



DAM SAFETY TRIP INSPECTIONS 2008

Summary: This summer six DEP staff from programs in the Bureaus of Water Protection & Land Reuse and Materials Management & Compliance Assistance were selected for the TRIP (*Temporary Reassignment In Position*) dam inspection program offered by the Inland Water Resources Divisions' Dam Safety Program. TRIP volunteers received two days of training by Dam Safety staff that included an in-house Power Point presentation and hands-on field training

DAM SAFETY TRIP RESULTS	
6	# of participants
80	# of dams inspected
100%	% of inspected dams in need of maintenance
44%	% of inspected dams in poor or fair condition
36%	% of inspected dams requiring a permit for significant repairs

before they began their inspections. Dams in all hazard classes were inspected from the highest potential hazard, Class C, to the lowest potential hazard, Class AA. Our TRIP volunteers formed 3 teams and conducted inspections on a part-time basis from June through September covering a wide geographic area of the state and following up each inspection with a written report and photographs that documented the condition of each dam inspected. Without the assistance of the TRIP volunteers some of the 80 dams they visited would not have been inspected for several more years.

Outreach opportunity: Many dam owners requested to be present during the inspections and inspectors used this opportunity to give dam owners a copy of the [DEP Bulletin No. 36, Guidelines for Inspection and Maintenance of Dams](#) and encourage them to inspect and maintain their dams on a regular basis. The guidance document is intended to assist them in this effort, by providing technical and regulatory information on dam maintenance and repair.

Dams in the best condition: As expected, the dams found to be in the best condition were the high hazard potential dams. These dams are routinely inspected more frequently and have received more follow up on maintenance and repairs, as Dam Safety staff has focused on inspection and repair of high hazard dams over the past 30 years.



Maintenance needed: With only a few exceptions, dams inspected were found to be in need of some kind of maintenance. The owners of the dams inspected were sent a written request to perform maintenance or hire an engineer to investigate a problem or design dam repairs. As of December 3, 2008 a total of 51% of those requests have been answered by dam owners, stating their intentions to comply with those requests.

Significant repairs needed: Nearly half (44%) of the dams inspected were found to be in fair to poor condition. Approximately 36% of dams inspected were found to be in need of repairs significant enough to require a dam safety permit. These more significant repairs require investigation and design by an engineer familiar with dam construction.



Re-evaluation of hazard class:

One additional outcome of the TRIP inspections was the re-assignment of dam hazard classifications based on potential downstream hazards. The hazard class of one Class B dam was adjusted upward to Class C, the highest hazard class, due to “hazard creep”, an increase in development of properties downstream of the dam that would sustain damage should the dam fail. Two dams were recommended for a downward adjustment in hazard class to the lowest hazard class, Class AA and another two dams were removed from the dam registration inventory, since their impoundments were actually natural ponds.

Lessons learned: These inspections demonstrate the need for: (1) ongoing outreach to dam owners to educate and remind them of their obligations to properly maintain their dams; (2) updating our inventories more frequently, to ensure we have accurate data; and (3) a widespread continued need for maintenance and repairs to dams throughout Connecticut. If DEP were to perform an increased number of inspections focusing on moderate and low hazard dams, it is expected the results observed from these inspections would be similar to what was observed during this TRIPs inspection program.

Added benefit of TRIPs: A benefit of the Dam Safety Sections participation in the TRIPs program is that the Department has gained some additional expertise to assist the Dam Safety Section in responding to statewide flooding emergencies, such as the events we have experienced in the past that cause dam breaches all over the state.

