



Process for Decommissioning Dams

August 28, 2014

New Mexico State Game Commission Meeting

Santa Fe, NM



State Game Commission Owned Dams

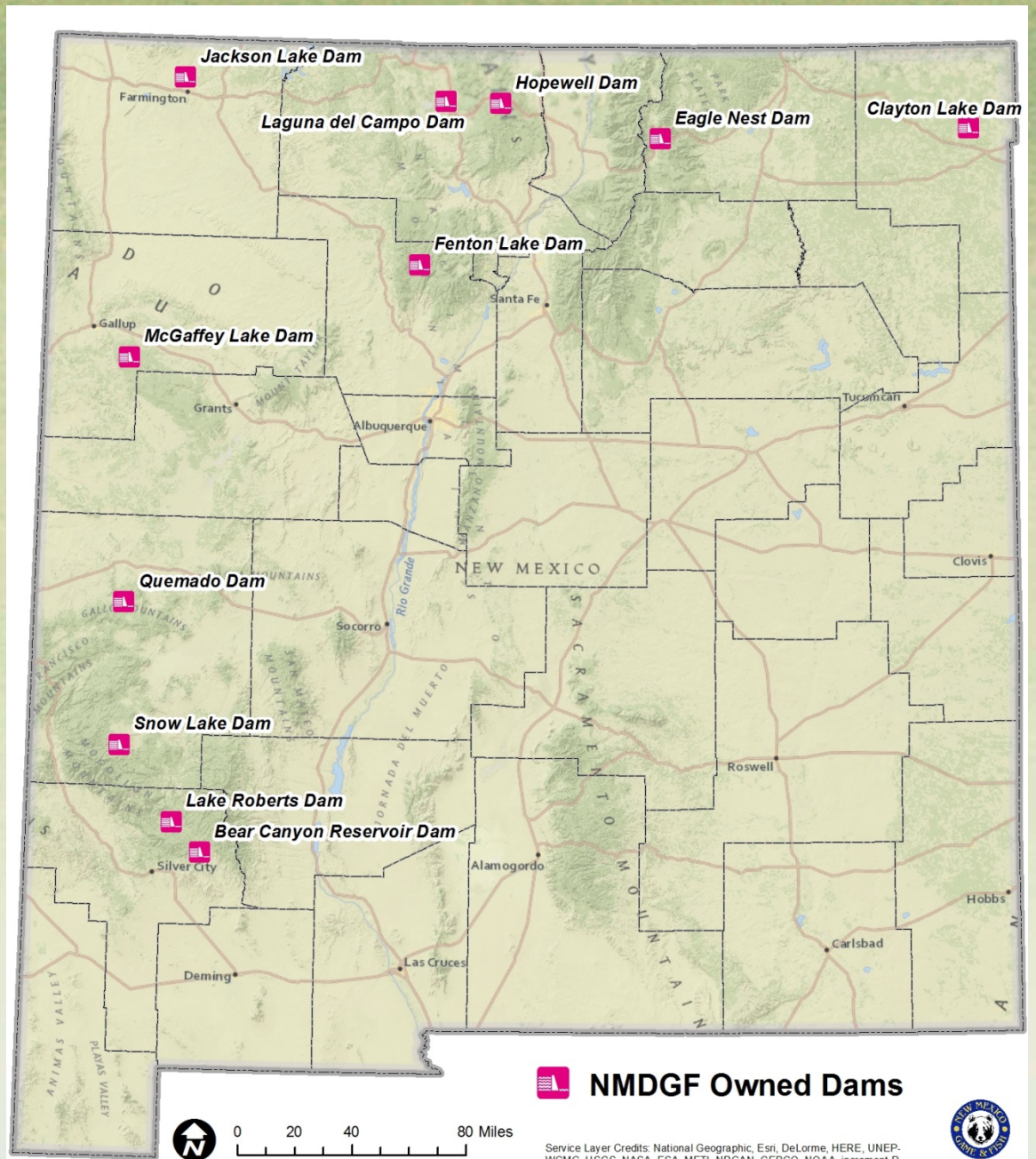
- The Commission owns 11 dams around the state.
- Each dam has a different classification either Low Hazard or High Hazard.
- They range in size from the largest at Eagle Nest Lake, to smaller lakes like McGaffey.

Eagle Nest Lake Dam





Bear Canyon Dam



August 2014



Dam Classification

- **High Hazard Classification**

- Failure has a high probability of loss of human life.
- Requires an Emergency Action Plan and an Operation and Maintenance Manual.
- Eagle Nest Lake, Lake Roberts, Bear Canyon Lake, Fenton Lake, Jackson Lake, Laguna del Campo, McGaffey Lake, Hopewell Lake (In analysis process).

Lake Roberts Dam





Dam Classification

Low Hazard Classification:

- Failure has no probability of loss of human life, damage to property and environmental damage.
- Emergency Action Plan is not required
- Operation and Maintenance Manual is recommended
- Clayton Lake, Quemado Lake, Snow Lake.

Quemado Lake Dam





Dam Decommissioning Requirements

State Requirements

Office of State Engineer Dam Safety Bureau

- Must submit a plan for approval by the Office of State Engineer as per 19.25.12.19.B NMAC
- Must have a professional licensed engineer prepare a breach plan.
- Must evaluate the potential effects of the breach on life, property and environment downstream.

New Mexico Environment Department

- Would require State and Federal Clean Water Act permitting



Dam Decommissioning Requirements

Federal Requirements

- **National Environmental Policy Act (NEPA)**
 - Environmental Impact Statement and Biological Opinion.
 - National Historic Properties Act.
 - Clean Water Act. (401 and 404 permitting)
 - Wildlife and Sport Fish Restoration (Federal Aid) grants and effects determinations.



Questions?

Department Owned Dams and Associated Angler Use, Stocking, and Economic Value

Water	Angler days/year*	Economic value to NM**	Fish stocked per year***
Lake Roberts	36,333	\$2,179,980	22,500 rainbow trout, 3,550 channel catfish
Bear Canyon	21,720	\$1,303,200	13,750 rainbow trout, 1,100 channel catfish
Snow Lake	11,509	\$690,540	10,000 rainbow trout
Quemado Lake	41,101	\$2,466,060	20,000 rainbow trout, tiger muskie as needed
Clayton Lake	20,624	\$1,237,440	20,000 rainbow trout, 4,400 channel catfish, 200,000 walleye fry, occasional largemouth bass
Eagle Nest Lake	122,639	\$7,358,340	600,000 rainbow trout, 200,000 kokanee salmon
Fenton Lake	67,401	\$4,044,060	29,300 rainbow trout
McGaffey Lake	3,802	\$228,120	16,900 rainbow trout, channel catfish. No longer stock since lake is dry
Laguna del Camp	2,660	\$159,600	4,950 rainbow trout
Hopewell Lake	6,300	\$378,000	11,130 rainbow trout
Jackson Lake	9,253	\$555,180	15,500 rainbow trout

*Average angler days from 1998 to 2004

**Based upon USFW 2011 Survey of Fishing, Hunting, and Wildlife Associated Recreation of \$60 per angler day

***As scheduled in the FIMS