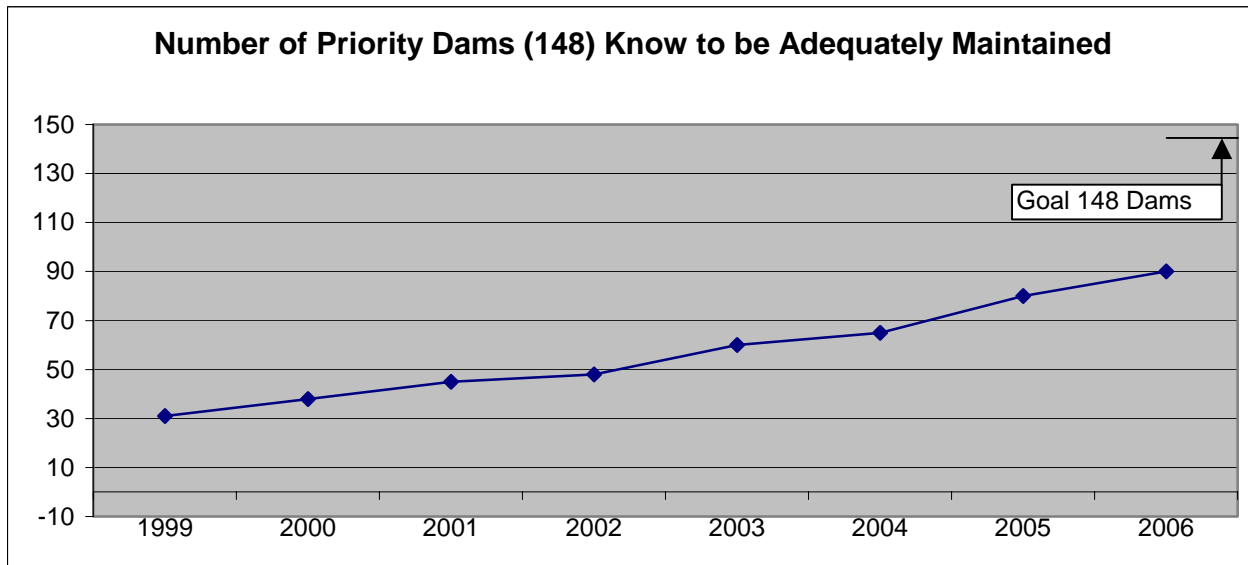


Results

The Vermont Dam Safety Program exists to reduce the hazards of flooding.

Key Indicators



This indicator is a reflection of our successes in maintaining State-owned dams, conducting an adequate number of inspections, our success in using inspection reports as a tool to get other dam owners to responsibly care for their dams, and insuring that new and reconstructed dams are well-built in accordance with accepted engineering practice.

Story Behind the Baseline

It is estimated that there are more than 2,000 dams in Vermont. The Vermont Dam Inventory, maintained by the Department of Environmental Conservation (DEC), lists over 1,200 dams. Of those, there is substantial inventory information on 625 dams or “inventoried dams”.

Dams that impound at least 500,000 cubic feet of water or other material (including sediment) are regulated by the State under 10 V.S.A. Chapter 43. The Public Service Board (PSB) regulates hydroelectric dams. The Federal Energy Regulatory Commission also regulates many of the hydroelectric dams. The Natural Resource Conservation Districts (NRCD) regulates certain dams used in agriculture. Dams on the Connecticut River are regulated by the State of New Hampshire. Finally, the remaining dams are regulated by the Department of Environmental Conservation.

Of the 625 inventoried dams, 88 are smaller than the regulatory threshold size. Some dams for which there is inadequate inventory information will turn out to be over threshold size. Of the 537 dams known to be over the regulatory threshold, 438 are regulated by DEC, 3 by the NRCDs, and 96 by the PSB. The hydroelectric dams regulated by the PSB generate an income stream that is, in general, sufficient to pay for operations and maintenance, and the few dams regulated by the NRCDs are part of farming operations. Many of the DEC regulated dams are in poor repair because the owners are unwilling or unable to pay for maintenance.

Ownership of both inventoried and DEC-regulated dams is provided in Table 1.

Table 1. Ownership of Vermont Dams

Owner Type	Inventoried Dams	DEC-regulated Dams
Federal	18	10
State	113	92
Municipal	102	75
Utility	77	0
Private	315	261

The Department classifies dams according to a dam’s potential for causing loss of life and property damage in the area downstream if it were to fail. The classification system, US Army Corps of Engineers ER 1110-2-106, considers only the consequences of dam failure and not the condition of the dam or the likelihood of failure. Of the 438 dams regulated by DEC, 35 are high hazard class dams (loss of life -more than a few, and economic loss - extensive), 113 are significant hazard class dams (loss of life - few, and economic loss - appreciable), and the other 290 dams are in the low hazard class (loss of life - none expected, and economic loss - minimal).

Many of these dams are aging and a substantial public and private investment will have to be made to ensure their safety. In many cases, the dam owner is unknown, or unable or unwilling to properly maintain the dam in a safe condition, potentially putting lives and property at risk. In some cases, dams, which are obsolete, should be removed.

In order to put all dams larger than statute size on a recommended schedule for improvements, about 125 inspections per year are necessary. In the past, staff resources have limited inspections to 25-30 dams per year and focused on state-owned dams. In the last year, additional resources have been made available through increased state appropriation and Federal grants. However, personnel turnover and the project for the reconstruction of Waterbury Dam have called on those resources.

An increased number of private dam inspections has been undertaken and this has resulted in increased requests for assistance and permit activity.

Strategies/ Performance Measures / Proposed Accomplishments

Regulation, Compliance Assistance, and Enforcement

Performance Measure	“P”=Projected and A”=Actual Values	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Number of Inspections	P								100	100	125	125
	A			42	31	31	57	55				
Number of priority dams (148) known to be adequately maintained	P								60	65	80	90
	A				31	38	45	48				
Number of permits issued	P								9	9	9	9
	A	5	4	4	1	2	1	1	5			
Percent of permits meeting PEP standards	P								100	100	100	100
	A	na	100	100	0	100	100	100				

Dam Inspections.

Inspecting publicly- and privately-owned existing dams for unsafe and deteriorating conditions and providing technical assistance to owners and municipalities for improvements.

Inspections are the key strategy. Dam owners, whether they be the state, a municipality, or a private entity or individual - care about their dams and want to maintain them well at minimum cost. The program of state inspection educates owners about their responsibilities and points out the urgent items of maintenance that, if taken care of promptly, can reduce overall maintenance cost. Hazardous dams can be identified and mitigated.

In the next year, with existing resources, about 125 inspections will be performed and at that rate, within three years, all dams will have been inspected at an appropriate interval and the owners notified of the condition of their dams and necessary maintenance.

Dam Permits.

Review and approve applications for permits for new dams and alterations to existing dams.

Dam Statues.

Section 58 of the Capital Construction Bill directs that the Agency propose amendments to existing dam regulatory programs and consider the financial implications of changes in policies concerning funding dam removal and rehabilitation projects.

Education and Technical Assistance

Dam Emergency Action Plans.

Developing Emergency Action Plans for existing and proposed dams.

Monitoring, Assessment, and Direct Services

Dam Operation and Maintenance.

Operate and maintain the Winooski River Flood Control Project and about 85 other ANR-owned dams.