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Testimony of the
ASSOCIATION OF STATE DAM SAFETY OFFICIALS
For the
ASSEMBLY STANDING COMMITTEE ON ENVIRONMENTAL CONSERVATION
And the
ASSEMBLY STANDING COMMITTEE ON GOVERNMENTAL OPERATIONS

SUBJECT:
Dam Safety in New York

PURPOSE:
To examine various public safety concerns and potential problems of dams within the State of New York

February 9, 2006

The Association of State Dam Safety Officials is a national organization, based in Lexington, Kentucky, of more than 2,200 state, federal and local dam safety professionals and private sector individuals dedicated to improving dam safety through research, education and technology transfer. Our goal is simply to save lives, prevent property damage and to maintain the many benefits of dams by preventing dam failures.

Over the decades this country has suffered devastating dam failures that caused tragic loss of life and enormous property damage; and focused national attention on the catastrophic consequences of dam failures. Those historic failures and recent dam failures serve as a constant reminder that dams must always be properly constructed, properly designed and properly operated and maintained to provide vital benefits and prevent failures.

We commend the New York Assembly Committee on Environmental Conservation and Committee on Governmental Operations for focusing on dam safety in New York State. It is obvious that the recent dam failures in New York and concerns for the strength of your state dam safety regulatory program brought you to this important crossroads. We also acknowledge the dedication and work of those engineers and staff of the New York State Dam Safety Program who have been doing all they can to keep dams safe in New York.

The Association urges New York to complete the much-needed examination of the state's dam safety program. We recommend a review of New York's dam safety laws and regulations utilizing the *Model State Dam Safety Program* guidance document (FEMA 316 [March 1998]; available at www.damsafety.org). We recommend increasing the resources given to the dam safety program to carry out these statutes, from increasing technical staff to strengthening the budget for the program. The attached chart shows that only four states have more dams to inspect per state FTE than New York (according to the *Model State Dam Safety Program*, there should be 7.9 technical FTEs per 200 dams).

We recommend a refocusing of efforts on those high-hazard potential dams in New York, where inspections have identified substantial safety deficiencies. As inspections alone won't make dams safe and as many dams are in private ownership, solving these deficiencies will require rehabilitation-focused collaboration between the owners, the many stakeholders, private design firms, and the State Dam Safety Program. Additionally, rehabilitation in some cases may require financial resources beyond the owner's capability. A state-sponsored dam rehabilitation-funding program, coupled with a much-needed federal program, is imperative to addressing the overall dam safety need.

To put New York in perspective, there are over 79,000 dams in the United States. States are responsible for regulating the safety of 95% of these dams. Because of limited staff and limited funding, most states are overwhelmed by that challenge. Table 1 attached to this testimony provides state-by-state data on the number of dams, the number of staff, the state budget and the number of dams that are considered "unsafe." Unsafe means that they have identified deficiencies that make the dam more susceptible to failure, which may be triggered by a large storm event, an earthquake or simply through inadequate maintenance or outdated protection standards. Currently states have identified over 3,300 dams as being deficient, or unsafe. The number of unsafe dams has risen by 33% since 1998. There are over 10,000 dams classified as high hazard potential meaning that the consequences of the dam's failure will likely include loss of human life and significant downstream property damage.

ASCE's 2005 Report Card for America's Infrastructure gave Dams in the United States a grade of "D." The dams across the United States are aging as 85% of the dams will be 50 years or older by the year 2020.

Downstream development within the dam failure flood zone places more people at risk. When homes are built in the dam failure flood zone below a low hazard dam, (low hazard: failure is not expected to cause loss of life or significant property damage) the dam no longer meets dam safety criteria as the potential consequences of a failure now include loss of life.

The Association of State Dam Safety Officials urges all states to upgrade their state dam safety regulatory programs. We are also working to develop strong national programs through the National Dam Safety and Security Program (PL 107-310) and the National Dam Rehabilitation and Repair Act (HR 1105).

Thank you to the Members of the Committee on Environmental Conservation and the Committee on Governmental Operations Subcommittee for the opportunity to offer this testimony. The Association looks forward to working with you on this important issue of safe dams.

Association of State Dam Safety Officials
State-By-State Statistics on Dams and State Safety Regulation – Dec 2004

State	Total Dams in National Inventory[1]	Dams Under State Regulation[2]		State-Determined Deficient Dams[3]			State Dam Safety Budget	State Staff Dedicated to Dam Safety Regulation	
	(2002 NID)	Total	HH	Total	HH	SH	(x thousand)	Total FTEs	Dams Per FTE
Alabama	2,102	0	171	NA	-	-	$0	0	NA
Alaska	104	81	18	29	7	7	$86.8	1.0	81
Arizona	328	259	91	38	33	5	$606.7	7.5	35
Arkansas	1,225	407	102	24	22	1	$331.0	4.6	88
California	1,471	1,259	336	44*	24	16	$7,800.0	61.0	21
Colorado	1,684	1,897	332	186	24	36	$1,400.0	12.0	158
Connecticut	721	2,200	238	22	9	10	$472	4.3	512
Delaware	61	98	9	NR	-	-	NR	NR	NR
Florida	724	778*	100*	>20	NR	NR	NR	NR	NR
Georgia	4,470	3,412	399	105	NR	NR	$682.0	8.0	341
Hawaii	122	134	77	22	20	2	$140.0	1.75	77
Idaho	393	429	95	13	3	6	$300.0	7.5	57
Illinois	1,456	1,348	176	31	21	10	$345.0	5.5	245
Indiana	1,069	1,089	238	NR	-	-	$340.0	5.0	218
Iowa	3,249	3,303	74	25	9	12	$50.0	1.75	1,887
Kansas	5,634	5,877	192	42	17	15	$327.3	7.0	840
Kentucky	1,055	918	175	88	36	35	$1,600.0	14.0	66
Louisiana	501	500	17	16	1	3	NR	7.0	71
Maine	641	843	26*	68	7	33	$46.0*	1.1	766
Maryland	291	369	64	12	5	2	$445.7	5.5	~~67~~
Massachusetts	1,490	2,917	333	40	22	18	$500.0	4.0	729
Michigan	943	988	79	25	5	9	$454.0	4.8	206
Minnesota	986	1,442	40	250	2	20	$250.0	2.1	687
Mississippi	3,315	3,592	307	36	36	-	$375.0	3.85	933
Missouri	4,854	643	447	16	13	2	$281.8	6.0	107
Montana	2,885	2,878	102	>11	11	NR	$412.0	5.25	548
Nebraska	2,179	2,173	113	130	7	48	$289.0	5.67	383
Nevada	469	610	134	>58	4	4	NR	2.25	271
New Hamp.	645	3,348	86	357	31	90	$563.6	7.5	446
New Jersey	792	1,692	196	583	47	336	$1,251.0	19.0	89
New Mexico	375	393	164	61	38	14	$409.0	6.0	66
New York	1964	5,564	383	>54	NR	NR	$746.0	5.3	947
North Carolina	2723	4,661	1,046	>81	55	>14	$910.0	17	274
North Dakota	685	1,182**	20	17	5	10	$200.0	4.5	263
Ohio	1,325	1,727	462	NR	-	-	$1,020.0	11.0	157
Oklahoma	4,610	4,506	185	31	8	3	$122.4	2.5	1802
Oregon	820	3,733	122	0	0	0	$255.0	3.1	1,204
Pennsylvania	1,442	3,089	768	~725	266	43	$2,039.0	24.0	129
Puerto Rico	34	35	34	0	0	0	$650.0	9.0	4
Rhode Island	185	565	17	0	0	0	$104.9	1.2	471
South Carolina	2,447	2,313	153	>3	1	2	NR	2.5	925
South Dakota	2,377	2,328	47	3	3	NR	NR	2.5	931
Tennessee	1,051	637	147	8	2	2	$275.0	7.0	91
Texas	7,025	7,490	857	113	108	3	$300.0	6.0	1,248
Utah	752	667	192	82	82	NR	$460.0	7.0	93
Vermont	353	565	57	NR	-	-	$235.0	2.4	235
Virginia	1,586	1,363	126	74	34	25	$546.3	4.5	303
Washington	832	940	140	31	14	17	$660.0	7.5	125
West Virginia	553	477	366	38	35	3	$469.9	6.0	79.5
Wisconsin	1,097	3,748	187	NR	-	-	$508.7	6.25	600
Wyoming	1,294	1,392	79	3	0	1	$142.1	5.09	273.5
TOTAL (12/04)	79,389	92,316	10,319	>3,615	1067	857	$29,402.2	355.26	260 (av)
TOTAL (3/04)	79,272	92,231	10,159	>3,341	667	855	$28,864.8	3589.24	257 (av.)

1 – Includes dams of any size that are likely to pose a significant threat to human life or property in case of failure, and all other federal and non-federal dams > 25' high that impound > 15 acre-feet; and dams > 6' high that impound > 50 acre-feet.

2 – Estimated number of all dams under state regulatory control

3 - Dams with identified deficiencies by state definition (varies state to state) derived from state inventory in column 2

*CA: California defines a deficiency as a dam requiring action to be taken to repair/resolve a safety problem (not including maintenance items). However in no case is the dam susceptible to failure. In the most severe cases a restriction is in place so a failure will not occur.

**State no longer regulates low hazard dams impounding less than 50 acre-ft.