

C S S S B

/ 8 3

# HOUSE COMMITTEE REPORT

(11)

Date referred: 5/12/87

FURTHER REFERRALS:

*5/15 Rules*

DATE: 5-15-87

The Finance Committee has considered CSSB 183(Res)

"An Act relating to dams and reservoirs; and providing for an effective date."

### RECOMMENDS:

- replace with \_\_\_\_\_  the same title
- attached amendment(s)  a new title
- do pass
- do not pass
- no recommendation
- individual recommendations
- additional referral to the \_\_\_\_\_ Committee

**ADOPTS:**  SENATE letter of intent  
TRANS. COMM.

### ATTACHES NEW FISCAL NOTE(S):

- fiscal impact  same as previous fiscal note published \_\_\_\_\_
- zero fiscal note  same as previous zero fiscal note published \_\_\_\_\_
- zero with analysis

### SIGNING DO PASS:

*W. G. ...*  
*Pat Kouchot*  
*Ronald J. Linn*  
*Ed ...*  
*Mark ... - pass this dam bill -*  
*Steve ...*  
*Ken ...*  
*Kay ...*  
*Tony ...*  
*Mike ...*

### SIGNING OTHER RECOMMENDATIONS:

*John ...*  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

*Albert ...*  
 Chairman's signature

# ALASKA STATE LEGISLATURE

Sen. Lloyd Jones, Chairman  
Sen. John B. "Jack" Coghill, Vice Chairman  
Sen. Mitch Abood  
Sen. Bettye Fahrenkamp  
Sen. Tim Kelly



P.O. Box V  
Juneau, AK 99811

907-465-4921

## Senate Transportation Committee

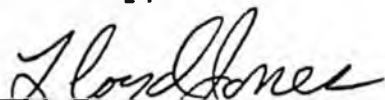
### COMMITTEE REPORT

Madame President:

The transportation committee expresses that it is not the intent, either through Senate Bill 183, nor through regulations, that the bill affect settling ponds of small placer miners.

The transportation committee also asks to see and review the regulations that are promulgated to implement the legislation.

Sincerely,

 4/2/87  
\_\_\_\_\_  
Senator Lloyd Jones, Chairman  
Senate Transportation Committee

No. 203

FX

# STATE OF ALASKA 1987 LEGISLATIVE SESSION FISCAL NOTE

SENATE  
BILL VERSION: SB 183 a  
PUBLISH DATE: 4/3/87

REQUEST: \_\_\_\_\_

Revision Date: \_\_\_\_\_

Title: An act relating to dams and  
reservoirs

Sponsor: Spurgenlausk

Requestor: \_\_\_\_\_

Agency Affected: Natural Resources

BRU: Land and Water Management

Component: Land and Water Public Use

## EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	0	0	0	0	0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING	0	0	0	0	0	0

CAPITAL	0	0	0	0	0	0
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REVENUE	0	0	0	0	0	0
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## FUNDING: (Thousands of Dollars)

GENERAL FUND	0	0	0	0	0	0
FEDERAL FUNDS	0	65.0	65.0	65.0	65.0	65.0
OTHER	0	0	0	0	0	0
TOTAL	65.0	65.0	65.0	65.0	65.0	65.0

## POSITIONS:

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

## ANALYSIS :

Senate Bill No. 183 will qualify DNR's Dam Safety Program to qualify for at least 65.0 federal funding under P.L. 99-662 for five years. No increases in state expenditures will occur as a result of this legislation.

Prepared by: Ryle J. Cherry Phone: 562-3332

Division: Land and Water Management. Date: 3/26/87

Approved by Commissioner: \_\_\_\_\_ Date: \_\_\_\_\_

Agency: \_\_\_\_\_

## Distribution (by preparer):

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)
- Senate Secretary

10205

STATE OF ALASKA 1987 LEGISLATIVE SESSION  
 FISCAL NOTE

SENATE  
 BILL VERSION: SB 183 c  
 PUBLISH DATE: 4/3/87

REQUEST: \_\_\_\_\_

Revision Date: \_\_\_\_\_  
 Title: "An Act relating to dams and reservoirs..."  
 Sponsor: Sen. Sturewulski  
 Requestor: Senate Transportation

Agency Affected: Department of Law  
 BRU: Prosecution, Legal Services

Components: Prosecution - All  
Legal Services - Operations

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING		-0-	-0-	-0-	-0-	-0-

CAPITAL						
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REVENUE						
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FUNDING: (Thousands of Dollars)

GENERAL FUND		-0-	-0-	-0-	-0-	-0-
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

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

ANALYSIS :

Please see attached analysis.

Prepared by: Richard I. Pegues, Director Phone: 465-3672  
 Division: Administrative Services Date: March 18, 1987  
 Approved by Commissioner: Grace Berg Schaible, Atty. Gen. Date: March 18, 1987  
 Agency: Department of Law

- Distribution (by preparer):
- Legislative Finance
  - Legislative Sponsor
  - Requestor
  - Office of Management and Budget
  - Impacted Agency(ies)
  - Senate Secretary

# CONTINUATION of FISCAL NOTE ANALYSIS

For. Bill/Resolution No. SB 183 c

This bill amends AS 46 by adding a new chapter that establishes a dam safety Act, which provides for the regulation, supervision, and periodic inspection of privately owned and state-owned dams and reservoirs. The Department of Law would assist the Department of Natural Resources to administer the Act by securing court injunctions needed to halt unsafe practices, and by prosecuting misdemeanor violations.

Although some of this work will undoubtedly be required, it is our view that such work will entail only a few occurrences each year, and it will not be sufficient to warrant fiscal note costs.

No. 204

FX

STATE OF ALASKA 1987 LEGISLATIVE SESSION  
FISCAL NOTE

SENATE

BILL VERSION: SB 183 b  
PUBLISH DATE: 4/3/87

REQUEST: \_\_\_\_\_

Revision Date: \_\_\_\_\_

Title: Relating to dams and reservoirs

Sponsor: Senator Sturgulewski

Requestor: Senator Jones--Transportation

Agency Affected: Environmental Conservation  
BRU: N.A.

Components: N.A.

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-

CAPITAL	-0-	-0-	-0-	-0-	-0-	-0-
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REVENUE	-0-	-0-	-0-	-0-	-0-	-0-
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FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS :

\_\_\_\_\_

Prepared by: Randy Bayliss

Phone: 465-2600

Division: Office of the Commissioner

Date: March 17, 1987

Approved by Commissioner: \_\_\_\_\_

Date: 5/18/87

Agency: Environmental Conservation

Distribution (by preparer):

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)
- Senate Secretary

Original sponsor: Sturgulewski

1 IN THE SENATE BY THE RESOURCES COMMITTEE

2 CS FOR SENATE BILL NO. 183 (Resources)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 FIFTEENTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to dams and reservoirs; and provid-  
7 ing for an effective date."

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

9 \* Section 1. AS 11.56.800(a) is amended to read:

10 (a) A person commits the crime of making a false report if the  
11 person knowingly

12 (1) gives false information to a peace officer with the  
13 intent of implicating another in a crime;

14 (2) makes a false report to a peace officer that a crime  
15 has occurred or is about to occur; [OR]

16 (3) makes a false report or gives a false alarm that a fire  
17 or other incident dangerous to life or property calling for an emer-  
18 gency response has occurred or is about to occur; or

19 (4) makes a false report to the Department of Natural  
20 Resources under AS 46.17 concerning the condition of a dam or reser-  
21 voir.

22 \* Sec. 2. AS 46 is amended by adding a new chapter to read:

23 CHAPTER 17. SUPERVISION OF SAFETY OF DAMS AND RESERVOIRS.

24 Sec. 46.17.010. PURPOSE. It is the purpose of this chapter to  
25 provide for the regulation, supervision, and periodic inspection by  
26 the department of privately owned and state-owned dams, reservoirs,  
27 and appurtenant works in order to ensure that the design, construc-  
28 tion, enlargement, alteration, repair, maintenance, operation, and  
29 removal of dams and reservoirs is consistent with the protection of

1 life and property.

2 Sec. 46.17.020. ADMINISTRATION AND STAFFING. The department  
3 shall supervise the safety of dams and reservoirs. The department  
4 shall employ a licensed and qualified engineer, experienced in the  
5 design and construction of dams and reservoirs, and other employees  
6 necessary for performing the duties under this chapter. Under AS 36.-  
7 30 (State Procurement Code), the department may contract with engi-  
8 neering consultants to assist in the performance of the department's  
9 duties under this chapter.

10 Sec. 46.17.030. REGULATIONS AND ORDERS. The department shall  
11 adopt regulations and issue orders necessary to carry out this chap-  
12 ter.

13 Sec. 46.17.040. APPROVAL REQUIRED. (a) Except in the perfor-  
14 mance of routine maintenance and operations not affecting structural  
15 safety, a person may not construct, enlarge, repair, alter, remove,  
16 maintain, operate, or abandon a dam or reservoir without the approval  
17 of the department.

18 (b) The owner of a dam or reservoir that was constructed before  
19 the effective date of this Act shall, under regulations adopted by the  
20 department, file an application with the department for the approval  
21 of the dam or reservoir.

22 (c) An applicant under this section shall comply with the re-  
23 quirements of other applicable statutes.

24 Sec. 46.17.050. INSPECTIONS. At least once every five years the  
25 department shall inspect every dam and reservoir that is subject to  
26 this chapter. The department may require the owner of a dam or reser-  
27 voir to perform the required inspection, according to the department's  
28 inspection standards, using a qualified engineer approved by the  
29 department. To protect public safety, the department may inspect, or

1 may require the owner to inspect, a dam or reservoir more frequently  
2 than every five years. The department may require the owner of the  
3 dam or reservoir to pay the cost of an inspection under this section.

4 Sec. 46.17.060. ENTRY UPON PROPERTY. (a) If the department has  
5 given two weeks' written notice of intent to inspect a dam or reser-  
6 voir and the owner refuses to allow the inspection, the department may  
7 seek a search warrant to allow the inspection. If the department has  
8 been refused inspection of drawings, operational records, or other  
9 information concerning a dam or reservoir, the department may seek an  
10 administrative subpoena compelling production of the drawings, opera-  
11 tional records, or other information.

12 (b) If the department has reason to believe that a dam or reser-  
13 voir may be unsafe or presents an imminent threat to life or property,  
14 the department may enter the dam or reservoir premises without notice.

15 Sec. 46.17.070. DETERMINING DANGER. In determining whether a  
16 dam or reservoir, or proposed dam or reservoir, constitutes or would  
17 constitute a danger to life or property, the department shall consider  
18 whether the structural integrity of the dam or reservoir might be  
19 endangered by overtopping, seepage, settlement, erosion, cracking,  
20 earth movement, earthquakes, or the failure of bulkheads, flashboards,  
21 gates, or conduits. The department may consider other relevant con-  
22 ditions. If it determines that the dam or reservoir is unsafe, the  
23 department shall order the owner to take the action that the depart-  
24 ment considers necessary to protect life and property.

25 Sec. 46.17.080. INJUNCTION AND DAMAGES. With the assistance of  
26 the attorney general, the department may seek an injunction and dam-  
27 ages in the enforcement of this chapter, a department order issued  
28 under this chapter, or a regulation adopted under AS 46.17.030.

29 Sec. 46.17.090. JUDICIAL REVIEW. A final action of the

1 department under this chapter is subject to judicial review as pro-  
2 vided in the Administrative Procedure Act (AS 44.62).

3 Sec. 46.17.100. OTHER GOVERNMENT AGENCIES. (a) The department  
4 may enter into cooperative agreements with municipalities and other  
5 state and federal agencies to carry out this chapter.

6 (b) If the action would conflict with the powers and duties  
7 vested in the department, a municipality may not

8 (1) regulate, supervise, inspect, or provide for the regu-  
9 lation, supervision, or inspection of a dam or reservoir;

10 (2) provide for the construction, maintenance, operation,  
11 removal, or abandonment of a dam or reservoir; or

12 (3) limit the size of or the amount of water that may be  
13 stored in a dam or reservoir.

14 (c) This chapter does not apply to a federally-owned or operated  
15 dam or reservoir or a dam or reservoir regulated by the Federal Energy  
16 Regulatory Commission.

17 (d) This chapter does not affect the powers of the Department of  
18 Environmental Conservation or the Department of Fish and Game.

19 Sec. 46.17.110. ACTION AGAINST STATE FOR DAMAGES. (a) Except  
20 as provided in (b) of this section, a person may not bring an action  
21 against the state, the department, or agents or employees of the  
22 state, for the recovery of damages caused by the partial or total  
23 failure of a dam or reservoir, or by the operation of a dam or reser-  
24 voir, or by an act or omission in connection with

25 (1) approval of the construction of a dam or reservoir, or  
26 approval of flood-handling plans during or after construction;

27 (2) issuance or enforcement of orders relating to mainte-  
28 nance or operation of the dam or reservoir;

29 (3) control or regulation of the dam or reservoir;

1           (4) measures taken to protect against failure of the dam or  
2 reservoir during an emergency; or

3           (5) investigations or inspections authorized under this  
4 chapter.

5           (b) A person may bring an action against the state for the  
6 recovery of damages caused by an action undertaken by a dam owner that  
7 was negligently ordered by the state over the owner's objection.

8           Sec. 46.17.120. DUTIES OF OWNER. This chapter does not relieve  
9 an owner of a dam or reservoir of the duties or liabilities incident  
10 to the ownership or operation of the dam or reservoir.

11          Sec. 46.17.150. PENALTIES. (a) A person is guilty of a class A  
12 misdemeanor if the person knowingly

13           (1) violates a provision of this chapter,

14           (2) violates the terms of an approval, order, regulation,  
15 or requirement of the department under this chapter; or

16           (3) obstructs, hinders, or prevents the department's agents  
17 or employees from performing duties under this chapter.

18          (b) Each day that a violation continues constitutes a separate  
19 offense.

20          Sec. 46.17.900. DEFINITIONS. In this chapter, unless the con-  
21 text requires otherwise,

22           (1) "alteration" means only an alteration that might di-  
23 rectly affect the safety of the dam or reservoir, as determined by the  
24 department;

25           (2) "appurtenant works" includes structures including  
26 spillways, either in a dam or separate from it; a reservoir and its  
27 rim; low level outlet works; and water conduits including tunnels,  
28 pipelines, or penstocks, whether running through the dam or through  
29 its abutments;

1 (3) "dam" includes an artificial barrier, and its appurte-  
2 nant works, which may impound or divert water and which

3 (A) has or will have an impounding capacity at maximum  
4 water storage elevation of 50 acre-feet and is at least 10 feet  
5 in height measured from the lowest point at either the upstream  
6 or downstream toe of the dam to the crest of the dam;

7 (B) is at least 20 feet in height measured from the  
8 lowest point at either the upstream or downstream toe of the dam  
9 to the crest of the dam; or

10 (C) poses a threat to lives and property as determined  
11 by the department after an inspection;

12 (4) "department" means the Department of Natural Resources;

13 (5) "enlargement" means an alteration of an existing dam or  
14 reservoir that raises or is capable of raising the water storage  
15 elevation, or that increases the quantity of water impounded by the  
16 dam or reservoir;

17 (6) "owner" means a person who owns, controls, operates,  
18 maintains, manages, or proposes to construct a dam or reservoir, and  
19 includes

20 (A) a public utility; and

21 (B) the appointed or authorized agents, employees,  
22 lessee~~s~~, receivers, or trustees of an owner;

23 (7) "person" has the meaning given in AS 01.10.060, and  
24 includes the state and political subdivisions of the state, including  
25 the Alaska Railroad Corporation and the University of Alaska;

26 (8) "repair" means only a repair that might directly affect  
27 the safety of the dam or reservoir, as determined by the department;

28 (9) "reservoir" means a basin, appurtenant to a dam, that  
29 is capable of impounding water.

1 \* Sec. 3. This Act takes effect immediately under AS 01.10.070(c).

# Alaska State Legislature



SENATOR  
ARLISS STURGULEWSKI

Chairman, Senate Community and Regional Affairs Committee  
Vice-Chairman, Senate Judiciary Committee  
Member, Senate Resources Committee

2957 SHELDON JACKSON STREET  
ANCHORAGE, ALASKA 99508

White in Juneau  
P. O. BOX V  
JUNEAU, ALASKA 99811  
(907) 465-3818

## Senate

MEMORANDUM

May 12, 1987

TO: Al Adams, Chairman  
House Finance Committee

FROM: Senator Arliss Sturgulewski *AS*  
Senate District F

RE: SB 183 "An Act relating to dams and reservoirs and providing for an effective date."

Senate Bill 183 "An Act relating to dams and reservoirs and providing for an effective date" has been referred to your committee and I would like to provide some background material.

Senate Bill 183 was before the legislature last year and extensive hearings were held. However the session ended before all committees could address this issue. Senate Bill 183 sets up a formal system of regulation of dams by the Department of Natural Resources (DNR). Presently the DNR only has clear authority to regulate construction activities and no clear authority to monitor the safety of dams throughout the life of the dam. This legislation is based on a Model State Dam Safety Program sponsored by the Association of State Dam Safety Officials and the Council of State Governments. The main purpose of this legislation is to protect the public health and safety.

In order to assist states in the implementation of a dam safety program, the federal government will make funds available through PL 99-662. Alaska would be eligible to receive at least \$65,000 per year for the next five years. There is a zero fiscal impact on state funding.

I have enclosed a sectional analysis prepared by the Legislative Legal Services Division; a DNR position paper supporting this legislation; fiscal notes from the Department of Natural Resources, Environmental Conservation, and Law; a letter of intent from Senate Transportation; and a recent Wall Street Journal article. My staff is available to assist if you need additional information.

There have been public hearings in the Senate Transportation Committee, the Senate Resources Committee and the House Resources Committee on this bill and there has been no opposition. Since this bill has a zero fiscal note, I hope you will be able to schedule an early hearing. Thank you.

Enclosures

STATE OF ALASKA  
THE LEGISLATURE

POUCH Y STATE CAPITOL  
JUNEAU ALASKA 99811  
907 465 3800

LEGISLATIVE AFFAIRS AGENCY

MEMORANDUM

March 27, 1987

SUBJECT: Sectional Analysis of SB 183  
(Dams and reservoirs)

TO: Senator Arliss Sturgulewski  
Chairman, Community and Regional Affairs  
Committee

FROM: Teresa B. Cramer *TBC*  
Legislative Counsel

You have requested a sectional analysis of the above described bill.

As a preliminary matter, I must advise you that a sectional analysis or summary of a bill should not be considered an authoritative interpretation of the bill and the bill itself is the best statement of its contents.

Section 1 imposes criminal penalties for knowingly making a false report to the Department of Natural Resources concerning the condition of a dam or reservoir.

Section 2 adds a new chapter concerning dam and reservoir safety.

Sec. 36.17.010 sets out the legislative purpose.

Sec. 46.17.020 gives the Department of Natural Resources responsibility for supervising the safety of dams and reservoirs.

Sec. 46.17.030 requires the department to adopt regulations and issue orders necessary to carry out the chapter.

Sec. 46.17.040 prohibits construction, repair, or removal of a dam or reservoir unless the department approves. Routine maintenance and operations are excepted.

Senator Sturgulewski  
Page 2  
March 27, 1987

Sec. 46.17.050 directs the department to inspect each dam and reservoir subject to the chapter once every five years and permits the department to inspect more frequently. The department may require the owner to perform the inspection or pay for the cost of an inspection performed by the department.

Sec. 46.17.060 permits the department to seek a search warrant to allow an inspection if the department has given two weeks' written notice. The department may enter premises without notice if a dam or reservoir is believed to be unsafe.

Sec. 46.17.070 sets out standards for the department's determination of whether a dam or reservoir constitutes or would constitute a danger to life or property.

Sec. 46.17.080 permits the department to seek an injunction and damages in enforcing the chapter.

Sec. 46.17.090 subjects a final action of the department to judicial review under the Administrative Procedure Act.

Sec. 46.17.100 permits the department to enter into cooperative agreements with other governments and prohibits municipalities from exercising powers that conflict with the powers and duties given the department. Under subsections (c) and (d), the chapter does not apply to a federally-owned or operated dam or reservoir and does not affect the powers of the Department of Environmental Conservation or the Department of Fish and Game.

Sec. 46.17.110 limits actions against the state. An action may be maintained against the state if the state negligently orders a dam owner to perform an action and the dam owner complies with the order but objected to it.

Sec. 46.17.120 acknowledges that the chapter does not relieve an owner of a dam or reservoir of the duties or liabilities incident to the ownership or operation of the dam or reservoir.

Sec. 46.17.150 imposes penalties on persons who knowingly violate the chapter, an approval, order, regulation, or requirement of the department, or who obstruct performance of duties.

Senator Sturgulewski  
Page 3  
March 27, 1987

Sec. 46.17.900 is a definition section.

Section 3 is an immediate effective date clause.

If I may be of further assistance, please advise.

TBC:mkr  
m10/065

# STATE OF ALASKA

STEVE COWPER, GOVERNOR

## DEPARTMENT OF NATURAL RESOURCES

400 WILLOUGHBY AVE.  
JUNEAU, ALASKA 99801-1796  
PHONE: (907) 465-2400

OFFICE OF THE COMMISSIONER

March 31, 1987

APR 1 1987

The Honorable Arliss Sturgulewski  
Sponsor of Senate Bill 183  
Alaska State Legislature  
P.O. Box V  
Juneau, AK 99801

Dear Senator Sturgulewski:

Subject: Senate Bill 183, relating to supervision of safety of dams and reservoirs.

Position: The Department of Natural Resources recommends the passage of Senate Bill 183.

Background: Currently, there are 185 dams on Alaska's dam inventory. In 1981, the U.S. Department of the Army, Corps of Engineers, ended its dam safety program for non-federal dams in Alaska. There are but 20 federal dams in Alaska. The remaining dams are covered under a minimal dam safety program the Department of Natural Resources, division of land and water management, established through regulations. The department adopted regulations in 11 AAC 93 under the authority of several sections in AS 46.15, the Alaska Water Use Act, including a provision in AS 46.15.080 which gives the commissioner authority to regulate water diversions.

Alaska Water Resources Board resolution 84-4, dated March 14, 1984, recommended review of the existing statutory authority under which dams in the state are regulated by the division.

About half of the 50 states have enacted specific dam safety legislation, but most of these states did so in response to dam failures resulting in loss of life and extensive property damage. Clearly it would be advantageous for Alaska to have a well-founded, comprehensive dam safety statutory scheme and program in effect to prevent such tragedies from occurring here. SB 183 is based on the Model Law for State Supervision of Safety of Dams and Reservoirs drafted by the United States Committee on Large Dams of the International Commission on Large Dams.

Section 2, which contains the body of the bill, creates a new ch. 17 in AS 46. Proposed AS 46.17.010 first states the purpose of the chapter. It then makes the supervision of safety of dams and reservoirs the responsibility of the Department of Natural Resources. The commissioner of that department is directed to employ a qualified engineer experienced in the design and construction of dams and reservoirs to direct the dam safety program. Proposed AS 46.17.040 would make it unlawful for anyone to construct, enlarge, repair, alter, remove, maintain, operate, or abandon a dam or reservoir, as defined in the bill, except upon application to, and approval of, the department. To ensure that dams and reservoirs remain safe once constructed, the department is directed in proposed AS 46.17.050 to inspect or to require owners to inspect dams and reservoirs covered under the bill at least once every five years, or more frequently if necessary. To ensure that it can make adequate inspections, the department is also given authority, in proposed AS 46.17.060, to enter the private property on which the dam or reservoir is located as might be necessary to make the inspection. Proposed AS 46.17.050 also authorizes the department to require owners to bear the costs of inspection.

Proposed AS 46.17.070 sets out specific standards for determining the safety of a dam or reservoir. In addition, the department is allowed, by proposed AS 46.17.110, to enter into cooperative management agreements with municipal corporations and other state and federal agencies to effectuate its responsibilities under the bill. To ensure that the state's action in inspecting and regulating the operation of dams or reservoirs does not shift the liability of the private owner to the state for loss of life or property damage due to a dam or reservoir failure, proposed AS 46.17.120 bars any action against the state based on any purported act or omission of a state agent or employee connected with the dam safety program.

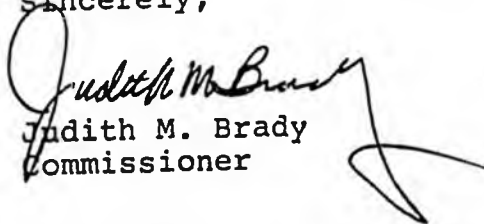
Section 1 of the bill amends AS 11.56.800(a), dealing with the crime of making a false report. A new paragraph (4) will make it a crime to file a false report with the Department of Natural Resources concerning the condition of a dam or reservoir. Additional criminal sanctions are also contained in sec. 2 of the bill in proposed AS 46.17.100, which would make it a class A misdemeanor to violate any provision of AS 46.17 or lawful order the department issues under AS 46.17.

The Honorable Arliss Sturgulewski -3-

March 31, 1987

Recommendation: Given the importance of a good dam safety program to the State of Alaska, the Department of Natural Resources favors passage of this legislation.

Sincerely,

  
Judith M. Brady  
Commissioner

cc: Senate Transportation Committee  
George Sullivan  
Rod Swope

# ALASKA STATE LEGISLATURE

Sen. Lloyd Jones, Chairman  
Sen. John B. "Jack" Coghill, Vice Chairman  
Sen. Mitch Abood  
Sen. Bettye Fahrenkamp  
Sen. Tim Kelly



P.O. Box V  
Juneau, AK 99811

907-465-4921

## Senate Transportation Committee

### COMMITTEE REPORT

Madame President:

The transportation committee expresses that it is not the intent, either through Senate Bill 183, nor through regulations, that the bill affect settling ponds of small placer miners.

The transportation committee also asks to see and review the regulations that are promulgated to implement the legislation.

Sincerely,

*Lloyd Jones* 4/2/87

Senator Lloyd Jones, Chairman  
Senate Transportation Committee

# WESTERN STATES WATER



220 South 2nd East, Suite 200 Salt Lake City, Utah, 84111 (801) 521-2800

A weekly report prepared by the staff of the Western States Water Council

Tony Willardson — Editor

## WATER RESOURCES

Issue #671, March 27, 1987

### Dam Safety

On March 19, the Wall Street Journal carried a front page article on dam safety. It addressed progress and problems in current federal and state programs. Of some 80,000 U.S. dams, about 10% are owned or regulated by federal agencies. The rest are controlled by state and local governments and private interests. On the state level, a Federal Emergency Management Agency (FEMA) report lists 1948 unsafe dams, down from 2,900 in 1981. California's regulatory program involves a staff of 60 and a \$3.8M budget. Pennsylvania also has an exemplary program. Over five years, the number of unsafe dams in the state has been reduced from 208 to 72, in part with the help of \$50M in low interest state loans, usually under consent agreements. However, nationally, state program expenditures average \$265,000 a year. The FEMA survey found only 21 states with adequate regulatory dam safety programs. Many are underfunded or undermanned. Alabama, Delaware and Hawaii have no dam safety programs. During this era of tight budgets, expenditures for dam safety programs or repairs are not always a high priority. The Corps FY88 budget request includes no funding for the newly authorized non-federal dam safety program grants under P.L. 99-662. Further, from 1981 to 1984, the Corps of Engineers undertook only two safety related dam modifications. Reportedly 20% of the Bureau of Reclamation's 300 dams are classified as unsafe. While the Bureau has increased its request for dam safety funds, since 1980 only about 11% of \$750M authorized for safety modifications has been spent.

High hazard dams, or those where failure would mean the loss of life, are of greatest concern. Political pressure for federal action probably peaked after the 1976 Teton Dam disaster in Idaho, which killed eleven people. The article notes that in the 1970's, "nearly 500 people died in six major U.S. dam breaks." There have been few fatalities in the 1980's. However, according to William Bivins, FEMA Dam Safety Coordinator, "One of these times, Mother Luck isn't going to hold. One of these high hazard dams is going to pop at night when everyone is asleep in bed. It will wipe out hundreds of people." Joseph Ellam, Pennsylvania's Director of Dam Safety and past president of the Association of State Dam Safety Officials (ASDSO), notes, "Catastrophic failures have occurred before and they will occur again. With the exception of nuclear powerplants, no man-made structure has a greater potential for killing a large number of people than a dam." In Pennsylvania, the Greater Johnstown Water Authority is under order to fix or dismantle its Salt Lick Dam. The dam is located near the site where a dam failed during the great Johnstown flood of 1889, which killed 2,200 people.

How safe is safe? This question is not easily answered. Federal guidelines require federal dams to withstand the "maximum credible earthquake," and have a spillway capacity to pass the "probable maximum flood." Defining and implementing these requirements leaves substantial room for professional disagreement. William Gianelli, former Assistant Secretary of the Army for Civil Works and former Director of the California Department of Water Resources, states the Corps could never explain to his satisfaction how it calculated the probable maximum flood. According to the Corps, if Prado Dam on the Santa Anna River above Los Angeles failed during the probable maximum flood, it would inundate 1.3 million homes with \$40B in damages. However, Gianelli notes, "That dam has been there fifty years. It has never filled to the point where the spillway is even used. You fix a dam if it's leaking." In 1983, the West Pinopolos Dam in South Carolina suddenly sprang an enormous leak. While police evacuated downstream residents, emergency personnel worked feverishly to stop

the leak, finally using a makeshift dam of pile-driven utility poles. Owned by the South Carolina Public Service Authority, a state-owned utility, the dam is 30 miles above Charleston on the Cooper River. According to Ronald Corso, Director of the Inspections Division for the Federal Energy Regulatory Commission, if the dam failed, some 2,000 residents "wouldn't have time to run for their lives." While the dam is now in good repair, Corso says an extraordinary earthquake, such as hit Charleston in 1886, could liquefy the dam's foundation. The resulting flood would cause an estimated \$1B in damages to a major industrial corridor, the Charleston Naval Yard and the Atlantic Fleet's Nuclear-weapons Arsenal, finally clogging Charleston Harbor with silt and closing this key Navy port. Under federal pressure, the utility has agreed to strengthen the dam. According to Corso, "We don't care where they get the money, so long as they fix it."

This raises another problem. How do you finance needed dam safety repair work? In 1984, a survey by the Western States Water Council identified 665 dams in fifteen western states with safety problems. The rough cost estimate for rehabilitation totaled over \$316M. Private financial sources are often limited or unavailable. Dam safety work seldom produces new revenues to pay back bonds. State and local budgets are also tight. The Reagan Administration has opposed federal funding for non-federal dam safety work. As a result, last year Congress dropped from the Corps omnibus legislation provisions authorizing federal financial and technical assistance, including allowing the Corps of Engineers to repair non-federal dams on a reimbursable basis. However, as illustrated above, the impact of a non-federal dam failure could have a tremendous impact on national interests. Without government funding and regulatory action, with respect to many dams, we are at Mother Nature's mercy. According to Charles Gardner, ASDSO President, "We need to get the message across that dam safety deserves a high priority (see WSW #664)."

#### Reclamation Act/Surplus Crops

On March 5, Representative Sam Gejdenson (D-CT), introduced the Irrigation Subsidy Reform Act of 1987 (H.R. 1443). The bill would amend the Reclamation Projects Act of 1939 to require the Secretary of Interior to charge full cost for the delivery of water used "in the production of any crop of an agricultural commodity for which an acreage reduction program is in effect under the provision of the Agricultural Act of 1949 (7 U.S.C. 1421 et sec.)." The term "full cost" would be defined by Section 202(3) of the Reclamation Reform Act of 1982 (43 U.S.C. 390(b)(3)). This change would apply to all new or amended contracts after the date of enactment. The Secretary would set the amount of the "full cost" payment, for the succeeding year, on or before July 1 of each year. In addition to Mr. Gejdenson, H.R. 1443 has twenty-one co-sponsors from the States of California, Connecticut, Illinois, Indiana, Iowa, Massachusetts, Michigan, Minnesota, Missouri, New York, Ohio, Pennsylvania, Vermont and Wisconsin. Given the apparent concern over subsidizing production of surplus crops, it is interesting to note that many of the above states have a vested interest in this issue. For FY84, federal expenditures for Commodity Credit Corporation price supports and related programs were highest in the following twelve states, which are listed by rank: California, Pennsylvania, Illinois, New York, Indiana, Michigan, Texas, Ohio, Kentucky, Louisiana, and Minnesota. The 99th Congress authorized a study of production of surplus crops in reclamation states in passing H.R. 3113, which also authorized an additional \$600M for the Bureau of Reclamation's Small Projects Loan Program (see WSW #648).

#### WESTERN STATES WATER COUNCIL

##### Water Policy Seminar

On Thursday, April 30, in conjunction with its 86th quarterly meetings, the Western States Water Council will sponsor a Water Policy Seminar in Washington, D.C. The Seminar will be held at the Hall of the States, Rooms 263-265, 444 North Capitol Street. The meeting is scheduled from 9:00 a.m. to 3:45 p.m. At 4:30 p.m., the Council will sponsor a reception in the Senate Dirksen Office Building. Topics to be considered are Ground Water Quality Protection, the Federal Role in Water Transfers, and FERC Hydropower Licensing and State Water Law. A variety of speakers have been invited to participate. Call (801) 521-2800 for more information.

# THE WALL STREET JOURNAL

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WESTERN EDITION

THURSDAY, MARCH 19, 1987

FEDERAL WAY, WASHINGTON

## Flood Watch

### Dams' Safety Worries Officials Who Believe Repairs Are Lagging

Earthquakes and Other Risks  
Give Nightmares to Some  
Despite a Recent Respite

### Stitching Up a TVA Crack

By BRUCE INGERSOLL

Staff Reporter of THE WALL STREET JOURNAL  
MONCKS CORNER, S.C. — The 1983 dam scare here is remembered as "the peril at Pinopolis."

On a languid summer morning, the West Pinopolis Dam suddenly sprang an enormous leak, setting off alarms in the powerhouse. While the police rapped on doors to evacuate downstream residents, emergency workers struggled to keep the huge dam from collapsing. They tried plugging the leak with weighted bales of hay. They tried steel plates. Increasingly desperate, they bought a furniture store's entire stock of mattresses, only to find them too buoyant. Finally, they slapped together a makeshift dam with pile-driven utility poles.

A disaster was averted—for the time being. But federal dam regulators worry that West Pinopolis is one of many dams around the country that would collapse if a severe earthquake hit. Hundreds of dams couldn't withstand a major flood. Thousands more have fallen into disrepair, some leaking or slumping so badly that they are in danger of collapse.

"One of these times, Mother Luck isn't going to hold," warns William Elvins, the dam safety coordinator for the Federal Emergency Management Agency. "One of these high-hazard dams is going to pop at night when everybody is asleep in bed. It will wipe out hundreds of people."

#### Recent Dam Breaks

But to some top officials, warnings about dam disasters are overblown, and in most states public interest in dam safety is low. In the 1970s, nearly 500 people died in six major U.S. dam breaks, but in the 1980s the fatalities have been few in this country, though a 1985 dam break in Italy killed more than 220 people.

Meanwhile, dam-safety initiatives have been stymied by tight budgets, bureaucratic inertia and the lack of a political constituency. "All of our constituents are dead people," says safety advocate Bruce Tschantz, a professor of civil engineering at the University of Tennessee.

Of the 80,000 or so dams in the U.S., about 8,000 are owned or regulated by federal agencies. The rest are owned by farmers, ranchers, developers, utilities or states and municipalities. Most major dams are owned and maintained by big agencies such as the Pentagon's Army Corps of Engineers and the Interior Department's Bureau of Reclamation.

The bureau is still haunted by the 1976 collapse of the Teton Dam in Idaho as it was being filled for the first time, killing 11 people. One-fifth of the bureau's 300 dams, all in the West, are classified as unsafe. Critics say the bureau doesn't treat dam safety as a priority. Bureau officials disagree, but since 1980 the agency has spent only 11% of \$750 million authorized by Congress for safety "modifications."

Internal documents obtained from the Corps of Engineers, meanwhile, show that a superflood would overwhelm at least 20 of that agency's 600 dams, engulfing such communities as Houston and Valley City, N.D. The corps is also studying how well several structures, including two dikes on the Clemson University campus in South Carolina, would hold up in a major earthquake. If the dikes failed, the football stadium, dubbed "Death Valley" by Clemson's foes, would be swamped. Overall, "We are concerned about 36 dams," says Lloyd Duscha, the corps' deputy director of engineering and construction.

Remedial efforts have been limited, however. Some cost-conscious Reagan administration appointees haven't shared agency engineers' sense of urgency. "Bureaucratic engineers always try to figure out a way to perpetuate themselves and build up their budgets," asserts William Glaselli, who in recent years oversaw the corps as assistant Army secretary for civil works.

#### Underfunded and Undermanned

On the state level, the number of unsafe dams has been reduced to 1,948 from about 2,900 in 1981, according to a survey for the Federal Emergency Management Agency. Many dam owners simply dismantled their aging structures rather than make repairs. But the survey says that only 21 states have adequate regulatory programs and that the rest are underfunded and undermanned.

For Joseph Ellam, Pennsylvania's director of dam safety, the situation is unsettling. "Catastrophic failures have occurred before, and they will occur again," he warns. "With the exception of nuclear power plants, no man-made structure has a greater potential for killing a large number of people than a dam."

The West Pinopolis Dam, 30 miles from Charleston, S.C., is one such dam.

Although the dam now is in good repair, earthquake experts believe it would fail in the event of an earthquake as powerful as the devastating Charleston earthquake of 1886, which killed 86 persons and caused panic as far away as Cleveland.

If the dam failed, some 2,000 residents along the Cooper River "wouldn't have any time to run for their lives," says Ronald Corso, the director of hydropower licensing for the Federal Energy Regulatory Com-

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# Flood Watch: The Safety of Some Dams Worries Officials Who Believe Earthquakes Pose Big Threat

*Continued From First Page*

mission. The flood would engulf the Charleston Naval Yard and the Atlantic Fleet's nuclear-weapons arsenal as well as a major industrial corridor, causing \$1 billion in damage. It would also clog Charleston's harbor with silt, closing a key port for the Navy.

The dam is vulnerable to an extraordinary phenomenon known as "liquefaction," Mr. Corso says. Seismic shock waves could "liquefy" the sand in the dam's foundation, turning it into quicksand or "mush." The shuddering dam would quickly slump, spilling the waters of Lake Moultrie in a thunderous rush.

The dam's owner, South Carolina Public Service Authority, also known as Santee Cooper, calls the chance of such a disaster remote, but the state-owned utility, under federal pressure, has agreed to strengthen the dam. "We don't care where they get the money so long as they fix it," Mr. Corso says.

## Other Worries

The energy regulatory commission has worries about more than 100 of the 2,000 dams it regulates and has ordered several utilities to make repairs. Montana Power Co., for one, is rehabilitating an ice-battered dam near Missoula to protect the Clark Fork River. It holds back tons of toxic smelting waste in the bottom silt. Mr. Corso says, "If you dump that waste down the river, it will be the biggest mess known to mankind."

The Tennessee Valley Authority has pared its list of unsafe dams to 14 from 21. Flooding Fontana Dam in western North Carolina is a high priority. At 480 feet, Fontana is the tallest dam east of the Rocky Mountains. The upper part of the dam needs reinforcing against a major earthquake. And an alarming 100-foot-long crack in the concrete has reopened and requires restitching with cables.

In Wyoming, Reclamation Bureau officials are keeping close watch on the badly leaking Fontenelle Dam on the Green River. The same sort of seepage that caused a near-failure in 1965 is undermining the dam. The officials are keeping the reservoir level as low as possible, rather than risk degrading Green River, Wyo. (population: 13,000), but they admit to being at "Mother Nature's mercy."

Last summer, so much melted snow came down from the mountains that officials couldn't discharge water fast enough to keep the reservoir from refilling. "We baby-sat that dam night and day," says one Reclamation Bureau official. "We had two bulldozer operators there 24 hours a day."

## Support Is Lacking

For years, federal officials in the field have been warning their superiors about Fontenelle and other deteriorating dams. But cumbersome cost-sharing arrangements and resistance from the White House budget office have limited the Reclamation Bureau's efforts to a few projects. While the agency has begun budgeting more money for dam safety, many other projects will have to wait.

"It takes a long time to get momentum building behind a program, especially when it doesn't have high administration

support," says Neil Parrett, the bureau's chief of dam design. "We all could do better. But I celebrate the progress we've made to reduce the threat out there."

The Reclamation Bureau, like most of its regulatory brethren, has been slow to bring its substandard dams into compliance with the latest safety guidelines, as ordered by President Jimmy Carter in 1979. Federal dams should be stable enough to withstand the "maximum credible earthquake," usually defined as the quake from a known source like California's San Andreas Fault that could cause the most severe "vibratory ground motion" at a dam site.

Under the guidelines, federal dams should also have enough spillway capacity to discharge the "probable maximum flood." Hydrologists calculate such a flood on the basis of the worst combination of meteorological and hydrological events likely to occur in watershed. In the Rockies, for example, it could be heavy rains mixed with a record snowmelt.

## The 'Overtopping' Problem

Several Reclamation Bureau dams, including four on the Salt River and two on the Verde River in Arizona, are vulnerable to "overtopping" by a superflood. The crucial dam is a national historic monument, Theodore Roosevelt Dam. If it were overtopped by the probable maximum flood on the Salt, the top of the dam would crumble, triggering a "domino effect," says the bureau's Mr. Parrett.

The flood would heavily damage two downriver dams, knock out a third and surge on toward Phoenix. "Phoenix gets drowned," Mr. Parrett says. An estimated 250,000 people would be flooded; property damages would hit \$9.5 billion.

The Corps of Engineers has made even less headway than the Reclamation Bureau, largely because of budget ceilings and high-level skepticism at the Pentagon about probable maximum floods. The corps under Mr. Gianelli undertook only two dam modifications between 1981 and 1984. In contrast, the much smaller TVA started five. Mr. Gianelli, now a consulting consultant in California, says that the corps could never explain to his satisfaction how it calculated the probable maximum flood.

Prado Dam, perched in a canyon above suburban Los Angeles, is one project that Mr. Gianelli held up. If the dam failed, the probable maximum flood on the Santa Ana River would inundate 1.3 million residents in Anaheim and other suburbs and cause as much as \$40 billion in damages, mostly in Orange County, according to the corps's risk assessment.

Mr. Gianelli, who served as California's water resources director under Gov. Ronald Reagan, remains unpersuaded. "That dam has been there 50 years," he says. "It has never filled to the point where the spillway is even used. You fix a dam if it's leaking."

## Delaying Repairs

In the private sector, meanwhile, dam safety continues to lag. Some farmers scoff at warnings that the dams they built with the Soil Conservation Service's assistance are about to flood out their neighbors. And many corporate dam owners put off costly

repairs.

"It's the last place anybody wants to spend money," says Gerald W. Farquhar, a Washington attorney. "Everybody says it'll be the other fellow's dam that goes."

Among state governments, money for regulating dams remains tight. While California leads the nation with a \$3.8 million budget and a 60-person staff, most states make do with much less—on average, \$265,000 a year. Some states, including Delaware, Alabama and Hawaii, don't yet have a semblance of a dam-safety program.

Pennsylvania, however, has accomplished more than most federal agencies, whittling its backlog of 208 unsafe dams to 72 in five years. More than \$50 million, including low-interest state loans, has gone into dam repairs, usually under consent agreements with the state. The Pennsylvania Gas & Water Co. has agreed to fix 16 water-supply dams, while the Greater Johnstown Water Authority has promised to fix or dismantle the Salt Lick Dam near the site of a famous dam-break nearly a century ago.

"If Salt Lick were to fail," says the state's Mr. Ellam, "it would be as bad as the great Johnstown Flood of 1889, the greatest catastrophe in U.S. history," that swept 2,200 persons to their deaths.

Original sponsor: Sturgulewski

1 IN THE SENATE BY THE RESOURCES COMMITTEE  
2 CS FOR SENATE BILL NO. 183 (Resources)  
3 IN THE LEGISLATURE OF THE STATE OF ALASKA  
4 FIFTEENTH LEGISLATURE - FIRST SESSION

5 A BILL  
6 For an Act entitled: "An Act relating to dams and reservoirs; and provid-  
7 ing for an effective date."

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

9 \* Section 1. AS 11.56.800(a) is amended to read:

10 (a) A person commits the crime of making a false report if the  
11 person knowingly

12 (1) gives false information to a peace officer with the  
13 intent of implicating another in a crime;

14 (2) makes a false report to a peace officer that a crime  
15 has occurred or is about to occur; [OR]

16 (3) makes a false report or gives a false alarm that a fire  
17 or other incident dangerous to life or property calling for an emer-  
18 gency response has occurred or is about to occur; or

19 (4) makes a false report to the Department of Natural  
20 Resources under AS 46.17 concerning the condition of a dam or reser-  
21 voir.

22 \* Sec. 2. AS 46 is amended by adding a new chapter to read:

23 CHAPTER 17. SUPERVISION OF SAFETY OF DAMS AND RESERVOIRS.

24 Sec. 46.17.010. PURPOSE. It is the purpose of this chapter to  
25 provide for the regulation, supervision, and periodic inspection by  
26 the department of privately owned and state-owned dams, reservoirs,  
27 and appurtenant works in order to ensure that the design, construc-  
28 tion, enlargement, alteration, repair, maintenance, operation, and  
29 removal of dams and reservoirs is consistent with the protection of

1 life and property.

2 Sec. 46.17.020. ADMINISTRATION AND STAFFING. The department  
3 shall supervise the safety of dams and reservoirs. The department  
4 shall employ a licensed and qualified engineer, experienced in the  
5 design and construction of dams and reservoirs, and other employees  
6 necessary for performing the duties under this chapter. Under AS 36.-  
7 30 (State Procurement Code), the department may contract with engi-  
8 neering consultants to assist in the performance of the department's  
9 duties under this chapter.

10 Sec. 46.17.030. REGULATIONS AND ORDERS. The department shall  
11 adopt regulations and issue orders necessary to carry out this chap-  
12 ter.

13 Sec. 46.17.040. APPROVAL REQUIRED. (a) Except in the perfor-  
14 mance of routine maintenance and operations not affecting structural  
15 safety, a person may not construct, enlarge, repair, alter, remove,  
16 maintain, operate, or abandon a dam or reservoir without the approval  
17 of the department.

18 (b) The owner of a dam or reservoir that was constructed before  
19 the effective date of this Act shall, under regulations adopted by the  
20 department, file an application with the department for the approval  
21 of the dam or reservoir.

22 (c) An applicant under this section shall comply with the re-  
23 quirements of other applicable statutes.

24 Sec. 46.17.050. INSPECTIONS. At least once every five years the  
25 department shall inspect every dam and reservoir that is subject to  
26 this chapter. The department may require the owner of a dam or reser-  
27 voir to perform the required inspection, according to the department's  
28 inspection standards, using a qualified engineer approved by the  
29 department. To protect public safety, the department may inspect, or

1 may require the owner to inspect, a dam or reservoir more frequently  
2 than every five years. The department may require the owner of the  
3 dam or reservoir to pay the cost of an inspection under this section.

4 Sec. 46.17.060. ENTRY UPON PROPERTY. (a) If the department has  
5 given two weeks' written notice of intent to inspect a dam or reser-  
6 voir and the owner refuses to allow the inspection, the department may  
7 seek a search warrant to allow the inspection. If the department has  
8 been refused inspection of drawings, operational records, or other  
9 information concerning a dam or reservoir, the department may seek an  
10 administrative subpoena compelling production of the drawings, opera-  
11 tional records, or other information.

12 (b) If the department has reason to believe that a dam or reser-  
13 voir may be unsafe or presents an imminent threat to life or property,  
14 the department may enter the dam or reservoir premises without notice.

15 Sec. 46.17.070. DETERMINING DANGER. In determining whether a  
16 dam or reservoir, or proposed dam or reservoir, constitutes or would  
17 constitute a danger to life or property, the department shall consider  
18 whether the structural integrity of the dam or reservoir might be  
19 endangered by overtopping, seepage, settlement, erosion, cracking,  
20 earth movement, earthquakes, or the failure of bulkheads, flashboards,  
21 gates, or conduits. The department may consider other relevant con-  
22 ditions. If it determines that the dam or reservoir is unsafe, the  
23 department shall order the owner to take the action that the depart-  
24 ment considers necessary to protect life and property.

25 Sec. 46.17.080. INJUNCTION AND DAMAGES. With the assistance of  
26 the attorney general, the department may seek an injunction and dam-  
27 ages in the enforcement of this chapter, a department order issued  
28 under this chapter, or a regulation adopted under AS 46.17.030.

29 Sec. 46.17.090. JUDICIAL REVIEW. A final action of the

1 department under this chapter is subject to judicial review as pro-  
2 vided in the Administrative Procedure Act (AS 44.62).

3 Sec. 46.17.100. OTHER GOVERNMENT AGENCIES. (a) The department  
4 may enter into cooperative agreements with municipalities and other  
5 state and federal agencies to carry out this chapter.

6 (b) If the action would conflict with the powers and duties  
7 vested in the department, a municipality may not

8 (1) regulate, supervise, inspect, or provide for the regu-  
9 lation, supervision, or inspection of a dam or reservoir;

10 (2) provide for the construction, maintenance, operation,  
11 removal, or abandonment of a dam or reservoir; or

12 (3) limit the size of or the amount of water that may be  
13 stored in a dam or reservoir.

14 (c) This chapter does not apply to a federally-owned or operated  
15 dam or reservoir or a dam or reservoir regulated by the Federal Energy  
16 Regulatory Commission.

17 (d) This chapter does not affect the powers of the Department of  
18 Environmental Conservation or the Department of Fish and Game.

19 Sec. 46.17.110. ACTION AGAINST STATE FOR DAMAGES. (a) Except  
20 as provided in (b) of this section, a person may not bring an action  
21 against the state, the department, or agents or employees of the  
22 state, for the recovery of damages caused by the partial or total  
23 failure of a dam or reservoir, or by the operation of a dam or reser-  
24 voir, or by an act or omission in connection with

25 (1) approval of the construction of a dam or reservoir, or  
26 approval of flood-handling plans during or after construction;

27 (2) issuance or enforcement of orders relating to mainte-  
28 nance or operation of the dam or reservoir;

29 (3) control or regulation of the dam or reservoir;

1 (4) measures taken to protect against failure of the dam or  
2 reservoir during an emergency; or

3 (5) investigations or inspections authorized under this  
4 chapter.

5 (b) A person may bring an action against the state for the  
6 recovery of damages caused by an action undertaken by a dam owner that  
7 was negligently ordered by the state over the owner's objection.

8 Sec. 46.17.120. DUTIES OF OWNER. This chapter does not relieve  
9 an owner of a dam or reservoir of the duties or liabilities incident  
10 to the ownership or operation of the dam or reservoir.

11 Sec. 46.17.150. PENALTIES. (a) A person is guilty of a class A  
12 misdemeanor if the person knowingly

13 (1) violates a provision of this chapter,

14 (2) violates the terms of an approval, order, regulation,  
15 or requirement of the department under this chapter; or

16 (3) obstructs, hinders, or prevents the department's agents  
17 or employees from performing duties under this chapter.

18 (b) Each day that a violation continues constitutes a separate  
19 offense.

20 Sec. 46.17.900. DEFINITIONS. In this chapter, unless the con-  
21 text requires otherwise,

22 (1) "alteration" means only an alteration that might di-  
23 rectly affect the safety of the dam or reservoir, as determined by the  
24 department;

25 (2) "appurtenant works" includes structures including  
26 spillways, either in a dam or separate from it; a reservoir and its  
27 rim; low level outlet works; and water conduits including tunnels,  
28 pipelines, or penstocks, whether running through the dam or through  
29 its abutments;

1           (3) "dam" includes an artificial barrier, and its appurte-  
2           nant works, which may impound or divert water and which

3                   (A) has or will have an impounding capacity at maximum  
4           water storage elevation of 50 acre-feet and is at least 10 feet  
5           in height measured from the lowest point at either the upstream  
6           or downstream toe of the dam to the crest of the dam;

7                   (B) is at least 20 feet in height measured from the  
8           lowest point at either the upstream or downstream toe of the dam  
9           to the crest of the dam; or

10                  (C) poses a threat to lives and property as determined  
11           by the department after an inspection;

12                  (4) "department" means the Department of Natural Resources;

13                  (5) "enlargement" means an alteration of an existing dam or  
14           reservoir that raises or is capable of raising the water storage  
15           elevation, or that increases the quantity of water impounded by the  
16           dam or reservoir;

17                  (6) "owner" means a person who owns, controls, operates,  
18           maintains, manages, or proposes to construct a dam or reservoir, and  
19           includes

20                          (A) a public utility; and

21                          (B) the appointed or authorized agents, employees,  
22           lessees, receivers, or trustees of an owner;

23                  (7) "person" has the meaning given in AS 01.10.060, and  
24           includes the state and political subdivisions of the state, including  
25           the Alaska Railroad Corporation and the University of Alaska;

26                  (8) "repair" means only a repair that might directly affect  
27           the safety of the dam or reservoir, as determined by the department;

28                  (9) "reservoir" means a basin, appurtenant to a dam, that  
29           is capable of impounding water.

1 \* Sec. 3. This Act takes effect immediately under AS 01.10.070(c).

1 IN THE SENATE

BY STURGULEWSKI

2

SENATE BILL NO. 183

3

IN THE LEGISLATURE OF THE STATE OF ALASKA

4

FIFTEENTH LEGISLATURE - FIRST SESSION

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(2) makes a false report to a peace officer that a crime

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has occurred or is about to occur; [OR]

16

(3) makes a false report or gives a false alarm that a fire

17

or other incident dangerous to life or property calling for an emer-

18

gency response has occurred or is about to occur; or

19

(4) makes a false report to the Department of Natural

20

Resources under AS 46.17 concerning the condition of a dam or reser-

21

voir.

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\* Sec. 2. AS 46 is amended by adding a new chapter to read:

23

CHAPTER 17. SUPERVISION OF SAFETY OF DAMS AND RESERVOIRS.

24

Sec. 46.17.010. PURPOSE. It is the purpose of this chapter to

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provide for the regulation, supervision, and periodic inspection by

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the department of privately owned and state-owned dams, reservoirs,

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and appurtenant works in order to ensure that the design, construc-

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tion, enlargement, alteration, repair, maintenance, operation, and

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removal of dams and reservoirs is consistent with the protection of

1. life and property.

2           Sec. 46.17.020. ADMINISTRATION AND STAFFING. The department  
3 shall supervise the safety of dams and reservoirs. The department  
4 shall employ a licensed and qualified engineer, experienced in the  
5 design and construction of dams and reservoirs, and other employees  
6 necessary for performing the duties under this chapter. Under AS 36.-  
7 30 (State Procurement Code), the department may contract with engi-  
8 neering consultants to assist in the performance of the department's  
9 duties under this chapter.

10           Sec. 46.17.030. REGULATIONS AND ORDERS. The department shall  
11 adopt regulations and issue orders necessary to carry out this chap-  
12 ter.

13           Sec. 46.17.040. APPROVAL REQUIRED. (a) Except in the perfor-  
14 mance of routine maintenance and operations not affecting structural  
15 safety, a person may not construct, enlarge, repair, alter, remove,  
16 maintain, operate, or abandon a dam or reservoir without the approval  
17 of the department.

18           (b) The owner of a dam or reservoir that was constructed before  
19 the effective date of this Act shall, under regulations adopted by the  
20 department, file an application with the department for the approval  
21 of the dam or reservoir.

22           (c) An applicant under this section shall comply with the re-  
23 quirements of other applicable statutes.

24           Sec. 46.17.050. INSPECTIONS. At least once every five years the  
25 department shall inspect every dam and reservoir that is subject to  
26 this chapter. The department may require the owner of a dam or reser-  
27 voir to perform the required inspection, according to the department's  
28 inspection standards, using a qualified engineer approved by the  
29 department. To protect public safety, the department may inspect, or

1 may require the owner to inspect, a dam or reservoir more frequently  
2 than every five years. The department may require the owner of the  
3 dam or reservoir to pay the cost of an inspection under this section.

4 Sec. 46.17.060. ENTRY UPON PROPERTY. (a) If the department has  
5 given two weeks' written notice of intent to inspect a dam or reser-  
6 voir and the owner refuses to allow the inspection, the department may  
7 seek a search warrant to allow the inspection. If the department has  
8 been refused inspection of drawings, operational records, or other  
9 information concerning a dam or reservoir, the department may seek an  
10 administrative subpoena compelling production of the drawings, opera-  
11 tional records, or other information.

12 (b) If the department has reason to believe that a dam or reser-  
13 voir may be unsafe or presents an imminent threat to life or property,  
14 the department may enter the dam or reservoir premises without notice.

15 Sec. 46.17.070. DETERMINING DANGER. In determining whether a  
16 dam or reservoir, or proposed dam or reservoir, constitutes or would  
17 constitute a danger to life or property, the department shall consider  
18 whether the structural integrity of the dam or reservoir might be  
19 endangered by overtopping, seepage, settlement, erosion, cracking,  
20 earth movement, earthquakes, or the failure of bulkheads, flashboards,  
21 gates, or conduits. The department may consider other relevant con-  
22 ditions. If it determines that the dam or reservoir is unsafe, the  
23 department shall order the owner to take the action that the depart-  
24 ment considers necessary to protect life and property.

25 Sec. 46.17.080. INJUNCTION AND DAMAGES. With the assistance of  
26 the attorney general, the department may seek an injunction and dam-  
27 ages in the enforcement of this chapter, a department order issued  
28 under this chapter, or a regulation adopted under AS 46.17.030.

29 Sec. 46.17.090. JUDICIAL REVIEW. A final action of the

1 department under this chapter is subject to judicial review as pro-  
2 vided in the Administrative Procedure Act (AS 44.62).

3 Sec. 46.17.100. OTHER GOVERNMENT AGENCIES. (a) The department  
4 may enter into cooperative agreements with municipalities and other  
5 state and federal agencies to carry out this chapter.

6 (b) If the action would conflict with the powers and duties  
7 vested in the department, a municipality may not

8 (1) regulate, supervise, inspect, or provide for the regu-  
9 lation, supervision, or inspection of a dam or reservoir;

10 (2) provide for the construction, maintenance, operation,  
11 removal, or abandonment of a dam or reservoir; or

12 (3) limit the size of or the amount of water that may be  
13 stored in a dam or reservoir.

14 (c) This chapter does not apply to a federally-owned or operated  
15 dam or reservoir.

16 (d) This chapter does not affect the powers of the Department of  
17 Environmental Conservation or the Department of Fish and Game.

18 Sec. 46.17.110. ACTION AGAINST STATE FOR DAMAGES. (a) Except  
19 as provided in (b) of this section, a person may not bring an action  
20 against the state, the department, or agents or employees of the  
21 state, for the recovery of damages caused by the partial or total  
22 failure of a dam or reservoir, or by the operation of a dam or reser-  
23 voir, or by an act or omission in connection with

24 (1) approval of the construction of a dam or reservoir, or  
25 approval of flood-handling plans during or after construction;

26 (2) issuance or enforcement of orders relating to mainte-  
27 nance or operation of the dam or reservoir;

28 (3) control or regulation of the dam or reservoir;

29 (4) measures taken to protect against failure of the dam or

1 reservoir during an emergency; or

2 (5) investigations or inspections authorized under this  
3 chapter.

4 (b) A person may bring an action against the state for the  
5 recovery of damages caused by an action undertaken by a dam owner that  
6 was negligently ordered by the state over the owner's objection.

7 Sec. 46.17.120. DUTIES OF OWNER. This chapter does not relieve  
8 an owner of a dam or reservoir of the duties or liabilities incident  
9 to the ownership or operation of the dam or reservoir.

10 Sec. 46.17.150. PENALTIES. (a) A person is guilty of a class A  
11 misdemeanor if the person knowingly

12 (1) violates a provision of this chapter,

13 (2) violates the terms of an approval, order, regulation,  
14 or requirement of the department under this chapter; or

15 (3) obstructs, hinders, or prevents the department's agents  
16 or employees from performing duties under this chapter.

17 (b) Each day that a violation continues constitutes a separate  
18 offense.

19 Sec. 46.17.900. DEFINITIONS. In this chapter, unless the con-  
20 text requires otherwise,

21 (1) "alteration" means only an alteration that might di-  
22 rectly affect the safety of the dam or reservoir, as determined by the  
23 department;

24 (2) "appurtenant works" includes structures including  
25 spillways, either in a dam or separate from it; a reservoir and its  
26 rim; low level outlet works; and water conduits including tunnels,  
27 pipelines, or penstocks, whether running through the dam or through  
28 its abutments;

29 (3) "dam" includes an artificial barrier, and its

1 appurtenant works, which may impound or divert water and which

2 (A) has or will have an impounding capacity at maximum  
3 water storage elevation of 50 acre-feet and is at least 10 feet  
4 in height measured from the lowest point at either the upstream  
5 or downstream toe of the dam to the crest of the dam;

6 (B) is at least 20 feet in height measured from the  
7 lowest point at either the upstream or downstream toe of the dam  
8 to the crest of the dam; or

9 (C) poses a threat to lives and property as determined  
10 by the department after an inspection;

11 (4) "department" means the Department of Natural Resources;

12 (5) "enlargement" means an alteration of an existing dam or  
13 reservoir that raises or is capable of raising the water storage  
14 elevation, or that increases the quantity of water impounded by the  
15 dam or reservoir;

16 (6) "owner" means a person who owns, controls, operates,  
17 maintains, manages, or proposes to construct a dam or reservoir, and  
18 includes

19 (A) a public utility; and

20 (B) the appointed or authorized agents, employees,  
21 lessees, receivers, or trustees of an owner;

22 (7) "person" has the meaning given in AS 01.10.060, and  
23 includes the state and political subdivisions of the state, including  
24 the Alaska Railroad Corporation and the University of Alaska;

25 (8) "repair" means only a repair that might directly affect  
26 the safety of the dam or reservoir, as determined by the department;

27 (9) "reservoir" means a basin, appurtenant to a dam, that  
28 is capable of impounding water.

29 \* Sec. 3. This Act takes effect immediately under AS 01.10.070(c).