

**SB**

**103**

**SFIN**

**FILE**

SENATE FINANCE COMMITTEE REPORT

REPORTED OUT  
APR 08 2005  
SENATE FINANCE  
COMMITTEE

DATE: 3/8/05

FURTHER:

DATE TURNED IN TO OFFICE: 8 April 2005

Finance Committee considered

SENATE BILL NO. 103

SB 103 OIL & GAS: REG. OF UNDERGROUND INJECTION

"An Act relating to regulation of underground injection under the federal Safe Drinking Water Act; and providing for an effective date."

and recommends:

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

Senate Bill:  
 Same Title  
 New Title

House Bill:  
 Same Title  
 Technical Title Change  
 New Title w/ SCR # \_\_\_\_\_

NEW FISCAL NOTE(S):

Department	Date	Fiscal	Ind.	Zero	FN#

PREVIOUS FISCAL NOTE(S):

Department	Date	Fiscal	Ind.	Zero	FN#
DNR	2/8/05			<input checked="" type="checkbox"/>	#2
Admin	1/28/05	25.0			#1

APPROPRIATION - no fiscal note

SIGNATURES AND RECOMMENDATIONS:	DO PASS	DO NOT PASS	NO REC	AMEND
<i>[Signature]</i>	<input checked="" type="checkbox"/>			
<i>[Signature]</i>			<input checked="" type="checkbox"/>	
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<i>[Signature]</i>			<input checked="" type="checkbox"/>	
COCHAIR: <i>[Signature]</i>	<input checked="" type="checkbox"/>			
COCHAIR: <i>[Signature]</i>	<input checked="" type="checkbox"/>			

# ALASKA STATE LEGISLATURE



Official Business

Senator Ralph Seekins, Vice-Chair  
Senator Ben Stevens  
Senator Kim Elton

## SENATE RESOURCES COMMITTEE

Senator Tom Wagoner, Chair  
State Capitol, Room 427  
Juneau, AK 99801-1182  
Phone: (907) 465-4907 Fax: (907) 465-4779

REPORTED OUT

APR 08 2005

SENATE FINANCE  
COMMITTEE

Senator Fred Dyson  
Senator Bert Stedman  
Senator Gretchen Guess

### Letter of Intent

## SB 103: OIL & GAS: REG. OF UNDERGROUND INJECTION

March 7, 2005

It is the intent of the Legislature that state agencies with relevant expertise and experience, contribute appropriately to the regulation of Class I injection wells. The Legislature recognizes that all Class I wells to date in Alaska have been used in the oil and gas industry and that the Alaska Oil and Gas Conservation Commission is clearly the appropriate agency to regulate these and any future Class I wells used in the oil and gas industry. In the event that Class I wells are proposed for other uses, the Legislature should have a timely opportunity to consider the potential role of other regulatory agencies. Therefore, it is the intent of the Legislature that if an application for a Class I well not associated with oil or gas operations is received by the Alaska Oil and Gas Conservation Commission, the Commission shall immediately provide a copy to the Legislature, so as to enable the Legislature to consider appropriate action.

COMMITTEE COPY

APR 08 2005

SENATE FINANCE  
COMMITTEE

# FISCAL NOTE

STATE OF ALASKA  
2005 LEGISLATIVE SESSION

Fiscal Note Number: 2  
Bill Version: SB 103  
(S) Publish Date: 2/14/05

Revision Date/Time (Note if correction): \_\_\_\_\_ Dept. Affected: Natural Resources  
Title: Regulation of underground injection under RDU: Resource Development  
the federal Safe Drinking Water Act Component: Commissioner's Office  
Sponsor: Rules  
Requester: Governor Component No.: 423

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

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

OPERATING EXPENDITURES	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Personal Services						
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
<b>TOTAL OPERATING</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

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

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

Estimate of any current year (FY2005) cost: 00  
Mark this box (X) if funding for this bill is included in the Governor's FY 2006 budget proposal:

**POSITIONS**

Full-time						
Part-time						
Temporary						

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

There is no anticipated fiscal impact for DNR associated with implementation of this legislation.

Prepared by: Janet Baxter, Legislative Liaison Phone: 907-465-4730  
Division: Commissioner's Office Date/Time: 2/8/2005  
Approved by: Tom Irwin, Commissioner Date: 2/8/2005  
Agency: Natural Resources

APR 08 2005

SENATE FINANCE  
COMMITTEE

# FISCAL NOTE

STATE OF ALASKA  
2005 LEGISLATIVE SESSION

Fiscal Note Number: 1  
Bill Version: SB 103  
(S) Publish Date: 2/14/05

Revision Date/Time (Note if correction): \_\_\_\_\_ Dept. Affected: Admin  
Title Underground injection under the RDU Oil & Gas Conservation Commission  
Federal safe drinking water Component Oil & Gas Conservation Commission  
Sponsor Rules Committee  
Requester Governor Component No. 2010

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

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

OPERATING EXPENDITURES	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Personal Services	25.0	25.0	25.0	25.0	25.0	25.0
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
<b>TOTAL OPERATING</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>

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

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other 1162 AOGCC Receipts	25.0	25.0	25.0	25.0	25.0	25.0
<b>TOTAL</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>

Estimate of any current year (FY2005) cost: 0.0

Mark this box (X) if funding for this bill is included in the Governor's FY 2006 budget proposal:

**POSITIONS**

Full-time						
Part-time						
Temporary						

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

Will take 10% inspection time (\$9.0) and 10% Petroleum Engineer (\$16.0). The impact will be covered by overtime.

Prepared by: Daniel Seamount, Commissioner Phone 907-793-1221  
Division Alaska Oil & Gas Conservation Commission Date/Time 1/28/05 1:13 PM  
Approved by: Michael Tibbles, Deputy Commissioner Date 1/28/2005  
Agency Department of Administration

# Alaska UIC Issues

What we do.

What are the challenges?

What are the options?



# AOGCC – EPA UIC Situation

- Introduction
- UIC and other USDW Responsibilities
- Senate Bill 103
- The Problem to Solve
  - UIC Well Classes
  - Alaska UIC Situation- redundancy, confusion, Time, \$\$\$
- Options/Solutions



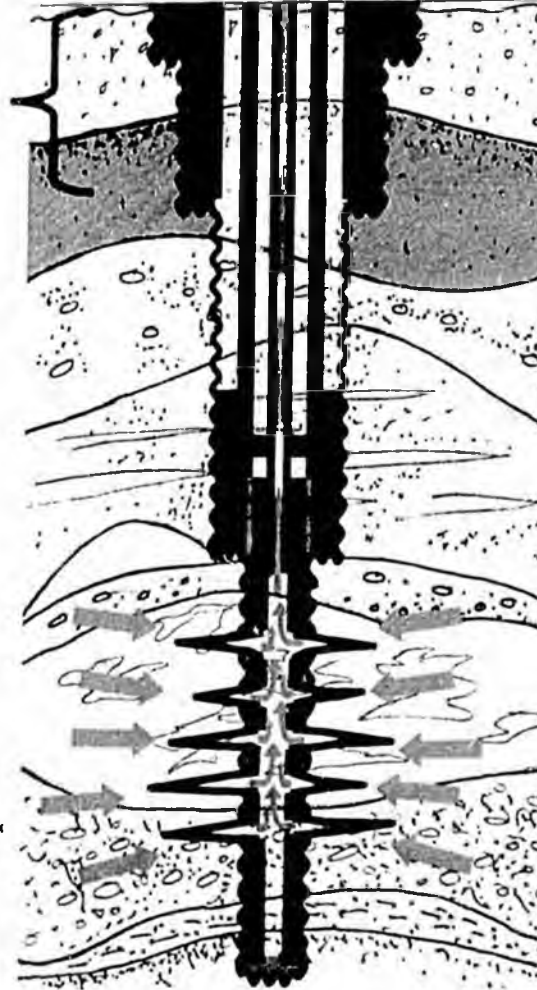
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Meter proving on pipelines

AOGCC regulates operations affecting subsurface oil & gas resources, ensures the reliability of oil & gas flow measurements, and ensures that underground sources of drinking water are protected.

Protect Fresh Water

Regulate oil & gas fields operations



Regulate wells constructed

Inspection of drilling operations



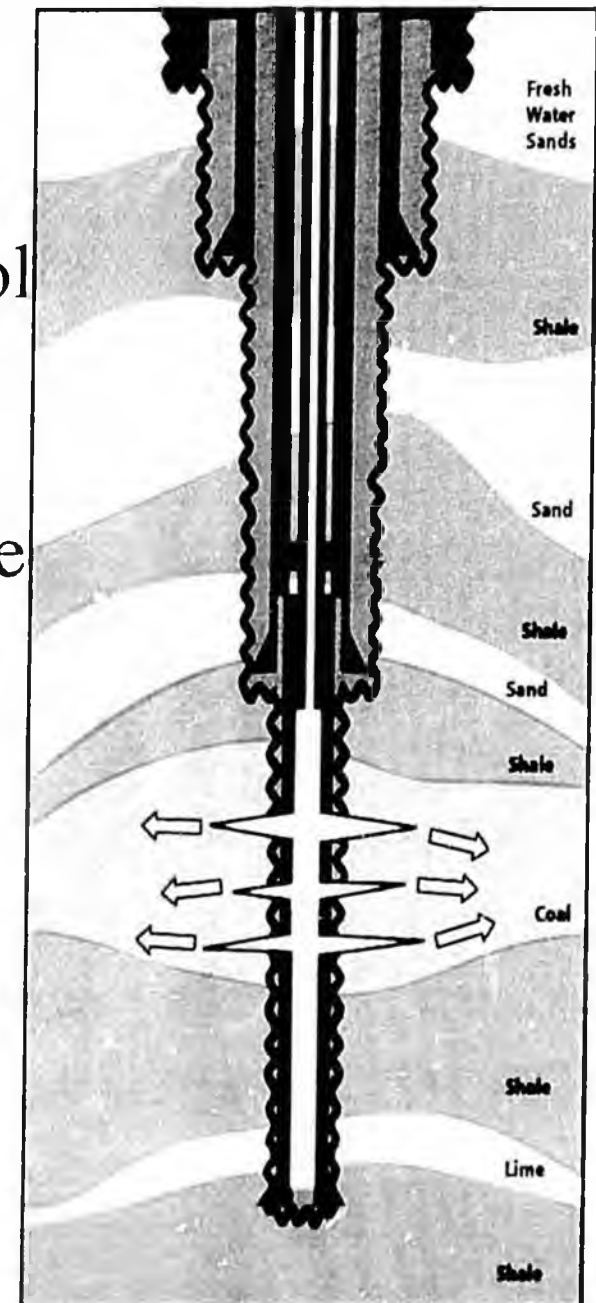
# UNDERGROUND INJECTION PROGRAM (Class II)

AOGCC has primacy for implementing the federal Underground Injection Control (UIC) Program relating to regulation of underground injection activities for the purposes of enhanced oil recovery and the most environmentally sound disposal of oil field waste.

The proper underground injection of material to enhance oil recovery has resulted in billions of \$\$\$ in revenue to the State of Alaska

And

The best place to put oilfield waste is deep underground.



**Sec. 31.05.030. Powers and duties of commission.**

**(d) The commission may require**

**(3) the drilling, casing and plugging of wells in a manner that will prevent the escape of oil or gas out of one stratum into another, the intrusion of water into an oil or gas stratum, the pollution of fresh water supplies by oil, gas or salt water, and prevent blowouts, cavings, seepages and fires;**

**(e) The commission may regulate**

**(1) for conservation purposes**

**(D) the disposal of salt water, nonpotable water, and oil field wastes;**

**(E) the contamination or waste of underground water;**

**(h) The commission may take all actions necessary to allow the state to acquire primary enforcement responsibility under 42 U.S.C. 300h-4 (Safe Drinking Water Act of 1974, as amended, 42 U.S.C. 300f-300j), for the control of underground injection related to the recovery and production of oil and natural gas.**

## Senate Bill 103

**“An Act relating to regulation of underground injection under the Safe Drinking Water Act and providing for an immediate effective date.”**

**\* Section 1.** AS 31.05.030(h) is amended to read:

(h) The commission may take all actions necessary to allow the state to acquire primary enforcement responsibility under **42 U.S.C. 300h-1 and 42 U.S.C. 300h-4** (Safe Drinking Water Act of 1974, as amended, 42 U.S.C. 300f - 300i-**26**), for the control of underground injection related to the recovery and production of oil and natural gas **and the control of underground injection in Class I wells as defined in 40 C.F.R. 144.6, as amended.**

**\* Sec. 2.** This Act takes effect immediately under AS 01.10.070(c).

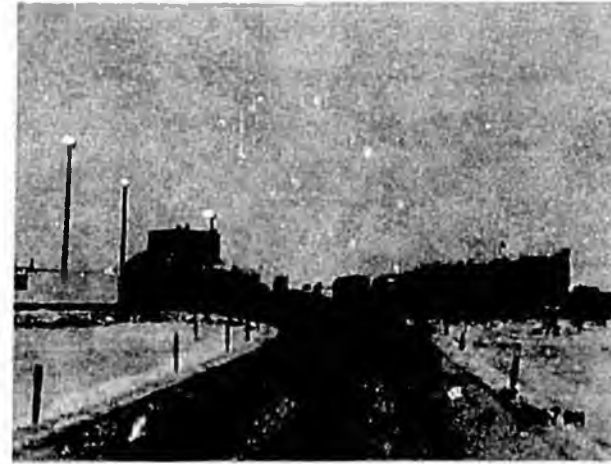
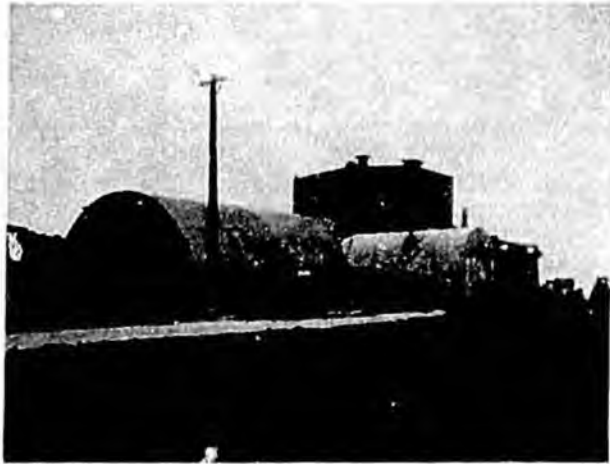
## UIC Situation

Two agencies performing same job, one protecting a non-existent resource resulting in onerous and costly requirements on industry and Alaska.

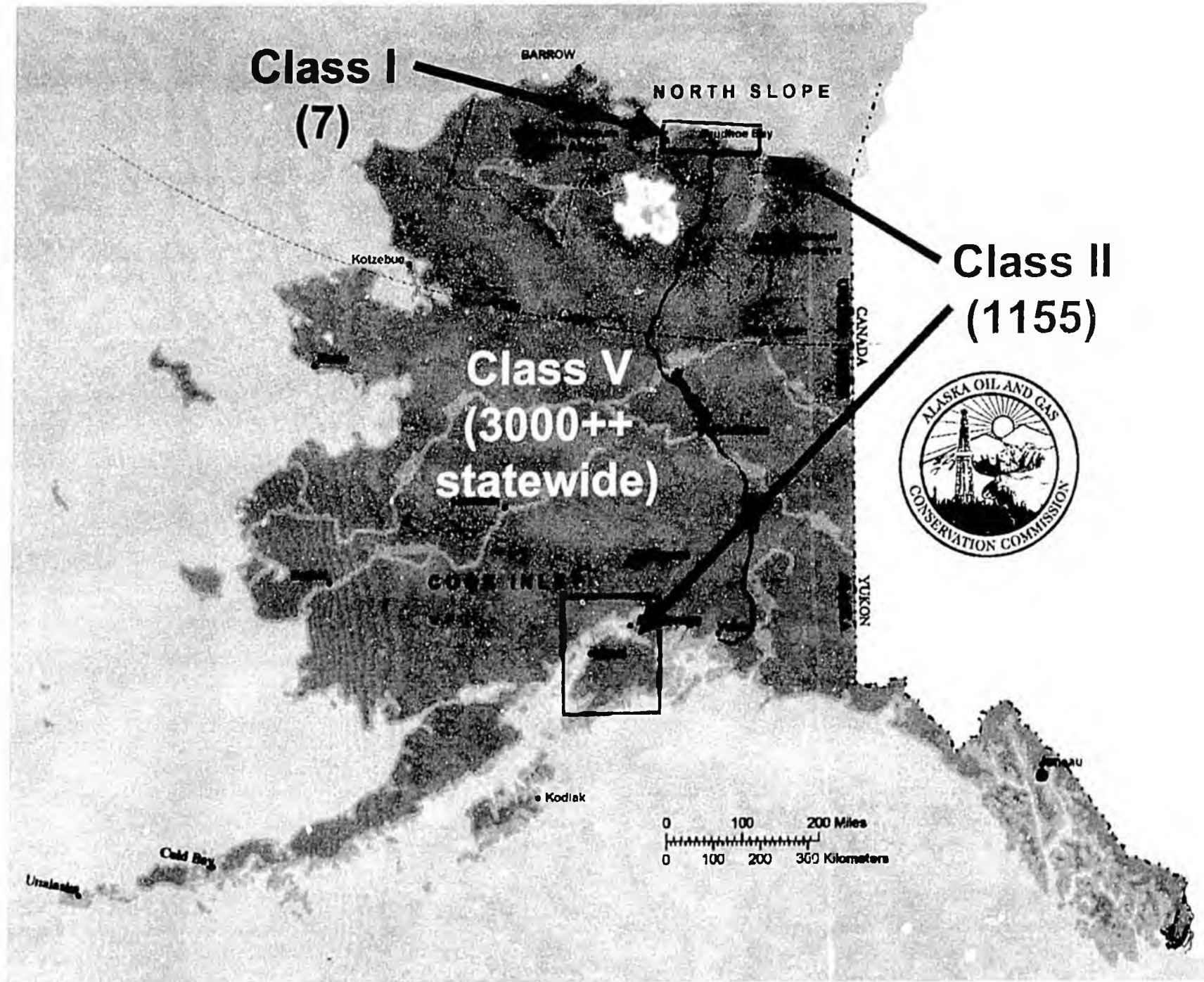
### Common Sense Solutions?

AOGCC control through primacy or single disposal class by eliminating redundancy through statute change (new bill) and positive EPA interpretation and ruling.

# Underground Injection Control

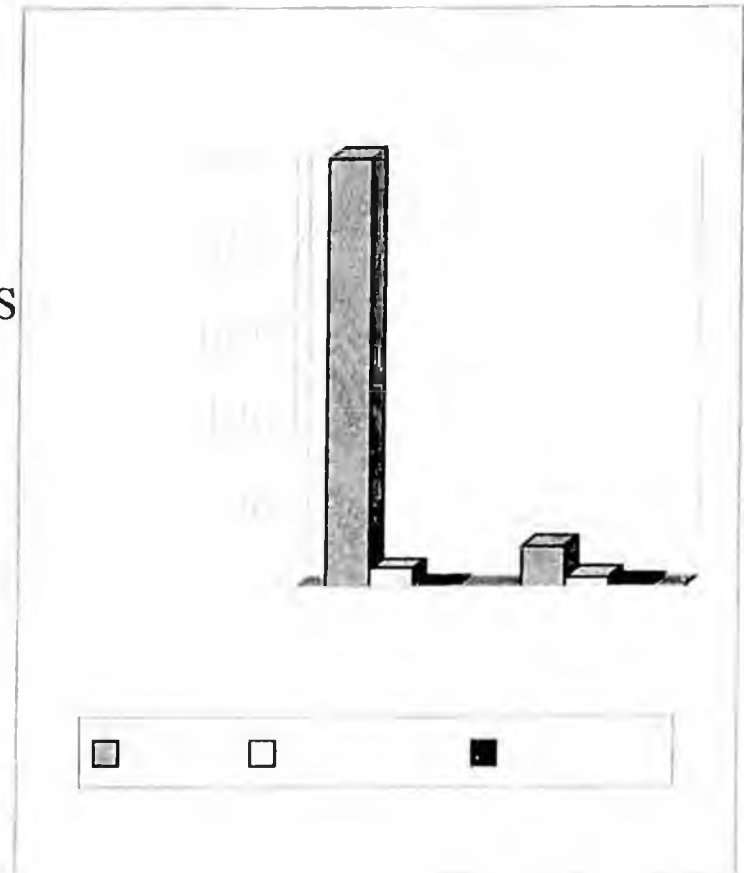


- Program under Safe Drinking Water Act
  - Protect underground drinking water sources
- 5 classes of wells
  - Class I: industrial, hazardous and non-hazardous; municipal waste
  - Class II: oil and gas
  - Class III: mining
  - Class IV: shallow hazardous and radioactive waste injection
  - Class V: whatever doesn't fit in I-IV (into H<sub>2</sub>O table->20 people domestic, industrial, ?)



# Alaska UIC Statistics - 2004

- 1155 operable UIC wells
  - 90% EOR (Class II-R)
    - Most converted producers
  - 1.1 billion bbls water, 3.2 Tcf gas injected (2004)
- 7 Class I wells
  - All on North Slope
    - 8th Class I well drilling
- 1.87 Billion bbls waste disposed (cumulative)
  - Class I wells: 1.2% of total volume disposed to date



## UIC Situation- Waste of Tax Payer and Industry \$\$ & Time

- Confusion by operators over what waste is allowed to be disposed in each Class
  - All wastes on the NS are directly associated with hydrocarbon production- should all be Class II-(not EPA view)
  - Much time & energy expended for waste determination and tracking by industry and government
- Redundancy- North Slope- EPA and AOGCC running virtually identical programs.
  - Often same fluids injected into the same disposal zones
  - Class I- same confinement and well construction or worse (see slide after next)
  - AOGCC performs much work advising EPA on their program

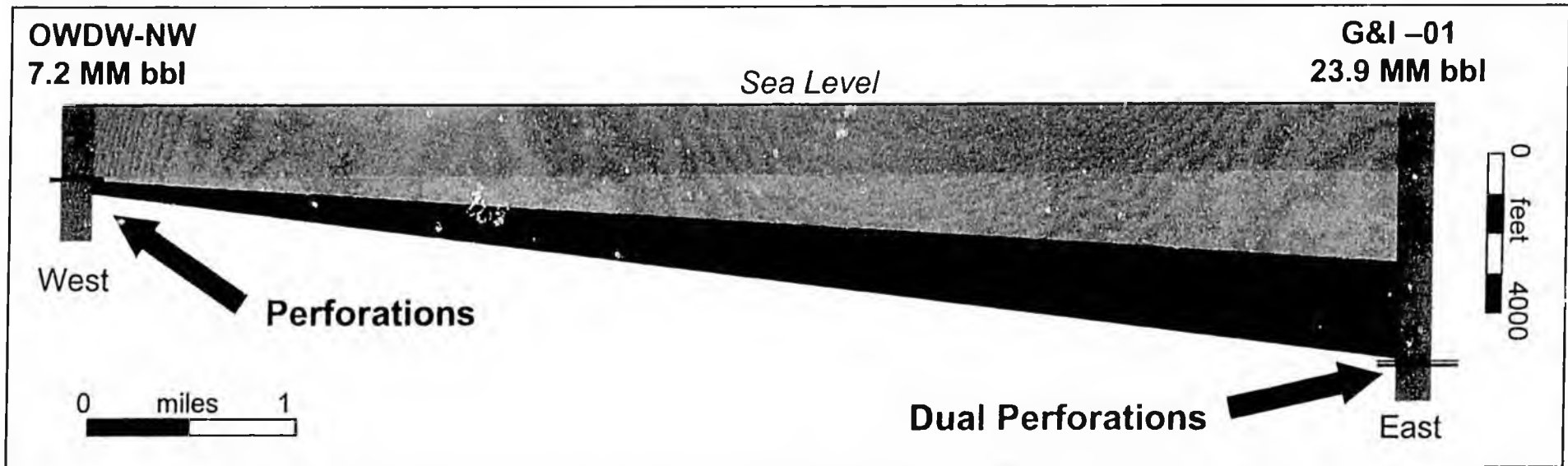
## UIC Situation- Waste of Tax Payer and Industry \$\$ & Time (cont.)

- EPA Class I program-
  - Protects non-existing resource (fresh water)
  - Inefficient permit process; EPA approvals generally much slower than AOGCC.
  - Onerous & costly stipulations concerning well integrity
  - EPA has no permanent onsite field inspectors
  - EPA regulates only 7 out of 1162 UIC wells
  - Costly and remote for EPA

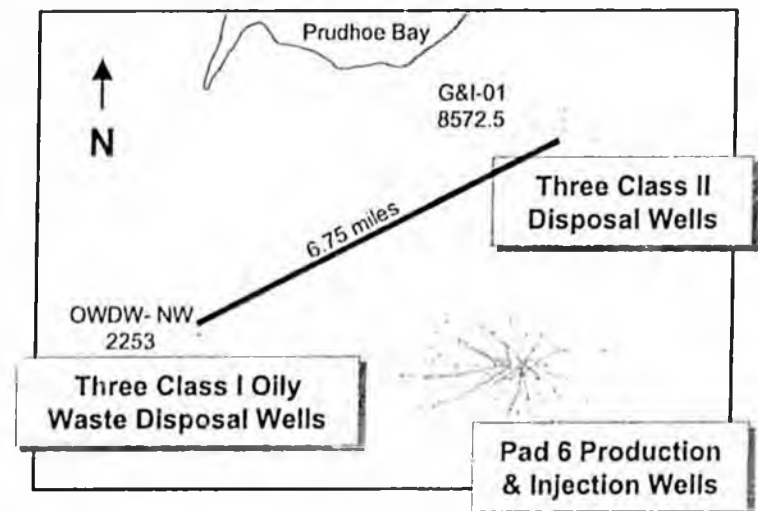
**Temptation to transport waste long distance for surface displacement or disposal in redundant disposal well**



# Confinement Analysis in Prudhoe Bay Unit Class I vs. Class II-D



	<b>OWDW-NW</b>	<b>G&amp;I-01</b>
<b>Permafrost Interval</b>	0-1905'	0-1800'
<b>Confining Interval</b>	1905-1980'	1800-4200'
<b>Injection Interval</b>	1980-2253'	4270-6750'
<b>Perforations</b>	1980-2005'	6415-6422' 6505-6527'



# Confusion- Fluids Eligible for Class II

- EPA position
  - fluids that have been down hole
  - generated by contact with oil & gas production stream during removal of produced water or other contaminants
- Wastes “directly associated”; “intrinsically derived from”; “associated with”; “uniquely associated”?
  - Interpretive; contrary to logic
    - Cement rinsate; unused fluids; camp wastes
- Room for exceptions? On what basis?
  - EPA position – no; rules do not provide for exceptions
  - AOGCC – should be
    - uniqueness of NS ops; environmental preference; no USDWs; freshwater protection mandate for AK; SDWA and UIC

# Class I and Class II Examples

- Alpine UIC compliance cost (per barrel fluid disposed)
  - Class I: \$2.50
    - \$100k to operate
  - Class II: \$1.50
  - Difference is integrity demonstrations, reporting
- Prudhoe Bay field comparison
  - Grind and Inject Facility – Class II
    - AOGCC
  - Oily Waste Disposal Wells – Class I
    - EPA

# Options/Solutions

AOGCC working with EPA Region 10

- Business as Usual
  - No effort expended to change status quo
  - Confusion
  - Costly to tax payer and industry
  - Redundant
  - Inefficient approval process
  - Not Operator preference

# Options/Solutions (Cont.)

AOGCC working with EPA Region 10

- AOGCC primacy over EPA oversight- 2 well classes- SB103
  - Less industry confusion
  - Saves industry and tax payer \$\$
- One class of well for all disposal- overseen by AOGCC- need statute & ruling by EPA
  - Less energy used for waste determination and tracking
  - Less industry confusion greatly
  - Saves industry and tax payer \$\$

FRANK H. MURKOWSKI  
GOVERNOR  
GOVERNOR@GOV.STATE.AK.US

STATE OF ALASKA  
OFFICE OF THE GOVERNOR  
JUNEAU

SB103  
P.O. Box 110001  
JUNEAU, ALASKA 99811-0001  
(907) 465-3500  
FAX (907) 465-3532  
WWW.GOV.STATE.AK.US

February 10, 2005

The Honorable Ben Stevens  
President of the Senate  
Alaska State Legislature  
State Capitol, Room 111  
Juneau, AK 99801-1182

Dear President Stevens:

Under the authority of art. III, sec. 18, of the Alaska Constitution, I am transmitting a bill relating to the regulation of underground injection under the federal Safe Drinking Water Act. This bill would enable the Alaska Oil and Gas Conservation Commission (AOGCC) to regulate all underground injection wells used in the oil and gas industry, in contrast to the current situation under which the AOGCC regulates most of these wells but the United States Environmental Protection Agency (EPA) regulates others.

Under the federal Safe Drinking Water Act of 1974, 42 U.S.C. 300f - 300j-26, the underground injection of waste or other fluids requires an EPA permit, unless the EPA has approved a state underground injection control program as meeting Safe Drinking Water Act standards. In 1986, the EPA approved Alaska's underground injection program for a subset of underground injection wells, known as Class II wells. Class II wells inject certain fluids related to the recovery and production of oil and natural gas. The AOGCC administers this program. However, the EPA continues to regulate other types of injection wells in Alaska, including Class I wells, which are used in the oil and gas industry to dispose of wastes that do not go into Class II wells. I believe that the time has come for authority over all underground injection relating to oil and gas operations to return to the state.

This action would have several benefits for the state and the industry. First, the AOGCC is generally able to respond more quickly to permit applications than is the EPA. Second, having a single, uniform process for regulating underground injection by the industry will improve efficiency and reduce confusion. Finally, there has been considerable uncertainty over, and considerable agency time and effort devoted to, the question of when a Class II well is appropriate for waste disposal and when a Class I well is required, and

COMMITTEE COPY

The Honorable Ben Stevens  
February 10, 2005  
Page 2

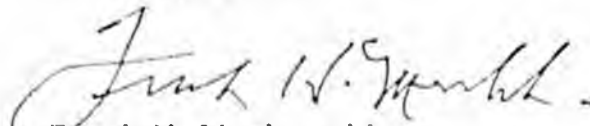
this question will likely become much less important with a single agency exercising authority over both classes of wells.

Under the bill that I am proposing, the AOGCC would have the authority to take all actions necessary to allow the state to acquire primary enforcement responsibility for Class I injection wells, in addition to continuing its current regulation of Class II wells. While the definition of Class I wells covers broad categories of industrial and municipal wastes in certain circumstances, in practice Class I wells in Alaska have been used only in the oil and gas industry, to accommodate wastes not allowed in Class II wells. There are currently 1,144 Class II wells (disposal and enhanced recovery) and seven Class I wells in the state.

This bill also provides for an immediate effective date.

I urge your prompt and favorable action on this measure.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Frank H. Murkowski".

Frank H. Murkowski  
Governor

Enclosure

## SENATE COMMITTEE REPORT First Committee of Referral

DATE: 2/14/05

FURTHER: Finance

Date of 5-Day Notice: 2/24/05  
(in accordance with Uniform Rule 23)

DATE TURNED  
IN TO OFFICE: 3/9/05

Resources Committee considered      SENATE BILL NO. 103

### SB 103 OIL & GAS: REG. OF UNDERGROUND INJECTION

"An Act relating to regulation of underground injection under the federal Safe Drinking Water Act; and providing for an effective date."

and recommends:

be replaced with \_\_\_\_\_ CS \_\_\_\_\_ (\_\_\_\_\_)

adopt previous \_\_\_\_\_ CS \_\_\_\_\_ (\_\_\_\_\_)

attached amendment(s)

adopt Letter of Intent by Resources Committee

further referral to \_\_\_\_\_ Committee

**Senate Bill:**

- Same Title
- New Title

**House Bill:**

- Same Title
- Technical Title Change
- New Title w/ SCR # \_\_\_\_\_

➔ **PREVIOUS FISCAL NOTE(S):**

Department	Date	Fiscal	Indet.	Zero	FN#
AQMA	2/14	✓			1
DNR	2/14			✓	2

Department	Date	Fiscal	Indet.	Zero	FN#

APPROPRIATION - no fiscal note

SIGNATURES AND RECOMMENDATIONS:		DO PASS	DO NOT PASS	NO REC	AMEND
Elton				✓	
Guess				✓	
Dyson				✓	
B. Stevens		✓			
Seekins		✓			
Skedman				✓	
Wagoner	CHAIR:	✓			