a series of control treatments to the infestation over several years. Control treatments can include herbicide applications, cultivation, removal of infested soil, and mechanical removal. For large infestations, a crew of workers is required; for small infesta-

## Turning the tide: the eradication of invasive species

tions, only one individual may complete the work. Following initial treatment, the site is visited several times to examine the area for regrowth or seedling recruitment. This effort is repeated until no plants are found in subsequent visits. Eradication is considered successful when no plants are recovered from the initial infested area for three consecutive years.

To date, 14 exotic weeds have been successfully eradicated from California: whitestem distaff thistle (*Carthamus leucocaulos*), dudaim melon (*Cucumis melo* var. *dudaim*), giant dodder (*Cuscuta reflexa*), serrate spurge (*Euphorbia serrata*), Russian salttree (*Halimolobos halodendron*), blueweed (*Helianthus ciliaris*), tanglehead (*Heteropogon contortus*), creeping mesquite (*Prosopis strobilifera*), heartleaf nightshade (*Solanum elaeagnifolium*), Torrey's nightshade (*Solanum dimidiatum*), Austrian peaeweed (*Sphaerophysa salsula*), wild marigold (*Tagetes minuta*), Syrian beancaper (*Zygophyllum fabago*), and meadowsage (*Salvia virgata*) (O'Connell 1999). With the exception of *Cucumis* (16 and 32 ha), all gross infestations were smaller than 10 ha and most of them were smaller than one hectare when they were detected.

### MATERIAL AND METHODS

Complete information on eradication effort was obtained for 53 infestations of 18 "A" rated species (Table 1). CDFA biologists assigned to the Detection and Eradication Districts for the State of California, CDFA, provided the data.

For each weed infestation, the following information was obtained: (1) size of infestation after delimitation (both net and gross area), (2) date first found, (3) total number of visits to the site to date, (4) effort per infestation (number of person hours devoted to the site to date, including travel time to and from the site), and (5) current status of the infestation. The data are summarised in this contribution.

### RESULTS

The relation between the mean eradication effort (work hours) and five initial gross infestation area categories is summarised in Table 2 and Fig. 1. The good news is that professional eradication of exotic weed infestations smaller than one hectare is usually possible. Furthermore, about 1/3 of all infestations between 1 ha and 100 ha and 1/4 of infestations between 101 and 1000 ha have been eradicated. Costs, however, increase dramatically. (An approximate estimate of direct costs in USD can be obtained by multiplying work hours in Fig. 1 and Table 2 by USD96; this includes salaries, cost of transportation, and cost of herbicides and equipment). With a realistic amount of resources, it is very unlikely that infestations larger than 1000 ha can be eradicated.

Interestingly, in the first four infestation-size categories, where at least some eradications were successful (Table 2), mean eradication effort per infestation is consistently greater for ongoing projects than for eradicated infestations. This indicates that, in general, completed eradications were not successful because of the greater effort.

Table 1 List of "A" rated weeds in California for which eradication information was obtained.

Scientific name	Common name	No. infestations	Eradicated/ongoing
<b>Terrestrial species</b>			
<i>Alhagi pseudalhagi</i>	camelthorn	5	1/4
<i>Carthamus nutans</i>	musk thistle	1	0/1
<i>Centaurea diffusa</i>	diffuse knapweed	6	5/1
<i>Centaurea iberica</i>	Iberian thistle	3	1/2
<i>Centaurea maculosa</i>	spotted knapweed	3	2/1
<i>Cirsium ochrocentrum</i>	yellowspine thistle	3	1/2
<i>Cucumis melo</i> var. <i>dudaim</i>	dudaim melon	1	1/0
<i>Cuscuta reflexa</i>	giant dodder	1	1/0
<i>Euphorbia esula</i>	leafy spurge	2	1/1
<i>Halimolobos halodendron</i>	Russian salt tree	1	1/0
<i>Linaria angustifolia</i>	Dalmatian toadflax	1	1/0
ssp. <i>dalmatica</i>			
<i>Onopordum acanthium</i>	Scotch thistle	13	6/7
<i>Onopordum illyricum</i>	Illyrian thistle	1	0/1
<i>Peganum harmala</i>	harnel	2	0/2
<i>Physalis viscosa</i>	ground cherry	1	1/0
<i>Salsola damascena</i>	Damascus saltwort	1	0/1
<b>Aquatic species</b>			
<i>Hydrilla verticillata</i>	hydrilla	5	2/3
<i>Alternanthera philoxeroides</i>	alligatorweed	3	1/2

Another confounding factor could be a bias created by differences in species representing small and large infestations. This would be particularly serious if large infestations consisted of more persistent species than smaller infestations. However, the trend remains the same even within individual species (Fig. 2). Finally, while the eradication effort increases with the area of infestation, the effort per hectare decreases at the same time (Table 2). This suggests that even infestations of >1000 ha could be eradicated, but the eradication effort per hectare would have to be greater. It is important to point out that all three successful eradications of gross infestations >100 ha (Table 2) represented relatively-small net areas (*Linaria angustifolia*: 0.49 ha; *Onopordum acanthium*: 0.20 ha; *Physalis viscosa*: 0.92 ha).

DISCUSSION

Obviously, a substantial increase in resources for exclusion and early detection of exotic weeds would be the most profitable investment. Without any data, or based on very limited data, others (Auld *et al.* 1987; Chippendale cited in Hobbs and Humphries 1995; Cook and Setterfield 1996; Braithwaite and Timmins 1999; Panetta 1999; Smith *et al.* 1999; Weiss 1999) already made this point. Surprisingly, however, practical implementations are still very rare. We suggest that in all concerned countries, teams of professional botanists should be created for rapid detection and assessment of new infestations of exotic plants. Early detection of the presence of an invasive and harmful taxon can make the difference between being able to employ feasible offensive strategies (eradication) and the necessity of retreating to a defensive strategy that usually means an infinite financial commitment.

Attempts to eradicate widespread invasive species, especially those that do not have any obvious environmental impacts (including suppression of rare native taxa), may be not only hopeless but also a waste of time and resources (Groening and Wolschke-Bulmahn 1992). Volunteers and donors, who would be otherwise willing to participate in

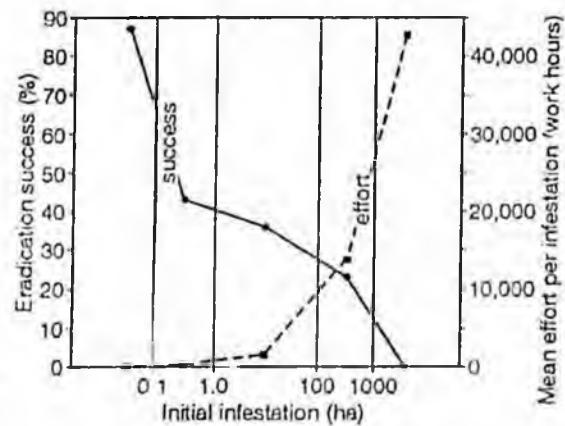


Fig. 1 The dependence of the eradication success (%) and the mean eradication effort per infestation (work hours) on the initial size of infestations. Based on the data for eradication projects of 18 noxious weed species and 53 Independent Infestations in California (see Table 1).

eradication of serious pests, may be discouraged by such projects.

Nevertheless, depending on the potential impact of individual weedy species, even infestations larger than 1000 hectares should be targeted for eradication effort, or, at least, substantial reduction and containment. A notable example of a successful containment is the parasitic weed *Striga asiatica* in parts of North and South Carolina (Kaiser 1999). In the 45 years of the eradication programme, the initial gross infestation on 20 000 km<sup>2</sup> was reduced to 2800 ha of very light occurrences. The cost, however, was more than USD 250 million (R. E. Eplee, pers. comm.). Another exceptionally successful project is the practically complete eradication (98% of properties on which it is known to occur) of *Bassia (Kochia) scoparia* over the past eight years in Australia (3277 ha; 15,536 work hours; R. Randall, pers. comm.).

Table 2 Areas of initial gross infestations (at the beginning of eradication projects) of exotic weeds in California, numbers of eradicated infestations, numbers of ongoing projects, and mean eradication effort for five infestation area categories. The data include 18 species of noxious weedy species (two aquatic and 16 terrestrial) representing 53 separate infestations. NA – not applicable.

		Initial infestation (ha)				
		<0.1	0.1-1	1.1-100	101-1000	>1000
No. of eradicated infestations		13	3	5	3	0
No. of ongoing projects		2	4	9	10	4
Mean eradication effort per infestation (work hours)	Eradicated	63	180	1496	1845	-
	Ongoing	174	277	1577	17 194	42 751
Mean eradication effort per hectare (work hours)	Eradicated	NA	807	103	6	-
	Ongoing	NA	792	648	26	16



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# COOPERATIVE EXTENSION

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Special Publication-01-08

## The Economic Costs of Delaying Invasive Weed Control: An Illustration based on Nevada's Tall Whitetop Initiative

Mark Eiswerth, Research Assistant Professor  
Wayne Johnson, State Integrated Pest Management Specialist  
Steve Lewis, Extension Educator  
Larry Hughes, Douglas County Weed District Manager

### 1. Introduction

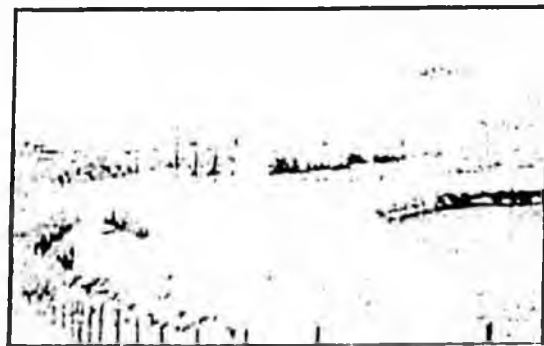
Tall whitetop (*Lepidium latifolium*), also known as perennial pepperweed, is an alien weed that is invading watersheds in Nevada and throughout the West. In Nevada, thousands of acres of tall whitetop infest the lower Truckee River, Lake Tahoe, the West and East Walker Rivers, and much of the riparian lands of the Carson and Humboldt watersheds. Invasions of tall whitetop began along streams and in wet meadows, but now tall whitetop is observed at significant distances away from the riparian areas in upland, dry sites and is spreading to other parts of the state.

*Tall whitetop roots do not stabilize stream banks. When they are present, banks erode more easily, polluting streams with silt and debris.*



Tall whitetop negatively impacts both the ecology and economy of an area, and even-

tually the entire state (Young et al., 1995; Donaldson and Johnson, 1999; Olson, 1999; USDA, 1999; Auton et al., 2000).



*Tall whitetop out-competes natives, forming monocultures that exclude other plants and animals.*

It crowds out desired vegetation and tends to quickly form a monoculture, thereby reducing plant and animal biodiversity. Since it does not provide good habitat for wildlife, it reduces the diversity and numbers of animals such as deer, elk, waterfowl, and other birds. In addition, it does not provide good forage for livestock and imposes costs on farmers who must control its spread in croplands and pastures. Negative economic impacts occur in two distinct ways. First, property owners and land managers who must control tall whitetop are forced to

incur out-of-pocket expenditures, for example on labor, herbicides, and revegetation necessary for successful treatment of the weed. Second, until tall whitetop is controlled, its presence yields damages (in the form of foregone benefits) due to lost uses of the land (e.g., grazing, cropping, and outdoor recreation).

*The flowers  
of tall  
whitetop are  
deceptively  
beautiful.  
Do not let  
them go to  
seed*



This short manuscript illustrates how the costs of tall whitetop control rise as control actions are delayed and infestations grow. Essentially, how much will it cost me if I treat an infestation today compared to the cost if I wait, say, five years to treat it? Will delay be cost effective? These are important questions that deserve scrutiny by landowners, land managers, funding authorities, and other stakeholders faced with competing needs and scarce financial resources.

For our illustration we use cost data collected for one of the tall whitetop control projects recently commenced under Nevada's Tall Whitetop Initiative (Initiative) funded by the 1999 Nevada State Legislature. The Initiative was launched in 2000 by University of Nevada Cooperative Extension with the objective of quickly implementing a suite of tall whitetop management projects throughout the state. We focus on one Initiative project in particular, conducted in Douglas County, Nevada, because complete and detailed cost data were reported to us for that site. Data included labor and supply costs, as well as some limited information on

capital equipment costs. However, we focus only on non-equipment costs since we lack good data on the link between infestation size and the need to buy more equipment. Consequently, costs are figured conservatively throughout. Our results are illustrative for a larger set of sites in Nevada and the West that either 1) are currently infested with tall whitetop or 2) may likely become infested in the future.

The next section briefly summarizes out-of-pocket costs in the first year (2000) of the project. To illustrate how costs would have increased if the project had been delayed, we concentrate on costs that vary in proportion to infestation size. Section 3 presents the impacts on costs that would have resulted from a delay in tall whitetop control. Section 4 offers concluding remarks.

## 2. Year One Project Costs

The control of tall whitetop is not a one-time proposition. Though control expenses may be highest at the outset of the effort, actions over time are necessary (follow-up spraying, revegetation, etc.). For example, the Douglas County project (Project) on which we focus is a planned ten-year effort. Of course, if control of tall whitetop at a particular site is postponed to the future, the infestation will grow and therefore the control costs will rise in every year of a multi-period management effort. *However, we illustrate solely the impacts of a delay on the first year of the Project, since cost data are currently available only for Year 1 (2000). As well, estimated future costs are not adjusted for future inflation. Consequently, the results are very conservative and represent an understatement of what may actually occur.*

In this analysis we focus on what are termed variable costs. We define variable costs as those that vary directly according to the size of the infestation. These include expenditures for labor, chemicals, and seed for revegetation. We intentionally exclude capital costs associated with purchase and maintenance of equipment such as trucks and sprayers necessary for chemical application, because these are fixed costs that would not increase in continuous

fashion if the infestation were to grow in size. Of course, were the infestation to grow sufficiently,

Tall whitetop invasions negatively impact the economy as 1) costs of control and 2) damages—lost use of land for grazing, cropping, recreation and wildlife habitat.

it would be necessary to purchase additional capital equipment at some point. By excluding consideration of capital costs and any amor-

tization associated with them, we simplify the analysis and also deliberately adopt a conservative approach. This underestimates the incremental costs of postponing weed control.

Variable project costs for Year 1 (2000) are summarized in Table 1. Labor costs, which include costs of labor for both control and revegetation (\$7,325), constitute the largest cost category and account for over half the total variable costs (\$12,647). Chemical costs (\$3,635) are the second largest category and account for almost thirty percent of the total costs. Revegetation (seed) costs (\$1,687) are a relatively small proportion of the total, but this can vary widely across different project sites and in some cases seed costs can be much higher.

Table 1. Variable costs for Year 1 (2000) of the Douglas County Tall Whitetop Control Project.

Cost category	Year 1 costs
Labor <sup>a</sup>	\$7,325
Chemical costs	\$3,635
Revegetation (seed purchase costs)	\$1,687
<b>Total Year 1 variable costs</b>	<b>\$12,647</b>

<sup>a</sup> Includes labor for chemical application, hand pulling, revegetation, mapping, supervision/administration, and volunteer labor. Since volunteer labor (which accounted for an estimated 40 hrs of labor in Year 1) does not impose out-of-pocket costs but nevertheless should be included in an economic accounting framework because it constitutes an opportunity cost, we apply a conservative shadow price of \$10/hr (equal to about 25% of typical hourly applicator cost) to yield an estimated \$400 in volunteer labor.

### 3. Cost Impacts of Delaying the Start of the Control Project

In this section we illustrate the impacts on Year 1 project costs that we would see if initiation of the tall whitetop control project were to be delayed for between two to ten years beyond 2000. It is reasonable to expect the Project costs to be affected because we know that tall whitetop infestations rapidly expand when left uncontrolled by humans. At what rate would we expect the infestation at the Project site to grow if control efforts had not been undertaken? While there is some uncertainty on this point and expansion rates vary according to site-specific conditions, the existing literature provides us with good information to characterize a range of likely rates.

As one recent reference point, Smith et al. (1999) examined the growth rates of a variety of different invasive weeds in diverse locations around the western United States. That study found an average expansion rate of approximately 24% per year, with relatively high rates in early years and lower growth rates as an infestation matures. This figure is close to the estimated annual average growth (27%) of spotted knapweed (*Centaurea maculosa*) in Montana since 1920 (Sheley et al., 1996). Smith et al. also note that their projected expansion rates for the early years of small infestations are in the range of the 60% growth rates found in the literature (e.g., Callihan and Evans, 1991; Roche et al., 1994).

Given these data, we estimate impacts on costs assuming three different annual average expansion rates: 10%, 20%, and 30%. These rates bracket the annual average rates found in the literature, but are well below the higher rates for small infestations noted above. Given the relatively small acreage of tall whitetop present at the Douglas County Project site (75 acres), it is reasonable to expect that 10%-30% is a conservative range of assumptions for the expansion rates and, if anything, may understate

the rapid growth of which small infestations are capable.

Table 2 shows the impacts on Year 1 Project costs of delaying the Project's commencement by various numbers of years, with start dates ranging from 2000 to 2010. The second column in the table displays Year 1 costs by startup year assuming an annual average expansion rate for tall whitetop equal to 10%. The third and fourth columns display Year 1 costs for the higher expansion rates of 20% and 30%, respectively.

Table 2. Impact of delaying Douglas County Tall Whitetop Project startup on Year 1 variable costs, considering three annual infestation expansion rates.<sup>a</sup>

Project startup year	Year 1 Project costs, considering tall whitetop infestation annual expansion rates <sup>b</sup>		
	10%	20%	30%
2000	\$12,647	\$12,647	\$12,647
2002	\$15,303	\$18,212	\$21,373
2004	\$18,516	\$26,225	\$36,121
2006	\$22,405	\$37,764	\$61,045
2008	\$27,110	\$54,380	\$103,165
2010	\$32,803	\$78,307	\$174,350

<sup>a</sup> Costs are expressed in current (not present) value dollars (i.e., neither a discount rate nor a rate for anticipated inflation are applied to future costs as these may be offsetting adjustments).

<sup>b</sup> This table illustrates only how Year 1 Project costs would have increased in the event of delay in the Project commencement. Postponing control would also increase costs in each of the other nine years of this ten-year Project, but we do not assess the impacts in those years because the necessary data on costs and tall whitetop bounce back rates are not yet available. For this and other reasons mentioned in the text (conservative expansion rate scenarios, omission of capital costs for weed control and not allowing for inflation), the results shown here tend to underestimate the increase in costs that would result from a delay in the Project startup.

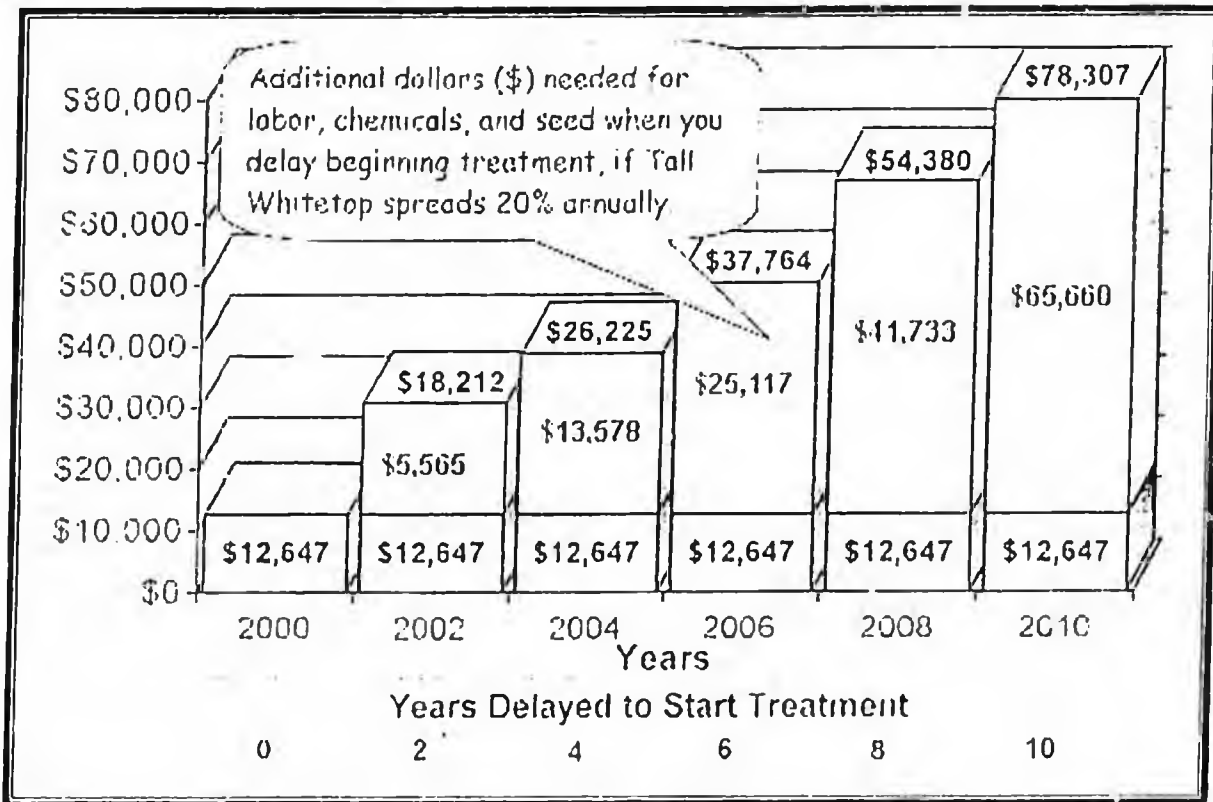
As demonstrated in Table 2, postponing tall whitetop control efforts has a significant impact on how much money is spent on control. Even under a modest expansion rate of 10%, delaying control by 6 years would cause Year 1 costs alone to almost double, rising from \$12,647 in 2000 to \$22,405 in 2006. If the expansion rate were double this amount (20%), postponing control efforts for six years would cause Year 1 costs to almost triple, rising from \$12,647 in 2000 to \$37,764 in 2006. An expansion rate of 30% would cause Year 1 costs (six years delayed) to rise to over \$60,000. It is important to keep in mind that the highest expansion rate we model (30%) is actually quite close to the average annual rate

observed for spotted knapweed in Montana over the last eight decades (27%). Many invasive

The cheapest and easiest invasive weed to control is the first one!

species, including tall whitetop, have similar or greater expansion rates, particularly in the early years of an infestation. Figure 1 illustrates graphically the estimated rise in costs as tall whitetop control is delayed, assuming our "middle" scenario of a 20% expansion rate.

Figure 1. Year 1 variable costs for tall whitetop control by project start year at 20 percent annual expansion rate of weeds in Douglas County, NV.



#### 4. Conclusions

Entities faced with demands to spend money on invasive weed control are often besieged by multiple, competing demands to devote resources to a number of other needs as well. This is the case for federal and state agencies and legislative bodies, counties, municipalities, weed districts, irrigation districts, watershed management authorities, and private producers and landowners. Competing demands for scarce funds often result in a delay in expending dollars and efforts on invasive weed management.

The results of our assessment show in a very conservative manner why it is important to adopt a dynamic perspective when deciding how and when to spend money on invasive weed control *instead of* other activities and

programs. Because of the peculiar characteristics of the ecological problem posed by tall whitetop and other invaders (i.e., explosive growth), the costs of control multiply rapidly over time. Therefore a failure to devote resources to infestation problems today requires the decision maker to spend appreciably larger sums of money even a small number of years from now. At the highest expansion rate modeled in our assessment (which is well within the range of data observed for invasive weeds in the West), even a four-year delay in beginning a control program would cause the eventual Year 1 control costs to nearly triple. A ten-year delay would cause Year 1 costs to rise by more than a factor of ten.



*Do not delay beginning treatment of tall whitetop. Every year you wait adds to the expense of managing this invasive weed.*

It is important to bear in mind that our assessment only examines, and very conservatively at that, the impacts on out-of-pocket costs in the first year of the tall whitetop Project. Of course, postponing con-

trol would also increase costs in each of the other nine years of this ten-year Project as well. For this and other reasons mentioned above (conservative expansion rate scenarios, omission of capital costs for weed control and not including rates of inflation), our results tend to be "conservative." That is, they underestimate the increase in control costs that would have resulted from a delay in commencement of this Tall Whitetop Initiative Project in Douglas County. In addition, our assessment does not deal with the rapid accumulation of economic damages from invasive weeds (foregone benefits such as grazing and recreation) that occur over time as control is postponed. These lost benefits certainly would escalate rapidly and may in fact constitute a greater economic loss to a community than the out-of-pocket costs demonstrated here.

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# Weeds and their implications to Property Value

by Ron Eng,  
CDFA

Real estate is one of the largest purchases a person makes in her or his lifetime, often involving a loan with security based on the purchase property. With so much on the line, it is the seller's responsibility to represent the subject property accurately so that a potential buyers will know what they are getting and what to expect after the close of escrow. Fraudulent misrepresentation or omissions place the property sellers and their agents in legal jeopardy. I will describe two short stories as examples of disclosure and the implications weed infestations have on a community.

In California in 1976, a seller used an agent to list his property for sale - a 3,000 square foot home on an acre of land, with a pool and guesthouse. Shortly after the new owner took occupancy, land subsidence caused sizable damage to the driveway. She then discovered

that the floor of the guesthouse was not level and that the doorways were not square, which made closing doors difficult. The seller had needed to restabilize the soil on at least two occasions, which lead to speculation that this was what prompted the sale. The buyer learned that the property was built upon fill that was not properly engineered for stability and compaction. She brought suit against the seller and his agents for failure to disclose material defects prior to the time of sale. Despite a court appeal by the realtors, the law was upheld against them, and the seller became insolvent following the first judicial decision.

The case made it clear that disclosure requirements can have far-ranging implications, as they include anything that may impact the material value of residential property. In 1984, a California law was passed

based on the case described that requires full disclosure of all defects materially affecting the value of residential property that are known or *should be known*, to be revealed to potential buyers before sale. Weeds can be a part of this. For example, if a property for sale is described as "for horses," the potential buyer should know of any weeds toxic to livestock or difficult to control that exist on the property so that they can determine if any weed elimination work is needed to make it suitable for horses. Realtors who represent buyers and sellers are responsible for providing due diligence to their clients so that transactions occur with understanding of all parties in mutual trust. Since realtors earn a percentage of the sales price in transactions, it is their fiduciary duty to provide protection to their clients and prevent unfair business advantage or fraud. California sellers are required by law to disclose any thing affecting the material value of the property to potential buyers prior to sale.

The immediate property, not the only land affected by the presence of weeds. In Montana, a film celebrity created conflict with the local community by refusing to use herbicides on his ranch. Although Seagal had filed a weed control plan with the County Agent, he did not take action to eliminate the weeds on his property. Adamantly