

ALASKA LEGISLATURE COMMITTEE FILES, 2003-2004

8672

11318 SENATE RESOURCES

**Proposed Changes in Draft Committee Substitute for
CSHB 196 (RES)**

**“An Act relating to carbon sequestration; and
providing for an effective date.”**

In general, the proposed CS for HB 196 provides more flexibility to DNR and DEC for investigating the carbon sequestration and carbon market participation potential for Alaska; removes references to greenhouse gases; and makes the effective date for the action portions of the legislation contingent on receipt of grant funds.

During the Senate Resources committee hearing, a suggestion was made to include the use of oceans for carbon sequestration. That reference can be found in the definition section where carbon sequestration is defined as “the long-term storage of carbon in forests, soils, the ocean, and other carbon sinks.” (in the original bill).

The specific changes proposed in the CS are as follows:

Section 1. Legislative Findings; Intent.

Page 1, line 6: deletes “Increasing levels of carbon dioxide and other greenhouse gases in the atmosphere have led to” and inserts “there is”

Page 2, line 1: replaces “document and quantify” with “investigate the potential for”

Page 2, line 2: after “carbon sequestration” deletes “and greenhouse gas emissions reductions”

Page 2, line 4: replaces “quantify and verify” with “investigate the potential for”

Sec. 44.37.200. Carbon sequestration studies and recommendations.

Page 2, line 15: replaces “assessment required under this section” with “assessment described under this section”

Page 2, line 17: replaces “the recommendations must” with “the recommendations may”

Page 2, line 25: after “participation in systems of carbon” deletes “or greenhouse”

Sec. 44.37.210. Assessment by the commissioner.

Page 3, line 1: after “the commissioner shall” inserts “make efforts to”

Page 3, line 8: replaces “required” with “described”

Sec. 3. New section. Repeals the law June 30, 2009.

Sec. 4. Report to the Legislature.

Page 3, line 19: deletes "On or before the first day of the Second Regular Session of the Twenty-third Alaska State Legislature" and inserts "Within one year after the effective date of this section"

Page 3, line 21: after "shall prepare" inserts "and submit"
after "a report to the legislature" inserts "regarding carbon sequestration"

Page 3, line 22: deletes "must" and inserts "may"

Page 3, line 23: deletes "greenhouse emissions" and inserts "carbon dioxide emissions"

Sec. 5. Direction to Seek Funding Sources. New section. Directs the Department of Natural Resources to seek and apply for federal and private sources to cover the costs of implementing the Act.

Sec. 6. Conditional Effect of Sections 2, 3, and 4 of this Act. New section. Makes the studies, assessment and report sections of the Act effective only if DNR receives sufficient funds from federal or private sources.

Sec. 7. New section. In order for secs. 2, 3, and 4 of the act to take effect, approval for federal or private funds must be received no later than the date the laws are repealed.

Sec. 8. New section. The findings and intent, direction to seek funding sources and conditional effective date sections take effect immediately (sections 1, 5 and 6).

CSHB 196 (RES) – Carbon Sequestration

POSSIBLE FUNDING SOURCES

West Coast Regional Carbon Sequestration Partnership

Contact: Larry Meyer, Program Manager, University of California
510-486-6456 or 510-508-6627(cell)

Current Grant: \$1.6 million from Department of Energy (DOE)

Background: The DOE/National Energy Technology Laboratory is sponsoring an effort to create a nationwide network of partnerships to determine suitable technologies, regulations, and infrastructure needs for carbon capture, storage and sequestration in geographically diverse regions.

The California Energy Commission applied for and received a \$1.6 million DOE grant to form the West Coast Regional Carbon Sequestration Partnership. The partnership plans to “identify, characterize and locate CO2 emission sources in the region and determine long-term capturing and sequestering methods by enlisting the help of numerous federal, state, local government agencies and industry sources.”

As part of their participation in the partnership, Oregon, Washington and California are investigating their carbon sequestration potential on forested land. As for Alaska, at the time the grant proposal was being crafted, the state, through the University of Fairbanks, chose to go it alone to form its own region. Apparently, the Alaska effort collapsed two days before grant proposals were due. California scrambled to get something from Alaska included and ended up with a BP geologic sequestration project on the North Slope. That is the extent of Alaska’s participation in the partnership at this time.

Comments: According to Larry Meyer, the West Coast partnership would welcome Alaska as a partner. HB 196 fits within the scope of the project. Mr. Meyer has informed DOE that without Alaska, there is a hole in the partnership. He is seeking additional funds from DOE. Passage of HB 196 would help leverage additional funding. The partnership is up and running and will help Alaska get funds and implement the state’s project.

National Carbon Offset Coalition/Montana’s Governor Carbon Sequestration Working Group

Contact: Emily Tafoya, Marketing Director, National Carbon Offset Coalition
409-491-4472
Emily_Tafoya@msn.com

Current Grant: \$1.6 million from Department of Energy

Background: Montana also received a \$1.6 million grant from the Department of Energy to lead a regional partnership with South Dakota and Idaho for research into carbon sequestration. As part of this effort, the National Carbon Offset Coalition (a non-profit support organization) is

working with the Montana Governor's Carbon Sequestration Working Group to develop and market carbon sequestration projects in Montana and nationally.

Comments: NCOC is approaching a foundation for further funding to expand on their project to develop a carbon credit market. They have offered to include Alaska as a prospective area that will be involved in their effort.

NASA Grant Program "Carbon Cycle Science"

Contact: Dr. William Emanuel, Program Scientist, NASA
202-358-0559 William.Emanuel@nasa.gov

Dr. Roger Dahlman, Department of Energy
301-903-4951

Available Grant Funds: \$36 million over three years for projects up to \$500,000.

Background: As part of President Bush's climate change initiatives, NASA is investing over \$120 million in the next three years in research on the carbon cycle and climate. A research grant announcement was issued January 7, 2004. Research is requested in four areas, including carbon management. Letters of intent were due February 11, 2004 and proposals were due April 7, 2004.

Comments: Spoke with Dr. Dahlman. It is possible HB 196 would fit under the "carbon management" criteria. Though the proposal deadline has passed, given the level of interest in carbon processes, there may be additional funding opportunities in the future.

OTHER USEFUL CONTACTS

Jennifer Duval, UAF Graduate Student: Ms. Duval is researching carbon sequestration market opportunities in Alaska. Jennifer and possibly another graduate student may be available to assist DNR with grant applications.

Phone: 474-1809
Email: ftjed@uaf.edu

Jim Cathcart, Oregon Department of Forestry. As part of their participation in the West Coast Regional Carbon Sequestration Partnership, Mr. Cathcart is leading Oregon's effort to determine the state's carbon sequestration potential on state and private forest land. May be able to provide information to assist Alaska's research.

Phone: 503-945-7493
Email: jcathcart@odf.state.or.us

Michael Walsh, Senior Vice President, Chicago Climate Exchange: Mr. Walsh contacted Rep. Berkowitz's office. He provided carbon market information and is interested in discussing market participation options with the state.

Phone: 312-554-3380

Email: mwalsh@ChicagoClimateExchange.com

William Hohenstein, Director, USDA Global Change Program: No funds available through their program but Mr. Hohenstein contacted the Forest Service and Cooperative State Research Education Service (CSREES). CSREES is currently funding Alaska projects at the Agriculture Experiment Station and through the McIntire-Stennis program at UAF. These projects may assist DNR and DEC's efforts should HB 196 pass.

Phone: 202-720-6698

Email: whohenst@oce.usda.gov

Steve Kallick, Assistant Director, PEW Charitable Trusts: PEW is providing some funds for carbon sequestration work but so far only a small amount. There may be more funding opportunities in the future.

Phone: 215-575-4747

FISCAL NOTE

STATE OF ALASKA
2004 LEGISLATIVE SESSION

Fiscal Note Number: _____
Bill Version: HB196-SCS-RES-EC-AWQ-5-4-04
() Publish Date: _____

Revision Date/Time (Note if correction): _____ Dept. Affected: Environmental Conservation
Title: Carbon Sequestration RDU Air & Water Quality
Component Air Quality
Sponsor Rep. Berkowitz
Requester Senate Resources Component No. 2061

Expenditures/Revenues (Thousands of Dollars)

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

OPERATING EXPENDITURES	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Personal Services	0.0	0.0	0.0	0.0	0.0	0.0
Travel	0.0	0.0	0.0	0.0	0.0	0.0
Contractual	0.0	0.0	0.0	0.0	0.0	0.0
Supplies	0.0	0.0	0.0	0.0	0.0	0.0
Equipment	0.0	0.0	0.0	0.0	0.0	0.0
Land & Structures	0.0	0.0	0.0	0.0	0.0	0.0
Grants & Claims	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES						
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CHANGE IN REVENUES ()						
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FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts	0.0	0.0	0.0	0.0	0.0	0.0
1003 GF Match	0.0	0.0	0.0	0.0	0.0	0.0
1004 GF	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
1037 GF/Mental Health	0.0	0.0	0.0	0.0	0.0	0.0
Other (Specify Type--Do not abbreviate)						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2004) cost: 0.0

Check this box (X) if funding for this bill is included in the Governor's FY 2005 budget proposal:

POSITIONS

Full-time	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
Temporary	0.0	0.0	0.0	0.0	0.0	0.0

ANALYSIS: (Attach a separate page if necessary)

This bill will have no fiscal impact on the department.

Prepared by: Tom Chapple, Director Phone 269-7686
Division Air & Water Quality Date/Time 5/4/04
Approved by: Kurt Fredriksson, Deputy Commissioner Date 5/4/04
Agency Environmental Conservation

FISCAL NOTE

STATE OF ALASKA
2004 LEGISLATIVE SESSION

Fiscal Note Number: _____
Bill Version: CSHB196(RES)
() Publish Date: _____

Revision Date/Time (Note if correction): _____ Dept. Affected: Environmental Conservation
Title: Carbon Sequestration RDU Air & Water Quality
Component Air Quality
Sponsor Rep. Berkowitz
Requester Senate Resources Component No. 2061

Expenditures/Revenues (Thousands of Dollars)

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

OPERATING EXPENDITURES	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Personal Services	0.0	0.0	0.0	0.0	0.0	0.0
Travel	5.0	0.0	0.0	0.0	0.0	0.0
Contractual	37.7	0.0	0.0	0.0	0.0	0.0
Supplies	0.5	0.0	0.0	0.0	0.0	0.0
Equipment	0.0	0.0	0.0	0.0	0.0	0.0
Land & Structures	0.0	0.0	0.0	0.0	0.0	0.0
Grants & Claims	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL OPERATING	43.2	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES						
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CHANGE IN REVENUES ()						
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FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF	43.2	0.0	0.0	0.0	0.0	0.0
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type--Do not abbreviate)						
TOTAL	43.2	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2004) cost: 0.0
Check this box (X) if funding for this bill is included in the Governor's FY 2005 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

This bill requires the Department of Natural Resources in consultation with the Department of Environmental Conservation to prepare a report to the Legislature on the concept of carbon trading and accounting, and identify specific opportunities for carbon sequestration projects on public and private lands in Alaska.

Prepared by: Tom Chappie, Director
Division: Air & Water Quality
Approved by: [Signature]
Agency: Environmental Conservation

Phone 269-7686
Date/Time 2/2/04
Date 2/2/04

FISCAL NOTE

STATE OF ALASKA
2004 LEGISLATIVE SESSION

BILL NO. CHSB196 (RES)

ANALYSIS CONTINUATION

Travel 5.0

Provides funds for travel needs associated with the work identified in the legislation.

Contractual 37.7

Provides funding for a part-time, long-term non-perm, range I8 (Environmental Specialist III) to conduct and coordinate the work identified in the legislation.

Supplies 0.5

Provides for routine operating supplies for staff.

FISCAL NOTE

STATE OF ALASKA
2004 LEGISLATIVE SESSION

Fiscal Note Number: _____
Bill Version: HB196CS(RES)-DNR-FOR-
() Publish Date: _____

Revision Date/Time (Note if correction): 1/12/2004 Dept. Affected: Natural Resources
Title Carbon Sequestration RDU Resource Development
Component Forest Mgt & Development
Sponsor Berkowitz
Requester (S) RES Component No. 435

Expenditures/Revenues (Thousands of Dollars)

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

OPERATING EXPENDITURES	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Personal Services	65.6	65.6				
Travel	10.0	6.0				
Contractual	10.0	10.0				
Supplies	1.0	1.0				
Equipment	5.0					
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	91.6	82.6	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES						
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CHANGE IN REVENUES ()						
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FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF	91.6	82.6				
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type--Do not abbreviate)						
TOTAL	91.6	82.6	0.0	0.0	0.0	0.0

Estimate of any current year (FY2004) cost: 0.0

Check this box (X) if funding for this bill is included in the Governor's FY 2005 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary	1	1				

ANALYSIS: (Attach a separate page if necessary)

This bill establishes an initiative to investigate the concept of carbon trading and accounting, and would identify specific opportunities for carbon sequestration projects on public and private lands in Alaska.

Prepared by: John "Chris" Maisch Phone 451-2666
Division: Forestry Date/Time 1/12/04
Approved by: Thomas Irwin, Commissioner Date 1/12/04
Agency: Natural Resources

FISCAL NOTE

STATE OF ALASKA
2004 LEGISLATIVE SESSION

BILL NO. HB196CS(RES)-DNR-FOR-I

ANALYSIS CONTINUATION

Personal Services \$65.6

This provides for a range 18 (Natural Resources Manager I or Forester III) to conduct and coordinate the work identified in the legislation.

Travel \$10.0

Provides funds for travel needs associated with the work identified in the legislation.

Contractual \$10.0

Assumes portions of the project will be conducted with the assistance of faculty and graduate students at the University of Alaska (\$5000). Balance is for DNR lease space, phones, computer services etc.

Supplies \$1.0

Routine operating supplies for staff.

Equipment \$5.0 (one-time)

One-time computer, equipment purchase for staff.

FISCAL NOTE

STATE OF ALASKA
2003 LEGISLATIVE SESSION

Fiscal Note Number: _____
 Bill Version: CSHB 196 (RES)
 () Publish Date: _____

Revision Date/Time (Note if correction): CORRECTED Dept. Affected: Natural Resources
 Title Carbon Sequestration BRU Management & Administration
 Component Commissioner's Office
 Sponsor Berkowitz
 Requester House Rules Component No. 423

Expenditures/Revenues (Thousands of Dollars)

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

OPERATING EXPENDITURES	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Personal Services						
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES						
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CHANGE IN REVENUES ()						
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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 (Specify Type--Do not abbreviate)						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2003) cost: 0.0
 Mark this box (X) if funding for this bill is included in the Governor's FY 2004 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

Prepared by: Janet Seitz, Committee Assistant Phone 465-3764
 Division House Rules Committee Date/Time 5/17/03 1:42 PM
 Approved by: Representative Norman Rokeberg, Chairman Date 5/17/2003
 Agency House Rules Committee

Alaska State Legislature
House of Representatives
Minority Leader

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Representative Ethan Berkowitz
District 13

MEMORANDUM

Date: January 26, 2004

To: Senator Scott Ogan, Chair
Senate Resources Committee

From: Representative Ethan Berkowitz *EAB*

Re: CSHB 196 (RES)

I respectfully request that you schedule a hearing in the Senate Resources Committee for CSHB 196 (RES), an act relating to carbon sequestration.

A copy of the bill, a sponsor statement, fiscal note, a sectional summary and additional background material are attached.

There may be someone from Fairbanks who wishes to testify via teleconference. If you have any questions or need additional information, please call Lisa Weissler at 465-3163.

Thank you.

Attachments

E-mail: Representative_Ethan_Berkowitz@legis.state.ak.us



Sponsor: Representative Ethan Berkowitz

SPONSOR STATEMENT

Committee Substitute House Bill 196(RES)

“An Act relating to carbon sequestration; and providing for an effective date.”

This bill provides the basis for Alaska's participation in the growing global market for carbon sequestration credits – a market that could provide the state upwards of \$450 million in revenue (based on extrapolations from current trading).

Carbon sequestration is the use of measures that increase the retention of carbon in the land or the oceans with the effect of offsetting carbon dioxide emissions from other sources. In order to offset carbon production, carbon producers can use carbon sequestration measures as a mitigation method. These measures translate into credits. Consequently, a new commodity market has evolved.

The bill responds to increased interest in slowing or reducing the levels of carbon dioxide and other greenhouse gases in the atmosphere. International agreements such as the Kyoto Protocol establish a limit on the amount of carbon that can be emitted into the atmosphere. Even if the U.S. does not sign the Protocol, in order to conduct business with signatory countries, U.S. companies will need to either reduce their carbon emissions below the baseline established in the Kyoto Protocol or obtain carbon sequestration credits to offset the amount that exceeds the established level.

Agricultural, forest and soil management practices and restoration of degraded habitat and wetlands have the potential to increase carbon sequestration on land. With Alaska's large land base and forested areas, the state could substantially profit from carbon sequestration credit trading.

The state must answer many questions before Alaska can enter the carbon credit market. CSHB 196(RES) requests the commissioner of the Department of Natural Resources, in consultation with the commissioner of Environmental Conservation, to research the possibilities for Alaska to participate in the emerging carbon credit trading market and report back to the legislature. The process is modeled on legislation enacted in Idaho and Nebraska.

Though the carbon credit market is growing, it is a limited market. If Alaska fails to prepare now, we may miss this unique opportunity - and miss out on millions in revenue.

For more information:

<http://www.fe.doe.gov/programs/sequestration/>

<http://www.chicagoclimatex.com/>

Alaska State Legislature
House of Representatives
Minority Leader

Alaska State Capitol
Juneau, Alaska 99801-1182
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Representative Ethan Berkowitz
District 26

Sectional Summary
CSHB 196 (RES)

“An Act relating to carbon sequestration; and providing for an effective date.”

Section 1. Legislative findings that, due to increasing interest in slowing or reversing greenhouse gases in the atmosphere, there is the potential for a carbon credit trading market; the state has the potential to increase carbon sequestration on state and private land; and it is in the interest of the state for the commissioner of natural resources to document the state’s carbon sequestration potential. Specifies legislative intent to enhance the ability of the state to participate in carbon credit trading.

Section 2. Adds new sections to AS 44.37 (Department of Natural Resources).

Sec. 44.37.200. The commissioner of natural resources, in consultation with the commissioner of environmental conservation, shall conduct research, surveys, and appropriate studies relating to carbon sequestration. The commissioner shall develop reports, recommend policies or programs to enhance the state’s ability to participate in carbon trading, encourage production of carbon sequestration educational and advisory materials, recommend research needs, and review other states’ carbon sequestration programs and policies.

Sec. 44.37.210. The commissioner of natural resources, in consultation with the commissioner of environmental conservation, shall assess state and private land for past carbon sequestration and future carbon sequestration potential.

Sec. 44.37.220. Definitions.

Section 3. On or before the first day of the Second Regular Session of the 23rd Legislature, the commissioner of natural resources, in consultation with the commissioner of environmental conservation, shall prepare a report to the legislature that includes the potential for greenhouse emissions regulation, the potential for development of a carbon trading market, systems or uses that increase stored soil carbon, methods for measuring carbon sequestration, areas of scientific uncertainty regarding carbon sequestration and advisory committee recommendations.

Section 4. Makes the Act effective July 1, 2003.

Alaska State Legislature
House of Representatives
Minority Leader

Alaska State Capitol
Juneau, Alaska 99801-1182
1-888-465-4919 (toll free)
1-907-465-2137 (fax)



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Representative Ethan Berkowitz
District 26

CSHB 196 (RES)
CARBON SEQUESTRATION
FAOS

Q: What is carbon sequestration?

A: Carbon sequestration refers to the capture and long-term storage of carbon in forests, soils or in the ocean. For example, a tree absorbs carbon dioxide during photosynthesis and uses it to construct its roots, trunk, stems and foliage. In the process, the tree sequesters (stores or conserves) carbon.

In the context of HB 196 and SB 144, carbon sequestration is the use of practices, technologies, or other measures that increase the retention of carbon in vegetation or soil to offset carbon dioxide emissions from other sources.

Q: Why is carbon sequestration important?

A: There is increased interest in reducing the levels of carbon dioxide and other greenhouse gases in the atmosphere. An international agreement known as the "Kyoto Protocol" is an agreement by industrialized and developing countries to reduce emissions of gases that contribute to the greenhouse effect and climate change. Carbon sequestration is a way to reduce greenhouse gas emissions while still enjoying the benefits of fossil fuel use.

Q: How is carbon sequestration a marketable commodity?

Though the Kyoto Protocol has not yet come into force, and the U.S. likely will not sign the protocol, many countries and industries are taking steps to address anticipated emission limits. In order to meet emission targets, a country or industry can purchase emission reductions, such as through enhanced carbon sequestration, by way of emissions reduction trading. Emission reductions are measured in terms of tons of carbon dioxide reduced and are often termed "carbon credits." Europe has already established a carbon credit trading market. In the U.S., a new market called the Chicago Climate Exchange began trading December 12, 2003.

Q: How will Alaska benefit from carbon sequestration and carbon credit trading?

Agricultural, forest and soil management practices and restoration of degraded habitat and wetlands have the potential to increase carbon sequestration on land. With Alaska's large land base and forested areas, the state could substantially benefit from carbon sequestration credit trading. The potential exists for Alaska to receive revenues upwards of \$450 million.

Q: How can Alaska participate in carbon credit trading?

A: There are significant questions about how carbon credit trading markets will develop nationally and internationally. CSHB 196 calls for the commissioner of the Department of Natural Resources, with the assistance of the Department of Environmental Conservation, to begin the process of answering these questions and to see that Alaska is able to fully and efficiently take advantage of any opportunities that might arise from carbon trading markets. The potential for Alaska to profit will increase if the state takes immediate action to benefit from emerging carbon markets.

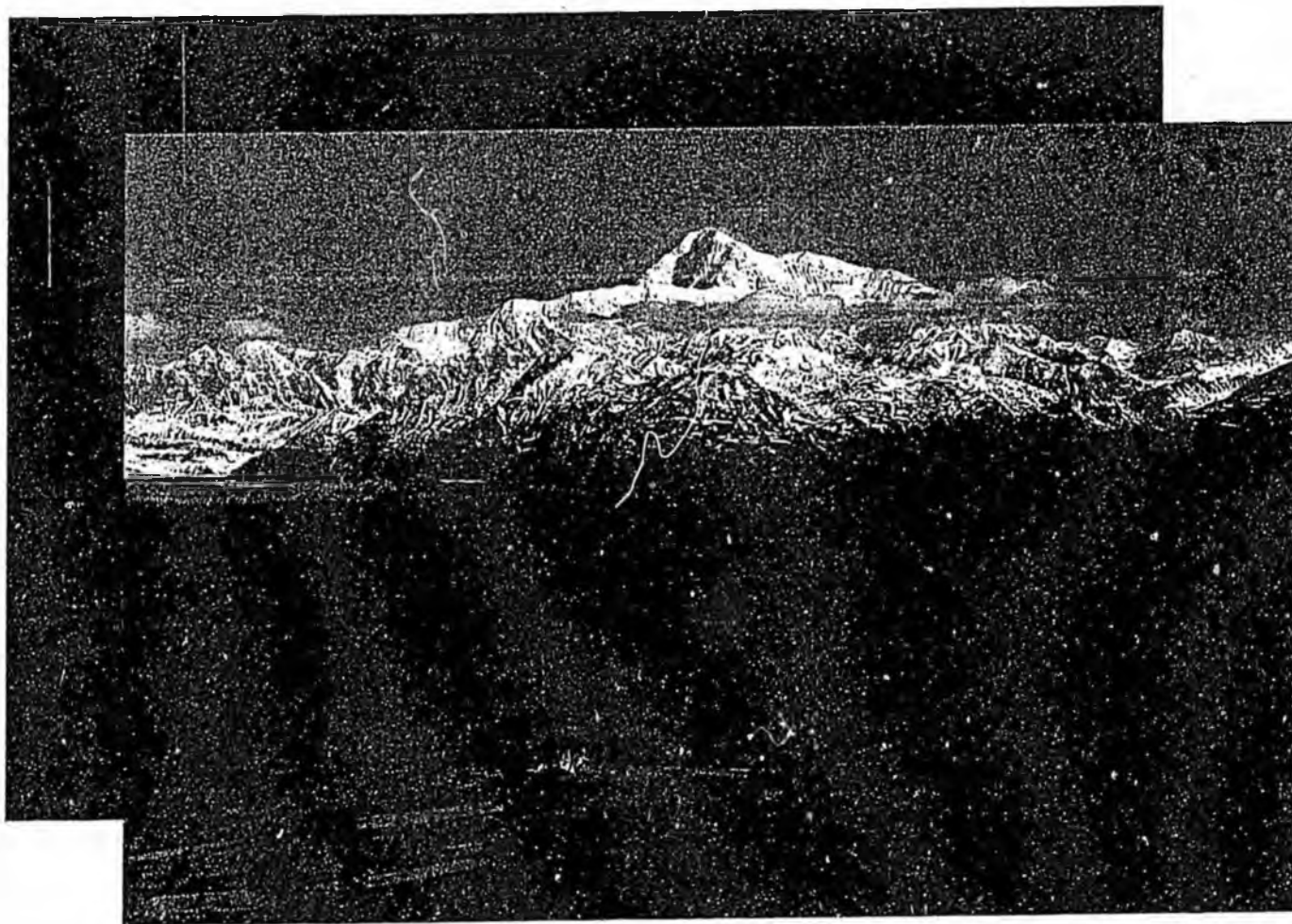
The carbon credit trading market is finite. If Alaska fails to prepare, the opportunity may be lost to other nations or states, such as Idaho and Nebraska, that have already launched carbon trading initiatives.

For additional information, contact Representative Ethan Berkowitz or Lisa Weissler, Legislative Aide, at 465-4919

THE
FOLLOWING
DOCUMENT(S)
ARE
POOR
ORIGINAL
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Reforestation Needs and Opportunities for Carbon Sequestration in Alaska

Proceedings of the Alaska Reforestation Council
May 24, 2000 Workshop
University of Alaska Anchorage



Misc. Publication 2001-2
December 2001

Agricultural and Forestry Experiment Station
University of Alaska Fairbanks

Opportunities for Carbon Offset Programs in Alaska

by
Tim King
Pacific Rim Regional RC&D,
Spokane, WA

Abstract

Timber salvage and reforestation of disturbed forests in Alaska offers several opportunities for offsetting carbon emissions and marketing emission reduction credits. First, trees killed by the spruce beetle or wildfires can be harvested for production of "bio-fuels" as renewable energy alternatives to fossil fuels. Secondly, the dead biomass is converted to useful energy before it decays, replacing fossil fuels. Finally, returns from salvage and bio-fuel sales can be used for reforestation and carbon sequestration. A major goal of regional and local Resource Conservation and Development Councils in Alaska is to establish producer-buyer partnerships for marketing carbon offset programs.

Key words: Carbon emission reduction credits (CERCs), spruce beetle (*Dendroctonus rufipennis* Kirby) epidemics, forest disturbances, forest health, timber salvage, "bio-fuels," biomass, Resource Conservation and Development Councils, Kenai Peninsula, Alaska, reforestation

Introduction

Presentations at the May 24, 2000 Alaska Reforestation Council's meeting on "Opportunities for Carbon Sequestration in Alaska" from representatives of the American Forest's Global ReLeaf Program, Washington, D.C., the USFS Southern Research Station, Triangle Park, North Carolina, and Edison Electric Institute's UtiliTree Carbon Company, Washington, D.C., indicated that partnership opportunities for market based carbon offset programs are now possible. Regional Resource Conservation and Development Councils (RC&Ds), nonprofit organizations dedicated to improving natural resources for economic and social benefits, support partnership agreements between private and public sectors for marketing carbon offset programs throughout the United States.

The Pacific Rim Regional RC&D Association has recently signed a nonbinding, nonexclusive carbon aggregation agreement with CQuest Ltd. of West Des Moines, Iowa, a carbon market brokerage firm for marketing international carbon credits. Under this agreement, local RC&Ds with support from their Pacific Rim RC&D Region and their partners work together as a team to establish terrestrial-based changes in land use and land use management for sequestering measurable carbon.

The RC&D Team Concept

The RC&D team concept is a network of carbon producers, sellers, administrators, marketers, brokers, and buyers working to change land uses and land use management for sequestration and storage of atmospheric carbon in the earth's vegetation and soils. The team insures accurate base-line carbon measurements before land management changes, models increases in stored carbon from proposed land use changes, and verifies actual carbon stored for the life of the project from field biomass inventories.

Regional RC&D Associations also assist in establishing State Carbon Advisory Committees for third party carbon credit accounting (verification and registration) to assure non-duplication of carbon sales and accurate sequestration assessments. In support of the team networking process, RC&D Associations may establish Carbon Technology Transfer Centers to provide technical assistance for project development, establish science and research programs for solving carbon sequestration and storage problems, and provide outreach and education on the carbon cycle and climate warming.

Carbon Emission Reduction Credits

Carbon sequestered from partnership projects in land management and use changes would be marketed through services provided by CQuest and other companies as Carbon Emission Reduction Credits (CERCs). CERCs are measured in metric tons (tonnes) of C or CO² equivalent.

All overstocked or understocked forest stands have the potential for improving net carbon sequestration and storage. Carbon sequestered and stored in phytomass is the basis for CERCs. Any stand threatened by disease, insects, or fire has the potential for increasing net carbon storage. The first step is to establish a baseline for capturing carbon by inventorying the carbon stored in the vegetation and soil. The next step is to develop a management plan for increasing tree growth and carbon storage in the live phytomass. Using growth and yield models, the final step is to compare the net change in carbon sequestration between managed and unmanaged stands on the same sites.

New Markets for Alaska's Forest Resources

The Alaska State Division of Forestry (DOF) and Alaska Reforestation Council (ARC) presented many specific examples and studies of severe forest health problems currently affecting Alaska's forests. General discussions addressed how these problems, mainly forest disturbance issues, may be brought on by climate change. Restoration of forests following spruce beetle (*Dendroctonus rufipennis* Kirby) epidemics, wildfires, and other disturbances offer many good projects for land use management change, which could provide carbon offsets for emissions from combustion of fossil fuels and the conversion of forests to agriculture. Teamwork between both private and public sectors in Alaska is needed to plan and implement forest restoration projects for generating CERCs, which in turn, will fund additional intensive forest management programs for sequestering carbon.

On a three day tour of many forest health issues, RC&D, UtiliTree, Global ReLeaf, ARC, and DOF representatives concurred on the immense need and opportunities for carbon offset programs across Alaska. Our first stop was on Kenai Peninsula. Spruce forests, mostly composed of mature Lutz Spruce (*Picea X lutzii* Little), appeared as an expanse of gray-brown dead trees. With only slight increases in summer temperatures of the 1990s, overstocked spruce stands quickly fell victim to competition and moisture stress. Bark beetle populations flourished with the mild temperatures and prime feeding conditions. Scattered stands of smaller diameter black spruce (*Picea mariana* (Mill.) B.S.P.) could not support the beetle's life cycle and were standing alone among the dead stands of taller Lutz spruce. Only a few stands of larger Sitka spruce (*Picea sitchensis* (Bong.) Carr.) dominated the hybrid spruce on the higher, more productive sites. Only the large Sitka spruce appeared to have sufficient health and vigor to withstand the beetle attacks.

The Ninilchik Native Corporation Manager was busy salvaging and marketing dead Lutz Spruce. Proceeds from the timber sales were utilized for site prep and planting. Although these efforts seemed phenomenal in scale to previous restoration efforts, they are only a minute token of the reforestation and management needs in the region. The dead spruce export market was only temporary and finite, and failed to provide sufficient returns for the region's forest restoration needs.

The need to find new markets large enough to handle the dead wood volume without financially breaking everyone from excessive competition was apparent. Bio-fuels, a renewable energy replacement for fossil fuels, are a major opportunity for marketing dead wood. Bio-fuel options range from wood-fired gasifiers and steam electrical production plants to new technologies in ethanol production from cellulose.

The technology for converting wood waste to steam and electrical energy is very basic. Production costs per kilowatt range nationally from \$0.06-\$0.12. In the Pacific Northwest where hydroelectric power is abundant and cheap, converting wood to steam and electrical power is not competitive. Nevertheless, wood is still converted to electricity commercially in northeast Washington. When touring the Copper River Area, we learned that electricity was approximately \$0.50 per kilowatt-hour with the state subsidizing up to \$0.30 per kilowatt using fossil fuel energy sources. Wood to steam and electrical energy conversion appears to offer multiple carbon offset opportunities. First, wood is an alternative energy source for fossil fuels. Second, the dead spruce is converted to energy before it decomposes into carbon dioxide and water via respiration of heterotrophic microbes. Third, returns from the sale of the wood for electricity can be used for putting forests back into wood production for carbon sequestration to offset wood fire and fossil fuel emissions.

The carbon offset opportunities from the sale of dead wood and the pure economics of producing electricity for 25% of current costs provide savings both to the public and state. Inexpensive power also means new jobs and manufacturing opportunities, which also utilize the abundant local natural wood resources.

The Sealaska Native Corporation of southeast Alaska has been working with Arthur Daniels Midland (the owner of patents on cellulose to ethanol conversion) and the Environmental Protection Agency on converting bio-fuels and wood waste to ethanol production in the Ketchikan area. One ethanol production plant at Ketchikan could provide the full gasohol needs of the Anchorage area. Alaska is the domestic leader in fossil fuel production, and needs to examine the possibility of becoming one of the nations major sources of bio-fuels.

Summary and Recommendations

Alaska's forests need a great deal of management to improve their health, and to reduce the impact of natural and human-caused disturbances. Funding for forest management and protection is imperative. Carbon offsets and bio-fuels production are sources of funding for which Alaska has both the need and resources.

Existing and proposed RC&D regions situated across Alaska have the potential to bring together the "TEAM" Internet concept. The Internet concept merges the efforts of local, state, and federal agencies and programs with Native Corporations, the general public, private business, and industry. These entities work together to benefit Alaska, it's people, it's resources, and the world. The time is now; the opportunity is at hand and it is knocking. Will you answer the call?

Notes

° A carbon credit is one metric ton (tonne) of carbon or CO₂ equivalent that is captured from the atmosphere and stored in plants and organic matter (biomass).

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Carbon Credits: New Income Source for Forestry?



Carbon credits could provide a new source of income for landowners and foresters.

"Growing Carbon" — that's how a brochure describes using trees and crops to sequester, or store, carbon. The goal is to balance our carbon cycle — to soak up excess carbon in greenhouse gas emissions with greater CO₂ absorption by plants.

Many leaders in this emerging field believe that U.S. forest landowners and farmers will eventually make money by participating in this process. In essence, they will earn "credits" by optimizing carbon sequestration in the soil or trees. The landowner will then sell the credits to manufacturers who want to offset their own greenhouse gas emissions.

Such a system already operates in Europe, Australia and other parts of the world. The United States is playing catch-up, but progress is being made. In fact, our nation is ideally suited for the carbon credit trade, according to Tim King, director of the Carbon Technology Transfer Center (CTTC) in Spokane, Wash. "We produce 20 to 30 percent of global CO₂ emissions and, with our temperate climate and vast farming and forest regions, we have the greatest potential to sequester carbon," he said.

As an example of the type of income that forest landowners could achieve from carbon credits, King cited a pilot project done with a 5,000-acre native conifer forest in the Northwest. At currently projected market values, the carbon credits would be worth \$300 to \$500 per acre for a 50-year sequestration commitment.

"The range in value is due to growing conditions, health and condition of the stand and other factors," King said. "Each parcel of land must be evaluated to determine what its baseline value is and what changes in management or use could increase its net carbon absorption."

King explains that the objective is not to "chase carbon for carbon credits," but instead to manage for healthy, sustainable production, focusing on the end products of lumber and fiber. "Carbon provides a tool to measure and improve current conditions and as a value to fund investment back into the forest and land," he said. "The key point is that we are no longer mining our resource base, we are building it back up, providing sustainable production for our children and their children."

Landowners won't be the only ones to earn money from the carbon credit system. King envisions a nationwide field force of personnel to "authenticate" or assess how many carbon credits a particular forest unit or farm field is worth and then periodically visit the site to verify that it remains as agreed upon. Resource specialists will advise landowners on the best ways to optimize their land's productive and carbon credit values.

"It's going to be a lot of work, and that means a lot more jobs," King said. "Foresters are in a prime position to benefit."

In forestry, King sees the greatest potential for earning carbon credits by rehabilitating older, overstocked stands and revitalizing their growth. New stand establishment is another opportunity, but site preparation must be managed carefully to avoid releasing too much carbon.

But, in general, harvesting and timber use furthers the sequestration process. For example, lumber used to build homes "locks up" carbon even longer. "A healthy, sustainable forest system is in the best position to optimize its carbon sequestration value," King said.

For more information, see CTTC's Web site at www.carboncenter.net.

For more information about forestry news and issues, visit BASF's professional foresters' website at www.forestryfacts.com.

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Carbon Sequestration R&D

"Carbon sequestration" is a family of methods for capturing and permanently isolating gases that otherwise could contribute to global climate change. Affordable and environmentally safe sequestration approaches could offer a way to stabilize atmospheric levels of carbon dioxide without requiring the United States and other countries to make large-scale and potentially costly changes to their energy infrastructures.



"We all believe technology offers great promise to significantly reduce [greenhouse gas] emissions -- especially carbon capture, storage and sequestration technologies."

President George W. Bush
June 11, 2001

Key R&D Programs and Initiatives



Go to DOE Home Page



The Carbon Sequestration Leadership Forum

DOE is working with the Department of State to organize an international ministerial-level panel that will meet regularly to discuss the growing body of scientific research and emerging technologies and plan joint projects for carbon sequestration. [Read More >](#)



Regional Partnerships Program

DOE is creating a nationwide network of federal, state and private sector partnerships to determine the most suitable technologies, regulations, and infrastructure for future carbon capture, storage and sequestration in different areas of the country. [Read More >](#)



FutureGen - A Full-Scale Sequestration Demonstration Project

The \$1 billion *FutureGen* project, announced by President Bush on February 27, 2003, will capture and store carbon emissions, making it the world's first coal-fueled prototype power plant to incorporate carbon sequestration technologies. [Read More >](#)



Carbon Sequestration Core R&D Program

DOE's Fossil Energy program is developing a portfolio of technologies that can capture and permanently store greenhouse gases. Read more about DOE's sequestration R&D program by clicking on the following links:

[Sequestration Overview >](#)

[Carbon Capture R&D >](#)

[Geologic Sequestration >](#)

[Terrestrial Sequestration >](#)

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- Carbon Sequestration R&D Projects and Papers [Government-Wide]

- National Energy Technology Laboratory Carbon Sequestration Web Site



- Carbon Sequestration Technology Roadmap & Program Plan - 2003

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Introduction

Fossil fuels will remain the mainstay of world energy production well into the 21st century. Coal, for example, is abundant, comparatively inexpensive, and geographically diverse. The International Energy Agency estimates that overall world coal use will increase by about 50 percent between now and 2030, and by nearly 67 percent for power generation, mostly in developing countries.

The United States has an estimated 250-year supply of coal. In terms of energy value (Btus), coal constitutes approximately 95 percent of U.S. fossil energy reserves. Because of its abundance and low cost, coal now accounts for more than half of the electricity generated in the United States.

Availability of fossil fuels to provide clean, affordable energy is essential for the prosperity and security of the United States. However, increased concentrations of carbon dioxide (CO₂) due to increased carbon emissions are expected. To stabilize and ultimately reduce concentrations of this greenhouse gas, it will be necessary to employ new technologies, such as carbon sequestration, to capture carbon dioxide and other greenhouse gas emissions before they are released into the atmosphere.

Along with improved efficiency and low carbon fuels, carbon sequestration is a third option for greenhouse gas mitigation. Carbon sequestration is the process of capturing CO₂ emissions, which would otherwise be released into the atmosphere, and permanently storing them in geologic formations, including oil and gas reservoirs, unmineable coal seams and deep saline reservoirs, or deep in the oceans. Carbon sequestration can also be done terrestrially in forests, crop and agricultural lands, and in wetlands. Additionally, naturally occurring reservoirs of CO₂ can be found in geologic formations throughout the United States and the world.

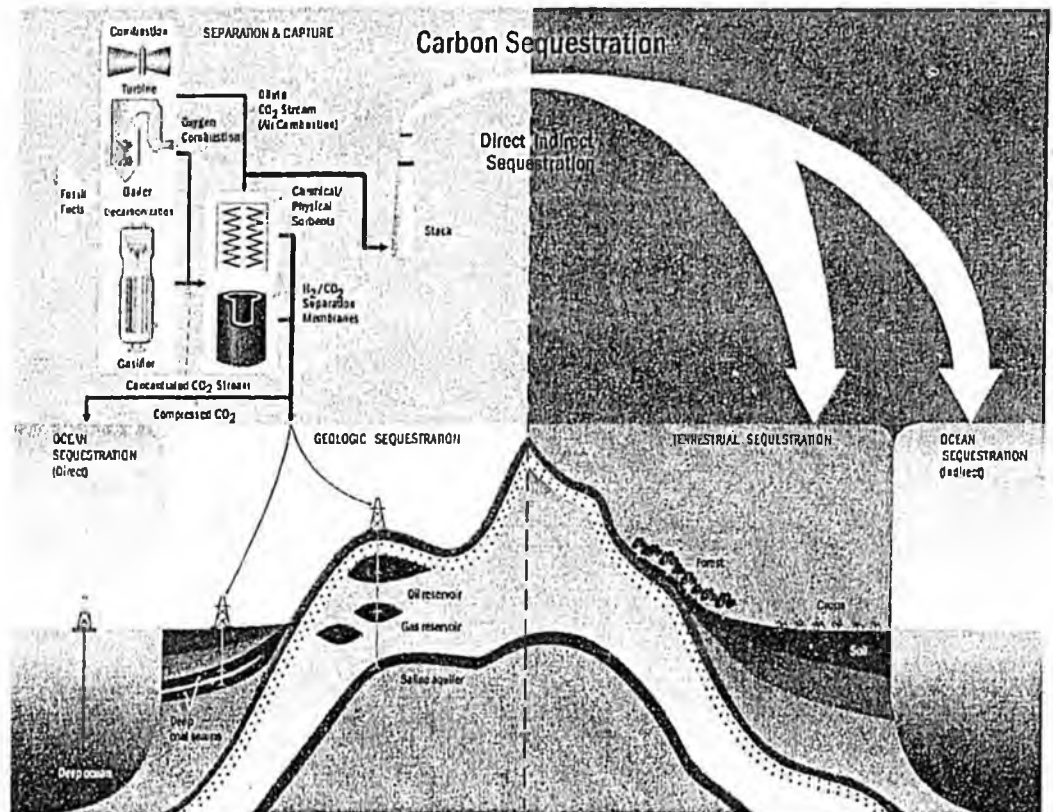
The Global Climate Change Initiative set forth by President George W. Bush calls for an 18 percent reduction in the carbon intensity of the United States economy by 2012. Technology solutions that provide energy-based goods and services with reduced greenhouse gas emissions are the President's preferred approach to achieving the Global Climate Change Initiative goal.

Recognizing the importance of carbon sequestration, the U.S. Department of Energy (DOE) established a Carbon Sequestration Program within the Office of Fossil Energy (FE) in 1997, and a basic research program in the Office of Science (OS) in 1999. Both programs seek to move sequestration technology forward so that its potential can be realized. They also directly implement the President's Global Climate Change Initiative, as well as several National Energy Policy goals targeting the development of new technologies, market mechanisms, and international collaboration to reduce greenhouse gas intensity and greenhouse gas emissions.

"...our investment in advanced energy and sequestration technologies will provide the breakthroughs we need to dramatically reduce our [greenhouse gas] emissions in the longer term."

**President George W. Bush
Global Climate Change
Policy Book
February 2002**





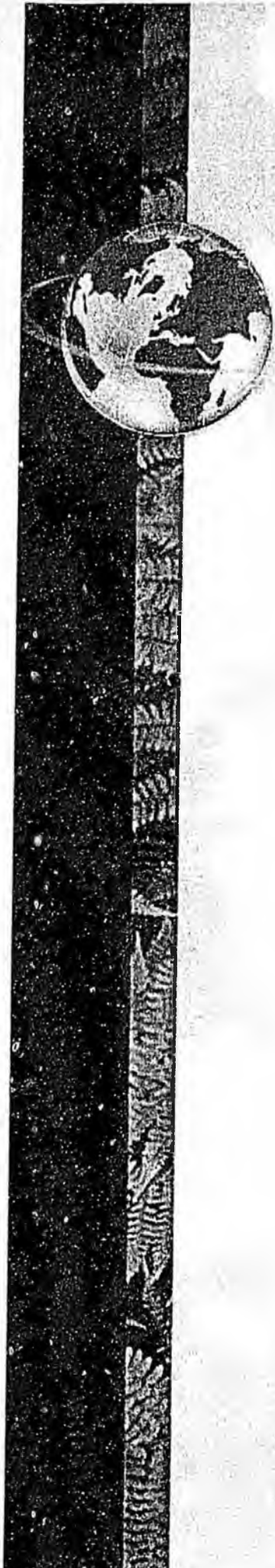
There are two main types of sequestration: direct sequestration, where CO_2 is removed from energy systems (such as power plants and oil refineries) and is permanently stored or converted to value-added products, and indirect sequestration, where CO_2 is removed from the atmosphere by enhanced natural processes.

To be successful, the techniques and practices to sequester carbon must meet the following requirements:

- be effective and cost-competitive,
- provide stable, long-term storage, and
- be environmentally benign.

Using present technology, estimates of sequestration costs are in the range of \$100 to \$300/ton of carbon emissions avoided. The overarching goal of sequestration research and development is to achieve sequestration with less than a ten percent increase in energy system costs, or roughly \$10/tonne CO_2 avoided. Achieving this goal would save the United States trillions of dollars.

Near term research is examining and identifying a spectrum of science-based sequestration approaches that have the greatest potential to yield the cost-effective technologies that are required. In the mid-term, sequestration pilot testing will develop options for direct and indirect sequestration, and the measuring, monitoring, and verification technologies and techniques necessary to quantify actual CO_2 storage. In the long term, the technology products will be more revolutionary and rely less on site-specific or application-specific factors to ensure economic viability.



The sequestration portfolio covers the entire carbon sequestration “life cycle” of capture, separation, transportation, and storage or reuse, as well as the capability to measure and monitor the amount of CO₂ stored. Specifically, the DOE’s carbon sequestration research can be broken down into six major research elements:

- Cost-effective CO₂ capture and separation processes. (FE)
- CO₂ sequestration in geological formations including oil and gas reservoirs, unmineable coal seams, and deep saline reservoirs. (FE, OS)
- Direct injection of CO₂ into the deep ocean and stimulation of phytoplankton growth. (FE, OS)
- Improved full life-cycle carbon uptake of terrestrial ecosystems. (FE, OS)
- Breakthrough chemical, biological, and decarbonization concepts. (FE, OS)
- Measurement, monitoring and verification of stored CO₂. (FE, OS)

Current carbon sequestration research within FE consists of more than 60 highly leveraged projects with more than 40 percent of the funding provided by industry and international partners, such as BP, American Electric Power, Chevron/Texaco, and the Department of Natural Resources of Canada.

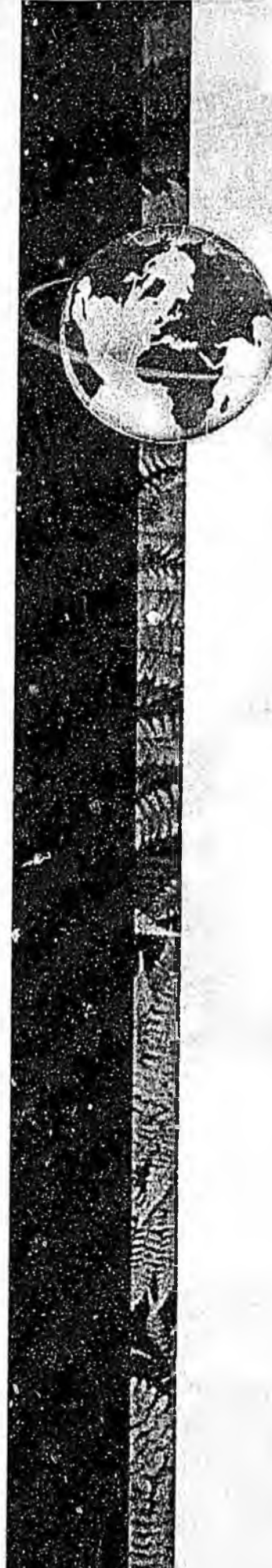
In November, 2002, DOE Secretary Spencer Abraham announced that the FE sequestration program intends to create a nationwide network of up to ten “regional sequestration partnerships” beginning in September, 2003. The partnerships will help determine the sequestration technologies, regulations, and infrastructure that are best suited for specific regions of the country.

Carbon Separation and Capture

Carbon dioxide separation and capture is the first step of direct sequestration and entails capturing CO₂ from power plants, industrial processes, fuels manufacturing, and other energy systems before it is emitted to the atmosphere.

This technology exists today, but it can raise energy costs by 50 percent or more. Driving the need for separation and capture technology is the fact that one-third of U.S. man-made CO₂ emissions come from power plants. The challenge is that these emissions are dispersed and not concentrated enough to be captured cost-effectively. The Carbon Sequestration program is pursuing evolutionary improvements in existing CO₂ capture systems, and exploring revolutionary new capture and sequestration concepts to achieve more concentrated CO₂ streams.

Separating and capturing CO₂ from energy systems can be accomplished before, during, or after a high-carbon fuel is combusted. Pre-combustion decarbonization research aims to remove CO₂ in concentrated streams before a fuel is burned. Oxygen-fired combustion research focuses on using oxygen (rather than air) to either gasify or combust high-carbon fuels, resulting in a more concentrated stream of CO₂ that can be captured within the system. Post-combustion research and development centers on techniques to remove CO₂ from flue gas exhaust.



DOE's Carbon Sequestration Programs fund separation and capture R&D projects covering a wide range of technology areas including: amine absorbents, carbon adsorbents, membranes, sodium and other metal-based sorbents, electrochemical pump, hydrates, and mineral carbonation. Also, advanced fuel conversion technologies such as gasification, oxygen combustion, and advanced steam reforming are being evaluated for their impact in reducing overall carbon emissions in fossil-fuel energy systems.

Opportunities for significant cost reductions exist since very little R&D has been devoted to CO₂ capture and separation technologies. Several innovative schemes have been proposed that could significantly reduce CO₂ capture costs, compared to conventional processes. For example, "one box" concepts that combine CO₂ capture with sulfur dioxide, nitrogen oxides, and mercury control can lessen or eliminate the need for scrubbers and other emissions abatement systems. This type of systems integration technology is being explored through laboratory- and pilot-scale experiments, and ultimately, may be used in the Energy Department's commercial FutureGen facility.

Geologic Sequestration

Geologic sequestration is a form of direct sequestration where CO₂ is stored in underground formations, such as depleted oil and gas reservoirs, unmineable coal seams, and saline reservoirs. These formations have the capacity, structure, seals, porosity, and other properties that make them amenable to decades or centuries worth of CO₂ storage.

Oil and Gas Reservoirs. In some cases, production from an oil or natural gas reservoir can be enhanced by pumping CO₂ gas into the reservoir to push out the product, which is called enhanced oil or gas recovery. The United States is the world leader in enhanced oil recovery technology, using about 32 million tons of CO₂ per year for this purpose. From the perspective of the sequestration programs, enhanced oil recovery represents an opportunity to sequester carbon at low net cost due to the revenues from recovered oil or gas.

In an enhanced oil recovery application, the integrity of the CO₂ that remains in the reservoir is well-understood and very high, as long as the original pressure of the reservoir is not exceeded. The scope of this enhanced oil recovery application is currently economically limited to point sources of CO₂ emissions that are near an oil or natural gas reservoir.

Unmineable Coal Seams. Coal beds typically contain large amounts of methane-rich gas that is adsorbed onto the surface of the coal. The current practice for recovering coal bed methane is to depressurize the bed, usually by pumping water out of the reservoir. An alternative approach is to inject CO₂ gas into the bed. Tests have shown that CO₂ is roughly twice as adsorbing on coal as methane, giving it the potential to efficiently displace methane and remain sequestered in the bed. CO₂ recovery of coal bed methane has been demonstrated in limited field tests, but much more work is necessary to understand and optimize the process.

Similar to the by-product value gained from enhanced oil recovery, the recovered methane provides a value-added revenue stream to the carbon sequestration process, creating a low net cost option. The United States' coal resources are estimated at 6 trillion tons, and 90 percent of it is unmineable due to seam thickness, depth, and structural integrity.



Another promising aspect of CO₂ sequestration in coal beds is that many of the large unmineable coal seams are near electricity generating facilities that are large point sources of CO₂ gas. Thus, limited pipeline transport of CO₂ gas would be required. Integration of coal bed methane with a coal-fired electricity generating system can provide an option for additional power generation with low emissions.

Saline Formations. Sequestration of CO₂ in deep saline formations does not produce value-added by-products, but it has other advantages. First, the estimated carbon storage capacity of saline formations in the United States is large, making them a viable long-term solution. It has been estimated that deep saline formations in the United States could potentially store up to 500 billion tonnes of CO₂. Second, most existing large CO₂ point sources are within easy access to a saline formation injection point. Therefore, sequestration in saline formations is compatible with a strategy of transforming large portions of the existing U.S. energy and industrial assets to near-zero carbon emissions via carbon sequestration.

Assuring the environmental acceptability and safety of CO₂ storage in saline formations is important. Determining that CO₂ will not escape from formations and either migrate up to the earth's surface or potentially contaminate drinking water supplies is a key aspect of this research.

Although much work is needed to better understand and characterize sequestration of CO₂ in deep saline formations, a significant baseline of information and experience exists. For example, as part of enhanced oil recovery operations, the oil industry routinely injects brines from the recovered oil into saline reservoirs, and the U.S. Environmental Protection Agency (EPA) has permitted some hazardous waste disposal sites that inject liquid wastes into deep saline formations.


Since 1996, the Norwegian oil company, Statoil, has injected approximately one million tonnes per year of recovered CO₂ into the Utsira Sand, a saline formation under the North Sea associated with the Sleipner West Heimdal gas reservoir. The amount being sequestered is equivalent to the output of a 150-megawatt coal-fired power plant. This is the only commercial CO₂ geological sequestration facility injecting CO₂ into a saline formation.

Terrestrial Sequestration

Terrestrial sequestration is a form of indirect sequestration whereby ecosystems (e.g., forest and agricultural lands, and wetlands) are maintained, enhanced, or manipulated to increase their ability to store carbon beyond current conditions.

Enhancing the natural processes that remove CO₂ from the atmosphere is thought to be one of the most cost-effective means of reducing atmospheric levels of CO₂, and forestation and deforestation abatement efforts are already under way.

The terrestrial biosphere is estimated to sequester large amounts of carbon (approximately 2 billion metric tons of carbon per year). Research and development in this area seeks to increase this rate while properly considering all the ecological, social, and economic implications.



The Department of Energy's research is focused on integrating measures for improving the full life-cycle carbon uptake of terrestrial ecosystems, including farmland and forests, with fossil fuel production and use. The following ecosystems offer significant opportunity for carbon sequestration:

Forest lands. The focus includes below-ground carbon and long-term management and utilization of standing stocks, understory, ground cover, and litter.

Agricultural lands. The focus includes crop lands, grasslands, and range lands, with emphasis on increasing long-lived soil carbon.

Biomass croplands. As a complement to ongoing efforts related to biofuels, the focus is on long-term increases in soil carbon.

Deserts and degraded lands. Restoration of degraded lands offers significant benefits and carbon sequestration potential in both below- and above-ground systems. Boreal wetlands and peatlands. The focus includes management of soil carbon pools and perhaps limited conversion to forest or grassland vegetation where ecologically acceptable.

DOE's terrestrial sequestration research programs are being conducted in close collaboration with the U.S. Forest Service of the U.S. Department of Agriculture.

Ocean Sequestration

Carbon dioxide is soluble in ocean water, and through natural processes the oceans both absorb and emit huge amounts of CO_2 into the atmosphere.

It is widely believed that the oceans will eventually absorb most of the CO_2 in the atmosphere. However, the kinetics of ocean uptake are unacceptably slow, causing a peak atmospheric CO_2 concentration of several hundred years. The Energy Department's research programs, largely conducted by DOE's Office of Science, are exploring options for speeding up the natural processes by which the oceans absorb CO_2 , and for injecting CO_2 directly into the deep ocean.

Enhancement of Natural Carbon Sequestration. One approach to enhancing the rate of CO_2 absorption in the ocean involves adding combinations of micronutrients and macronutrients to those ocean surface waters deficient in such nutrients. The objective is to stimulate the growth of phytoplankton, which are expected to consume greater amounts of carbon dioxide. When CO_2 is thus removed from the ocean surface waters, it is ultimately replaced by CO_2 drawn from the atmosphere. The extent to which the carbon from this increased biological activity is sequestered is unknown at this point, and would require additional research. Any R&D on natural enhancement would also require complete examination of potential environmental issues.

Direct Injection of CO_2 . Technology exists for the direct injection of CO_2 into deep areas of the ocean; however, the knowledge base is not adequate to optimize the costs, determine the effectiveness of the sequestration, and understand the resulting changes in the biogeochemical cycles of the ocean.

To assure environmental acceptability, developing a better understanding of the ecological impacts of both ocean fertilization and direct injection of CO_2 into the deep ocean is a focus of DOE's carbon sequestration research. It is known that small changes in biogeochemical cycles may have large consequences, many of which are secondary and difficult to predict. Of particular concern is the effect of CO_2 on the acidity of ocean water.

Compared to terrestrial ecosystems and geologic formations, the concept of ocean sequestration is in a much earlier stage of development. A small level of funding in ocean sequestration research is providing leading researchers in this area an opportunity to develop the necessary scientific understanding on feasibility of ocean storage.

Advanced Concepts

Recycling and reuse of CO_2 from energy systems would be an attractive alternative to storage of carbon dioxide. Research into advanced concepts seeks to reduce the cost and energy required to chemically or biologically convert CO_2 into either commercial products that are inert and long-lived, or stable solid compounds.

Numerous conversion phenomena are found in nature, such as photosynthesis and mineral uptake to form carbonates. Carbon dioxide conversion research and development is trying to mimic these naturally occurring phenomena, but the task is challenging. Carbon dioxide is a highly stable compound containing a very low amount of chemical energy, and the natural conversion processes are slow and inefficient as a result.

The potential of chemical pathways is immense. For instance, the entire global emissions of carbon in 1990 could be contained as magnesium carbonate in a space 10 kilometers by 10 kilometers by 150 meters.

Concerning biological systems, incremental enhancements to the carbon uptake of photosynthetic systems could have a significant positive effect. Also, harnessing naturally occurring non-photosynthetic microbiological processes capable of converting CO_2 into useful forms, such as methane and acetate, could represent a technology breakthrough. An important advantage of biological systems is that they do not require pure CO_2 and do not incur costs for separation, capture, and compression of CO_2 gas.

Research into advanced concepts for capture, reuse, and storage of CO_2 from energy production and utilization systems based on, but not limited to:

- biological systems;
- advanced catalysts for CO_2 or carbon monoxide conversion;
- novel solvents, sorbents, membranes and thin films for gas separation;
- engineered photosynthesis systems;
- non-photosynthetic mechanisms for CO_2 fixation;
- genetic manipulation of agricultural soils and trees to enhance CO_2 sequestering potential; and
- advanced decarbonization systems.

Measurement, Monitoring, and Verification

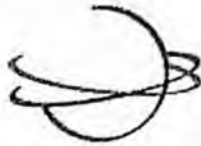
Measurement, monitoring, and verification, or MM&V, is defined as the capability to measure the amount of CO₂ stored at a specific sequestration site, to monitor the site for leaks or other deterioration of storage integrity over time, and to verify that the CO₂ is stored and poses no harm to the host ecosystem.

MM&V capability will ensure safe permanent storage, will reduce the risk associated with buying or selling credits for sequestered CO₂, and will help satisfy regulators and local government officials who must approve large sequestration projects. MM&V will also provide valuable feedback for continual refinement of injection and management practices.

DOE's sequestration programs are pursuing MM&V technology for a broad range of sequestration options including terrestrial ecosystems, geologic formations, and oceans. MM&V for terrestrial ecosystems includes 3-dimensional videography methods for modeling and tracking above-ground carbon and in-field technology to measure soil and other below-ground carbon.

In geologic sequestration, the programs are developing both below-ground and above-ground MM&V technology. Work in below-ground MM&V systems draws upon a significant capability developed for fossil resource exploration and production. Options include surface-to-borehole seismic, micro-seismic, and cross-well electromagnetic imaging devices. The area of above-ground MM&V is less mature, and is focused on detecting leaks from a geologic reservoir.

Measurement, monitoring and verification also includes the development of protocols and methodologies for calculating the net avoided CO₂ emissions from systems with carbon capture, specifically considering methods for replacing capacity.



Chicago Climate Exchange



About

Trading

Environment

Welcome to the Chicago Climate Exchange

Chicago Climate Exchange, Inc. (CCX) is a self-regulatory exchange that administers the world's first multi-national and multi-sector marketplace for reducing and trading greenhouse gas emissions. CCX represents the first voluntary commitment by a cross-section of North American corporations, municipalities and other institutions to establish a rules-based market for reducing greenhouse gases. ([learn more About CCX](#))

Climate Change and Environmental Risk

The scientific community is warning that rapid increases in the concentration of greenhouse gases in the earth's atmosphere is caused by human activity — mainly fossil fuel combustion and deforestation -- and is introducing the risk of fundamental and costly changes in the earth's climate system. The risks include more severe drought/precipitation cycles; longer and more extreme heat waves; damage to vegetation and agricultural systems; and threats to coastlines and property due to higher sea levels and storm surges. Independent of the scientific debate, the perception that global warming presents a problem that needs to be addressed is widespread. ([more on our Environment and the role of greenhouse gases](#))

Market-Based Solutions to Environmental Concern

The demand for action from governments and the private sector to take cost-effective steps to address the threat of climate change has grown steadily over the past decade. CCX

enables members to receive credits for greenhouse gas emission reductions, and to buy and sell reduction credits to determine the most cost-effective means of reducing overall emissions. ([more about Market-Based Solutions to Environmental Concerns](#))

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January 31, 2004

Greenhouse Gases

To the Editor:

In "Warming Up" (editorial, Jan. 25), you say that "a Washington Post survey found that only a tiny number of American companies" have agreed to participate in voluntary programs to curb greenhouse gas emissions.

In fact, trade associations representing thousands of companies from 12 energy-intensive industry sectors — accounting for about 40 to 45 percent of United States greenhouse gas emissions — now participate in the administration's Climate Vision program. Nearly all these organizations have made specific commitments on behalf of their members to reduce greenhouse gas emissions intensity.

The administration has made significant efforts to reduce greenhouse emissions over the longer term. To meet the energy demand of a growing world population, lift people out of poverty and stabilize atmospheric greenhouse gas concentrations, new low- or zero-emission technologies must be created and adopted by the market. The United States is leading the way in developing transformational technologies in carbon sequestration, hydrogen, renewable energy, nuclear fission and fusion.

SPENCER ABRAHAM
Secretary of Energy
Washington, Jan. 27, 2004



U.S. Environmental Protection Agency

Global Warming

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President Bush Announces Climate Change Initiatives

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President George W. Bush
The White House
July 13, 2001



Last month, I announced the fundamental principles to guide a scientifically sound and effective global effort to reduce the buildup of greenhouse gases in the atmosphere. As I said then, my Administration's climate change policy will be science-based, encourage research breakthroughs that lead to technological innovation, and take advantage of the power of markets. It will encourage global participation and will pursue actions that will help ensure continued economic growth and prosperity for our citizens and for citizens throughout the world.

Today I am pleased to report on specific initiatives that have been advanced in the past month by my Cabinet-level climate change working group. These initiatives represent important steps in putting our principles to work through partnerships with other nations, industry and non-governmental organizations. They are designed to increase our scientific understanding of climate change, to tap the enormous promise of technology in addressing greenhouse gas emissions, and to promote further cooperation on climate change with our partners in the Western Hemisphere and beyond.

To advance the science of climate change, the Secretary of Commerce has convened an interagency work group charged with developing a federal research plan that will prove vital to increasing our understanding of the dimensions and dynamics of climate change. Prominently, NASA will invest over \$120 million in the next three years in research on the natural carbon cycle, climate modeling, and the link between atmospheric chemistry and climate to help reduce uncertainties in the science highlighted by the recent National Academy of Sciences report requested by my Cabinet-level working group.

To advance technological innovation, the Department of Energy has just signed agreements to begin two significant new projects to study carbon sequestration. The first agreement is with The Nature Conservancy, the world's largest private international conservation group, to study land use and forestry practices for storing carbon more effectively in Brazil and Belize. The second is with an international team of energy companies BP-Amoco, Shell, Chevron, Texaco, Pan Canadian (Canada), Suncor Energy (Canada), ENI (Italy), Statoil Forskningscenter (Norway) and Norsk Hydro (Norway) to develop a new set of technologies for reducing the cost of capturing carbon dioxide from fossil fuel combustion plants. Grants for six other sequestration research projects have also been awarded under this \$25 million initiative that leverages an additional \$50 million from the private sector and foreign governments.

To further cooperation in the Western Hemisphere and beyond on climate change, the Department of Treasury yesterday entered into a \$14 million debt for forest agreement with the Government of El Salvador under the Tropical Forest Conservation Act. By funding tropical forest conservation in that country, the agreement will secure important benefits of carbon sequestration and climate change mitigation.

Fostering further scientific cooperation on climate change among nations in our hemisphere, the Department of Commerce is bringing together more than one hundred scientists from the United States, Mexico and South America to study the regional impacts of climate change, another important area of uncertainty highlighted by the National Academy of Sciences study.

My Environmental Protection Agency Administrator also met with the Canadian and Mexican environment

ministers on June 29 and pledged to jointly consider market-based approaches for carbon sequestration, energy efficiency and renewable energy in North America. Today, the United States will host a meeting with the Japanese Environment Minister at which they will focus on opportunities for bilateral cooperation on climate change, including enhanced, joint climate modeling research.

Finally, in keeping with my commitment to engage internationally, the United States has participated and will continue to participate constructively in International discussions on climate change, including in the upcoming Sixth Conference of the Parties to the Framework Convention on Climate Change (COP-6) that begins this Monday in Bonn, Germany.

These initiatives illustrate the efforts my Administration will continue to encourage strongly. These partnerships leverage resources to achieve tangible results. In many cases, their scope is international, reflecting the fact that both the problem and solutions for climate change extend beyond the borders of any one nation. And they represent the kind of investments in scientific and technological knowledge on which real progress on this long-term challenge must be based. I am pleased that those who are signing agreements with us or who have otherwise pledged to pursue joint research with our government share our vision of enhancing our knowledge and making progress on this important issue.

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URL: yosemite.epa.gov/oar/globalwarming.nsf/content/NewsandEventsSpeechesBush-7-13-01.html

Alaska State Legislature

House of Representatives

Minority Leader

Session address:
Alaska State Capitol
Juneau, Alaska 99801-1182
1-888-465-4919 (toll free)
1-907-465-2137 (fax)

Interim address:
716 West 4th Avenue
Anchorage, Alaska 99501-2133
1-907-269-0130
1-907-269-0132 (fax)

Representative Ethan Berkowitz

District 13

MEMORANDUM

Date: May 17, 2003

To: Senator Scott Ogan, Chair
Senate Resources Committee

From: Representative Ethan Berkowitz

Re: CSHB 196 (RES)

*This is
the best
\$400 million
seal hunt
you'll ever
have. P/s.
schedule
it!*

EB

I respectfully request that you schedule a hearing in the Senate Resources Committee for CSHB 196 (RES), an act relating to carbon sequestration.

A copy of the bill, a sponsor statement, fiscal note, a sectional summary and additional background material are attached.

There may be someone from Fairbanks who wishes to testify via teleconference. If you have any questions or need additional information, please call Lisa Weissler at 465-3163.

Thank you.

Attachments.

*Ethan
Thanks.*

Carbon Sequestration

Carbon Sequestration is a Category on the CO2e Trading Floor (Abbreviation: Sequestn). It refers to projects that capture and store carbon in a manner that prevents it from being released into the atmosphere for a specified period of time, the storage area is commonly referred to as a carbon sink. Carbon Sequestration projects include:

- Forest Sequestration (Forest)
- Land Conservation (Land)
- Soil Conservation & Land Use (Soil)
- Waste CO2 Recovery/Deep Injection (Wast/Inj)

Carbon Sink:

A carbon sink is a reservoir that can absorb or "sequester" carbon dioxide from the atmosphere. Forests are the most common form of sink, as well as soils, peat, permafrost, ocean water and carbonate deposits in the deep ocean.

Carbon Taxes

A surcharge or levy on the carbon content of oil, coal, and/or gas to discourage the use of fossil fuels, with the aim of reducing carbon dioxide emissions

Forest Sequestration

Forest Sequestration is a Class under the Carbon Sequestration Category on the CO2e Trading Floor (Abb: Forest) Sequestration includes Afforestation and Reforestation.

GHG Sequestration & Quantification:

Farmers and/or landowners enter into conservation agreements that restrict the activities implemented on contracted lands and set up forest management plans. Keeping the lands out of production and replacing lost biomass maintains the carbon currently stored in land biomass and the conserved vegetation continues to increase carbon sequestration. Such actions can be scientifically quantified through periodic plant samples that measure the carbon levels and any increases in sequestration.

Additionality:

Entering into conservation agreements is a voluntary action by the landowner.

Verification:

Reforestation and Afforestation can be verified by independent third parties to confirm that these lands are held out of production and that the scientific measurement is consistent.

Ancillary Benefits:

a) Protection of local ecosystem that is easy to publicly identify, b) Positive public relations with involved farmers and landowners.

Land Conservation

Land Conservation is included in the project Class under the Carbon Sequestration Category on the CO2e Trading Floor (Abb: Land)

Land conservation prevents the release of carbon into the atmosphere, which occurs when lands come into production, by preventing production (eg. agriculture) from occurring.

GHG Sequestration & Quantification: Farmers and/or landowners enter into conservation agreements that restrict the activities implemented on contracted lands. Keeping the lands out of production maintains the carbon currently stored in the plant matter and soils of the conserved land, and the conserved vegetation continues to increase carbon sequestration. Such actions can be scientifically quantified through periodic soil/plant samples that measure the carbon levels in the soil and any increases in sequestration.

Additionality: Entering into conservation agreements is a voluntary action by the landowner.

Verification: Land conservation/reforestation can be verified by independent third parties to confirm that these lands are held out of production and that the scientific measurement is consistent.

Ancillary Benefits: a) Protection of local ecosystem that is easy to publicly identify, b) Positive public relations with involved farmers and landowners.

Soil Conservation & Land Management

Soil Conservation & Land Management is included in the project Class under the Carbon Sequestration Category on the CO2e Trading Floor (Abb: Soil) Current farming practices incorporate the tilling of land in preparation for planting. Soil has organic carbon stored below its surface, and tilling the soil exposes the carbon to microbial breakdown that releases CO₂ into the atmosphere. Instituting a no till/low till land management program can result in a net sequestration of soil carbon. Additional GHG reductions occur due to decreased fertiliser and on-the-farm energy use.

GHG Sequestration & Quantification:

Alternative land management practices incorporate soil conservation practices that increase the carbon content of the soil. Such actions can be scientifically quantified through periodic soil samples that measure the carbon levels in the soil and any increases in carbon sequestration.

Additionality:

There is no mandate requiring farmers to incorporate any such soil conservation practices. To the contrary, short-term business pressures make it economically difficult for farmers to transfer to these practices.

Verification:

Such soil conservation/land management practices can be verified by independent third parties to confirm that these lands are held out of production and that the scientific measurement is consistent. An independent third party can implement a baseline study to determine the net sequestration derived from soil conservation/land management activities; other estimation techniques are also available.

Ancillary Benefits:

- a) Protection of nutrient value of conserved lands
- b) Positive public relations with involved farmers and land-owners
- c) secondary environmental benefits due to decreased fertiliser usage/run off.



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Anchorage Daily News

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Turning carbon into money in the bank

The Associated Press

(Published: May 18, 2003)

JUNEAU -- The state would study whether it can make money by absorbing greenhouse gases under a bill that passed the House on Saturday.

The bill by Rep. Ethan Berkowitz, D-Anchorage, calls for an advisory committee working with the Department of Natural Resources to study the idea of carbon sequestration. That refers to measures taken to capture and store carbon in forests, soils or the ocean.

Berkowitz said a worldwide market is developing for trading in "carbon credits." That's because a number of countries and companies anticipate facing limits in the amount of carbon dioxide and other so-called greenhouse gases they can put into the environment. Such emissions have been blamed for global warming.

Alaska should investigate whether it can make money from that market, Berkowitz said. With Alaska's large land base and forested areas, he estimates there's a potential to make up to \$450 million. He pointed to reforestation after harvest of timber killed by bark beetles as a possible way to generate carbon credits.

House Bill 196 passed the House 35-1, with Rep. Kelly Wolf, R-Kenai, voting no.

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Questions:

1. What affect would the implementation of Carbon Sequestration trading have on our current forest management plan?
2. What is the estimated cost to participate in Carbon Sequestration trading?
3. What has been the result of the Legislation passed in Idaho and Nebraska?
4. Would our participation in selling credits increase pollution in other locations?
5. What affect would increased pollution levels in other regions have on Northern regions such as Alaska (i.e. the health of our waters and fisheries)?
6. Would Alaska benefit from Carbon Sequestration on Federal and private lands?
7. What is the estimated level of job loss or gain if we implement CS trading?
8. How do you come up with \$450 million in state revenue? What is this number based on?

HB

226

SENATE COMMITTEE REPORT

DATE: 5/10/03

FURTHER: Finance

DATE TURNED
IN TO OFFICE: 5-13-03

Resources Committee considered

HOUSE BILL NO. 226

HB 226 ORGANIC FOOD

"An Act relating to the sale, offer for sale, representation, and labeling of food or other agricultural products as organic, and to the state organic certification program; and providing for an effective date."

and recommends:

be replaced with _____ CS _____ (_____)

adopt previous _____ CS _____ (_____)

attached amendment(s)

adopt Letter of Intent by _____ Committee

further referral to _____ Committee

Senate Bill:

same title

new title

House Bill:

same title

technical title

new: SCR # _____

NEW FISCAL NOTE(S):

Department	Date	Fiscal	Zero	FN#

PREVIOUS FISCAL NOTE(S):

Department	Date	Fiscal	Zero	FN#
DNR	5/7/03	✓		2

APPROPRIATION - no fiscal note

SIGNATURES AND RECOMMENDATIONS:	DO PASS	DO NOT PASS	NO REC	AMEND
<i>Karen Specker</i>	✓			
<i>Ben Stiller</i>	✓			
<i>Thomas P. Wagner</i>	✓			
<i>Paul Ryan</i>	✓			
<i>Donna Edwards</i>	✓			
<i>T. S. G. S.</i>	✓			
CHAIR: <i>Scott Olsen</i>	✓			

ALASKA STATE LEGISLATURE

Chair:
House Finance Subcommittees for,
Department of Public Safety
Department of Law

Member:
House Finance Committee
Legislative Council



Session:
Alaska State Capitol
Juneau, AK 99801-1182
Phone: (907) 465-4958
Fax: (907) 465-4928


Interim:
PO Box 464
Chugiak, AK 99567

REPRESENTATIVE BILL STOLTZE

Representative_Bill_Stoltze@legis.state.ak.us

Date: May 10, 2003

To: Senator Scott Ogan
Chair, Senate Resources Committee

From: Representative Bill Stoltze 

Re: Scheduling of HB 226 for Hearing

Please schedule HB 226 for a hearing in the Senate Resources Committee at your earliest convenience. HB 226 passed the House with unanimous support on May 9, 2003.

This measure is an effort to bring the state definition of organic into line with the federal definition, to allow inspector's reports to be certified in state, under an Alaska organic certification program.

If you have any questions, please contact me at 465-4958.

DISTRICT 16

BIRCHWOOD • BUTTE • CHUGIAK • EKLUTNA • FAIRVIEW LOOP
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ALASKA STATE LEGISLATURE

Chair:
House Finance Subcommittees for,
Department of Public Safety
Department of Law

Member:
House Finance Committee
Legislative Council



Session:
Alaska State Capitol
Juneau, AK 99801-1182
Phone: (907) 465-1958
Fax: (907) 465-4928

Interim:
PO Box 464
Chugiak, AK 99567

REPRESENTATIVE BILL STOLTZE

Representative_Bill_Stoltze@legis.state.ak.us

Sponsor Statement for House Bill 226

“An Act relating to the sale, offer for sale, representation, and labeling of food or other agricultural products as organic, and to the state organic certification program; and providing for an effective date.”

In 2001 the final rule for the federal definition of “organic” was adopted; the law allowed for a transition period from mid-2001 to October, 2002, giving states 14 months to come into line with the federal definition of organic. House Bill 432 was introduced in April of 2002, and it contained language to make this change. It did not pass before the twenty-second legislative session adjourned, yet the need for the change still lingers.

House Bill 226 is simply a measure to bring the state of Alaska’s definition of organic agricultural products in line with the federal definition. It would create an Alaska organic certification program, providing in-state certification for organic agricultural producers, processors, and handlers.

At this time organic operators are paying to fly certification specialists to Alaska whose fees may be as high as \$1,500 to \$3,000 to verify Alaskan operations comply with the federal organic standards. With the passage of HB 226, qualified inspectors would complete the inspection process, with the final certification process being performed by a designated state official.

I ask for your consideration and support of HB 226 to alleviate the unnecessary burden on organic agricultural operators for the expense, and timing issues, created by not having an Alaskan organic certification program.

DISTRICT 16

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KNIK RIVER ROAD • LAZY MOUNTAIN • PALMER • PETERS CREEK

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

April 7, 2003

SUBJECT: Organic food; sectional summary (HB226)

TO: Representative Bill Stoltze
Attn: Barbara Bitney

FROM: Tamara Brandt Cook *TBC*
Director

Sec. 1. Prohibits a person from selling or labeling an agricultural product as "organic" unless it has been certified under federal law or under the state organic certification program established in this bill.

Sec. 2. Permits the Department of Natural Resources to establish a state organic certification program for agricultural products that meet federal requirements for approval. Permits the department to apply for accreditation as certifying agent under federal law.

Sec. 3. Permits the adoption of regulations to carry out this chapter on organic foods (AS 03.58) and to establish fees for services provided by the department.

Sec. 4. Provides that the section dealing with enforcement is in addition to remedies available under federal law.

Sec. 5. Provides that the chapter does not apply to meat, fish, or poultry. AS 17.06.010-17.06.070, not changed in this bill, applies to the sale as organic of meat, fish, poultry, or processed food.

Sec. 7. Repeals definitions that now appear applicable to this chapter.

Secs. 8 and 10. Permits the Department of Natural Resources to adopt regulations to implement the changes made in this bill, but the regulations do not take effect before the substantive bill sections take effect. This section is given an immediate effective date.

Sec. 9. The revisor is directed to change the name of the chapter.

TBC:med
03-369.med

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

March 26, 2003

SUBJECT: Organic foods (Work Order No. 23-LS0880\A)

TO: Representative Bill Stoltze
Attn: Barbara Bitney

FROM: Tamara Brandt Cook *TBC*
Director

The draft dealing with organic foods contains in bill sec. 6 an "applicability" section that provides: "This chapter does not apply to meat, fish, or poultry." You ask why this provision is included in the draft. The draft amends AS. 03.58. That chapter now does not apply to meat, fish, or poultry. (AS 03.58.070(2)) I have found another chapter, not changed in this draft, that deals with the sale as organic of meat, fish, poultry, and processed food. (AS 17.06.010 - 17.06.070, see definition in AS 17.06.070(2))

TBC:med
03-358.med

FISCAL NOTE

STATE OF ALASKA
2002 LEGISLATIVE SESSION

Fiscal Note Number: 2
 Bill Version: HB 226
 (H) Publish Date: 5/7/2003

Revision Date/Time (Note if correction): _____ Dept. Affected: Natural Resources
 Title Organic Food BRU Agricultural Development
 Component Agricultural Development
 Sponsor Rep. Stoltze, Gatto, Harris, Wilson
 Requester _____ Component No. 455

Expenditures/Revenues (Thousands of Dollars)

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

OPERATING EXPENDITURES	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
Personal Services	30.0	30.0	30.0	30.0	30.0	30.0
Travel	5.0	5.0	5.0	5.0	5.0	5.0
Contractual	1.5					
Supplies	0.5	0.5	0.5	0.5	0.5	0.5
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	37.0	35.5	35.5	35.5	35.5	35.5

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

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

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts	37.0	35.5	35.5	35.5	35.5	35.5
1037 GF/Mental Health						
Other (Specify Type--Do not abbreviate)						
TOTAL	37.0	35.5	35.5	35.5	35.5	35.5

Estimate of any current year (FY2002) cost: 0.0
 Check this box (X) if funding for this bill is included in the Governor's FY 2003 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

Funding is requested for a part-time Agricultural Inspector I position. In addition, funding is requested for training, travel to conduct inspections and certifications, and supplies.

Prepared by: House Finance Committee Phone _____
 Date/Time 5/7/03 10:33 AM
 Approved by: _____ Date 5/7/2003
Rep. Williams
 Approved by: _____ Date 5/7/2003
Rep. Harris

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Alaska Organic Association
P.O. Box 2992
Palmer, Alaska 99645

April 7, 2003

Representative Bill Stoltze
Juneau, Alaska 99811-0001

Representative Bill Stoltze

On behalf of the Alaska Organic Association (AOA) I urge you to pass the Organic Bill HB 226 that allows the State of Alaska to become accredited with the National Organic Program (NOP) in order to certify Alaskan organic farms and food products.

Until October 21, 2002, when the National Organic Program (NOP) took over the accreditation of state and private agencies that certified organic operations, the Alaska Organic Association performed the role of certifier in Alaska. Now, the specifics of the federal government's accreditation application prohibit AOA from becoming accredited and continuing its organic certification program. Without the State of Alaska taking over this role, all organic growers and producers in this state will have to be certified by an out-of-state program. From a marketing standpoint it will be devastating for Alaskan organic growers and producers to have to stamp a label of certification from another state on their Alaska Grown produce. It will also be an embarrassment to the State of Alaska if it is unable to support a local viable sustainable industry. This year there are organic growers that will have to certify with the Washington State program at the expense of approximately \$2,000.00 or more. This excessive cost eliminates some Alaskan growers from certifying their produce as organic with the Federal government while begrudgingly being paid to Washington State by others.

Please refer to HB 226 that specifically addresses the issue of the State of Alaska becoming accredited with the federal government to certify organic operations. The organic growers in the State of Alaska need your support in assuring the passage of this bill so that we can be certified organic here in Alaska. We now face severe federal fines if we market organic produce without certification.

On behalf of the Alaska Organic Association and all organic growers in the State of Alaska, I thank you for your attention and support of this bill.

Sincerely,

River Bean, president
Alaska Organic Association

**Mark Rempel
Rempel Family Farm**

HC02 Box 7344
Palmer, Alaska 99645
(907) 745-5554
mtrempe@mtaonline.net

.....

February 26, 2003

Dear Representative Stoltze:

Thank you for your support of Alaska agriculture. I have been farming organically in the Matanuska Valley for over ten years and have been certified organic by Alaska Organic Association since 1999. There are some issues that I believe need to be addressed soon to keep Alaska agriculture moving ahead and not hesitating.

First, Alaska needs to become accredited to certify organic products in accordance with the USDA National Organic Policy. The NOP now outlaws all other standards of organic production in the U. S., so Alaska's law must conform to the federal law if we are to have a State certifying program.

Since Alaska has not conformed its organic law to the national standard, I am having to go out of state (to Washington) to maintain my status as a certified organic farmer for this season. I am ashamed and will not enjoy explaining to customers about the change. It also will cost me about four times as much as it did through Alaska Organic Association (500.00 as opposed to 2000.00).

Second, the Division of Agriculture needs to remain relatively unchanged. There seemed to be some need for better personnel dynamics, but the Division has fulfilled its defined mission well. The suggested change of mission expressed in the Legislative Audit could be explored, but that was not their defined mission. I believe that the conclusions of the auditors were not grounded in sound agriculture or government. People are the best entrepreneurs, not government. Finding new markets may need some assistance by government, but let people grow the industry at a sustainable pace so that we don't get another situation like Mt. McKinley Meats, Delta, Pt. McKenzie, etc.

We need the Division to interface with the USDA, one of the largest federal departments, or else we will not be able to effectively interface with that aspect of the Federal Government. Not only farmers would lose if that fell apart.

We need the Division for inspector services. Potato growers, organic growers, and the fishing industry need inspectors that are accessible and not peripheral to some other agency.

We need the Division as a cohesive face for existing and prospective farmers to deal with when they need regulatory guidance, information, and protection. Dealing with government is rarely easy and to scatter it as proposed by the Legislative Audit would be very hard on current Alaska Agriculture let alone improving its future.

I am opposed to having another bureaucrat director in the Division of Agriculture. We need a farmer. Larry DeVilbiss has farmed many different crops in the Matanuska Valley successfully, he is well liked by fellow farmers (conventional and organic alike) and he understands government well. Please, appoint and confirm Larry DeVilbiss Director of Division of Agriculture.

Sincerely,

Mark Rempel
Mark Rempel

FROM :

FAX NO. :

Apr. 07 2003 11:43AM P1



STATE OF WASHINGTON
DEPARTMENT OF AGRICULTURE
P.O. Box 42560 • Olympia, Washington 98504-2560 • (360) 902-1800

March 25, 2003

Application Number: 1315

State: Alaska

Mark Rempel
Rempel Family Farm
HCO2-7344
Palmer Ak 99645

Dear Mark Rempel:

Your application has been received. An inspection of your facility will take place later this year.

Cost Share - Though the 2002 National Farm Bill, you are eligible to recover 75% of your annual certification fees up to \$500. Although you are seeking certification through the Washington Department of Agriculture, the cost share reimbursement is allocated through the individual states. If you choose to apply for this Cost-Share Program you must contact the Alaska Department of Agriculture.

If you have any questions, please contact Rachael Jamison at (360) 902-1951, FAX (360) 902-2087, email: rjamison@agr.wa.gov.

Sincerely,

A handwritten signature in black ink, appearing to be "Richard Carr".

Richard Carr
Organic Food Inspector

FROM :

FAX NO. :

Apr. 07 2003 11:46AM P1



Washington State Department of Agriculture
Organic Food Program

APPLICATION

ORGANIC CERTIFICATION COST-SHARE PROGRAM

The Organic Certification Cost-Share Program is designed to provide assistance to organic producers, processors, and handlers who receive and/or update their organic certification between October 1, 2002 and September 30, 2003. Cost-Share payments will be limited to 75 percent of an individual producer, processor, or handler's certification costs, up to a maximum of \$500 per certification.

Only producers, processors, and handler within Washington State are eligible to receive cost-share money from the Washington State Department of Agriculture (WSDA). If your certified farm or facility is located in a state outside of Washington State, you must contact your state department of agriculture for a cost-share application.

CONTACT PERSON		
BUSINESS NAME		
MAILING ADDRESS		
CITY	STATE	ZIP
PRIMARY PHONE NUMBER		ALTERNATE PHONE NUMBER
FAX NUMBER		EMAIL ADDRESS

In order to receive cost-share funds, eligible producers, processor, or handlers must complete this application and the W-9 form each time organic certification costs are incurred. Certification costs include those fees designated under chapter 15-157 WAC as "New Applicant Fee", "Facility Fee", "Site Fee", and "Certification Fee". Export fees, late fees, and transitional certification costs are not eligible for cost-share funds.

Please fill in the amount of certification costs.

Certification Costs: \$ _____

If someone other than you or your company pays for your certification, please list the name and phone number of the entity who pays the certification costs.

NAME OF ENTITY WHO PAYS	PHONE NUMBER
-------------------------	--------------

Please complete and submit the enclosed W-9 form along with this application. The W-9 form must be submitted in order to receive the full amount available under the cost-share program.

Are you certified by Washington State Department of Agriculture? Yes No

If Yes, what is your certification number? Certification Number: _____

If No, you must be certified by a USDA accredited organic certification agency and you must attach a copy of your organic certificate to this application for cost-share funds.

Agreement [The person signing the application must be authorized to represent the firm.]

Signature of Representative _____ Date _____

Print Name _____ Title _____

SEND APPLICATION TO:
Washington State Dept of Agriculture
PO Box 42560
Olympia, WA 98504-2560

HB

246

SENATE COMMITTEE REPORT

DATE: 5/17/03

FURTHER: Finance

DATE TURNED
IN TO OFFICE: 5-18-03

Resources Committee considered CS FOR HOUSE BILL NO. 246(RES)(title am)

HB 246 LIMIT ON OIL & GAS LEASE ACREAGE

"An Act relating to certain audits regarding oil and gas royalty and net profits, to audits regarding costs relating to exploration incentive credits and oil and gas exploration licenses, and to the limitation on upland acreage that a person may take or hold under oil and gas leases; and providing for an effective date."

and recommends:

be replaced with 5 CS CS HB 246 (RES)

adopt previous _____ CS _____ (_____)

attached amendment(s)

adopt Letter of Intent by _____ Committee

further referral to _____ Committee

Senate Bill:

same title

new title

House Bill:

same title

technical title

new: SCR # _____

NEW FISCAL NOTE(S):

Department	Date	Fiscal	Zero	FN#
DNR	5/14/03		✓	

PREVIOUS FISCAL NOTE(S):

Department	Date	Fiscal	Zero	FN#

APPROPRIATION - no fiscal note

SIGNATURES AND RECOMMENDATIONS:	Do PASS	Do NOT PASS	No REC	AMEND
<i>Paul Byrne</i>			✓	
<i>Ben [unclear]</i>			✓	
<i>Ben [unclear]</i>	✓			
CHAIR: <i>Scott [unclear]</i>	✓			

FISCAL NOTE

STATE OF ALASKA
2003 LEGISLATIVE SESSION

Fiscal Note Number: _____
Bill Version: CS HB 246 (RES)
() Publish Date: _____

Revision Date/Time (Note if correction): 5/14/2003 Dept. Affected: Natural Resources
Title Limit on Oil & Gas Lease Acreage BRU Resource Development
Component Oil and Gas Development
Sponsor House Rules
Requester House Rules Component No. 439

Expenditures/Revenues (Thousands of Dollars)

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

OPERATING EXPENDITURES	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Personal Services						
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

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

CHANGE IN REVENUES (1004)						
----------------------------------	--	--	--	--	--	--

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type--Do not abbreviate)						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2003) cost: 0.0
Mark this box (X) if funding for this bill is included in the Governor's FY 2004 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

By increasing the maximum onshore acreage to 750,000 but limiting the 250,000 acreage increase to south of the Umiat Meridian Baseline, companies would be able to lease and explore acreage in some of Alaska's frontier basins while still maintaining their interests on the North Slope.

No increase in cost to the state is expected as a result of the transfer of the auditor functions from DOR to DNR. DOR will RSA the funds to DNR for FY04. DOR will do a budget transfer for FY05.

Prepared by: Mark D. Myers Phone 269-8800
Division Oil and Gas Date/Time 5/14/2003
Approved by: Tom Irwin, Commissioner Date 5/14/2003
Agency Natural Resources

FISCAL NOTE

STATE OF ALASKA
2003 LEGISLATIVE SESSION

Fiscal Note Number: Draft
Bill Version: CSSB172 (RES) wkdr
() Publish Date: _____

Revision Date/Time (Note if correction): 5/15/2003 Dept. Affected: Natural Resources
Title Limit on Oil & Gas Lease Acreage BRU Resource Development
Component Oil and Gas Development
Sponsor Senate Rules
Requester Senate Resources Component No. 439

Expenditures/Revenues (Thousands of Dollars)

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

OPERATING EXPENDITURES	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Personal Services						
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

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

CHANGE IN REVENUES (1004)						
----------------------------------	--	--	--	--	--	--

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type--Do not abbreviate)						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2003) cost: 0.0
Mark this box (X) if funding for this bill is included in the Governor's FY 2004 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

By increasing the maximum onshore acreage to 750,000 but limiting the 250,000 acreage increase to south of the Umiat Meridian Baseline, companies would be able to lease and explore acreage in some of Alaska's frontier basins while still maintaining their interests on the North Slope.

No increase in cost to the state is expected as a result of the transfer of the auditor functions from DOR to DNR. DOR will RSA the funds to DNR for FY04. DOR will do a budget transfer for FY05.

Prepared by: Mark D. Myers Phone 269-8800
Division Oil and Gas Date/Time 5/15/2003
Approved by: Tom Irwin, Commissioner Date 5/15/2003
Agency Natural Resources



SENATOR SCOTT OGAN Alaska State Legislature

Senate District H Lazy Mountain * Butte * Chugiak * Peters Creek
Knik-Goose Bay * Big Lake * Houston * Willow * Talkeetna * Trapper Creek

State Capitol, Room 103, Juneau Alaska 99801 * (907) 465-3878 * 1 (800) 862-3878 * Fax (907) 465-3265
Senator_Scott_Ogan@legis.state.ak.us Http://www.akrepublicans.org/ogan

FACSIMILE TRANSMITTAL SHEET

TO: LegLegal FROM: Linda Hay - In Res
 COMPANY: Jack Chenoweth DATE: 5-18-03
 FAX NUMBER: TOTAL NO. OF PAGES INCLUDING COVER: 3
 PHONE NUMBER: RE: CS for HB246

URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY PLEASE RECYCLE

NOTES/COMMENTS:

Room 103

Please prepare & send over a
 Senate Resources CS for
 CS HB246(Res)(title am)
 23-COH135\H.A

Attached are 2 amendments for
 this bill. We will need the
 draft ASAP - trying to hear it
 @ 10:30 today & then it goes to
 Senate Finance. Thank You

AMENDMENT

OFFERED IN SENATE RESOURCES

BY _____

TO: CSHB 246(RES) (title am)

1 Page 3, lines 4 and 5, after "section":

2

3 Delete "is punishable by a fine of not more than \$5,000, by imprisonment for not
4 more than two years, or by both."

5

6 Insert "commits the crime of misuse of confidential information under AS
7 11.56.860."

8

— 1 year imprisonment
— \$10,000 fine
— Class A misdemeanor

A M E N D M E N T

OFFERED IN SENATE RESOURCES

BY _____

TO: CSHB 246(RES) (title am)

1 Page 4, line 10:

2 Delete "Meridian"

3

4

*move to
adopt
u.c. ✓ -Dyson*

23-GH1135I
Chenoweth
5/18/03

SENATE CS FOR CS FOR HOUSE BILL NO. 246(RES)
IN THE LEGISLATURE OF THE STATE OF ALASKA
TWENTY-THIRD LEGISLATURE - FIRST SESSION

BY THE SENATE RESOURCES COMMITTEE

Offered:
Referred:

Sponsor(s): HOUSE RULES COMMITTEE BY REQUEST OF THE GOVERNOR

A BILL

FOR AN ACT ENTITLED

1 "An Act relating to certain audits regarding oil and gas royalty and net profits, to audits
2 regarding costs relating to exploration incentive credits and oil and gas exploration
3 licenses, and to the limitation on upland acreage that a person may take or hold under
4 oil and gas leases; and providing for an effective date."

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

6 * Section 1. AS 38.05.036(a) is amended to read:

7 (a) The department may conduct audits regarding [DEPARTMENT OF
8 REVENUE SHALL AUDIT REPORTS, PAYMENTS, AND PAYMENTS DUE
9 RELATING TO] royalty and net profits under oil and gas contracts, agreements, or
10 leases under this chapter and regarding costs related to oil and gas exploration
11 licenses and exploration incentive credits under this chapter or under AS 41.09.
12 For purposes of audit under this section.

13 (1) the department may examine the books, papers, records, or
14 memoranda of a person regarding matters related to the audit; and

L

1 (2) the records and premises where a business is conducted shall
2 be open at all reasonable times for inspection by the department.

3 * Sec. 2. AS 38.05.036(b) is amended to read:

4 (b) The Department of Revenue may obtain from the department [INSPECT
5 ALL REPORTS AND OTHER] information [FILED IN SUPPORT OF OR] relating
6 to royalty and net profits payments and to exploration incentive credits under this
7 chapter or under AS 41.09, whether or not that information is confidential. The
8 Department of Revenue may use the information in carrying out its functions and
9 responsibilities under AS 43, and shall hold that information confidential to the
10 extent required by an agreement with the department or by AS 38.05.035(a)(9),
11 AS 41.09.010(d), [UNDER OIL AND GAS AGREEMENTS, CONTRACTS, OR
12 LEASES, OR BY THIS CHAPTER] or AS 43.05.230.

13 * Sec. 3. AS 38.05.036(c) is amended to read:

14 (c) The department may obtain from the Department of Revenue all
15 [ALL] information obtained under AS 43 [BY THE DEPARTMENT OF REVENUE]
16 relating to royalty and net profits and to exploration incentive credits. The
17 department may use the information for purposes of carrying out its
18 responsibilities and functions under this chapter and AS 41.09 [PAYMENTS,
19 INCLUDING INFORMATION OBTAINED UNDER AS 43, MAY BE MADE
20 AVAILABLE TO THE DEPARTMENT, IN THE FORM OF SUMMARIES AND,
21 WHEN IN FURTHERANCE OF THE DEPARTMENT'S ROYALTY AND NET
22 PROFITS FUNCTIONS, RELEVANT PORTIONS OF THE AUDITS]. Information
23 made available to the department that was obtained under AS 43 is confidential and
24 subject to the provisions of AS 43.05.230.

25 * Sec. 4. AS 38.05.036 is amended by adding new subsections to read:

26 (f) Except as otherwise provided in this section or in connection with official
27 investigations or proceedings of the department, it is unlawful for a current or former
28 officer, employee, or agent of the state to divulge information obtained by the
29 department as a result of an audit under this section that is required by an agreement
30 with the department or by AS 38.05.035(a)(9) or AS 41.09.010(d) to be kept
31 confidential.

1 (g) Nothing in this section prohibits the publication of statistics in a manner
2 that maintains the confidentiality of information to the extent required by an
3 agreement with the department or by AS 38.05.035(a)(9) or AS 41.09.010(d).

4 (h) A person who knowingly violates (f) of this section commits the crime of
5 misuse of confidential information under AS 11.56.860. In this subsection,
6 "knowingly" has the meaning given in AS 11.81.900.

7 (i) In the course of carrying out its responsibilities under this section, the
8 department may subpoena any person to appear and produce books, records, papers, or
9 memoranda bearing upon matters relating to an audit under this section and to give
10 testimony or answer interrogatories under oath regarding those matters. The
11 department may administer oaths to persons who are so subpoenaed. A subpoena
12 issued under this section may compel attendance of a witness or production of a
13 document or thing, located inside or outside the state, to the maximum extent
14 permitted by law.

15 (j) A subpoena may be served by the commissioner of public safety or a peace
16 officer designated by the commissioner of public safety, by a person designated by the
17 department, or as otherwise provided by law. A subpoena may also be served by
18 registered or certified mail for delivery restricted only to the person subpoenaed. The
19 return delivery receipt must be addressed so that the receipt is returned to the
20 department.

21 (k) If a person who is subpoenaed neglects or refuses to obey the subpoena
22 issued as provided in this section, the department may report the fact to the superior
23 court or the appropriate court of another jurisdiction, and may seek an order from the
24 court compelling obedience to the subpoena. The court, to the maximum extent
25 permitted by law, may compel obedience to the subpoena to the same extent as
26 witnesses may be compelled to obey the subpoenas of the court.

27 (l) The department may conduct audits under this section concurrently with
28 Department of Revenue audits or investigations under AS 43.

29 * Sec. 5. AS 38.05.140(c) is amended to read:

30 (c) A person may not take or hold at one time phosphate leases on state land
31 exceeding in the aggregate 10,240 acres. A person may not take or hold sodium leases

1 or permits during the life of sodium leases on state land exceeding in the aggregate
2 acreage 5,120 acres, except that the commissioner may, where it is necessary in order
3 to secure the economic mining of sodium compounds, permit a person to take or hold
4 sodium leases or permits for up to 15,360 acres. A person may not take or hold at any
5 one time oil or gas leases exceeding in the aggregate 500,000 acres granted on tide and
6 submerged land, including leases held both as lessee and under option or
7 operating agreement from others. A person may not take or hold at any one time
8 oil or gas leases exceeding in the aggregate 750,000 [AND 500,000] acres on all
9 land other than tide and submerged land, of which not more than 500,000 acres may
10 be located north of the Umiat baseline, including leases held both as lessee and
11 under option or operating agreement from others. Where more than a single person
12 holds an interest in an oil or gas lease, each person shall be charged only with that
13 percentage of the total acreage that [WHICH] corresponds to its percentage share of
14 the total beneficial interest in the lease.

15 * Sec. 6. AS 43.05.040(a) is amended to read:

16 (a) The department may examine the books, papers, records, or memoranda of
17 any person to ascertain the correctness of a return filed or to determine whether a tax
18 [OR A PAYMENT FOR OIL OR GAS ROYALTY OR NET PROFITS SHARES
19 UNDER A CONTRACT, AGREEMENT, OR LEASE UNDER AS 38.05] is due, or
20 in an investigation or inspection in connection with tax matters [OR MATTERS
21 RELATING TO OIL AND GAS ROYALTY OR NET PROFITS UNDER
22 CONTRACTS, AGREEMENTS, OR LEASES UNDER AS 38.05]. The records and
23 the premises where a business is conducted shall be open at all reasonable times for
24 official inspection, and the department may subpoena any person to appear and
25 produce books, records, papers, or memoranda bearing upon tax matters [OR
26 MATTERS RELATING TO OIL AND GAS ROYALTY OR NET PROFITS
27 UNDER CONTRACTS, AGREEMENTS, OR LEASES UNDER AS 38.05], and to
28 give testimony or answer interrogatories under oath respecting tax matters [OR
29 MATTERS RELATED TO OIL AND GAS ROYALTY OR NET PROFITS UNDER
30 CONTRACTS, AGREEMENTS, OR LEASES UNDER AS 38.05], and the
31 department may administer oaths to persons who are so subpoenaed. A subpoena

1 issued under this section may compel attendance of a witness or production of a
2 document or thing, located either inside or outside the state, to the maximum extent
3 permitted by law.

4 * Sec. 7. AS 43.05.230(a) is amended to read:

5 (a) It is unlawful for a current or former officer, employee, or agent of the
6 state to divulge the amount of income or the particulars set out or disclosed in a report
7 or return made under this title, except

8 (1) in connection with official investigations or proceedings of the
9 department, whether judicial or administrative, involving taxes due under this title;

10 (2) in connection with official investigations or proceedings of the
11 child support enforcement agency, whether judicial or administrative, involving child
12 support obligations imposed or imposable under AS 25 or AS 47;

13 (3) as provided in AS 38.05.036 pertaining to audit functions of the
14 Department of Natural Resources;

15 (4) as provided in AS 43.05.400 - 43.05.499; and

16 (5) as otherwise provided in this section.

17 * Sec. 8. AS 38.05.036(d), 38.05.036(e), and AS 43.05.010(15) are repealed.

18 * Sec. 9. The uncodified law of the State of Alaska is amended by adding a new section to
19 read:

20 TRANSITION. (a) Litigation, hearings, investigations, and other proceedings
21 pending under a law amended or repealed by secs. 1 - 4 and 6 - 8 of this Act, or in connection
22 with functions transferred by secs. 1 - 4 and 6 - 8 of this Act, continue in effect and may be
23 continued and completed notwithstanding a transfer or amendment or repeal provided for in
24 secs. 1 - 4 and 6 - 8 of this Act.

25 (b) Contracts, rights, liabilities, and obligations created by or under a law amended or
26 repealed by secs. 1 - 4 and 6 - 8 of this Act and in effect on June 30, 2003, remain in effect
27 notwithstanding this Act's taking effect. Records and appropriations of agencies of the state
28 whose functions are transferred under secs. 1 - 4 and 6 - 8 of this Act shall be transferred to
29 implement those provisions of this Act.

30 * Sec. 10. Section 5 of this Act takes effect immediately under AS 01.10.070(c).

31 * Sec. 11. Except as provided in sec. 10 of this Act, this Act takes effect July 1, 2003.

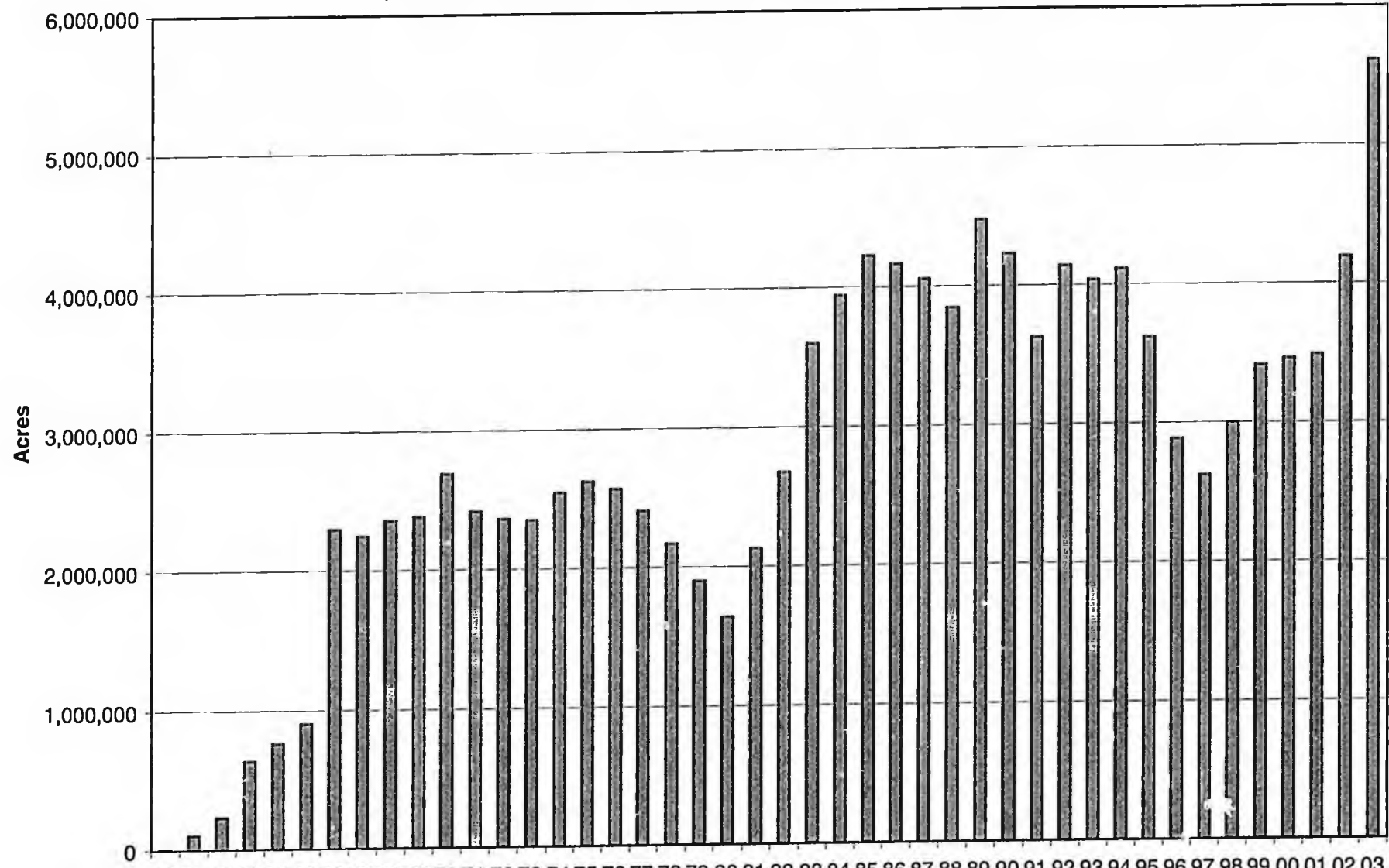
**DEPARTMENT OF NATURAL RESOURCES
TALKING POINTS – CSSB 172(RES)**

- Current statutes (AS 38.05.140(c)) limit oil and gas lessees to a total of:
 - 500,000 acres on tide and submerged land
 - 500,000 acres on all land other than tide and submerged land.
- Many operating oil and gas companies are already either at the acreage limited by statute or close to the limit. The bulk of this acreage is located on the North Slope and Beaufort Sea.
- DNR, during the last few years, has been encouraging the exploration of frontier areas such as the North Slope Foothills and Alaska's interior basins.
- By increasing the maximum onshore acreage to 750,000 but limiting the 250,000 acre increase to south of the Umiat Meridian, companies would be able to lease and explore acreage in some of Alaska's frontier basins while still maintaining their interests on the North Slope.

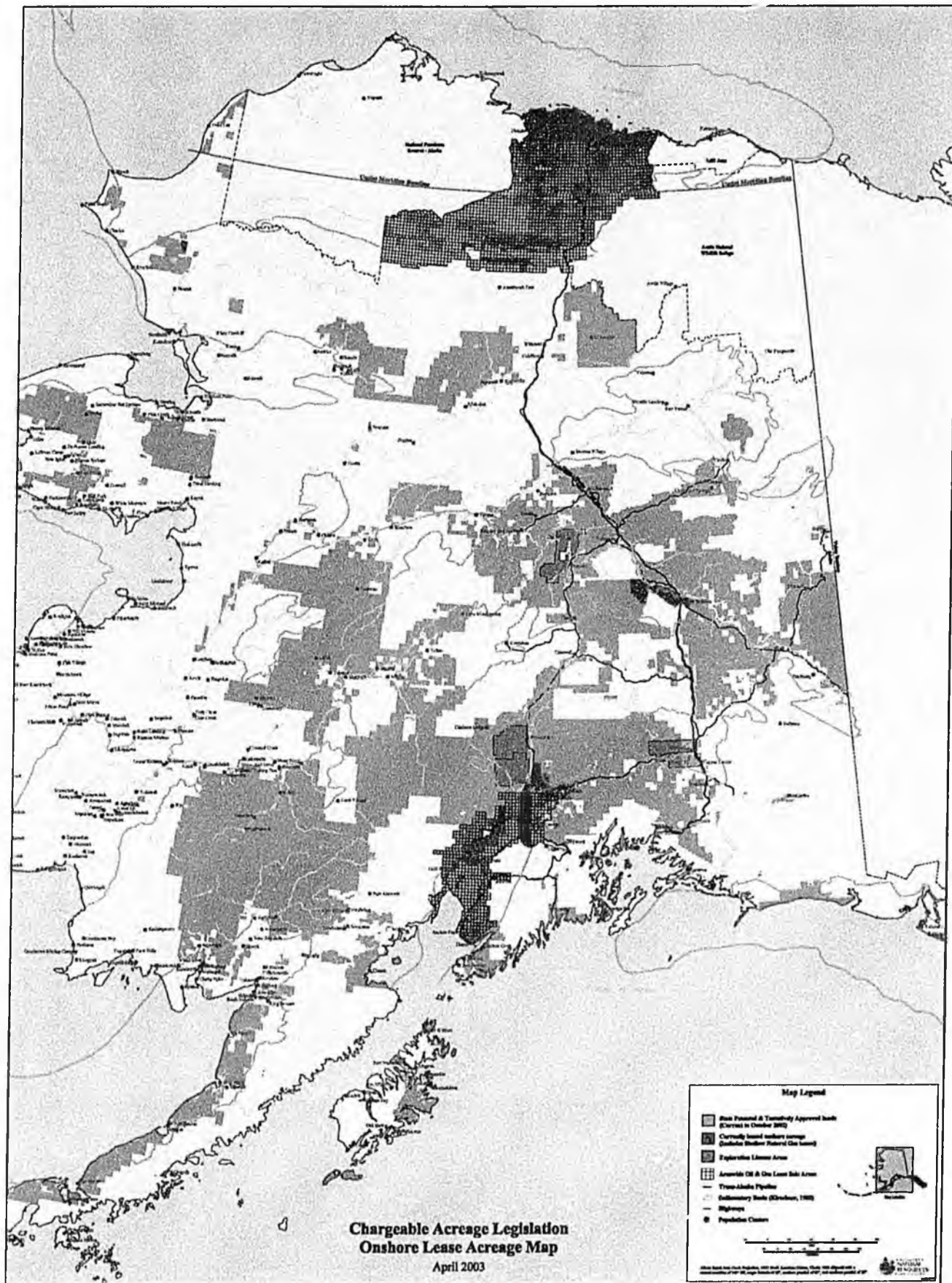
- In 1980, the oil and gas audit responsibilities for royalties and net profit share leases were transferred to Dept. of Revenue based on the belief that a cost savings could be achieved by having one staff of auditors simultaneously review both tax and royalty data. Since that time, however, the state has entered into royalty settlement agreements and has made changes to its tax regulations. As a result, there is no longer the synergy between the simultaneous tax and royalty audit of a single product for a given field in a given year.
- DNR has been charged with the duty to administer and enforce oil and gas contracts, agreements, and leases. Moreover, the expertise in oil and gas lease agreements and settlements rests with DNR.
- It makes sense from a knowledge and efficiency stand point to place the auditing duties in DNR which administers, enforces, and therefore has the most expertise with the oil and gas leasing program.
- The current sharing of responsibilities between Dept. of Revenue and DNR has resulted in government inefficiencies (Dept. of Revenue audits oil and gas royalties and net profit share lease matters, then DNR audits the audit to make sure it reflects DNR policy). This proposed bill would transfer responsibilities for auditing oil and gas royalties and net profit share lease matters back to DNR.

Acreage under Oil & Gas Lease 1960 – 2003

(Does not include acreage under Exploration License)



Acreage figures for 2003 current to April 1.
Includes conventional, shallow natural gas, lease expirations and relinquishments.



**Chargeable Acreage Legislation
Onshore Lease Acreage Map**
April 2003

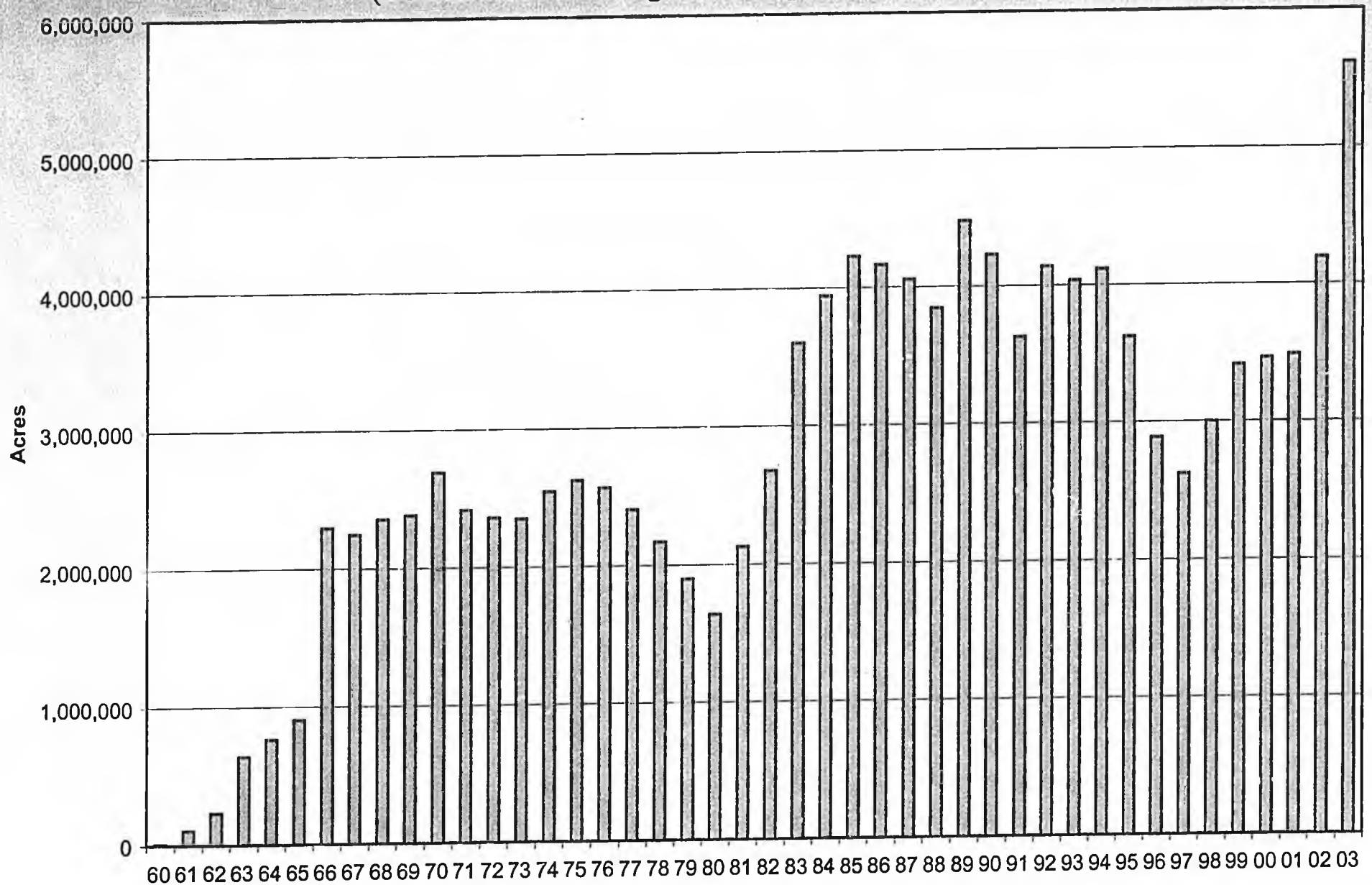
Map Legend

- Block Proposed & Tentatively Approved Lease (Entered in October 2002)
- Currently leased surface usage (Includes Surface Rental Gas Sales)
- Exploration License Area
- Armedillo Oil & Gas Lease Sale Area
- Three-Phase Pipeline
- Subsidiary State (Bulowson, 1986)
- Highways
- Population Centers

Alaska State Department of Natural Resources, Division of Oil and Gas, 1400 West Northern Avenue, Anchorage, Alaska 99561

Acreage under Oil & Gas Lease 1960 – 2003

(Does not include acreage under Exploration License)



Acreage figures for 2003 current to April 1.

Includes conventional, shallow natural gas, lease expirations and relinquishments.

Year

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF THE COMMISSIONER

FRANK H. MURKOWSKI, GOVERNOR

400 WILLOUGHBY AVENUE
JUNEAU, ALASKA 99801-1796
PHONE: (907) 465-2400
FAX: (907) 465-3886

550 WEST 7TH AVENUE, SUITE 1400
ANCHORAGE, ALASKA 99501-3650
PHONE: (907) 269-8431
FAX: (907) 269-8918

April 4, 2003

The Honorable Scott Ogan, Chair
Senate Resources Committee
Alaska State Legislature
State Capitol, Room 103
Juneau, AK 99801

Dear Senator Ogan:

I am writing to request a hearing next week for SB 172, an act to increase the amount of chargeable oil and gas acreage. This bill would amend AS 38.05.140(c) to increase the upland acreage limit for oil and gas leases from 500,000 acres to 750,000 acres, except for land north of the Umiat Meridian baseline.

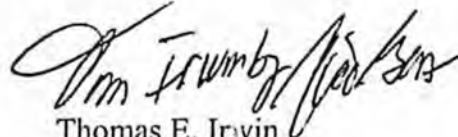
Currently, under AS 38.05.140(c) oil and gas lessees may not hold more than a total of 500,000 acres on tide and submerged and no more than 500,000 acres on uplands. While oil and gas leases with certified wells and those included within units are excluded from these acreage limitations, many operating oil and gas companies are already either at the existing 500,000 acres limitation or close to it. The bulk of this acreage is located on the North Slope and Beaufort Sea.

In the past few years the Department of Natural Resources has been encouraging exploration of frontier areas such as the North Slope foothills. The bill would increase the maximum upland acreage to 750,000, of which no more than 500,000 acres could be located north of the Umiat Meridian baseline. Thus companies would be able to lease and explore acreage in Alaska frontier basins while still maintaining their interest on the North Slope.

There will be a positive fiscal impact from additional bonus bids, rentals and eventually, production royalties. At this time it is impossible to accurately predict what this increase in revenue might be.

Thank you for your consideration. Please contact Janet Burleson Baxter at (907) 465-4730 if you have any questions. You may also contact Mark Myers, Director of the Division of Oil and Gas at (907) 269-8800.

Sincerely,



Thomas E. Irwin
Commissioner



APR 14 2003

Richard P. Mott
Vice President
Exploration & Land
P.O. Box 100360
Anchorage, AK 99510-0360
Phone 907.263.4556

April 9, 2003

Representative Vic Kohring, Chairman
House Special Committee on Oil and Gas
Legislature of the State of Alaska
Alaska State Capitol, Room 24
Juneau, Alaska 99801-1182

Senator Scott Ogan, Chairman
Resources Committee
Legislature of the State of Alaska
Alaska State Capitol, Room 103
Juneau, Alaska 99801-1182

Re: House Bill No. 246
Senate Bill No. 172

ConocoPhillips Alaska, Inc. supports House Bill No. 246, and Senate Bill No. 172 both of which provide for an increase in the limitation on acreage that a person may take or hold under oil and gas lease in the State of Alaska. An increase in the acreage limitation will encourage additional investment by the oil and gas industry in the exploration and development of Alaskan resources.

A handwritten signature in cursive script that reads "Richard P. Mott".

Richard P. Mott
Vice President
Exploration & Land

Cc: Mike Tibbles
Legislative Liaison
Office of the Governor
P.O. Box 110001
Juneau, Alaska 99811-0001

Mark Myers, Director
State of Alaska
Department of Natural Resources
Division of Oil & Gas
550 West 7th Avenue, Suite 800
Anchorage, Alaska 99501-3510

HB

283

SENATE COMMITTEE REPORT

DATE: 5/8/03

FURTHER:

DATE TURNED
IN TO OFFICE: 5-19-03

Resources Committee considered HOUSE BILL NO. 283

HB 283 COAL LEASES

"An Act relating to limitations on coal leases."

and recommends:

- be replaced with _____ CS _____ (_____)
- adopt previous _____ CS _____ (_____)
- attached amendment(s)
- adopt Letter of Intent by _____ Committee
- further referral to _____ Committee

Senate Bill:

- same title
- new title

House Bill:

- same title
- technical title
- new: SCR # _____

NEW FISCAL NOTE(S):

Department	Date	Fiscal	Zero	FN#

PREVIOUS FISCAL NOTE(S):

Department	Date	Fiscal	Zero	FN#
DWR	4/30/03		✓	1

APPROPRIATION - no fiscal note

SIGNATURES AND RECOMMENDATIONS:	DO PASS	DO NOT PASS	NO REC	AMEND
<i>George Jackson</i>	✓			
<i>Ben Steiner</i>				
<i>Thomas H. Kramer</i>	✓			
<i>Paul Light</i>	✓			
CHAIR: <i>Scott Ogden</i>	✓			

FISCAL NOTE

STATE OF ALASKA
2003 LEGISLATIVE SESSION

Fiscal Note Number: 1
Bill Version: HB 283
(H) Publish Date: 5/6/03

Revision Date/Time (Note if correction): _____ Dept. Affected: Natural Resources
Title: Limitations on coal leases BRU: Minerals, Land & Water Dev.
Component: Claims, Permits and Leases
Sponsor: Rep. Fate
Requester: (H) Resources Component No.: 2460

Expenditures/Revenues (Thousands of Dollars)

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

OPERATING EXPENDITURES	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Personal Services						
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES						
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CHANGE IN REVENUES ()	0.0	0.0	0.0	0.0	0.0	0.0
-------------------------------	------------	------------	------------	------------	------------	------------

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF	0.0	0.0	0.0	0.0	0.0	0.0
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type -Do not abbreviate)						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2003) cost: 0.0
Check this box (X) if funding for this bill is included in the Governor's FY 2004 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

This bill doubles the limit of the total aggregate acreage a person may hold in coal leases or permits from 46,080 to 92,160 acres.

The Department supports the bill. The change in allowable acreage is consistent with a recent change in federal law that increased the aggregate acreage of federal coal leases held by one company.

Fiscal Impact

The department can predict no significant fiscal impact for this bill. This bill would not increase costs to state government.

Prepared by: Bob Loeffler Phone 269-8625
Division: Mining, Land and Water Date/Time 4/30/2003
Approved by: Tom Irwin, Commissioner Date 4/30/2003
Agency: Natural Resources

Alaska State Legislature
House of Representatives
Representative Hugh "Bud" Fate



State Capitol, Room 128
Juneau, AK 99801
Phone: (907) 465-4976
Fax: (907) 465-3883
Toll Free: (866) 465-4976

Chair Resources
Member:
Energy Council
Military & Veterans Affairs
Oil & Gas
Transportation

Memorandum

To: Senator Scott Ogan, Chair Senate Resources Committee
Fm: Jim Pound, Chief of Staff
Cc:
Date: May 10, 2003
Re: HB 283 "COAL LEASES"

Please accept this memo and attached documents as a request for the Senate Resources Committee to hear House Bill 283, "COAL LEASES." This legislation will allow Alaska's Coal Industry to compete with the new federal coal lease proposals in the western lower 48. It expands the amount of acreage available for lease to existing and new coal exploration companies.

Thanks you for your consideration of this Bill.

Attached: Sponsor Statement, HB 283, Fiscal Note, Legislative Activity, Support Letters

Representative
HUGH "BUD" FATE
Chair-Resources Committee
Energy Council
119 N. Cushman St. Suite 207
Fairbanks, Alaska 99701
(907) 452-6084
Fax: (907) 452-6096

Alaska State Legislature



House of Representatives

While in Session
State Capitol, Room 128
Juneau, Alaska 99801-1182
(907) 465-4976
Fax: 465-3883
Toll Free:
1 866-465-4976

House District 7

Sponsor Statement HB 283

"An Act relating to limitations on coal leases."

HB 283 makes a very important change to existing statute for the coal industry, and places Alaska on par with other western states. While most states have a difficult time allocating thousand of acres for coal leases, the federal government has opened the door for expansion on their lands.

Essentially, this puts Alaska at a disadvantage in coal exploration, because of the state's limitation. By increasing the amount of state acreage available for coal leases, the industry has an opportunity to compete and the state stands to gain revenue from the leases.

Passage of HB 283 will also send a message to companies interested in the coal potentials in Alaska to have access through the lease process, comparable to other states without a requirement to depend on federal involvement.

Subject: Increasing Acreage for Coal Leases

Date: Fri, 16 May 2003 20:56:52 -0800

From: Bob Loeffler & Connie Sanders <bobandconnie@acsalaska.net>

To: linda_hay@legis.state.ak.us

CC: Mark Myers <mdm@dnr.state.ak.us>, Larry Ostrovsky <Larry_Ostrovsky@law.state.ak.us>, Marie Crosley <mmc@dnr.state.ak.us>, joe_joyner@dnr.state.ak.us, janet_burleson@dnr.state.ak.us

Linda,

The e-mail you received from Pirtle Bates concerning coal lease acreage included an error in the first bullet. The e-mail indicated that "increasing acreage limitations for coal would reduce the acreage available for shallow natural gas leasing to all applicants." In fact, the proposed increase allows one company to own more coal lease acreage.

But does not change the coal acreage available to the industry in general. It is not expected to significantly change the amount of coal acreage leased, as a whole. Therefore, there will likely be no net change to the acreage off-limits to shallow gas.

We appologive for the error. Please call if you have questions. My home number is 907-248-4645.

Bob Loeffler
Director
Division of Mining, Land and Water
(e-mail sent from home)

Subject: Reply to your questions regarding increasing acreage limitations for coal leases

Date: Fri, 16 May 2003 18:55:57 -0800

From: "Pirtle Bates" <pbj@dnr.state.ak.us>

Reply-To: <Pirtle_Bates@dnr.state.ak.us>

To: <linda_hay@legis.state.ak.us>

CC: "Mark Myers" <mdm@dnr.state.ak.us>,
"Larry Ostrovsky" <Larry_Ostrovsky@law.state.ak.us>,
"Marie Crosley" <mmc@dnr.state.ak.us>, <joe_joyner@dnr.state.ak.us>,
<janet_burle.on@dnr.state.ak.us>

Linda:

Here's a brief list of the conclusions that Mark Myers, Joe Joyner, Larry Ostrovsky (with other AAGs), and myself came to:

- the language in AS 38.05.140(a) only applies to the coal deposits and does not preclude the issuance of conventional oil & gas leases (but limits the issuance of shallow natural gas leases as required by AS 38.05.177), so increasing the acreage limitations for coal would reduce the acreage available for shallow natural gas leasing to all applicants

- a coal lessee would only have the right to vent or remove gas within the coal for safety reasons while mining coal, and could have a claim to the right to sell the gas removed

- if there exists both a coal lease and oil and gas lease covering the same acreage, any conflicts (including surface use) would be resolved through application of the reservations language in the respective leases - basically giving the earliest lessee the superior right to reasonable accommodation

Larry Ostrovsky gave his home phone # should you need to ask him further questions. it is: 258-7056.

Hopefully I havɛn't forgotten any of the relevant points we covered.

Mr. Pirtle Bates, Jr.
State of Alaska
Division of Oil and Gas
550 W. 7th Ave., Suite 800
Anchorage, AK 99501-3560
Phone: (907) 269-8805
Fax: (907) 269-8943



RESOURCE DEVELOPMENT COUNCIL

Growing Alaska Through Responsible Resource Development

May 14, 2003

Senator Scott Ogan
Chair, Senate Resources Committee
Alaska State Capitol
Juneau, Alaska 99801-1182

Re: HB283 — Coal Leases

Dear Senator Ogan:

On behalf of the Resource Development Council for Alaska, Inc. (RDC), I am writing in support of House Bill 283 — Coal Leases. This legislation makes a simple change to state law doubling the acreage a person may hold in state coal leases to 92,160 acres (four townships). This change corresponds with a similar increase for federal coal leases embodied in the "Coal Market Competition Act of 2000." RDC supports this change and we ask the Senate Resources Committee to move the bill forward.

As you know, RDC is a statewide, non-profit business association representing individuals and companies from Alaska's basic industries — mining, oil and gas, fisheries, tourism and forestry. Our membership also includes Native village and regional corporations, local communities, organized labor and support-industry firms. Our mission is to help grow Alaska's economy through the responsible development of the state's natural resources.

Alaska is home to a tremendous coal resource. However, an extremely competitive world market requires continued evolution in state policy in order to give local companies the best chance to be successful. HB 283 will provide existing lessees, such as Usibelli Coal Mine, Inc., with additional flexibility in planning for future expansion.

Thank you for considering our position on this issue. Please feel free to contact me with any questions.

Sincerely,

RESOURCE DEVELOPMENT COUNCIL
for Alaska, Inc.

Tadd Owens
Executive Director



RESOURCE DEVELOPMENT COUNCIL

Growing Alaska Through Responsible Resource Development

April 29, 2003

Representative Hugh Fate
Chair, House Resources Committee
Alaska State Capitol
Juneau, Alaska 99801-1182

Re: HB283 — Coal Leases

Dear Representative Fate:

On behalf of the Resource Development Council for Alaska, Inc. (RDC), I am writing in support of House Bill 283 — Coal Leases. This legislation makes a simple change to state law doubling the acreage a person may hold in state coal leases to 92,160 acres (four townships). This change corresponds with a similar increase for federal coal leases embodied in the "Coal Market Competition Act of 2000."

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Thank you for considering our position on this issue. Please feel free to contact me with any questions.

Sincerely,

RESOURCE DEVELOPMENT COUNCIL
for Alaska, Inc.

Tadd Owens
Executive Director